



# *Investing into Green Technologies in Namibia*

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## Agenda

Green technologies

Project development

Capital raising

Operationalisation

Opportunities for green technology

# Green technologies

*Definition: technology whose use is intended to mitigate or reverse the effects of human activity on the environment.*

## **Technology is just a tool**

- It needs to align to project goals

## **Deploying unproven technology is risky**

- Almost impossible to finance a commercial project based on technology that is not in itself commercially available.

## **Adapting technology to our local context is absolutely necessary**

- Locally repairable, parts readily available
- Works in local environment with available skills
- Kaizen, i.e. continual improvement

## **Reinventing the wheel is expensive (don't do it)**



Retort Charcoal Producers (Pty) Ltd uses locally adapted, proven retort technology

# Project development

*Definition: the systematic use of resources, knowledge and practices to design and implement a given project and meet its goals and objectives under specific requirements.*

## **Natural systems are unpredictable & complex**

- Unpredictability = uncertainty = risk
- Budget enough for risk. It's always more than you think

## **The bigger they are, the harder they fall**

- Plan to develop the project in manageable phases and grow it organically
- If it doesn't work at small scale, then you should be worried
- Phased development is easier to implement and raise funding for

## **Plan C is just as important as Plan A**

- Always have back up plans or alternative options
- Having only one option is not an option

## **Choose your partners wisely**

- Make sure partners add value
- Trust between partners is what makes or breaks any project

### **MURPHY'S LAW:**

If anything can go wrong, it will.

#### **Corollaries:**

1. Nothing is as easy as it looks.
2. Everything takes longer than you think.
3. If there is a possibility of several things going wrong, the one that will cause the most damage will be the one to go wrong.
4. If you perceive that there are four possible ways in which a procedure can go wrong, and circumvent these, then a fifth way will promptly develop.
5. Left to themselves, things tend to go from bad to worse.
6. Whenever you set out to do something, something else must be done first.
7. Every solution breeds new problems.
8. It is impossible to make anything foolproof because fools are so ingenious.
9. Nature always sides with the hidden flaw.
10. Mother nature is a bitch.

# Capital Raising

*Definition: raising funds from external sources to achieve strategic goals*

## **If in doubt, use grant money**

- If the technology and/or business model is unproven, it is best to use grant funding
- Grant funding can be used to reduce uncertainty, but it also often increases project complexity

## **Debt is the cheapest commercial capital**

- But strings are definitely attached - always read the fine print!
- Banks do not take risk, they take collateral and sureties
- Shop around and negotiate terms. Debt needs to work for the project, not the other way around.
- Off-take agreements are always a must

## **Skin in the game**

- Equity is expensive, because it is money hard earned
- Green and greenfield investments require patient equity
- Why would others risk losing their capital if you are not prepared to do the same?



**EUR 10 million of grant funding was raised for SteamBio Africa**

# Implementation

*Definition: the process of putting a decision or plan into effect*

## You are the best project manager

- Having a dedicated project manager with insight into the project is critical
- Avoid problem solving in series
- Too many chefs spoil the broth
- No pressure, no flow!

## Cash flow is king

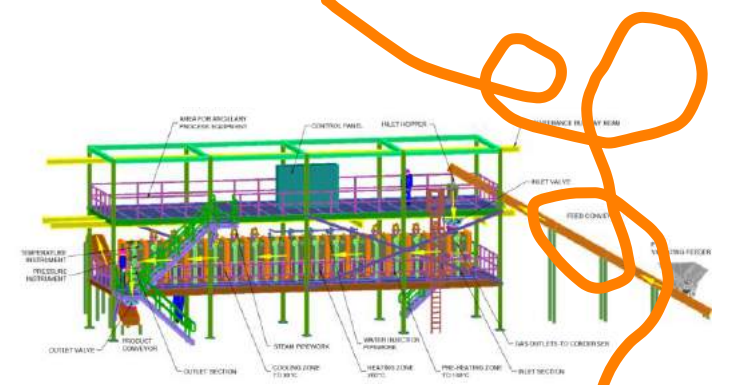
- Focus on achieving revenue generation – everything else is secondary
- Project must be fit for purpose. The “nice to haves” can come later

## Don't let the tail wag the dog

- Advisors/service providers do not have your best interests at heart
- Have eyes on the ground and get your hands dirty

## Finding the right team takes time, and you won't get it right on the first try

- No single person is more important than the project/company
- A bad attitude is like a virus – it spreads and can kill its host



# Opportunities for green tech

## Energy

- Alternative fuels (pellets, torrefied biomass, synthetic fuels)
- Baseload and/or dispatchable electricity
- Decentralised energy (gasification, ORC, absorption chilling)

## Materials

- Composites (WPC, mycelium, silica)
- Activated carbon
- Biogenic carbon for Power-to-X
- Organic chemicals
- Synthetic chemicals

## Carbon markets

- Biochar
- Building materials

# What we do

Project development

Capital raising

Partnerships

Advisory services



carbon capital



Thank you!

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