

Governance, Risk & Compliance for Land Related Assets

Bill Feast

spatial dimension
AN MS GROUP BUSINESS





Global Company, Global User Base

Private Sector Solutions

Manage
Mineral and Land Assets
Agreements and Contracts
Compliance and Audit
in multiple jurisdictions

Enterprise land management solutions

Governance, Risk & Compliance

Public Sector Solutions

Drive Government Revenue
Increase Investor Confidence
Increase Accountability and Transparency
Ensure full compliance with all Legislation



e-Gov Mining Cadastre Systems

Maximizing Revenue, Driving Efficiencies



Private Sector Clients

Majors, Mid Tiers & Explorers
Royalty Owners



DRC



Ethiopia



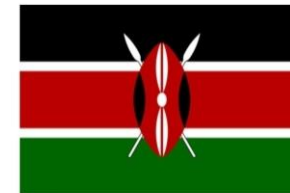
Greenland



Guinea-Bissau



Côte d'Ivoire



Kenya



Lao PDR



Liberia



Mozambique



Namibia



Papua New Guinea



Rwanda

TZ and
Funders
below



Senegal



South Sudan



Uganda



Zambia

Public Sector Clients

World Bank, DFID, USAID, AUSAID

Land Access

Could it be the most fundamental Asset of
a Mining Company?

