

DAAD-Program “Practice Partnerships”

Project SRD – SI

Innovation through Cooperation: Encouraging University-Industry Partnership starting with Students’ Research and Development for Small Islands

# SRDT – Batch 2

## Agenda

SRDT/SIDI Week

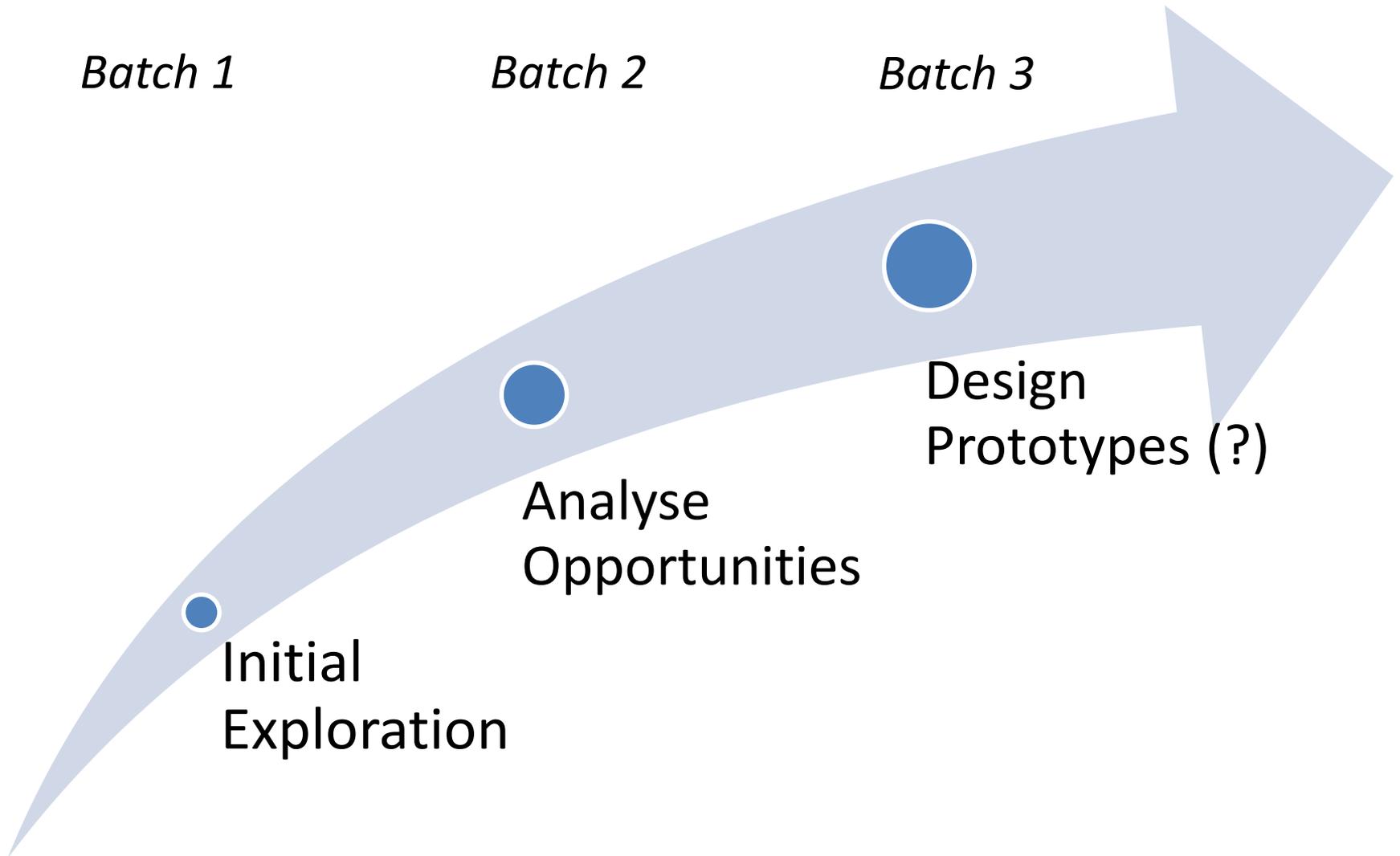
23 – 27 February 2015



DAAD



# SRDT Development Line



# Batch 2 – Task Assignment (Overview)

*Team Maratua:*



Concept of an Integrated Homestay – attractive and self-sustainable

*Team Poteran:*



**PT. MECO INOXPRIMA**

Manufacturer of Processing Equipment and Plant  
Manufacturer of LPG Transport and Storage Tank  
Manufacturer of Aluminium Fuel Road Tanker

Technological and organizational preparation of a Prototype Moringa Production Unit

# Team Maratua - Task

## Concept of an Integrated Homestay – attractive and self-sustainable

The concept of an attractive and self-sustainable Homestay Cluster shall be developed, meeting the specific conditions on Maratua Island.

The design shall apply and further develop the homestay standard as proposed by SR&DT Maratua - Batch 1.

### Main requirements are:

- (1) being attractive for the target group “National and international diving & water sports tourists / middle income”;
- (2) being equipped with self-sustainable systems for supply and disposal (energy, water, sewage, waste) as well as for logistics and mobility (island shuttle & supplies, inner-island transport, diving & water sports platform);
- (3) being able to be operated and managed by a group of island families. The Homestay Cluster shall comprise 5 to 8 Homestays being located close to an attractive diving & water sports area, completed by one Central Lounge & Service Centre.

# Team Maratua - Task

## Concept of an Integrated Homestay – attractive and self-sustainable

### Corresponding Topics:

1. Draft design of the Homestay Cluster: suitable location, architectural and interior design, central lounge & service centre, landscape architecture
2. Logistic system including island shuttle & supplies, inner-island transport, diving & water sports
3. Efficient, autonomous systems for electrical power supply and utilization, clean water supply and for waste & sewage disposal of the Homestay Cluster
