



JABATAN PERDANA MENTERI
JABATAN PERANGKAAN MALAYSIA

KOLOKIUUM STATISTIK 2022 JABATAN PERANGKAAN MALAYSIA

**Integrasi Data Pentadbiran:
*Malaysia Statistical Population Profile (MSPP)***

13 September 2022 (Selasa)

Institut Latihan Statistik Malaysia (ILSM), Sungkai, Perak

Encik Wan Mohd Shahrulnizam bin Wan Mohd Najuri
Pengarah Kanan

Bahagian Perangkaan Penduduk dan Demografi
Jabatan Perangkaan Malaysia





OBJEKTIF KERTAS KAJIAN



Objektif kertas kajian adalah untuk memaklumkan pelaksanaan integrasi data pentadbiran ke arah pengwujudan *Malaysia Statistical Population Profile* (MSPP)



OUTLINE PEMBENTANGAN



LATAR BELAKANG

PENYATAAN MASALAH

BEST PRACTICES OF OTHER COUNTRIES

BANCI MALAYSIA 2020

SIMULASI SEMAKAN DATA (BANCI VS. SURVEI)

DATA PENTADBIRAN PEMANGKIN MSPP

WAY FORWARD



LATAR BELAKANG



1970

- Dilaksanakan berasingan: 27 Julai 1970 (Perumahan), 25 Ogos 1970 (Penduduk)
- Pendekatan: De Facto
- Mod Pembancian: Temuramah Bersemuka



1980

- Dilaksanakan berasingan: 17 Mei 1980 (Perumahan), 11 Jun 1980 (Penduduk)
- Pendekatan: De Facto
- Mod Pembancian: Temuramah Bersemuka



1991

- Dilaksanakan serentak pada 14 Ogos 1991
- Pendekatan: De Facto & De Jure
- Mod Pembancian: Temuramah Bersemuka



2000

- Dilaksanakan serentak pada 5 Julai 2000
- Pendekatan: De Jure
- Mod Pembancian: Temuramah Bersemuka



2010

- Dilaksanakan serentak pada 6 Julai 2010
- Pendekatan: De Jure
- Mod Pembancian: Temuramah Bersemuka, DOPU & e-Census



2020

- Dilaksanakan serentak bermula 7 Julai 2020 sehingga 31 Oktober 2021
- Pendekatan: De Jure
- Mod Pembancian: Temuramah Bersemuka, DOPU, e-Census, CAPI & CATI

Pengemaskinian
rangka melalui
kaedah
tradisional

Kaedah
tradisional dan
geospatial

Hybrid dan
geospatial



PENYATAAN MASALAH



Ke arah pengemaskinian data penduduk dan perumahan berasaskan data pentadbiran

01

Keperluan data penduduk dan perumahan yang terkini serta menyeluruh oleh pengguna yang semakin kompleks.

02

Data pentadbiran bagi penduduk dan perumahan tidak berpusat, tidak *standard* dari segi *codes* dan *classification* serta tempoh rujukan yang berbeza.



