

# Xingu Seeds Network (ARSX)



## Context

- Brazil's Forest Code and the Nationally Determined Contributions require the **country to restore 8m and 12m hectares of forest by 2030**. Accelerating the use of **Muvuca would help to achieve these goals**.
- **Muvuca** is a **restoration technique** that uses a mix of seeds for natural forest regeneration, that is both significantly **cheaper** (-63% vs traditional seedlings), more **efficient** (20x more trees can be planted per day vs traditional seedlings), and higher **impact** (1.5-12x vs traditional seedlings).

## Forest Partnership: Transform the ARSX towards a sustainable business model

- Muvuca requires **an innovative, replicable, and scalable business model** to generate a huge amount of required seeds supply.
- The Xingu Seeds Network is our **best bet to demonstrate such model**. ARSX **collects seeds** in the North of Mato Grosso and **commercializes them to buyers**: its governance is innovative and is seen as a replicable and scalable model
- **ARSX** has grown significantly over the past 10 years, achieving **+12% growth p.a. in collectors** over the timeframe to reach **>500 collectors** and **£127k revenue in 2018**
- Nonetheless, it is still a **donor-dependent business** that is not yet **financially sustainable** without grant money, as financial management, streamlined operations, and improved commercialization and marketing & sales are required to turn ARSX into a successful business

## Theory of change & Business model



- 1 Why is this Forest Partner (“FP”) important?
- 2 How does ARSX support forest restoration?
- 3 How does ASRX business model work?

## P4F Intervention



- 4 What are the expected outcomes from the Business Plan development?

# Why is this FP important? A profitable business model for seeds production is essential to accelerate restoration in Brazil through Muvuca

## Muvuca requires a replicable and scalable model to generate a huge amount of required seeds supply

- Muvuca is important to speed-up and facilitate restoration in Brazil.
- However, Muvuca needs **a huge amount and highly diverse seeds**



Muvuca needs 50-150 kg of seeds/hectares with around 70 different species. Considering one seed weighs only a few grams, collecting those amount of seeds is a huge task.

- **The most effective way** to supply that high amount of seeds is **through seeds network.**
- Unfortunately, there is **insufficient active seeds networks** available and most of them are highly **dependent on grants funding.**
  - There have been instances where a donor dependent seeds network had to stop its operation after donor funding ended.
- The **only** way to make the seeds network replicable and scalable is **if it is profitable.**



## ARSX is our best bet to demonstrate the feasibility of an innovative profitable business model for seeds production

- ARSX is the **most mature seed networks** in Brazil.
  - It has an innovative and robust network's governance.
  - It is supported by highly credible and respectable NGO partner, ISA.
  - It has shown positive development in the last ten years, much advanced than other existing seed networks.
- Although ARSX still operates like a non-profit entity, they **acknowledged their urgent need to transform its model** to be a business oriented model to sustain its long term operation.
- We believe there is **a potential to transform ARSX** to be an **innovative model for profitable seed business** and has identified many **potential levers** to help this transformation from four main following aspects below:
  - Cost
  - Revenue
  - Operational
  - Business management

