

NEXT
GENERATION
BIOFUELS



Kristian Skovmand

GMP16 Strategy Presentation

Harvard Business School, March 3, 2014



Strategy Summary

ENEnergy's strategy is to commercialize our proprietary technology and provide a long term, **clean and sustainable energy alternative to oil**

Business is to be integrated from growing feedstock, over processing, up to selling **ethanol and butanol** into **commoditized** global transportation **fuel market**

Ability to produce **significantly below cost of competitors** due to proprietary technology – cost leadership!

Deliberately chosen **not to**: (a) license technology to others, and (b) rely on third party feedstock

Global Transportation Fuel Market



Threat of New Entrants: Medium

Little or no protection from brands given commodity nature of market

High fixed costs to enter transportation fuel market as a producer...but easy as a trader

Supplier Bargaining Power: Low

Most producers vertically integrated ⁽¹⁾

Traditional producers also have to deal with equipment providers who (if more specialized) have some power

Rivalry/Competition – High

Customers are large commodity traders, energy majors and other trading houses

Focused almost entirely on price

Customer Bargaining Power: High

Product is a commodity so buyers have no attachment to any particular seller...of which there are many

Threat from Substitutes: Low short term /Medium longer term

Many potential substitutes but not a threat given small volumes



Note (1) : Different players have different set ups in terms of vertical integration, hence supplier bargaining power for others can be quite high if they rely on third parties to deliver feedstock

Competitive Advantage

Our Unique Technology

- Simplification of previous technologies:
 - Lower capital costs
 - Lower operating costs: eliminating a step and take processing time from 24/48 hrs down to 6-8 hours
- Energy Efficient – produces more energy than added

Local Adaptation of Technology

The Ideal Locations:

- Currently 2 projects on north coast Australia
- Availability of land mass
- Massive saline reservoirs
- Excellent solar resource (for electricity)

The Biomass Feedstock:

- High Density Cane/Grass crop
- Fast growing
- Tolerant of saline water

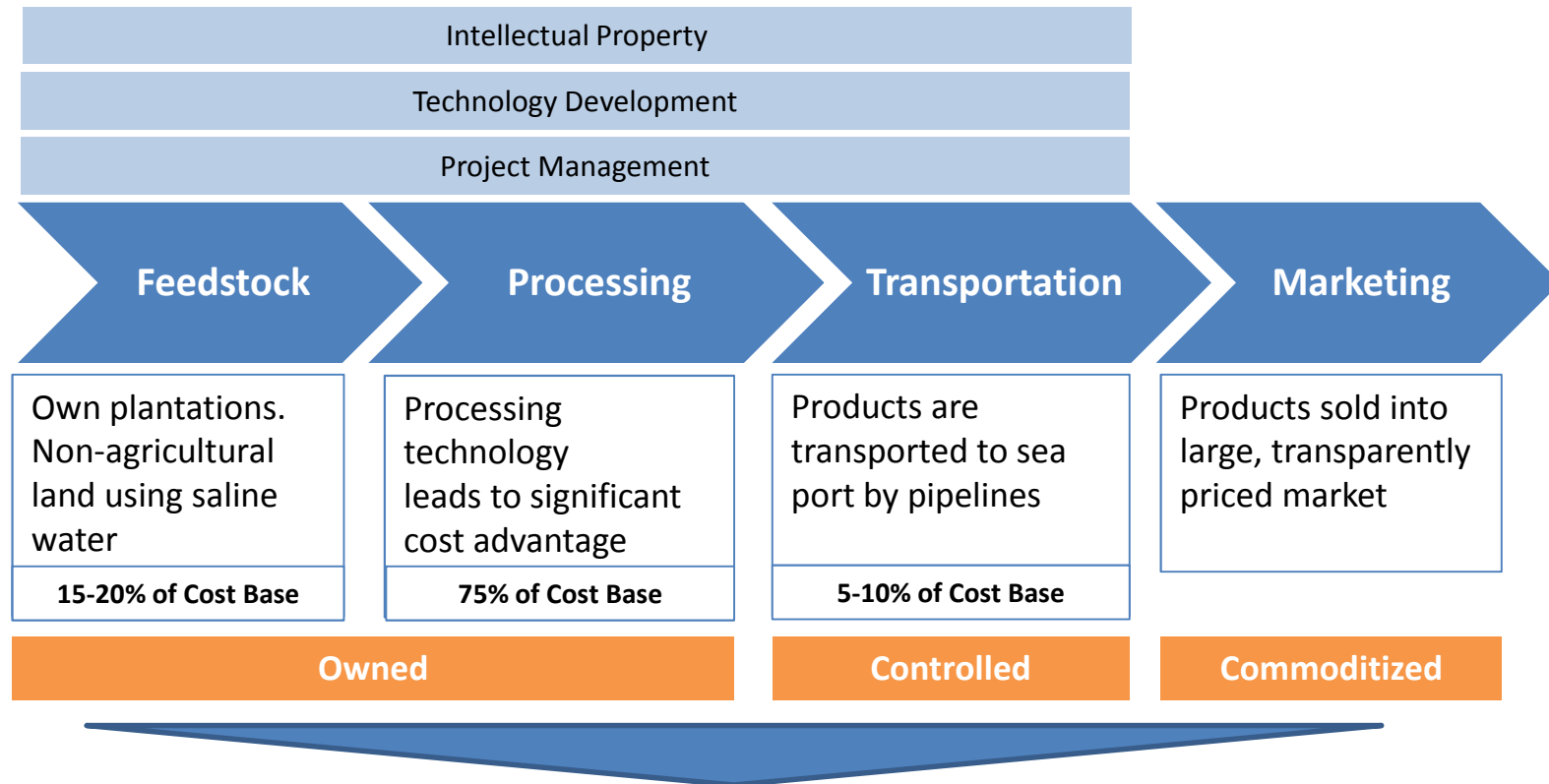
Environmental Benefits

- Feedstock non edible for humans or animals
- Grows on land not usable for traditional agricultural purposes
- No demand on drinkable water – grows on salt water
- Feedstock plantation absorbs carbon dioxide



Low cost production of a “clean” commodity

Value Chain



- **Integrated business** means **no price risk on feedstock**
- **Continued value creation** driven by ability to
 - Identify **new sites** globally for new projects
 - **Adapt** the core **technology** to local conditions



Sustainability

- Energy efficient technology = Long term sustainable
- Technology can be replicated...but takes time
- Limited impact on energy prices.
We are a drops of ethanol in an ocean of oil.
- Environmental benefits can provide future upside



CHANGING
THE WORLD
OF ENERGY



www.enenergy.net