Statistical Products & Clients
(Case of Saudi Arabia to transform the Statistical Sector)
<table>
<thead>
<tr>
<th></th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Developing New Statistics (Methodology)</td>
</tr>
<tr>
<td>02</td>
<td>Statistical Clients</td>
</tr>
<tr>
<td>03</td>
<td>Strategic Program to Develop the Statistical Sector</td>
</tr>
<tr>
<td>04</td>
<td>Masdar</td>
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<tr>
<td>05</td>
<td>Census 2020</td>
</tr>
<tr>
<td>06</td>
<td>National Academy for Statistics</td>
</tr>
</tbody>
</table>
Developing New Statistics (Methodology)
Focus on clients is one of three main dimensions in GaStat work

1. **Client-based strategy**
   - Re-setting GaStat strategy to be compatible with its objectives and reflect the clients' tendency

2. **Products and services**
   - Re-evaluating the products and services to be compatible with the client-based strategy

3. **Operations and methodologies**
   - Determining the required operational activities to provide products and services needed by clients

4. **Information technology and infrastructure**
   - Identifying the needs of information technology and infrastructure of the new institution that focuses on clients

5. **Culture, awareness, and capacity building**
   - Approving reforms in culture to be compatible with the objectives that focus on clients, in addition to guaranteeing the presence of qualified capabilities through the life-cycle of human resources

6. **Governance and institutional development**
   - Guaranteeing the presence of an organizational structure and a governance that are necessary to make such shift
# Transformation Journey - Key Projects & Status

<table>
<thead>
<tr>
<th>Stream</th>
<th>Total Projects</th>
<th>Secondary categories</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Focused Strategy</td>
<td>8</td>
<td>- Develop Gastat Strategy and strategic objectives &amp; articulate the KPIs (Inc: vision, mission, and values).&lt;br&gt;- Segment customers and categories Gastat products and services users.&lt;br&gt;- Develop communication methods for external stakeholders to engage them and promote the transformation program.</td>
<td>1- Completed&lt;br&gt;2- Completed&lt;br&gt;3- Completed</td>
</tr>
<tr>
<td>Products &amp; Services</td>
<td>10</td>
<td>- Assess and realign statistical products and services, conduct customer review and identify Essential Statistical Assets.&lt;br&gt;- Develop and establish new statistical products programme based on Gastat customer-based strategy.&lt;br&gt;- Enable Gastat media &amp; statistical awareness department to support and increase the statistical awareness.&lt;br&gt;- Establish statistical products and services development unit (statistical BD).&lt;br&gt;- Develop and establish 2020 census programme.</td>
<td>1- Completed&lt;br&gt;2- Execution&lt;br&gt;3- Completed&lt;br&gt;4- Completed&lt;br&gt;5- Execution</td>
</tr>
<tr>
<td>Processes &amp; Methodologies</td>
<td>5</td>
<td>- Asses and modernize products and services data &amp; information collection processes from both sources (Surveys &amp; Admin) with the World Bank.&lt;br&gt;- Develop statistical work methodologies and processes quality management system, policies and procedures.&lt;br&gt;- Develop new framework to integrate statistical and spatial data.</td>
<td>1- Execution&lt;br&gt;2- Completed&lt;br&gt;3- Completed</td>
</tr>
</tbody>
</table>
## Transformation Journey - Key Projects & Status

