



**The Workshop on The Impact of Post-2015 Development  
Agenda on Education Statistics held at Ankara – Turkey  
29 - 30 November 2016**

**A General Over view of Education Management Information  
System (EMIS) and its Development in Nigeria**

**Presented  
BY**

*Matthews O. Nganjiozor  
Head, Statistics & Nigeria Education Management  
Information System (NEMIS) Federal Ministry of  
Education Abuja Nigeria*

# Education Management Information An Overview

- ❑ What is EMIS ?
- ❑ Importance of EMIS
- ❑ The Development of EMIS in Nigeria
- ❑ The objective of EMIS
- ❑ EMIS Functionality
- ❑ What it takes in achieving EMIS goals of relevant, timely and reliable data
- ❑ Challenges
- ❑ Post 2015 Development Agenda

# What is EMIS?

- ❑ Education Management Information System (EMIS) is a system for the collection, integration, processing, maintenance and dissemination of data and information to support decision making, planning, policy-analysis, monitoring and evaluation of all levels of education system.
- ❑ It is a system of people, technology, models, methods, processes, procedures, rules and regulations that function together to provide comprehensive, integrated set of relevant and timely education Data to planners, decision makers and managers of education at all levels.

# What is EMIS?

*Contd.*

- ❑ It is an education database that aims at ensuring timely, accurate and appropriate education data and information are available for decision making.
- ❑ It is a global concept for educational management that encompasses the application of modern information and communication technology in collection, collation, storage and analysis of education data

# Importance of EMIS

- ❑ Facilitates M & E for education system by providing information, which is used to improve efficiency and effectiveness, etc.
- ❑ Allows for setting of new policies, and revising old ones, based on evidence instead of self-perceptions.
- ❑ Stakeholders such as parents require information about education institutions and student outcomes in order to make decisions about education choices and opportunities

# Importance of EMIS Contd

- ❑ Strengthens capacities in collecting, processing, storing, analysing management, planning and dissemination of information at all levels of the education system
- ❑ Coordinates, disperses and makes efforts to acquire, process, analyse and disseminate all education management information
- ❑ Decision makers need to understand how resources are translated into learning outcomes, especially the efficiency and effectiveness of existing processes

# Importance of EMIS Contd.

- ❑ Helps provide analysts and decision makers with information to understand how educational inputs are transformed into educational outputs
- ❑ Access to quality and timely data helps improve decision-making and ensure that limited resources target areas in most need and where returns will be highest

# DEVELOPMENT OF EMIS IN NIGERIA

- ❑ Lack of accurate and timely data has long been the bane of policy formulation and planning in all sectors of the Nigerian economy. In fact, an ILO Mission to Nigeria in 1981 noted that “policy making in Nigeria, given the present state of statistics, is like trying to run through the forest in dark without a torch light”
- ❑ It was in an attempt to redress this ugly situation that led to the establishment of the National Data Bank (NDB) in 1986 now NBS and later the sectoral data banks in 1988, including Education data Bank (EDB) now known as Nigeria Education Management Information System (NEMIS).
- ❑ According to the Civil Service Reform Decree (Decree 43 of 1988), the sectoral data banks were to serve as information and decision support centers (IDSC) for their various sectors

# NIGERIA EMIS Contd.

- ❑ Efforts to improve the quality of the data and information available to describe education systems and support decision-making have been in place since 1987 through UNESCO/UNDP project: **'Computerizing Education Data in Nigeria'**
- ❑ More efforts were put in place in 2003 with the creation of comprehensive, integrated computer-based education management information systems (EMIS) known as NEMIS at National to server as central Data base to support the monitoring and evaluation of education system performance and the crafting of effective education policies

# The objectives of EMIS

- ❑ To strengthen the education statistical system in Nigeria by linking and assembling different existing information systems, integrates and synthesizes them in one single system of all education data both the quantitative and qualitative; and
- ❑ To produce more relevant, reliable and timely data needed at every tier of government for strategic planning, policy formulation and decision support initiative in education in Nigeria

