



# NEW, INNOVATIVE UNIVERSAL SERVICE PROVISION (USP) PROJECTS IN MALAYSIA

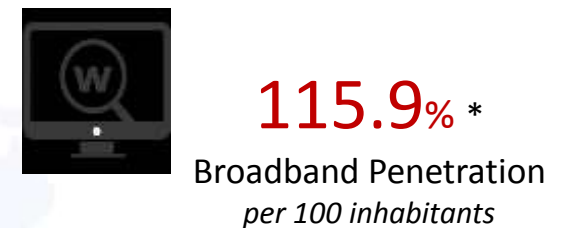
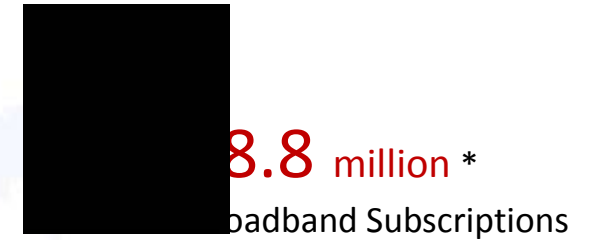
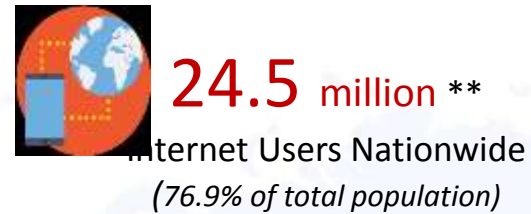
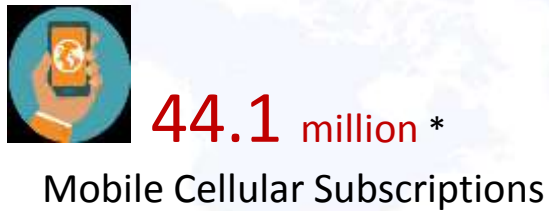
**Long HuiChing**

Strategy & Policy Review, MCMC

ITU-USF (Pakistan) Workshop on “Internet Access and Adoption”

11 October 2018

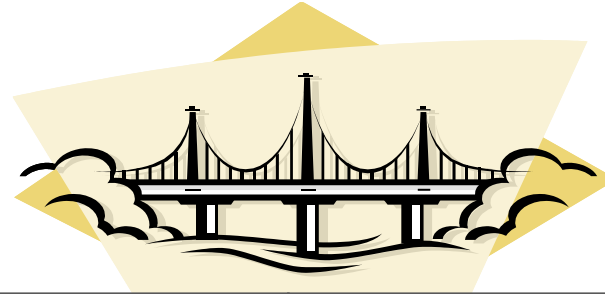
# COMMUNICATIONS & MULTIMEDIA OUTLOOK



Source:  
Malaysian Communications and Multimedia Commission  
\* Communications and Multimedia: Facts and Figures, 2Q 2018  
\*\* MCMC Internet Users Survey 2017, data as at 2016

\*\*\* Department of Statistics Malaysia

# INTRODUCTION



**USP** is a mechanism to **bridge the digital divide**



National obligation imposed on all licensees since 2002








Main objective to ensure underserved communities have access to communications and ICT facilities to build a knowledge society

Implementation of USP programme is funded through USP Fund



# UNIVERSAL SERVICE TARGET



| Underserved Area   |   |  | Underserved Groups  |
|--|---|--|---|
| Broadband Access   | Public Cellular   | PSTN   |   |
|   |   |                         |   |
| Any area where the penetration rate for broadband subscribers in Malaysia is below the national broadband penetration rate | Any area with a population density of 80 persons per square kilometer or less, or where public cellular services are not sufficiently available | Any area where the PSTN subscribers' penetration rate is 20 % below that of national PSTN penetration rate |  People with Disabilities<br> Children under Protection<br> Women under Rehabilitation<br> People living in low-cost housing area |

*“Underserved Area” is defined from the perspectives of network and application services i.e. PSTN, Broadband Access & Public Cellular*

*“Underserved Groups” being groups of people in served areas that do not have collective and/or individual access to basic communications services*



# USP FUND

- Established under **Section 204 of the Communications and Multimedia Act (CMA) 1998**
- All licensees whose weighted net revenue (from services) exceeds the **minimum revenue threshold of RM2 million** in a calendar year shall **contribute 6% of their weighted net revenue** to the USP Fund.
- Content Applications Services Provider (CASP) licensee is exempted



