

Spanish Earth Observation Programme

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AGENDA

1. Spanish Earth Observation Programme

1. Context
2. Main features
3. Management and current status

2. SEOSAT / Ingenio Programme

1. Objectives
2. Configuration Criteria
3. Programme Status
4. Opportunities

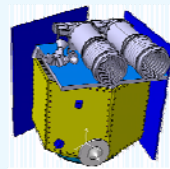
- **Spanish Space Strategic Plan 2007-2011:**
 - Elaborated by CDTI and Presented by the Ministry of Industry, Tourism and Trade in 2006.
 - “Development of a national optical Earth Observation space system”.
- June 2007: **ESA/CDTI Assistance Agreement** for the Implementation Phase of SEOSAT / Ingenio Programme.
- July 2007: **Spanish Ministry of Industry, Tourism and Trade / Ministry of Defense Agreement** for the development of a “*Spanish Earth Observation Satellite System*”.

MAIN FEATURES

- Two satellites in the optical and SAR domain: INGENIO (formerly SEOSAT) & PAZ (formerly SEOSAR).
- Funding through MoD and MITyC/CDTI secured.
- Spanish Governmental Operator: HISDESAT.
- Dual use.
- First Institutional EO satellite programme in Europe with combined Optical + SAR capabilities.
- Most important contribution from Spain to GMES / Kopernikus.

INGENIO

- High resolution multi-spectral land optical images
- 1 Pancromatic and 4 Multispectral bands (R, G, B, NIR)
 - Image size: 60 x 60 km
 - PAN resolution: 2.5 m
 - MX resolution: 10m



PAZ

- The system will acquire radar data in X-band, in three modes: spot, scan and stripmap.



- **Ingenio (optical satellite):**
 - ESA/CDTI Assistance Agreement.
 - CDTI Programmatic and Financial responsibility.
 - Technical and contractual management by ESA.
 - KO September 2008.
- **Paz (radar satellite):**
 - Technical management: HISDESAT in collaboration with INTA (MoD).
 - ATP in December 2007 & Industrial K.O. last March 28th 2008.

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TO COVER USER´S NEEDS

NATIONAL LEVEL

- Data source for Institutes and research centers.
- Provide services to different Ministries and Regional Governments.
- To provide data to National Programmes (Remote Sensing National Programme).

INTERNATIONAL LEVEL

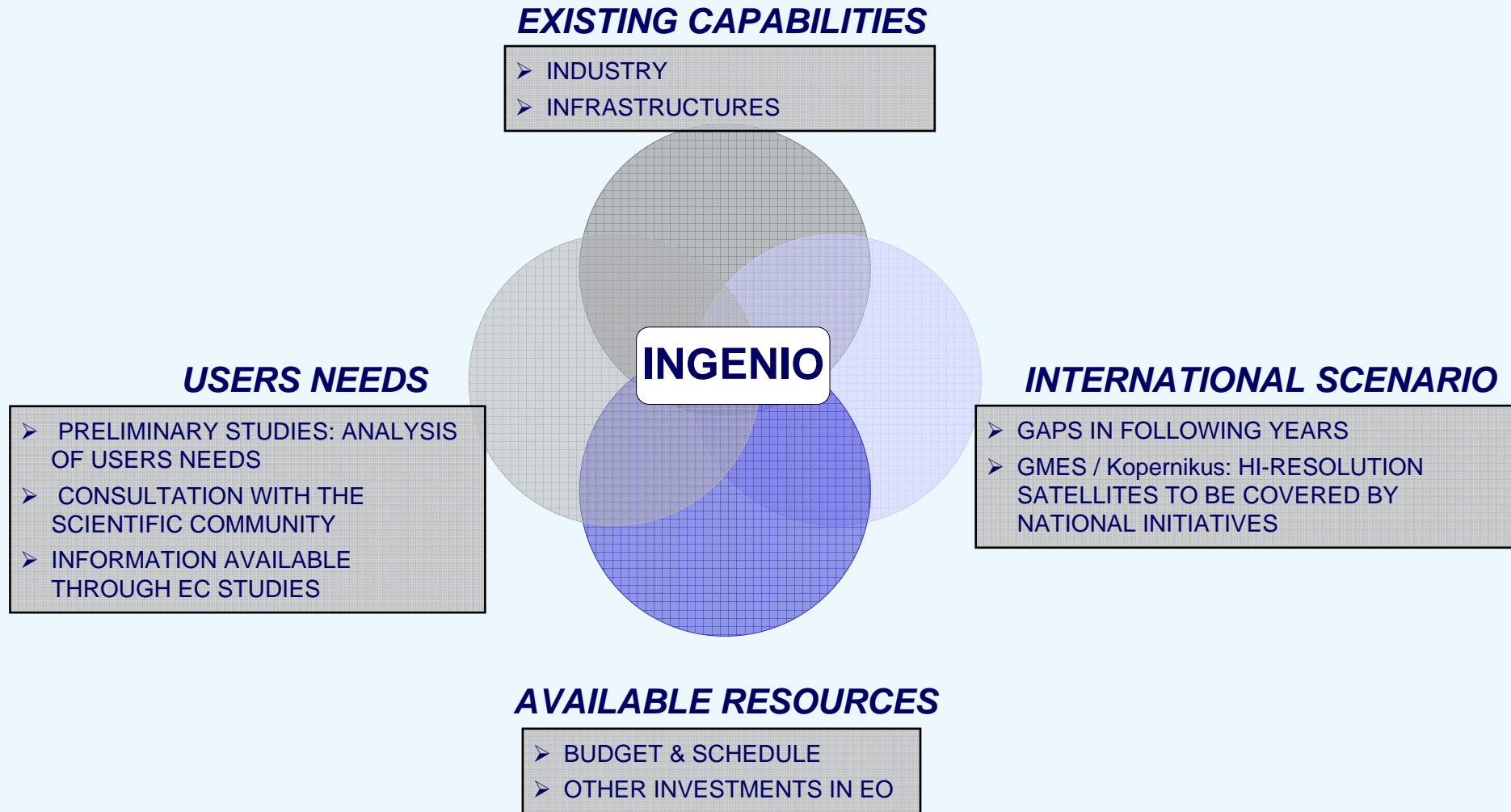
- Potential Spanish contribution in international initiatives (GEOSS, GMES / Kopernikus,...).
- Exchange of images with other countries.

