



DEPARTMENT OF STATISTICS
MALAYSIA



HARI
STATISTIK
NEGARA



62nd
ISI World
Statistics
Congress
ISI 2019
Kuala Lumpur
18 - 23 AUGUST 2019



PEPELUSAN & BANGSA
**CENSUS
MALAYSIA** 2020
• YOUR DATA IS OUR FUTURE •



SUSTAINABLE
DEVELOPMENT
GOALS
MALAYSIA



WRC 2019
Workshop on Censuses
2019

SESSION 11:

DATA COLLECTION WITH THE INTERNET

DEPARTMENT OF STATISTICS MALAYSIA

Regional Workshop On The 2020 World Programme on Population and Housing Censuses:
International Standards and Contemporary Technologies

Ankara, Turki

12-15 March 2019

PRESENTATION OUTLINE

BACKGROUND

- 1.1 Census 2010
- 1.2 Census 2020
- 1.3 Aspiration for Census 2020

1

DATA COLLECTION

- 3.1 Data Collections in MyIPCS
- 3.2 Modules in MyIPCS

3

SYSTEM SECURITY

5

2

BENEFITS & CHALLENGES

- 2.1 Benefits
- 2.2 Challenges

4

SUPPORTS

- 4.1 Call Center
- 4.2 War Room

6

OUTCOMES

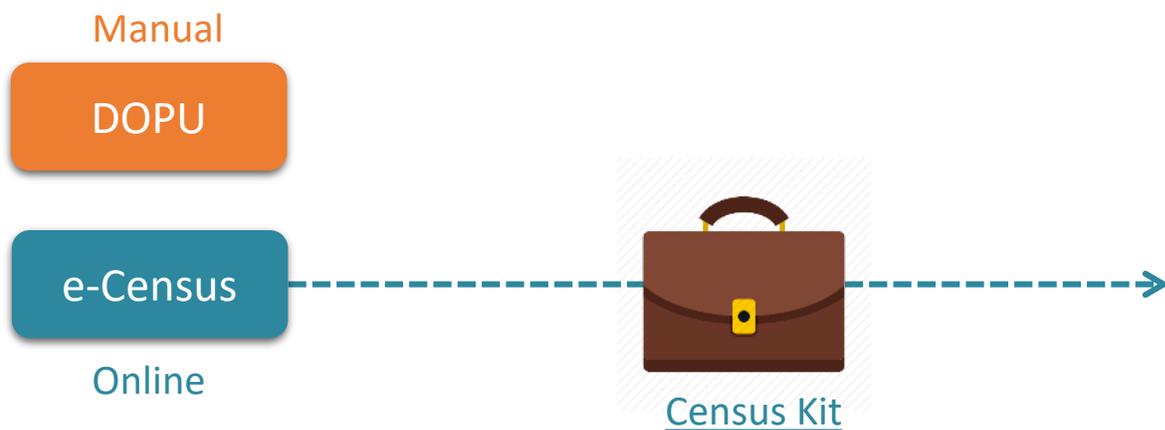


1. BACKGROUND



2010

DOSM has introduced self-response for data collection in Census 2010 with the option of 2 modes:



- ✓ ID for e-Census system
- ✓ through official DOSM Portal



OUTCOMES

- ❑ Targeted response: 2.8% (28,000 respondents)
- ❑ Actual response: <1%
(Census 2010 Post Mortem Report)
- ❑ Indirect factor of low internet penetration in 2010 (56.3%)