**CONTRIBUTION FORMULA**



# USP ROLLOUT MECHANISM



Open bidding/tender

All licensees

Submission of draft plans upon issuance of tender notice



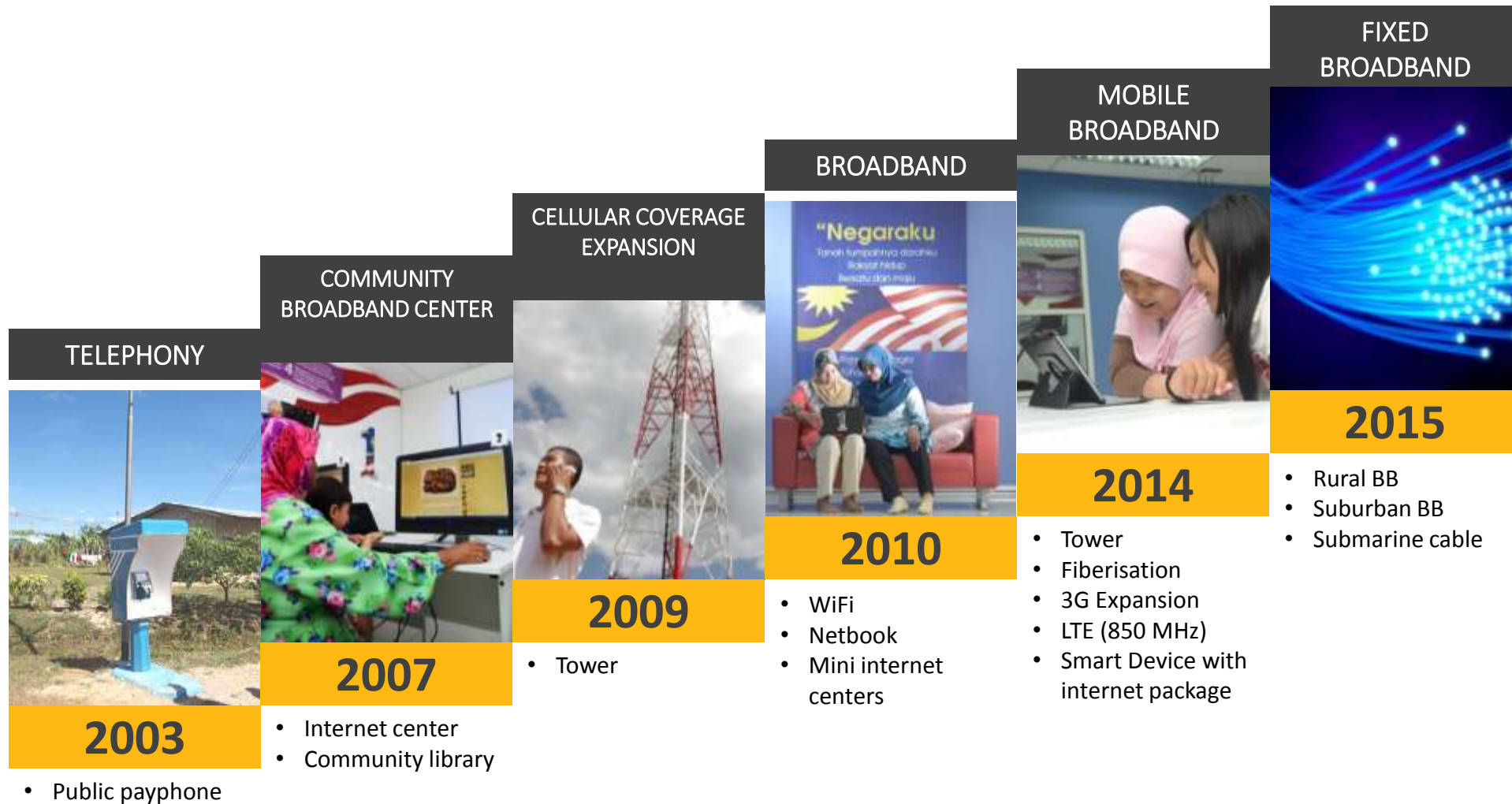
Major Contributor scheme

Licensees' contribution to USP Fund exceeds RM20mil

Submission of draft plans before 30 September each year



# EVOLUTION OF USP PROJECTS





# ROLES & FUNCTIONS OF INTERNET CENTERS



## Change Agent

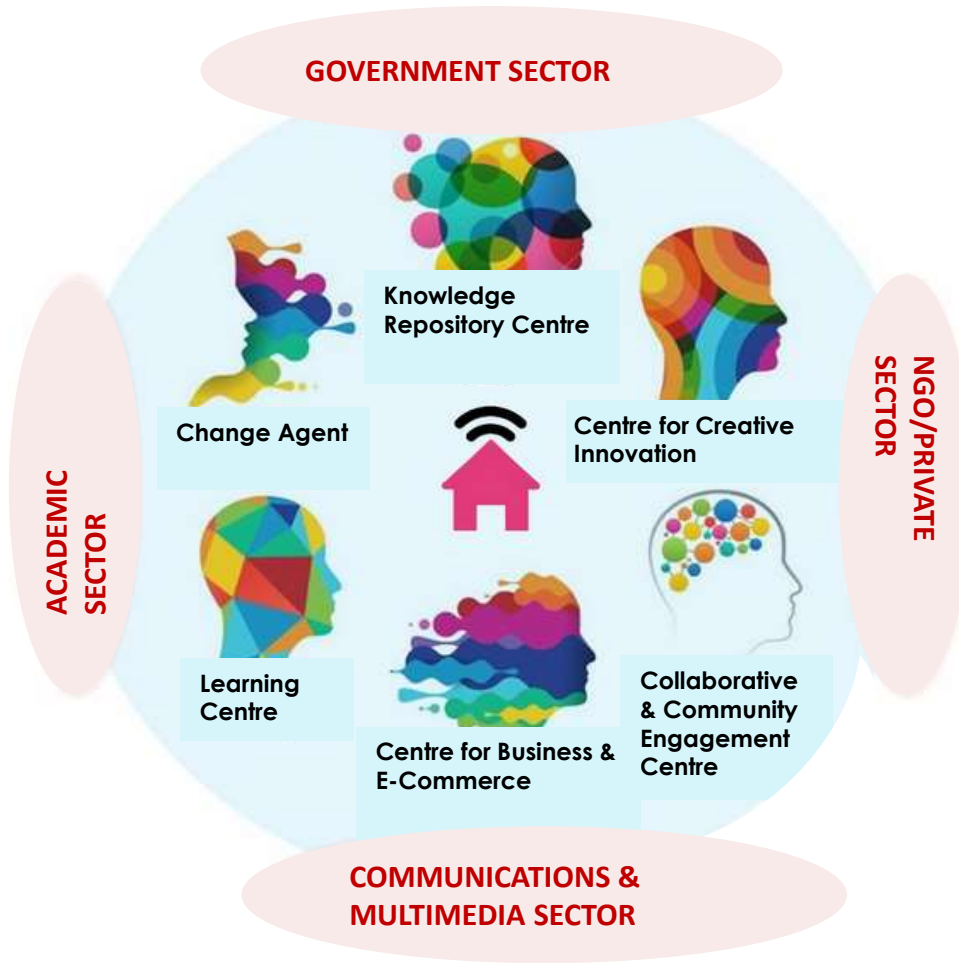
Contribute towards community development, improving skills and employability, empower individuals

## Collaborative & Community Engagement Center

Platform for advocacy and the development of a stronger ecosystem connecting leaders, stakeholders and community

## Learning Center

A centre of lifelong learning and capacity development, activities for the communities to seek formal and informal knowledge



## Center for Creative Innovation

Entrepreneurship, creativity and innovation hubs for socio-economic development and local content development

## Center for Business & E-Commerce

A hub for online marketing and business activities and support for e-government, e-commerce, employment opportunities, online banking, etc.

## Knowledge Repository Center

Acts as a repository of knowledge/content with various success stories, failures and lessons learned from the field.



# FACILITIES & SERVICES OFFERED



## OPERATING HOURS



## SERVICES OFFERED



**Internet Access**  
*(min 8Mbps)*

*\* Free internet access for members, i.e., students, persons with disabilities, the elderly*



**20 PCs**  
*(10 surfing area & 10 training room)*



**Free Training**  
*(ICT/IOT related, softskills & entrepreneurship modules)*

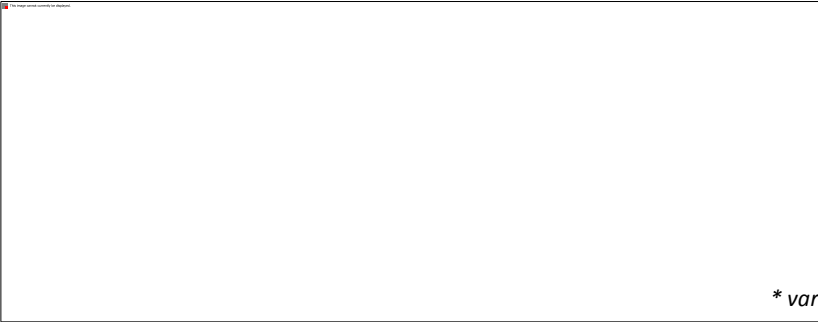


Free WiFi Access



**Fax, Laminating, photocopying services**  
*(minimal charges)*

## Other services offered \*



*\* varies between Internet Centers*



# TYPES OF INTERNET CENTER

## INTERNET CENTER

Mostly located in rural and remote areas

Provide broadband access up to 20Mbps at selected premises in **underserved areas and for underserved groups**