**Mining Rights
Holders**

**Interested &
Affected Parties**

**Surface Rights
Holders**

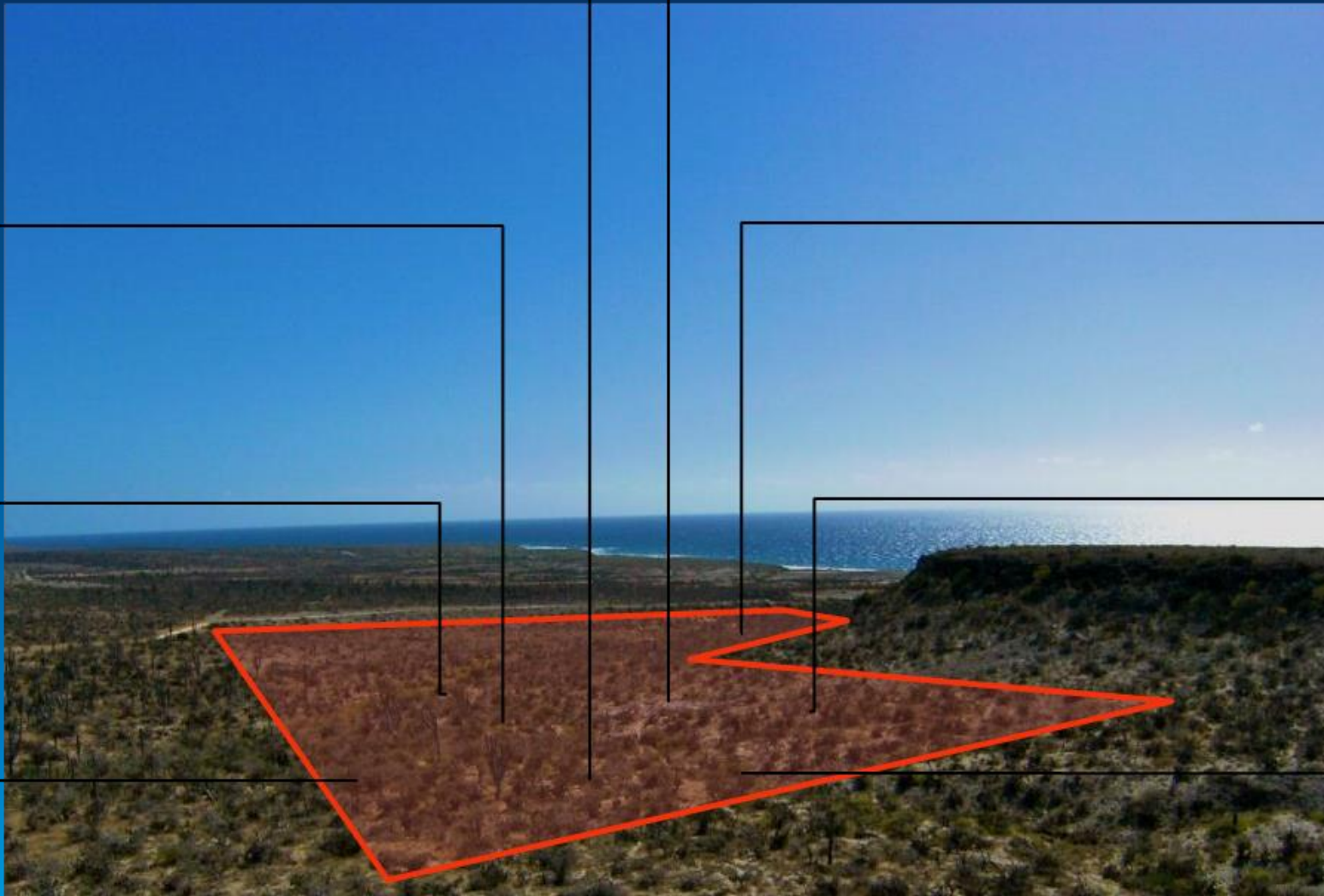
**Local
Communities**

**Water Rights
Holders**

Competitors

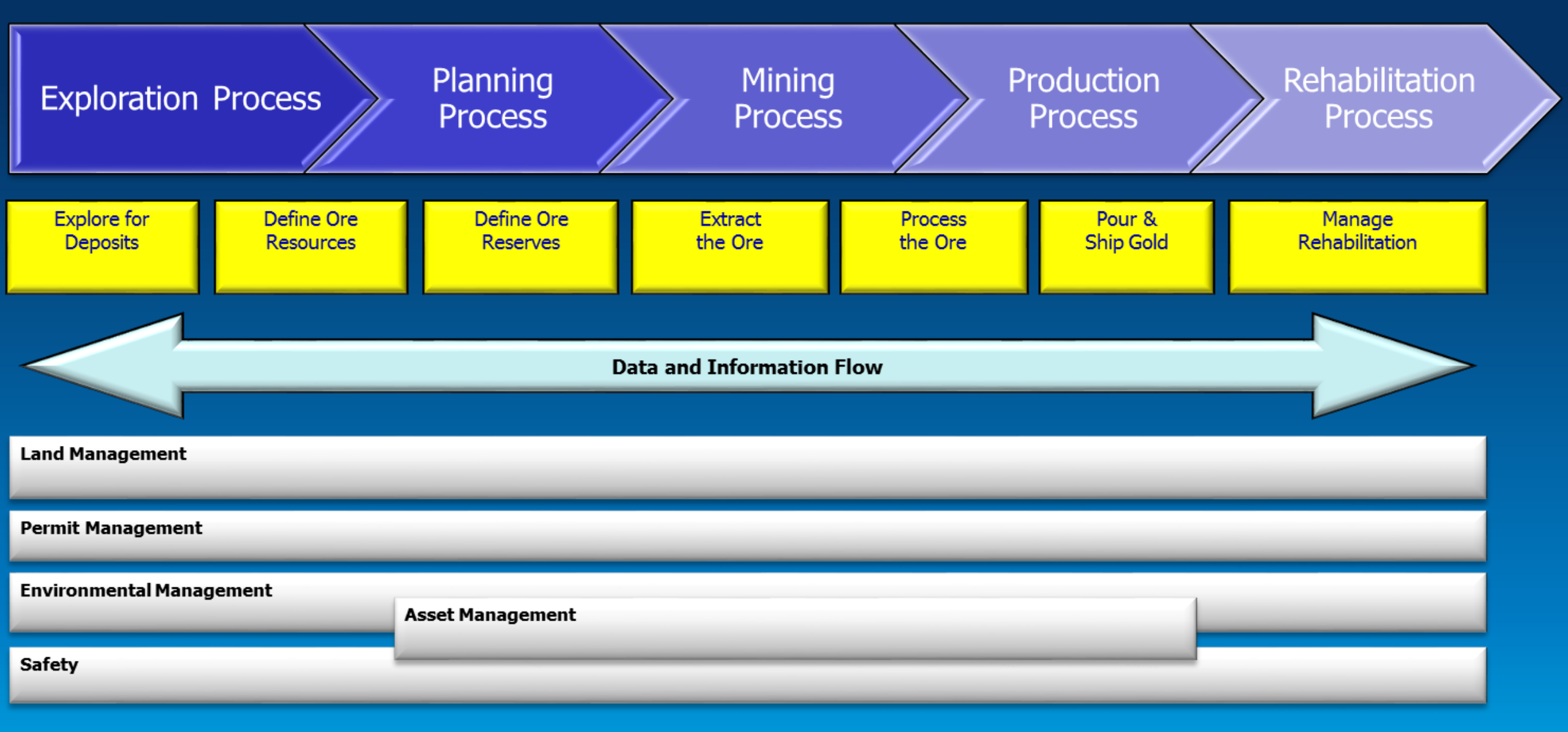
**Royalty
Holders**

**Environmental
Areas**



Land Management - External Drivers

Multiple Stakeholders
Complex Relationships



Land Management - Internal Drivers

Throughout mining value chain

Core/Operating Business Capabilities



Land Management – A Core Process

The Exploration and Mining Business
Capability Reference Map
The Open Group

Challenges

How do the risks present?

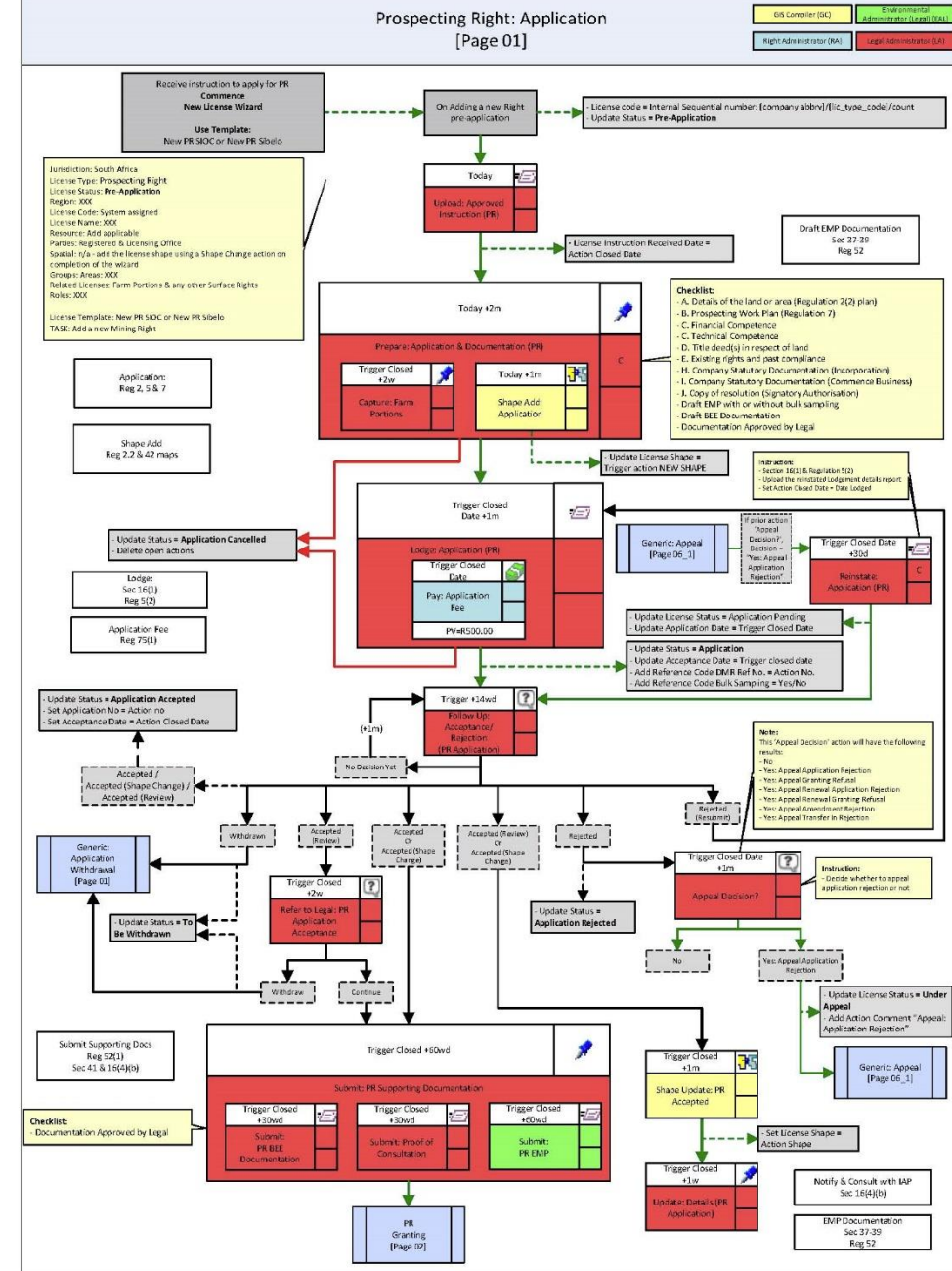
Challenges

Process Alignment

Limited conformity of internal business processes across the organisation and the challenge of keeping up with ever changing Mining Laws and Regulations across jurisdictions



