

FAQ

Overall project governance:

What are the expectations of the MVP phase?

We would like to basically deploy one feature in that 6 weeks – preferably something that’s already built and doesn’t require a lot of adaption or new work. The expectation is to provide space to ship something small and ensure we’re happy to continue working together. The MVP should just be one feature that we can deploy and test, not an MVP of the full platform.

Do we have to have any IP registered?

No, but if you use third party or open source software, make sure you have documented what you’re using.

In line with the budget, we will be submitting the core functioning team. However, if the need to expand the team later on ever arises, is it possible to submit a supplementary budget following the RFP?

We are open to that conversation, but it will need to be a formal conversation about budget and scope.

Is the start date negotiable?

We can negotiate around start date, please include in your RFP.

How would McKinsey fund the project development costs, down payment, monthly?

On a monthly cycle.

Recycling center operations

What sort of material do we recover? e-waste, plastics, cardboard, cans, glass, all?

Dry recyclables (glass, PET, aluminum, cardboard), organics (diverted to compost or animal feed) and residue (sent to landfill). We don't yet handle e-waste.

Where does the process begin? Do collectors start from the sorting centers? Or their homes?

The collectors do collection from the home or large generator (hospital, school, hotel). There are sorters working at the sorting center. We do training programs for households to do source separation.

Is waste collection, sorting center (classification, reporting) and sales dealt by the same institution/cooperative? Or could there be different actors for each stage?

We have some independent collectors but mostly it is the same institution.

Are the collectors State employees?

No, they are employed by the sorting center, which is a standalone business.

How probable is it that we can rely on the collector's engagement to use the app?

We should expect them to use it but ensure it is not a burdensome task.

Are there any quantitative parameters - apart from sorting compliance - that need to be tracked here?

Sorting compliance and payment history

What are the typical schedules followed for planning the flow of inbound materials and outbound materials?

Inbound waste is collected daily – 7 days a week

Outbound material is on a variable schedule:

Residue – taken by city sanitation department daily

Compost – one a month

Food waste – taken by farmers daily

Dry recyclables – taken ~3-5 times a month based on capacity

What are the existing practices or devices currently used for tracking worker attendance and activity?

Scheduled working hours and time sheet

The payroll, invoice generations and the associated software appears to be a different accounting software package as a whole. The worker performance reviews are also quite different and appears to require other software packages.

We're open to leveraging a different platform for this if it's outside the scope of the current platform. Our requirements should be quite simple though – just a basic tracking of worker hours and calculating payment.

Are there existing CRM and expense tracking solutions that the platform needs to interface and integrate with?

No

What is the default medium to reach the end users to facilitate transmission of initial credentials and to help manage credentials later?

SMS

Should we assume that there are always scales for weighing in all the sorting centers? Otherwise, what methodology do they use to quantify volume?

Basic scales (not digital / Bluetooth) are available.

Regarding financial performance: would sales be tracked manually or is the idea to install some "paypal" option? Plus, is paying electronically an option (or only cash)?

At the moment, it is manual tracking of cash. We would like to build a digital payment option using a local digital wallet, but we would not expect this to have high usage initially.

What strategy do they currently use to track and identify each waste container?

They are bagged separately.

Are there different routes for the garbage? As in waste vs recyclables? Where would both end?

Organics and compost are sold to farms, recyclables are sold to aggregators or processors. Landfill is collected by government.

Could it be possible to redesign the collection routes?

Certainly, there are times when drivers need to do ad-hoc pickup, so we need to be able to redesign the routes.

Would their data collection depend solely on this “operational platform”? Are there any legal barriers, regulations, to have in mind?

Data collection is on the platform. We need to ensure the data is auditable i.e. downloadable by government in CSV format.

Are there any particular differences between the Indonesian and Argentinean scenarios to have in mind?

Yes – certain functions are not needed in Argentina (e.g. payment tracking) so we need to ensure the platform is modular.

Does McKinsey.org have development customers for the projects?

At this point, it will be the sorting centers in Indonesia and Argentina. They will be unlikely to be paying customers in the short term and will have low budgets over the longer term. We will need to develop a payment model together, presuming you are the ones to host the software into the future. Our ideal set up is that we create the software together, we develop a sustainable model for you to continue supporting the software, and you're able to take over the customer relationship in the longer term, but we are open to other models.

Considering the low-tech environment: Is there any data available at existing targeted sorting center? (xls spreadsheets, anything that we could push into the platform?)

There is some but it is a primarily paper-based system, with all of the problems with missing and unmatching data that entails. The users are unfamiliar with excel; any solution will need allow low-literacy users input data on their phones. We have done a lot of work to model what data should be captured but it not currently being captured consistently.

We can't share the data structure at this point, it will be provided to the appointed vendor under NDA. The sorting centers are extremely low budget operations so automated systems such as GPS trackers and photographic recognition are typically unaffordable.

Should we consider adding low tech hardware in the targeted sorting centers such as one camera, is it even possible?

It is possible, please ensure it is included in costings if you choose to go this route. Bear in mind it's a manual sorting process, typically sorters standing around a basic conveyor belt.

