



הלשכה המרכזית לסטטיסטיקה  
Central Bureau of Statistics  
دائرة الإحصاء المركزية

# UNECE Expert Meeting on Dissemination and Communication of Statistics 2023

## The Digital Transformation at the Israeli CBS

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**It's All in the Numbers!**



# What shall we talk about?



Israel and ICBS



Dissemination and communication Strategy



What is Digital Transformation?



The Implementation



The main Principles



Summary and conclusions



# Israel in Figures



- State Area: 22,072 KM
- (slightly larger than New Jersey)
- Land Area: 98%
- Area of Lakes (Sea of Galilee and Dead Sea): 2%



- Population size: 9.7 M  
74% Jews, 21% Arabs, 5% Others



- Life Expectancy: 82.0  
(F=84.9, M=80.9)



- GDP per Capita: 52,170.71 USD  
(GDP): 3.1%, Q2, 2023



# Israeli Central Bureau of Statistics

- ICBS was established in 1948
- ICBS main goal is to provide the nation with accurate data to support decision-making processes and policy planning
- ICBS employs 1,166 workers and operates with a yearly budget of \$100 M



**Independent  
apolitical unit, part  
of the Prime  
Minister's Office**



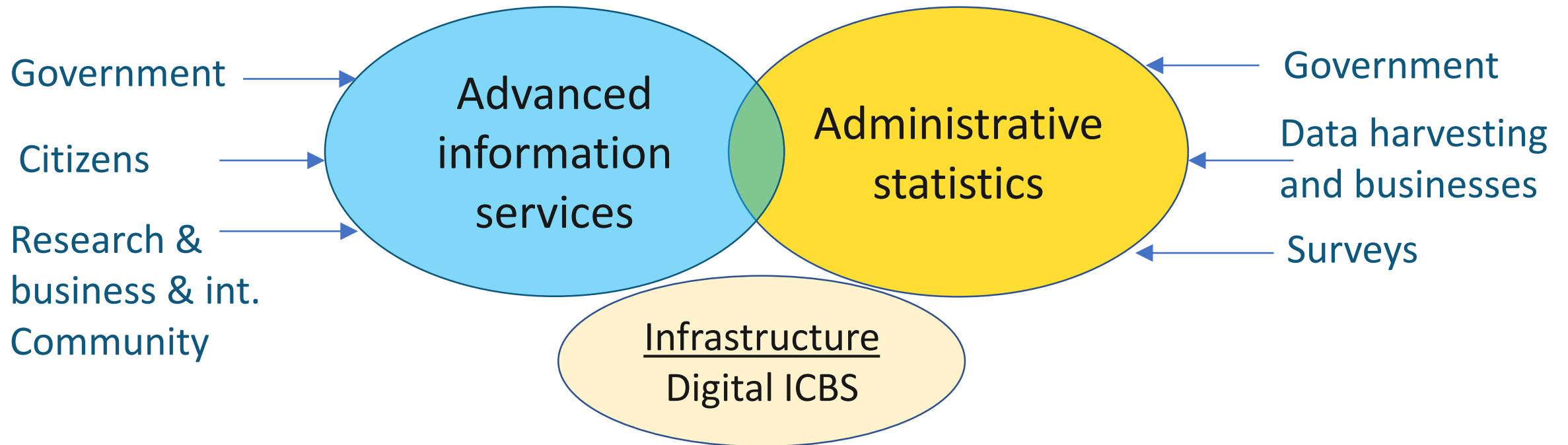
**Authority is given  
by the Statistics  
Ordinance**



**Data are produced in  
accordance with  
standards of international  
organizations**

(UN, International  
Monetary Fund, OECD)

# Vision for ICBS





# What is Digital Transformation?

Process of using digital technologies to fundamentally change how businesses operate

It involves adopting modern technologies, optimizing processes, using data for decision-making, improving the customer experience, fostering an innovative culture, and staying agile in a digital-driven world

It's about using digital tools to enhance efficiency, adaptability, and competitiveness in today's evolving business landscape





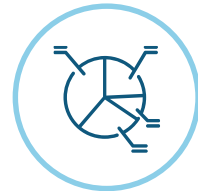
# Main principles of the process

## The Digital Transformation plan at the ICBS



### Collection

- Creating new unified system for surveys
- Adopting administrative statistics approach
- Using advanced alternative sources (Web Scraping, Big Data, etc.)



