INEGI

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SPPIs Sampling Methods in Mexico

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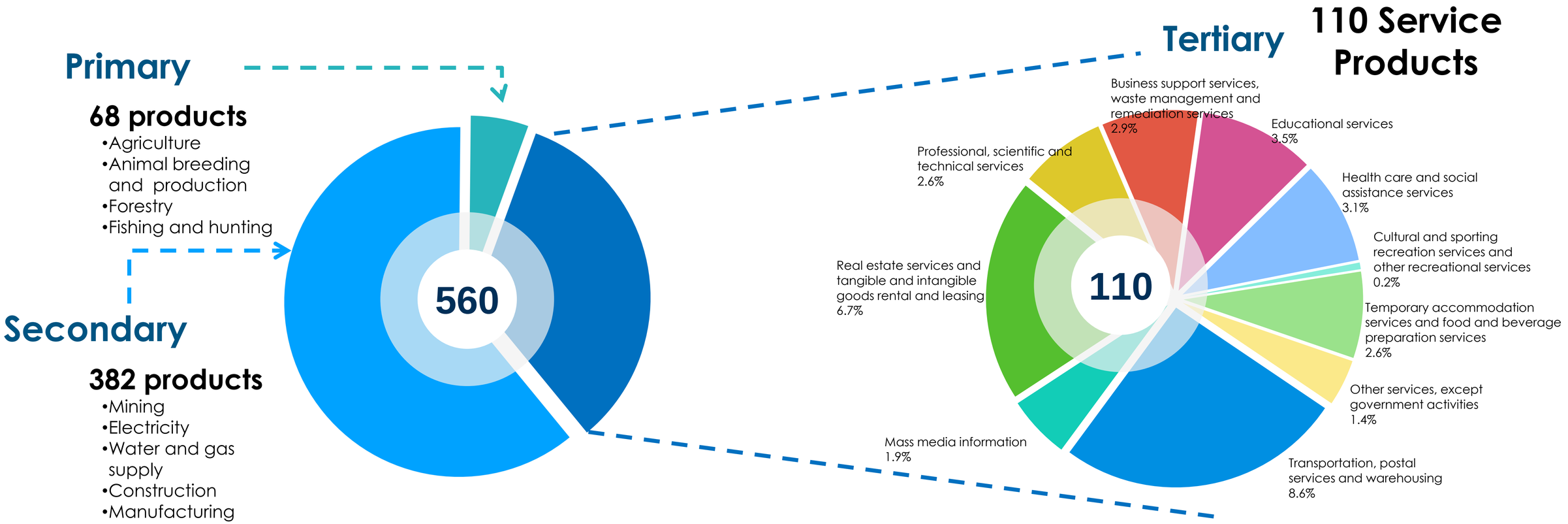
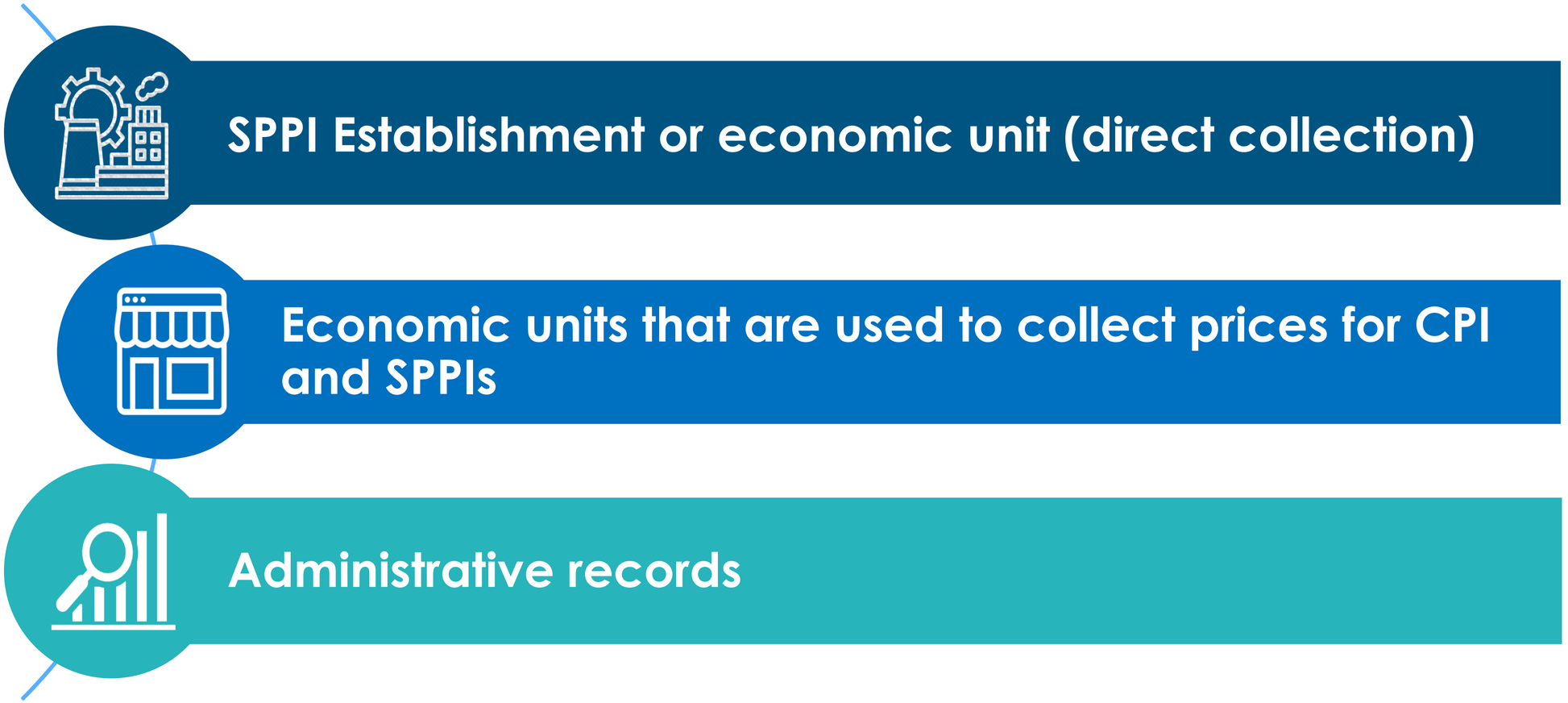
1. PPI: Main Characteristics
2. Statistical Units
3. Sampling Methods
4. Establishment Sampling Frame: RENEM
5. Sample Design
6. Difficulties and Challenges