BEST PRACTICES OF OTHER COUNTRIES





LITERATURE REVIEW

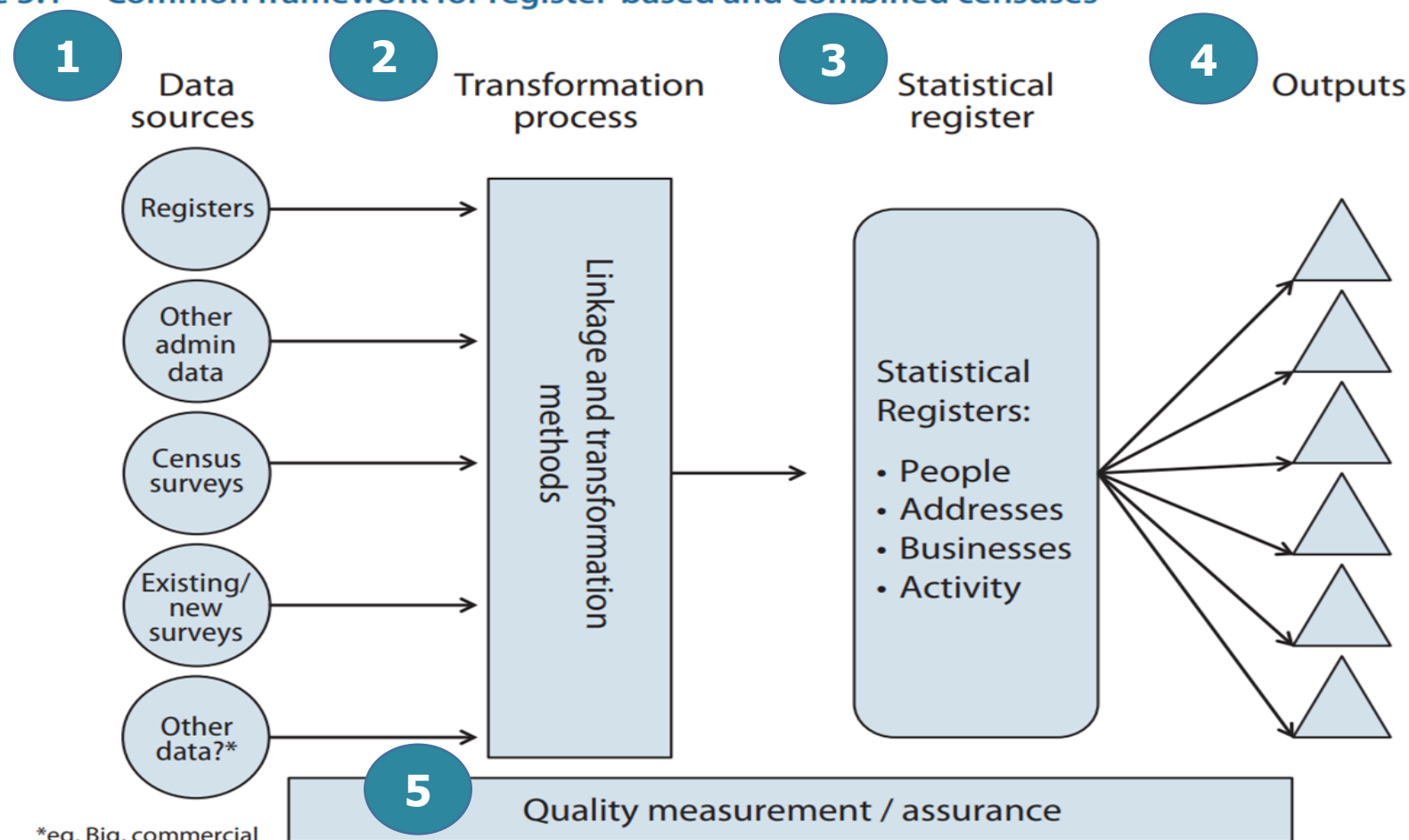


Author (s) (Years)	Title	Findings
M. G. Nielsen and O. Schnor (2008)	<i>The Use of Administrative Data in Social Statistics in Denmark</i>	- Use of administrative source proven to be <u>more cost-efficient</u>. - Denmark produced the first register based census in 1981 <u>Improving documentation</u> on local level.
B. Edgar, D. Lucas and S. McEachern, (2014)	<i>Population data</i>	Today, universal population registers which <u>cover the whole population</u> are less common than censuses or vital statistics.
J.K Tønder, (2008)	<i>The Register-based Statistical System Preconditions and Processes</i>	- Administrative data as a <u>source for the production of statistics</u> was introduced in the early 1970s. - Register based statistic is allow the users <u>get annual updates of most variables</u> included in the statistics.
D. Brown	<i>Achievements in the use of administrative data to produce official social statistics in New Zealand</i>	- Administrative records is allow to <u>transfer, processing and storage of large quantities of data</u> in a <u>more efficient and cost-effective way</u>. - The data is <u>accurate from time to time</u> to provide a <u>continuous record of change</u>.
Z. Sultanova, K. Saken, M.Birlik, D. Baijumanov, and S.Gåsemyr, (2008)	<i>How to develop cooperation between government agencies on data collection for administrative and statistical purposes</i>	- Operating base registers and <u>use of common ID numbers</u> for the main units of administrative and statistical data files. - When a PIN identifies the person in administrative data the <u>different systems can be linked</u> at the level of person.

The UK's Office for National Statistics (ONS) has further developed and adopted the common framework presented in Chapter 5 in these guidelines for England and Wales



Figure 5.1 Common framework for register-based and combined censuses





BEST PRACTICES: AUSTRIA



2001
Last traditional census



2006
Register-based test census



2009
Start of annual register-based labour market statistics



2011
First complete register-based census



Since 2012
Annual register-based labour market statistics

First register-based census in Austria 2011

➤ Full Census, no sampling

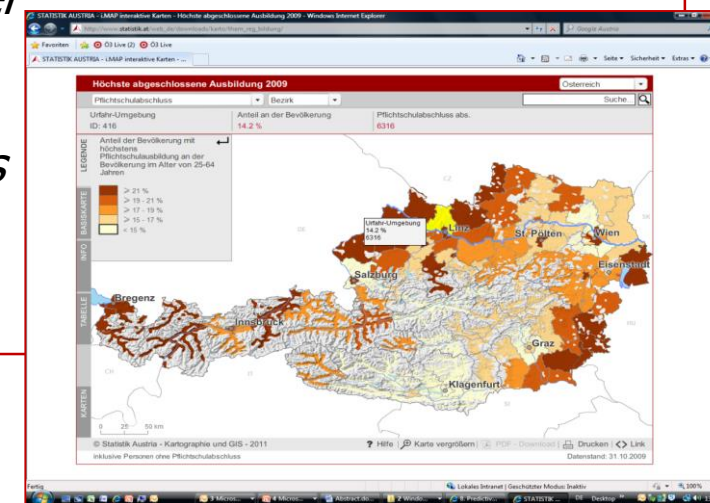


Census topics

➤ Population Census, Housing Census, Census of enterprises and their local units of employment