TO BOOST THE SPANISH SPACE SECTOR

INDUSTRY

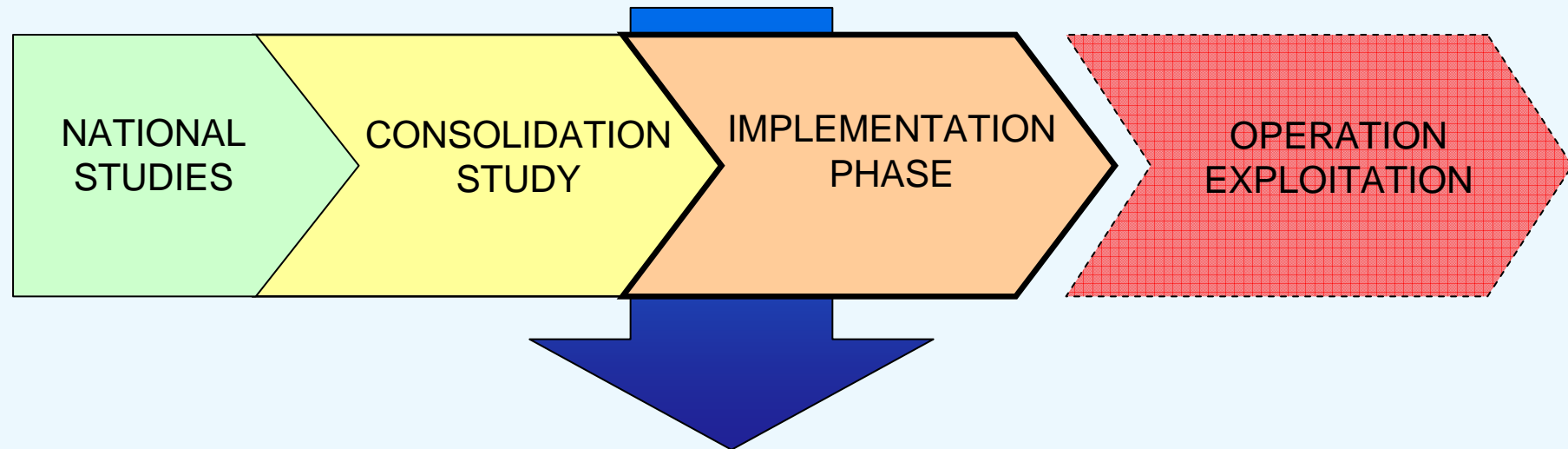
- Satellite and equipment manufacturers and companies that develop software and applications

INFRASTRUCTURES



PROGRAMME STATUS

SEOSAT Ingenio
Programme



➤ FEB. 2007 – SEP. 2007: CONSOLIDATION STUDY

- JUN. 2007: CDTI-ESA ASSISTANCE AGREEMENT SIGNED
- JUL. 2007: CDTI-MINISDEF AGREEMENT SIGNED FOR SPANISH EARTH OBSERVATION SYSTEM
- DIC. 2007: ITT PUBLISHED IN EMITS FOR FS IMPLEMENTATION PHASE
- DIC. 2007: ITT PUBLISHED IN EMITS FOR GS CONSOLIDATION PHASE

➤ SEP. 2008: FS IMPLEMENTATION PHASE KICK-OFF

➤ MAR. 2008: GS CONSOLIDATION PHASE KICK-OFF

❑ For Spanish Industry:

- Industrial leadership of the development of the system.
- Strengthening of industrial capabilities.
- Best position for future ESA developments.
- Development of applications.

❑ Participation by non-Spanish partners:

- On a competitive basis (CDTI to afford all costs associated).
- Agreements between Delegations.