# TODAY'S EMIS IN NIGERIA

- ❑ EMIS today in Nigeria is not all about Annual Schools Census (ASC)
- ❑ It is about information on the educational system as well as on other system in society related to education.
- ❑ EMIS is includes GIS data and catchment community information
- ❑ EMIS in Nigeria is considering data collecting system for all education institutions, including demographic information, attendance, course information, financial data, and test results
- ❑ This is backed up with the existence of EMIS Policy documents which have been approved by the National Council on Education

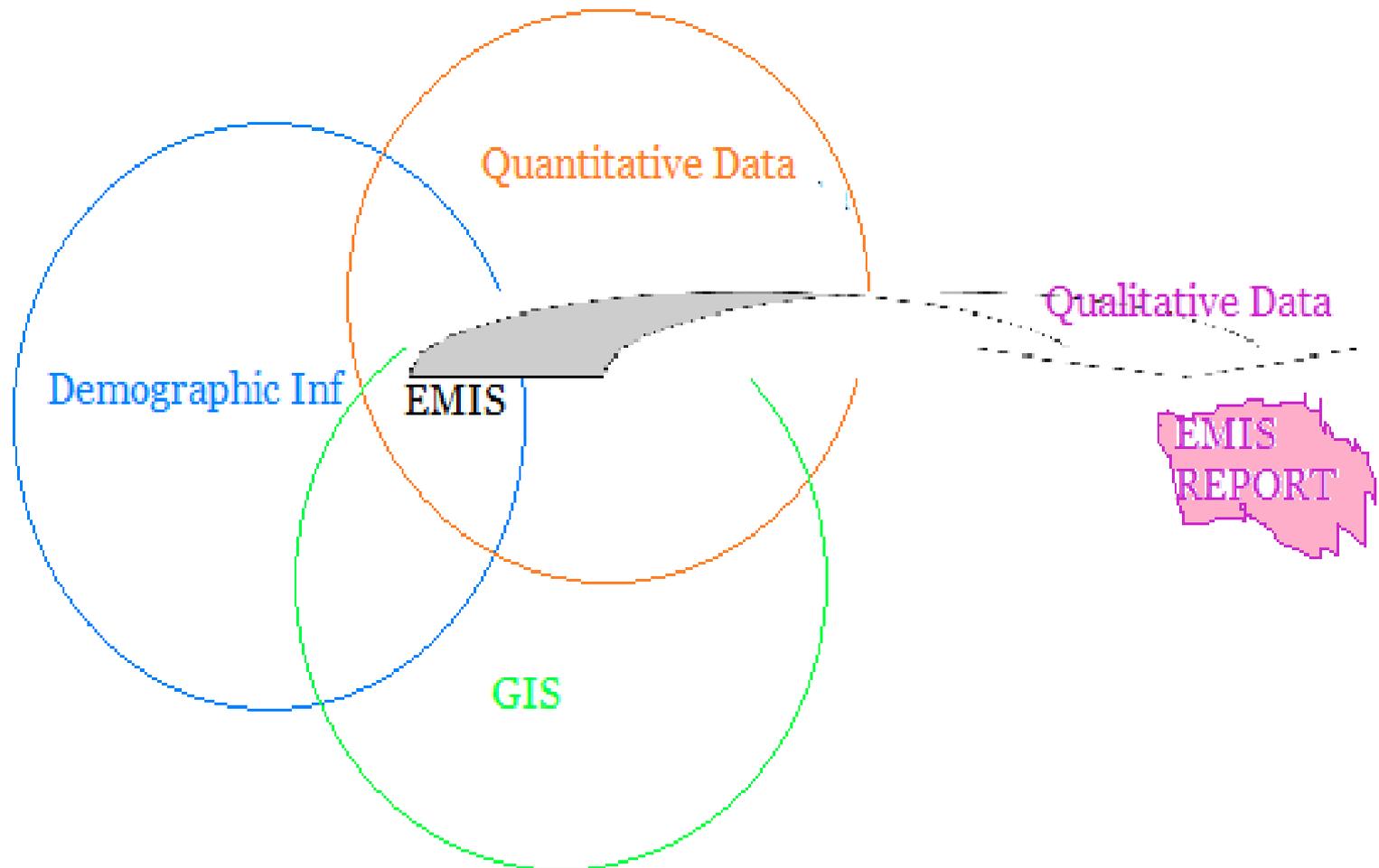
# FUTURE EMIS

- ❑ The future development of EMIS will depend largely on the successful integration of multiple kinds of data, from multiple sources within and external to the education system, and from multiple levels in the education system.
- ❑ Integration will only be possible if there is compatibility across multiple subsystems and ability of data generating agencies to cooperate with each other to have a single Data collation, processing, Analysis and Dissemination centre.

# Today EMIS is for Efficiency

- ❑ One of the measures of an efficient education management information system (EMIS) is the extent to which returns from school censuses are accurate, timely and up-to-date.
- ❑ This is important for proper allocation of per-capita funding to schools, effective monitoring of learner enrolments and attendance, addressing emerging institutional issues, and providing appropriate information to support planning

# Components of EMIS Data



# What EMIS DATA should Measure

## SCHOOL PROCESSES DATA

Descriptions of school processes and programs

## DEMOGRAPHY DATA

Enrollment, attendance, drop-out rate, ethnicity, Gender, Grade level

Standardized tests, norm/criterion-referenced tests, teacher observations of abilities, authentic assessments

## STUDENT LEARNING DATA

## PERCEPTIONS DATA

Perceptions of learning environment, values and beliefs, attitudes, observations

# What EMIS Data should Measure

## SCHOOL PROCESSES DATA

Descriptions of school processes and programs

Over time, school processes show how classrooms change.

Over time, student learning data give information about student performance on different measures.

Standardized tests, norm/criterion-referenced tests, teacher observations of abilities, authentic assessments

## STUDENT LEARNING DATA

## DEMOGRAPHY DATA

Enrollment, attendance, drop-out rate, ethnicity, Gender, Grade level

Over time, demographic data indicate changes in the context of the school.

## PERCEPTIONS DATA

Perceptions of learning environment, values and beliefs, attitudes, observations

Over time, perceptions can tell us about the environmental improvements

# What EMIS Data should Measure

## SCHOOL PROCESSES DATA

Tells us: What processes/programs different groups of students like best.