Data availability

- On municipality level
- Geo-Codes
- Statistical databases
- Interactive maps

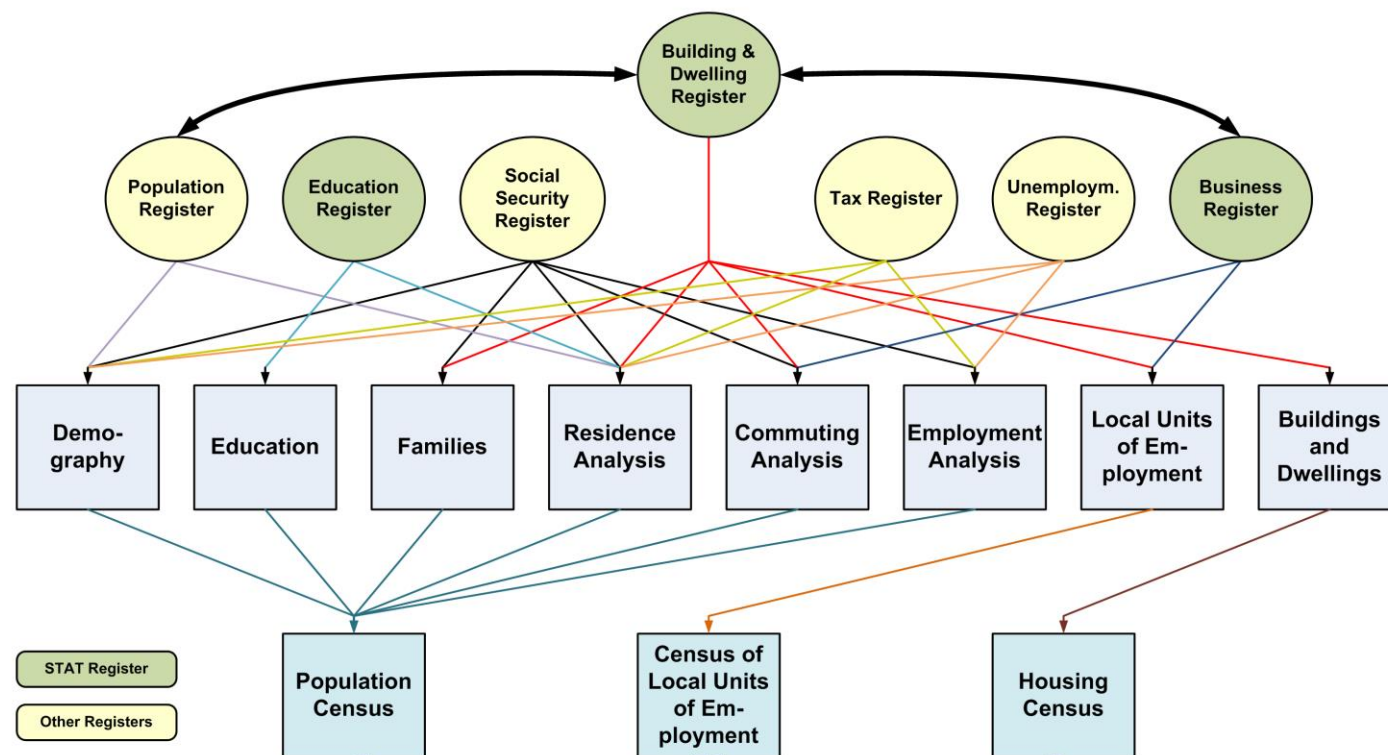




BEST PRACTICES: AUSTRIA



BASE REGISTERS – THE PRINCIPLE OF REDUNDANCY



- How can we **ensure the quality of the information** that we get from the data holders?
- **Three stages** of quality evaluation:
 - Raw data**
 - Registers provided by the data holders
 - Central Database (CDB)**
 - Combined information from the registers
 - Data is merged by a unique key
 - Final Data Pool (FDP)**
 - Final data including imputations

RAW

CDB

FDP

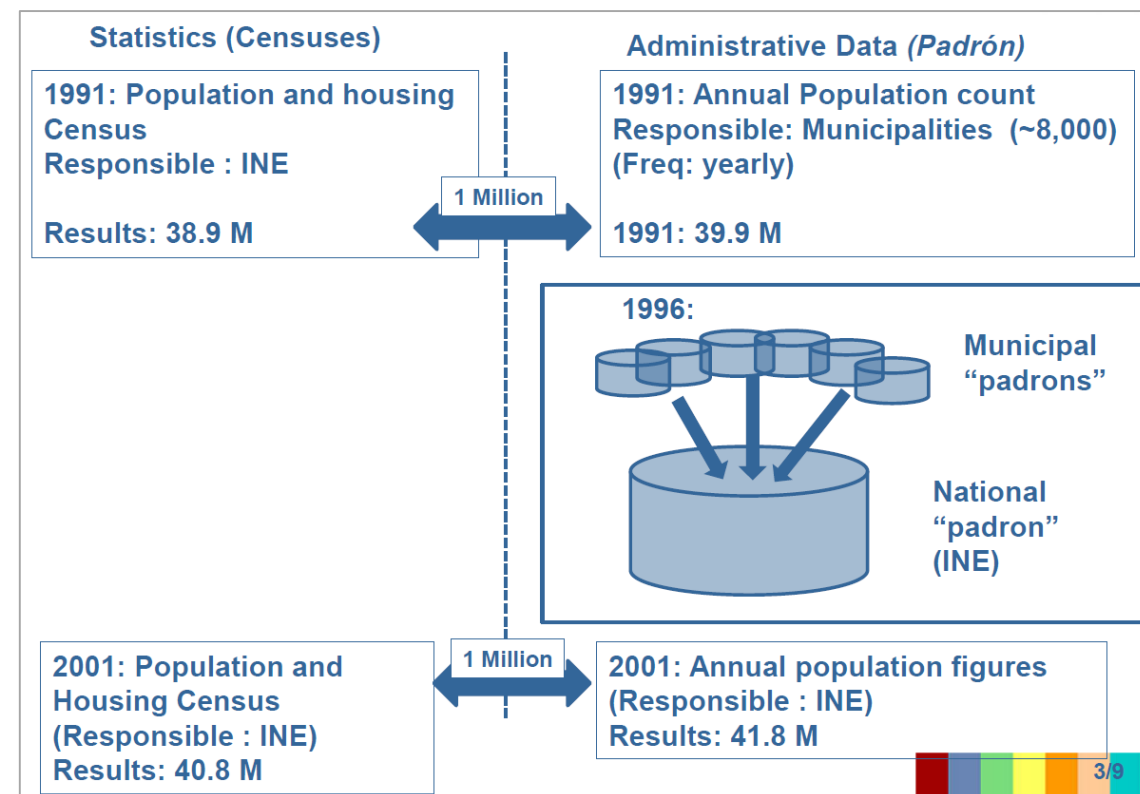


2021 POPULATION AND HOUSING CENSUS IN SPAIN

1. Building a Population Register took 20 years

A bit of census history in Spain:

- ☐ 1991. (Classical) exhaustive census. 38.9 Million inhabitants, 12 M households
- ☐ 1996. A new “continuous population Register” (*Padrón*) is created, for administrative purposes
- ☐ 2001 (Again classical) Census. 40.8 M Inhabitans
- ☐ 2011 Combined census: Population register (*Padrón*) + “10% - survey”
- ☐ 2021 Register-based census: population register (*Padrón*) + Admin Data



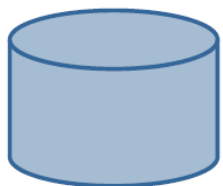


2021 POPULATION AND HOUSING CENSUS IN SPAIN

Statistics (Censuses)

2001-2011
Annual updates of Census
figures (INE)

2011: Combined Census
Responsible : INE



Padrón + signs-of-life
method + 10% survey

46.8 Million
(Nov 1st 2011)

2018 (annual update). 46.7

Administrative Data (*Padrón*)

2001-2011
Annual figures (INE)

Padrón 1-1-2012:
47.3 Million

2018 (annual figure). 46.7

0.5 Million

0.05 Million

2. Padrón, a “different” population register

Built from 8.100 municipal registers (people get registered at municipal offices) but the central database is managed by INE...



Yearly figures at municipal level

Why “different”?

- Managed by a statistical office (not Police, not Public administr. Ministry)
- Everybody must be registered (foreigners in irregular situation, homeless, asylum seekers...)
- INE has access to direct identifiers



BEST PRACTICES: IRAN



Population Register Development in I.R. Iran

Traditional CRVS, since 1920

Demographic statistics, for about 5 decades

Modern ID management, from 31 years ago

Actual CRVSID system (NPD) since 1989

Modern Population Registration born in 2012



Population Register in I.R. Iran Now

Legislations supports Residence Registration

Genealogy database in progress

Agreements on NPD as the spine of the first register-based census (NIN)



Unique Characteristics

Traditional public trust

CRVS based on ID management

National Population Database

ID management capacity for Survey at Registration Time (SRT)

- Well-distributed offices across the country (down to counties)
- Group of Experts: a nationwide network

So, NOCRVSID is an integration of

- Civil Registration (CR),
- Vital Statistics (VS),
- ID Management (ID),
- Official Population Registration (PR) & Family Registration (FR) Systems.



BANCI MALAYSIA 2020





MALAYSIA CENSUS TRANSFORMATION PROGRAMME (MyCTP)