RSA - June 2014



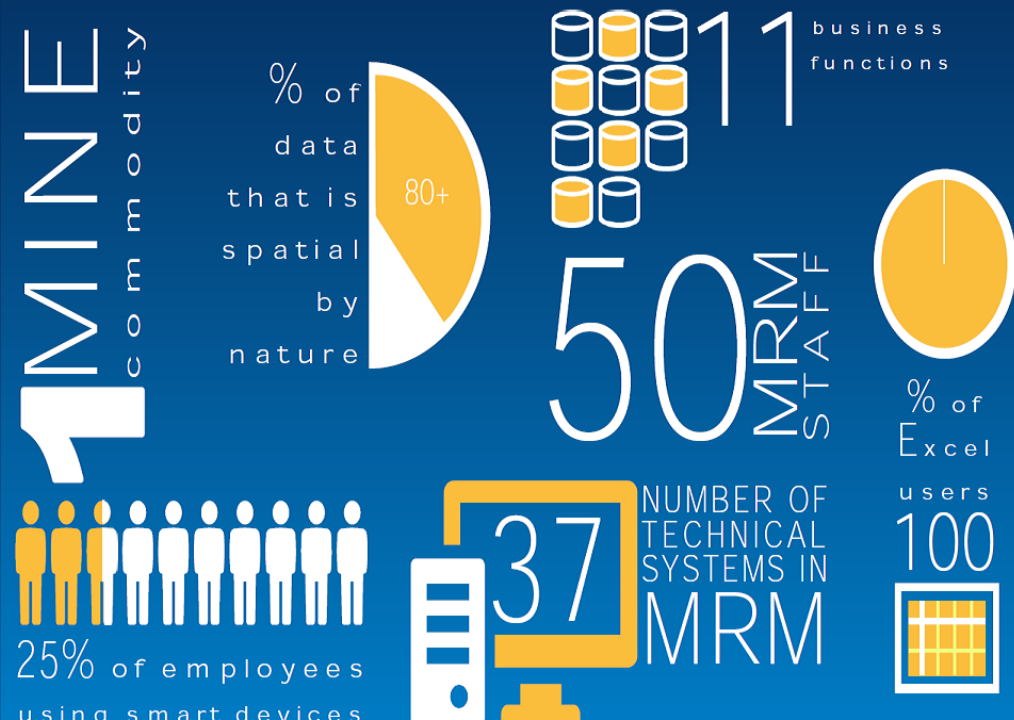
Challenges

Multiple Systems

Often many duplicated systems across the organisation, mostly in silos



flexicadastre

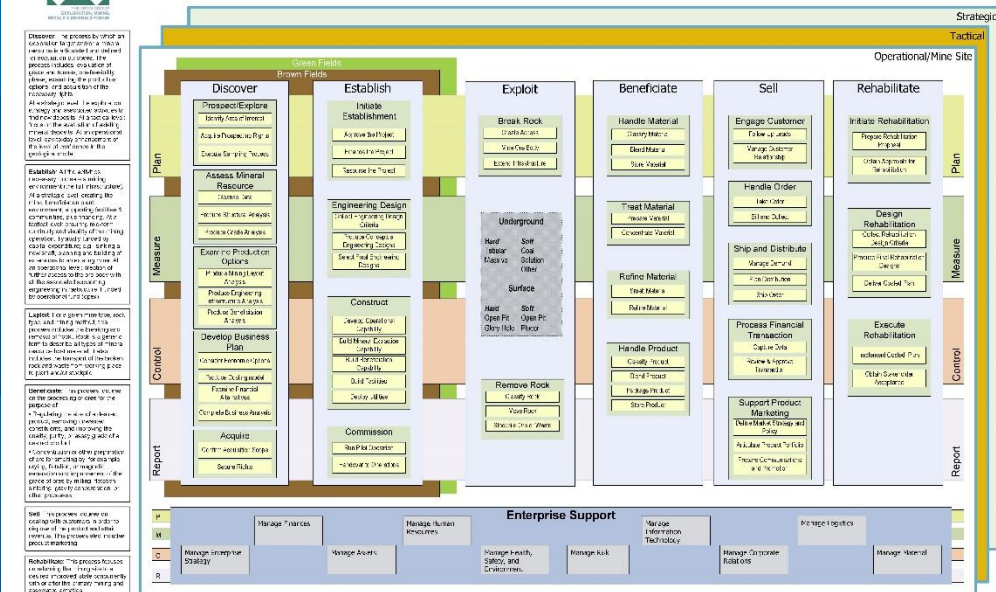


Exploration and Mining Business Process Reference Model

Version 1.01

THE Open GROUP

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Challenges

Drop dead dates

Risk of missing a date of an obligation, be it on tenure, surface rights, agreements or permits



Advanced Search - Mining x

← → ↻ =81&sortOrder=DESC&st=i&searchAll=on&searchStartDa ★ 🔍

Judge needs time to consider 'complex' Sishen matter as hearing wraps

BY: [TERENCE CREAMER](#) 18th August 2011 Proceedings in the North Gauteng High Court, in Pretoria, to review the Department of Mineral Resources' (DMR's) decision to grant Imperial Crown Trading 289 (ICT) a prospecting right over 21.4% of the Sishen mine, in the Northern Cape, wrapped up on Thursday. Judge Raymond Zondo reserved... →

State to lay charges against Kumba for subverting of Act, manipulating officials

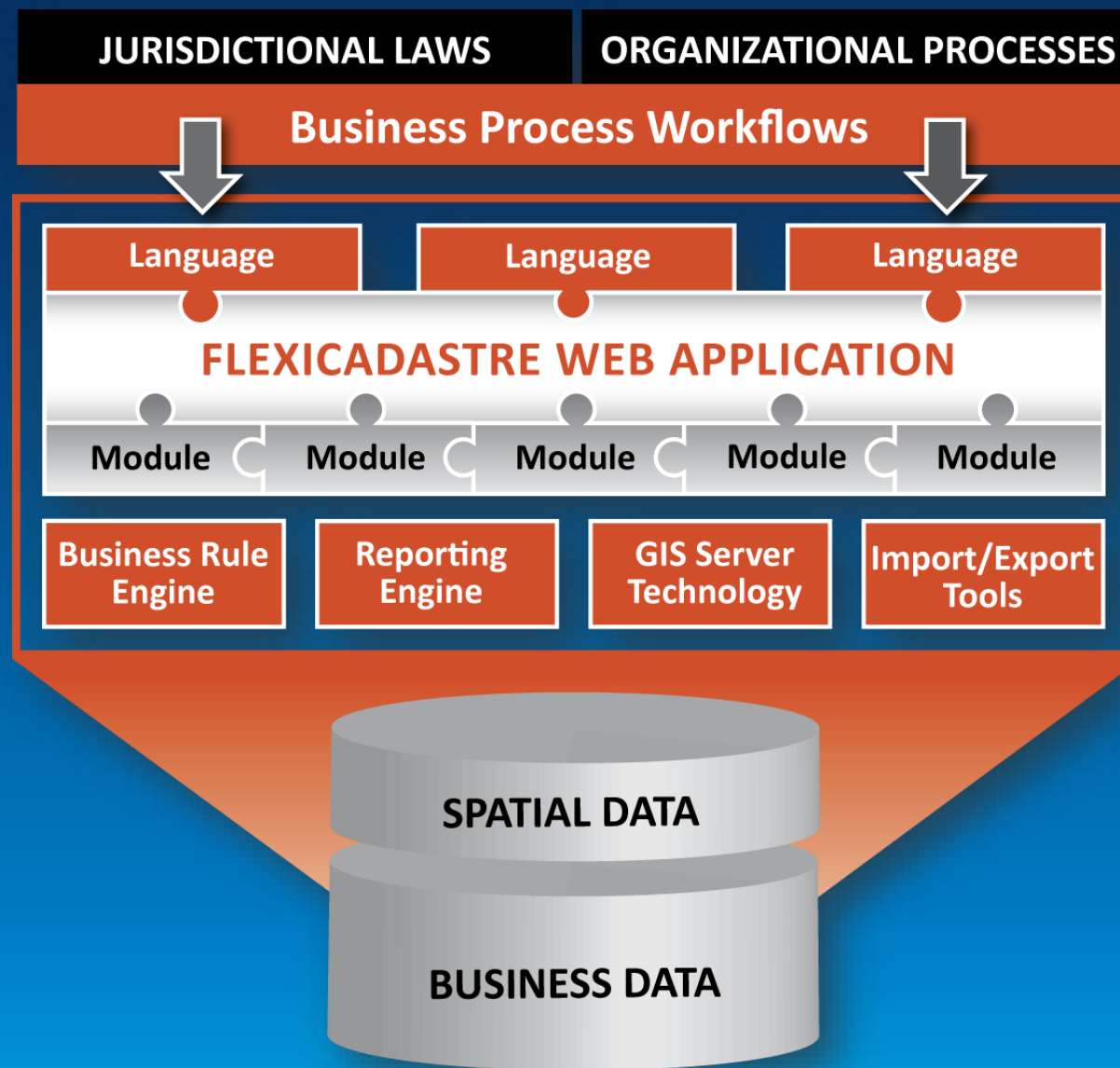
BY: [TERENCE CREAMER](#) 17th August 2011 The Department of Mineral Resources (DMR) is likely to lay charges against Kumba Iron Ore next week following revelations by Advocate Willie Vermeulen in the North Gauteng High Court on Wednesday that such charges were being prepared. Details were not immediately provided as to the nature of the... →

Fraudulent copying of Sishen deeds 'grounds for rebuke'

BY: [TERENCE CREAMER](#) 16th August 2011 The fact that incomplete and manipulated documentation, which was "fraudulently" obtained and copied from Sishen Iron Ore Company's (SIOC) title deeds, was submitted