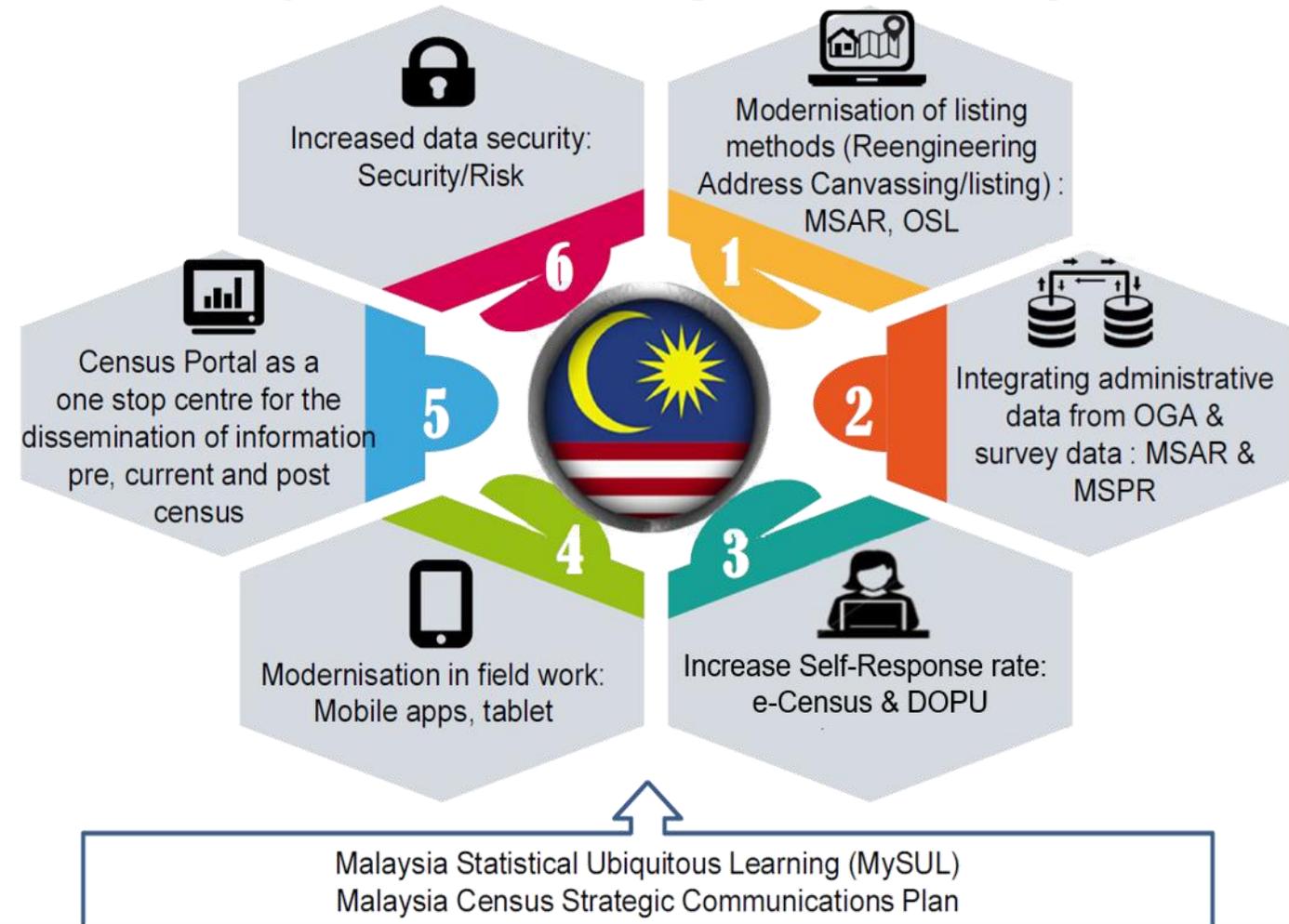
<http://www.internetlivestats.com/internet-users/malaysia/>