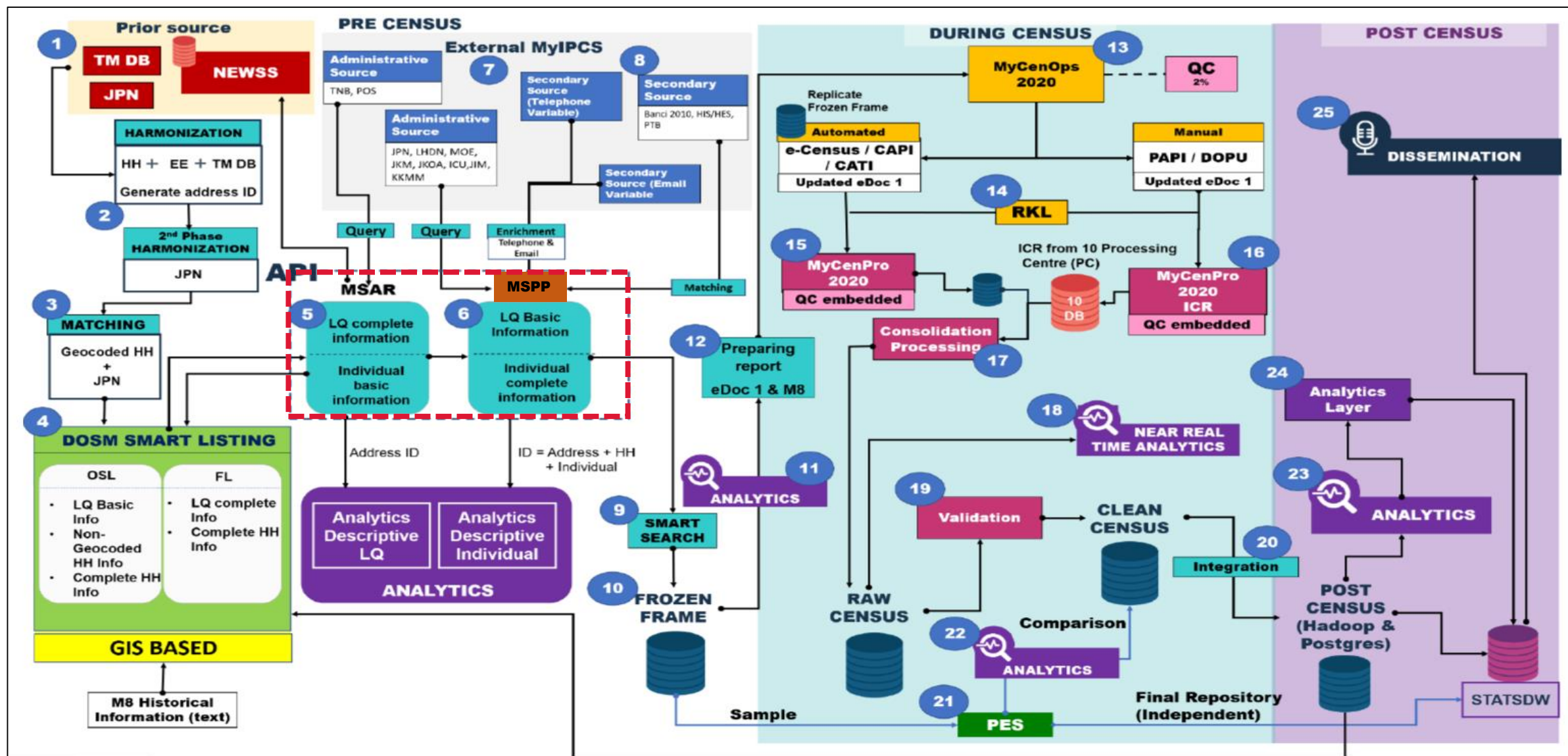


MSAR – *Malaysia Statistical Address Register*
MSPR – *Malaysia Statistical Population Register*
CATI – *Computer Assisted Telephone Interview*
DOPU – *Drop Off Pick Up*
CAPI – *Computer Assisted Personal Interview*
PAPI – *Paper and Pen Interview*
OSL – *Online Self Listing*
OGA – *Other Government Agencies*
TK – *Tempat Kediaman*

Latihan disokong oleh **Malaysia Statistical Ubiquitous Learning (MySUL)**
Pelan Komunikasi Strategik Banci 2020



KERANGKA MALAYSIA INTEGRATED POPULATION CENSUS SYSTEM (MyIPCS)





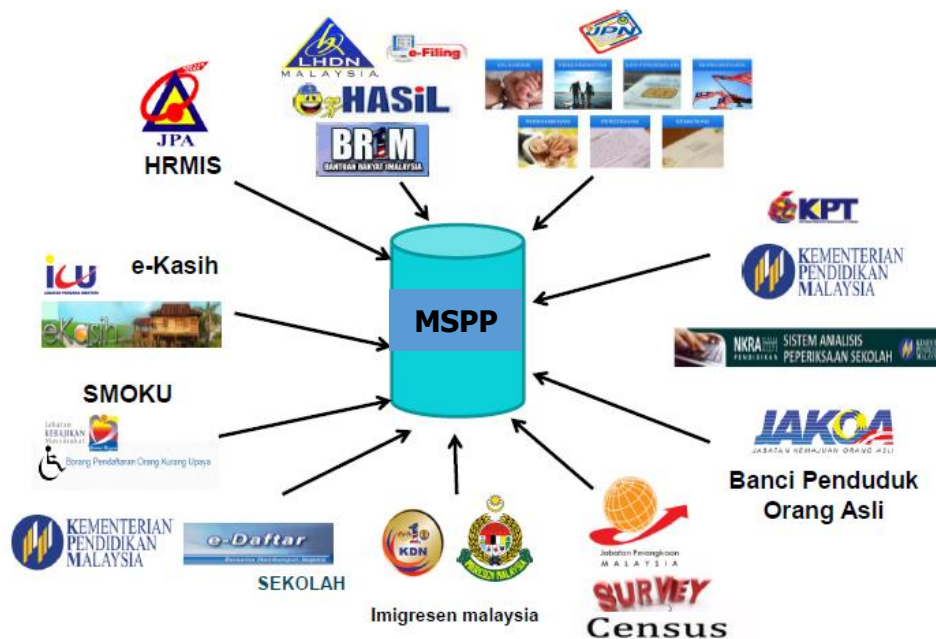
POTENSI DATA BAGI PEMBANGUNAN MSPP



Data banci dan data pentadbiran sebagai asas dalam pembangunan MSPP yang menyokong kepada *profiling* penduduk yang holistik sehingga ke peringkat daerah pentadbiran.

28 set data individu telah diterima dari pelbagai agensi di **peringkat persekutuan/ negeri.**

- i. Jabatan Pendaftaran Negara;
- ii. Jabatan Imigresen Malaysia;
- iii. Jabatan Perkhidmatan Awam;
- iv. Jabatan Kebajikan Masyarakat;
- v. Jabatan Kemajuan Orang Asli;
- vi. Jabatan Penjara Malaysia;
- vii. Kementerian Pendidikan Malaysia;
- viii. Kementerian Luar Negeri;
- ix. Suruhanjaya Pilihan Raya;
- x. Dewan Bandaraya Kuala Lumpur;
- xi. Pertubuhan Keselamatan Sosial;
- xii. Yayasan Kebajikan Negara;
- xiii. RISDA, AADK dan TNB.



