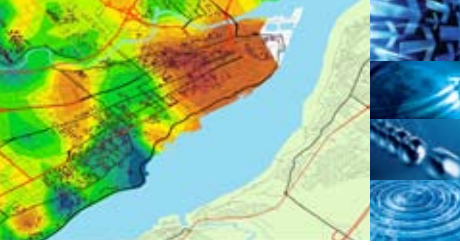




# KNOWLEDGE MANAGEMENT SOLUTIONS

Through a combination of professional expertise in appraisal, economics, database management and design, geographical information systems (GIS), and advanced statistical and geostatistical modelling, our Knowledge Management Solutions team leverages the capabilities of real estate databases and turns them into valuable market information and knowledge.



# FOCUS ON

## Knowledge Management Solutions

More than ever, today's market conditions require timely access to real estate knowledge and information. By helping to put together the proper database environment, the skills and expertise of Altus Group's "Solutions" team utilizes automated real estate analysis to implement predictive and forecasting solutions. Our stringent mathematical approach allows us to advance from the "what" to the "why" and "where," finding answers to complex problems, including environmental impact and analysis. The Solutions team consists first and foremost of numerous specialists, who combine our best-in-class industry knowledge with information technology and modelling, to ensure superior results.

- **Data Scrubbing and Analysis:** Quality data and information is the foundation for sound analysis, and thus our primary focus. Our Solutions team can audit, review, geocode, combine and scrub, to obtain the optimum codified data. Our proprietary software uses state-of-the-art statistical technologies incorporating GIS-based analysis.
- **Automated Valuation Models:** Our proprietary Automated Valuation Model, "VALeRI," allows us to predict real estate value on a continuous basis. This service is currently used by the real estate industry for assessment, mortgage underwriting and mortgage portfolio review. VALeRI is the most flexible application in the industry, allowing us to analyze the market from a different perspective, and has been proven across all market sectors, from local finance property assessment, to realtors, to mortgage and risk management.
- **Forecasting, Risk and Stress Tests:** What is the likelihood that a predicted sales price is realized? How does it vary from location to location? What are the forward-looking trends? VALeRI can help generate the critical knowledge required to manage risk and to support and maintain a more stable financial environment.
- **Smart Growth Analysis:** VALeRI relies on a GIS-based platform that allows us to extract valuable location-based impact analysis to determine the necessary answers that may help justify and promote smart growth initiatives. We can measure the impact of the value of various external factors such as improved traffic or public transportation, new roads or bridges, adding green space and parks, and other land-use enhancements or prospective projects.
- **Environmental Impact Analysis – Litigation Support:** More commonly in today's climate, laws and legislations support environmental protection. Concerns such as the impact on property values of excessive noise levels, odours, dust, or any perceived source of contaminant, can be both identified and quantified. As a result, class action lawsuits are more frequent and require stringent analysis in order to quantify, if any, alleged contamination or environmentally related property damage. VALeRI is particularly adapted to measure and support these issues, largely because it is more scientific than traditional "subjective" methods.

By helping to put together the proper database environment, the skills and expertise of Altus Group's "Solutions" team utilizes automated real estate analysis to both predict and forecast solutions.

**VALeRI™** is the acronym for **VAL**uation and **RI**sk management.

**VALeRI for Realtors:**

A web-based service that allows access to an AVM that produces real time market statistics and reports supporting prospective or detailed opinions of value – a powerful ally for agents and brokers that want to keep up with the market in today's environment.

**VALeRI for Assessment:**

Available as a web-based or a server solution, our assessment-specific AVM allows us to produce three market-based value indicators with related reliability factors: cost based, statistical and comparison value indicators. These views of the market produce more supportable and accurate conclusions in an environment that is fully transparent to the user. Our modelling environment allows the government to leverage the value of assessment-related data.

**VALeRI for Mortgage Analysis:**

Using third-party or proprietary databases, our AVM allows real-time review and scoring of mortgage applications.

**VALeRI as Assisted AVM:**

An AVM cannot cover the full market spectrum. In order to process the outliers before they are sent out for field inspection, our assisted AVM allows an appraiser to review all comparables and subject information, and come to conclusions, thus reducing risk and generating, where applicable, time and cost savings.

**Unlimited VALeRI:**

These solutions can be adapted to any proprietary database where scope and data are statistically significant. Although these technologies were first developed for residential properties, they could be adapted to measure rents, land value, capitalization rate, property value and key influencers on any property types or location attributes.

---

**DEFINITIONS**

**Probability:**

Measure probability likelihood that the model over values or under values a property.

**Sales Delay:**

Typical amount of days a property stays on a market.

**UVO:**

Neighbourhood delimitation used in our assessment application.