Dedicated 2 supervisors

Operation 7 days a week

2007

## URBAN INTERNET CENTER

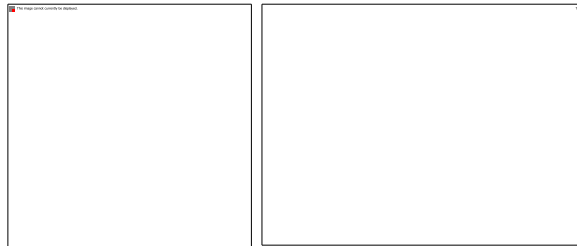


Target group - Low cost housing areas

2014

## NextGen INTERNET CENTER

Advanced facilities with special functions such as Flood Mitigation Center  
**2 Sites**



2015

## MINI INTERNET CENTER

For smaller communities, has smaller built-up area

Provision of broadband access up to 20Mbps

Dedicated 1 supervisor

Operation 5 days a week

Full facilities with 10 PCs



2018

## INTERNET CENTER

852 total

# SMART COMMUNITY - Kota Belud, Sabah

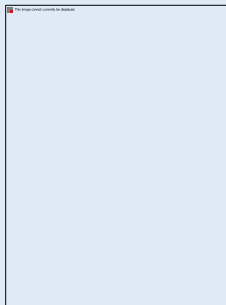


- Smart Community committee established in 2015
- Objective is to raise the living standard, economy and communications facilities of Kota Belud
- Chaired by local district officer, members include various local departments, agencies and MCMC

## Next Generation Internet Center:

- Weather monitoring & water level sensors
- Water sensors installed at a few rivers identified as flood hotspots
- 12 CCTV monitors installed around Kota Belud town connected to the police command centre
- Early warning system for local authorities and community in case of danger

## SAIFON Apps and website



SAIFON App

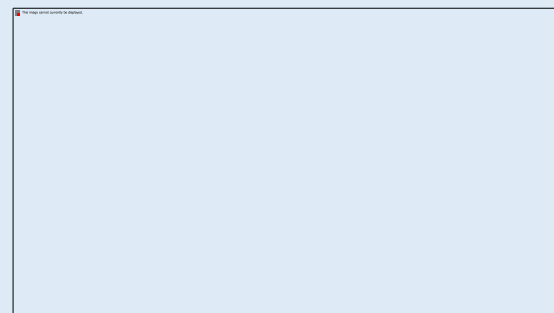
No. of downloads



809



190

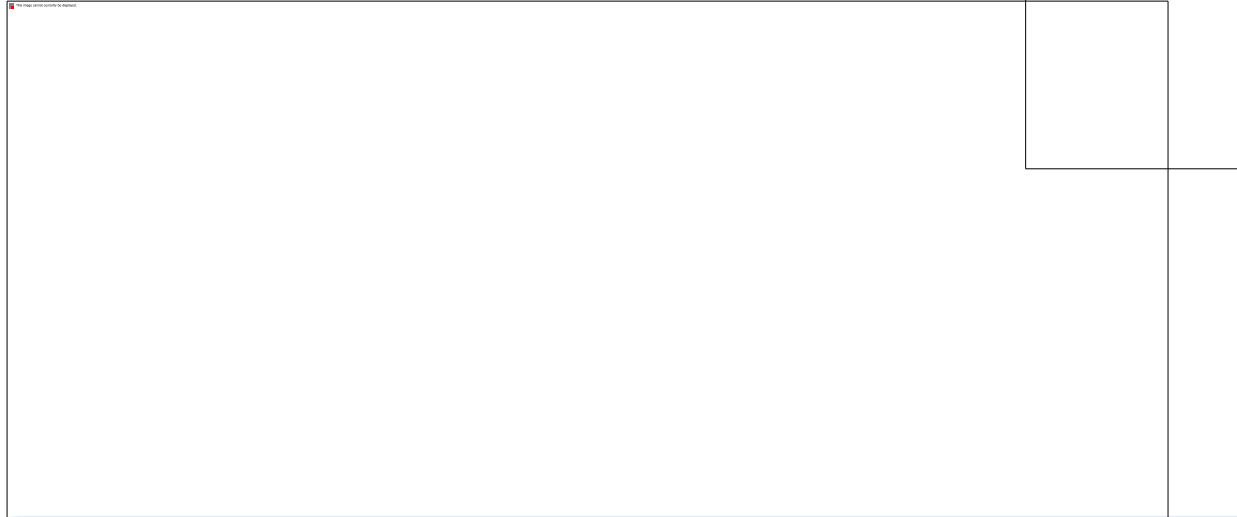


SAIFON Website  
<http://www.saifon.my/>

# Security And Integrated Flood Operation Network (S.A.I.F.O.N)



## 1. Water Level Sensor System

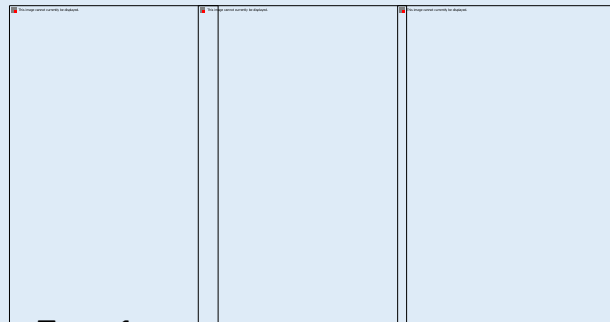


- Installed Locations**
1. Sg. Kedamaian, Kg. Piasau
  2. Sg. Tempasuk, Kg. Bobot
  3. Sg. Abai, Kg. Sembirai

- Advantages**
1. Does not require manual controls
  2. Indicate early warning signs
  3. Provide information for agencies

**Indicators**  
Caution, Warning, Danger

## 2. Security Surveillance (CCTV)



**Type 1:**  
New Pole  
CCTV

**Type 2:**  
Wall-  
Mounted  
CCTV

**Type 3:**  
Lamp Post  
CCTV



**Monitor the current  
affected location**



**Provide newsfeed for  
the media residence &  
agencies**

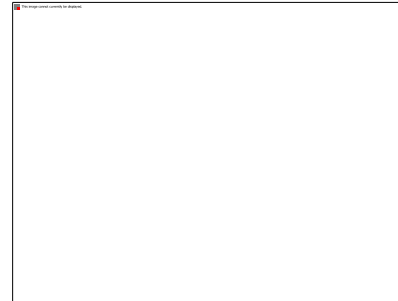
**Locations:**

1. Kota Belud public grounds
2. TAMU market
3. Pasar Besar (main market)
4. Tabung Haji building
5. Padang Kota Belud
6. Public Bank
7. Agro Bank
8. Multi-purpose hall
9. Public toilet
10. Masjid Pekan
11. Bus terminal
12. Bukit Perintah (hill station)

