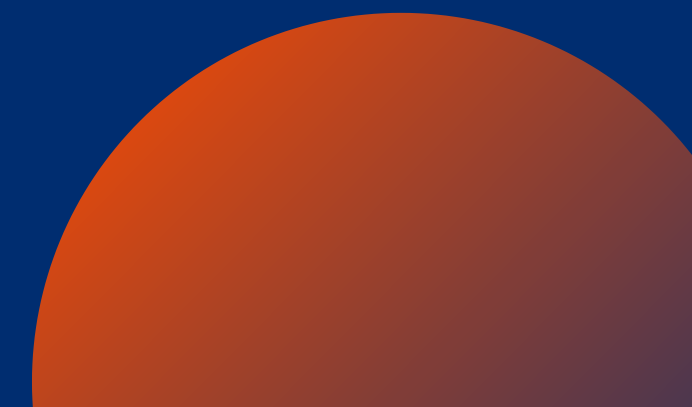
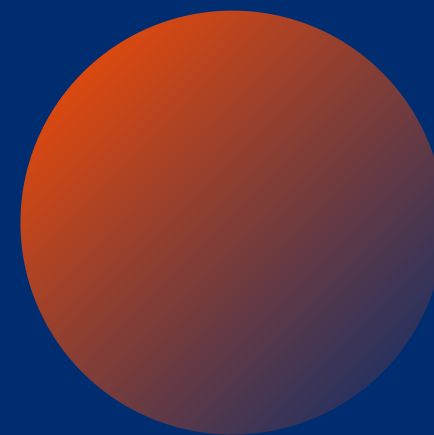


RockUP  
CONSULTING





# Our world is Connected

Most business leaders would agree that information from within their organisation is crucial in guiding their decision-making. They need information to produce actionable insights, and they need it urgently.

Lately, there has been a global shift in the way organisations and industries perceive data. Their primary focus has gone from managing and delivering data at scale, to discovering the deeper context and value within it.

Graph data allows organisations to democratise their data landscape. By intuitively modelling data, it becomes accessible, and everyone gets to participate in the conversation.

If your organisation can benefit from a deeper understanding of the data that drives your success, a graph data solution may be the best way forward.

# As an organisation grows, silos emerge

Organically evolving, divided data silos hide valuable context and limit the discovery of insights leaders need to make decisions. Insights that will only become harder to find as our ever-increasingly connected world continues to embrace the cloud and its offerings.

Most organisations are, or soon will be, drowning in a sea of data complexity.



