



Republic of Senegal

Ministry of Mines, Industry and SME

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A MINING CADASTRE IN SENEGAL: IMPLEMENTATION PROCESS AND ORGANIZATIONAL ISSUES

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Background of the Project



Legal & Regulatory Framework

- Mining Code: Law N°2003-36 of 23 November, 2003
- Regulations (Decree) N°2004-647 of 17 May, 2004;
- Standard Mining Convention : reduction of transaction costs
- Mineral Laws & Regulations specify types of registers to be held up-to-date by the Mines Inspectorate.
 - Register of new application
 - Register of the granted titles
 - Register of application related to the maintenance of the existing titles



Overview of existing Institutions

- Direction of Mines & Geology: management of the mining titles:
 - Geology and Prospection Division: prospecting authorization & exploration permit;
 - Minerals Economic Division: quarry exploitation authorization issuing and maintenance, exploitation permit and concessions;
 - Regional Services: quarry exploitation application processes

Background of the Project



- **Statement of the Problem**

- Application processed manually
- Application processes: approximately 3 years year in 2004 to 2 up to 3 months in 2007.
- High transaction costs due to administrative procedures
- Coordinates proved to be incorrect
- Coordinates attached to various geographical reference systems (Geographic, UTM zone28, UTM zone30).

Implementation of Mining Cadastre



•Expected outcomes

- Implementation of Law and Regulations
- Reduce time to manage applications
- Guarantee transparency in granting mineral rights
- Ensure first come, first served is applied
- Manage obligations: fees, taxes, reports, etc.
- Guarantee full reviewing

Implementation of Mining Cadastre



- **CADMIN**

- Exhaustive inventory of the mining titles
- Graphic (mining perimeter) or alphanumeric (holder, substances...) information were collected, compiled and digitized
- Cross checking of several sources of information:
 - ✓ Registers of the titles granted according to the type of title
 - ✓ Excel tables compiling the various titles by area
 - ✓ Data SIG under development for the prospecting permits
- Encoding of the data base
- Cadastral procedures were updated