## DEMOGRAPHY DATA

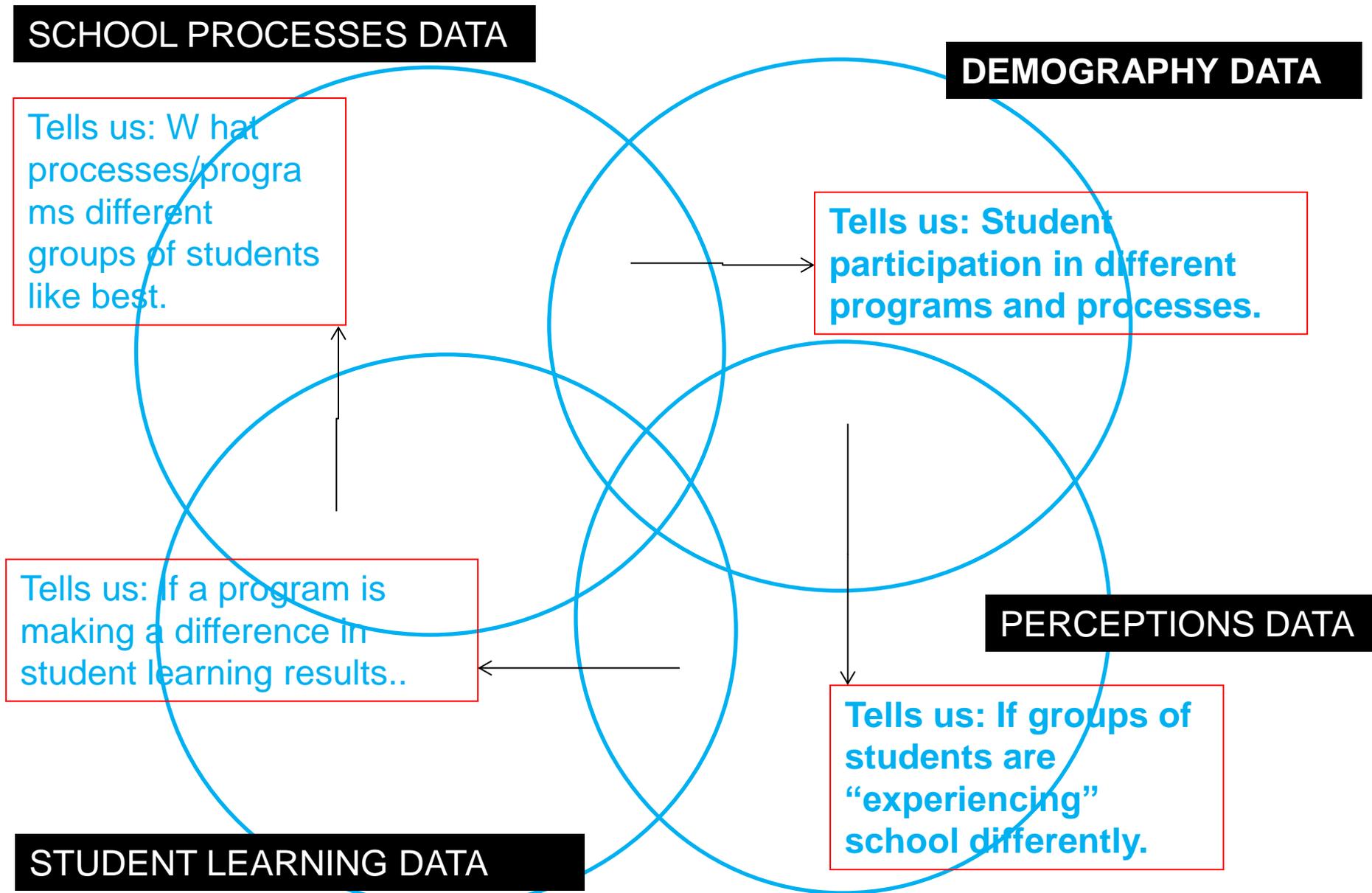
Tells us: Student participation in different programs and processes.

Tells us: If a program is making a difference in student learning results..