# SMART COMMUNITY – Kemaman, Terengganu

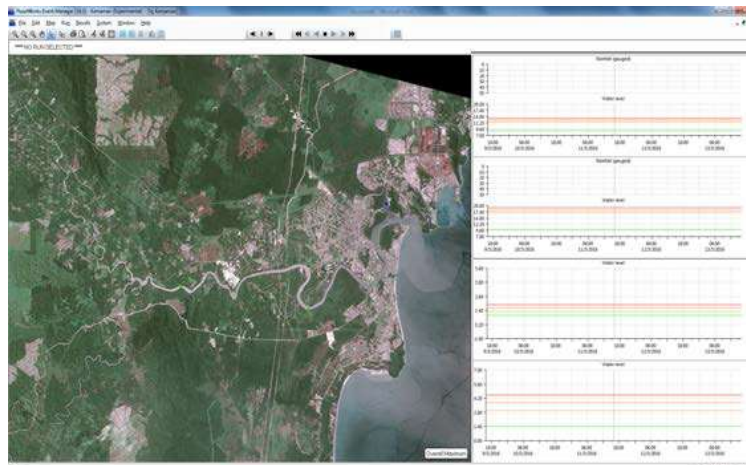


- Population 256,000
- Area 2,535 sq km
- Economy: Oil & gas, fishery, government, agriculture



## Next Generation Internet Center:

- Flood management system – an integrated system that enables the authorities to monitor floods at all times
- Project led by district officer, local assemblyman & other local community leaders



Web tool – flood forecasting



Severe flooding in Kemaman

Command center equipped with wide area CCTV monitoring

# BANKING, E-COMMERCE & FULFILMENT CENTER



A catalyst for change in rural communities



- Authorised agent for BSN
- Opening of BSN accounts
- Savings transactions
- Cash withdrawals
- Bill payments
- Prepaid reloads
- Premium savings certificates



- Pilot initiative - **Kampung by GDex**
- Collaboration between MCMC, GDex and Internet Center USP providers
- Appointed 15 Internet Centers as courier agents in March 2018
- Centers located along existing routes
- Most popular product is parcel below 1 kg



- Strategic partnership with MCMC since 2016
- 36 pilot sites, target 100 by 2020
- Provide value added services, eg., sell prepaid envelopes and boxes, registered mail and stamps
- Acceptance counter for Pos courier delivery, ordinary mail and registered mail and call point for delivery service



# BANKING, E-COMMERCE & FULFILMENT CENTER: OUTCOMES HAVE BEEN ENCOURAGING



- Service has been very well received by the local communities
- Internet Centers have become profitable from providing this service
- An indication of pent up demand for banking facilities in rural areas
- Possibilities for the future

- Not all pilot sites have done well but GDex is planning some improvements
- MCMC has given approval to start phase 2 but with different model
- Internet Centers will be equipped with mobile application **GDEX GO** which will allow customers to do all transactions online
- Customers can drop off parcels at the 50 Internet Centers for collection by the courier

- Not all pilot sites have done well, but Pos Malaysia is planning some improvements
- Sites that do not have any transactions will be transferred to other Internet Centers which have better potential
- For Phase 2, the focus would be on East Malaysia states under the Postal Transformation Plan for Sabah & Sarawak (PTPSS)

# E-HEALTH INITIATIVES

First pilot project was conducted in 2013

- Objective: to develop an integrated ecosystem for delivery of healthcare services to rural communities through Internet Centers
- Remote patient monitoring at 12 Internet Centers
- Collaborated with a private healthcare provider
- Devices were placed at the Internet Centers to check body weight, blood pressure, glucose, bone mineral density
- Conducted promotion and awareness campaigns at surrounding communities
- Results were entered into an online portal and reviewed by a doctor before making recommendation to go to a clinic



# E-HEALTH PILOT WITH MOH



- This is second pilot project
- In 2016, MOH initiated the collaborated with MCMC on KOSPEN project, whereby MCMC is the ICT partner
- MOH aims to empower rural Malaysians and promote patient independence
- Reduce costs and increase efficiency of healthcare system

## Advantages of using Internet Centers:

- ✓ Basic health indicators (blood pressure, glucose, BMI) can be easily screened
- ✓ 32.8 % Malaysian Internet users are from rural areas<sup>1</sup>
- ✓ Ideal for outreach programs and as a 1<sup>st</sup> screening point
- ✓ Eases the long queue and burden on doctors at government clinics
- ✓ Generates traffic at Internet Centers

## Results after 6 months:

- 5,401 new users
- 3,361 (62%) did health screening
- 2,948 referred to clinics for further check-up

Source: <sup>1</sup> MCMC Internet Survey 2017

## OVERWEIGHT POPULATIONS IN SOUTHEAST ASIA

Overweight prevalence (%) for adults of both sexes (BMI of > 25 kg/m2)