### Processing

- Establishment of **Data Lake**
- Using modern software tools (machine learning)



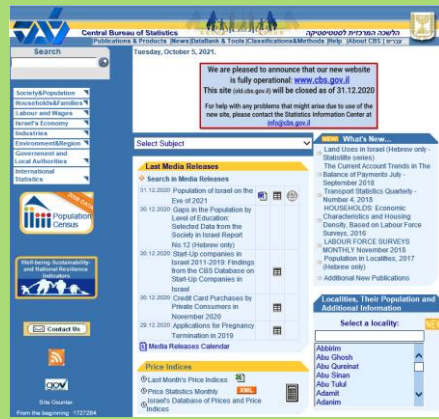
### Dissemination

- Upgrading the website
- Developing applications, display and visualization tools, AI tools



# Intro to Dissemination and Communication

## Old Website



## New Website



## Old statistical Publications



## New and Digital statistical Publications

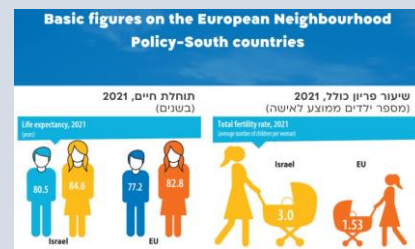


## Old Diagrams and Graphics

Diagram 1 - Manufacturing, mining and quarrying – production index  
Base: 100.0 = 2011



## Infographics, videos and use of Social Networks

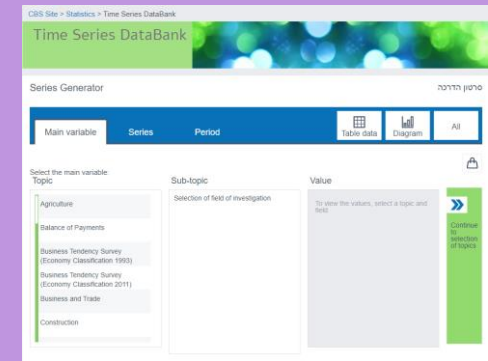


## Old Tables, files

TABLE 1.1 - PERSONS AGED 15 AND OVER, BY LABOUR FORCE CHARACTERISTICS

שנת תחילת התצורה Year of survey	אנשים מעורבים Mixed persons		אנשים מועסקים Employed persons		אנשים חסרי תעסוקה Unemployed persons		סה"כ Total
	מספר Number	שיעור Share	מספר Number	שיעור Share	מספר Number	שיעור Share	
2019	2,230.0	100.0	156.8	7.0	3,985.9	177.0	4,123.7
2018	2,292.2	100.0	177.0	7.7	3,813.4	169.3	4,060.4
2017	2,419.4	100.0	151.8	6.3	3,984.4	164.6	4,140.8
2016	2,437.5	100.0	140.2	5.7	3,983.3	163.5	4,127.0
2015	2,477.8	100.0	148.1	6.0	3,958.8	176.2	4,115.5
2014	2,535.1	100.0	147.0	5.8	3,942.2	176.0	4,105.2
2013	2,552.8	100.0	171.5	6.7	3,825.5	154.0	4,055.3
2012	2,528.9	100.0	178.2	7.0	3,911.3	158.1	4,085.5
2011	2,507.5	100.0	192.3	7.7	3,887.9	157.6	4,051.7
2010	2,508.1	100.0	197.7	7.9	3,854.4	159.2	4,011.3
2009	2,568.7	100.0	191.6	7.5	3,878.9	152.2	4,065.0
2008	2,585.2	100.0	194.9	7.5	3,862.2	157.8	4,004.9
2007	2,622.5	100.0	196.1	7.5	3,858.8	147.7	4,041.1
2006	2,660.2	100.0	188.8	7.1	3,859.7	145.4	4,043.3
2005	2,682.2	100.0	210.1	7.8	3,846.0	147.3	4,047.3
2004	2,830.7	100.0	221.0	7.8	3,813.3	149.9	4,084.2
2003	2,821.2	100.0	219.4	7.8	3,886.2	148.8	4,111.8
2002	2,858.8	100.0	228.3	8.0	3,816.8	152.3	4,101.2
2001	2,963.5	100.0	213.0	7.2	3,938.6	149.8	4,167.3
2000	2,947.8	100.0	212.4	7.2	3,956.6	147.7	4,142.6
1999	2,918.8	100.0	200.8	6.9	3,975.1	146.8	4,140.7

