GeoAnalytics – A factor of success for the digital transformation in the insurance industry

Geospatial World Forum
Amsterdam, 3rd of April 2019

Andreas Siebert, Exposure & Geospatial Solutions
Location Intelligence
Review & Status quo
Geospatial World Forum Rotterdam 2013 – Our expectations

- Using web technologies and value-added services across the whole company
- Use of common platforms: Open GIS Consortium (OGC); open-source projects, open model development (e.g. GEM)
- Mobile applications
- Social networks and crowd sourcing
- System landscapes and business requirements are increasingly complex

GI technology is still a niche in our business model: It’s time for unrestricted acceptance!
<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
<th>Business</th>
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</thead>
<tbody>
<tr>
<td>I. Nerd Phase:</td>
<td>Experts only</td>
<td>GIS</td>
</tr>
<tr>
<td>II. Touch Phase:</td>
<td>supporters join</td>
<td>Business</td>
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<tr>
<td>II. ROI Phase:</td>
<td>Return can be measured</td>
<td>GIS</td>
</tr>
<tr>
<td>IV. Integration Phase</td>
<td>Community forms</td>
<td>Business</td>
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Source: Andreas Siebert, Munich Re, 2016

Location Intelligence
4-phases model of linking Business and GeoAnalytics (GIS)
Of the 30 topics under study in 2017, **location intelligence** is perceived as more critical than big data, social media analytics or Internet of Things (IoT).“
Location Intelligence
Major developments and changes in the last 5 years

- Geospatial Technologies
- Data Ecosystem
- Analytical Capabilities
Geospatial Technologies
More solutions and suppliers for insurance purposes available
Easier to implement and integrate in new and existing underwriting tools
Better dialogue & exchange between business data and location-based data
Geospatial Technologies
Sharing Web-GIS applications with a broader community
Geospatial Technologies
New platforms and collaborations accelerate data integration
Geospatial Technologies
State-of-the-art access to information via visual dashboards
3 Data Ecosystem
Increasing number of data providers and data sources (remote sensing, sensors)

More competition and choice: improved data granularity & data quality (?)

From static data to dynamic real-time information

Easier access and integration via Web-services (APIs)
Data Ecosystem
More „fuel“ for geospatial applications available
Data Ecosystem
Remote sensing is leveraging new products and services

Source: http://www.welt.de/wissenschaft/article122957094/Was-Drohnen-alles-koennen-aber-nicht-duerfen.html
Data Ecosystem
Real-time data improves situational awareness
4 Analytical Capabilities
Analytical Capabilities
Observations

- More computing power (e.g. in-memory-technologies, GPU)
- Big Data Analytics and IT infrastructure (on-premise - cloud)
- From isolated installations to company-wide platform solutions
- New methods available (artificial intelligence, machine learning)
- New disciplines entering the field of location intelligence (e.g. data scientists)
Analytical Capabilities
Integrating location intelligence in new IT-architecture (data lake)
Analytical Capabilities
High performance analytics with machine learning algorithms (Geo.AI)

"Plan my day" view for each field adjuster with location intelligence applied

Source: Munich Re, Remote Industries, 2018
Outlook 2025 – Location intelligence & insurance industry

- Impact: Enourmous potential with focus on P&C business
- InsurTech startups: A range of new technologies are creating more opportunities
- Data: Major advances in data collection, storage and access
- Analytics: From static stuff to dynamic analytics with real-time components
- Sourcing: Remote sensing, IoT and BIM are part of holistic analytics
- Methods: Artificial intelligence & Machine Learning are established
- Cooperation: Fruitful exchange between business, data scientists and geo-experts

Location intelligence has highest awareness -> aWHEREness is ubiquitous
Thank you!

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