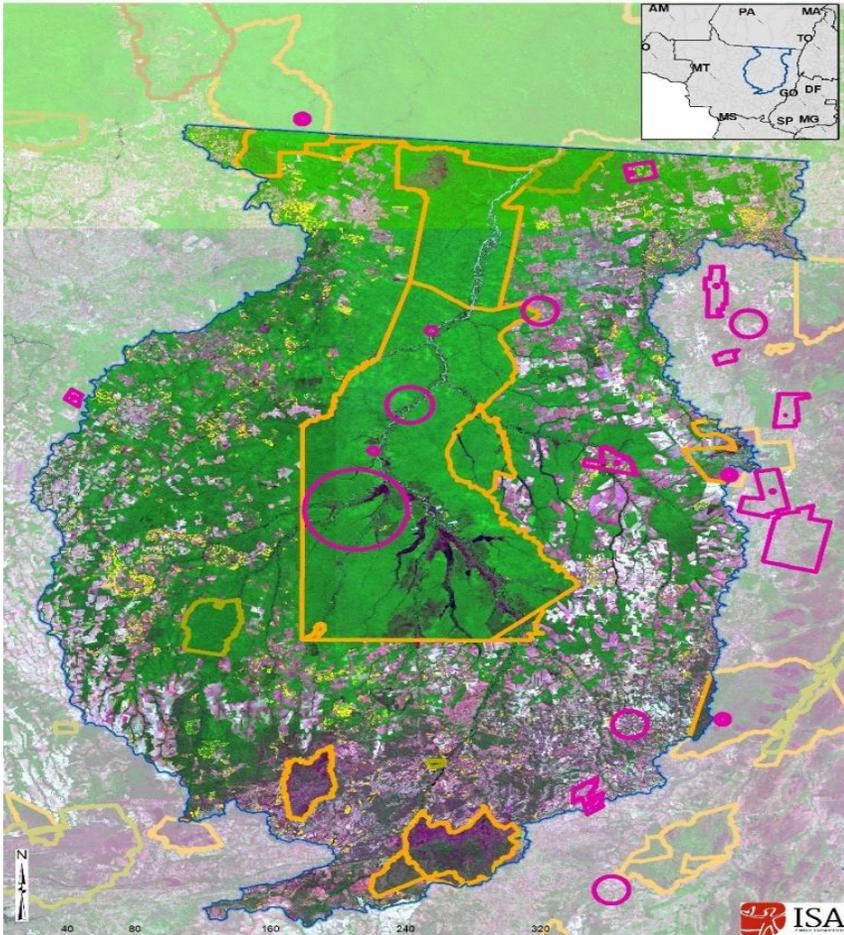




### ARSX collects seeds in the north of Mato Grosso state...



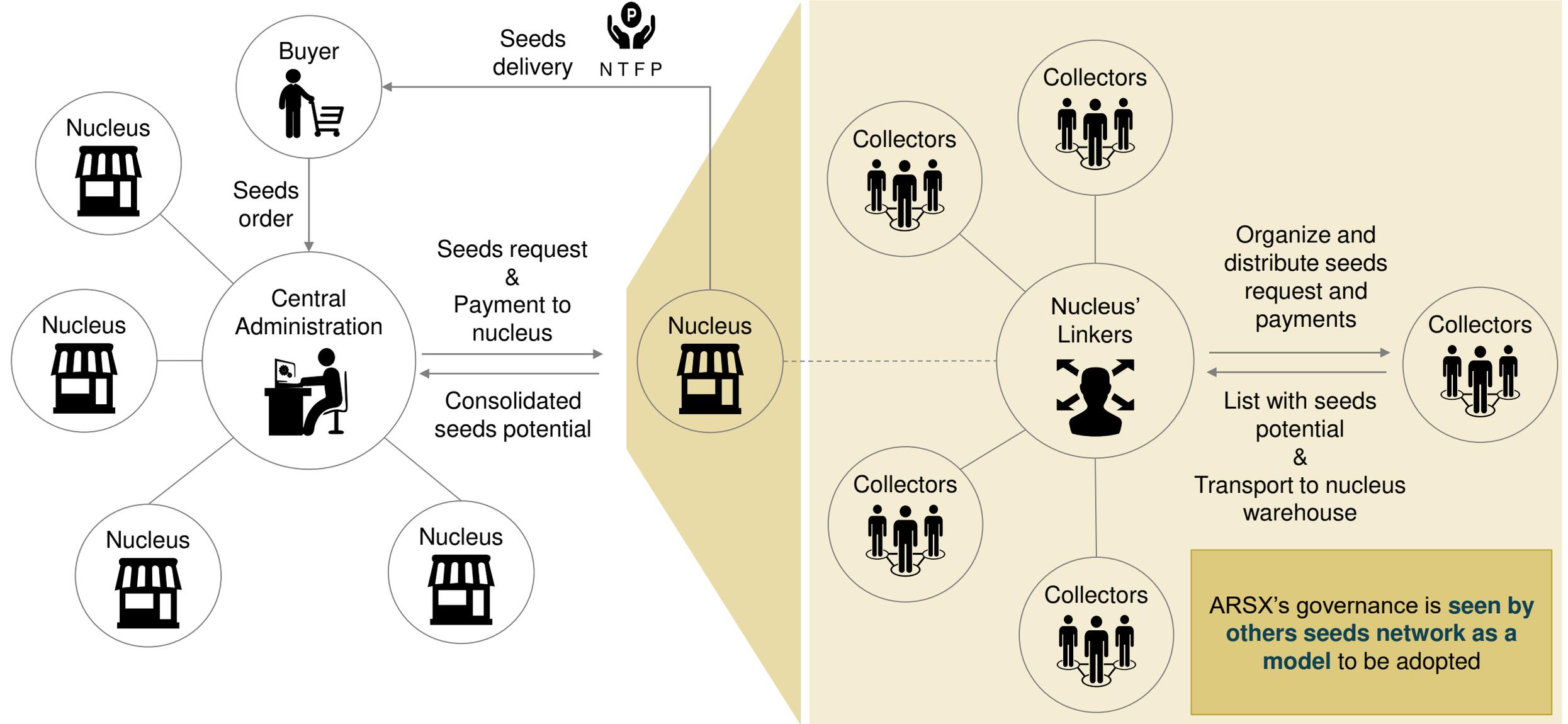
□ seeds collection areas    □ Indigenous lands