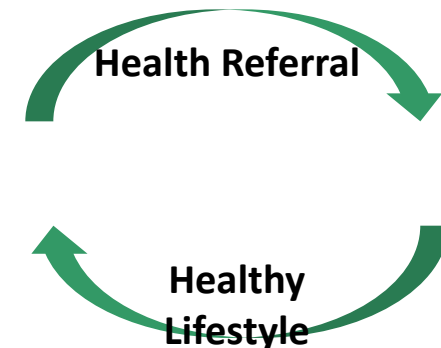


Source: WHO Non-Communicable Diseases Country Profiles, 2011



Over 800 Internet Centers

PUSAT INTERNET

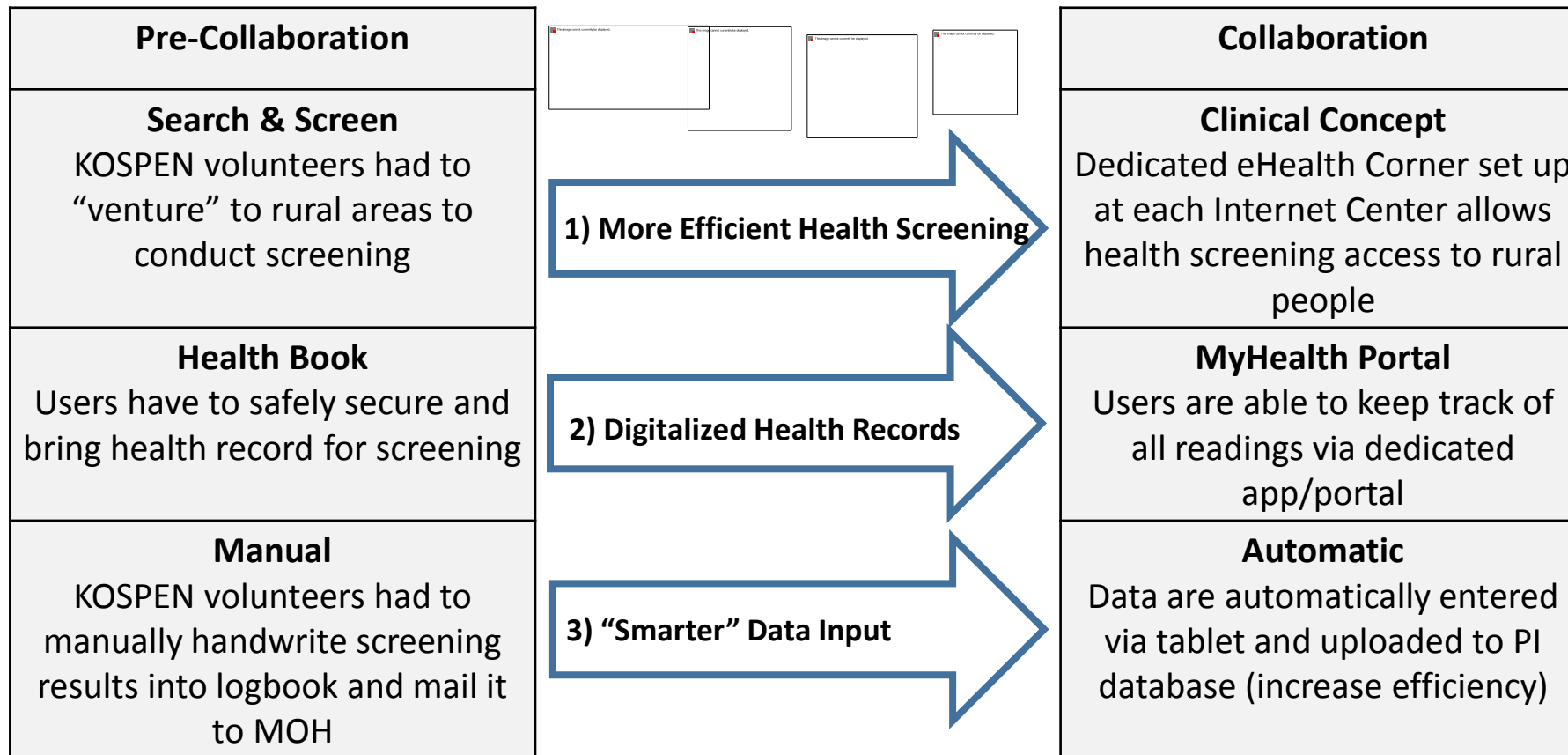


Health / District Clinic

# BENEFITS OF MCMC-KOSPEN COLLABORATION



- It allows KOSPEN to modernize their health screening processes by using ICT at Internet Centers
- It is in line with MOH’s strategic plan to create a health ecosystem geared towards promoting healthy lifestyles and disease prevention



# QUESTIONS FOR THE FUTURE DIRECTION OF E-HEALTH INITIATIVE



- MOH is keen to expand the project beyond 26 pilot sites
- MCMC also wants to expand to 5 new states
- Currently evaluating:
  - franchise requirements
  - success factors before finalizing the locations and Internet Centers
- Possibilities of having a standardized, nationwide Dashboard, use of Big Data for detection of health issues and hotspots
- MCMC will have to study policy and guidelines on privacy, use of the data collected, etc.



# ONLINE RADIO AMATEUR EXAMINATION



- Radio Amateur examinations (RAE) are held every month
- In specific locations such as hotels & public halls
- With the e-RAE system, the exams are conducted online and there is no need to go to a specific location
- Pilot in 2016 at 14 Internet Centers
- Maximum of 10 persons due limited classroom capacity
- From 2019, it will be available at all Internet Centers nationwide due to usage of the cloud system
- Results will be available immediately & printable on-site
- Overall results will be pushed back to the server in MCMC for record purposes





# CYBER WELLNESS : INTERNET SAFETY IS A MAJOR CONCERN



Internet content complaints received by MCMC is on an increasing trend

- Figures as at June 2018 are already over 50% of those received in 2017



With increased accessibility of the Internet, more will be exposed to risks of harm

- MCMC Internet User Survey (2017) **76.9%** internet users and growing; increasing e-commerce trend (**48.8%** up from 35.3% previous year).
- **64.6%** do not shop online due to security & privacy concerns;
- Low levels of awareness on personal safety online – **92.2%** of Internet users disclosed that they have shared personal information online (photo, DOB, contact info, workplace, home)



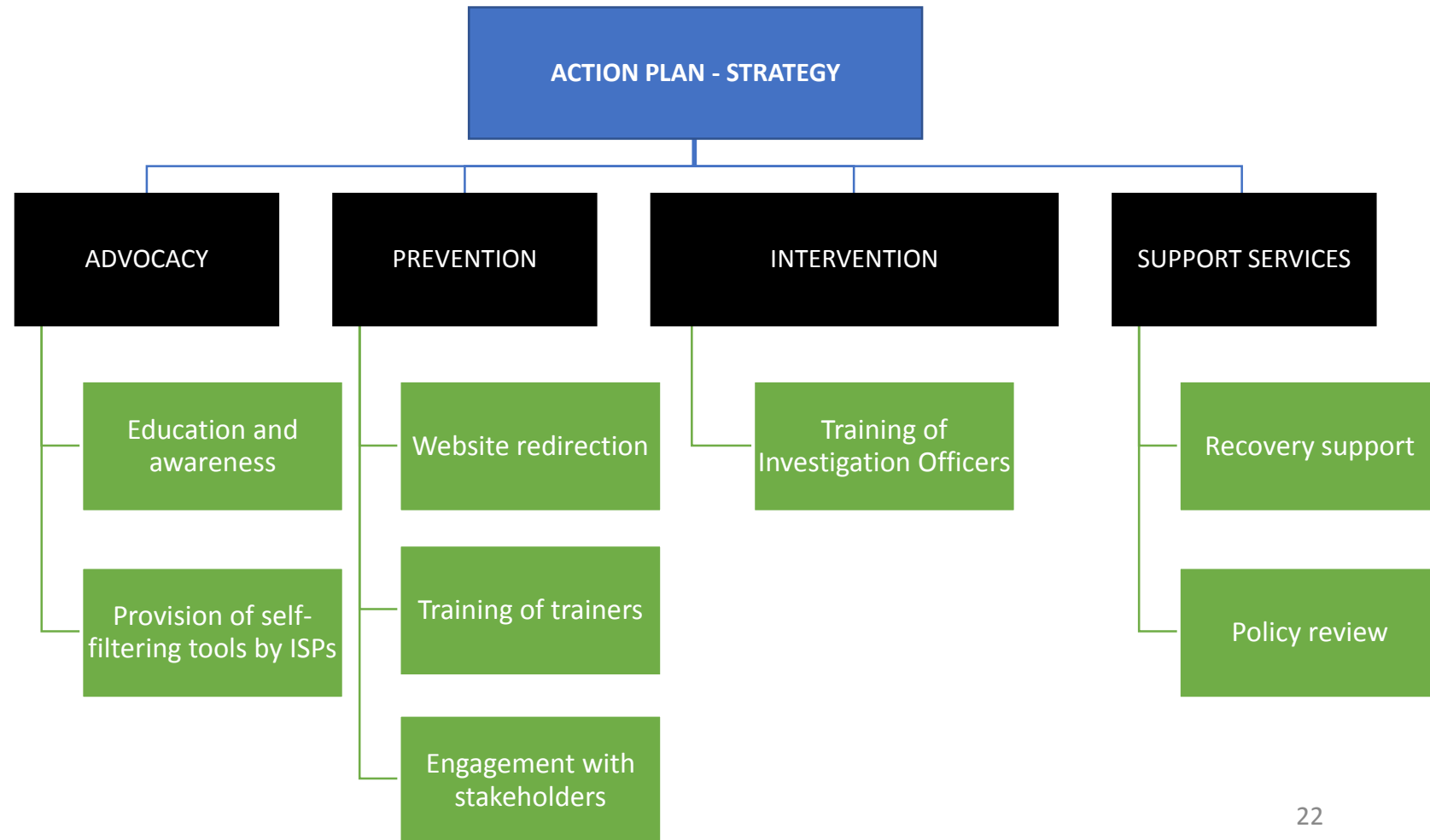
Exposure to inappropriate content have occurred as early as 10 years old

