Pula
An app for Vacuum Tanker Businesses

A business-to-business app designed to support faecal sludge collection services and generate data for local sanitation authorities.
Background
Most People are not connected to the sewer system
Background
Independent Vacuum Tankers empty toilets
Starting Point
Data gap of government

Authorities

Lack of Data to adequately plan and evaluate interventions
Starting Point
Data gap of government

Vacuum Tank Businesses

What can we offer Vacuum Tank Businesses in return for their data?

Authorities

Data

?
**Approach**

**Human Centered Design**

Diagram:

- **Interview/Observation/Test**
- **Prototype Ideas**
  - Vacuum Tank Drivers
  - Vacuum Tank Owners
  - Authorities
- **Come up with ideas**
**Process**

An adjusted Design Sprint Process

- Interviews
- Ideate
- Prototype
- Test
- Adjust

*3 weeks, 4 people, 100% of their time*
Two main Features
Problems identified and app features developed in response

| Problem                              | Low demand in dry season | Drivers doing side business |
Two main Features
Problems identified and app features developed in response

<table>
<thead>
<tr>
<th>Problem</th>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>Low demand in dry season</td>
<td><strong>Address Book</strong></td>
<td>Pula stores all customer details and predicts when a customer is due for the next emptying</td>
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<tr>
<td>Drivers doing side business</td>
<td><strong>Truck Overview</strong></td>
<td>The owner is updated on the driver's activities via GPS signals and status updates</td>
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Truck Overview
Two applications that are linked with each other

The mobile phone of the driver is connected to the mobile phone of the owner. The location and status of the tanker is tracked through the mobile phone.
The supervisor/owner fills out customer details and sends the details through the app to the driver.
What we have learnt
The 4 main lessons we learnt when developing Pula

- Reduce complexity
- Have a hero user
- Get real asap
- Focus on one market
What we have learnt
Reduce Complexity

What we did
We had a lot of ideas for features and prototyped several. Our final app has 2 main functionalities. This made the app too complex for the target user.

What we recommend:
Focus on one core feature and ensure this is fit for purpose. Complexity creates space for things to go wrong.
What we have learnt
Have a hero user

What we did:

Multiple vacuum tanker businesses included in design research, prototype assessment and testing of the final app.

What we recommend:

Establish a relationship with one Vacuum Tank Business, allowing the product to be tested over longer periods.
What we have learnt
Get real asap

What we did:

In each country we developed non-working prototypes (Marvel App) and tested them with target customers. We learnt that the prototypes were not tangible enough to give us accurate feedback.

What we recommend:

Develop prototypes that are as tangible and close to the final product as possible. Customers are only able to give you real feedback if they can use the product.
What we have learnt
Focus on one market

What we did:

Design sprints were conducted in 4 countries, attended by a business specialist, designer, design researcher and a market expert.

What we would recommend:

Focus on developing a product tailored to a single market which can then be adapted for new markets as required. Include a software developer in the core team to ensure the concept responds to the imitations in the chosen market.
What’s Next?
Where is Pula going

We have a clear idea of what needs to be adjusted:

- Reduce complexity (we have already outlined a simple Pula)
- Make coding more robust

We believe that Pula has potential and we are keen to develop it further:

- Step 1: Develop and test a “simple Pula”
- Step 2: Launch in a single market