### ...providing an answer to the lack of seeds supply for restoration

- **ARSX is a network formed by 568 seeds collectors** from:
  - 15 rural settlements,
  - 16 indigenous villages from 7 ethnicities
  - 1 sustainable use protected area (extractives reserve)
- The network was created in 2007 by ISA (an NGO) and has **produced accumulatively 200 tons of seeds from 220 native species**
- **ARSX collect seeds over an area of 700,000 hectares** in 11 municipalities the states of Pará and Mato Grosso.
- **ARSX contributed to ~6,000 hectares restoration projects** in Amazon forest and Cerrado since its creation

# How does ARSX model work? ARSX features an innovative governance for seeds collection and selling that is both replicable and scalable



## How does ARSX model work? ARSX features an innovative governance that can overcome many barriers in seeds collection

**Muvuca seeds collection is not a simple task...**



**... but ARSX network structure provides an innovative solution for those barriers**

It is labor intensive, but concentrated during short period of the year

- ARSX network structure can easily **aggregate new nuclei and collectors required to fulfil increased demands.**
- Seeds collection is usually **a complementary activity** that collectors perform during the collecting season.
- In this year only, ARSX has already got requests from 270 people who want to be part of their collector network.

Seeds variety and availability are prone to natural variability

- ARSX consists of many nuclei in 2 different biomes, Cerrado and Amazon, that enables it to provide **geographical dispersion** and **generating seeds from many species.**
- Several nuclei operates in various different collection areas provides a **risk mitigation against natural variability.**