Agensi berpotensi (persekutuan):

- Kementerian Kesihatan Malaysia;
- Jabatan Pengangkutan Jalan (pemegang lesen);
- Lembaga Tabung Haji

Data pentadbiran juga diperoleh di **peringkat negeri/ daerah:**

- Lesen peniaga;
- Senarai peniaga (informal);
- Fasiliti
- Infrastruktur;
- Cukai pintu/ tanah;



KERANGKA MSPP



MSPP

HUB DATA
BERSEPADU

VISUALISATION

PROFIL PENDUDUK DI PERINGKAT SUBNASIONAL

PENYELESAIAN
DIGITAL

APLIKASI

- Sistem aplikasi daerah
- Sistem aplikasi PBT
- Sistem aplikasi negeri

KOMUNIKASI

- Portal dan penerbitan
- *Table builder*
- *Open data*

- Media sosial
- Pelbagai saluran komunikasi

KHIDMAT

Integrasi bersepadu antara data banci 2020, data survei, data *intercensal* dan data pentadbiran

TOPIK/
VARIABEL

PENDUDUK

DEMOGRAFI
ASAS

MIGRASI

PENDIDIKAN

PEKERJAAN

PENDAPATAN

KESUBURAN

ISI RUMAH

PERUMAHAN

KEMUDAHAN
ASAS

KESELAMATAN

ORANG
KURANG
UPAYA

KESIHATAN

HUBUNGAN
SOSIAL

WARGA EMAS

TECHNOLOGY
ENABLER

ARTIFICIAL
INTELLIGENCE/ MACHINE
LEARNING

GEOASTIAL/
GEOCODING

ANALITIK
DATA RAYA

OTHER EMERGING
TECHNOLOGIES

SUMBER
DATA

DATA
BANCI 2020

DSL/
DSM

SURVEI
JABATAN

DATA
BERPUSAT

DATA TIDAK
BERPUSAT

TECHNOLOGY
ENABLER

APPLICATION PROGRAMMING
INTERFACE (API), WEB SERVICES

GOVERNMENT SHARED SERVICES/
PUBLIC CLOUD

OTHER EMERGING
TECHNOLOGIES

PENGURUSAN PERUBAHAN

TADBIR URUS & KESELAMATAN SIBER

**SIMULASI SEMAKAN
DATA BANCI DAN DATA SURVEI**



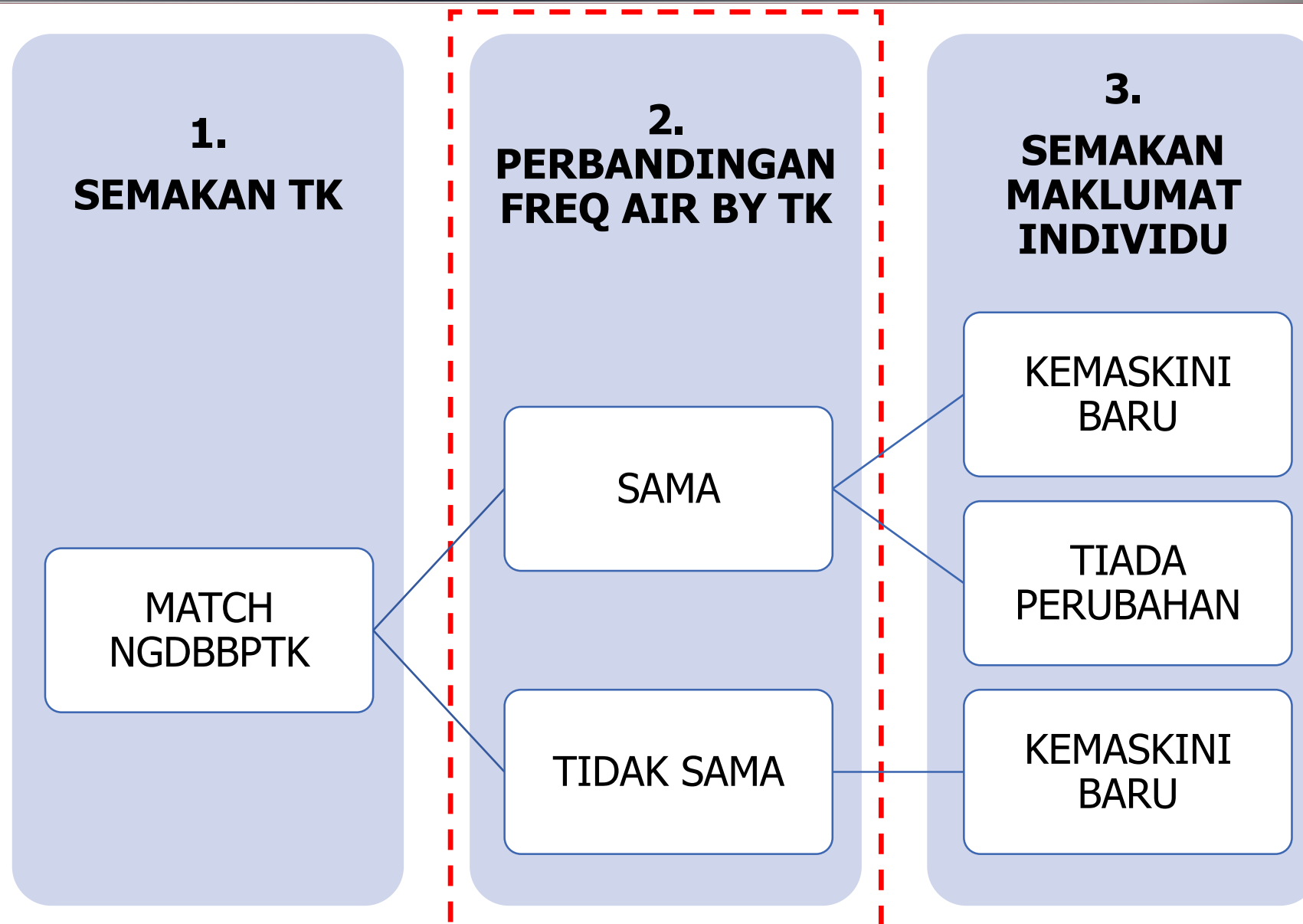
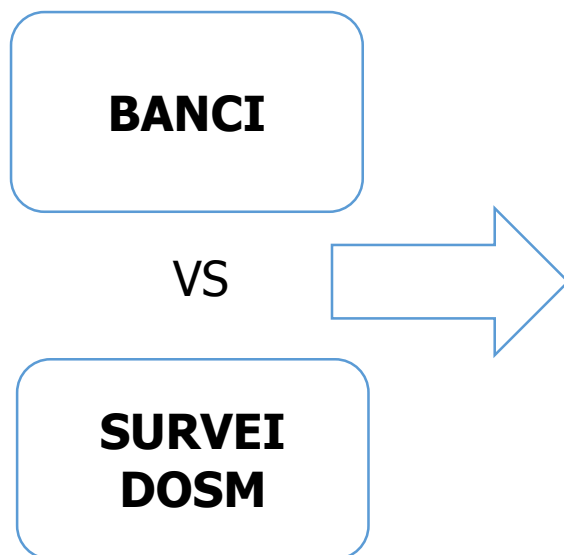


