



Arium Liability Analytics Platform



In the face of the increased frequency and severity of systemic and emerging liability risk events, is your organization considering:

- Clash accumulation to events across multiple insureds, coverages, and policy years?
- Scenarios against which to accumulate exposures to benchmark risk?
- Adjusting your risk appetite and measuring actual exposure accumulation for classes of business exposed?
- Incorporating a risk charge into your pricing to reflect the correlation of exposures?

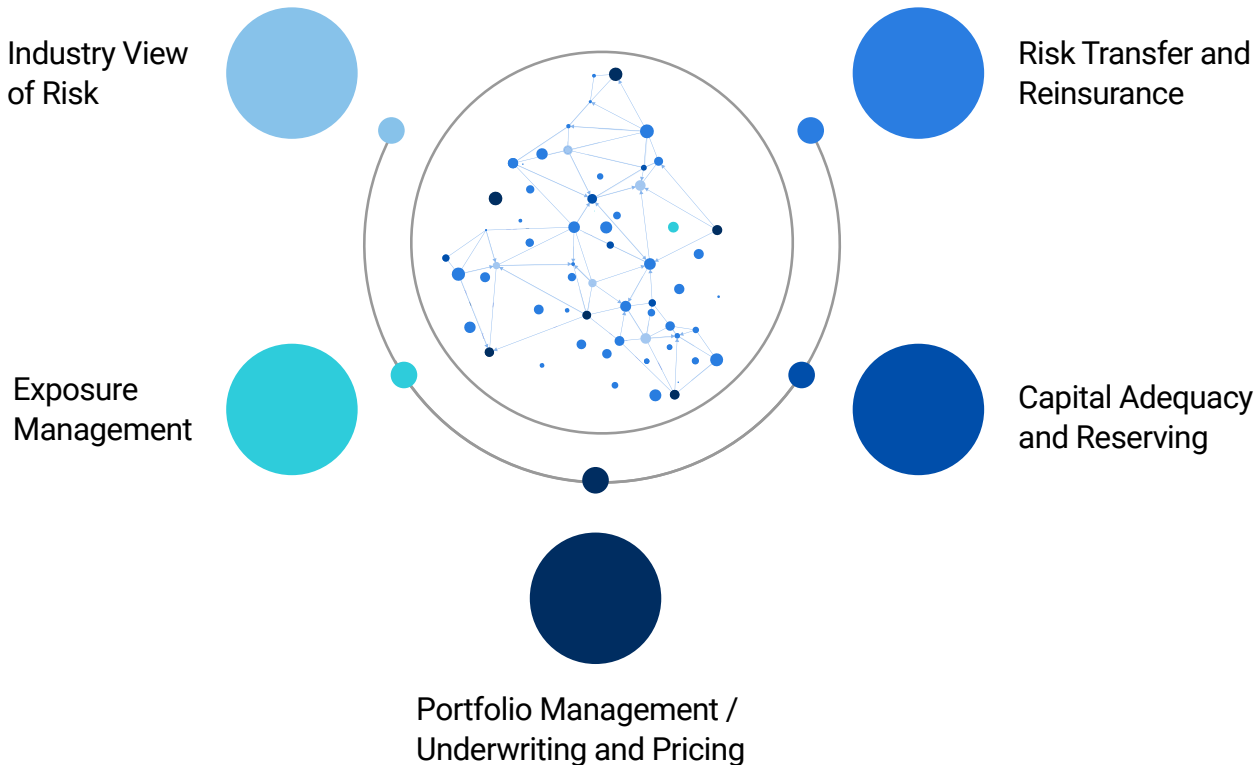
You wouldn't underwrite and price your property portfolios without understanding and quantifying the natural catastrophe risk using a model, so why would you underwrite and price a liability portfolio without using a model that enables you to evaluate your systemic and emerging liability risk?