PPI: Main Characteristics

- 2013 NAICS Sectorial Coverage: 75%
- Base Period: July 2019 = 100
- Basket: 560 goods and service products
- National Production Coverage: 79%
- National Geographic Coverage
- Laspeyres Index



Statistical Units and Other Sources to Collect Prices



Statistical Units and Sample Design

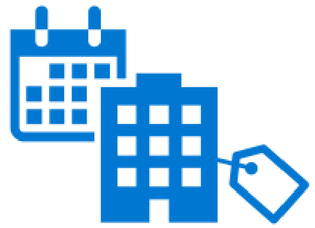
Sample Design	Price Information Source	Number of Service Products
Probabilistic sampling for SPPI	SPPI Establishments	34
Non-probabilistic sampling for SPPI	SPPI Establishments	40
Probabilistic sampling for CPI / SPPI	CPI / SPPI establishments	10
Non-probabilistic sampling for CPI / SPPI	CPI / SPPI establishments	24
Non-probabilistic	Administrative records	2
	Total	**110**

Probabilistic Sampling for SPPIs

Posibility to measure sampling quality and perform statistical inference

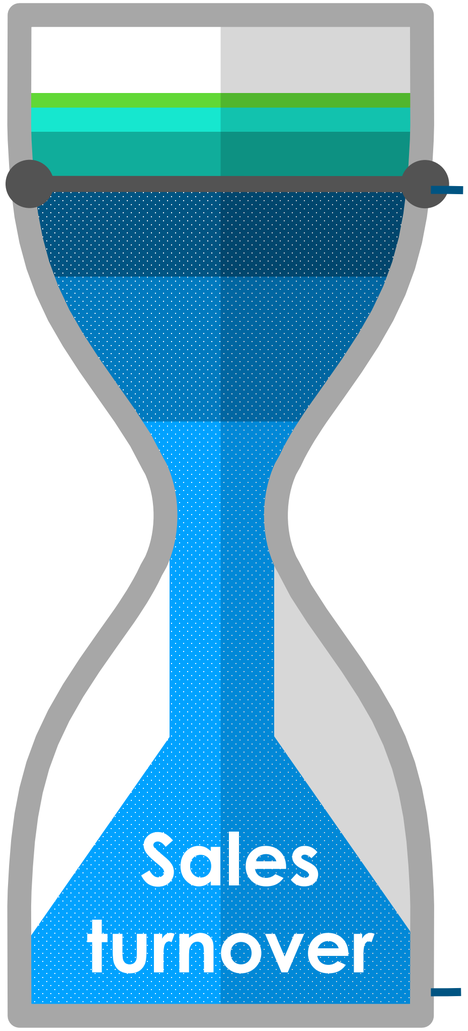
Numerous establishments with low participation rate