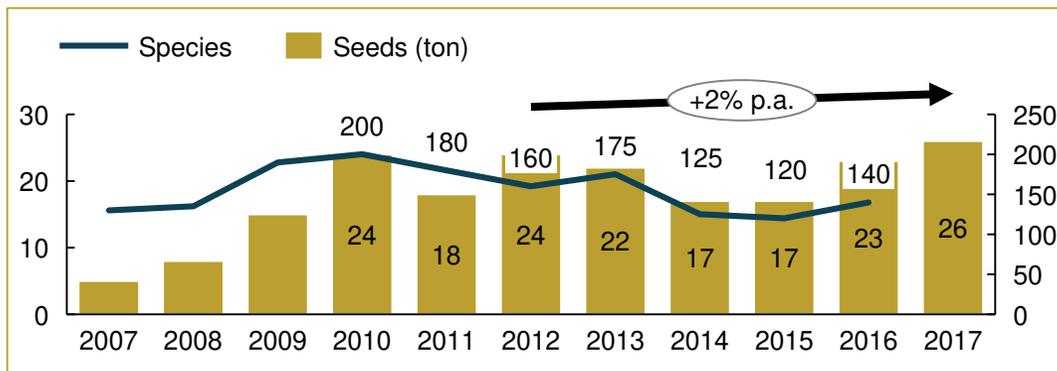
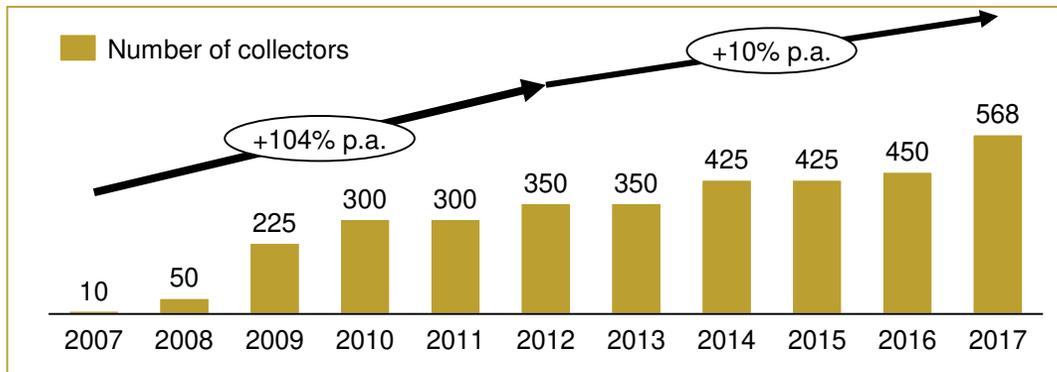
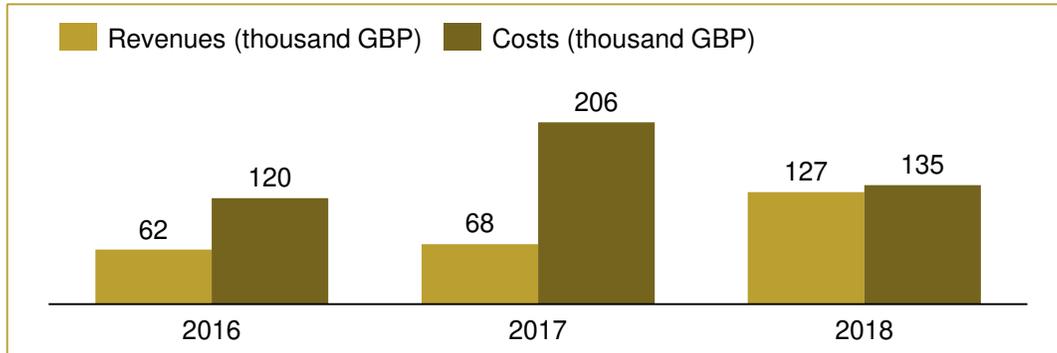
The mandatory quality control is difficult to perform

- The network provide **a shared infrastructure for quality control at different levels.**
- A first quality control is made by the collectors and checked at the seeds warehouses, where germination rate is also tested.
- Beyond that, they have a partnership with a lab owned by the Mato Grosso State University (UNEMAT) to analyse samples of collected seeds.

In addition, the network structure provides community strengthening and an alternative for deforestation related activities

# How does ARSX model work? ARSX has been growing, however the initiative is still non-profit driven and grant-dependent

The seeds selling activities have been growing in the last ten years



SOURCE: ARSX



However, it's still non-profit driven and thus dependent on grants

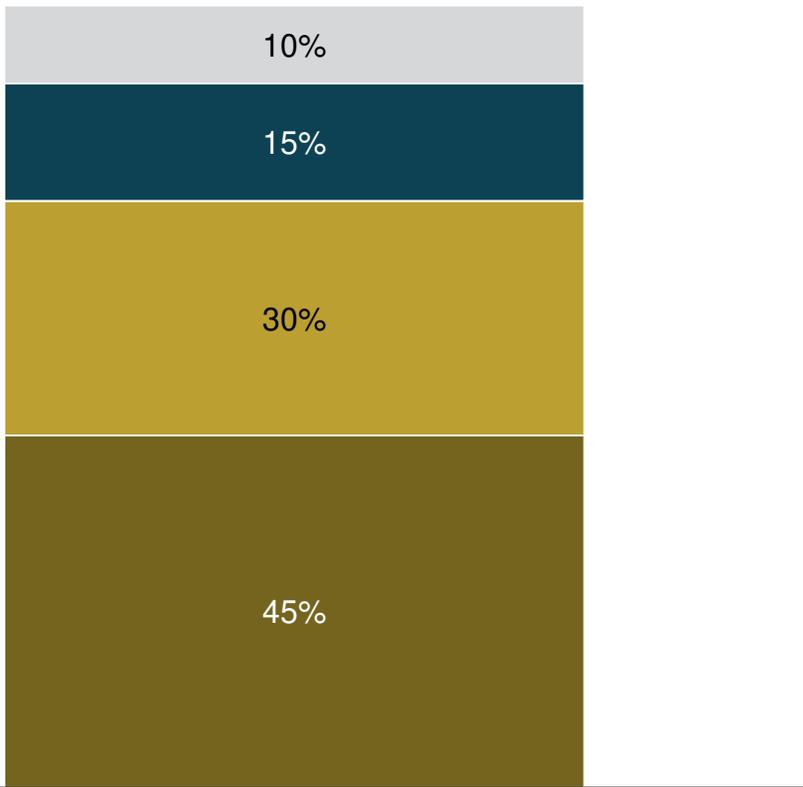
<b>Cost</b>	<ul style="list-style-type: none"> <li>Costs <b>includes social activities</b> that are not directly linked to the business.</li> <li>Most of the costs are still <b>covered by grants</b>.</li> </ul>
<b>Revenue</b>	<ul style="list-style-type: none"> <li>Lack of <b>capacity to grow the revenue</b></li> <li>Focus on the production side (for the social impact).</li> </ul>
<b>Operational</b>	<ul style="list-style-type: none"> <li>Lack of <b>efficient business-oriented operational standards</b></li> </ul>
<b>Business management</b>	<ul style="list-style-type: none"> <li>Lack of <b>business management capacity</b></li> <li><b>Insufficient financial management</b>, still integrated with ISA's (the NGO)</li> <li>Low to <b>no reinvestment</b> to grow the business, all revenues are redirected to collectors</li> </ul>

