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SA Earth Observation Strategy

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Department of Science and Technology
GEO User Interface Committee
Washington DC
August 2007



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Outline

SAEOS Objectives

Phase 1: Earth Observation Data
Centre (EODC)

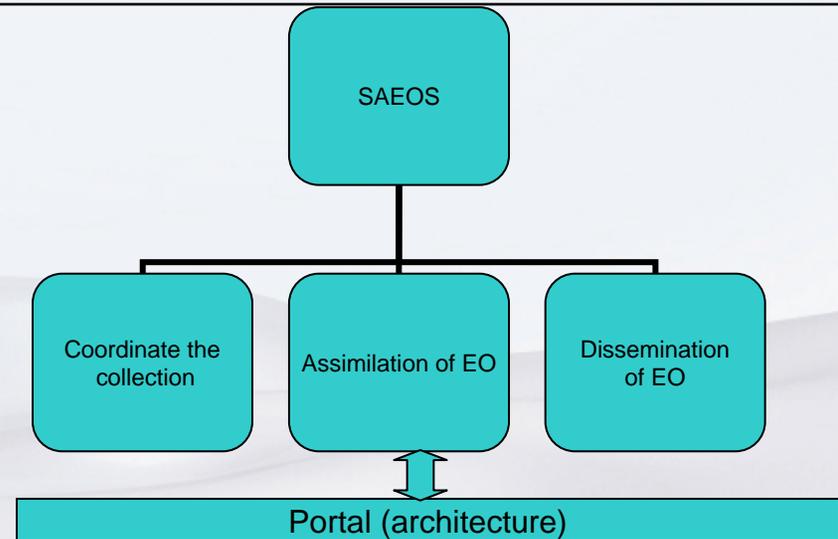
Phase 2: SAEOS Architecture



Objectives

Need to develop a common, synergised information platform for Earth Observation to inform and support decision-making

Through co-ordination of collection, assimilation and dissemination of earth observation data and information