## Databases and Generates







# The Process we are going through

## 1

**Learning the needs of the users**

Analyzing the “user journeys”

Reviewing the existing technological set-up

Collecting additional information  
(benchmark, budget, etc.)

## 2

**Processing the materials**

formulating a road map to create a work plan  
(development of infrastructure, products and services)

## 3

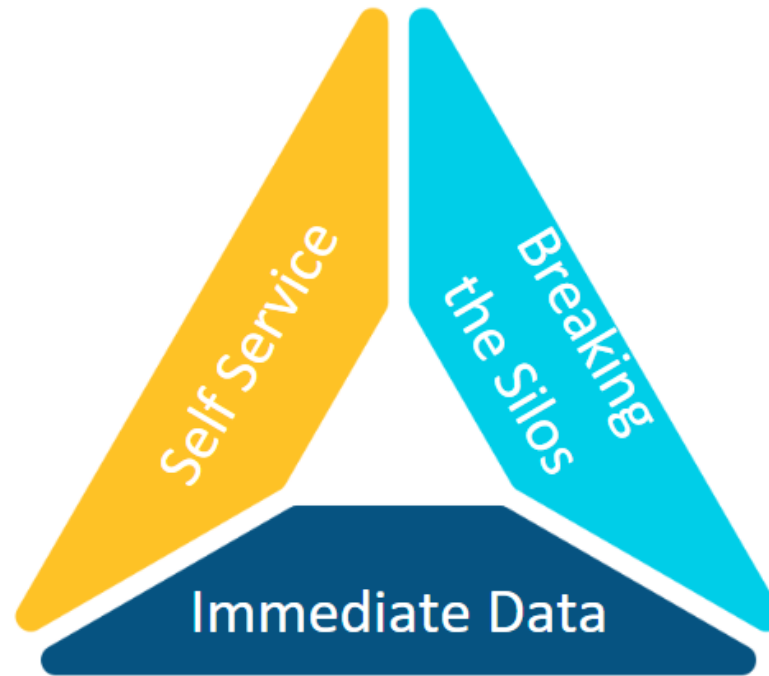
**Implementing the work plan**

Users of official statistics and their data needs



# The picture of the future

The users can get data in a simple way on their own



Easy comparison and analysis of data from different sources

Immediate production of data

# Implementation

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Website new design

API management approach

Advanced search component

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Remote access system for research

# Implementation

## Website new design

An interactive interface that provides friendly and innovative user experience

- **Facelift to the website and mobile app**
- **Development of dashboards – Google Looker**
- **Creating a data generator**