SIMULASI SEMAKAN DATA



Semakan pengemaskinian maklumat MSPP:

- 1) Sumber data survei DOSM pusingan Jan. - Jun 2022;
- 2) Perbandingan maklumat berdasarkan padanan NGDBBPTK; dan
- 3) Semakan maklumat individu.





PENEMUAN STB JAN.-JUN 2022



NEGERI	STB_AIR	BANCI_AIR	BEZA AIR STB-BANCI	STB_TK	BANCI_TK	BANCI_TK KOSONG	BIL AIR SAMA	BIL AIR TIDAK SAMA
PULAU PINANG	5,275	4,421	+854	1,571 1 TK DUPLICATE	1,231	342	416	814
SABAH	21,527	19,419	+2,108	4,375	4,042	333	1,465	2,577
SELANGOR	16,146	11,150	+4,996	3,925	2,839	1,086	587	2,252
PERAK	3,082	5,513	-2,431	1,693	1,279	414	158	1,121

Cara Semakan:

1. Membuat padanan bagi BP dan TK yang terpilih bagi Survei DOSM dengan data Banci 2020;
2. Perbandingan secara umum dari segi bilangan AIR STB dan Banci mengikut TK; dan
3. Semakan maklumat asas individu.

**Status TK terpilih
semasa banci adalah
kosong**



PENEMUAN STB JAN.-JUN 2022



G	H	I	J	K	L	M
NGDBBPTK	SAMPEL	NO KAD PENGENALAN	NAMA	HUBUNGAN	JANTINA	TARIKH LAHIR
07017038086	MAC		AQIL ZAFRAN B AMIR JUNAIDI	03	01	03/2017
07017038086	MAC		AMAR ZARIF B AMIR JUNAIDI	03	01	03/2010
07017038086	MAC		AINA NOR ZAHIRA BT AMIR JUNAIDI	03	02	03/2008
07017038086	MAC		ANIS SHAKINI	02	02	03/1984
07017038086	MAC		AMIR JUNAIDI	01	01	03/1984

G	H	I	J	K	L	M
NGDBBPTK	SAMPEL	NO KAD PENGENALAN	NAMA	HUBUNGAN	JANTINA	TARIKH LAHIR
07017038086	MAC		NUR MIKAYLA BT KHAIRUL ASHRAF	03	01	3/26/2021
07017038086	MAC		NUR KHAIRA BT KHAIRUL ASHRAF	03	01	12/21/2017
07017038086	MAC		NOR HASHIMAH	02	02	10/19/1995
07017038086	MAC		KHAIRUL ASHRAF	01	02	5/9/1990

TK duplicate
bulan yang
sama dengan IR
yang berbeza
"berkahwin"

BANCI-3 AIR

NGDBBPTK	IC	E2_Nama_penuh_AIR	E3_Hubun	E4_Jantin	E5a_Tarik	E5b_Umur	E6_Taraf	E8_Kumpul	E9_Agama	registrationDate	completedDate
07001077019		PUSHPA A/P MUTHU	9	2		66	3	6160 04		2021/04/19 15:04:40	2021/09/16 00:37:38
07001077019		MAGISWARY A/P MUTHU	1	2		55	3	6160 04		2021/04/19 15:04:40	2021/09/16 00:37:38
07001077019		SANJAY	3	2		17	1	6160 04		2021/04/19 15:04:40	2021/09/16 00:37:38

STB- 5 AIR

NGDBBPTK	SAMPEL	NO KAD PENGENALAN	NAMA	HUBUNGAN	JANTIN	TARIKH LAHIR	UMUP	TARAF PERKAHWINA	ETNIK	AGAM	PENDIDIKAN
07001077019	JAN		KALAISELYAN	01	01	03/06/1961	60	02	6160	04	102
07001077019	JAN		MAGESWARI	02	02	20/11/1966	55	02	6160	04	343
07001077019	JAN		YELLANGESWARI	03	01	29/11/1993	28	01	6160	04	352
07001077019	JAN		MAGELSWARON	03	01	02/04/1996	25	01	6160	04	343
07001077019	JAN		KATHILLA	03	02	22/06/2000	22	01	6160	04	343