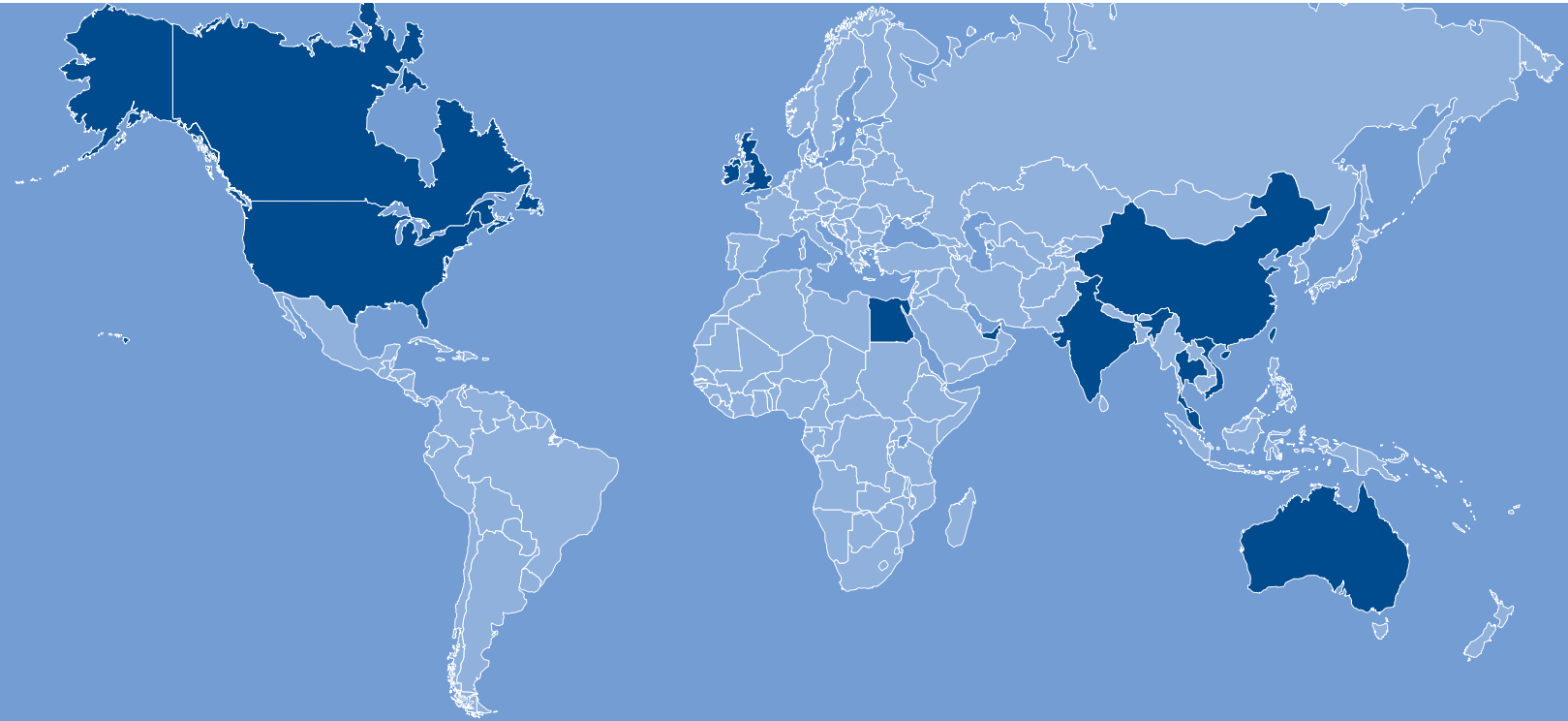
**REsidusQC:**

Aggregate measure of influence of location over a given prediction.





## Our Network



Altus offers diversified services and unparalleled expertise to a broad range of clients, in various industries across Canada and internationally.

### About Altus Group

Altus Group is the leading multidisciplinary provider of independent real estate consulting and professional advisory services worldwide. With a staff of over 1,700, Altus Group has a network of over 60 offices in 14 countries worldwide, including Canada, UK, Australia, Asia, USA and the Middle East. We operate four interrelated Business Units, bringing years of expertise together into one comprehensive platform: Research, Valuation and Advisory; Cost Consulting and Project Management; Realty Tax Consulting and Geomatics services. Our business units work independently or in cooperation to provide clients with the benefit of combined expertise. Our distinctive approach allows for decisions based on independent, carefully reviewed conclusions.

Altus Group provides services to some of the most prominent businesses, including banking institutions, pension funds, insurance companies, accounting firms, law firms, public real estate organizations (including REITs), industrial companies, private investors, asset and fund managers, real estate developers, governmental institutions, and oil and gas companies.



[altusgroup.com](http://altusgroup.com)   [info@altusgroup.com](mailto:info@altusgroup.com)