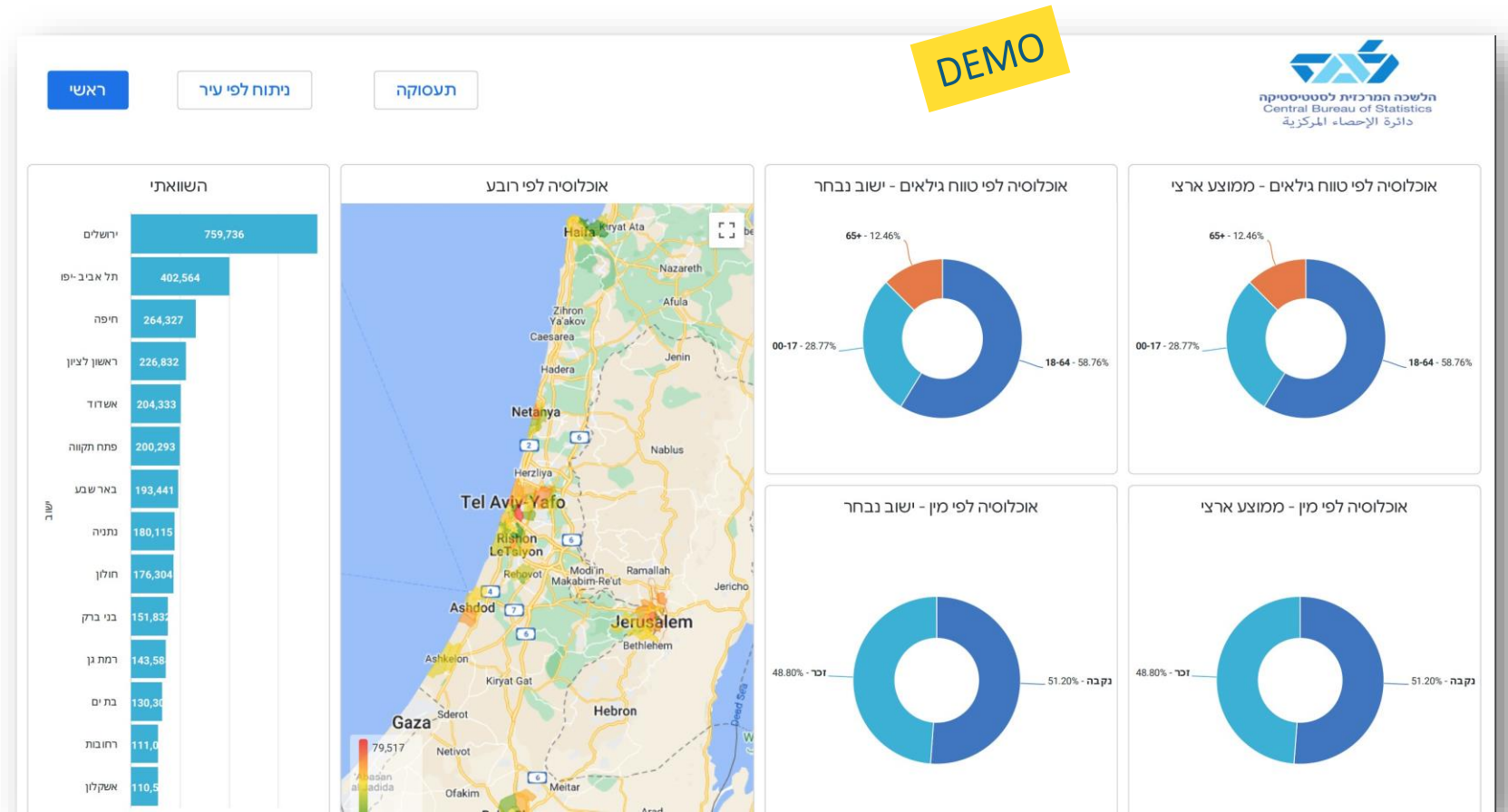


# Implementation