34/110 Service products



Cut – off Sampling for SPPIs

Major service providers that lead the industry are selected



Economic units are ordered based on their percentage share of sales turnover

40/110 Service products

Sampling for CPI / SPPI Statistical Units

Probabilistic

- **Stratified sampling**

- **Simple Random Sampling in each stratum**

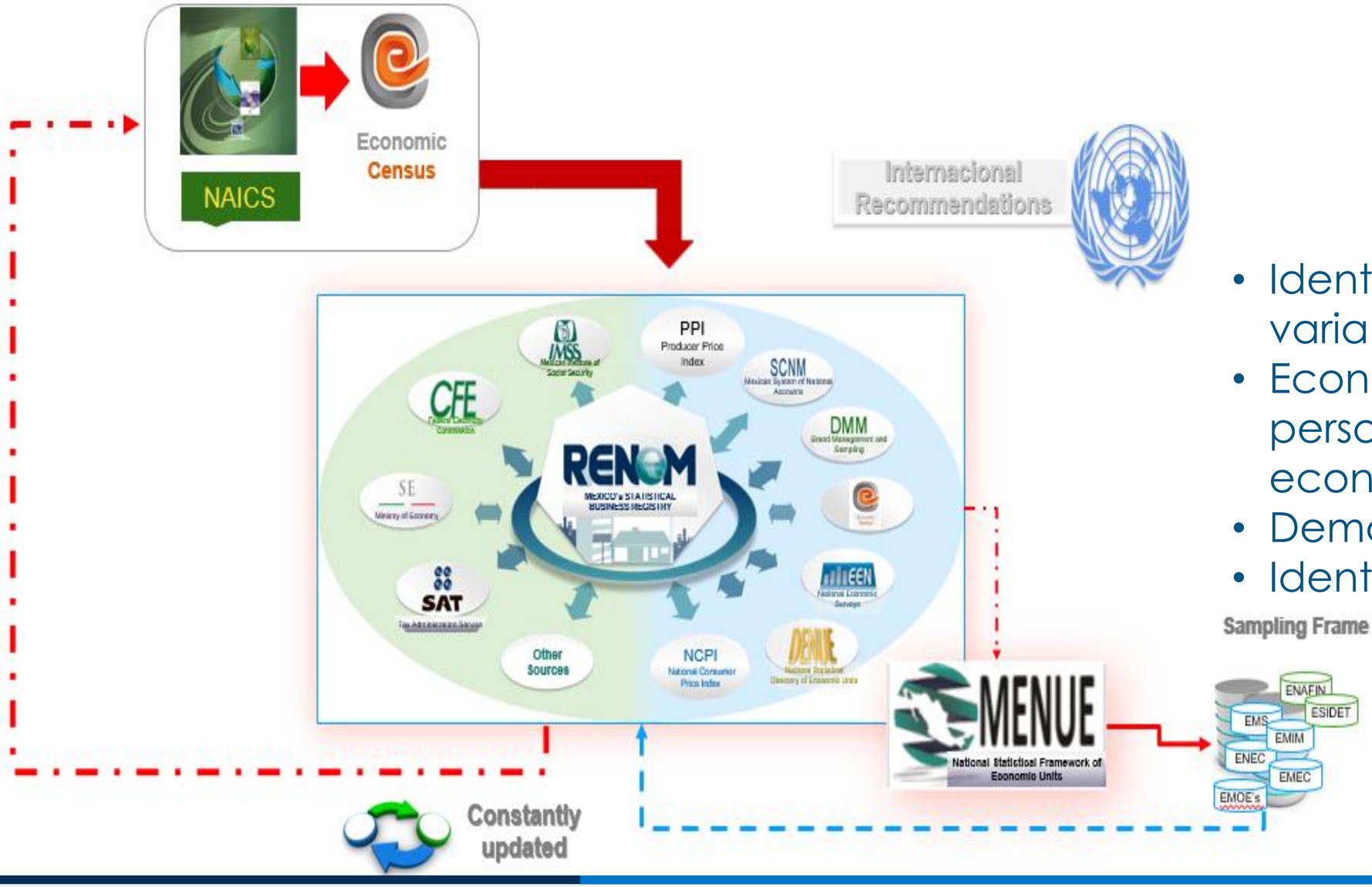
10 / 110 Service products

Non - Probabilistic