Customers



QC & Testing



Product



Suppliers



Marketing



Budget



Insurance



Manufacturing



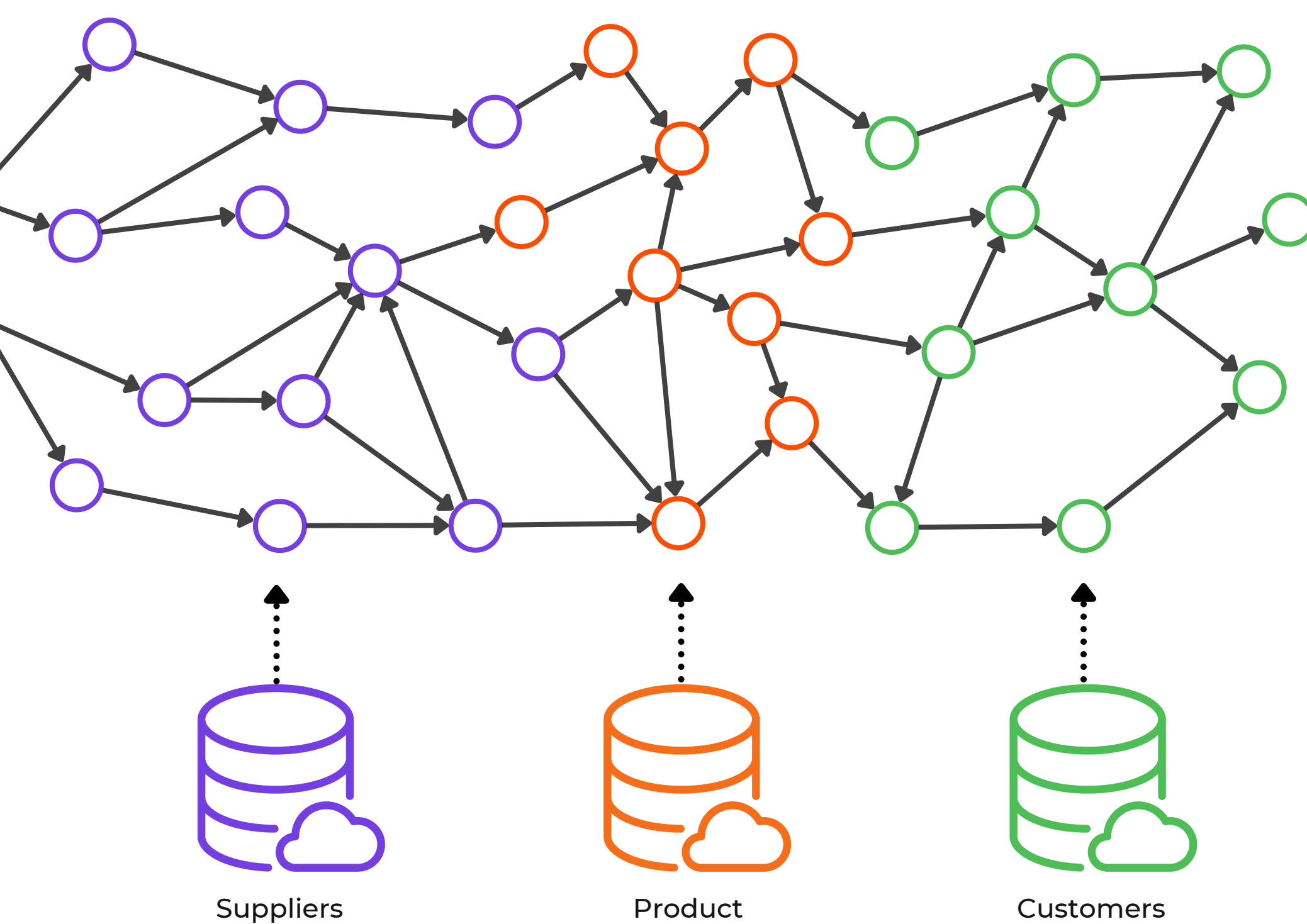
HR



CRM



Bill of materials



Suppliers

Product

Customers

Introducing native cross-silo connections

# What if there was a better way?

Graph data is a shift in thinking about how organisations manage data. We gain an additional dimension when we consider every relationship between data as valuable.

Organisations choosing to embrace this technology see immediate benefits. By being able to consolidate disparate datasets and ask complex queries spanning multiple sources, a much deeper level of understanding becomes available.

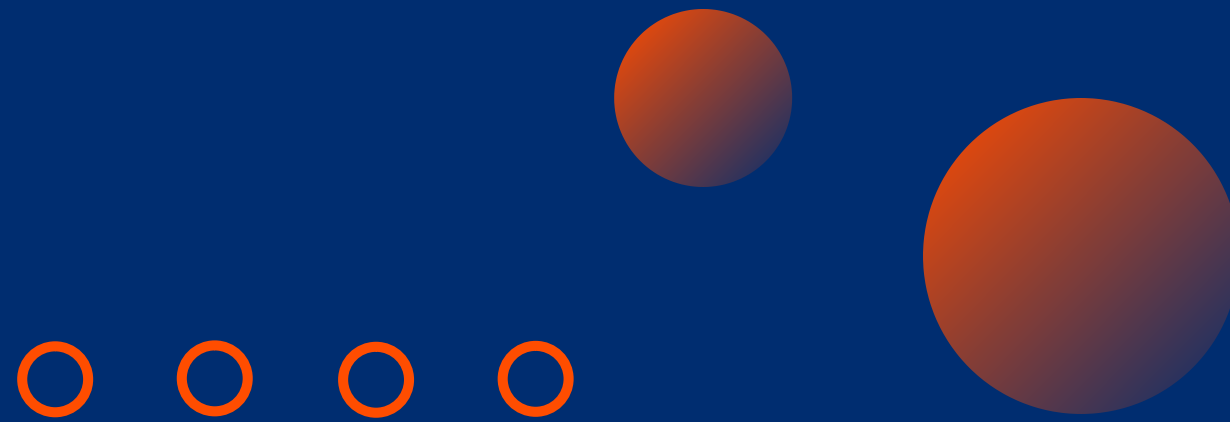
Entity resolution, master data management, digital twin development, identity- and access management, personalisation, fraud detection and real-time recommendations are only some of the potential benefits to be had.

