ISSUES AND CHALLENGES

Push and Pull Factor

Ecosystem

Support

Development and Advancement
Impact

Knowledge

Creation of New Ventures

Access to Capital

Social

Environment

Governance

BEYOND
“We believe in empowering creativity and innovation by developing innovative mindsets and turning ideas into reality. We nurture a sustainable support system that results in economic benefits.”

Identify, scout & support the development of potential grassroots innovations

Encourage more Malaysian to embrace grassroots innovations

Promote and inculcate innovation & creativity among grassroots
WHAT WE OFFER

Technology Facilitation and Business Innovation

Knowledge and Resource Management

Community Innovation
Driving INNOVATION and CREATIVITY amongst Malaysians; targeting Children, Youth, Women, Disabled People, Rural Communities and Non-government Organizations (NGOs).

To Develop and Promote Creative Skills in the field of Science and Technology in Academia, Industry and Society.
OUR JOURNEY
Milestone & Achievements

2008 | 2009
- Oct 20, 2008 Incorporation of YIM Company Limited by Guarantee (CLBG)
- 2.36mill USD Seed Fund
- Matching Grant 1:1 from MESTECC

2010 | 2011
- Kids Invent
- Innovation Discovery
- Malaysia Inovatif
- Kuala Lumpur Innovation Forum
- ASEAN Youth Forum on Innovation & Creativity

2012 | 2013
- Innovation Discovery
- Kids Invent
- School Club Innovation Toolkit
- World Innovation Forum KL Teh Tarik Talk | Pop Innovation | iCats | YIM Ideation

2014 | 2015
- MOSTI Social Innovation
- High Impact Program 6
- UNESCO 2016 Day
- National Innovation & Creative Economy Expo 2017
- Mainstreaming Grassroots Innovation
- Malaysia Commercialisation Year 2016-2017
- Malaysia Commercialisation Year (MCY) @ International Greentech and Eco Products Exhibition & Conference (IGEM) Year 2018

2016 Onwards
- Innovation Discovery
- MOSTI Social Innovation
- High Impact Program 6
- School Club Innovation Toolkit
- World Innovation Forum KL Teh Tarik Talk | Pop Innovation | iCats | YIM Ideation
STRATEGIC DIRECTION
Translating Innovation to Wealth

STRATEGIC THRUST
1. TRANFORM INNOVATIVE MINDSET
2. CATALYSE INNOVATION ECOSYSTEM
3. ESTABLISH SUSTAINABLE SUPPORT SYSTEM

GOALS (2017-2025)
- NUMBER OF PEOPLE TRAINED & CERTIFIED: 100,000
- BUSINESS INNOVATION ADOPTION: 10 INDUSTRY CLUSTERS
- SIZE OF INNOVATION NETWORK: 1,000,000 PEOPLE NATIONWIDE & GLOBALLY
- DATABANK SUBSCRIBERS: 10,000 USERS OF CENTRALISED INNOVATION DIGITAL PLATFORM
- COMMERCIALISATION FACILITATED: 100 R&D TECHNOLOGIES FACILITATED FOR COMMERCIALISATION
Grassroots innovations are innovative product or process created at the bottom of the pyramid (B40), usually due to necessity, hardship and challenges.

(Mohd Faiz Hilmi, (2012) Grassroots Innovation from the Bottom of the Pyramid, pg 2)
<table>
<thead>
<tr>
<th>Equivalent Agencies</th>
<th>Functions</th>
<th>Incorporation</th>
<th>Funding Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia Innovation Foundation</td>
<td>Driving INNOVATION and CREATIVITY amongst Malaysians; targeting Children, Youth, Women, Disabled People, Rural Communities and Non-government Organizations. Developing and Promote Creative Skills in the field of Science and Technology in Academia, Industry and Society.</td>
<td>2008 by the Malaysian Government</td>
<td>Supported by Government</td>
</tr>
<tr>
<td>Gujarat Grassroots Innovation Augmentation Network</td>
<td>Incubating and commercialising grassroots innovations. Scaling up and spawning grassroots innovations and help development and facilitation of successful enterprises</td>
<td>1997 by the Government of Gujarat</td>
<td>Supported by Government</td>
</tr>
<tr>
<td>Society for Research and Initiatives for Sustainable Technologies and Institution</td>
<td>Strengthening the creativity of / at / for grassroots communities, including individual innovators and ecopreneurs in the area of conserving biodiversity and developing eco-friendly solutions.</td>
<td>N/A</td>
<td>Supported by Government</td>
</tr>
</tbody>
</table>
SWOT