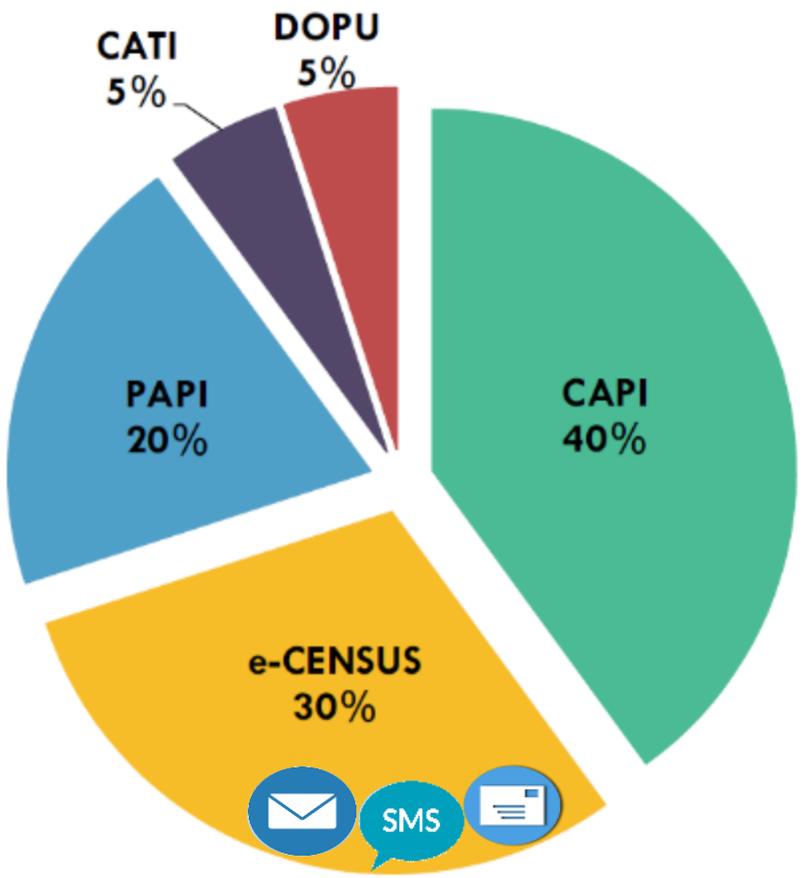
Census 2020 has been planned with the aspiration of...

Malaysia Census Transformation Programme 2020 (MyCTP 2020)

- ✓ Designed towards latest modernised framework which aligned with ICT
- ✓ The objective is to accommodate high impact outcomes for sustainable delivery within cost effective