- Fees are regulated by the government
- Few services providers
- Services related to housing

24 / 110 Service products

Statistical Business Register of Mexico: RENEM



- Identification and location variables
- Economic variables: personnel, sales turnover and economic activity
- Demographic variables
- Identification key

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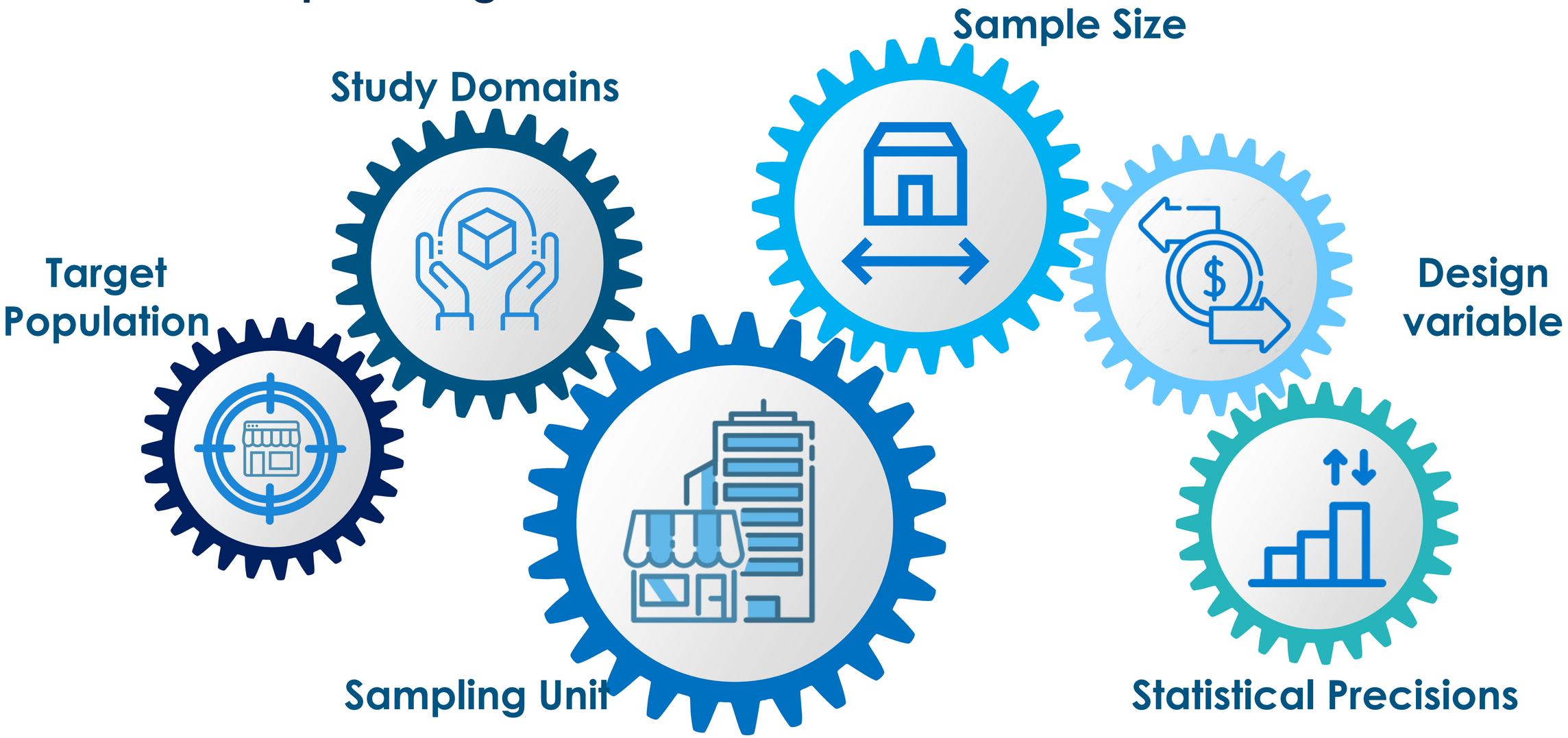
Establishment Sampling Frame: RENEM