<table>
<thead>
<tr>
<th>Stream</th>
<th>Total Projects</th>
<th>Secondary categories</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT &amp; Infrastructure</td>
<td>13</td>
<td>● Develop IT strategy and Assess and improve IT security.</td>
<td>1- Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Execute NSDB project (MASDAR).</td>
<td>2- Execution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Upgrade Gastat Data center and IT Infrastructure and network.</td>
<td>3- Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Build and implement ERP system.</td>
<td>4- Execution</td>
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<tr>
<td></td>
<td></td>
<td>● Study and implement as appropriate advanced big data analytics tools.</td>
<td>5- Execution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Develop and upgrade Gastat Main Portal and the Statistical Digital Library.</td>
<td>6- Execution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Develop and Establish Saudi National Statistical portal.</td>
<td>7- Execution</td>
</tr>
<tr>
<td>Culture &amp; capabilities</td>
<td>8</td>
<td>● Develop and communicate employees performance management system.</td>
<td>1- Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Develop manpower plan.</td>
<td>2- Completed</td>
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<tr>
<td></td>
<td></td>
<td>● Develop GaStat leadership and management capabilities.</td>
<td>3- Completed</td>
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<tr>
<td></td>
<td></td>
<td>● Develop statistical capabilities in statistical sector.</td>
<td>4- Completed</td>
</tr>
<tr>
<td>Governance &amp; structures</td>
<td>9</td>
<td>● Review and improve governance structure and financial and administrative authorities.</td>
<td>1- Completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Develop and review process for determining the work program, including prioritization</td>
<td>2- Planned</td>
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<td></td>
<td></td>
<td>and resource allocation.</td>
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<tr>
<td></td>
<td></td>
<td>● Develop Customer Service governance and policies and procedures.</td>
<td>3- Completed</td>
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<tr>
<td></td>
<td></td>
<td>● Establish a statistical academy to start working in a commercial manner through</td>
<td>4- Execution</td>
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<tr>
<td></td>
<td></td>
<td>public-private partnerships (PPP).</td>
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</tr>
</tbody>
</table>
Focus on clients is one of three main dimensions in GaStat work.

Statistical sector development |
Quality |
Client development

Re-evaluating the products and services with the client-based strategy

Re-setting the objectives of GaStat strategy with its tendency to be compatible with clients' needs

Determining the required operational activities to provide products and services

Identifying the institution's needs of the technology and infrastructure

Applying reforms in culture to be compatible with the objectives that focus on clients, in addition to making such shift

Guaranteeing the presence of an organizational structure and a qualified human resource in building the life-cycle of services and capacities

Culture, awareness, and capacity building

Operations, technology, and infrastructure
Methodology and Criteria

Gastat has adopted a comprehensive methodology for identifying new and priority statistical products, by focusing on collecting the largest number of requirements, proposals and needs from various client categories, as well as defining Vision 2030, transformation programme 2020 and the United Nations Framework for Sustainable Development objectives to support decision makers and policy makers with statistics and indicators that they need, the model below represents the methodology and the work stages:

1. Understanding the products current status and setting the international standards and areas of improvement
   - Perform desk and standards studies to identify areas of improvement and the most important products and indicators recognized internationally.
   - Conduct meetings and workshops to identify gaps and understand the current situation with the statistical departments.
   - Develop a preliminary list of the statistical products.

2. Review the outputs (products list) alignment and evaluation with local realities
   - Review the proposed list of products and adapt them to the needs of customers and the local arena:
     - Conduct meetings and workshops with clients from the private sector and the government to identify the needs and the requirements.
     - Gather the statistical departments’ thoughts on introducing new products that serve local and international arenas.
     - Launch family and entities surveys development project.

3. Prioritize products development as well as its classification and prepare a relevant road map
   - Identify and classify priority products based on the following criteria:
     - The nature of the product and the emergency of it (i.e request from an important client such as the chairman, the board of economic affairs and development).
     - The level of impact on vision 2030 and the transformation programme 2020.
     - Comply with the international and normative requirements.
   - Prepare a clear Statistical products cards that describe the most important products / indicators, clients, periodically .etc.
   - A road map that describes the priorities (ICU) and products development and its duration.
   - Specify the product’s detailed scope with the customers.
   - Products development and produce results according to a schedule.

4. Create and develop statistical products and publish its results

5. Alignment with customer needs: Conduct continuous workshops and meetings with customers to identify statistical needs and tailor products according to their needs periodically (before design, during development and after measurement / release)

Conducting Meetings, correspondence and workshops in a flexible manner in response to any urgent requirements that come from the Chairman of the Board of Directors and their Excellences: Ministry of Economy and Planning, national initiatives and sister entities, Ministry of Health Ministry of Trade and Investment, this is to collect thoughts and statistical needs whether it is surveys, indicators or statistical studies.
Methodology and Criteria - Criteria in selecting statistical products

Gastat has adopted local and regional requirements and numerous international requirements in selecting statistical products.