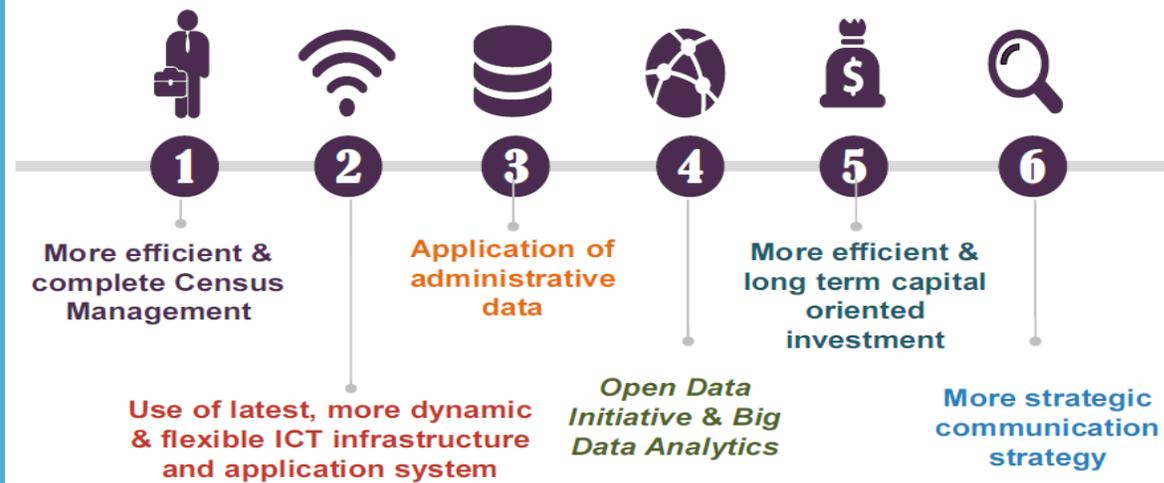
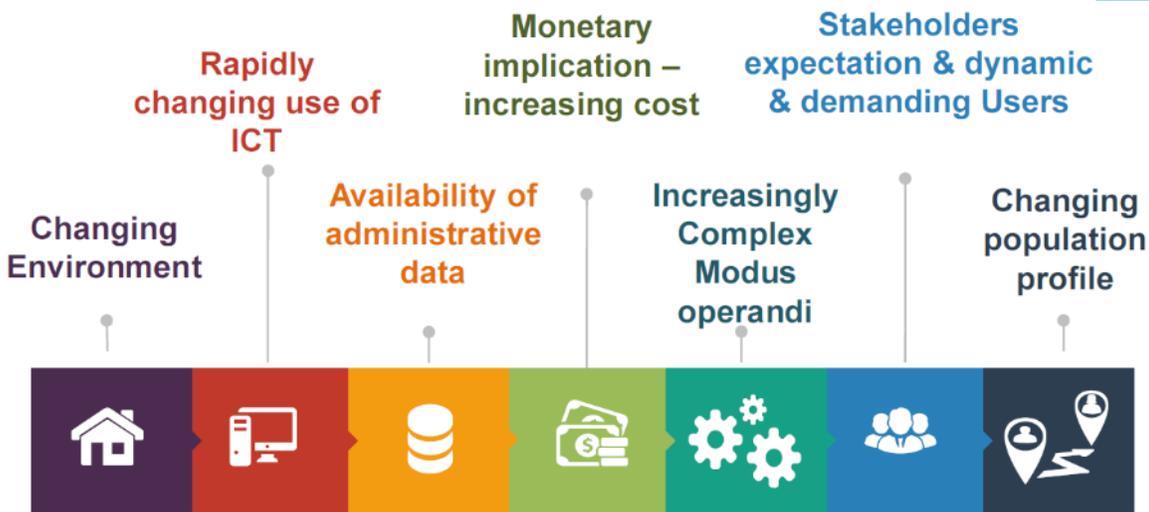
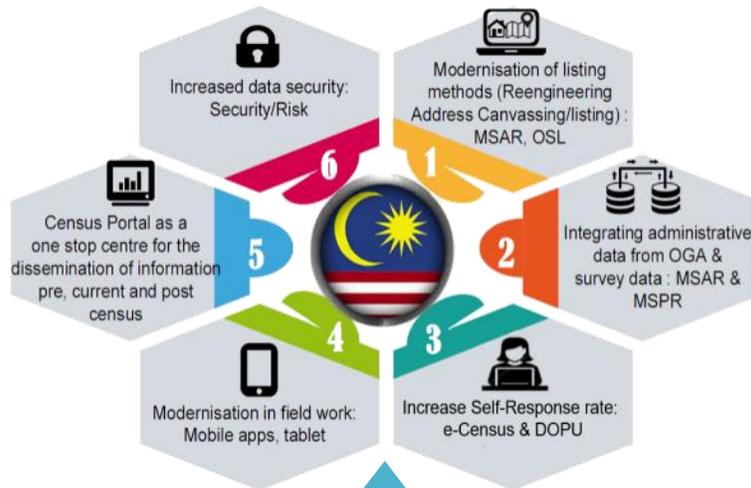
1.2 CENSUS 2020



CAPI	Urban : 33% Rural : 7%
CAPI – Computer Assisted Personal Interview	
e-CENSUS	Urban : 21% Rural : 9%
PAPI	Urban : 11% Rural : 9%
PAPI – Paper Assisted Personal Interview	
CATI	Urban : 5% Rural : -
CATI – Computer Assisted Telephone Interview	
DOPU	Urban : 5% Rural : -
DOPU – Drop Off Pick Up	



1.3 ASPIRATION OF CENSUS 2020



2. BENEFITS



1

NEW STATISTICAL INFORMATION

- The basis information for national planning and development
- Population information, household and living quarters to the smallest geographic area (local statistics)



2

REGISTER BASED STATISTICS (MSAR & MSPR)

- Complete LQ and population address database
- The Population and Housing Census can be implemented on a smaller scale in the future



3

STATISTICS LANDSCAPE TRANSFORMATION

- Improve the efficiency of statistical delivery systems to be more modern, dynamic and user-friendly
- Improve the statistical literacy



4

CENSUS PARAMETER SHARING

- Data sharing aspects where most updated data from MSAR & MSPR can be shared with various agencies (aggregate data)
- Cooperation with Other Government Agencies (OGA) in the use of administrative data can be enhanced



5

REGISTER BASED STATISTICS (MSAR & MSPR)

- Population input for the establishment of key national policy such as National Transformation 2050 (TN50) and population aging