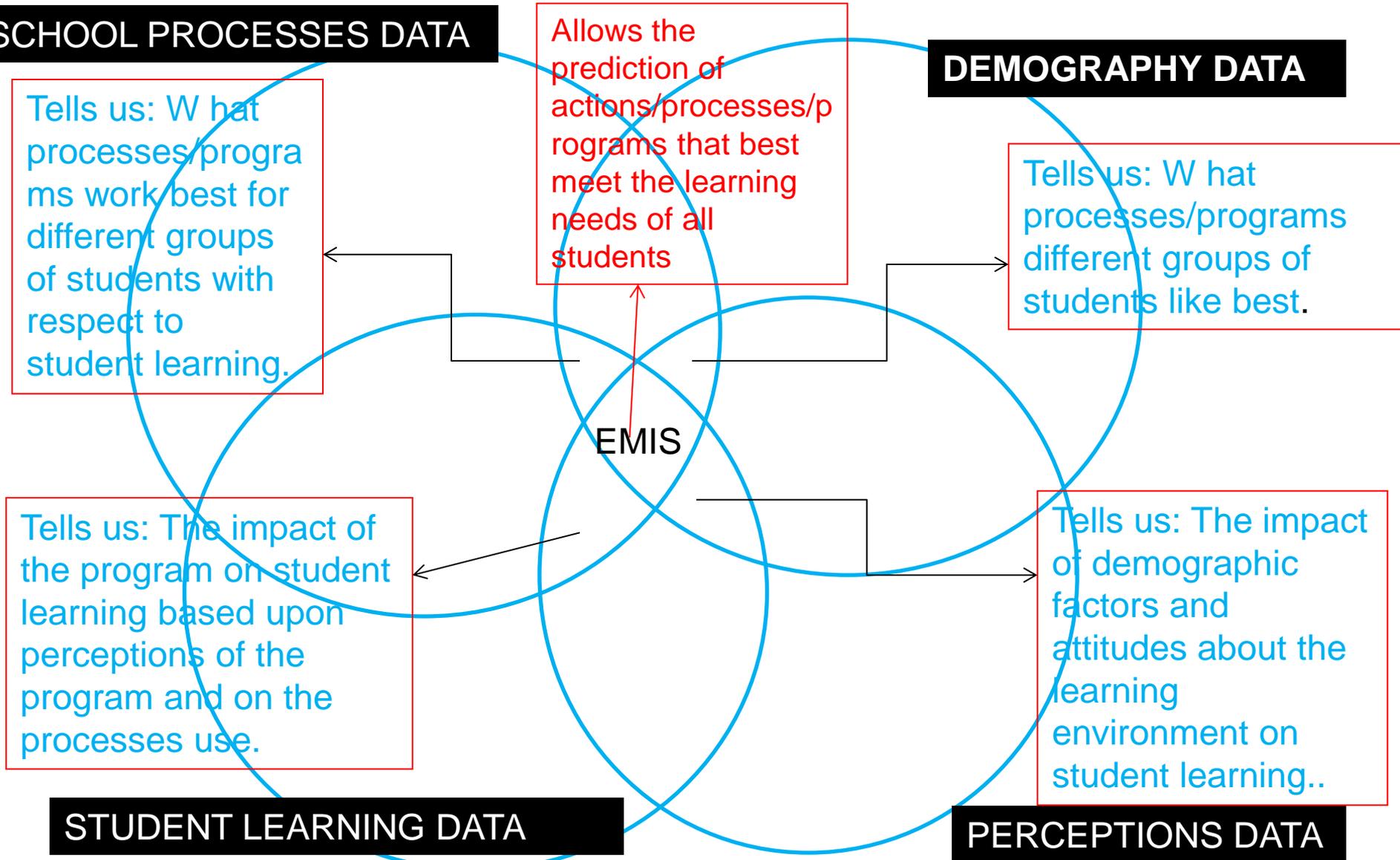
## PERCEPTIONS DATA

Tells us: If groups of students are “experiencing” school differently.