STRENGTHS
- The ONLY Organization Mandated by the Government on Grassroots Innovations
- YIM as Smart Partner enabling any agency with Grassroots and B40 Innovation Agenda

WEAKNESSES
- Dependencies on Funding for Annual OPEX of RM2 million
- Dependencies on External Innovation Expert for Product Development & Commercialization

OPPORTUNITIES
- Proactively Tapping on Existing & New Grassroots Agendas of Partner Agencies (Refer Appendix List of MOU's)
- Strengthening Internal Innovation Expertise Facilitation Capacity

THREATS
- The Potential of other similar CLBG under MESTECC (or other ministries) undertaking the mandated roles of YIM
- Operational issues – staffing, rental, maintenance, emolument
INITIATIVES
Programs under YIM (2015 – 2018)

HIGH IMPACT PROGRAM 6 (HIP 6) -INCLUSIVE INNOVATION

- Identified 1,786 innovations
- Shortlisted 591 innovations
- Admitted 68 innovations
- Commercialised 27 innovations
- Filed 21 IPs

MAINSTREAMING GRASSROOTS INNOVATIONS (MaGRIs)

- Identified 737 innovations
- Selected 15 innovations
- Commercialised 7 innovations

MOSTI SOCIAL INNOVATIONS (MSI)

- 30 Completed projects
HIGH IMPACT PROGRAM 6 (HIP6)
REDUCING INEQUALITY
HIP 6 of SME Masterplan will empower 40% BOP

Promote **rural transformation**
- Improve **business environment** for SMEs especially in rural areas
- Increase the **innovation pool**

**Inclusive Innovation Programme**

- **Technical + Mgmt. Advisory**
- **Support Facilities**
- **Linkage - Financing**
- **Promotional Support**
- **Incentives**

**Innovation targeted at masses**
(e.g. M-payment)

**Innovation from grassroots**
(e.g. cycle powered machine, low cost tablet)

Commercialized Products & Services to mass markets (incl. Govt. procurement)
Grant assistance with maximum of **47,880.00 USD** for each innovators/SMEs for:

- Intellectual property protection including prior art search
- Concept design
- Prototype development
- Production prototype
- Testing and Validation
- Regulatory (Certification)

Support assistance:

- Market intelligence and community profiling
- Pilot project at the community
- Education and training for diffusion of innovation at the community
- Market access and innovation alignment through introduction of products
- Outsourced services in legal work and other specific expertise
# INNOVATOR BUSINESS MODEL

<table>
<thead>
<tr>
<th><strong>INNOVATOR-ENTREPRENEUR MODEL</strong></th>
<th><strong>LICENSING MODEL</strong></th>
<th><strong>COMMUNITY ENABLEMENT MODEL</strong></th>
<th><strong>INNOVATOR-ENTREPRENEUR MODEL</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FULLFILLS INCLUSIVE INNOVATION CRITERIA</strong></td>
<td><strong>FULLFILLS INCLUSIVE INNOVATION CRITERIA</strong></td>
<td><strong>IMPACTFUL TO COMMUNITY</strong></td>
<td><strong>IP IS CONVERTED AS PART OF COMMERCIAL OR OPEN SOURCE</strong></td>
</tr>
<tr>
<td>Direct assistance provided for innovators with the right attitude and drive to be entrepreneurs.</td>
<td>Innovators who do not wish to be entrepreneurs but are open to licensing with interested parties</td>
<td>Community benefit from the innovation diffusion.</td>
<td>Excluded groups may use the IP without licensing cost.</td>
</tr>
<tr>
<td><strong>100% funding</strong> up to a maximum of <strong>47,880.00 USD.</strong></td>
<td><strong>100% funding</strong> up to a maximum of <strong>11,970.00 USD.</strong></td>
<td><strong>100% funding</strong> up to a maximum of <strong>11,970.00 USD.</strong></td>
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</tr>
</tbody>
</table>
Programme Overview for The Year 2015 - 2018

- Innovations Identified: 1786
- Innovations Shortlisted: 591
- Innovations Admitted into Programme: 68
- Amount Approved: $2.27 mil USD
- Innovations Commercialised: 27
- IPs Filed: 21

- Type of HIP6’S Business Model
  - Utility: 10%
  - Education: 16%
  - Productivity: 43%
  - Technology: 12%
  - Food: 4%
  - Healthcare: 15%

- Community Enabler: 10 innovations
- Innovator Entrepreneur: 50 innovations
- Licensing: 8 innovations

