Training Workshop on Transition to Register-based Approaches for Population and Housing Censuses
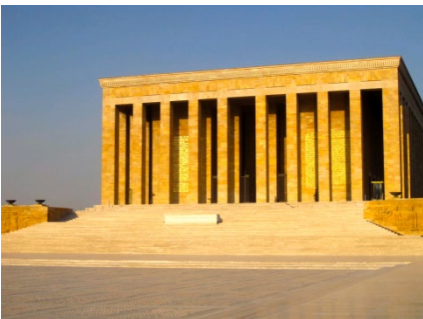
Ankara, Türkiye
12-15 June 2023

Türkiye

Presenters: Mehmet Şaban UCARI, Alper ACAR, Ege MUTLU

About Türkiye

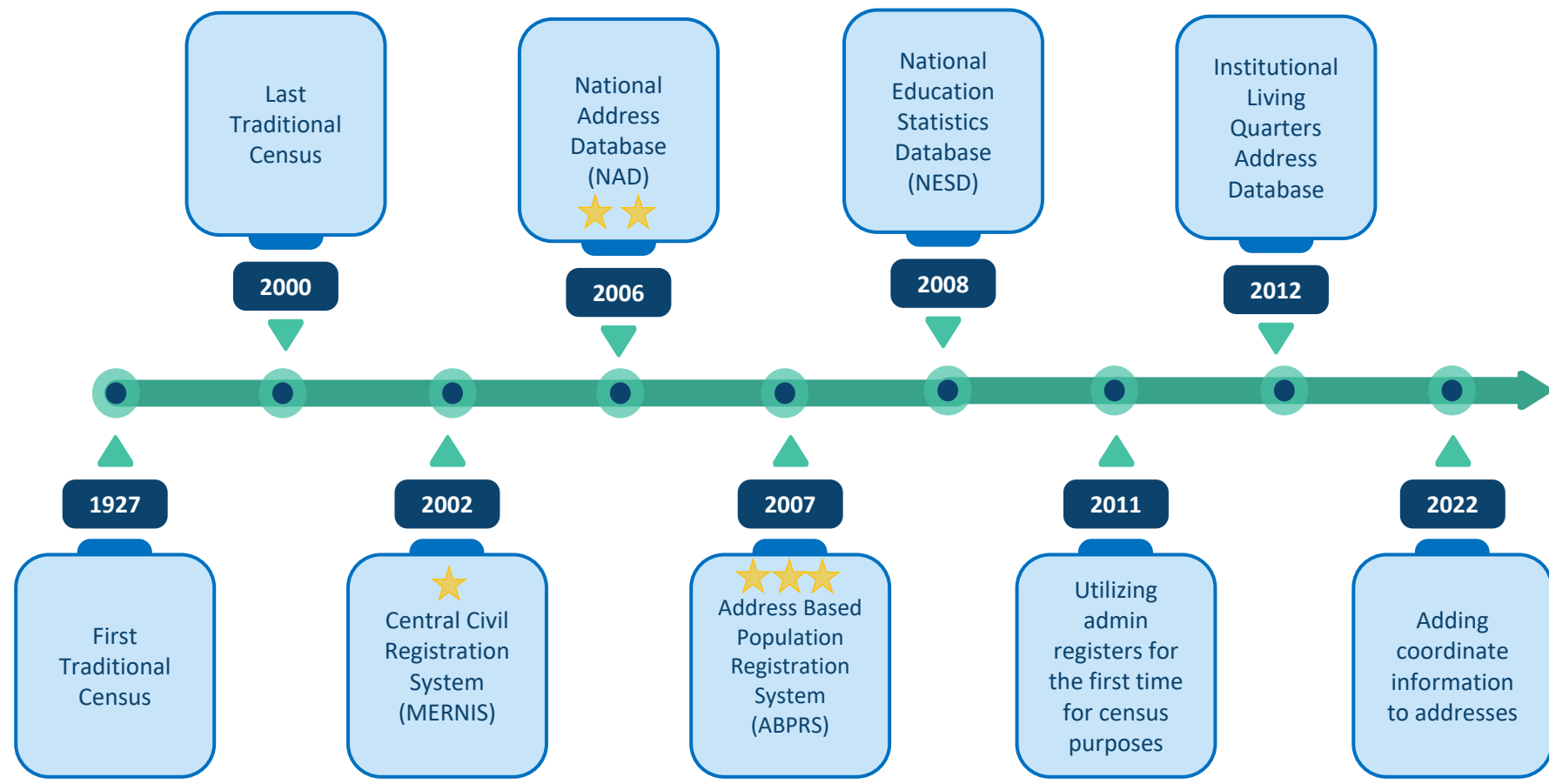| As of 31 December 2022	Administrative Divisions	Population	Annual Pop. Growth Rate	Median Age	Surface Area (km²)	Density (per km²)
	81 provinces, 973 districts, 1 361 municipalities, 18 219 villages	85 279 553	7.1 ‰	33.5	783.562	111