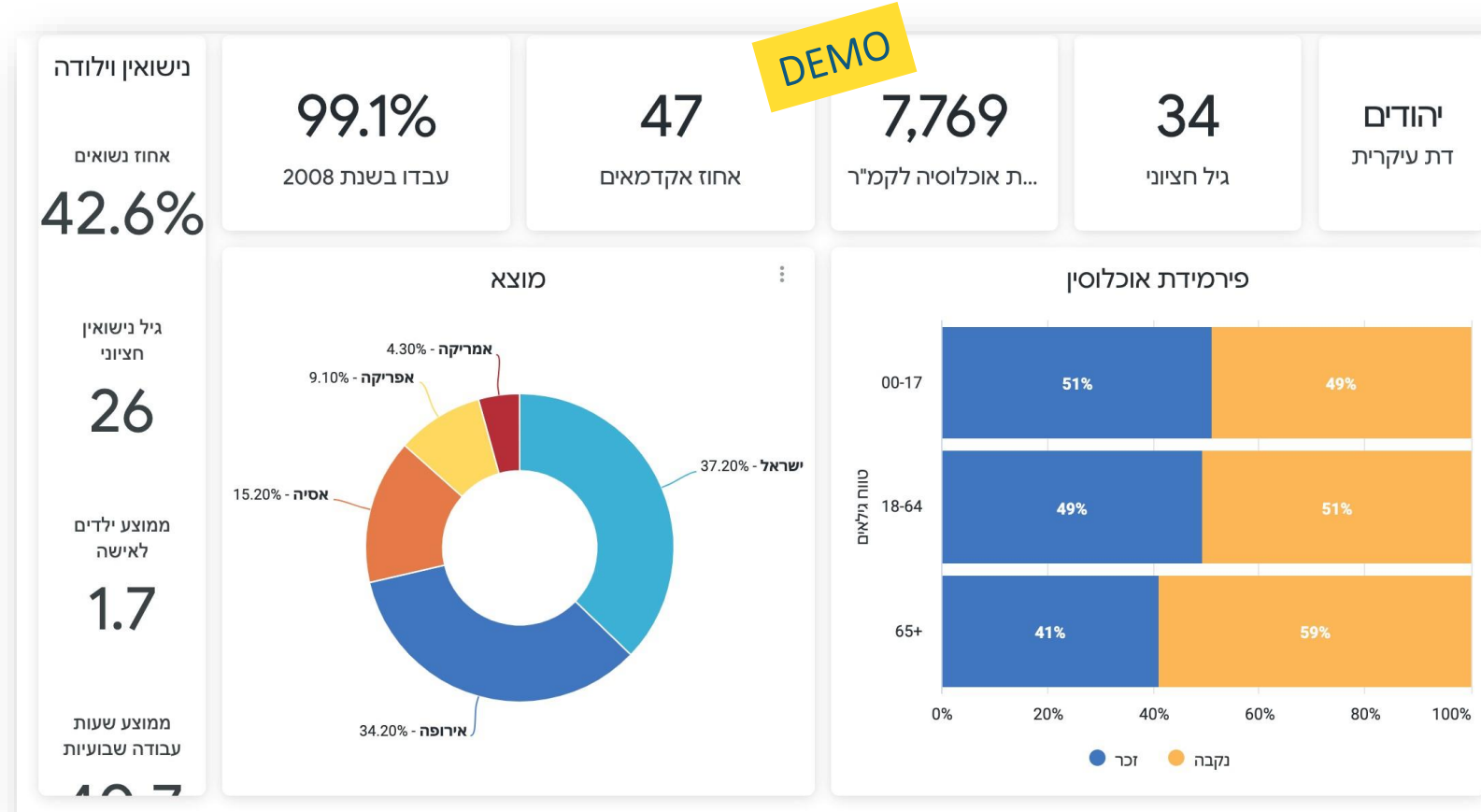
Development  
of dashboards  
Google Looker