- Non-Bumi: 13%
- Bumiputera: 87%
- Female: 24
- Male: 44

Projects:
- 2015: 2 projects
- 2016: 24 projects
- 2017: 20 projects
- 2018: 22 projects

- Innovations Identified: 1786
- Innovations Admitted into Programme: 68
- Innovations Commercialised: 27
- IPs Filed: 21

- Amount Approved: $2.27 mil USD

- Regional Map:
  - Perak: 4
  - Pahang: 1
  - Johor: 7
  - Selangor: 11
  - N. Sembilan: 13
  - Sarawak: 7
  - Sabah: 14

- Key Locations:
  - KL: 4
  - Penang: 1
MAINSTREAMING GRASSROOTS INNOVATIONS (MaGRIs)
Malaysia Innovation Foundation mandate:
To drive innovation programs as per 11th Malaysia Plan (2016-2020).

- Develop grassroots innovators with potential innovations and groom to become the community role model.
- Stimulate grassroots commercial activities into mainstream commercial activities.
- Opportunities for grassroots innovators to upscale their innovations towards mainstream economy.
PROJECT IMPLEMENTATION TIMELINE

- **System Development & Enhancement**
  - January - March

- **Product Development**
  - May - September

- **Coaching & Consultation**
  - May - November

- **Marketing & Promotion**
  - Throughout the year

- **Capacity Building & Skills Development**
  - May - December
### SCOPES

<table>
<thead>
<tr>
<th>LEGAL &amp; INNOVATION CONSULTATION</th>
<th>PRODUCT DEVELOPMENT</th>
<th>SYSTEM DEVELOPMENT AND ENHANCEMENT</th>
<th>PROMOTION &amp; TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Innovation assessment</td>
<td>• Prototyping (Phase 1)</td>
<td>• Database system &amp; hardware</td>
<td>• Promotion, Marketing &amp; Event</td>
</tr>
<tr>
<td>• Legal and Innovation framework</td>
<td>• Enhancement, Testing &amp; Validation (Phase 2)</td>
<td></td>
<td>• Training, Workshops &amp; Skill Development</td>
</tr>
<tr>
<td></td>
<td>• IP Registration, Company setup &amp; product branding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Miscellaneous</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Coaching & Training

To upskill 200 innovators or potential innovators & create 3 GRI Ambassador
(2016-2020)

Innovation Development

Develop 10 marketable GRI up to functional prototype
(2016-2020)

Marketing & Promotion

Promote the program & produce marketing materials
(2016-2020)
MOSTI Social Innovation (MSI)
MOSTI Social Innovation (MSI) Program Objective

- Improve the welfare of the community
- Services implementation
- Using existing technology replication
### MOSTI SOCIAL INNOVATION (MSI) PROJECTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects</th>
<th>Total Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>5</td>
<td>246,582.00 USD</td>
</tr>
<tr>
<td>2016</td>
<td>4</td>
<td>279,826.04 USD</td>
</tr>
<tr>
<td>2017</td>
<td>17</td>
<td>1,231,765.67 USD</td>
</tr>
</tbody>
</table>

![Map of Malaysia showing project locations]
PROGRAMS
SUCCESS STORIES
**HIP6 INNOVATION PRODUCTS**

**UTILITIES**
- NAKUTIP
  - Collection of the oil palm fruit made easier
  - Targeted farmers community
  - Increase the productivity

**HEALTHCARE**
- CERVISAFE
  - Set of set-tapping test tools for women for preliminary screening of cervical cancer

**EDUCATION**
- NANO MAKER KIT
  - Multi-functional tools through STEM
  - Teaching tool

**PRODUCTIVITY**
- THROWFEX
  - Innovate to throw the product to the fire
  - Extinguish fire from far distance
  - Smaller and lighter to carry
**MaGRIs INNOVATION PRODUCTS**

**BANANA D’CRAFT**
- Paper-making technology by using banana stems
- Environmental sustainable
- Additional income for the community from product sales

**BATTERY PACK C13**
- Low voltage capacity allows it to last longer
- No sound or air pollution
- Objective was to help night market sellers

**EZ EFINITY WATER FILTER CAP**
- Act as a connector for water filter, bottle and hand pump
- Good for rural areas with no electricity or water piped supply

**MUAMALAT INTERACTIVE GAME (MIG)**
- Applying Muamalat or Islamic Finance system in board games
- Charitable concept
- Those who gives more will win the game
**SPACE ART**
- Improve the quality of Astronomy teaching and learning
- Exposure to Astronomy & Space Science
- Provide astronomical tourism promotional materials