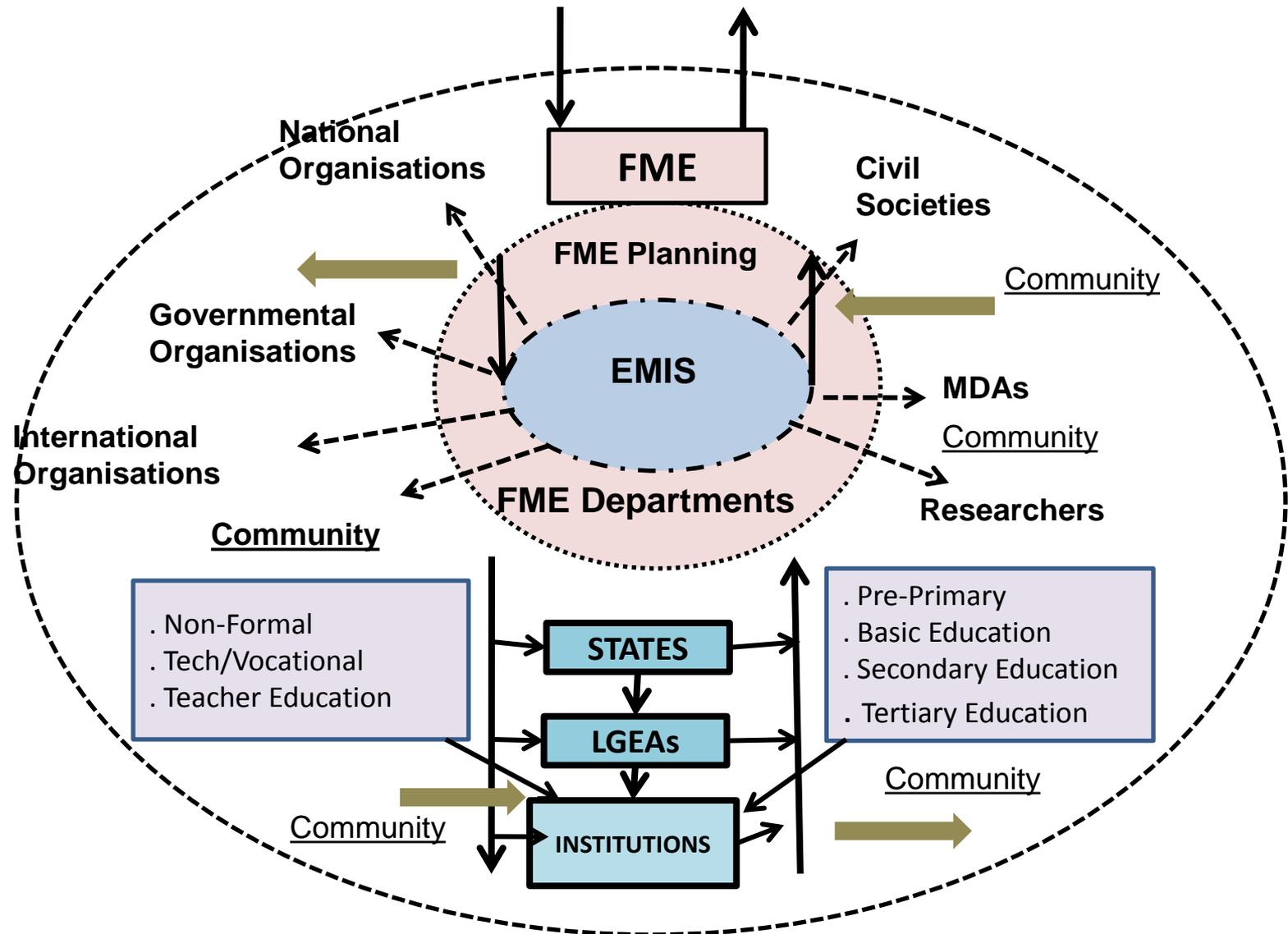
## STUDENT LEARNING DATA



# What EMIS Data should Measured



# EMIS CONCEPTUAL RELATION



## **EMIS: Conceptual Relation Explained**

- 1. National EMIS is located within FME (the inner circle) and gives out information services to all users (NBS, UIS, AU, National Data Archive (NADA) etc**
- 2. Directives, guidelines and demands for information are sent to schools via schools management boards**
- 3. Through same channel, reports, demands for support and other information flow from school up to the top decision-making bodies**
- 4. The top arrows show the information that comes from higher body (e.g. FEC, NASS, etc.) and the responses**
- 5. The three bold rectangles indicate major sources of information that need greater attention**
- 6. At each point of administrative channel – State, LGEA School, they not only receive and pass information, but information is also processed, analysed and used**
- 7. In all directions are arrows pointing inwards and outwards. These signify information exchange and feedback at all levels**