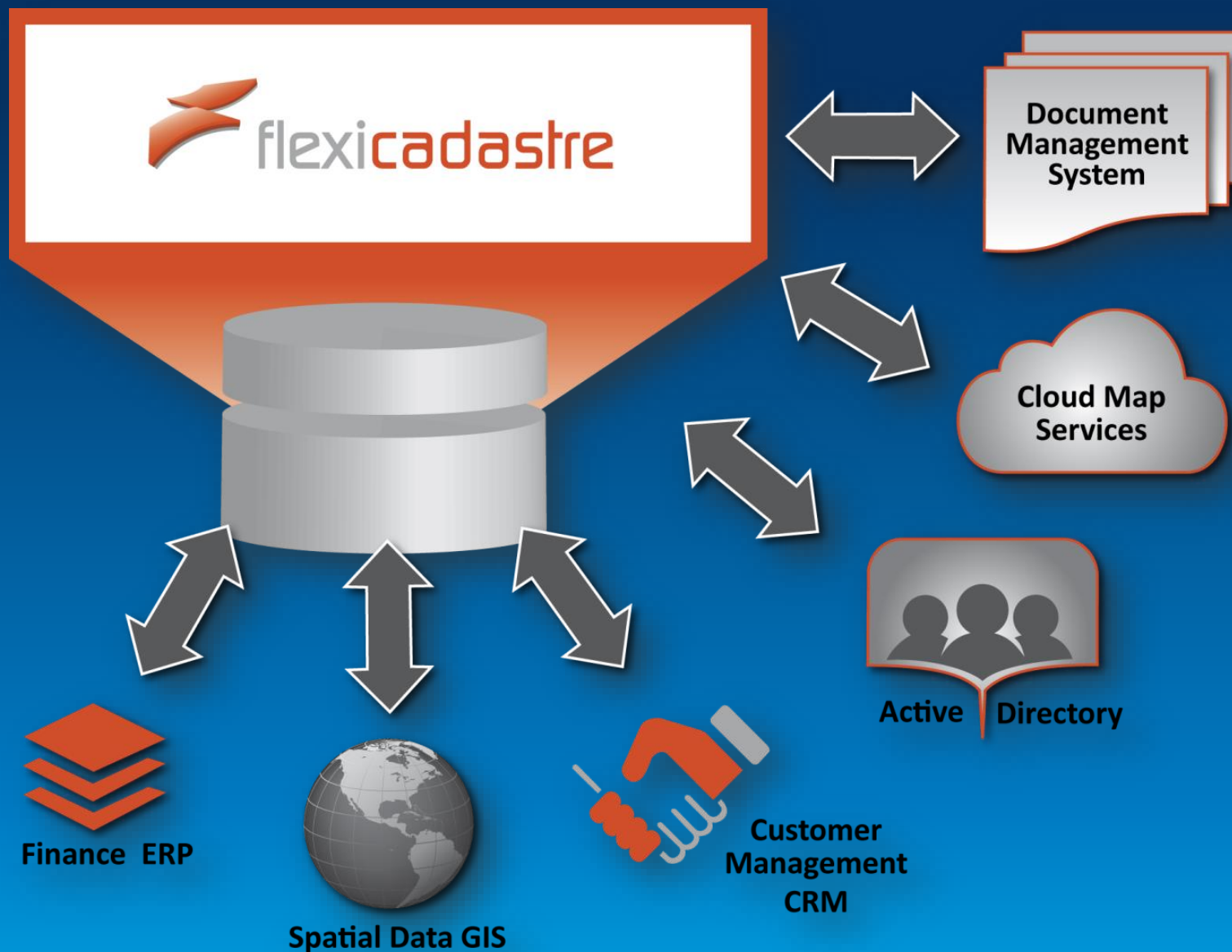
FlexiCadastre

Technical Overview



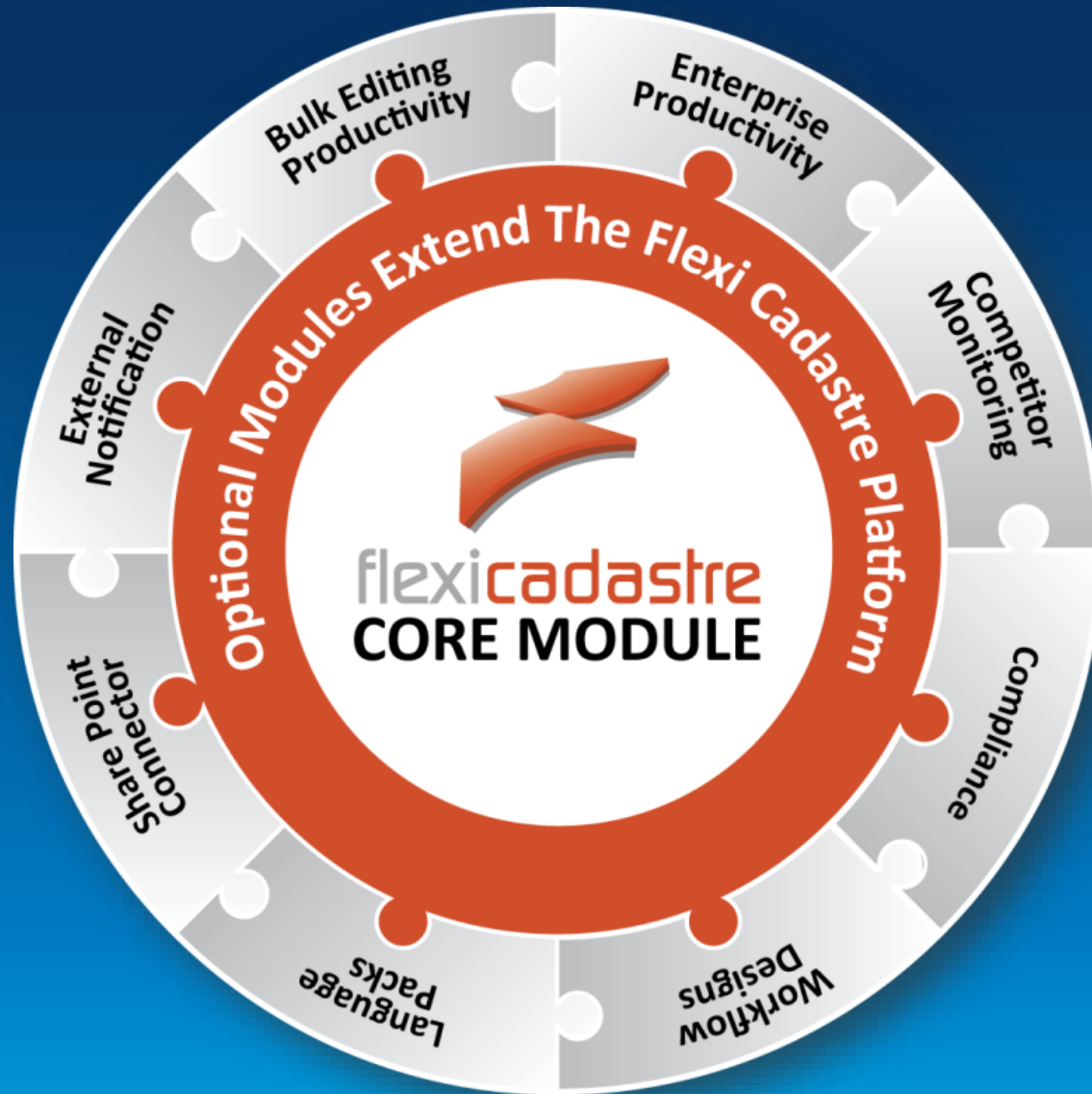
Overview

Process driven
Browser based
Multilingual



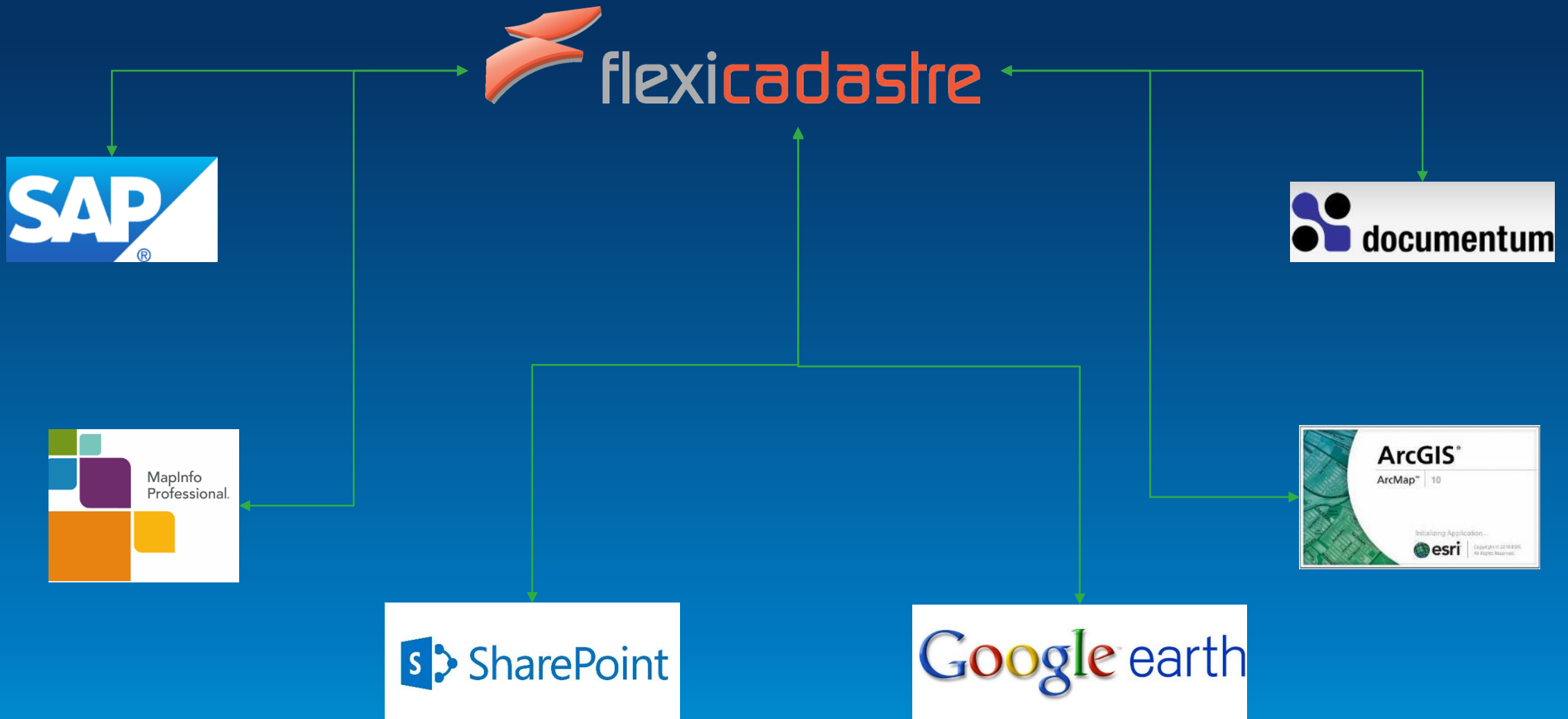
Enterprise Ready

Enterprise, Workgroup & Office Editions
On Premise or in the Cloud
Perpetual or SAAS



Modular

Invest only in required modules



Connector Framework

Scalable



Javascript

- JQuery, JQueryUI, Knockout



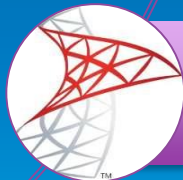
Esri ArcGIS Server



ASP.Net



.Net Framework



SQL Server

Technology Stack

Standard, supportable architecture

Case Studies

Private sector success stories

Case Study



Mining Tenure

Barrick uses FlexiCadastré for managing surface rights, mineral rights, agreements as well compensation / relocation / resettlement activities
Barrick Gold Director of Corporate Land



Managing Mining Tenure

FlexiCadastré is implemented by mining and exploration companies to manage risk and ensure compliance in meeting the requirements and obligations for licenses in multiple jurisdictions.

USING FLEXICADASTRE FOR LICENSE MANAGEMENT

Challenges

Mining and exploration companies face multiple challenges when managing their tenure. Failure to comply with regulations, native title or joint venture obligations can lead to loss of tenure, investment and impact industry reputation.

Objectives

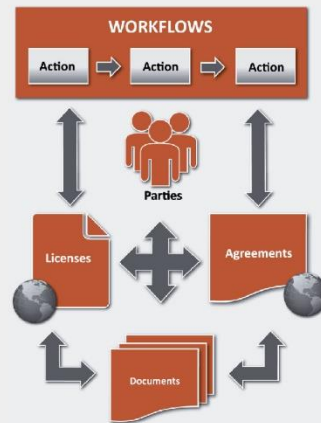
- A fully integrated and globally accessible solution with global oversight of land assets and roll-up reporting to head office.
- Reduce risk associated with meeting requirements and managing obligations for licenses.
- Achieve full compliance with legislative and regulatory acts, sometimes in multiple jurisdictions.
- Implement uniform business processes throughout the organisation.
- Achieve seamless integration with other enterprise systems.
- Advanced authorisations and full audit/compliance history.
- Manage merger and acquisition processes in a timely fashion.
- Retain an edge by monitoring competitor activities including new applications, license renewals and expiries etc.

Approach

- Web portal for data management and reporting, advanced task management.
- Support interrelationships between Licenses and Projects.
- Configurable Workflows and Business Rules that reflect business processes.
- Actions that model the obligations over the life of a License such as payments, reports, renewals with associated Due Dates and responsible roles.
- Advanced GIS component enables map visualisation, selection, and validation of coordinates, restricted areas, minimum and maximum areas, and contiguity.
- Advanced, automated approvals set up for specified roles within the system.
- Escalating notification framework.
- Competitor intelligence and monitoring.
- Customised reporting that is compliant with legislative requirements.
- A user-friendly system enhanced by wizards to facilitate data capture as well as standard and customised tools to bulk-edit or enter data.

OVERVIEW

FlexiCadastré is designed to manage all aspects of land tenure including related contracts, agreements and projects. It is developed around a highly configurable framework to ensure regulatory compliance and consistent internal processes using a combination of Workflows, electronic approvals and escalating notifications.



OUTCOME

A scalable, modular fully integrated license management system that is customisable for client-specific needs to drive the efficient administration of mineral rights and contracts across multiple global jurisdictions.