# Comparing Tabular Data & Graph Data

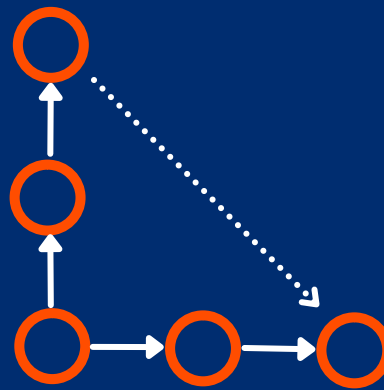
Data comes in many shapes and sizes. Transactional, analytical, deeply connected social graphs and hidden data requiring link inference to name a few.

Yet, it has remained our ingrained belief that all data we generate should be mapped to a table. Relational tables are perfectly fine for transactional workloads requiring high throughput and for smaller datasets needing to be joined.

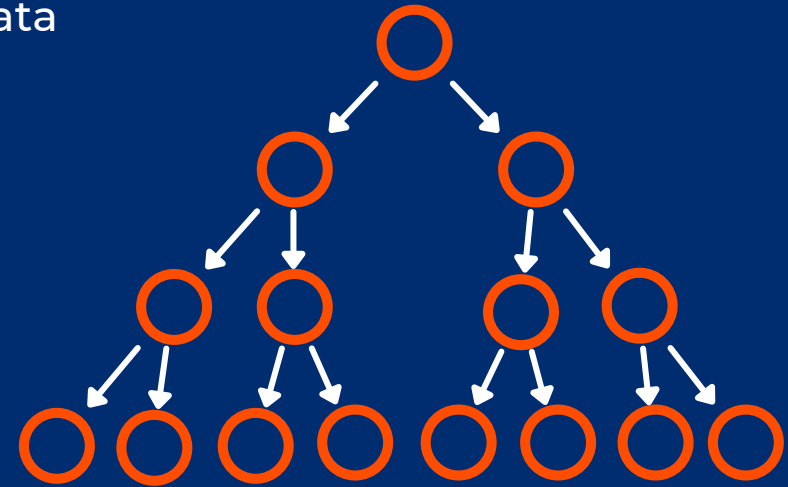
However, when it comes to highly connected data and discovering valuable, previously hidden insights within your data, graphs are much more powerful.



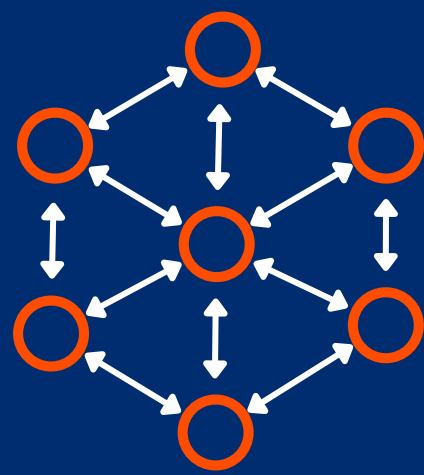
Transactional Data



Link inference and discovering hidden contexts



Nested Trees



Highly connected complex data



Entity Resolution



Deeply connected hierarchies



# Gain an Advantage

76 of the fortune 100 companies use graph

## Agility

Modern graph databases have been designed with today's agile methodology in mind. They are naturally additive, which means we can add new types of relationships, nodes, labels, and subgraphs to an existing structure without disrupting business processes.