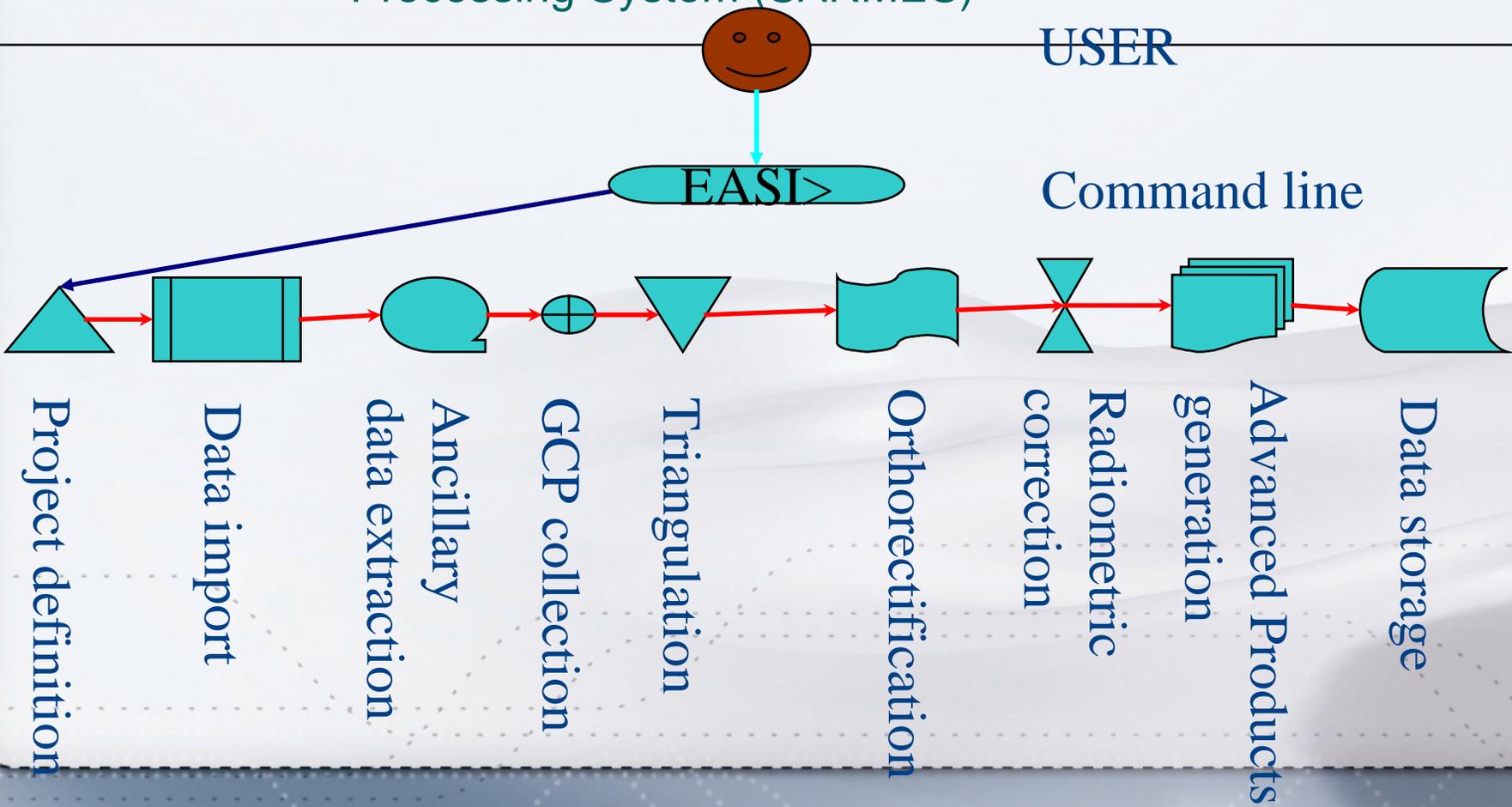




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Processing System (SARMES)



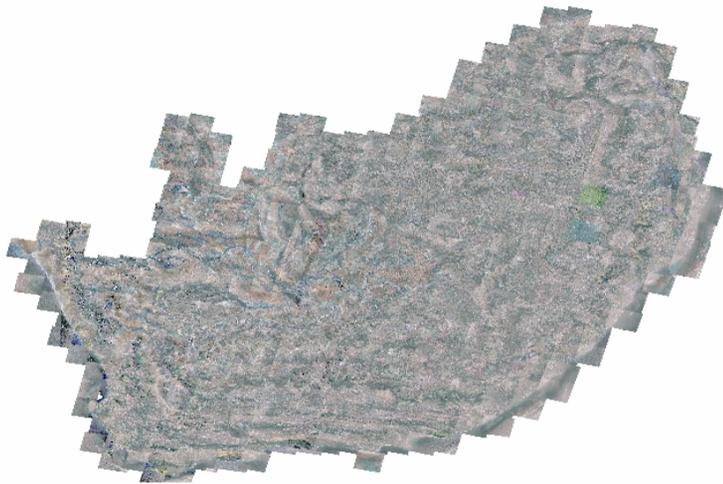