According to UNDESA World Population Prospects 2022, Türkiye is:

- ✓ **18**th in population size,
- ✓ **106**th in population growth rate,
- ✓ **107**th in population density,
- ✓ **106**th in median age,
- ✓ **180**th in total dependency ratio.

History of Traditional Censuses in Türkiye

Timeline (above):

- 2000 — Last Traditional Census
- 2006 — National Address Database (NAD) ★★
- 2008 — National Education Statistics Database (NESD)
- 2012 — Institutional Living Quarters Address Database

Timeline (below):

- 1927 — First Traditional Census
- 2002 — Central Civil Registration System (MERNIS) ★
- 2007 — Address Based Population Registration System (ABPRS) ★★★
- 2011 — Utilizing admin registers for the first time for census purposes
- 2022 — Adding coordinate information to addresses

Censuses from 1927 to 2000:

- Traditional census method (face to face interview),
- Standard questionnaire (paper) (PAPI),
- «De facto» population definition,
- One day application with national curfew.

Administrative Data Sources for Population Statistics

The Central Civil Registration System (MERNIS):

- … centrally administered system established in 2002.

- Any changes in civil status (births, deaths, marriages etc.) are registered electronically

  — in real time

  — over a network

  — by the civil registration offices

- … based on family ledgers.

- … has become the backbone of the e-Government infrastructure in Türkiye.

- Information on place of usual residence is not available.

- Maintenance of the system -> Ministry of Interior.

- Vital statistics are also produced from this database.

* The identity is fictional.

Turkish Republic Identity Number:

- Unique ID number in MERNIS,

- assigned to all Turkish Citizens,

- comprised of 11 digits (which do not contain personal information),

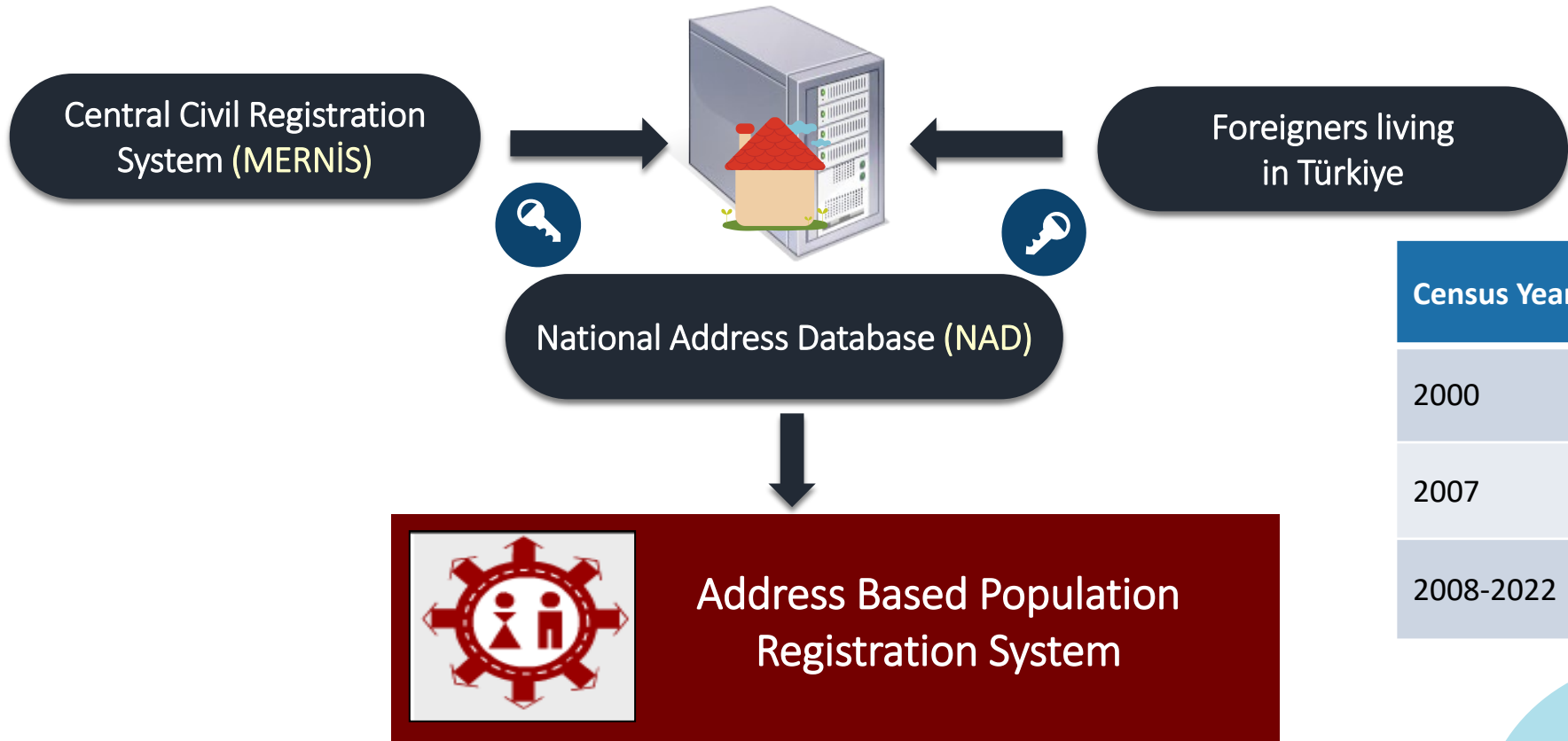- Used nationwide by all government agencies in public services.

4

Administrative Data Sources for Population Statistics

National Address Database (NAD)

- Established in **2006.**

- Around 40 million addresses were entered to the system with **unique address codes**.

- Field work were carried out by local administrations (municipalities and others) and infrastructural studies were carried out by TurkStat.

- Maintenance of the system -> **Ministry of Interior** -> updated by three ways in general:

  - Updating the **addresses components** in the NAD by municipalities/special province administrations,

  - Updating the **changes in administrative units** by the Ministry,

  - Updating the usual residence addresses by **address declarations of persons** to the civil registration offices.

- ... **text based** address registers. (No spatial/coordinate information)

1234567890

ABPRS: ADDRESS BASED POPULATION REGISTRATION SYSTEM

Central Civil Registration System (MERNİS)

Foreigners living in Türkiye

National Address Database (NAD)

Address Based Population Registration System

Personal information was matched with address information by using: Identification Numbers & Address Codes.

Census Year	Method	Cost
2000	Traditional	39.7 million Euro
2007	Establishment of the ABPRS	32.5 million Euro
2008-2022	Production from the ABPRS	0 Euro

ABPRS 16 years old. Alternative perspective: Cost per year: ~2 million Euro

Which statistics produced from the ABPRS?