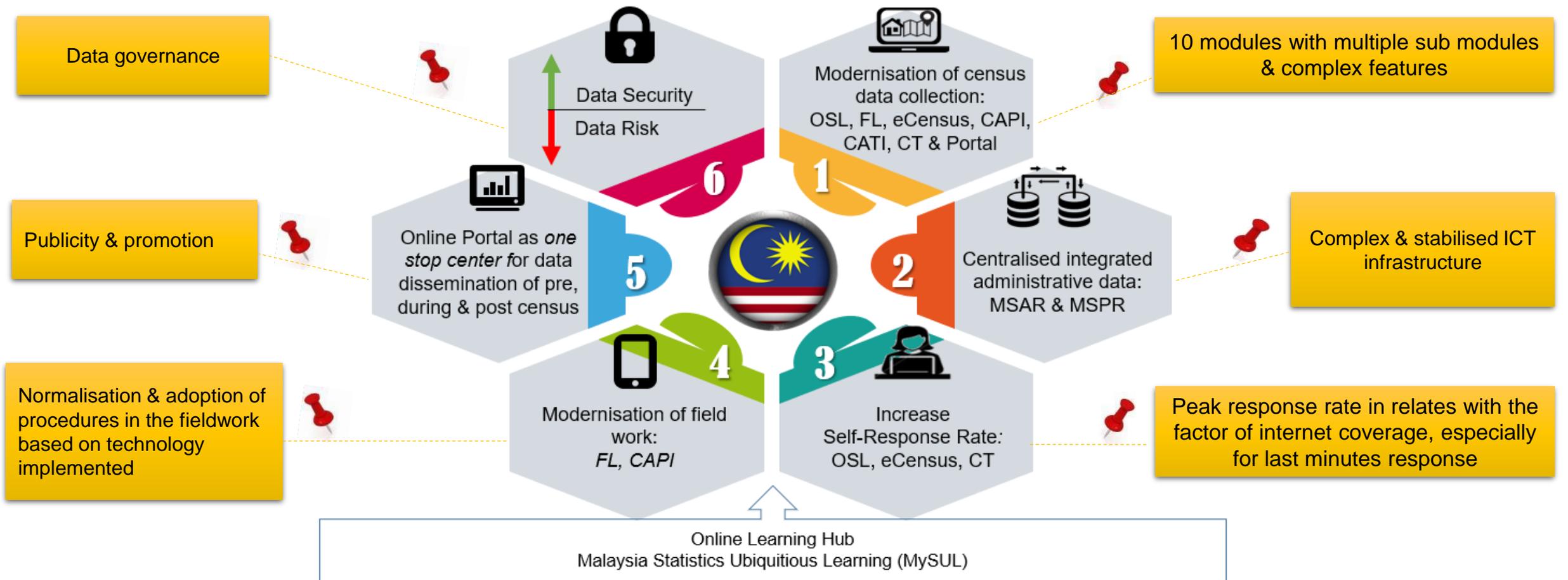
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EFFECTIVE COST

- Long term investments
- Continuous ICT investment
- Cost effective for future



2.2 CHALLENGES



Challenges

3. DATA COLLECTIONS

3.1 DATA COLLECTIONS IN MyIPCS



3.2 MODULES IN MyIPCS

ADMINISTRATION & INTEGRATION

- 1** System administration & integration functionalities : Single Sign-On, Personnel Management, Dashboard Monitoring, Announcement, Middleware Mgmt. etc.

CENSUS DATA MANAGEMENT

- 2** Execute & manage data harmonization and standardize addresses and individual data & establishment of MSAR, MSPR and Frozen Frame. And, generation of unique ID to represent address

DOSM SMART LISTING & SMART MAP

- 3** To introduce platform for respondent Online Self Listing (OSL) and Field Listing (FL) for data collection process. And, to cater Geographical Information System (GIS) requirements for spatial data updating and viewing

CENSUS OPERATION

- 4** To introduce functions comprise of Census Operation Management for job assignment, eDoc1 Management and supported by multiple modes of data collection (e-Census, CAPI, CATI, PAPI & DOPU) via portal & mobile.