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RSA SPOT 5 Mosaic

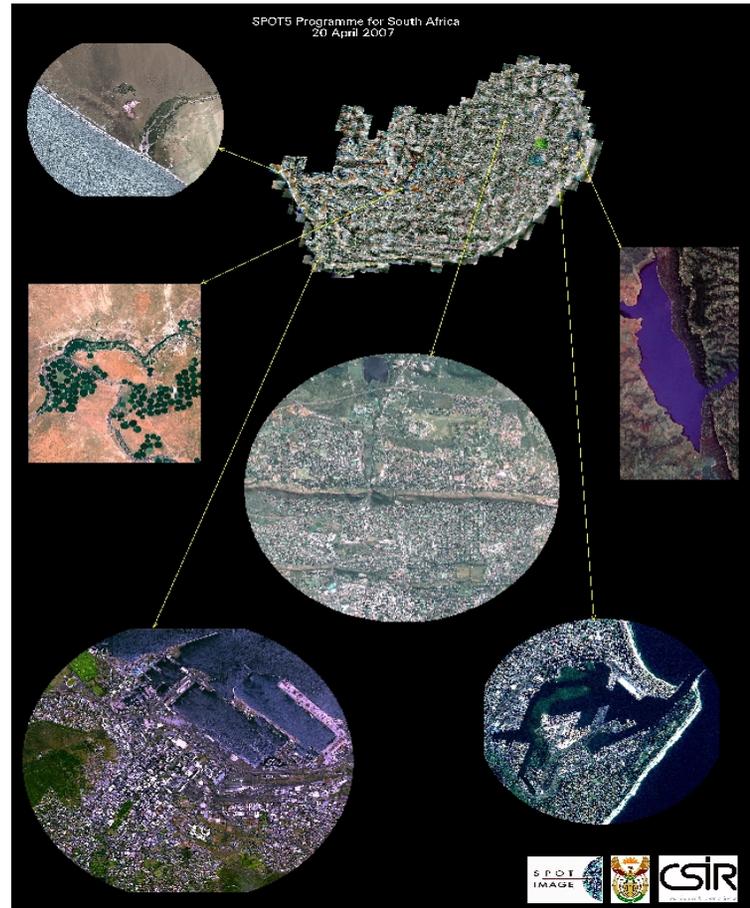
SPOT5 Programme for South Africa
20 April 2007



