

**Cocoa
Research
Centre**

Fine/Flavour Sector using Science Technology and Innovation

Case of the International Fine Cocoa Innovation Centre

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Cocoa Research Centre

<http://www.cocoacentre.com>; <http://www.cacaocentre.com>



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Fine or Flavour Sector: Emergence of segmented niche and ultra-niche boutique market

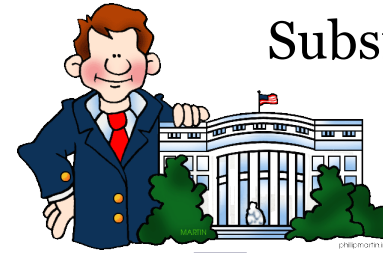
Features

Large number of small boutiques, innovative, dynamic, diversity in products & flavours, responsive to customer needs, competitive

Supplier characteristics (nimble, innovative, market sensitive)

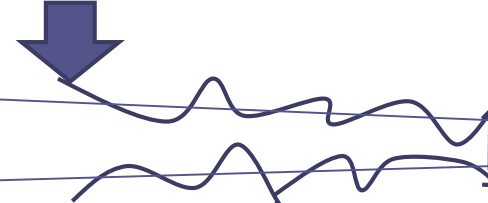
1. Diversity in flavours, uniqueness
2. Quality of product; consistency of quality
3. Branded products
4. Story behind the brand – variety, historical perspectives, social, environmental,
5. Traceability system
6. Market innovations – direct marketing opportunities, attractive packaging
‘Small is big’ – greater diversity, responsiveness

Researcher



Subsidies, inputs

SCIENCE TECHNOLOGY



OUTPUT



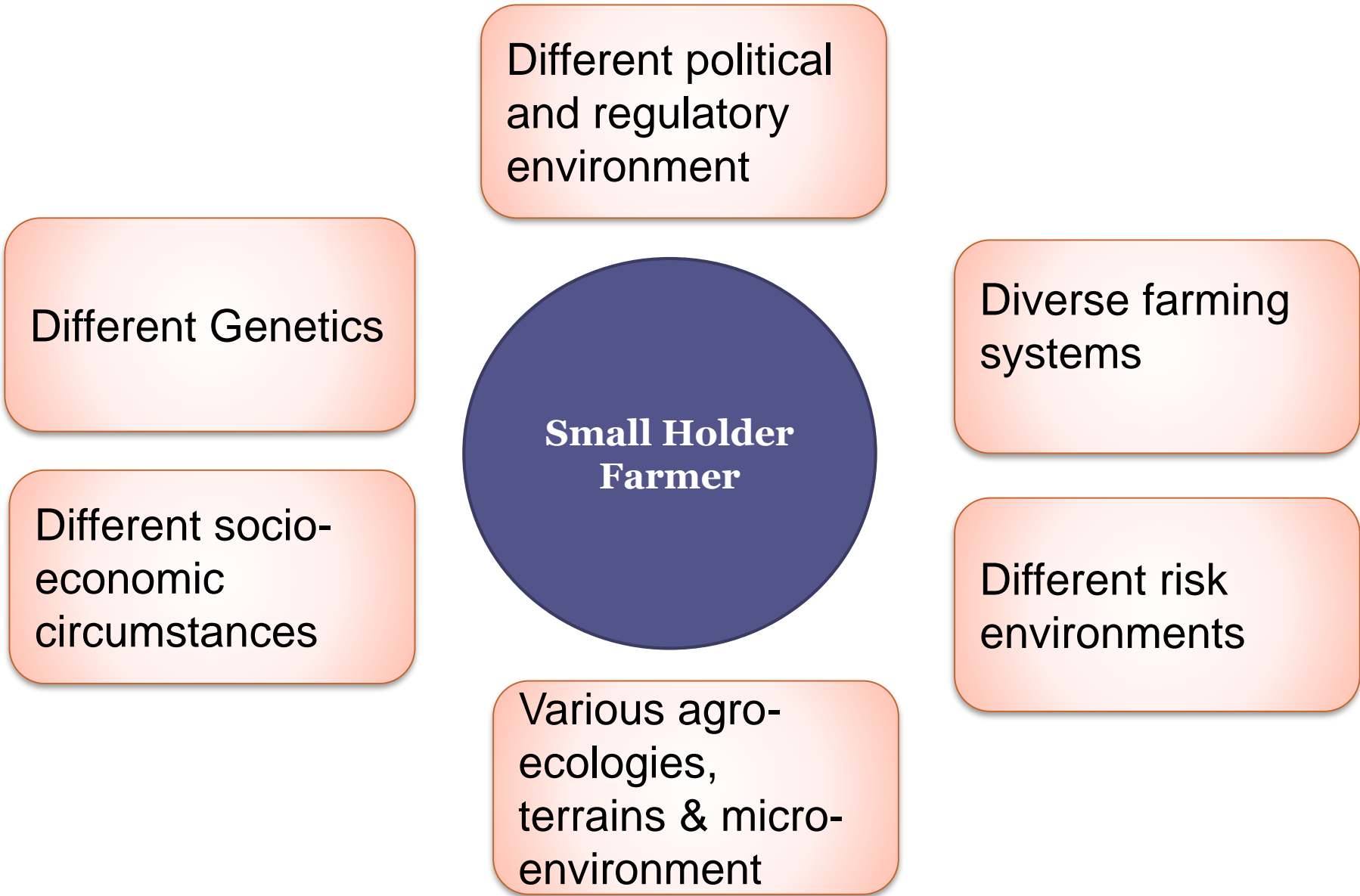
Decision maker?
Adequate
Appropriate?
Distorted info ?
Relevant?