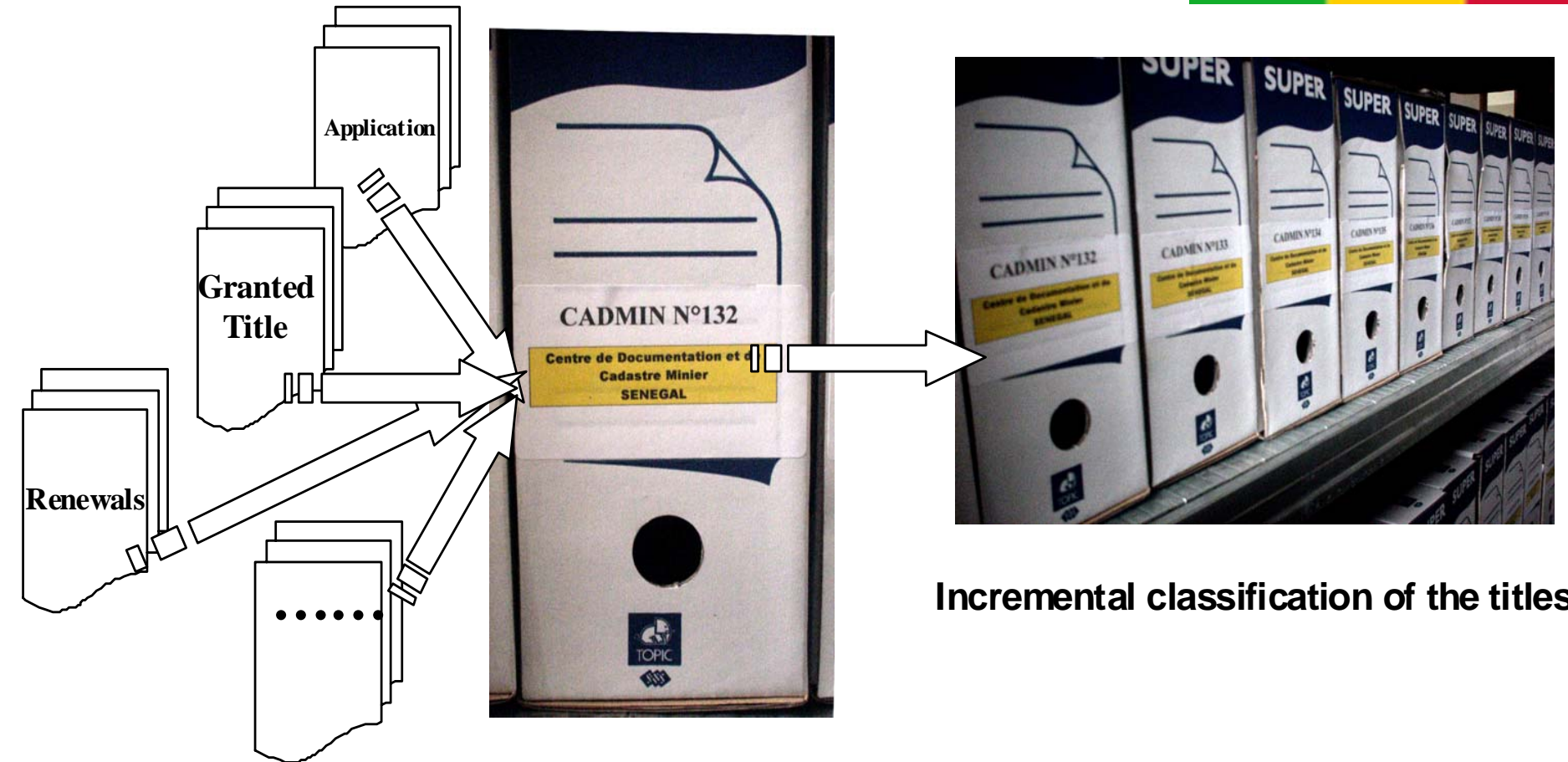
Implementation of Mining Cadastre



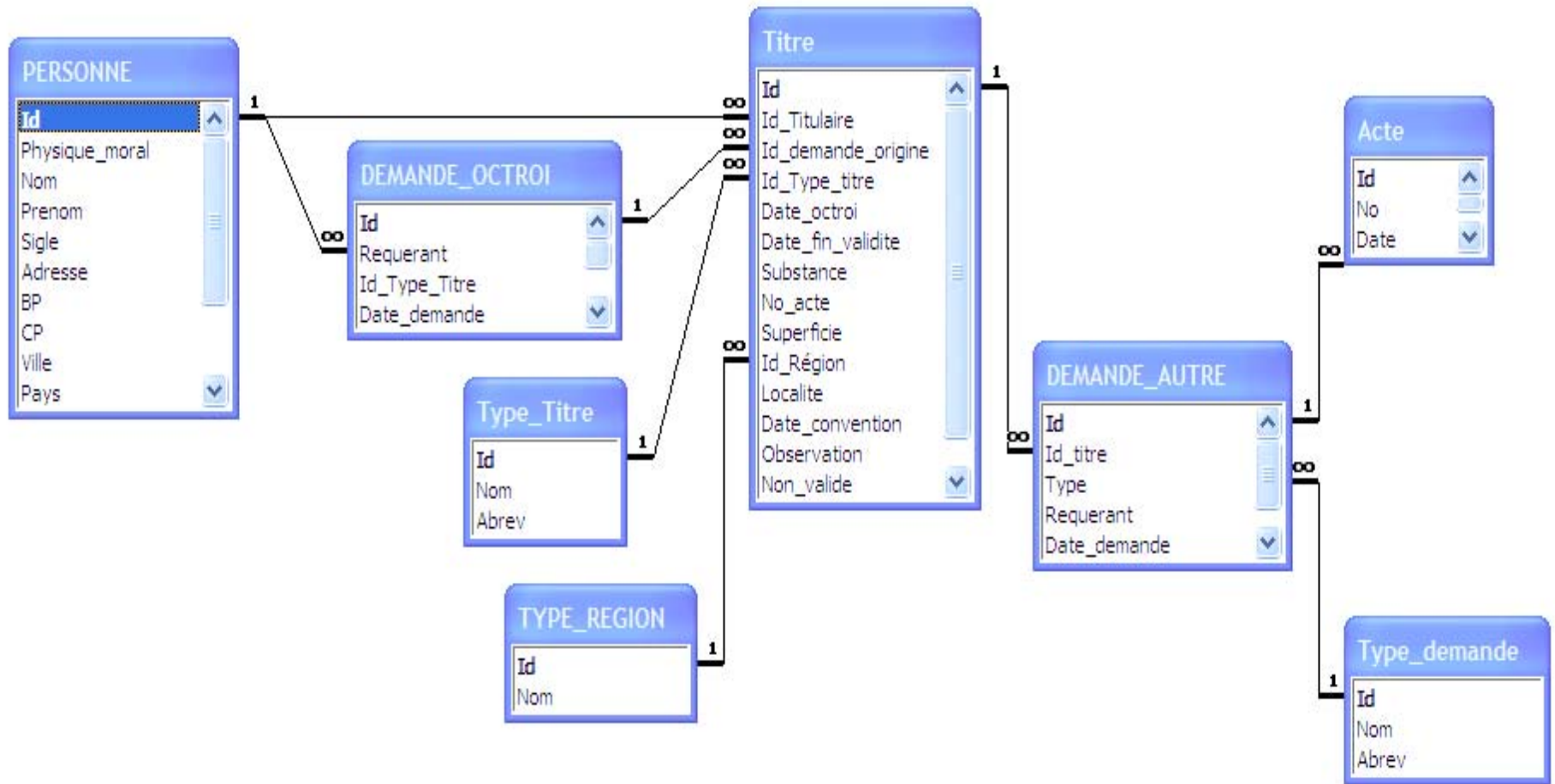
- **CADMIN**

- Excel tables initially classified by area and type of titles were synthesized in a single table
- Titles numbered with a single identifier
- Before homogenizing the co-ordinates, the whole of perimeters was transcribed in a common geographical reference frame attached to a datum WGS84
- The geographical coordinates: to be freed from the zones of projection UTM covering Senegal (zone 28 N and 29 N)

CADMIN (Mining Titles Storage Room)



CADMIN (Logical structure)



CADMIN (Mining Cadastre)



OUTILS D'ADMINISTRATION



GESTION DES DEMANDES DE TITRE



GESTION DES TITRES



GESTION DES OPERATEURS

LISTINGS



TITRES VALIDES



TITRES EXPIRES



TITRES ANNULES

REGISTRES



TITRES ATTRIBUES



DEMANDES DE TITRE



DEMANDES PORTANT SUR UN TITRE

CADMIN - Template



Identité : <input checked="" type="checkbox"/> Société	Sigle: <input type="text" value="AGEM"/>	Adresse: <input type="text" value="Barbades"/>
Nom: <input type="text" value="Agem"/>	BP: <input type="text"/>	CP: <input type="text"/>
Prénom: <input type="text"/>	Ville: <input type="text"/>	
Nationalité: <input type="text"/>	Pays: <input type="text"/>	

<input type="checkbox"/> Personne inéligible	
Motif : <input type="text"/>	
du : <input type="text"/>	au : <input type="text"/>