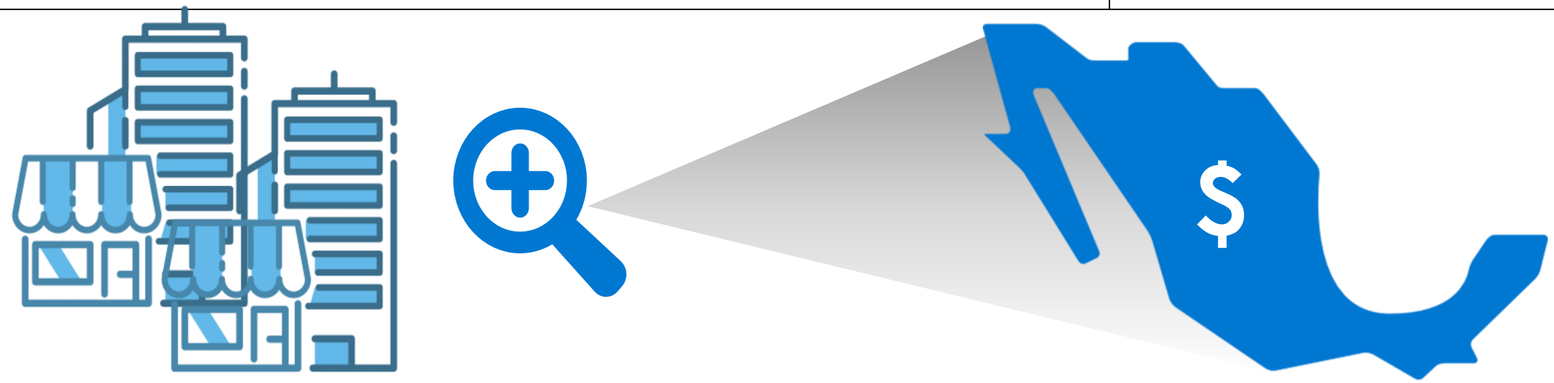
Probabilistic Sample Design



Non - Probabilistic Sampling Quality

INEGI's Quality Assurance Committee: Coverage indicators

Coverage range	Indicator
Greater than or equal to 80%	High
Greater than or equal to 60% and less than 80%	Medium
Less than 60%	Low



Sample Rotation of Establishments

- Selected economic unit remains in the sample until the following base period change or until a change of PPI weights occurs. This causes wear on the informant and lose of representativeness of the sample due to establishments closures and births

- Launch an annual or biannual rotation of the sample based on RENEM updates to allow the sampling frames to be kept up to date; while the frames are updated, the samples will remain fixed

Sampling in the New Normal

- Economic units most affected are those related to the provision of services
- Consumption patterns are changing
- Temporary or definitive closure of the service providers
- Decrease in the variety of services
- Under-coverage of the sampling frames derived from the definitive closure of operations of economic units

Thanks!

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