Statistics produced annually (since 31 December 2007) :

- ✓ Population size by localities

- ✓ Age and sex structure

- ✓ Literacy and completed level of education

- ✓ Nationality (country of citizenship)

- ✓ Marital status

- ✓ Place of civil registration

- ✓ Mean household size

- ✓ Internal migration (since 2008)

- ✓ Place of birth (since 2014)

- ✓ Type of households (since 2016)

- ✓ Immigration and emigration (since 2016)

- ✓ Reason for internal migration (since 2022)

ABPRS is also base for:
- Life tables
- Population projections

Also serves as a sampling frame of household surveys
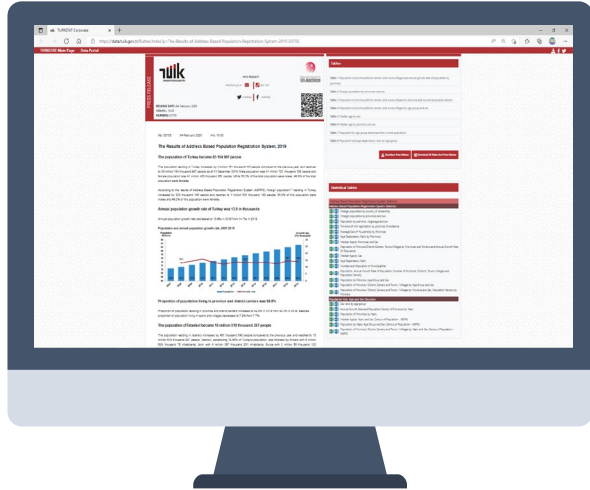
2021 Population and Housing Census

❑ In Türkiye, **almost half of census-type** variables:

➢ *Information on population size, age and sex structure, legal marital status, education level, migration, country of citizenship, place of birth, type and structure of households*

are already obtained annually from the ABPRS.

❑ 2021 PHC has the same reference date with the ABPRS: **31 December 2021.**

• *Basic **source and frame** of 2021 PHC will be the ABPRS data.*

Thus, greater part of the information to be produced within the scope of 2021 Census were already disseminated on February 4, 2022.

❑ **Labour force indicators** were obtained by recalculating the Household Labour Force Survey (HLFS) data.

❑ TurkStat conducted the "Survey on Building and Dwelling Characteristics" in October 2021-April 2022 period in order to obtain information on census-type **housing characteristics**.

❑ Final results of 2021 PHC were announced to the public on December 19, 2022.
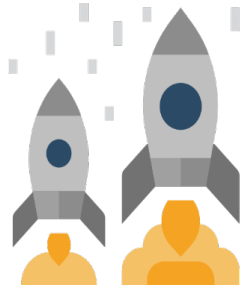

Registers
ABPRS & LFS

Survey
on Building and Dwelling Characteristics with CATI Method

Challenges and solutions

❑ **Advantages**

✓ Cost efficiency

✓ Labor-saving statistical production

✓ More up-to-date and frequent statistics

✓ Linkage with various registers via unique keys

(Personal ID Number / Address ID Code)

❑ **Recommended solutions:**

❖ Strong legal base (access to registers),

❖ Sound coordination with data holders (regular meetings),

❖ Control of process (input data, output data, communication strategy),

❖ Ensuring data confidentiality, quality and up-to-dateness,

❖ Competency in administrative data management and analysis.

❑ **Challenges in input data processing:**

↓ Information collected for solely administrative purposes

↓ Lack of metadata

↓ Different classifications/definitions used by data holders

↓ Coverage issues and missing values in registers

↓ Reference date discrepancies

↓ Multiple records – deduplication – data loss

↓ IT infrastructure

❑ **Challenges in output data:**

↓ Quality management and accuracy.

↓ Communication strategy for register-based statistics.

↓ Ensuring the sustainability and maintenance of the system.

↓ Data confidentiality.

↓ Deviation from regular household surveys (such as LFS, SILC)

Future

Traditional Census

| 1927 | 1935 | 1940 | 1945 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 | 2000 |

**2011
Combined Census**

**(Registers +
Large sample survey) ***

(2.2 mil. HHs)

**2021 Register-Dominant
(!) Combined Census**

**(Appr. 50 % from ABPRS +
LFS+
Ad-Hoc survey) ***

*__(306 000 HHs)__

**Ultimate target: Changing the system from combined method to
fully (100 %) register-based census *(ongoing efforts)***

Teşekkürler...