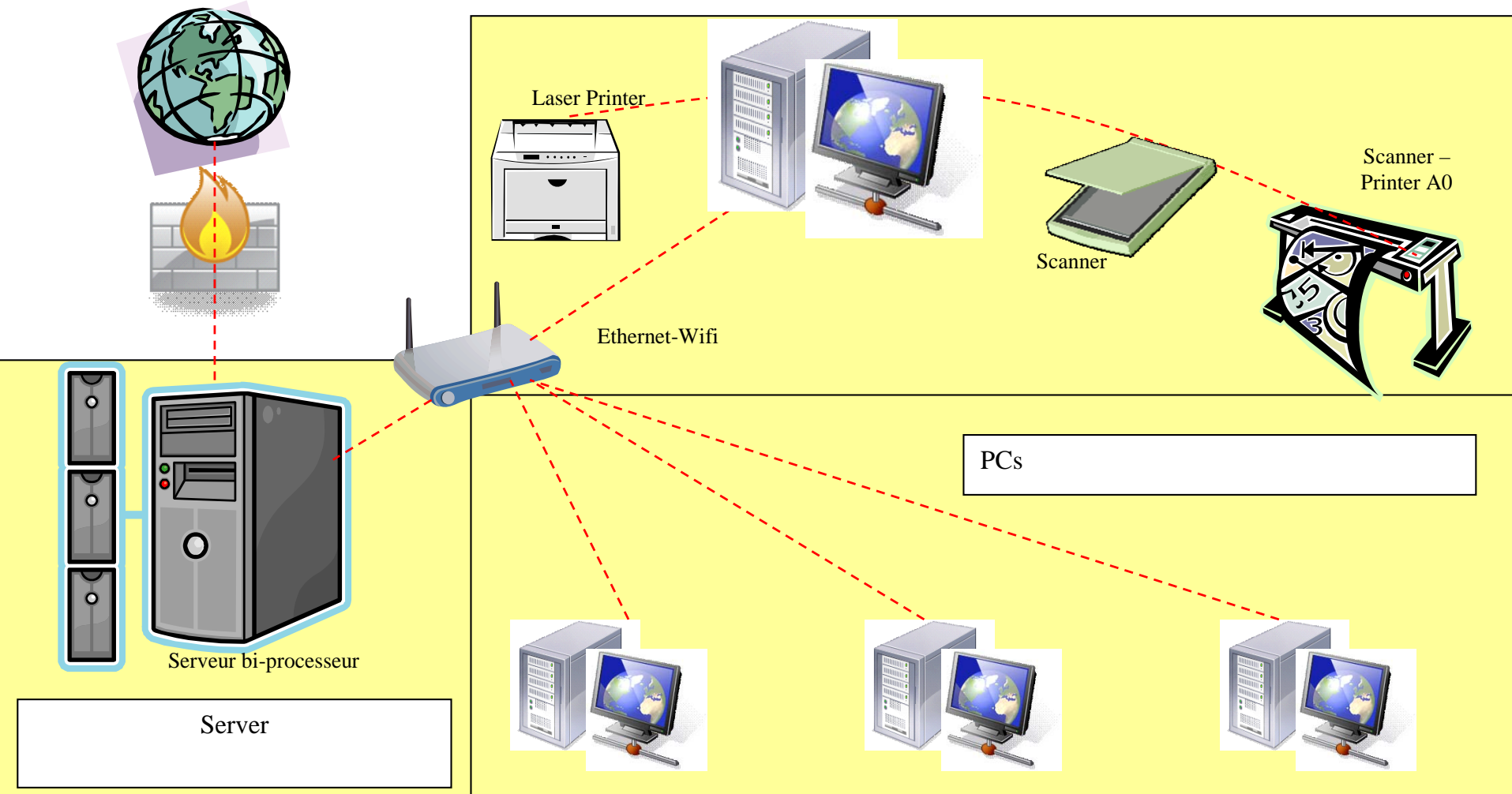
Identité : <input checked="" type="checkbox"/> Société	Sigle: <input type="text"/>	Adresse: <input type="text"/>
Nom: <input type="text" value="Alpha Sénégal Transport"/>	BP: <input type="text" value="19150"/>	CP: <input type="text"/>
Prénom: <input type="text"/>	Ville: <input type="text" value="Gédiawaye"/>	
Nationalité: <input type="text"/>	Pays: <input type="text" value="Sénégal"/>	

<input type="checkbox"/> Personne inéligible	
Motif : <input type="text"/>	
du : <input type="text"/>	au : <input type="text"/>

Identité : <input checked="" type="checkbox"/> Société	Sigle: <input type="text"/>	Adresse: <input type="text" value="125 B. Rue Carnot"/>
Nom: <input type="text" value="Axmin Limited"/>	BP: <input type="text"/>	CP: <input type="text"/>
Prénom: <input type="text"/>	Ville: <input type="text" value="Dakar"/>	
Nationalité: <input type="text"/>	Pays: <input type="text" value="Sénégal"/>	

<input type="checkbox"/> Personne inéligible	
Motif : <input type="text"/>	
du : <input type="text"/>	au : <input type="text"/>