Meaning that organisations can use graph databases as an enhancement above the existing, separated data silos.

## Flexibility

Markets and business requirements change, sometimes without notice.

Organisations need to be able to adapt to these changes and evolve their data model in step with their environment to gain an advantage over their competitors.

The digital landscape we find ourselves in today has progressed far beyond strictly tabular data solutions.

## Performance

Real-world data is connected data.

Native graph databases were built for traversing deeply connected large datasets.

No other technology offers the flexibility and performance for deeply nested, complex queries.

# Simplicity

When someone asks you to draw or explain a process, you would often go to a board or use a piece of paper and draw circles connected by arrows with descriptions of them and their relationships.

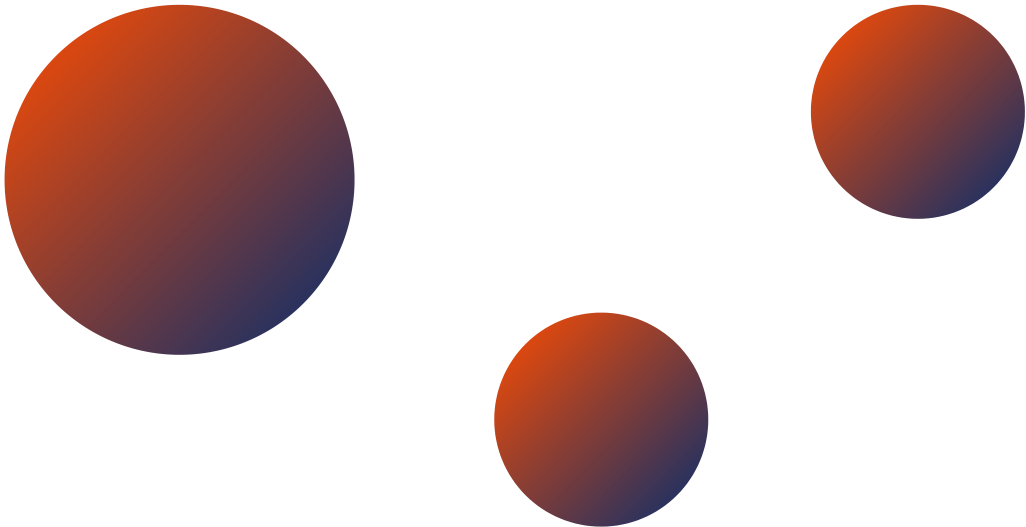
A graph.

By continuing to make modern, connected data fit into old tabular technologies, we've made it difficult to deal with the clear relationships between them and completely thrown away the ability to discover the hidden ones that connect them in ways we have yet to discover.

**Graph data allows an organisation to democratise their data landscape.**

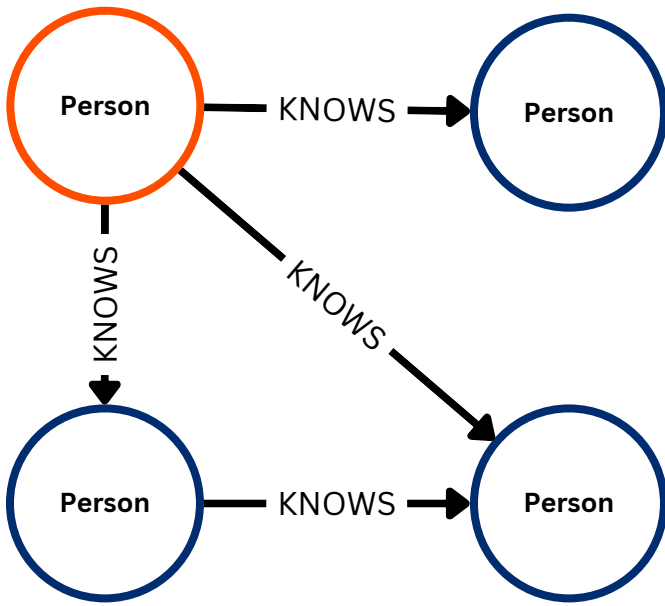
By intuitively modelling data, it becomes accessible, and everyone gets to participate in the conversation. No other technology enables executives, managers, engineers and customers to understand and reason about the data domain and model in a way as intuitively as graphs do.

