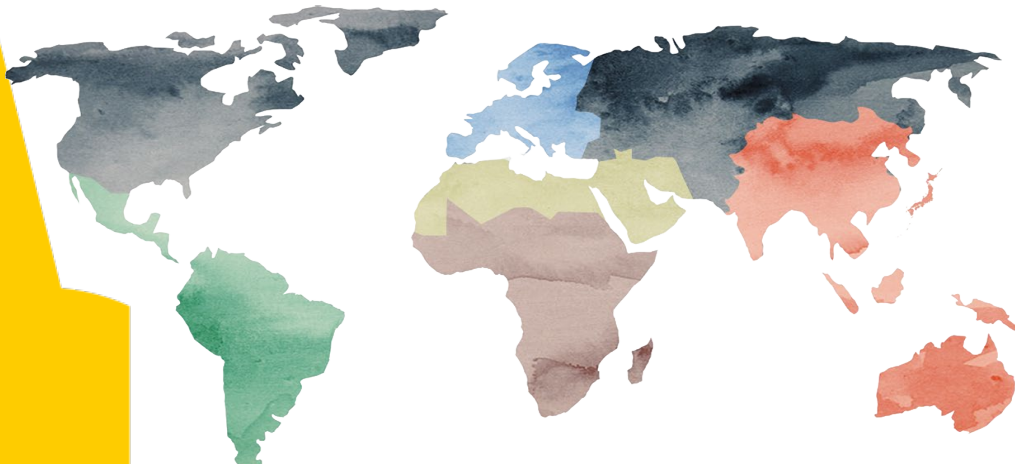# PRIVATE SECTOR CONTRIBUTION TO ENHANCING THE USE OF NEW DATA SOURCES

5th International Conference on Big Data for Official Statistics
Data Science and Capacity Development in Official Statistics
Kigali (Rwanda), 29/4 - 3/5/2019

Ibtissam Sahir
Managing Directors of GOPA Luxembourg

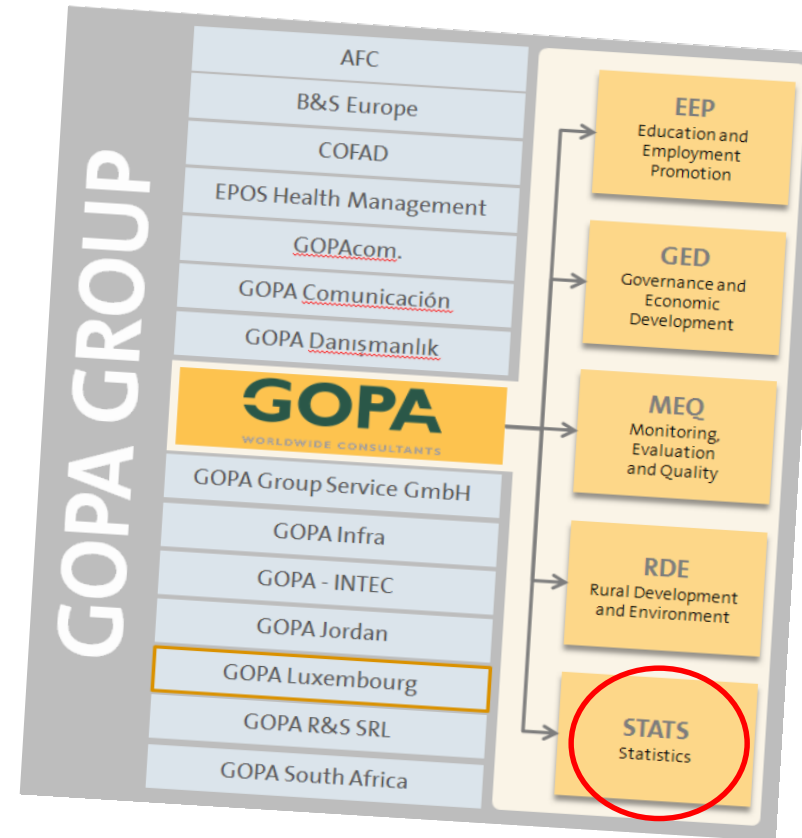# GOPA Consulting Group in Brief

A leading consulting group dedicated to perform and effectively contribute to international cooperation

