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Environmental Technologies

EnviTech Solutions Pvt. Ltd. Singapore



# A sustainable development approach based on Moringa Olifeira -

## the miracle tree



**Cleantech**  
CONSULTING GmbH





Native to the Himalayan Mountains,  
Moringa oleifera is nature's  
**“miracle tree”**.

- 90+ verifiable
  - cell-ready vitamins
  - Minerals
  - vital proteins
  - Antioxidants
  - omega oils, and other benefits
- growing of Moringa
  - structured Agri-Supply chain
  - excellent business opportunity
  - substantial potentials for rural development.



Native to the Himalayan Mountains,  
Moringa oleifera is nature's  
**“miracle tree”**.

- most beneficial parts of the tree
  - Base materials for a unique line of products
- Ensuring highest quality possible
  - Raising/ Growing of trees on carefully managed farms,
  - Organically without chemicals



## project background

- growing world population and limited resources for food and water supply
  - challenges for the present and future generations
- project partners for an integrated solution based on ecological and economical principles
- Provision of stable supply of clean energy and clean water as basic utilities including
- foundation and establishment of a micro-economy based on local materials and workforce
- Cooperation of German and Indonesian partners allows global scale know-how and technology-transfer



## project background

- Special geographical characteristics of Indonesia
  - project basis (resources + technologies) widely applicable on majority of Indonesian islands
- state-of-the-art technologies developed and implemented adequately the
  - integrated system with pillars of rural area economical and social development
- Target rapidly growing markets
  - basic demand of water, food and energy
  - project strategy for local, regional and international expansion
  - sustainable source of growth and income
- Open-minded partnership over two continents technology- and know-how-transfer in order to connect cultures and markets



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## project partners

- Wismar University – Science and Education
- Alphacrom – Extraction Technology
- Cleantech – Consulting
- EnviTech – Engineering
- Fischer Analytics
- local partners – Farming, Harvesting, Processing, Marketing, Sales, Distribution

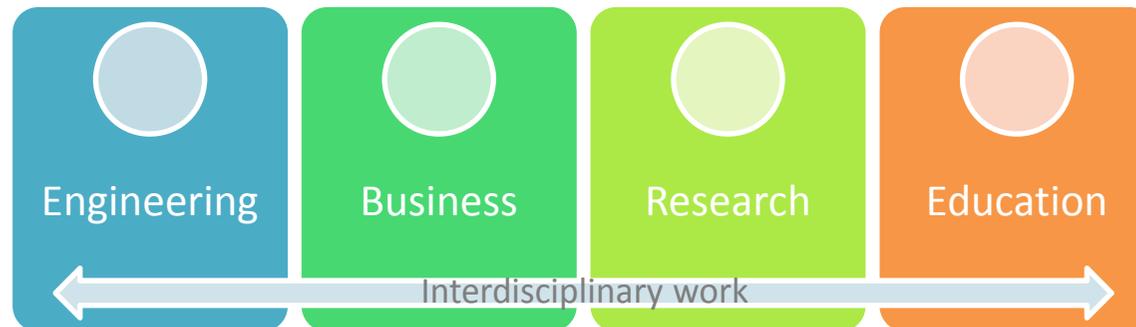
**in Indonesia and Germany**





## project policy

- intercultural partnership
- open minded exchange
- professional cooperation on
  - Moringa Cultivation
  - Water supply
  - Energy generation and utilization
- synergetic collaboration





## project tasks

Develop sustainable concept for economical and ecological island development

design and engineer pilot project as proof of concept

implement and operate project

evaluate data for economical and ecological feasibility of commercial project

*Technology and know-how transfer*

Research and Development

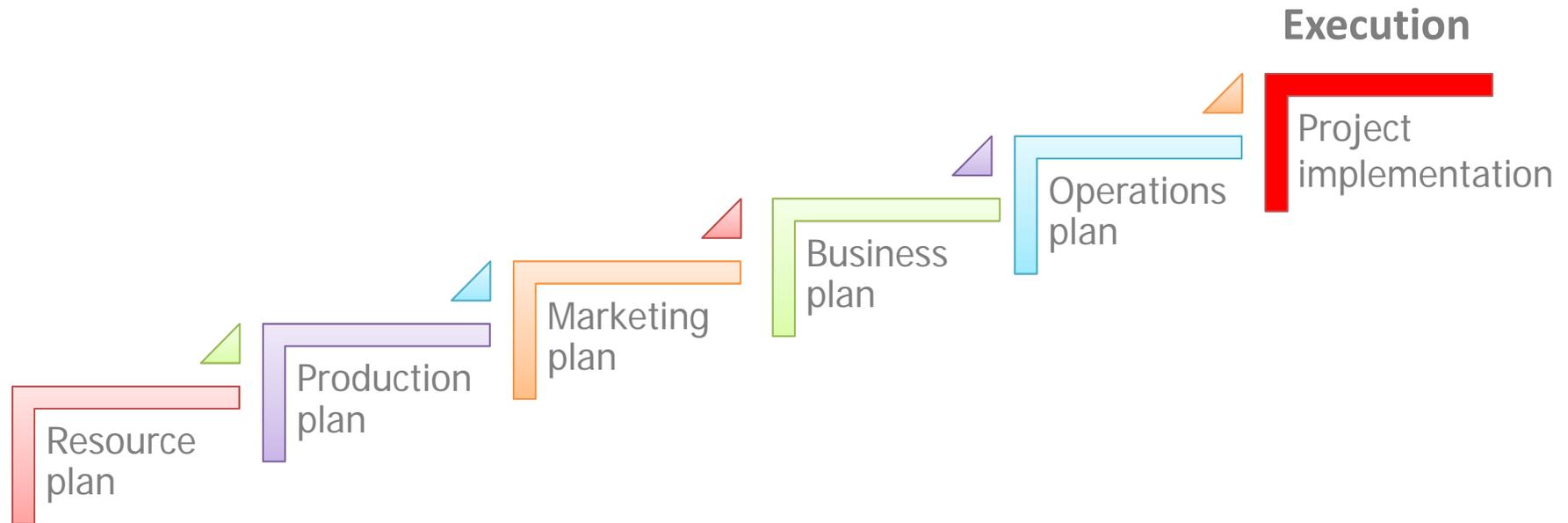
Technology and Engineering

Education, Management and Practice

Science and Business



# project steps





# unprocessed raw products



root



seed



flower



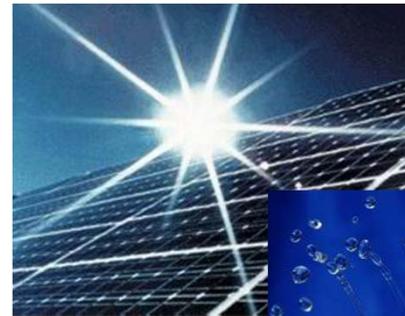
Pods



leaf



bark





# processed products - Moringa



powder



tablets



capsules



oil



## project power and water supply

- Moringa tree very productive plant for nutrients for human and animal food
- Seeds with significant amounts of high quality oil
- Utilization as bio fuel for power generation and environmentally friendly lubricant
- Local production as significant contribution to stable, economic and social development



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one step ahead