# Use Machine Learning to Unlock Actionable Insights



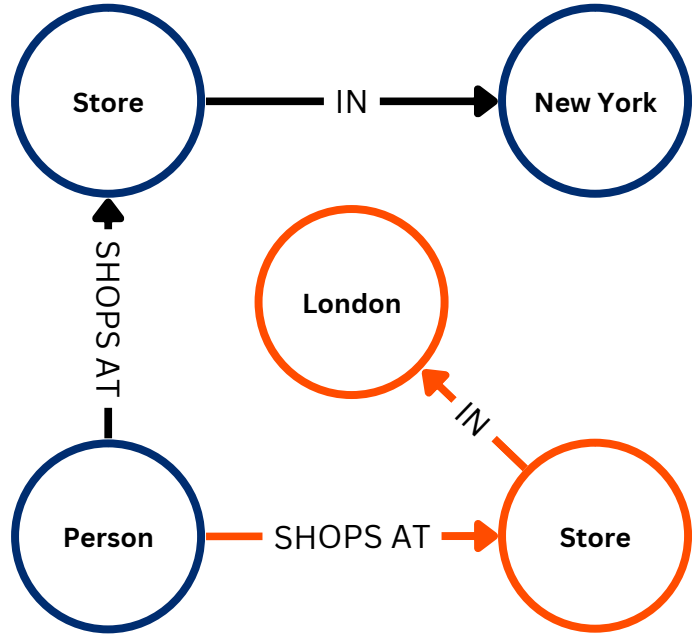
Once a knowledge graph has been built, organisations can start to ask complex questions and receive answers immediately.

### What's important?



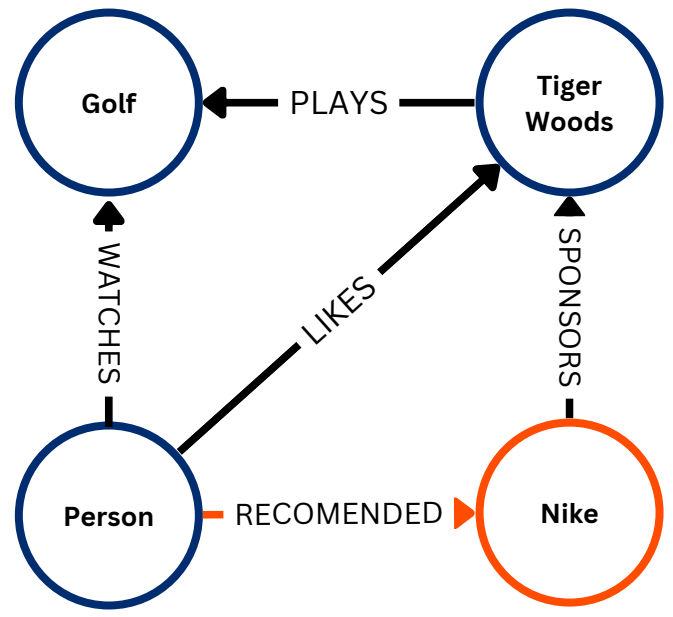
- "Who are my most valuable customers?"
- "Where is my least productive distribution centre?"
- "Where can our logistics supply line improve the most?"

### What's unusual?



- "Why is there a sudden spike in customers at that branch?"
- "Can we protect our clients from fraudulent behaviour?"
- "Can we use our communities and leverage network effects to our advantage?"

### What's next?



- "How can we use our user information to generate higher converting recommendations?"
- "What happens when this hub goes offline?"