**MULBERRY TREES IN KG. TUDAN, FOR SUSTAINABLE LIVELIHOOD**
- Create interest within the community to develop mulberry products
- Create job opportunities and income
- Provide Solar Dryer technology for production
- Potential: Argo tourism

**SILAGE & OLIGOKITOSAN TECHNOLOGY**
- Increase farmers income by enriched corn silage technology with oligocitosan

**SENSORI MUTIARA**
- Improve teaching and learning methods especially for Autism children
- Practice positive intervention modules for educators and parents
“Aquafarming for a better tomorrow”
“Farmers in Kundasang want efficient mechanism”
(Sources from Borneo Post, 6 July 2016)

Wrong traditional farming techniques

1. Optimal use of agricultural land
2. Earthquake incident – water source badly damaged
3. Vegetable production affected
4. Huge losses for the farmers
The first commercial aquaculture farm in Kundasang, Ranau, Malaysia.

Aquaponic system application; vegetable (hydroponic) and fish farming (aquaculture) in a common system.

Able to optimize the use of small space to produce great productivity.
Do not need fertilizer
Do not need to water (90% water saving)
Free from pesticides
Organic
Save space
Optimum result
Farmer's income increase
Adapting to new technologies
Education center
Much healthier and quality results
Fresh Vegetables and Freshwater Livestock

Strawberry  Pak choy  Tomato  Lettuce  Lobster  Freshwater Lobster  Tilapia Fish
YIM GOES DIGITAL!!

2019 ADDITIONAL STRATEGIC DIRECTION
Digital Application

- “GET FOOD FOR FREE!” just a click away by using Oh!FreeFood application
- Ecosystem: Environment, Economy and Social System

Virtual Augmented Reality

- Through innovation and engineering brings AR to the industry
- Ecosystem: Economy and Social System
Food Waste

Global....
• **1.3 billion tonnes** food gets lost or wasted every year
  - Industrialized countries  US$ 680 billion
  - Developing countries  US$ 310 billion

(UN Environment, (May 4, 2019), Worldwide Food Waste)

Malaysia......
• Food waste
  - Daily  **16.7 thousand metric tonnes**
  - Yearly  **6.1 million metric tonnes**

• In 2018:
  - Households  38%
  - Wet Markets  24%
  - Restaurants  23%
  - Hotels  7%

(Muhd Zaaba Zakeria, (May 17,209), An Endless Problem?, New Straits Times)
The Objective

- Reduce food waste level
- Solution provider for food waste problem
- Sharing platform for community
How Oh!FreeFood Works

1. **SHARE a food**
   - Take a picture of your food, upload it with its details and simply list it!

2. **GRAB a food**
   - Click **Grab a Food** icon and request the food of your choice and wait.

Under this tab you can check on your request and post status.

**REQUEST & post status**

- Receiver and the collection point determine by the food provider
- All the food must be in a very good condition!
  - Food waste awareness to educate the people.

1. Share any new food, extra untouched food and excess food for free
2. Request the listed food for free.
Total User & Shared Food

<table>
<thead>
<tr>
<th></th>
<th>SHARED FOOD</th>
<th>TOTAL USER</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEB</td>
<td>110</td>
<td>1131</td>
</tr>
<tr>
<td>MAC</td>
<td>149</td>
<td>1613</td>
</tr>
<tr>
<td>APR</td>
<td>57</td>
<td>1898</td>
</tr>
<tr>
<td>MAY</td>
<td>730</td>
<td>18000</td>
</tr>
</tbody>
</table>

Graph showing the comparison between total users and shared food for the months of February (FEB), March (MAC), April (APR), and May (MAY).
Co-host Meeting
Grassroots Innovations initiatives impact in Malaysia

Streamline Ecosystem
• Environment
• Economy
• Social

Business-to-Business (B2B)
Knowledge and experiences sharing related to Grassroots Innovations

Sustainability Initiatives
Supports from the Ministry, Government agencies, NGOs, Private sector in conjunction to Malaysia Commercialization Year 2019 (November) and Grassroots Innovations (B40)
Our Social Sites

FACEBOOK
Yayasan Inovasi Malaysia - YIM - Malaysia Innovation Foundation
@YayasanInovasi

TWITTER
Yayasan Inovasi Malaysia
@YayasanInovasi

INSTAGRAM
Yayasan Inovasi Malaysia (YIM)
@yayasaninovasi
THANK YOU