736 employees in **7** member companies

Founded in Germany in **1965**

The GOPA Consulting Group delivers results in nearly all service fields and countries

About GOPA Statistics

- Statistical **consultancy** across the entire range of processes and domains (more than 280 experts)

- Statistical **capacity building** to strengthen institutions

- Statistical **methodology** to support the development of technical infrastructure

- Statistical **training** to enhance organisation's knowledge base

- Statistical **dialogue** to support interactions and relationships between users and producers of statistics

Key aspects of private sector contribution in Official Statistics I

\ Demands for data produced by official statistics has increased

\ Growth in new potential data sources outside of official statistics - Enormous amount of information available

\ Meeting the demands for more and better official data

\ Availability of technically qualified staff, appropriate governance structures, physical facilities including ICT, logistics, and statistical infrastructure

Obligation of the Statistical community of exploring the usefulness of new data sources

- Meeting the expectations for the society
- Enhanced and innovative products
- more efficient ways of producing official statistics

Data Revolution

Agenda 2030

SDGs

More and better official data

Capacity Development

Key aspects of private sector contribution in Official Statistics II

- Capacity-building needs to move beyond traditional interventions focused on technical improvements.
  - more holistic approaches lead to more appropriate, efficient and sustainable outcomes
  - recognising the links between innovations and the need for organisational/institutional change, underpinned by strong change management processes
  - Design intervention that focuses on the trending needs assessment and priorities
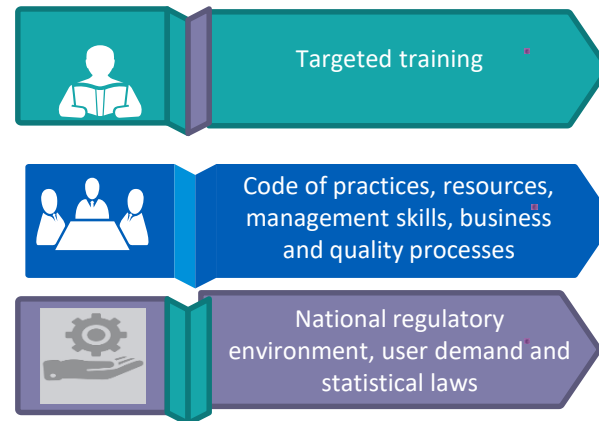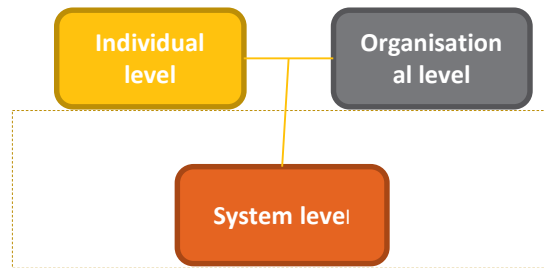- Reducing the information gap across countries and regions
  - Better and complete picture of socio-economic situation

Data Revolution

Agenda 2030

SDGs

More and better official data

Capacity Development

Main areas of work in capacity development : 3 level of contribution

3 levels of intervention that can be addressed in order to develop capacity. (the CD4.0 framework)

Our Intervention

| Individual level | Organisation al level |
| System level |

Targeted training

Code of practices, resources, management skills, business and quality processes

National regulatory environment, user demand and statistical laws

Individual
Individual capacities within a statistical organisation

Organisation
Organisation-wide practices (procedures, standards, institutional frameworks)

