Geo-business for large organizations
1 INTRODUCTION

Borealis – who we are

- Based in Canada, founded in 2004
- 39 employees, multi-language team
- GIS specialists, engineers, developers
1 INTRODUCTION

✓ Our expertise

✓ Main markets: mining and oil
1 INTRODUCTION

✔ Our strengths

- Knowledge of business sector
- Geospatial tools integration
- Solutions based on open source technologies
1 INTRODUCTION

✔ Example
1 INTRODUCTION

- Geoprisma
- Openlayers
- Mapfish
- Mapserver
- PostgreSQL / PostGIS
- Jasper Reports
- Talend
- Proj.4
2 CASE STUDY – PROGRESS REPORT

✓ Context

- Large mining enterprise: 18 B USD of revenues
- More than 40 mineral exploration sites in over 20 countries
- Big quantities of information, no standard way of reporting
2 CASE STUDY – PROGRESS REPORT

✓ Mandate

Implement an information system to generate automatically a Monthly Exploration Progress Report from worldwide operation sites
CASE STUDY – PROGRESS REPORT

Web-based reporting application: on-site data entry

Information

- Project order in report
- Year budget (depth)
- Project status: Pre-Feasibility Study
- Reforecast budget (depth): 15611.00

Technical summary (CLICK ON ICON TO PASTE FROM WORD)

Drill hole BH001 was continued from 10m to 20m. This is a technical summary that will be stored and secured. It is an analysis done by a geologist and it insures that the professional opinion is kept on a long-term basis and available to allowed personnel.
2 CASE STUDY – PROGRESS REPORT

✓ Multi-site data integration (multi-projection)
2 CASE STUDY – PROGRESS REPORT

- Data approval mechanism

- Responsibility taken by all parties
- Process auditability
3 ACHIEVEMENT

✅ Monthly Progress Report: Huge success!!
✅ Sent monthly to the CEO and board of the company
3 ACHIEVEMENT

✓ Interactive world map
3 ACHIEVEMENT

- Data in context with external sources
  - One Geology (web services), Google layer, USGS geochemical database
3 ACHIEVEMENT

✓ Customizable at will

• Personnel GPS devices: security and tracking
3 ACHIEVEMENT

✓ World map poster
  • Worldwide dynamic monthly status
  • Printable map
3 ACHIEVEMENT

✓ Key performance indicators (KPI)
  • Several data axes, « on-the-fly » health & safety statistics calculation
  • Outputs are dashboards, reports and graphs
3 ACHIEVEMENT

✓ General dashboard

- One page summary displaying monthly results
  - Exploration
  - Finances
  - Health & Safety
  - Environment
4 BENEFITS

- Several person-hours saved yearly
- Data traceability and process auditability
- Standard data reporting mechanism
- Centralized information access
- Quick custom reports integration
4 CHALLENGES

✓ Technical
  • Multiple coordinate systems, and missing ones
  • Remote implementation
  • Low bandwidth
  • Internal infrastructure

✓ Organizational
  • Resistance to change
  • Coordination with IT team
  • Multi-country / multi-cultural environment
CONCLUSION

☑ Success factors

• Emphasis on business process instead of technology (added-value)
• Minimal technological constraints: Open source
• Iterative and AGILE approach aimed at quick results
• Commitment from high-level management
• Return to users: satisfy the needs
CONCLUSION

Using open source technologies in large organizations

• It is possible!
INTEGRATING TECHNOLOGIES
AT A HUMAN SCALE

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