Timetable

Q1, 2024



# Implementation





# Implementation

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## API management approach

New technological architecture to the website

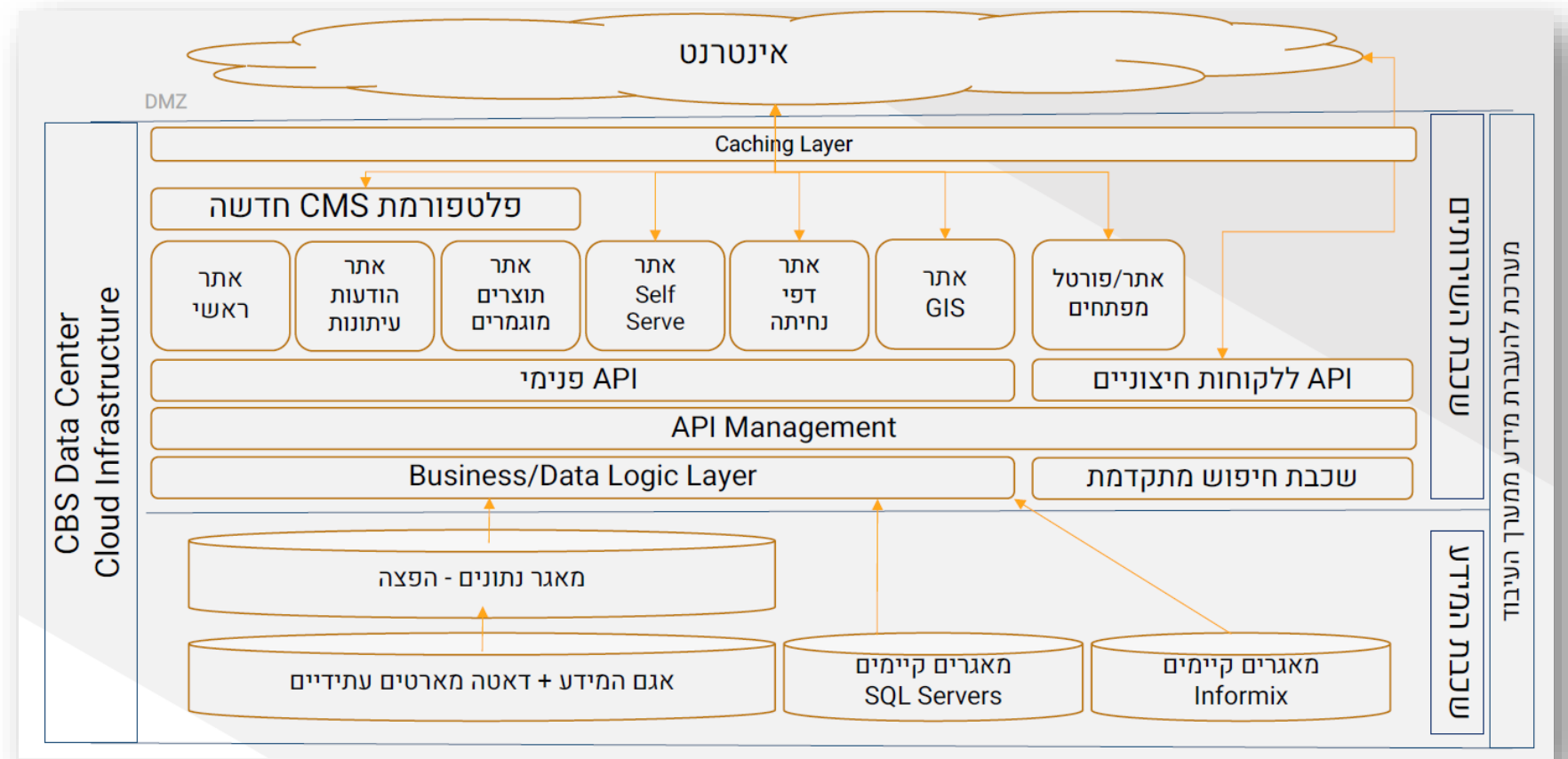
Improving the **technological infrastructure** by adopting **API management** which allows one to search and to generate data quickly and easily

# Implementation

New technological architecture to website

Timetable

Q1, 2024

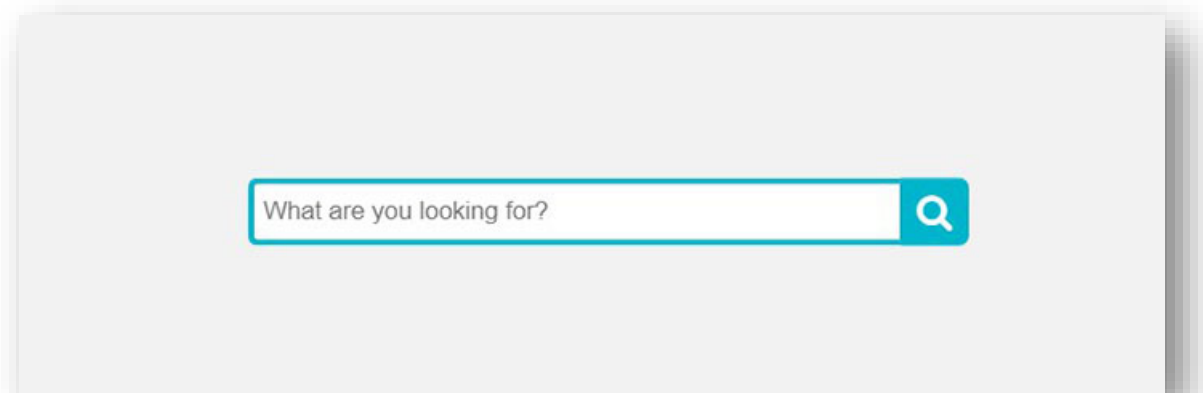


# Implementation

## Advanced search component

Free language search across all databases

Unlike the current situation where the search is limited to specific databases and therefore it is not possible to get a “complete picture”