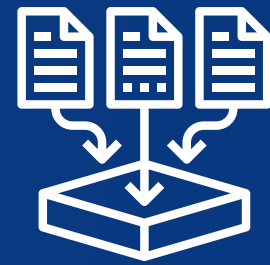
# Use Cases



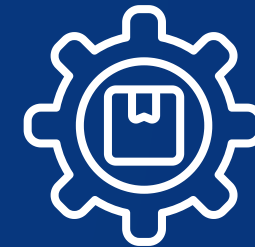
Real-time  
Recommendations



Fraud  
Detection



Master Data  
Management



Supply Chain  
Management



Network and IT  
management



Digital Twin



Identity & Access  
Management



x360  
&  
Entity Resolution

# Our way of working

We pride ourselves on being a value-first company. Helping your organisation achieve its goals and unlock additional value is our primary objective. When we build our solutions, we have five development and organisational milestones phases.

**Phase 1:** The first phase allows us to perform in-depth data discovery. We work with key stakeholders to understand your data landscape, architecture and formal processes. We then work with you to build a suitable graph model for your business use case.

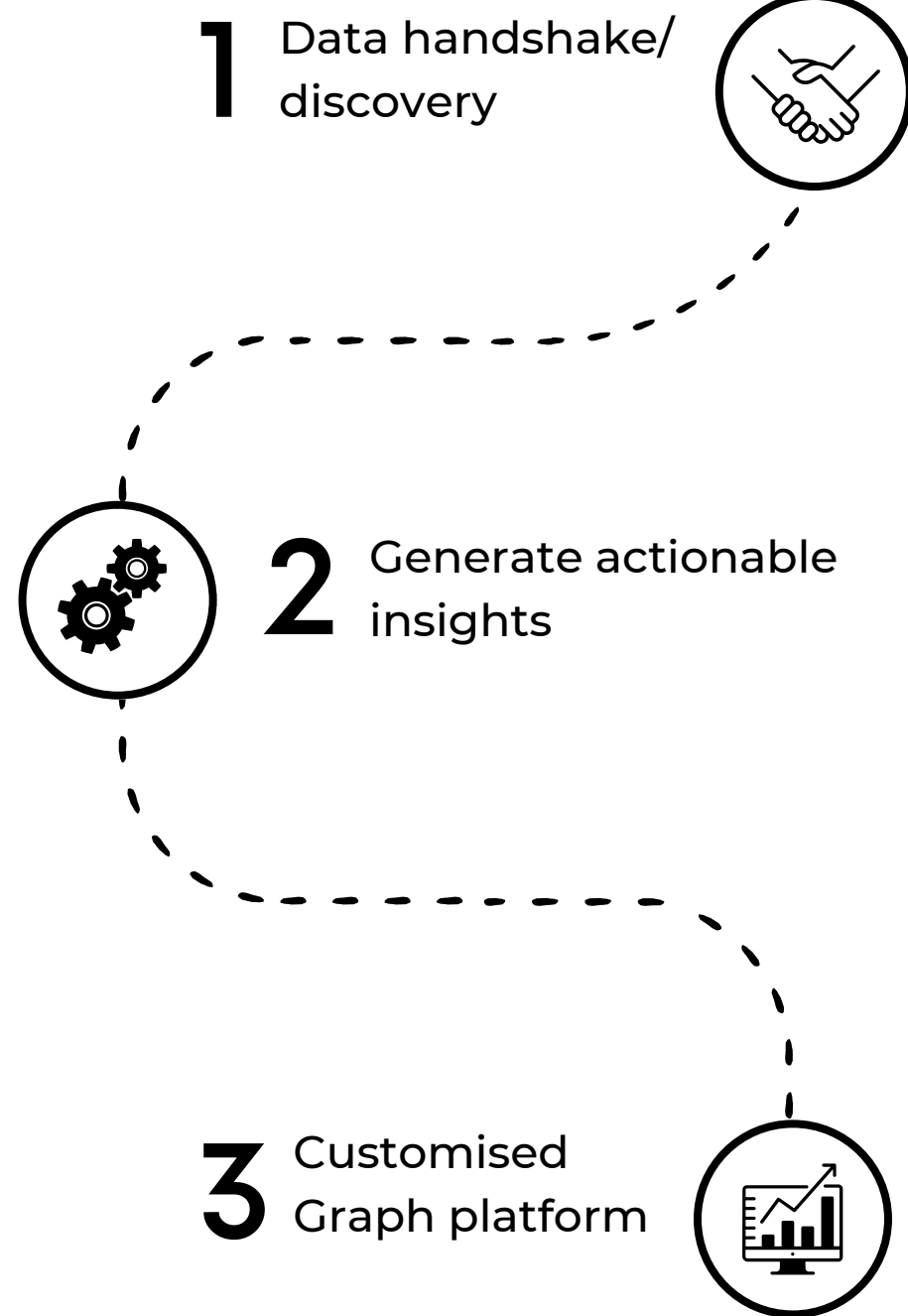
**Key objectives:** Meet key stakeholders, establish regular contact, create a graph data model, and understand the existing data architecture and landscape.