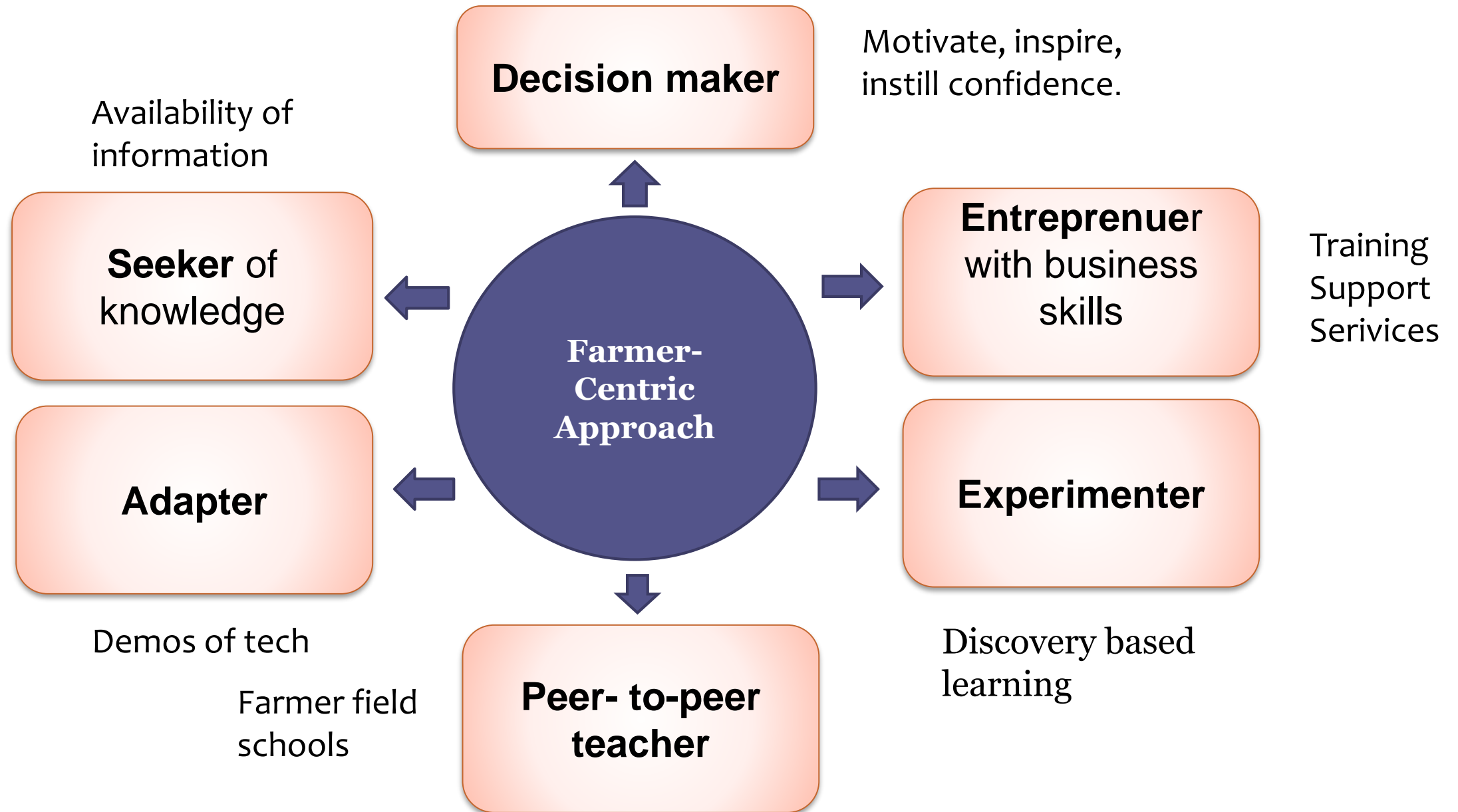
Technology and information transfer

Innovation and Technology Transfer System

Traditional systems

1. **Unidirectional**
2. **Not** 'farmer centric' –Leadership & ownership, (inspire, motivate, train)
3. **Not** nuanced to meet needs – meet individual circumstances (services)
4. **Not** dynamic – quick to change (information system)
5. **No** coordinated supportive environment (**silos**) – holistic, information, demos, credit, training, services
6. **No** business approach - cost-benefit / risk portfolio / profits? (train, support)
7. **Not** market led– lack of market information





FARM INNOVATIONS

- Farmer profitability & sustainability
- Improving the diversity of flavours, quality and consistency – Postharvest
- Improve price fetched – branding, direct marketing, reducing cost