Case Study

RioTinto

Commercial Agreements

FlexiCadaastre is a very powerful tool for Contract and Agreement management

Rio Tinto Commercial Manager



Agreement Management

FlexiCadaastre provides a repository for the inventory and storage of contractual arrangements between mining companies and their partners, along with the associated mineral licenses.

MANAGING AGREEMENTS USING FLEXICADASTRE

Challenges

Hand in hand with mineral rights management, is the requirement to manage all of the agreements and contracts that mining and exploration companies typically enter into with joint venture partners, royalty holders, government agencies, service companies and surface right owners.

The terms and conditions of these agreements can sometimes be very complex and onerous to manage and the challenge is to ensure all of these important legal obligations are met and the risk to key company assets are minimised.

Objectives

- A fully integrated tenure and agreement solution with roll-up reporting capabilities.
- Manage all types of agreements including
 - Confidentiality Agreements
 - Joint Ventures
 - Share / Option Agreements
 - Royalties
 - Land Use Agreements
 - Service Agreements
 - Data Access Agreements
- Provide a reliable and up to date inventory of all legal agreements related to mineral rights management.
- Improve internal governance and compliance for all legal agreements.
- Provide a secure and accessible document repository for signed agreements.

Approach

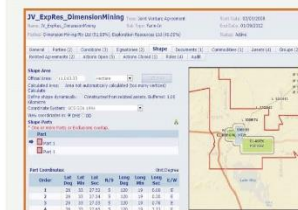
Leverage the integrated FlexiCadaastre tenure and contract management solution for:

- A complete web portal for data management, reporting and task management.
- Support of interrelationships between agreements, tenure and projects
- Scheduling and tracking on-going agreement obligations.
- Escalating notification framework.
- Manage geographic extent and areas of interest
- Simple to use document management capabilities

OVERVIEW

Many of the world's leading resource companies including Anglo American, Barrick Gold, Goldcorp, Rio Tinto, and Vale have recognised the value of implementing an integrated tenure and agreement management solution based on the FlexiCadaastre framework.

Through the provision of an easy to use web interface FlexiCadaastre provides the Commercial, Legal and Land teams with a common platform to administer important company assets along with the legal terms and conditions surrounding them.



OUTCOME

A fully integrated approach to managing the legal agreements. From negotiations to registration, through to the long term conditions and obligations of the agreement. FlexiCadaastre schedules, notifies and tracks all on-going agreement decisions, meetings and obligations, and provides a spatial enabled system to view agreements in conjunction with your tenements.

For more information please contact
info@spatialdimension.com

Case Study



MPRDA Compliance

Any company battling with the complexities of the MPRDA will do themselves a huge favour by investing in the professional and easy to use FlexiCadastral system

Impala Platinum Legal Consultant



Leveraging FlexiCadastral to ensure MPRDA compliance

FlexiCadastral can be configured to manage all processes required to meet regulatory obligations thereby ensuring compliance with the South African Mineral and Petroleum Resources Development Act (MPRDA).