CSIR
our future through science



SPOT5 Programme for South Africa
20 April 2007



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Wide Area Monitoring

- Regional surveillance of the African sub-continent
- Serve the following GEOSS societal benefit areas:
 - Climate change
 - Disaster management
 - Sustainable agriculture
- Operational applications:
 - Advanced Fire Information System (AFIS)
- Planned applications
 - Vegetation Condition Assessment
 - Flood Mapping Tool



Land Cover Change Analysis

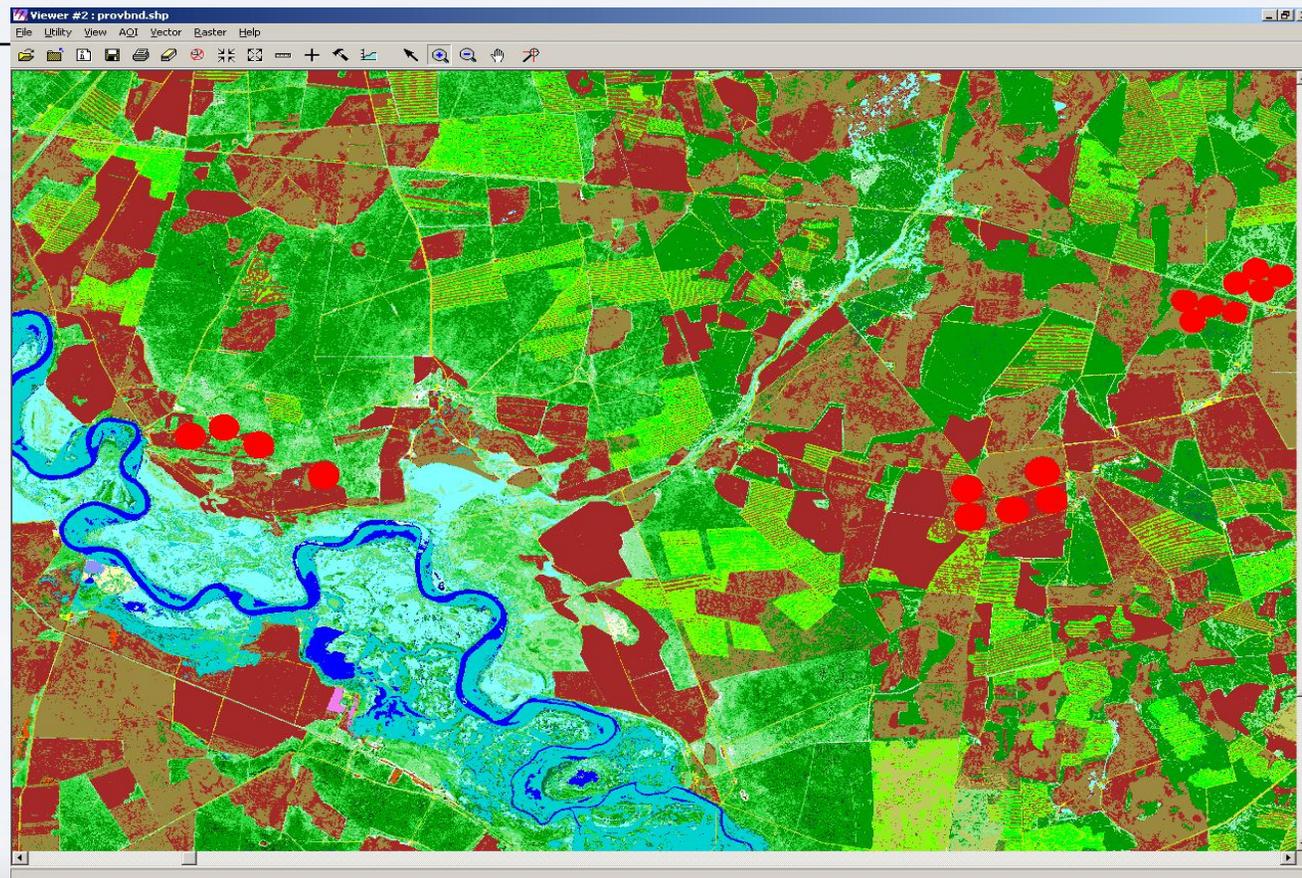
- Development of sensor- and scale- independent land cover mapping tool
- Emphasis on fully automating the land cover mapping process using Artificial Intelligence (AI) techniques
- Include temporal and contextual analysis in classification process