ARSX is aware of this limitation and realize that it will also **limit their long term operation sustainability as well as their impacts**.

Therefore, ARSX expressed their **commitment to transform its operation into a business oriented one**.

## Sales by type of customer

Others/Retail  
 Farmers group  
 ISA  
 Service provider



2017

SOURCE: ARSX



- Most of ARSX's production is dominated by four organizations:



- **1 group of farmers** (mandatory obligation due to Forest Code)



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- ISA, an **NGO** that supports ARSX



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- **2 restoration service providers** for companies with restoration liability, especially infrastructure projects.

- While most of the retail sales are channelled to nurseries

- This small customer base indicates a potential to explore new markets

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# What are the expected outcomes from the Business Plan development? Success would mean that ARSX has essential elements of profitable business and its innovative model is replicated

## Transformation from a donor based organization.....

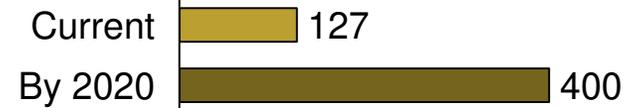
- No data about PNL
- Costs include non-business related items and mostly covered by grants
- Focus only on production
- Growth below the market
- Lack of business management capacity



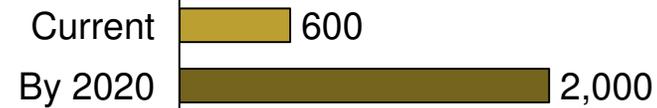
## .....into a profitable business<sup>1</sup>

- **Positive EBITDA**, financially sustainable without grants funding
- High **growth** and **expansion**, at least **3x** of current state

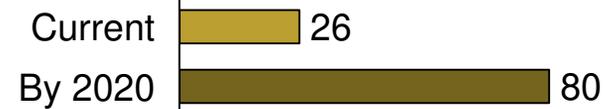
### Revenue (GBP/year)



### Restoration capacity (ha/year)



### Seeds production (tons/year)



Once the profitable business model developed, we should **feed it into the EC initiative** and **share this innovative model with relevant stakeholders.**

<sup>1</sup>This success scenario might be further refined based on the result of phase 1



## Questions that we would like to answer



## The business plan and roadmap will highlight potential levers to implement in a second phase

### Cost

- How to increase the cost efficiency?

- Minimize non-business related costs

### Revenue

- How to increase ARSX revenues?
- Which initiatives could add value to ARSX products? New services?
- What are the new customers/markets and how ARSX could reach them?

- Restructure pricing
- Increase customer base
- Improve marketing activities and customer experience
- Implement new sources of revenues

### Operational

- How to improve operational efficiency?
- How to expand the network without compromising the current structure?
- What are organizational and governance restrictions?

- Consolidate existing nuclei
- Increase the number of nuclei and collectors
- Improve communication and seed delivery
- Create an integrated management system

### Business management

- How to improve ASRX's business management capacity?

- Hire sufficient staffs with strong business background
- Professionalize financial management

**Go/No-Go** question for the implementation phase: is it possible to ARSX to achieve a profitable model?