How often will collectors and sorters need to make data entry?

They will need to input data regularly on their phone, but we should make it as efficient as possible.

What is the scope for automation of the entire system?

This software won't be used at the municipal level for serious modelling or automation. The sorting centers typically serve 300-1000 households with a few hotels or schools.

Payments

Is there any exchange of currency - hard or virtual - during the pickups e.g. customers pay for the service or customers are paid back for the material (based on any intrinsic value) or a mix of both?

Customers pay a subscription fee to the sorting center. This is usually collected as cash by the office admin. We would like to build a digital payment option for this. We may in the future also make payments for pre-sorted material brought to the sorting center.

Does the platform have to support these exchanges directly/indirectly?

We would like to enable digital payments, and be able to record and track digital and cash payments

Pickups

Are the vehicles already equipped with the hardware (e.g. GPS and OBD components) to allow tracking of use and maintenance? Are API endpoints available for the platform to consume this data?

No

Or is the platform expected to allow for logging trip history, fuel refill history and service/repair history etc., and extrapolate this information to predict wear and tear?

Primarily just need to be able to report issues with vehicles for follow-up

If the vehicle is a tricycle, then then is it worth installing GPS OBD components?

No

Does a mobile phone tracking mechanism suffice?

Yes, that would be sufficient

What are the privacy requirements regarding collection of GPS data from collectors?

We will need to ensure we are only tracking the pickup routes. We have used the scanning of a QR code to capture location data during pickup, this might be a good compromise. Or a 'check-in / check-out' mechanism on the app so we're not tracking them outside of work hours.

Do we have access to ODB port in trucks?

They are a mix of motorcycles and trucks, they don't have ODB ports. We can ask the drivers to install an app on their phones, however.

Are customers encouraged to plan and raise pickup requests ahead of time, so that the planning is predictable? Or are they encouraged to raise pickup requests as and when they need it, and promised near immediate (or best possible) turnaround?

Generally, pickups happen on schedule, ad hoc pickups should be rare, due to events (parties, construction work etc.)

Are the pickups and routing pre-scheduled to start with, with room for addition of stops/hops based on customer requests?

Yes. Mocis (motorcycle trailers) handle small customers, trucks pick up larger generators as well, large trucks only do the very large generators.

Also, how are pre-scheduled pickups determined? Does the business potentially using the platform already have predetermined areas/desas allocated by the government or local governing body to do a door to door pickup?

The sorting center services a particular area, but the management determines the routing. They only do pickups for households that pay for service.

Should there be a mobile application for the customers (households and/or commercial establishments?) to request pickups?

At this point, we are open to having customers request ad hoc pickups by phone or email – but the platform should support adding that ad hoc pickup to the routing. We would like to build a mobile app in the future (or an integration with WhatsApp) however!

Is it safe to assume that the pre-scheduled pickups are higher priority with the ad-hoc pickups squeezed in only on a best-effort basis?

Generally, yes, but hotels can book a large pickup for an event, these would require prioritization. We would dispatch a large truck for this.

Is there only one kind of waste pickup vehicle and/or collector? If there are several types, please share details.

At our TPS3R, there are 3 different kinds of waste pickup vehicles with different purposes:

- Moci (motorcycle with trailer): for households*
- Small pickup truck: for households and medium sized customers like small hotels and schools*
- Big truck: for big hotels and households on big roads*

Are there different kinds of drivers picking up wet vs dry waste, or household vs commercial waste etc.?

Yes. Large truck drivers can drive small trucks and moci, small truck drivers can drive moci as well, but moci drivers can't drive anything else (they don't have the license). Commercial waste is picked up by large or small trucks. All waste is picked up at the same time by the same driver.

What information needs to be collected before creating a "pickup request" e.g. geographic co-ordinates, type/nature of waste, quantity of waste expected, expected time etc.?

Address, customer name, nature of waste, quantity, time and date of pickup

Is the "view pickup routes" functionality for the admin's perusal to track the driver's scheduled route and compliance? Or is this (also) for the driver himself/herself to plan the workday and stick to the route?

It is for both uses.

Should the platform support on-the-fly changes to the route and the schedule while the driver is in the field?

It would be great to be able to add an ad-hoc pickup to a route but it's optional

Is the prioritization of pickups applicable only to ad hoc pickups or are the pre-scheduled pickups also prioritized/deprioritized?

Prioritization should take into account ad hoc and scheduled, as well as cancellations – but generally scheduled pickup routing shouldn't change once set

Are there rules or policies to define a default priority for incoming requests, based e.g. on whether it is a commercial/household pickup or type/quantity of waste?

Yes, we would prioritize large scale commercial pickups. Hotels have contracted pickups

Should the picked-up material be marked as "poorly sorted" or "dangerous" based on the gut feel of the driver during the pickup itself? Or is it done based on established rules/guidelines after the material lands at the sorting center?

Marked by the driver on pickup

What "units" should the pickup history be tracked for and comments be taken for? Are we talking about customer premises here?

Unit means customer premises – house, roadside business, hotel / hospital / school