# Implementation

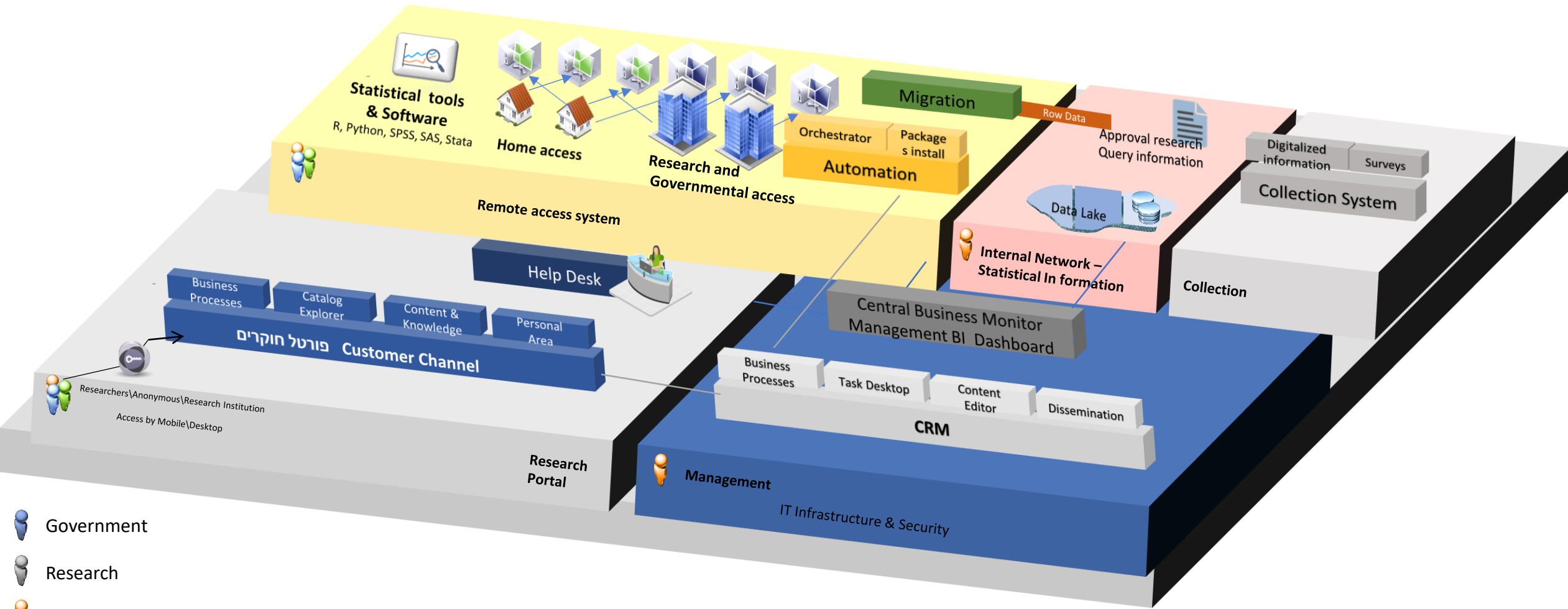
## Remote access system for research

Developing a remote system to allow secure access to microdata

Developing a portal to facilitate communication between researchers and the research services unit at ICBS

The system is expected to expand to a wider infrastructure (Data Lake) which will support the promotion of databased policy, to evaluate the effectiveness of government actions and research on behalf of state institutions