System
Various channels that connect individuals and organisations, whether formal or informal
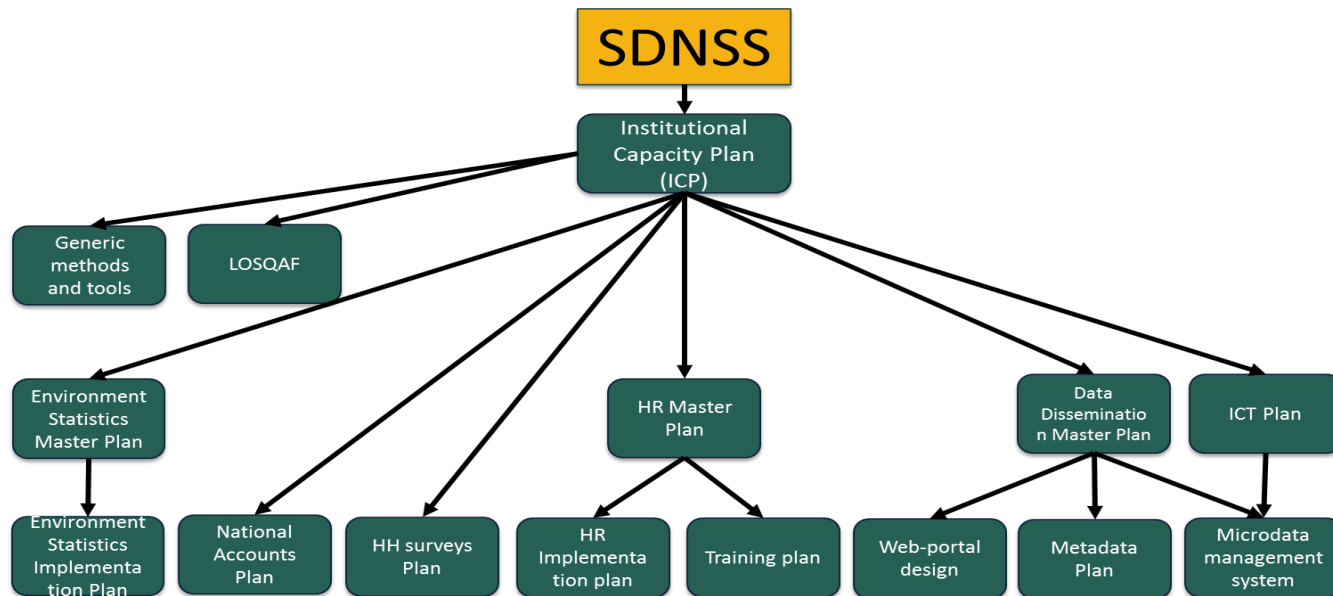
\ Case study: LAOSTAT

\ How the theoretical approach to capacity development can be put into practice by targeting all three dimensions of CD through an overall capacity plan

Target/Level	Individual	Organisation	System
Resources	Recruitment process/employee engagement → HR strategy	IT system → ICT Plan, technical specifications and support to procurement process	Review of the Law and of the strategy for development of NSS (SDNSS) → recommendations
Skills and knowledge	Training plan/Capacity building plan Capacity building activities	LOSQAF + QMS Generic tools and methods Description of processes → Environmental statistics conceptual roadmap	Promotion of stats as management tool of public affairs → stats literacy Technical assistance with other ministries
Management	Behavioural framework/ performance management/ Middle management training/ Leadership training/ Project management training → HR strategy	Set of strategies and master plans Support to fundraising strategy ICP → change management/Middle management training/Leadership training/ Project management training	Support to the implementation of the Law and SDNSS → Implementation plan for the development of the NSS Support to SDGs data coordination role
Politics and power	Behavioural framework → HR strategy	Transparency → Dissemination strategy, metadata strategy, website, LOSQAF	User satisfaction survey Support to stakeholders meeting WG
Incentives	Talent management/ Non-financial incentives (training and education opportunities, study visits, etc.) → HR strategy	ICP → vision, core values HR strategy → recommendation on compensation and benefits Dissemination strategy → reputation and trust	Promotion of stats as management tool of public affairs → Seminar for policy makers Support to the promotion of the law

Case study: LAOSTAT

\ The specific objective our intervention was to improve LAOSTAT's capacity to produce and disseminate reliable data in accordance with international standards and in response to user needs and policy makers priorities.