MANAGING MPRDA OBLIGATIONS USING FLEXICADASTRE

Challenges

Companies mining or prospecting in South Africa need to comply with the MPRDA and corresponding regulatory obligations. With Government focussing on strengthening administrative processes and administering sanctions for noncompliance, failure to meet any of the financial, reporting or other requirements can result in penalties and/or loss of tenure. The challenge is to secure all mineral assets and mitigate risk by ensuring that all obligations are met.

Objectives

- Improve risk mitigation using an early warning system to ensure that all obligations are met.
- Improve governance and compliance with Mining Law and Regulations
- Provide a secure and accessible data and document repository for all correspondence, reports, agreements and contracts relating to the management of land related assets.

Approach

- Leverage FlexiCadastral to manage the complete application, granting, maintenance, renewal and closure phase of prospecting and mining rights and their associated agreements.
- Configure Workflows for all internal company processes in addition to the MPRDA jurisdictional requirements.
- Assign responsibility and accountability to specified FlexiCadastral users.
- Generate high level reports for budget forecasts, statuses and upcoming obligations.
- Integrate FlexiCadastral with existing enterprise systems and data.
- Increase transparency and accountability using the Audit functionality provided by FlexiCadastral.
- Improve governance and compliance using standard procedures and defined business rules.

OVERVIEW

Companies in South Africa are faced with challenges due to a growing need for greater compliance to meet the increasing legislative requirements and demands imposed by the Mineral and Petroleum Resources Development Act (MPRDA). The Act makes provision for equitable access, to and sustainable development of, South Africa's mineral and petroleum resources. FlexiCadastral is configurable to manage mineral rights and associated agreements.



OUTCOME

FlexiCadastral has been implemented successfully in a number of major mining companies to ensure their compliance with the MPRDA. The benefit is that FlexiCadastral mitigates risks by scheduling, notifying and tracking ongoing obligations, reporting requirements and payments. This ensures that companies are compliant with the legislative requirements thereby securing their assets.

Case Study

 **GOLDCORP**

Mining Claims in the US

We now manage all land transactions from renewing unpatented claims to agreements and obligations

Goldcorp Land Manager



Managing Unpatented Mining Claims in the United States

The **Bulk Productivity Module** of **FlexiCadastr** facilitates management of Unpatented Mining Claims in the United States.

MANAGING CLAIM FILING USING FLEXICADASTRE

Challenge

To manage large volumes of claims and ensure the correct fees and Exhibits are filed with the appropriate BLM office and County in a timely fashion.

Objectives

- Input and manage large numbers of unpatented claims.
- Automate the calculation of annual claim filing fees on large groups of claims while maintaining the accuracy and integrity of individual claim data.
- Generate automated cover letters, affidavits and Exhibits to accompany the filings.
- Ensure that the filings are submitted to the correct BLM Offices and County Recorders.
- Automate the approval process for keeping and dropping groups of claims.

Approach

- With the Bulk Productivity Module installed, FlexiCadastr facilitates the bulk loading and editing of claims and their associated spatial information.
- Configurable "Groups" allow for the establishment of relevant Affidavit Groups as containers for the lists of claims that are filed together.
- Parameter value functionality together with the sophisticated business rule engine uses a combination of Map References and associated Parameter values to calculate total fees, on a per Affidavit Group basis, that need to be filed with the BLM and each individual County.
- Map Reference functionality tags claims to the Counties that they fall within, and the Affidavit Groups inherit these Map References from the related claims.
- Map References and Parameter Values are used to select the correct BLM and County addresses for the annual filings. These addresses are used in templates for Cover Letters and Signed Affidavits.
- Custom Reports are used to create client specific Exhibits that conform to County filing rules.
- The Approval function used in conjunction with the Bulk Productivity module can be used for the retention or disposal of large numbers of claims in bulk.
- The selection of individual claims and their associated Actions and Approvals can all be done from the configurable map interface.
- Alerts (Notifications or Reports) for the annual claim filing process are sent out at configurable time intervals.
- A full Audit trail of the claim filing process.

OVERVIEW

The small size and large numbers of unpatented land held by mining companies operating in the United States provides a unique challenge to land management in this jurisdiction. The submission of an annual affidavit on all actively held claims is required to both the Federal Bureau of Land Management (BLM) and the Counties in which the claims are located. Claims in each of these Affidavit Groups can number in the thousands, and individual claims can fall into one or more counties. Failure to correctly file on each individual claim will result in the loss of that claim, without warning or notification from either the BLM or County. Furthermore, while the cost of filing on each claim is standardized at a Federal level, fees typically vary by County, even within the same State. The volume of claims and severity of the implication for missing a filing represents significant risk to mining companies.



OUTCOME

A fully managed Annual Claim filing process complete from planning through to execution and including all relevant documentation and approvals.

Case Study



Work Commitments

Budgeting is now a piece of cake as we can easily run reports summarising our annual financial obligations for each tenement, project or country

AngloGold Ashanti Tenement Manager



Case Study



Community Resettlement

I have not seen a relocation project as successful as this. It surpasses our practice of compensation and relocation and it sets a new benchmark

Tanzania's President Kikwete



MANAGING COMMUNITY RESETTLEMENT

FlexiCadastre manages all aspects of the Relocation and Resettlement of local communities when their land is acquired for the purposes of mining.

MANAGING COMMUNITY RESETTLEMENT USING FLEXICADASTRE

Challenge

To manage the Community Resettlement and Compensation process including surveys, payments and construction of houses in a single integrated system.

Objectives

- Conduct accurate spatial surveys and valuations of existing land as well as new resettlement plots to calculate Resettlement entitlement and to spatially track an individual's movements.
- Manage the resettlement process, including pay out of transportation and accommodation allowances.
- Accurately track relocation status of the existing land parcels.
- Manage the construction of new houses, including contractor details, contractor payments, house inspections and handover.
- Ensure tight Financial Control and Budget Forecasting.
- Establish a searchable database of historic payments for record keeping and grievance management purposes.

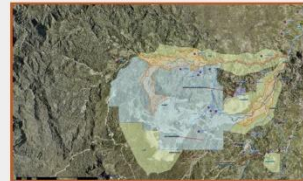
Approach

- Model processes relating to Relocation and Resettlement Compensation into Workflows according to the mining company's internal procedures and any agreements negotiated with local communities.
- Manage all tasks, within given time frames, including scheduled meetings, surveys, site visits, payments, house construction etc.
- Use integrated GIS mapping tools to provide precise localities for all aspects of the resettlement process including the existing parcel, resettlement parcel, grave sites, gardens etc.
- System recorded decision management around individual resettlement election.
- Generate all relevant Reports and Forms used in the Resettlement process.

OVERVIEW

When operations are initiated at a new mine site or when extending an existing mine footprint, mining companies face the numerous and diverse challenges involved with relocating and resettling communities affected by the mining activities.

Community Resettlement involves the compensation of individuals for land and property as well as ensuring that people are successfully relocated off the land. Resettlement may be to company designated areas/houses, to other suitable locations as agreed between the parties involved, or an individual may get offered a settlement payment that would enable them to purchase a new property.



OUTCOME

FlexiCadastre is implemented as a fully integrated Community Resettlement solution which records and manages all aspects of the process involved in relocating communities. This solution provides comprehensive searching and reporting capabilities on historic data and future obligations, to improve business management, social obligations and community relations.

Case Study



Damage Compensation

75% time saving and reduction in risk associated with incorrect claims payment calculations

Barrick Gold Land Manager



DAMAGE COMPENSATION

FlexiCadastré manages all aspects of Compensation when individuals or communities and their land are affected by mining and exploration activities.

MANAGING DAMAGE COMPENSATION USING FLEXICADASTRE

Challenge

To manage the damage compensation process including assessments, valuations, surveys and payments in a single integrated system.

Objectives

- Interact and negotiate with the local communities and other stakeholders to ensure that individuals are informed and participate fully in the process of receiving appropriate cash compensation.
- Conduct accurate spatial surveys and valuations of parcels for Compensation.
- Ensure a uniform, systematic, and timely method of recording, approving and making compensation payments.
- Establish a searchable database of historic payments for record keeping and grievance management purposes.
- Ensure Transparency, Accountability and better Financial Control.