CENSUS PROCESSING

- 5** Process of consolidation, verification, validation, imputation and updating raw census data from Census Operation

CSS : QUALITY CONTROL

- 6** Online platform to do QC Census Operation and QC Census Processing activities

CSS : CENSUS TRACKING

- 7** Platform to track , monitor and manage Document, Asset, Inventory, Personnel, Premise and Vendor across different phases of the census

CSS : POST ENUMERATION SURVEY

- 8** Conduct a sample survey & Platform to estimate the extent of coverage error in the Census, particularly for Living Quarter (LQ) & household (HH)

ANALYTICS & REPOSITORY

- 9** To perform the analyses that contain descriptive, prescriptive and predictive analysis from data that resides in the available data sources with Analytic Tool

DISSEMINATION & DATA COMM.

- 10** Visualisation application to produce interactive dashboards, story-telling maps, charts, reports and infographics for data statistic dissemination

4. SUPPORT

4.1 CALL CENTER

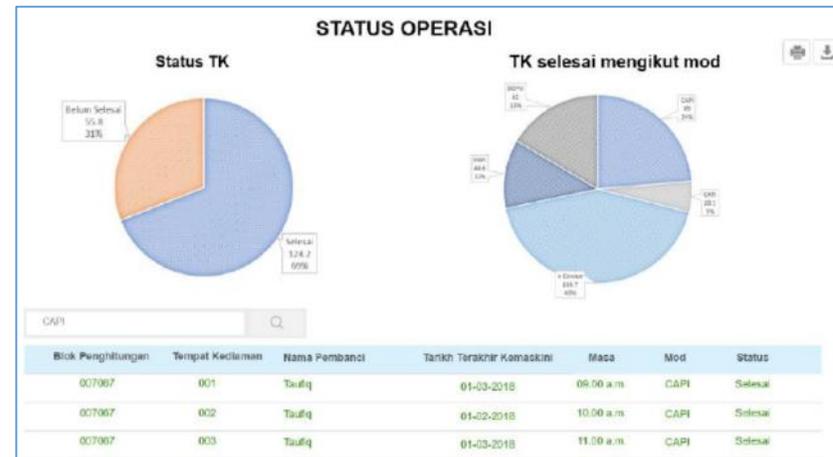
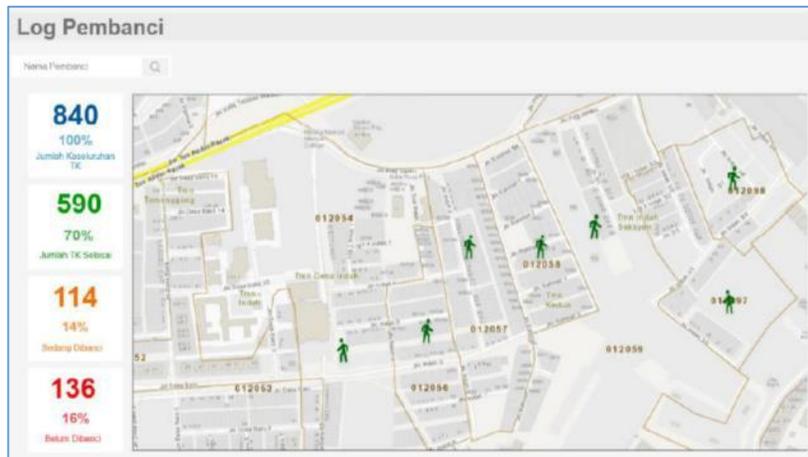
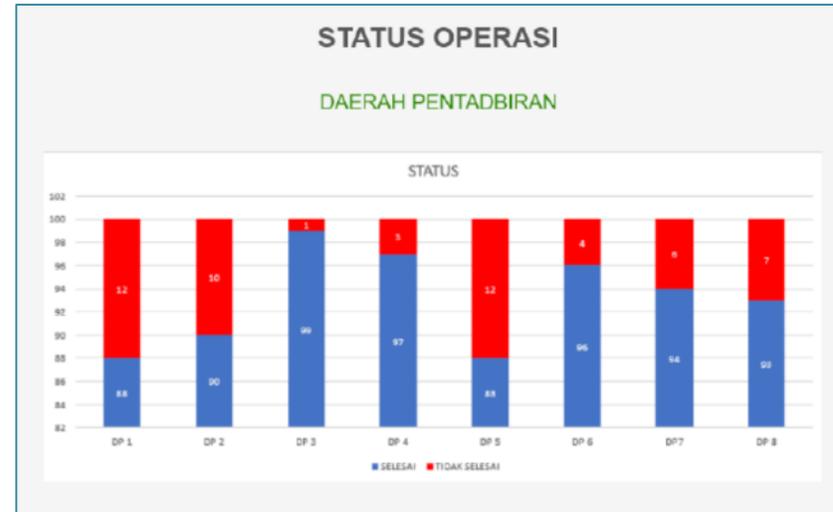
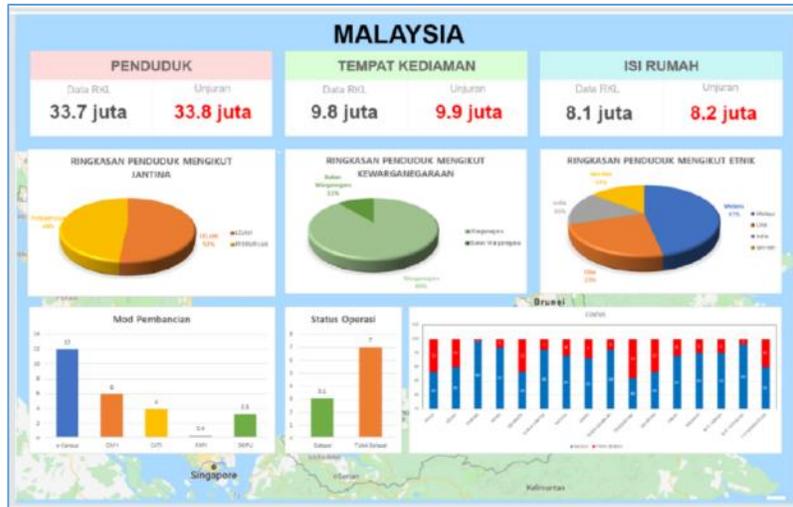