Our approach in exploring new data sources

The proposed approach fully consistent with international standards

Actors involved

- IT specialists
- Statisticians & Data analysts
- Middle and senior management

Key actions

- Detailed training program targeting the familiarization of new data infrastructure and tools
- Associated technology transfer process to make available appropriate tools and methods
- Knowledge transfer between developed statistical system and less developed ones
- Accompanying the professional in a day to day learning process to master new data methods and tools

Achieving a new way to produce statistics in an effective and professional way

- Not compromising the impartiality
- Keeping high quality standards.

\ The usage of scanner data for price statistics can be potentially beneficial :

1. in bridging time lags in the availability of official statistics,

2. in supporting the timelier forecasting of indicators, and

3. in providing an innovative data source in the production of official statistics.

\ Scanner data, being an innovative source in the context of official statistics production, presents as advantages, the reduction of response burden of enterprises, productivity gains for NSIs, and improved accuracy of price statistics.

A project implemented by GOPA in-house, from developing the methodological approach to communication of results

1. Methodological approach
2. Data source
3. The structure of data received

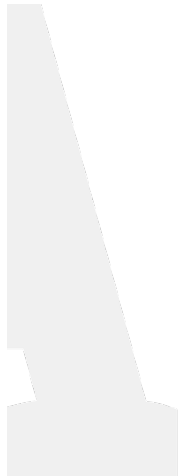| Retailer category code	Retailer category label	EAN	Item Label	No Units Sold	Sales	Year	Month
14200	Milk products	54501685 11156	« Brand A » LAIT DEMI-ECREME 1L.	612	741.60	2017	8

1. Classification of individual items
2. Outliers and dumping
3. Imputation
• ….
• Results

Private sector and statistics offices collaboration fosters innovation

Step by step approach I

Capacity development actions should be based on an accurate evaluation of the current status of national statistical institutions :

\ A baseline need identification of technical skills within Statistical institutions

\ Assessment of institutional readiness of statistical institutions in using new data sources

\ Assessment of the technical and statistical level of statistical institutions and statistical system :

– Functional and non functional needs assessment

– Allowing for a better customization of specific capacity development actions

Step by step approach II

| ① Engage | ② Empower | ③ Enable | ④ Educate |

Phases

Inception Period

Output delivery

Activities

- Should seek to link objectives directly to User Needs.
- Clear and realistic plan, focused on priorities and linked to step-by-step changes
- Refine project plans and deeply understand technical, institutional and user needs
- Identify the step approach for transforming the production process
  - Mobilise specialists will need to closely interact (in fields such as statistical methodology, thematic statistics, IT infrastructure, data science, data analytics etc),
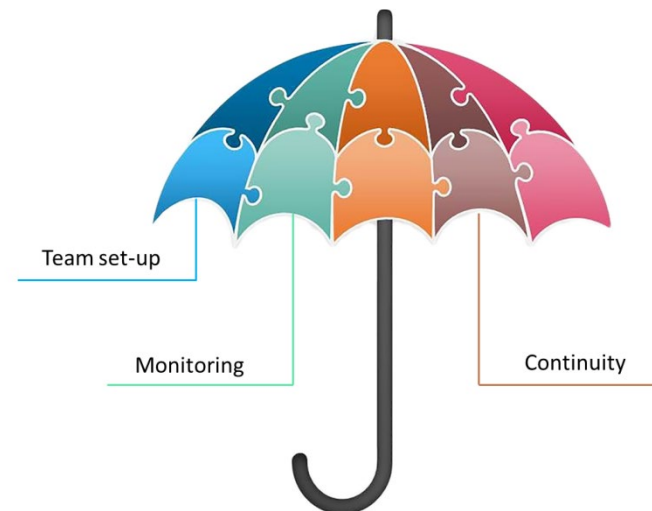
Deliverables

- Delivering outputs

To achieve the full mastering of new ways of producing data

Kick-off | Kick-off oprationnel | Progress Meeting 1 | Progress meeting 2 | Steering committee meeting | Deliverables | Guidelines & metadata | Final report first Phase

1 week

worshops

etc.