INNOVATIONS IN SYSTEMS

- Information & training
- Certification of quality, sustainability
- Branding – collective marks or individual
- Traceability

INNOVATIONS IN VALUE ADDITION

- Value addition to diversify markets

MARKET INNOVATIONS

Alignment

Government Policy,
Strategy,
Legislation,
incentives

University Research,
innovation

**Innovation
Centre**

Private Sector
Investment

Investment climate

- Business models
- Training
- Incentive structure

Information

- Market info
- Suitability/risk info
- Technology info

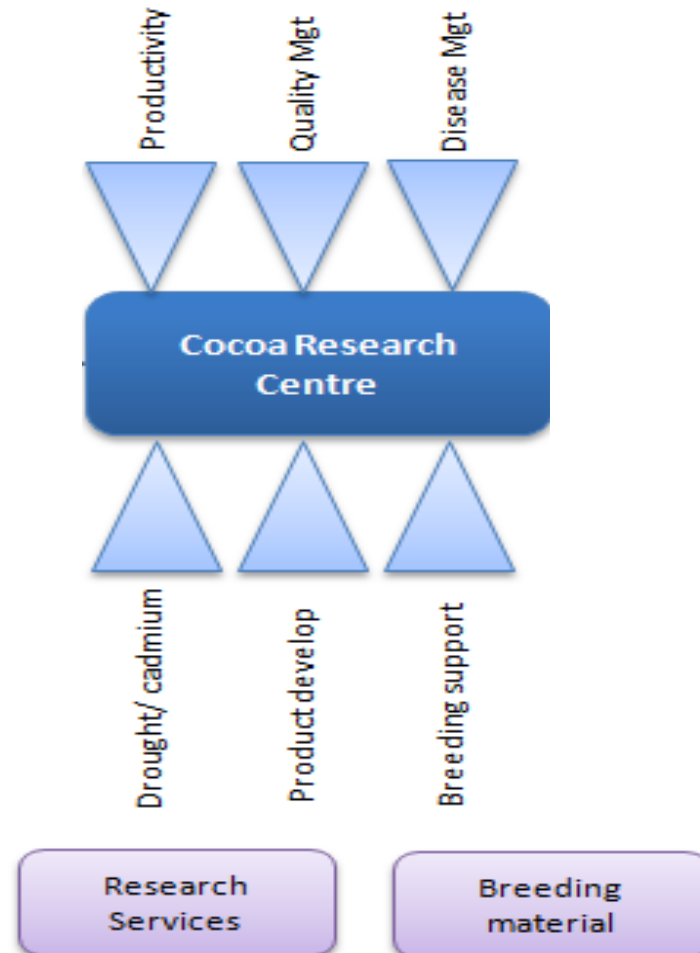
International Fine Cocoa Innovation Centre

Objective

Create a 'farmer-centric' innovation , technology transfer and entrepreneurship system that is dynamic and market driven to meet the need of the growing segmented fine/flavour market segment while ensuring farmer profitability.