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Land Cover with SPOT 5

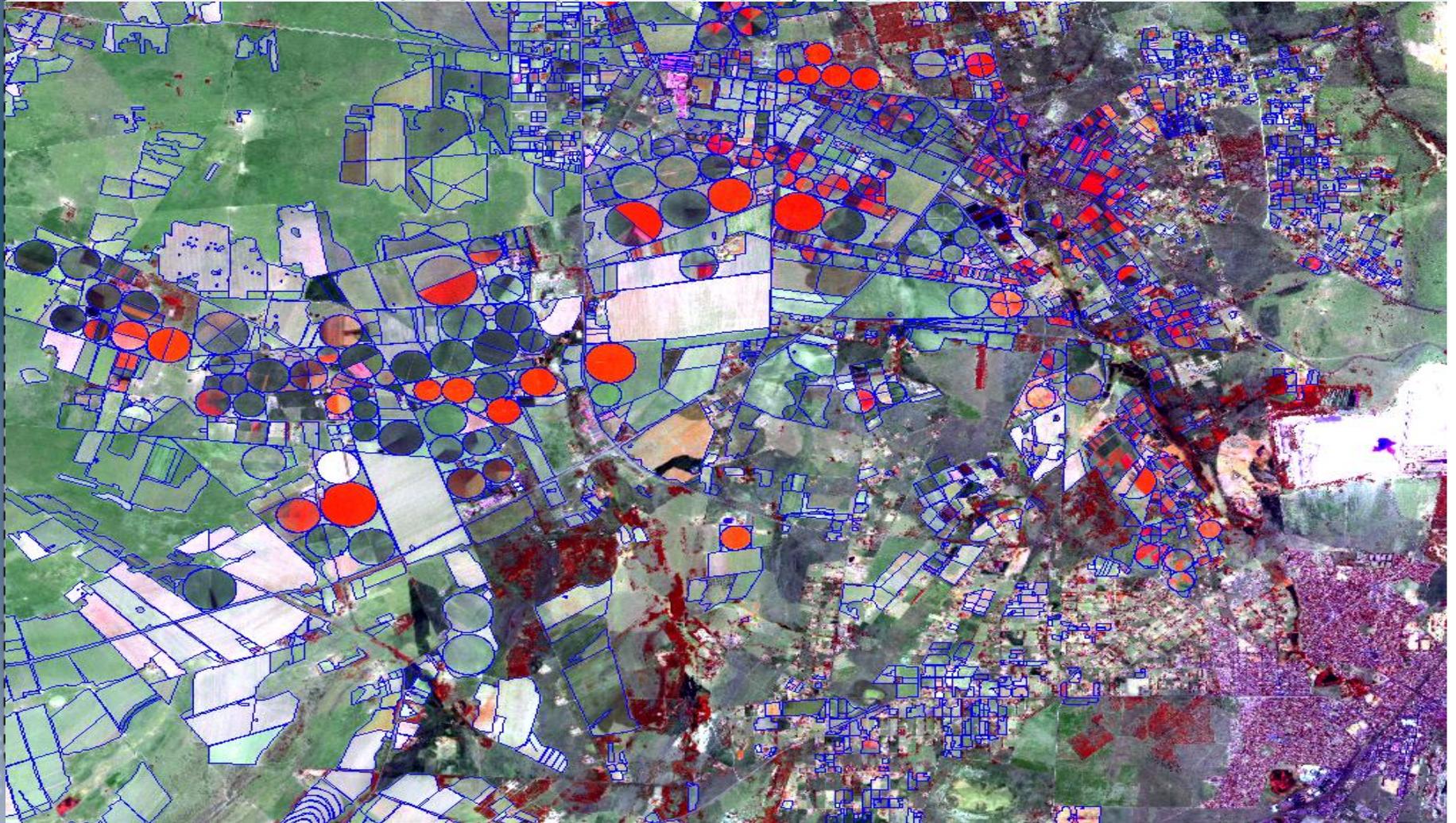




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Field demarcation for crop yield estimates



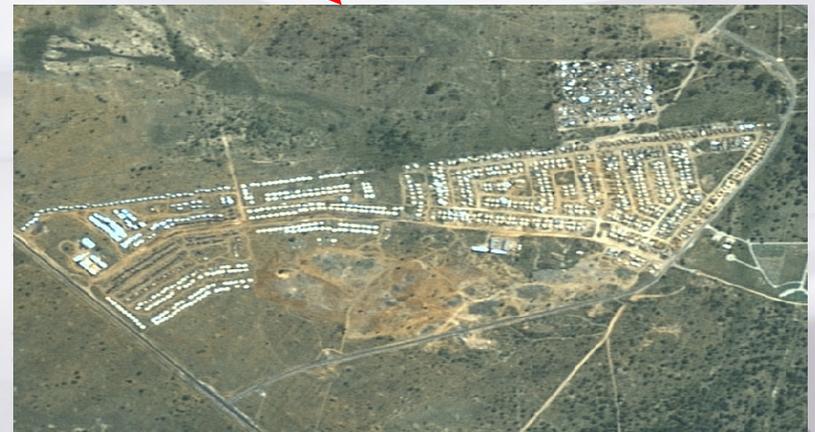
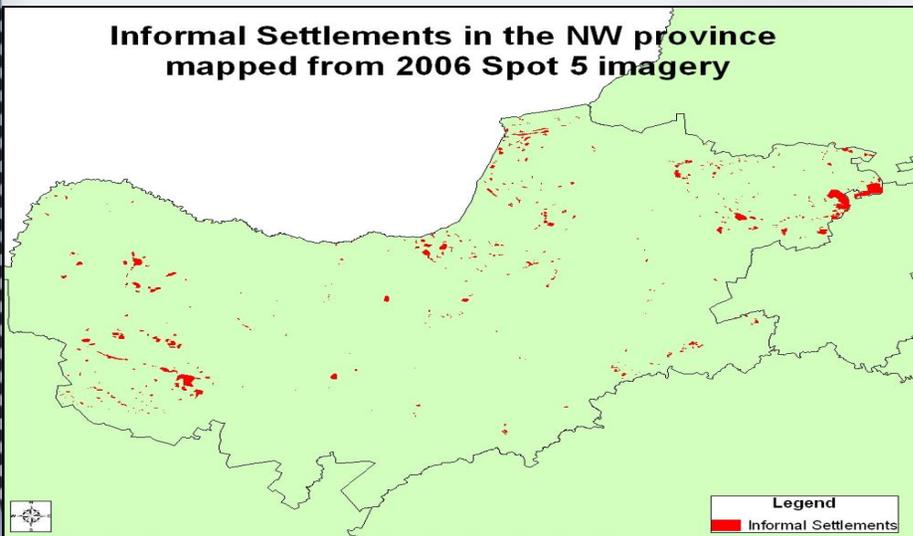


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**Informal Settlements in the NW province
mapped from 2006 Spot 5 imagery**