CADMIN - Equipements



Implementation of Mining Cadastre - Achievements



- **Mineral Documentation & Mining Cadastre Centre (CDCM)**

- HR :
 - GEOL&LAW (01)
 - IT (1)
 - GIS (2)
 - DOC (1)
- New CDCM building
- Equipments
 - Server
 - PCs
 - Plotter
 - Printers

ES MINES DE L'INDUSTRIE DE LA TRANSFORMATION ALIMENTAIRE DES PRODUITS AGRICOLES ET D
DIRECTION DES MINES ET DE LA GEOLOGIE
CENTRE DE DOCUMENTATION ET DU CADASTRE MINIER
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CADMIN - shortcoming



- ✓ Database
- ✓ Low performance
- ✓ Not facilitate administration: procedures exist but roles not assigned
- ✓ Recording of all existing licenses and all applications for licenses in registers and on maps not readily available for consultation
- ✓ Lack of historical data (e.g. payments, reports, etc.)

Implementation of Mining Cadastre



- **FLEXICADASTRE: Implementation Path**
 - **Business Trip at Dakar**
 - ✓ Review Mineral law and Regulations
 - ✓ Identification of required business rules
 - ✓ Manual workflow analysis
 - ✓ Workflows modeled in FlexiCadastre
 - ✓ Review existing data and systems
 - ✓ Customisation of FlexiCadastre
 - ✓ Hardware analysis

Implementation of Mining Cadastre



- **FLEXICADASTRE**
 - **Flexi training at Cape Town**
 - ✓ System roles with regard to Actions on Licenses
 - ✓ Letter templates
 - ✓ Workflows
 - ✓ FlexiCadastre Demonstration
 - ✓ Data Analysis and Import Methodology
 - ✓ FlexiCadastre Customisation
 - **Flexi training at Dakar**
 - ✓ Customisation of reports and documents
 - ✓ Training, documentation and support

Roles



There are 6 Roles

Extract:

1

<u>All</u>	<u>Name</u>	<u>User</u>
<input type="checkbox"/>	Application Compiler (AC)	Lamine
<input type="checkbox"/>	Application Supervisor (Geol))	Raymond
<input type="checkbox"/>	Application Supervisor (HO)	Ousmane Cisse
<input type="checkbox"/>	Application Supervisor (Mine)	Rokhaya Samba
<input type="checkbox"/>	Map Compiler (MC)	Abdoulaye
<input type="checkbox"/>	System Administrator (SA1)	Mbathio Ngom

1

Implementation of Mining Cadastre



License Search

Maps

Home
Regions
Licenses
Actions
Approvals
Companies
People
Agreements
Documents
Maps
Reports
My Settings
Admin Tools
Help
Legal
Logout

Map Contents

- FlexiCadastreSenegal
 - License
 - Licenses
 - Districts
 - Countries
 - Country Bound
 - Provinces

Copyright ©
Spatial Dimension
2005 - 2009

Implementation of Mining Cadastre



- **Mining Cadastre Office not performing yet:**
 - ✓ Availability and accuracy of digital data
 - ✓ Remote access to the FlexiCadastre Server: Network infrastructure at the Mining Cadastre Office & WAN connection to other offices
 - ✓ Power supply and availability of a generator
 - ✓ Mining cadastre business processes: all applications are still received at the Direction of Mines



Strategic Issues to be considered in the development of Mining Cadastre:

- ✓ The security of mineral tenure issues and the transferability of mineral titles which carry an intrinsic economic value for investors are strongly related to and influenced by the procedures for the management of mining titles and cadastral systems.
- ✓ Mining presents a particular set of challenges in terms of land use. Therefore, understanding land tenure is central to strategies to establish mineral cadastre that promotes mining investments, environmental sustainability and equitable access to land;

Conclusions



Strategic Issues to be considered in the development of Mining Cadastre:

- ✓ the availability of geo-scientific information, geographical location of surface and/or land ownership (access to land), and the quality of the mineral titles system become important requirements for mining investment decisions as well as key criteria for governments aiming at attracting and fostering investment and development in the national mineral resources

Q & A