- ✓ 24 hours with 2 work shifts
- ✓ Trained Voice Operators
- ✓ Contact and communication via:
 - Email
 - Hotline

- ✓ 3 tier supports:
 - First Tier : Front end Voice Operators
 - Second Tier : Champions (SME)
 - Third Tier : Technical (IT)

4.2 WAR ROOM

Live updates Dashboards



5. SYSTEM SECURITY

5. SYSTEM SECURITY IN MyIPCS

APPLICATION

(Portal, mobile apps, web apps, databases)



Code Scan

Source code review analysis as per security best practice



Application Scan

Attack simulation to application to discover vulnerability points and security loop holes



API Scan

API vulnerability points



Mobile App Scan

Identify potential risk which will be exposed through mobile app

USER GROUPS

- dedicated URL link for both user groups
- dedicated setup to secure the access for both internal and external user across networks by roles and permissions

1

External Users



Public Respondents

- ✓ OSL
- ✓ e-CENSUS
- ✓ CT (Job Application)

2

Internal Users



DOSM

- ✓ FL
- ✓ CAPI
- ✓ CATI
- ✓ Portal

IDENTIFICATION & AUTHENTICATION



- Username & password protections
- Pictorial security logon ID
- Security questions
- Email verification

MODULES

- | | |
|------------------|-----------------|
| • Administration | • QC |
| • CDM | • CT |
| • DSL/DSM | • PES |
| • CP | • Analytics |
| • CP | • Dissemination |