Private technical service providers : organisational & technical support I

\ Private technical service providers specialised in official statistics are the most common to efficiently run large and small-scale CD projects.

\ Bring expertise in combining successful project management with a contextual understanding of the needs of official statistics.

100+ Experts

Team set-up

Monitoring

Continuity

Private technical service providers : organisational & technical support II

Project Set-Up

Missions, Workshops, Ad-hoc activities		Financial Assistance	

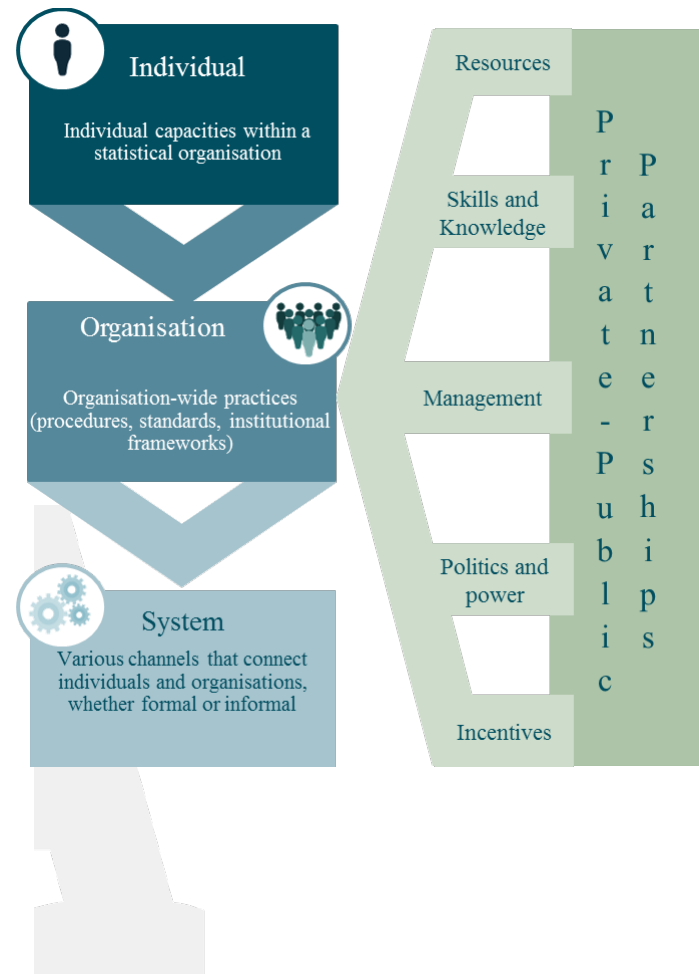| Macroeconomic Statistics	Business Statistics	Agricultural and Environmental Statistics	Social Statistics	Additional Statistical Areas
• GFS • ITSS • National Accounts • Transmission programme • Regional Accounts • Sector Accounts • SUT/IOT • Non-observed economy • MIP	• Business Registers • Short-term business statistics • HICP • PPP • Transport Statistics • Energy Statistics	• Annual Crop Statistics • Animal Production Statistics • Agri-monetary Statistics • Farm Structure Survey • Waste Statistics	• Information Society Statistics • Labour Force Survey • EU-SILC Implementation • Crime and Criminal Justice Statistics • Population and Housing Census • Education Expanditure	• Quality Management • Metadata • Sustainable Development Goal Indicators • South-east Europe 2020 Indicators

Horizontal Activities

*We focus on building **vertical** (sectoral or technical) and **horizontal capacities** (that enable the use of technical skills)*

Private technical service providers : organisational & technical support III

\ Their most important advantages are that they are able to:

- understand the particularities of project implementation

- identify and mobilise the right subject matter expert(ise)

- improve cost-effectiveness in implementation processes

- have robust financial management systems

- coordinate partners and stakeholders across sectors, and

- form effective relationships between public and private actors where necessary (e.g. in gaining access to 'Big Data')

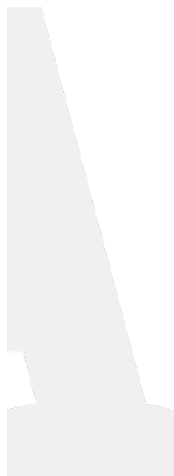# Key actors in delivering capacity development

\ **Technical experts :** in-house and external

\ **Developed NSOs:** bring in-depth up-to-date knowledge of advanced techniques and challenges in NSOs

\ **Technical service providers specialised :** based on their particular area of expertise, such as in Data Science and IT systems, or statistical methodology

The role of private statistical consultancies: what we can offer I

\ Making an arbitrage between tasks and activities to be internalized and externalized:
  – Depending on skills available
  – Cost opportunity analysis made by senior management

\ Carrying on advanced methodological projects in the field of eDevelopment and enhancing statistical production
  – e.g. through the Eurostat methodological framework tool

Long tradition in capacity development

Proven by several projects spread all over the world

Burkina Faso: Technical Assistance for the implementation of the Support programme to public administration management and statistics (PAGPS)/ «Statistics» sub-programme
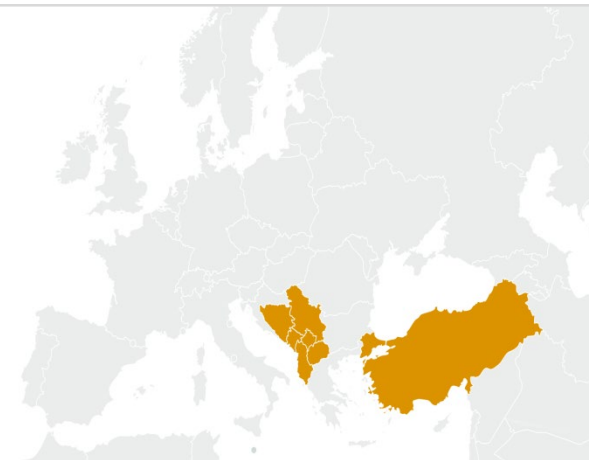
Guinea: Technical assistance to the National Statistics Institute (NSI)

Strengthening the **Serbian statistical system** by upgrading methodologies and standards and by the appliance of good practice

Strengthening the **Luxembourg statistical system** by upgrading methodologies in domains as national accounts, price statistics, tourism statistics…

European Commission

prepare the statistical authorities in the partner countries for **future EU membership** by aligning their present methodologies and practices with the statistical *acquis* and integrating them into the **European Statistical System.**

The role of private statistical consultancies: what we can offer II

\ Methodological developments

- Investigating the usefulness of various big data typologies for official statistics and SDGs
- Studying conversion algorithms to structure big data
- Filtering and adjusting monthly and weekly data
- Modelling big data for nowcasting purposes

\ Identification of best practices

- Step by step approach for the use of big data
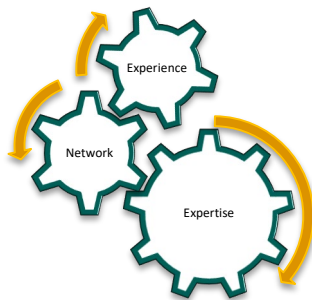- Enables applying best practices for the benefit of the client

\ Coaching and teaching new techniques

- A statistical training catalogue tailored to meet the specific needs

For sustainable success in enhancing the use of new data we need …

\ A well consolidated and experienced group of experts

\ A modern, flexible and fit to purpose project management system and strategic planning

\ Problem solving attitude, ability to deal with complex situations

\ Trending approach in CB

\ Effective communication strategy adapted to different cultural contexts

Thank you for your attention!

Questions?