4. Identification and arrangement of the local attractions - integrated tourism activities on Maratua island: diving spots, marine conservation, identification of the local history, language, art, culture, wildlife and nature, local events etc.
5. Concept for sustainable conservation : marine, forest, wildlife and culture conservation, spatial conservation zoning, biodiversity conservation, recreation and other land uses
6. Draft business planning: management of the Homestay Cluster, training of operational and management staff, draft start-up plan for the business development

# Team Poteran - Task

## Technological and organizational preparation of a Prototype Moringa Production Unit

- The feasibility for the establishment of a Prototype Moringa Production Unit on Poteran Island shall be analysed.
- The production unit shall consist of at least 10 ha of Moringa Plantation and a Local Production Unit for Moringa Powder.
- The Production Unit shall execute the processes of washing the green Moringa leaves, drying, powdering and packing, and shall integrate all necessary support systems for the supply of energy and clean water.
- The technology shall provide opportunities for the application on other raw materials as for example seaweed.
- Besides the agricultural and engineering aspects, important considerations for the Business Development of the Moringa Powder Value Chain shall be analysed.

# Team Poteran - Task

## Technological and organizational preparation of a Prototype Moringa Production Unit

### Corresponding Topics:

#### 1. Draft agricultural concept:

- Identification of a suitable Moringa growing site of 10 ha, including Pesticide test
- Optimum height and plantation density of Moringa plants
- Optimum growing / harvesting period
- Concept for clean (pesticide-free) watering, fertilizing, and pest protection

#### 2. Draft engineering of

- Moringa powder production unit (washing, drying, powdering, packaging)
- Integrated energy supply (renewable energy)
- Integrated water supply and water cleaning
- Logistic concept for the prototype production site

#### 3. Draft business planning

- Review of quality standards for the market entry (German, European, others) and review of the process for Bio-Certification of Moringa products
- Check conditions for a contract farming concept
- Draft concept for training of agricultural and processing staff
- Draft start-up plan for business development

Thank You