- MCMC Focus Group Study (2015) found **75%** children surveyed have seen inappropriate material online;
- **64.4%** of parents do not have rules for internet use

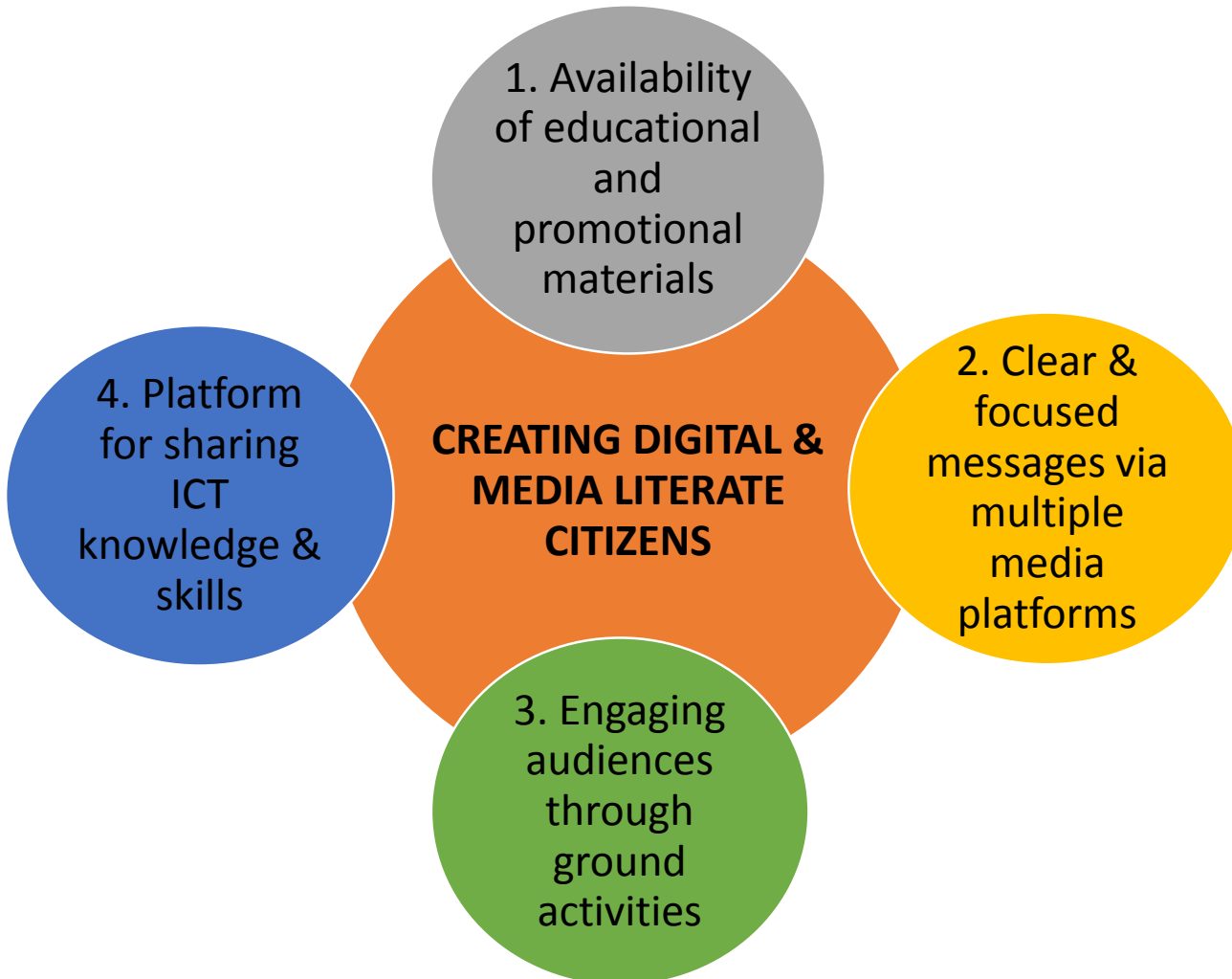
# NATIONAL ACTION PLAN ON CHILD ONLINE PROTECTION (COP)



- Under the Ministry of Women, Family and Community Development
- Objective is to ensure all children receive protection from cyber threats
- This action plan requires the cooperation and commitment of all parties, especially parents, guardians, teachers, the community and NGOs
- MCMC is involved in advocacy & preventive measures in the action plan



# MCMC AS A CYBER WELLNESS PROVIDER



**2018 and beyond**

## **Managing online risks**

- Users need to know how to make the right choices online and to equip themselves with the relevant knowledge & skills.

## **Building resilience**

- Children need guidance from parents to maneuver the internet in a safe manner. Parents need to be provided with tools and knowledge that can help them carry out their responsibilities.