A Connected Innovation Centre

RESEARCH



Strengths

- Genetic diversity
- Quality reputation

Opportunities

- Segmented market
- Health and wellness
- Burgeoning tourism
- Diaspora

Overcome threats

- Competition
- Diseases/ climate change
- Food safety issue

Aligned Engine



Investment climate

Demonstration of tech/ innov

- Profitable farms
- Productivity
- Quality/brands

Working with farmers to create nuanced **business models**

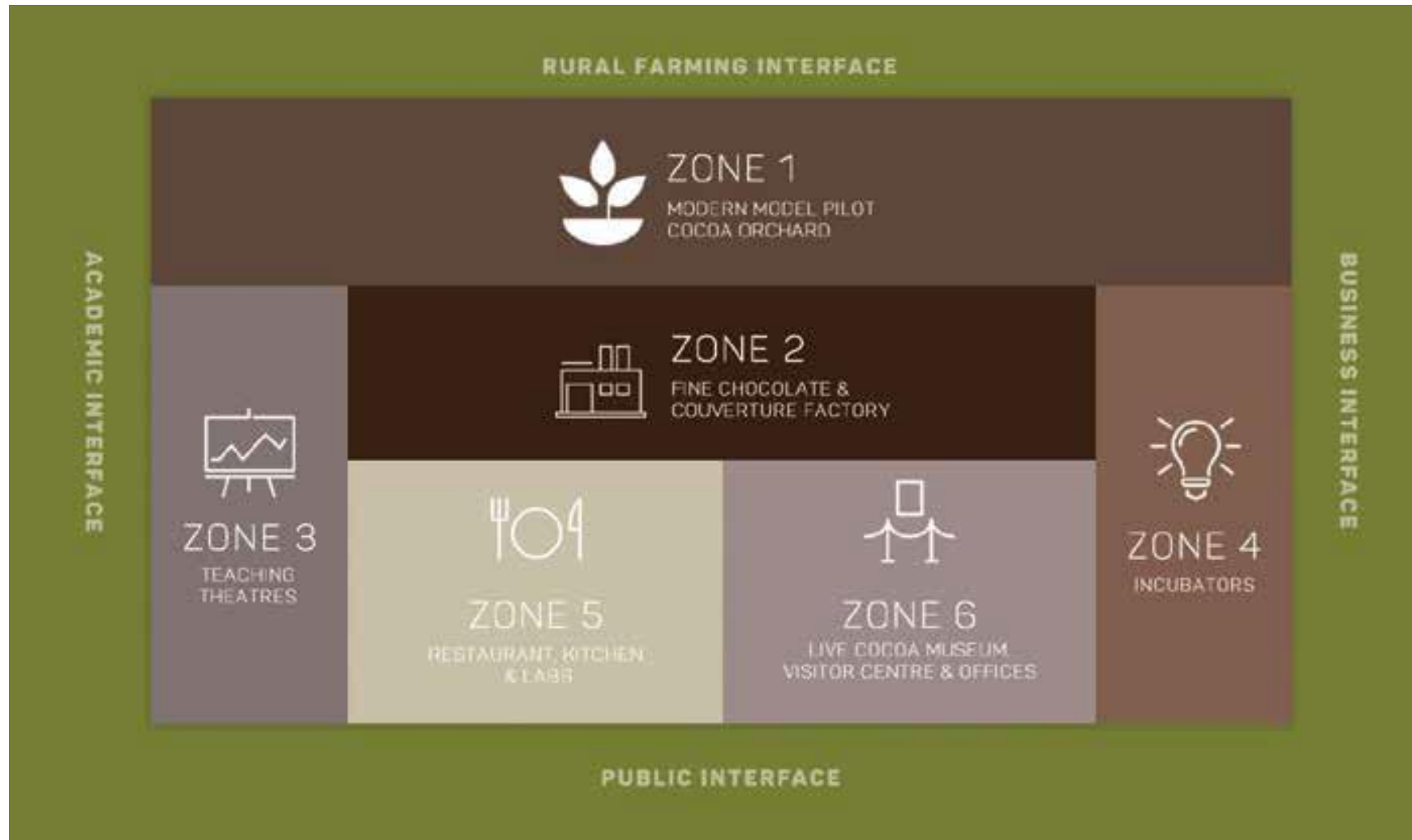
Entrepreneuership support

- Business cluster
- Start-ups

Services -technology

Apprenticeship training

Farm-to-fork Demonstration Model



Inspire

- Showcase innovations along value chain
- Develop tech toolkits

Train

- Apprenticeship training
- Short-term training, master classes

Incubate

- Technology incubation – product development
- Business incubation, marketing support