# Challenges

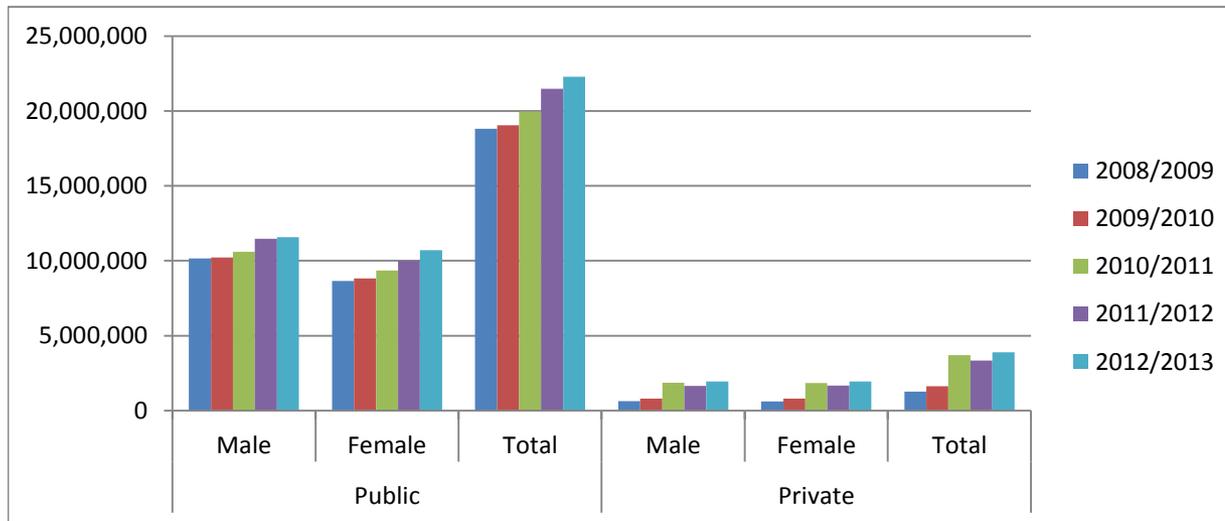
- ❑ Uncooperative attitude of data generating agencies especially on funding and utilization
- ❑ Absence of functional EMIS Unit in some States
- ❑ Inability of some States to implement stated activities and programmes of EMIS as planned
- ❑ Inadequate Data Management skills of EMIS Staff

# Achievement in MDGs

Nigeria recorded great achievements in the MDGs. These include

- Support for Basic school and in the Girl Child Education

National Enrolment for Primary schools by school Type and Gender 2009-2013



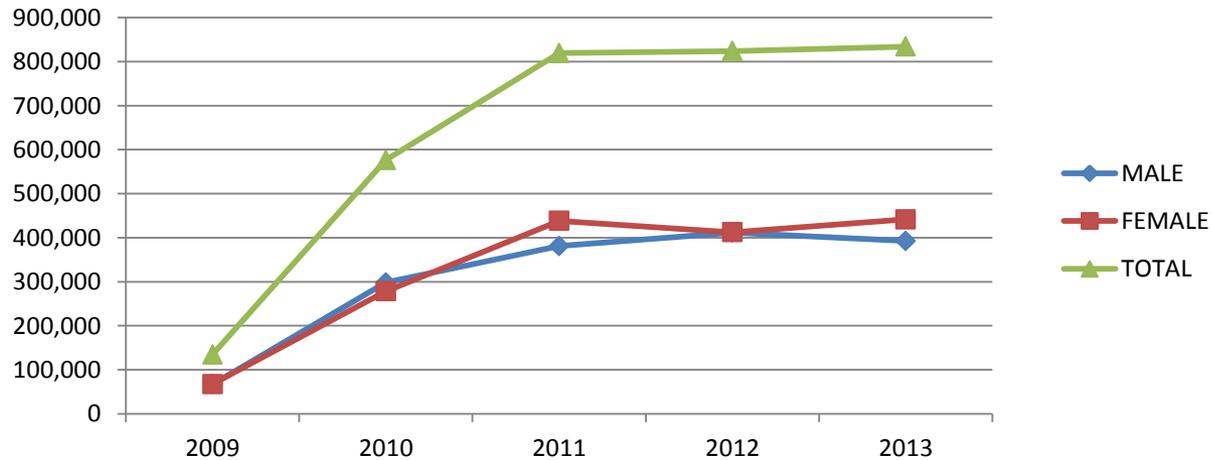
National Enrolment for Primary schools by school Type and Gender 2009-2013

The showed that more pupils are enrolled in public schools than in privates schools (only 6.29% in 2009, 15.67% in 2011). While more males are enrolled in public schools for the five years under consideration there is parity in enrolment of males and females in private schools.