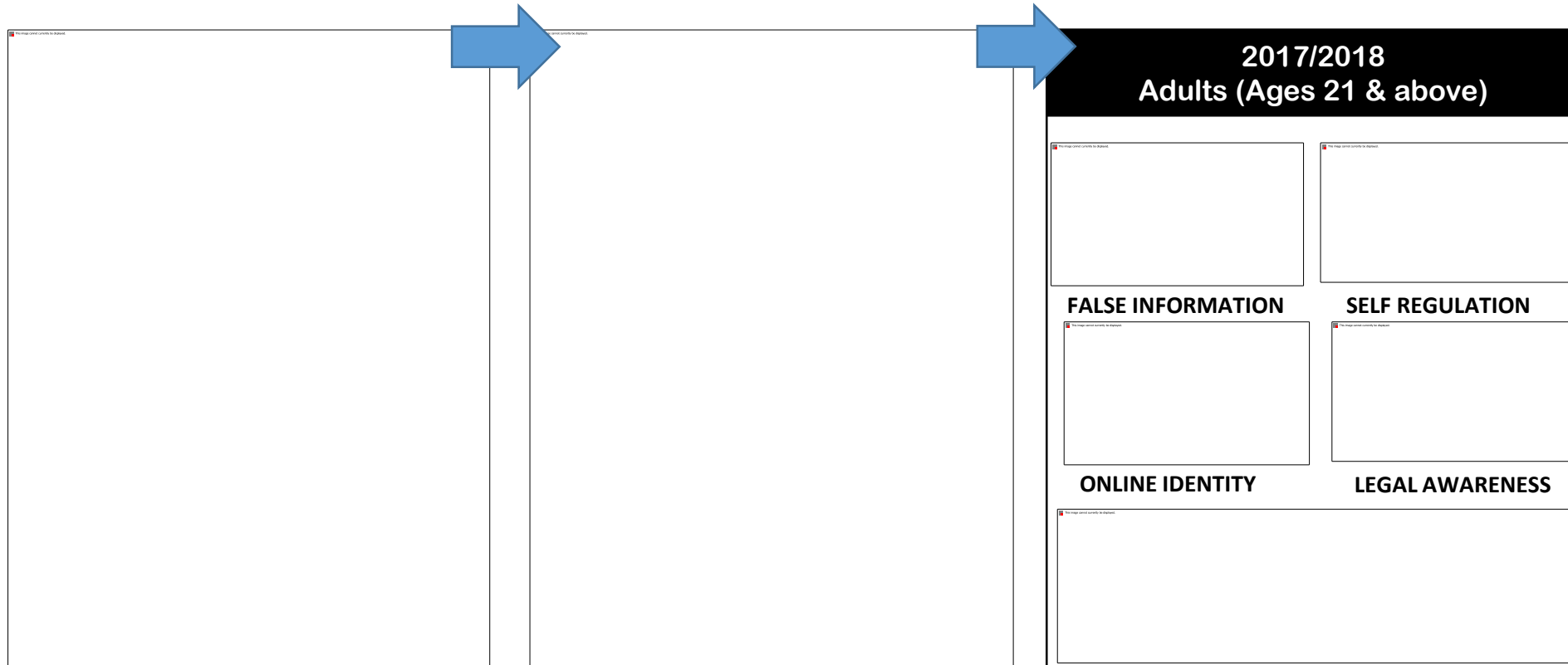
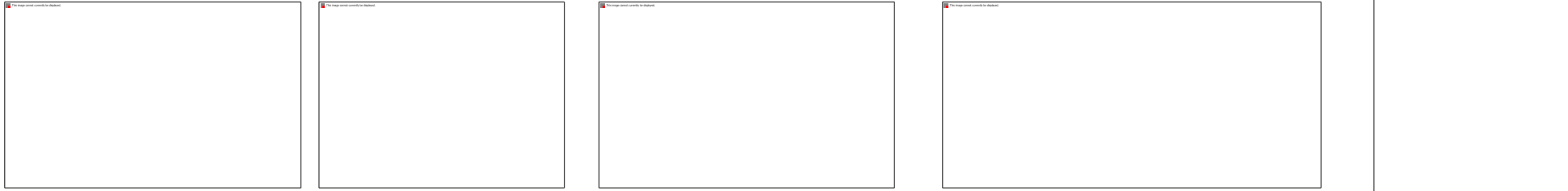
## **Digital Empowerment through volunteerism**

- Platform for organising & mobilizing the resources of volunteers to assist in improving the levels of media and digital literacy among the public.

# EVOLUTION OF CYBER WELLNESS CAMPAIGNS



1 July 2012 – Launch of “*Klik Dengan Bijak*” or “*Click Wisely*” Initiative



# TRAINING AND ENTREPRENEURSHIP INITIATIVES



|                                 |                |                         |
|---------------------------------|----------------|-------------------------|
| <b>Number of members</b>        |                | <b>550,335</b>          |
| <b>Number of people trained</b> |                |                         |
|                                 | <b>2017</b>    | <b>2018 (Jan – Aug)</b> |
| <b>Male</b>                     | 280,413        | 151,090                 |
| <b>Female</b>                   | 317,293        | 183,363                 |
| <b>Total</b>                    | <b>597,706</b> | <b>334,453</b>          |

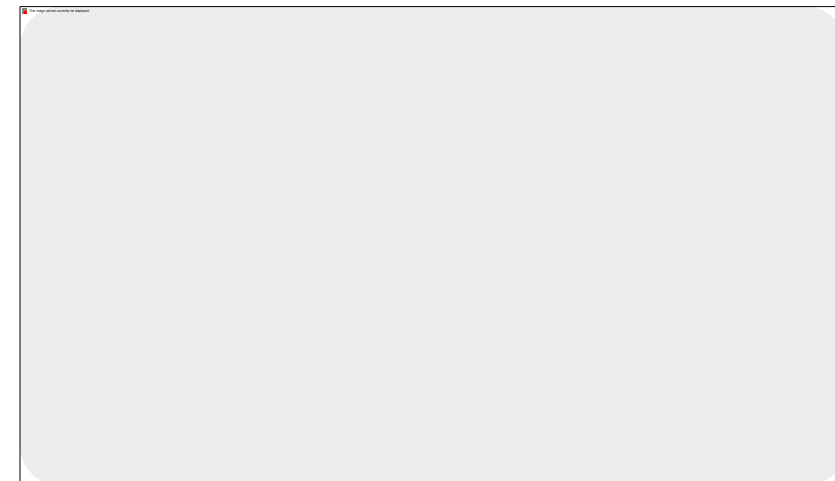


|                         |
|-------------------------|
| <b>Types of Courses</b> |
| MS Office               |
| E-Learning              |
| Digital Literacy        |
| E-Commerce              |
| ICT                     |
| Website building        |
| Entrepreneurship        |
| Multimedia              |
| Soft skills             |
| PC Hardware             |

## STUDENT

**Azrul Hafiz Khairulanuar – Sungkai, Perak**

- Diagnosed with ADHD
- Had difficulty communicating
- Now - Learnt to pronounce words properly especially English through YouTube. Built confidence to speak. Improved focus, attention and concentration at school (as related by the school teacher)



# RECOGNITION & AWARDS FOR ENTREPRENEURS



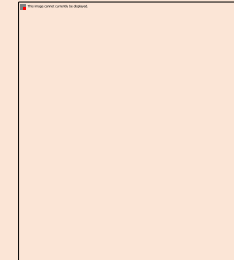
## WINNERS FOR INTERNET CENTRE BEST ENTREPRENEURS 2017

### Best Entrepreneur from Northern Region

**Name** : Nur Isma Afifi Binti Md Aris

**Product** : Stingless Bee Honey

Online marketing generates sales opportunities for honey-based products. Sales increase from RM2,000 to RM10,000. Sold to Brunei, Indonesia and Thailand.