Incorporating intelligence on exposures correlated to systemic and emerging risk events across all your business units and lines of business could be the critical difference between incurring losses within your organization's risk appetite and unforeseen losses due to unintended risk aggregations.



Solutions for insurers, reinsurers and brokers

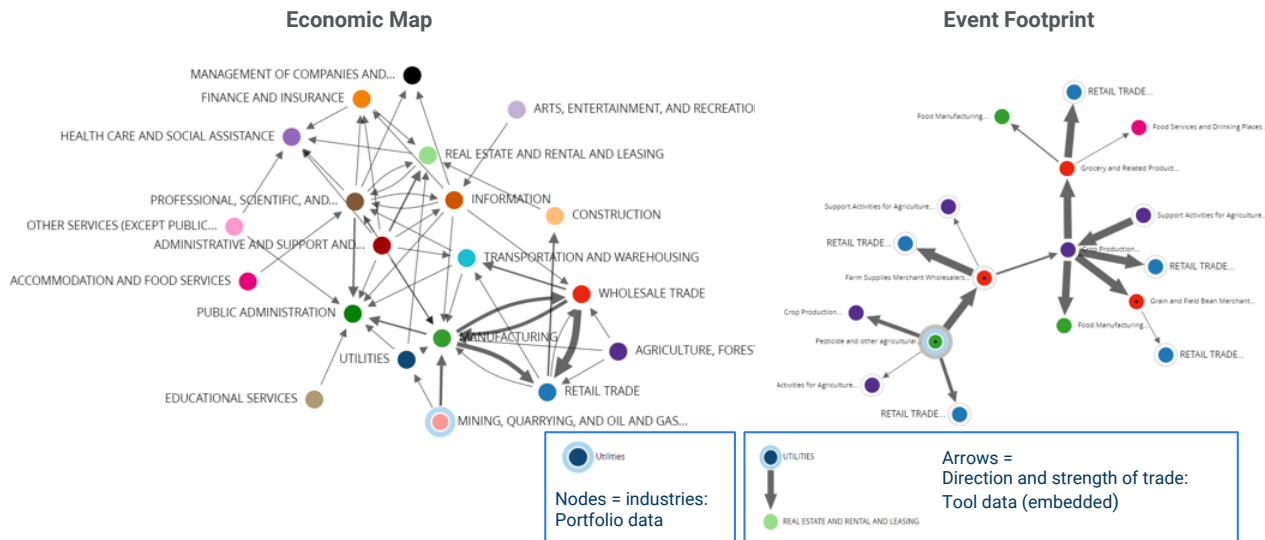
Arium enables Chief Underwriting Officers, Chief Risk Officers, and Chief Actuaries to develop new, deeper insights on systemic and emerging risks you can use in a variety of use cases to improve portfolio management and pricing decisions.



- **Industry View of Risk** – understand how liability risk can spread throughout the global supply chain; which industries, years, and coverages might be affected by different scenarios, and what the modeled third party compensable and insurable losses might be for those scenarios.
- **Exposure Management** – monitor your liability portfolio accumulations exposed to a wide variety of historical liability events and forward-looking stochastic scenarios and model your potential losses across multiple dimensions, including industry segments, divisions, lines of business (to uncover potential clash), and across years.
- **Underwriting, Pricing, and Portfolio Management** – inform your risk appetite and benchmark your portfolios to understand relative levels of risk, risk charges, and develop underwriting guidelines.
- **Capital Adequacy and Reserving** – account for tail and clash events in liability and capital modeling and determine exposure and potential losses for an unfolding event.
- **Risk Transfer and Reinsurance** – understand accumulation of limits exposed to an industry benchmark catalog of events to inform reinsurance needs and structures, as well as the risk charges for assuming or ceding liability portfolios.