**Phase 2:** During the second phase, we apply our knowledge of graphs to your business use case and work with your stakeholders to generate the insights and answers you need.

**Key objectives:** Continued objective refinement, implement a knowledge graph, work with stakeholders to answer high-value questions and obtain actionable insights.

**Phase 3:** In the third phase, we move away from 'after-the-fact' analysis to build real-time intelligence solutions.

**Key objectives:** Continued objective refinement, SLA and platform requirements, real-time graph optimisations, well-documented API.



# Our way of working



**4** Full-stack end-to-end solution.

**Phase 4:** The fourth phase is a complete end-to-end graph data intelligence solution. We build, deploy and maintain a complete application for your organisation.

**Key objectives:** Continued refinement, SLA and product requirements, user training and documentation.

**5**

Leverage graph algorithms and Machine Learning



**Phase 5:** During the fifth phase, we use your data to build a complete graph machine learning model and define graph algorithms to discover insights into your organisation's value drivers.

**Key objectives:** Regular stakeholder engagements, objective refinement, perform in-depth graph analysis and graph ML. Predictive analytics, real-time anomaly detection and prioritisation.

# Industries

Graph technologies were built with relationships in mind. They unify data silos and allow businesses to discover complex, deeply nested contexts to make decisions immediately. All industries and any organisation with connected data can benefit from a graph data management solution.

## Supply Chain and Logistics

Supply chains are connected in nature, and are often a massive data challenge.

Graph traversals combined with the ability to connect and discover contexts within different data sources make it an ideal way of discovering actionable insights. Common use cases include creating a data-driven twin of the supply chain used to discover risks and simulate scenarios within a network.

## Retail and E-commerce

Customer expectations are at an all-time high, and in today's attention economy, businesses, and especially retailers, need to live up to them.

Graph data intelligence is ideally suited for personalisation and real-time recommendations and is used to power the customer experiences of some of the largest global e-commerce and retail giants in the world.

## Utilities and Industry

Large manufacturers, telecommunications, energy, water, and waste-utilities processes are high-priority and high-risk industries due to the public's reliance on them.

Graphs enable operators to have a real-time, system-wide view of risk and allow them to make operational decisions in a fraction of the time compared to traditional, more reactive processes.

## Finance and Insurance

The finance and insurance industry is built on trust and managing risk.

Graphs in finance can provide benefits in areas ranging from customer acquisition and onboarding (KYC), to assisting with anti-money laundering processes and fraud detection.

Solutions that lower risks, costs and timeframes for all parties.

# Can my organisation benefit from a graph data solution?

The short answer is that most modern organisations operating at scale will benefit from using a graph data solution.

The best way to reason about it would be to think about the various departments, products, people and behaviours within your business. If there are clear, consistent interactions between them, it is likely that you do have a large number of relationships within your organisation and can benefit from graph data.