### Best Entrepreneur from Sabah Region

**Name** : Eriy binti Dusun

**Product** : Tuhau based food

Online marketing technique helps to increase monthly sales from RM80 to RM3,000



### Best Entrepreneur from Sarawak Region

**Name** : Zulkipli Bin Ibrahim

**Product** : Perfume

Leveraged on ICT and online marketing strategy, sales increased from RM1,000 to RM7,000 per month. Sold to Brunei, UK and Australia.







# CHALLENGES GOING FORWARD

Sustainability: funding the operations; maintaining the resources

- Cooperative model to fund the operations;
- Rewards for long service supervisors

Program enrichment: STEM, IR 4.0

- Collaboration with schools and private sectors

Inclusive: Participation of rural and remote communities

- Reaching out to the target communities

Project award: implementation mechanisms

- Implementation policy/ mechanism to be reviewed



## OTHER USP INITIATIVES



2003



## TELEPHONY

### First USP Project

Provide access to basic telephony service in underserved communities throughout the country



Pilot Project – Julau, Sarawak

**1,252**  
payphones installed



2007

## COMMUNITY INTERNET CENTER

Provision of broadband access up to 20Mbps at selected premises in underserved areas and for underserved groups



2014

URBAN INTERNET CENTER

2015

MINI INTERNET CENTERS & NEXTGEN CENTERS

**852**  
sites completed



2009



## CELLULAR & MOBILE BROADBAND COVERAGE EXPANSION

Rolling out new communication towers and upgrading existing towers to improve 3G coverage in underserved areas nationwide

**5,811**  
sites completed



2010

## WIFI HOTSPOTS

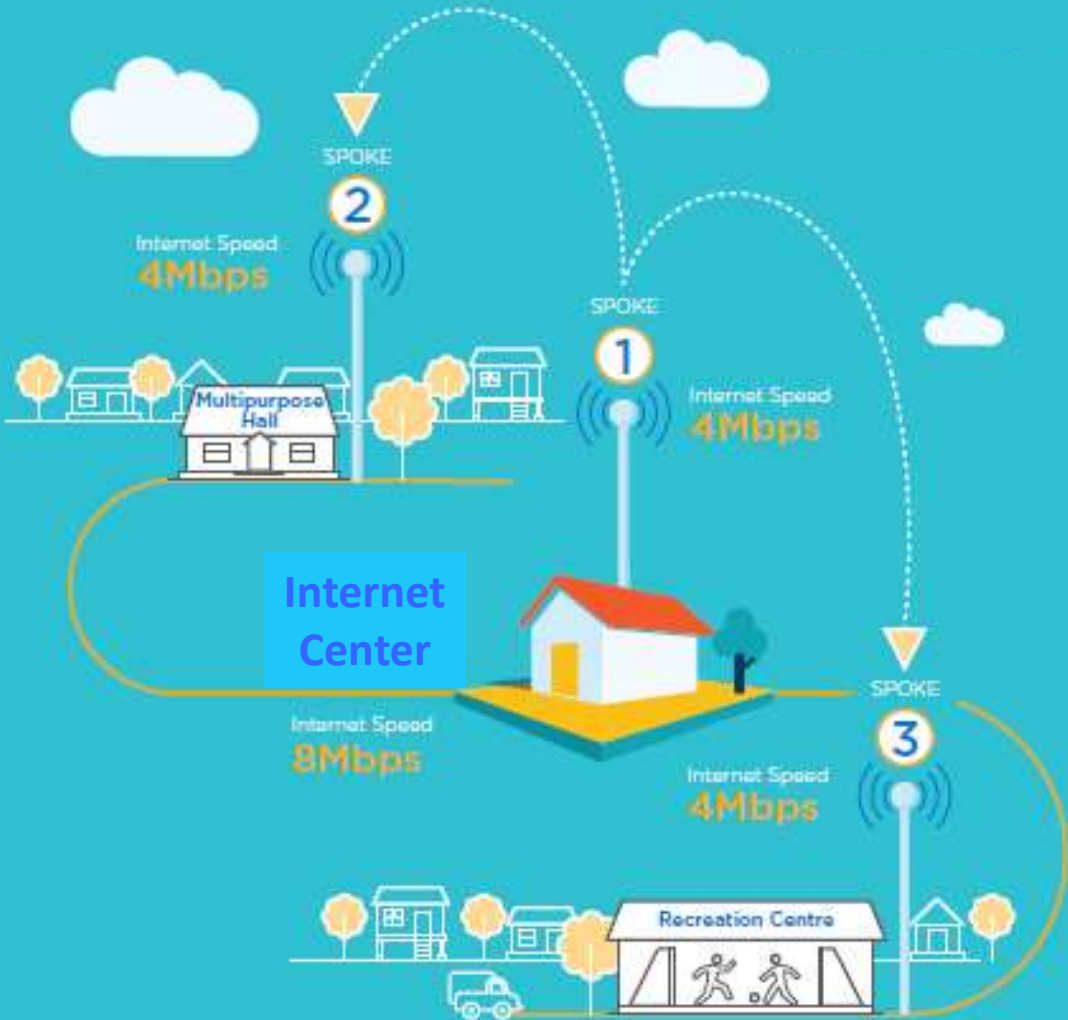
Provision of collective wireless internet access (hotspots) at selected locations in underserved areas



**2,535**  
sites completed



# From 2013 - Hub & Spoke Concept



|   |   |   |
|---|---|---|
|  <b>LOCATION</b><br>+ Highly frequented area<br>+ Densely populated<br>+ Easily accessible |  <b>HUB &amp; SPOKE DISTANCE</b><br><b>3km</b> |  <b>WIFI COVERAGE</b><br><b>250m</b> |
|---|---|---|



2010



## NETBOOK PROJECT

Provision of netbooks to underprivileged students from low-income families and Teacher Activity Centres (PKG) for the purpose of information technology education

**1,668,772**  
units distributed



2014



## FIBER OPTIC NETWORK EXPANSION

Upgrading of existing backhaul network to fiber optic to accommodate high-speed mobile services

**759**

kilometres completed



2014

## SMART DEVICE WITH INTERNET PACKAGE

Offers smart devices such as smartphones or tablets at lower prices compared to recommended retail price

**2,437,300**  
units activated





2015



## FIXED LINE BROADBAND EXPANSION

Provision of broadband infrastructure with speeds of up to 20Mbps in rural and suburban areas

**421,024**  
connections available

2015



**3,819**  
kilometers completed

### SKR1M SUBMARINE CABLE SYSTEM

Installation of submarine fibre optic cables (est. total distance of 3,800km) that will connect Peninsular Malaysia to Sabah and Sarawak with 4Tbps capacity.





Thank you

Email: [hclong\[at\]mcmc.gov.my](mailto:hclong@mcmc.gov.my)