A leading industry view of risk

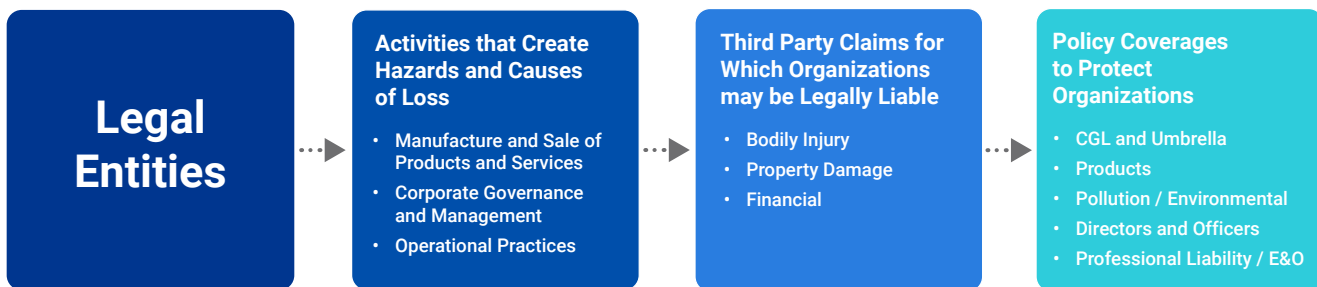
Arium provides a framework and a platform to understand and quantify correlation of exposures to systemic and emerging events across multiple insureds, industries, lines of business, and policy years. The framework utilizes an economic map to establish how exposures (organizations and lines of business) are correlated to common causes of loss (liability footprints) through trading and commercial relationships (supply and distribution chains) as well as legal duties between industries and stakeholders.



The economic map defines relationships between industries, and an event footprint imposed on that map (in this case for contamination from pesticides, like DDT) illustrates how liability can flow throughout the global supply chain

Arium models the underlying process that generates third party liability claims against companies and organizations by considering:

1. The activities in which these organizations are engaged
2. The hazards these activities generate for which they may be held legally liable, and
3. The insurance coverages potentially available to cover resulting compensable damages



Framework for Developing a Liability Risk Model

These insights enable the creation of liability event catalogs analogous to the natural catastrophe events catalogs used in a catastrophe model. Events are categorized into liability “peril” groups such as Product, Corporate, and Operational events. Within these broad perils, further sub-catalogs can be defined based on the unique trading relationships (e.g., drug, auto, food contamination-type events for Product perils and corporate implosions and fraud for Corporate perils).

Emerging risk and horizon scanning

Solutions and resources to address key industry concerns regarding emerging risks:

- Cutting edge research team engaged in continual horizon scanning to provide event response guidance
- Exclusive In-depth research documentation that can be used by your underwriting team
- Quantified and parameterized emerging risk scenarios to capture the risk of events as they unfold

Arium supports emerging risk research to develop fresh insights into subjects of interest, including:

- PFAS
- Opioids
- Climate change
- Obesity
- and more.

When events are unfolding, clients have access to our liability alerts, providing insights into potential exposure footprints across industries and coverages. Examples of liability alerts we have released include:

- the Surfside Condo collapse
- the 2023 East Palestine Ohio train derailment
- and the implosion of FTX

Further, the event catalog provides historic reference events to gain insights into how current and developing events could unfold.

What’s Included with Arium:

- A catalog of circa 300 known events
- 15+ emerging risk events, with new scenarios added regularly and as new events occur
- Support for a wide range of policy terms and conditions, including a reinsurance module
- Stochastic functionality to generate a range of insured losses
- Data augmentation service to clean and enhance your exposure data
- Exclusive In-depth research documentation
- Library of APIs to support integration
- Support for data visualization through Power BI and other tools

Collaboration across Verisk

As part of Verisk, Arium is uniquely positioned to access a diverse array of experts and proprietary datasets, including Verisk's Emerging Issues research service, claims and underwriting, actuarial services, and natural catastrophe modeling. Arium harnesses the Verisk data and analytics product ecosystem to support the research and development of a broad range of liability catastrophe models.



For more information about Arium, please contact us

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Learn more:

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