United Nations/United Arab Emirates - High Level Forum: Space as a Driver for Socio-Economic Sustainable Development

capacity building in space arena and information management.

Prof. Mahmoud Hussein
Chairman of the National Authority for remote sensing and space science
November 2017
Agenda

• Capacity building in Egypt,
• Infrastructure and space capacity,
• Space technology and applications- sustainable development perspective,
• Educational activities and human capital development
• Information management and data democracy
Capacity building in Egypt,

- Assembly, integration and testing center in new Cairo

- Planned to be fully functioning at Mid 2019
Infrastructure and space capacity,

• Egypt looking for an Egyptian space agency soon
• Egypt is looking for hosting the African space agency.
D&I Elements for Earth Observations

- Satellite data acquisition networks:
  - Earth observation
  - Ground receiving stations
- Data processing – centers
- Data archiving
- Data dissemination and delivery
- In-situ networks
Space technology and applications—sustainable development perspective,

- Space economy:
  - Space creating economic growth
  - The importance of space activities for economic sustainable development

- Space society:
  - Benefitting of and social attention to state-of-art technologies and space based services
  - Extension of the socio-economic prospects and evolving social setting

- Space accessibility:
  - Capacity-building and enhanced access to space for everyone
  - Tools and platforms to facilitate more open and free access to and exchange of space-based data and information
  - More attention of the Governments to regulatory and legislative actions

- Space diplomacy: knowledge-based international partnerships
  - Cooperation in space can improve international relations
  - Use of space for improving international relations

NARSSS confidential Nov. 2017
Educational activities and human capital development

• University satellite project
• 13 local Egyptian university (243 students)
• Building Cubesat subsystems
• Supported by NARSS (technical and financial)
• Planed launching mid 2019
• Targets capacity building for human resources and students in space technology
Information management and data democracy

• NARSS has GEO portal for data access and decision making support.
• Data is available for all researchers and students in universities and research centers.
Human Resources

233 Employee

NARSSS confidential Nov. 2017
Nexsat Roadmap

Nexsat-1
- 2015-2018

Nexsat-2
- 2018-2020

Camera system
Solar panel
TT&C
SW
AIT
International tender for building satellite based on existing components – with prelaunch testing

Nexsat-3
- 2019-2021

Power system
OBC
Camera system
Solar panel
TT&C
SW
AIT
International tender for building satellite based on existing components – with prelaunch testing

Nexsat-4
- 2020-2022

Satellite subsystems
International tender for building satellite based on all subsystems-including pre-launch testing

Nexsat-5
- 2021-2023

Adopted NARSS satellite platform

NARSS multi mission platform

AIT
Mission SW
GS
International tender for turnkey subsystems
Egyptsat-1 engineering model
Concurrent design Center- CDC
Testing laboratory for electrical system
Cubesat Lab.
PCB inspection Lab.
Payload lab.
Image and signal processing space systems lab.
Anechoic Chamber
Ground control station
Thank you