Approach

- Model processes relating to Damage Compensation into Workflows according to the mining company's specific internal procedures, negotiated agreements and government regulations.
- Manage all tasks, within given time frames, including scheduled meetings, surveys, valuations and assessments, payments etc.
- System calculated payments based on prescribed rates.
- Use integrated GIS mapping tools to provide precise locations of damaged land and property, spatial validations and overlap detection.
- Generate all relevant Reports and Forms used in the Compensation process.

OVERVIEW

Mining companies face numerous and diverse challenges when compensating communities affected by mining related activities. The direct impact of an operating mine or exploration activity could include damage to buildings and other structures, damage to crops and livestock, and damage to surrounding vegetation and water sources which communities utilize.

Compensation is often based on agreements negotiated between the concerned parties, typically the Mining Company and affected communities. Compensation procedures are designed to ensure a uniform, systematic, and timely method of recording, approving, and paying for damage to property.



OUTCOME

FlexiCadastré is implemented as a fully integrated Damage Compensation solution that records and manages all aspects of the compensation process. This solution provides comprehensive searching and reporting capabilities on historic data and future obligations, to improve business management, social obligations and community relations.

Case Study



Energy Leases

FlexiCadastre provides Plum Creek with a powerful tool to enhance management of its non-timber resources

General Manager, Energy & Natural Resources



Case Study



Company Secretarial

Company Secretariat procedures and information can also be managed very successfully using FlexiCadaastre

Impala Platinum Legal Administrator



Servitudes / Rights of Way

Often mine sites are developed in the most remote of locations, requiring significant infrastructure to be built to the mine and then managed and maintained



Permitting

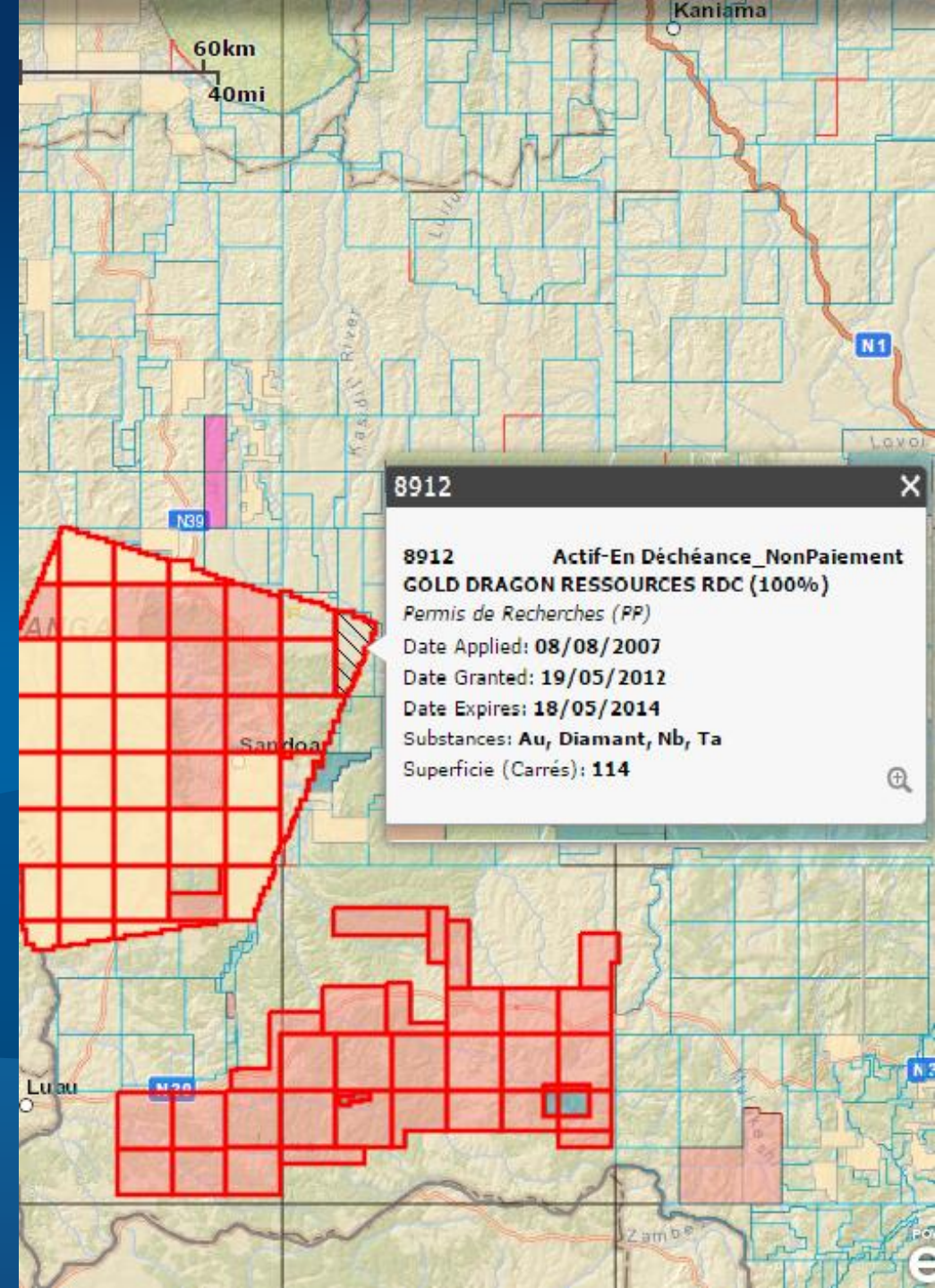
Many multi-billion dollar mine development projects have been delayed and even cancelled because of weak permitting processes and compliance monitoring



Competitor Monitoring

What are your competitors doing?

What are your competitors forgetting to do?