UNSD  | OECD  | IMF  | VIP Customer
G20    | ADAA  | GCC  |
SDGs   | NTP2020| Vision 2030 |
WB     | MEP   |

International Requirement

Local Requirement
Progress in surveys’ implementation (2016 - 2018)

Number of surveys:
- 2016: 16
- 2017: 38
- 2018: 45

New surveys 2018:
- Survey of industrial activity
- Survey of specialized agricultural projects
- Survey of agricultural holdings
- Survey of non-profit sector (establishments)
- Survey of electronic trade (included in the quarterly surveys of internal trade activity)
- Survey of time consumption
- Survey of construction activity
- Survey of agricultural production
- Survey of non-profit sector (household)
- Household survey of culture and leisure
- Survey of cities

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<table>
<thead>
<tr>
<th>Business &amp; Economics</th>
<th>Population &amp; Social Work</th>
<th>Knowledge &amp; Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Industrial Survey</td>
<td>2. Food and drug survey</td>
<td>2. Agriculture survey</td>
</tr>
<tr>
<td></td>
<td>5. Consumer confidence index</td>
<td>5. Community awareness index of national heritage</td>
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<tr>
<td></td>
<td>6. Domestic violence statistics</td>
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<td></td>
<td>7. Gender gap index</td>
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<td></td>
<td>8. Gender development index</td>
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<tr>
<td></td>
<td>9. Gender inequality index</td>
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<td></td>
<td>10. The qualitative gap and equivalence index</td>
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</table>
# Improving Existing Surveys

<table>
<thead>
<tr>
<th>Business &amp; Economics</th>
<th>Population &amp; Social Work</th>
<th>Knowledge &amp; Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Small and medium enterprises survey</td>
<td>1. Labor force survey</td>
<td>1. Family sport activities survey</td>
</tr>
<tr>
<td>3. Survey of employment and wages</td>
<td></td>
<td>3. Access and use of information and communications technologies per family and individual</td>
</tr>
</tbody>
</table>
# Methodology and Criteria - stages of statistical product preparation

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</thead>
<tbody>
<tr>
<td>1.1 Understand and confirm statistical needs</td>
<td>2.1 Design dissemination</td>
<td>3.1 Configure workflows</td>
<td>4.1 Prepare data collection</td>
<td>5.1 Link datasets</td>
<td>6.1 Validate data outputs</td>
<td>7.1 Produce dissemination products</td>
<td>8.1 Gather evaluation inputs</td>
</tr>
<tr>
<td>1.2 Scope statistical Solutions</td>
<td>2.2 Determine populations, concepts and variables</td>
<td>3.2 Test and finalize workflows</td>
<td>4.2 Collect and load data</td>
<td>5.2 Classify and code</td>
<td>6.2 Confidentialize outputs</td>
<td>7.2 Release dissemination products and services</td>
<td>8.2 Conduct evaluation</td>
</tr>
<tr>
<td>2.3 Design data collection</td>
<td></td>
<td></td>
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<tr>
<td>2.4 Design frame and sample</td>
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<tr>
<td>2.5 Design compilation and validation</td>
<td></td>
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<tr>
<td>2.6 Design workflows</td>
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<tr>
<td>2.7 Design quality management and evaluation</td>
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</tr>
</tbody>
</table>

## 9. Manage & Assure Quality (QA)

| 9.1 Plan | 9.2 Monitor | 9.3 Adjust |
Statistical Clients
Division and classification are ways to focus on clients