DATA TRANSFER

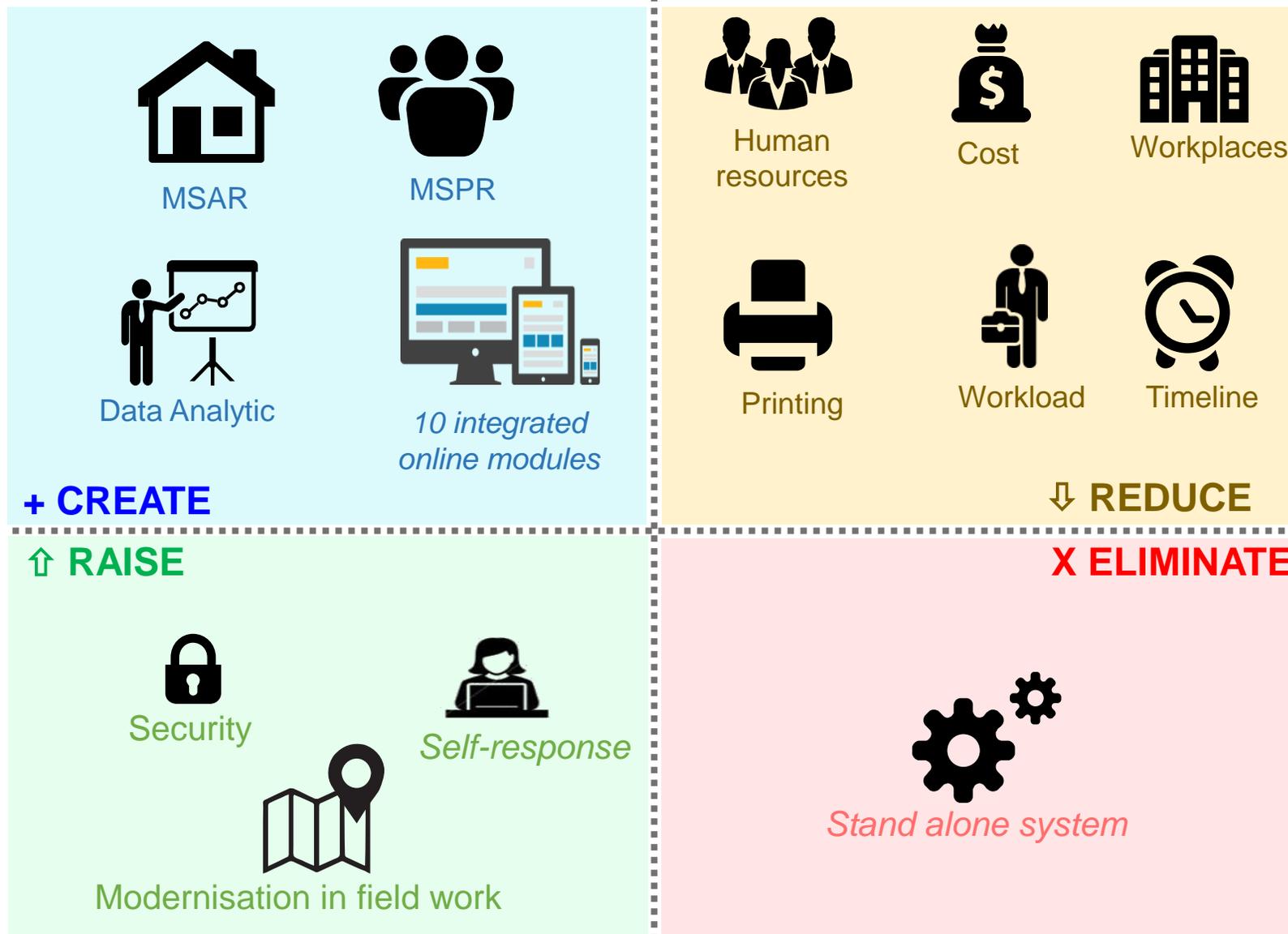
- Secured data transfer methods all incoming external data (Other government agencies, Operation Centers)
- SFTP (Secure File Transfer Protocol)
- Data encryption (when in motion)

ICT INFRASTRUCTURE



6. OUTCOMES

6. OUTCOMES OF ONLINE DATA COLLECTION OF MyIPCS



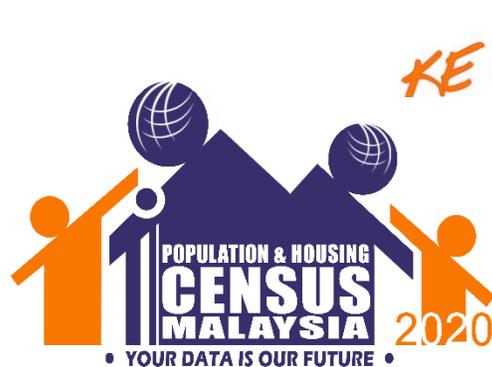


Welcoming 62nd ISI WORLD STATISTICS CONGRESS 2019



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THANK YOU



BANCI PENDUDUK DAN
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Data Anda Masa Depan Kita



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