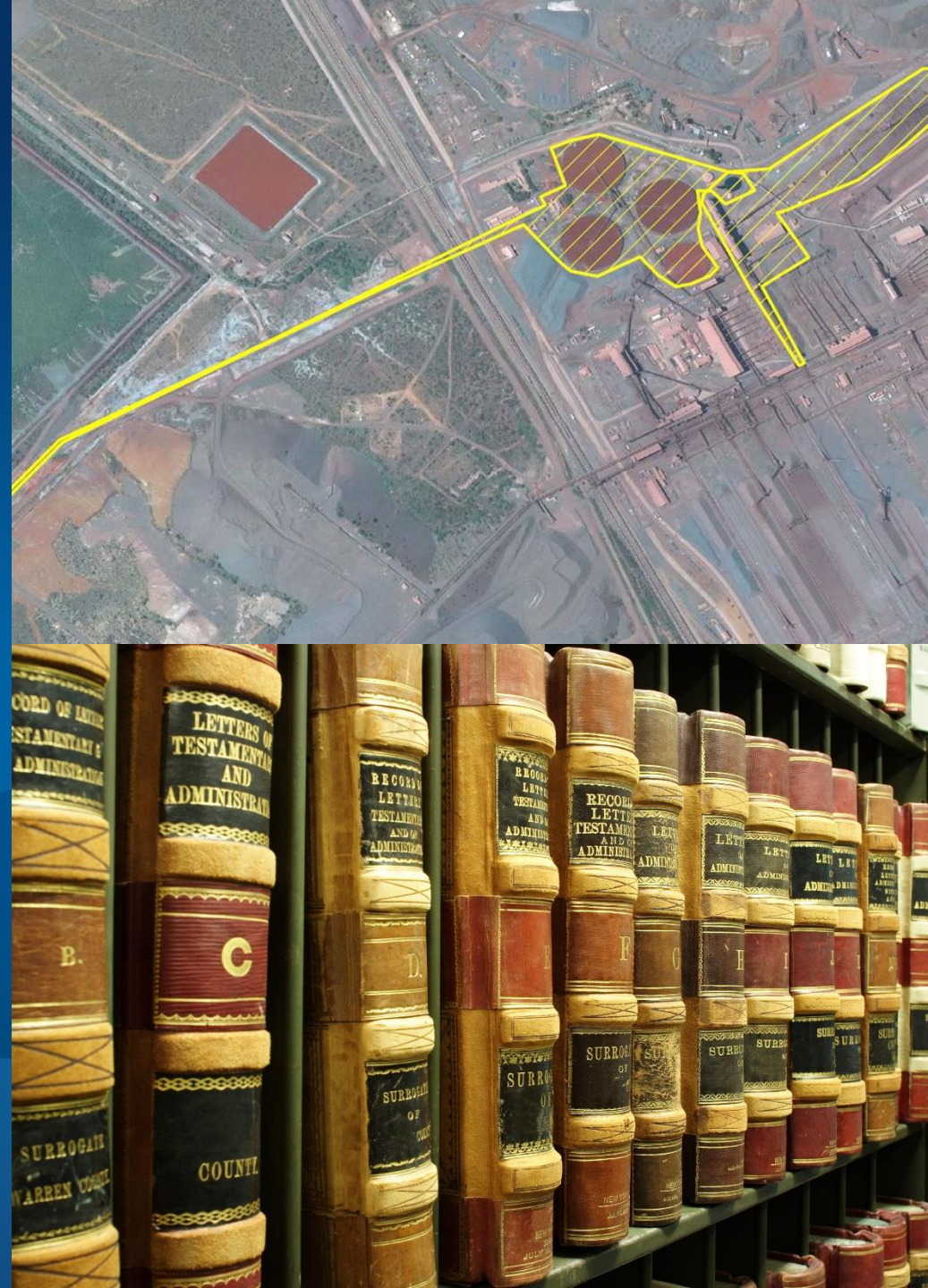
Water Rights

In many countries these are as important as the land and mineral rights



Legal Appointments

MPRDA and other regulations require specific Legal Appointments to be made for each part of a mine site



Indigenous Land Use Agreements

These agreements are negotiated with a native title group for the access to their land and water



Managing Indigenous Land Use Agreements (ILUA)

FlexiCadastré provides an integrated approach for managing the Indigenous Land Use Agreements (ILUA) process from beginning to end.

MANAGING AGREEMENTS USING FLEXICADASTRE

Challenge

To effectively manage the negotiation and subsequent outcomes and obligations of an Indigenous Land Use Agreement between Native Title groups and other parties. The agreement might include provision for managing compensation for loss/impairment of native title, land access, defining how Native Title rights coexist with the rights of others, native title rights, economic opportunities and so on.

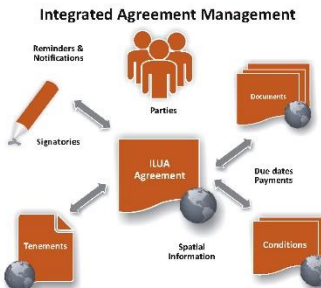
Objectives

- Effective management strategies for shared responsibility in the protection of land, fishing and water resources.
- Improved protection of Indigenous heritage and sustainability of Aboriginal culture.
- Improved social and economic outcomes for Indigenous people.
- Native title holders agreeing to future developments where native title has, or has not yet, been determined.
- Setting out processes for the resolution of native title claims through negotiation, discussion and agreement-making

Approach

Manage the complete ILUA process using the FlexiCadastré integrated contracts management functionality including:

- Outcomes of the negotiation process.
- Communications with NNTT and Native Title Holders.
- Internal approval processes.
- Scheduling and tracking on-going agreement obligations.
- Managing Compensation.
- Managing geographical extent of ILUA and associated native title claim areas and heritage sites.



OVERVIEW

Indigenous Land Use Agreements (ILUA) are voluntary agreements negotiated between a native title group and other parties, for the use and management of land and waters.

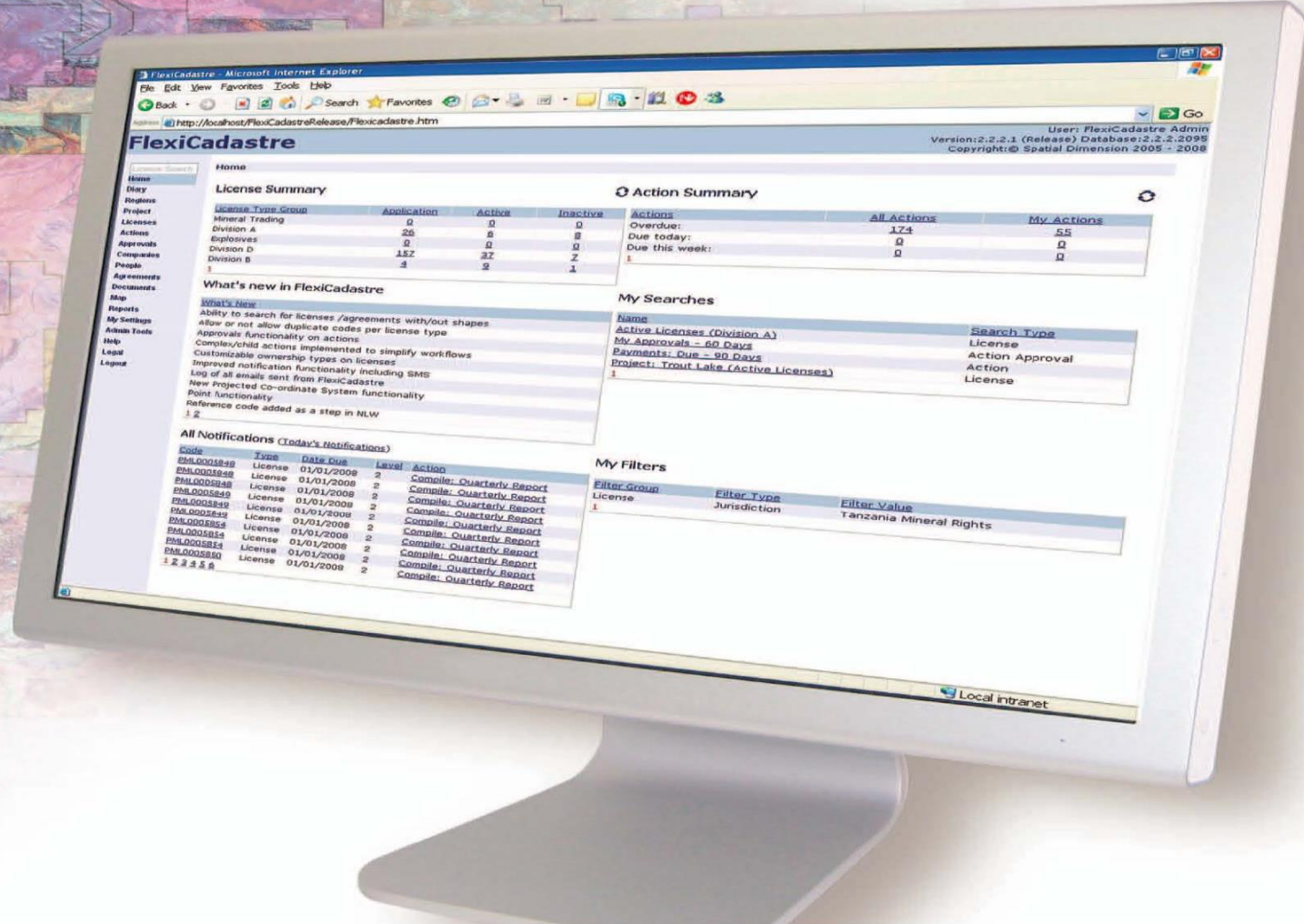
An ILUA provides a flexible approach to the management of land use issues allowing parties to tailor the outcome to suit their circumstances. Once registered, ILUAs bind all parties and all native title holders to the terms of the agreement.

The agreement recognises traditional owners for the agreement area and identifies the areas of land covered. The agreement clarifies how activities and projects can proceed into the future.



OUTCOME

A fully integrated approach to managing the entire ILUA process. From negotiations to registration, through to the long term conditions and obligations of the agreement. FlexiCadastré schedules, notifies and tracks all on-going agreement decisions, meetings and obligations, and provides a spatial enabled system to view agreements in conjunction with your tenements.



How secure are your rights?

Any Questions?