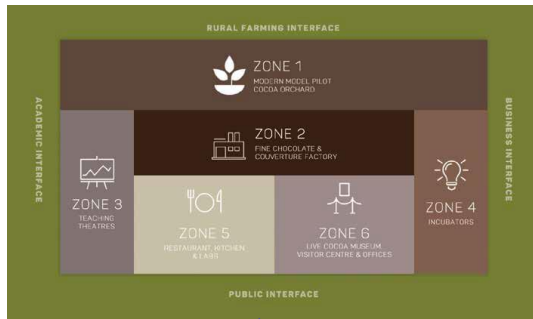
Start-up support

- Start-up kits, services – certification, traceability, business services
- Information – create, validate, access

Disseminate

- Disseminate successful models

Market



Demo

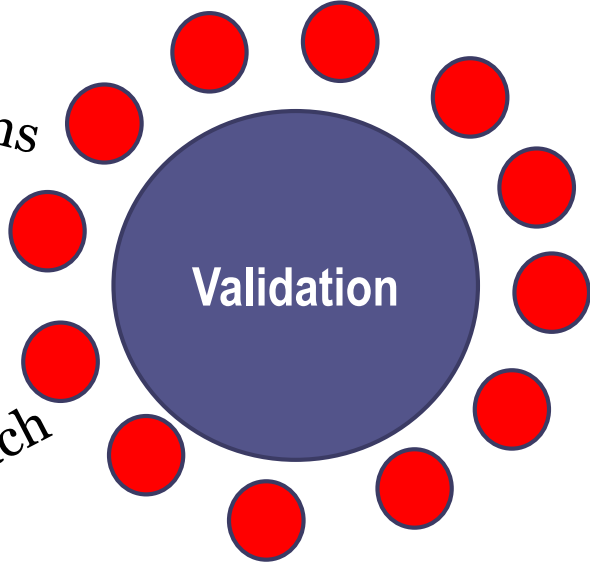
Support services

Information Environment

Training

Market innovations

Nuanced approach



Geographically dispersed adaptive models

Networking – peer-to-peer learning

GOVERNMENT Supportive environment

NGOS Supportive environment

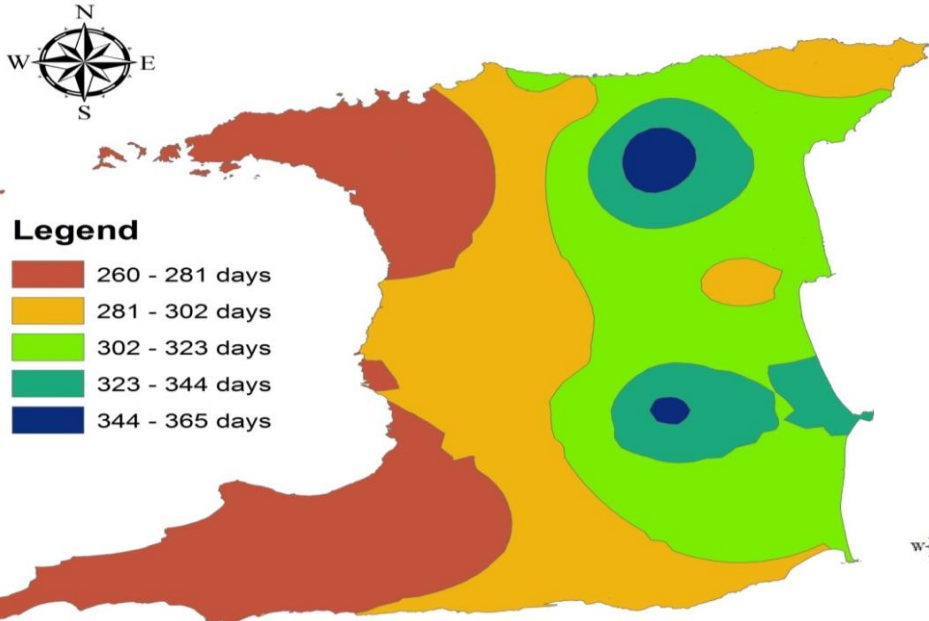
NGOs

- CRS
- LR
- BFREE
- CFFI

Networking

- ILAC
- CocoaNEXT
- Chocolate Guild

Building and information system to support development

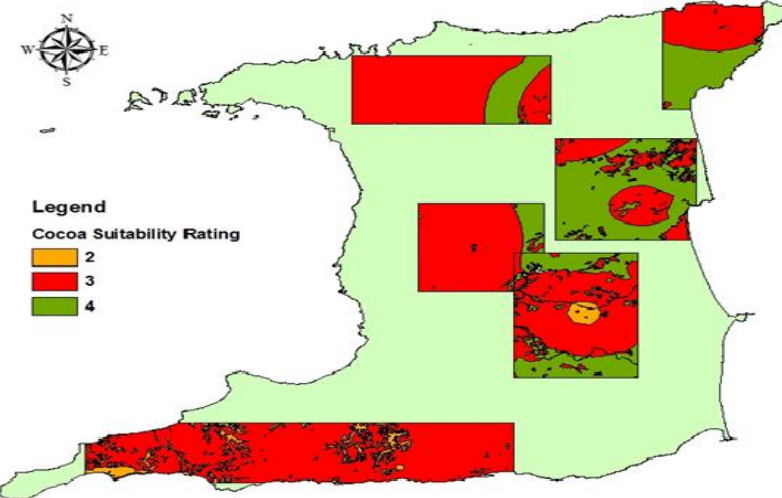


- Legend**
- 260 - 281 days
 - 281 - 302 days
 - 302 - 323 days
 - 323 - 344 days
 - 344 - 365 days

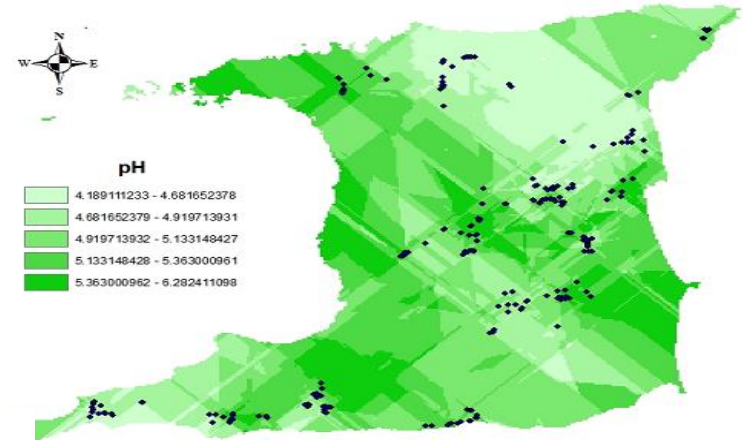
0 3.5 7 14 21 28 Kilometers

Samples 14 of 14
 Mean 5.526510146
 Root-Mean-Square 27.70259508
 Mean Standardized 0.10768741
 Root-Mean-Square Standardized 0.10768741
 Average Standard Error 34.9575607

Cocoa Suitability Model Prediction



- Legend**
- Cocoa Suitability Rating**
- 2
 - 3
 - 4



- pH**
- 4.189111233 - 4.681652378
 - 4.681652379 - 4.919713031
 - 4.919713932 - 5.133148427
 - 5.133148428 - 5.363000961
 - 5.363000962 - 6.282411098

Farmer Centric Approach: Montserrat Cocoa Cooperative, Grand Couva,

FARM

- Organisation of farmers: Cooperative of 35 farmers
- Leadership, entrepreneurship
- Farmer led farmer-field schools
- Investment

SYSTEMS

- Quality along the value chain
- Branding – Geographical indication
- Standards - Certification of quality and sustainability
- Traceability

VALUE ADDITION & ENTREPRENEURSHIP

- Chocolate
- Beverages
- Soaps

MARKETING

- Direct marketing
- Brand development -packaging
- Sharing of success stories



Production doubled

Price fetched tripled

Proportion of value added
increasing
Employment
opportunities



Acknowledgements

- EU/ACP Science and Technology Fund
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- Cocoa Research Association of the UK