# Implementation



-  Government
-  Research
-  ICBS Employee

# Summary and Conclusions

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- The digital transformation process meets the need of the users = more data and advanced application and less surveys
- The **dissemination and communication** goals within this process:
  - Serve the changing needs of the users in the long term (infrastructure) and in the short term (with quick wins like visualization, advanced search. etc,)
  - Set Standardization of data (and metadata)
  - Shorten schedule for receiving data (time to market)
  - Simplify the way users retrieve data on their own any time (24/7)
  - Allow to compare and analyze data from different sources
  - Allow to create personalized data

more relevant, current and reliable

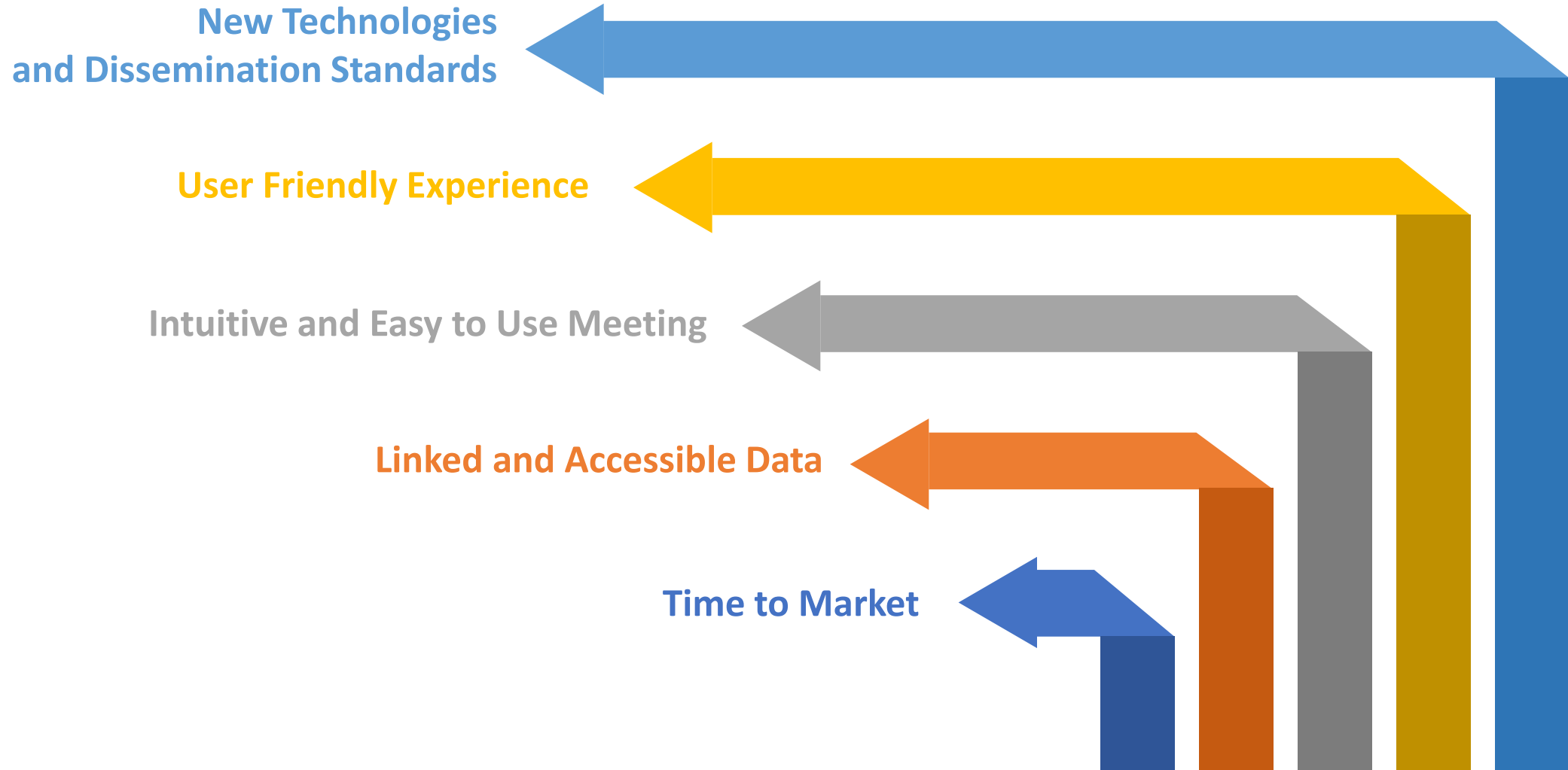
New Technologies  
and Dissemination Standards

User Friendly Experience

Intuitive and Easy to Use Meeting

Linked and Accessible Data

Time to Market







# Thank You!

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