<table>
<thead>
<tr>
<th>Clients main categories</th>
<th>Secondary categories</th>
</tr>
</thead>
</table>
| Governmental entities        | • Royal Court, Council of Economic and Development Affairs,Council of Political and Security Affairs, Ministers Cabinet, Shura Council, Decision Support Center, Delivery Unit, National Center for Performance Management.  
                              | • Governmental ministries, authorities, institutions, and funds.                     |
| Private sector               | • Saudi large, medium, small, and emerging enterprises.                               |
                              | • Non-Saudi enterprises that work upon the foreign investment system.                |
                              | • Non-Saudi enterprises that intend to invest in Saudi Arabia.                       |
                              | • National committee of statistics (Saudi Council of Chambers).                     |
| International organizations  | • International organization that must be provided with statistical data by Saudi Arabia. |
                              | • Technical, scientific, or statistical international and regional organizations.    |
| Researchers and academics    | • Saudi academic institutions.                                                       |
                              | • GCC academic institutions.                                                         |
                              | • International academic institutions.                                               |
| Media                        | • International media channels in English language.                                  |
                              | • International media channels in Arabic language.                                  |
                              | • Saudi media channels.                                                             |
                              | • Social media channels and platforms.                                               |
                              | • Related official websites.                                                        |
| Individuals                  | • Researchers and students.                                                          |
| GaStat representatives       | • Statisticians who are not employed in GaStat but cooperate in implementing the authority’s field works.|

Based on the use and exchange of data between GaStat and the other entities, clients have been divided into V main categories, so that we can focus on them and fulfil their needs of data and information.
Specialization to deal with clients

A public administration has been established to address all clients needs, provide services to them and provide data to help them make decisions.

Customer Service and Statistical Innovation

Office of the Vice-President

Relations and client support

- Statistical analysis
- General reports
- Innovation and development
- International cooperation
- Statistics academy
Focusing on clients includes

<table>
<thead>
<tr>
<th>Meeting the requirements and the needs of clients</th>
<th>Continuous monitoring of decision-making and policy-making needs, and performance evaluation of statistical data and information in and outside the Kingdom (demand side).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Identifying met and unmet needs.</td>
</tr>
<tr>
<td></td>
<td>Working to fill the gaps.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strengthening strategic partnerships with the statistical sector components</th>
<th>Building and enhancing strategic partnership with the statistical sector components.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fulfilling the Authority’s obligations, providing appropriate support and solutions and strengthening communication channels.</td>
</tr>
<tr>
<td></td>
<td>Policies and governance of communication with clients according to specific rules and procedures.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maintaining a high level of client’s satisfaction</th>
<th>Measuring the level of satisfaction of beneficiaries about the products and services of the Authority (clients).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Achieving a high level of satisfaction and maintaining it continuously.</td>
</tr>
</tbody>
</table>
Clients have become part of the statistical work stages

- General Authority for Statistics (GaStat) and the clients
- GaStat and the statistical society

Statistical work procedures:
- Collection
- Classification
- Revision
- Publication
- Evaluation
- Management
- Range
- Design
- Organization
Clients are part of decision support...

First stage: Understanding the requirements
- Product’s scope.
- Product’s design.
- Product’s organization.

Second stage: Data collection
- The process of collecting data from their sources.

Third stage: Producing and publishing
- Classification.
- Revision.
- Publishing (descriptive analysis).
- Evaluation.

Fourth stage: Policy-making
- In-depth analysis of data.
- Making the right decision.

Clients (Development entities)
- GaStat
- Statistical society

Client (Development entity)
Strategic Program to Develop the Statistical Sector
Big Data: new source for new products

2017
- Social Media statistics

2018
- Traffic data statistics
- Consumer Price Index (CPI)
- Mobile data sources

2019
- Companies websites
Masdar
Digital Transformation in Statistical Field

Current Main Challenges

- **Data Producers**
  - Printed Tables
  - Files (PDF, Excel)
  - Storage Media
  - CDs
  - Emails

- **Data Consumers**

Statistical Data and Indicators

- **Discrepancy** in the statistical numbers produced by different agencies.
- Lack of timely and accurate information to support the decision makers and development planning.
- The extensive, diverse requirements for the statistical indicators.
- The international statistical authorities role changed from production only, to orchestration and governance between the statistical indicators producers and the consumers.
- The cumbersome effort to consolidate the data from multiple sources to produce new indicators.