# Achievement in MDGs

**Trend in National Primary School Teachers' Statistics by Gender 2009-2013**

	2009	2010	2011	2012	2013
<b>MALE</b>	67,204	297,993	380875	411652	392439
<b>FEMALE</b>	67448	278200	438417	412202	441491
<b>TOTAL</b>	<b>134652</b>	<b>576193</b>	<b>819292</b>	<b>823854</b>	<b>833930</b>
<b>% of Female</b>	<b>50.00</b>	<b>48.00</b>	<b>53.51</b>	<b>50.03</b>	<b>52.94</b>



## Achievement in MDGs

We have gross enrolment rate of  
93.08 for both male and female primary  
91.56 for female primary  
48.6 for both male and female junior secondary  
47.2 for female junior secondary  
43.58 for both male and female senior secondary  
40.41 for female senior secondary

## Achievement in MDGs

- About 60% of the Tertiary institutions were supported in the provision of requisite facilities and amenities for the schools in terms of laboratories & materials, lecture theaters
- Teachers training was prominent in the MDGs support especially in the requisite subjects for technological development of the country

# Challenges Contd.

- ❑ Uncooperative attitude of proprietors of some private schools in submitting their data to the appropriate quarters
- ❑ Lack/Inadequate budgetary provision of EMIS activities in many States;
- ❑ Delay/non release of funds for EMIS activities where there is budgetary provision.

## **Way forward: Ministerial Strategic Plan**

- In order to move forward the education system in Nigeria, and in line with the Sustainable Development Goals, Goal 4, the Honourable Minister of Education, Mallam Adamu Adamu, launched a Strategic Plan to guide the sector. This Strategic Plan has education data and planning as one of its ten pillars which its implementation will address the data and EMIS challenges. Generally all the pillars are geared towards achieving SDGs Goal 4.

# Pillars of the Ministerial Strategic Plan

- Out of School Children
- Basic Education
- Pre-Service Teacher Education
- Adult Education
- Basic and Secondary Education Curriculum and Policy Matters
- Technical and Vocation Education
- Tertiary Education
- Education data and planning
- ICT
- Library Services

## **What the Strategic Plan Stands to achieve**

Some of the strategies proposed in the Strategic Plan are conventional while many others are novel and revolutionary.

The Strategic Plan envisages that if these pillars are addressed in accordance with the outlined strategies and objectives:

- Nigeria's education sector will be globally competitive to address the yearnings and aspirations of the citizens
- It will also grapple with the issue of unemployment by producing more entrepreneurs and job-creators

# What the Strategic Plan Stands to achieve

- It will tackle the issue of the out-of-school children by creating opportunities and providing incentives;
- It will seek to bridge the gender gap in enrolment, retention and completion by addressing the problems of girl-child education
- It will address the crises of the inadequacy and low-quality teachers with training, re-training, and recruitment
- Addresses the issues of quality and access to higher education and resolve the skill gap by deploying a workable and comprehensive technical and vocational education and training (TVET) policy that pays sufficient attention to skills and knowhow

# **What the Strategic Plan Stands to achieve**

- Expected improvements in the quality and quantity of physical infrastructure for teaching and learning
- The provision of state-of-the-art learning resources and other instructional materials
- Incentives of critical high-demand courses and programmes (STEM and teacher training courses)
- Putting in place a formidable monitoring and evaluation system for efficient result.

THANK YOU ALL