Perbezaan
AIR dalam
tempoh
yang
berbeza



PENEMUAN STB JAN.-JUN 2022



BANCI

AIR SAMA

NGDBBPTK	IC	E2_Nama_penuh_AIR	E3_Hubun	E4_Jantin	E5a_Tarik	E5b_Umur	E6_Taraf	E8_Kumpul	E9_Agama	registrationDate	completedDate
08001069069	980316145481	AHMAD ZIKRI BIN ZULKHAIRI	3	1	16031998	22	1	1100	01	2021/04/14 10:12:00	2021/04/18 23:35:45
08001069069		AHMAD ZUFRI BN ZULKHAIRI	3	1	12072002	18	1	1100	01	2021/04/14 10:12:00	2021/04/18 23:35:45
08001069069	700520085704	JAWAHIR BINTI SHAARI	1	2	20051970	50	5	1100	01	2021/04/14 10:12:00	2021/04/18 23:35:45

STB

SAMPEL	NO KAD PENGENALAN	NAMA	HUBUNGAN	JANTINA	TARIKH LAHIR	UMUR	TARAF PERKAHWINAN	ETNIK	AGAMA	PENDIDIKAN
08001069069	STB	AHMAD ZUFRI	03	01		20	01	1100		343
08001069069	STB	AHMAD ZIURI	03	01		23	01	1100		343
08001069069	STB	700520085704	01	02	20/05/70	51	04	1100		343

BANCI

AIR BERBEZA-TELAH BERPINDAH

NGDBBPTK	IC	E2_Nama_penuh_AIR	E3_Hubun	E4_Jantin	E5a_Tarik	E5b_Umur	E6_Taraf	E8_Kumpul	E9_Agama	registrationDate	completedDate
10001024041	441115105421	MASLAH BIN MORSAN @ MOKHSAN	1	1	15111944	76	2	1100	01	2020/10/28 09:25:58	2021/05/11 11:52:52
10001024041	600617105312	PARIDAH BINTI NAPI	2	2	17061960	60	2	1100	01	2020/10/28 09:25:58	2021/05/11 11:52:52
10001024041	940819106218	JUNAINAH BINTI MASLAH	3	2	19081994	26	1	1100	01	2020/10/28 09:25:58	2021/05/11 11:52:52

STB

SAMPEL	PANEL	BULAN	NO KAD PENGENALAN	NAMA	HUBUNGAN	JANTINA	BULAN KELAHIRAN	TAHUN KELAHIRAN	UMUR	TARAF PERKAHWINAN
10001024041	STB	110	01	HIJRAH	05	02	01	1993	029	02
10001024041	STB	110	01	MOHD AFFAN ADHA	06	01	07	2021	000	01
10001024041	STB	110	01	DHIA ALISYA	06	02	01	2018	004	01
10001024041	STB	110	01	ABDUL RASYID	04	01	01	1990	032	02
10001024041	STB	110	01	ZURAI DAH BINTI BIDAYAH	01	02	01	1967	055	03
10001024041	STB	110	01	MOHD FADZIL	03	01	01	1997	025	01



PENGEMASKINIAN DATA PENDUDUK BERDASARKAN DATA SURVEI



Profil Penduduk Banci 2020 dan Maklumat Survei HIES 2022 (Jan.–Jun)

TK terpilih bagi HIES dan sampel mempunyai penduduk:

BANCI: 24 AIR

HIES: 27 AIR

Pertambahan sebanyak 3 AIR

Maklumat kelahiran bagi BP ini adalah seramai **4 orang** 

Alamat_Penuh_Kelahiran

LOT 5461 BATU 8 1/2 JALAN BAHAGIA KG BUKIT KAPAR 42200 KAPAR SELANGOR

BATU 13 1/2 JALAN MELOR KAMPUNG SUNGAI SERDANG 42200 KAPAR SELANGOR

NO 6 JALAN IMAM ZAKARIA 2/KU13 TAMAN SERI KAPAR 42200 KAPAR SELANGOR

NO 6 JALAN IMAM ZAKARIA 2/KU13 TAMAN SERI KAPAR 42200 KAPAR SELANGOR



DATA PENTADBIRAN PEMANGKIN MSPP





1. Infrastruktur, pemantauan dan katalog perkongsian data berpusat;
2. Pengurusan data yang bersepadu dan prosesan data yang *standard*;
3. Platform dan mekanisma perkongsian data yang selamat;
4. Integrasi *one to many*;
5. Projek rintis pengemaskinian MSPP; dan
 - **Satu daerah di setiap negeri telah dipilih** bagi pengemaskinian maklumat melalui **data pentadbiran yang terdapat di daerah dan negeri tersebut.**
 - Daerah Muar, Johor memfokuskan kepada Mukim Air Hitam iaitu pengemaskinian **maklumat sendiri (*self-updating*)** oleh penduduk setempat dengan kerjasama ketua kampung dan ketua komuniti.
6. Mewujudkan jawatankuasa.



www.DOSM.gov.my



"STATISTIK...SEGALANYA PASTI"

Tak kira walau apa
Cabaran dan aral melintang
Statistik meringankan
Segala beban yang menjelma
Gementar tiada

Bersama kita teguh hadapi
Bentala dipenuhi misteri
Namun statistik kan
melindungi
Statistik petunjuk realiti

Kesejahteraan negara
Perpaduan seluruh bangsa
Dengan irama data

Tidak hanya berbicara
Pagi hingga ke senja
Semangat yang terus membara
Data dan kehidupan berteraskan harapan
dan impian kemakmuran

Segalanya PASTI
Bergalaskan strategi
Menuju aspirasi
Harapan.. Keamanan
Impian... Kedamaian



VIDEO
"STATISTIK...
SEGALANYA PASTI"

<https://bit.ly/LaguStatistikSegalanyaPasti>

TERIMA KASIH



StatsMalaysia
www.DOSM.gov.my



2012-2022



2022



20 OKT



2016 - 2030



PSSN