Statistical Digital Transformation with Masdar

- **Data Producers**
  - Digital Platform
  - Central Database
  - Data Flow
  - Governance
  - Secured Data Network

- **Data Consumers**

Statistical Data and Indicators

- Unify the agencies’ Statistical Indicators, Standards and Methodologies in one unified and accurate source of statistical data.
- Exchange statistical data between the government agencies through unified interface.
- Build National Statistical Database which is the Kingdom Official source for the statistical indicators.

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### Characteristics of Register-based census 2020

#### 2010 Census

- Traditional enumeration.
- Errors detection rules are applied after completing field work and data entry process.
- Using the block numbering system in cities.
- Quality system by field samples.
  - Government agencies’ views on forms’ content are considered.

#### 2020 Census

- Administrative records are used and some data are collected from the field.
- Self-counting system and the phase of listing and numbering all buildings and housing units are used.
- Errors detection rules are applied during data collection.
- Postal addressing system is used.
- Comprehensive quality system is applied through central operation rooms.
- Results are obtained during the enumeration period and immediately after completing the enumeration works.

#### Statistical dimension

- Results are obtained after completing the enumeration work, data entry and revision.
- Publication is at the neighbourhood and populated areas level.
- Data are published through paper bulletins, floppy disks and the Authority’s website on the internet.

#### Availability and publication dimension

- Flexibility of data publishing at any required geographical level.
- All traditional and electronic publishing methods are used and using the business intelligence system.

#### Technical dimension

- Spatial coordinates at the level of blocks in cities and populated areas in villages.
- Systems based on paper forms and the use of (ICR) reading system.
- Huge costs for printing, transport, storage, data entry and audit
- Follow up with the supervision groups of the field researchers.

- Spatial coordinates at the level of blocks in cities and populated areas in villages.
- Data are collected by using tablets.
- Data are transferred by using tablets from the National Information Centre and databases at the Authority’s headquarter during the interview with the head of the household.
- Ability to track field enumeration and calculating all field quality rates.
Linkage with the National Information Center

Concept of **linkage**

- an electronic linkage that occurs by using a secured network between GaStat and the National Information Center (NIC), so that they can exchange data.
  - reaching the registers of individuals, households, dwellings, and establishments and linking them with the individuals’ national code.
  - Unifying all definitions and concepts, so that they can be easily transferred into statistical registers which can be analyzed any time.
  - Using register-based data in all household and establishments’ surveys.
  - Founding a unified statistical code for establishments.

**service inputs**

- Head of household ID number
- Spouse ID number

**service outputs for all household members**

- Name
- Age
- Gender
- Nationality
- Relation to the head of household
- Marital Status
- Educational Status

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Using Postal Addressing System

To improve GaStat system of coding buildings and real-estate units', GaStat uses a national coding system which is unified for all post addresses. This system is managed by the Saudi Post office. It depends on GIS and has been developed according to the international coordinate system. Its accuracy may reach 1 meter. Through this system, two layers are created:

- Postal codes that rely on geographical factors, population size, boarders, and road networks.
- A layer that provides an address for each location inside the postal codes.
Data Collection

Tablets will be used by the data collector, so that he/she can fill in all required data from the head of household, then he/she transfers these data to GaStat database.
National Academy for Statistics

In order to achieve the Saudi vision 2030, and based on the role of the General Authority for Statistics in supporting the national statistical sector, a national academy for statistics has been founded to work upon the following tracks:

- Developing statistical products and services according to the needs of GaStat clients outside the statistical field.
- Increasing the level of national manpower in the statistical sector through rehabilitation and training.
- Providing consultative services to the statistical sector in Saudi Arabia by cooperating with local and international consulting firms.
- Getting benefited from GaStat data to support decision makers in both the private and public sectors.
Thank you..

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