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Master Sample 2007

Rotation 4 **32100306**

Province:
Northern Cape
District or Metropolitan Municipality:
Frances Baard
Local Municipality:
Sol Plaatje
Main place name (2001 Census):
Roodepan
Sub place name (2001 Census):
Roodepan
Total number of EAs in PSU: 1
32100306

PSU geography type (2001 Census):
Urban Settlement

Provincial boundary



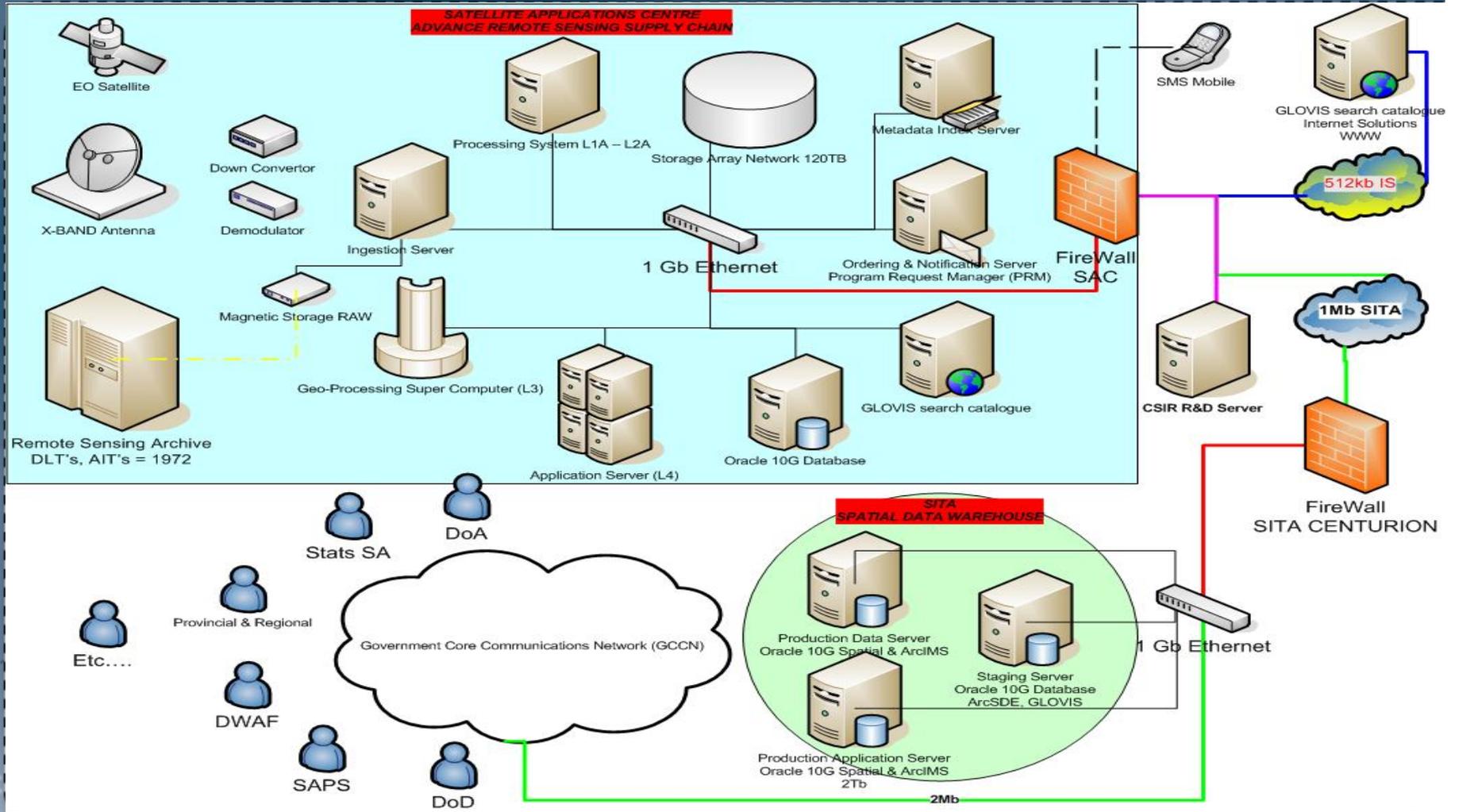
Fieldwork monitoring & verification



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SAEOS Architecture





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Thank You