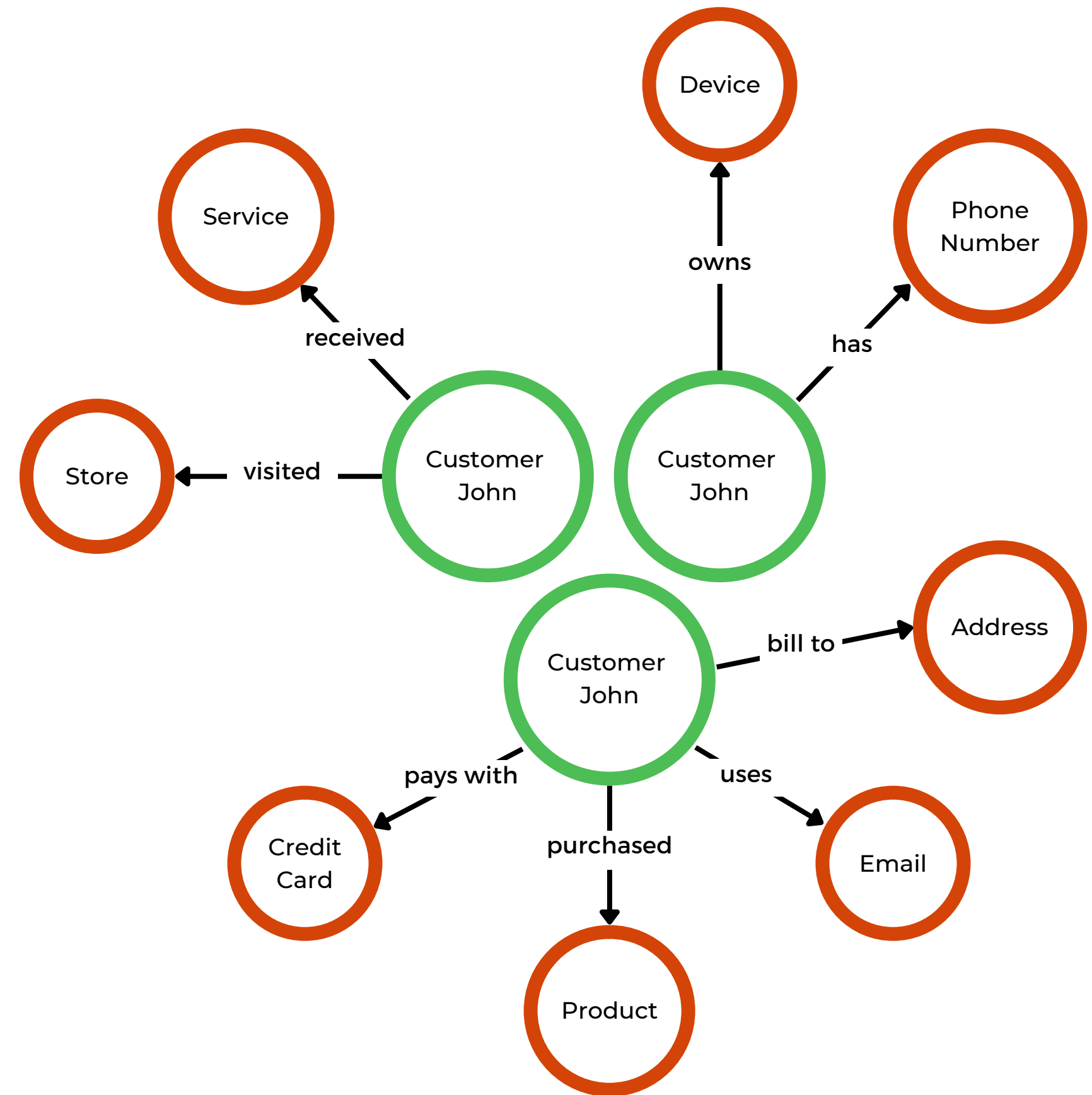
# Industry example

## Master Data Management and Entity Resolution

Master data consists of information related to connected entities within your organisation's data landscape, for example, users, customers, products, suppliers, departments, geographies, sites, cost centres, and business units.

In large organisations, this data is often stored in various locations, resulting in overlap, redundancy, and inconsistent formats and quality.

Master data management is the process of managing data over time as organisational structures transform, businesses merge, and business rules change, incorporating new sources of data and supplementing existing data with externally sourced data.

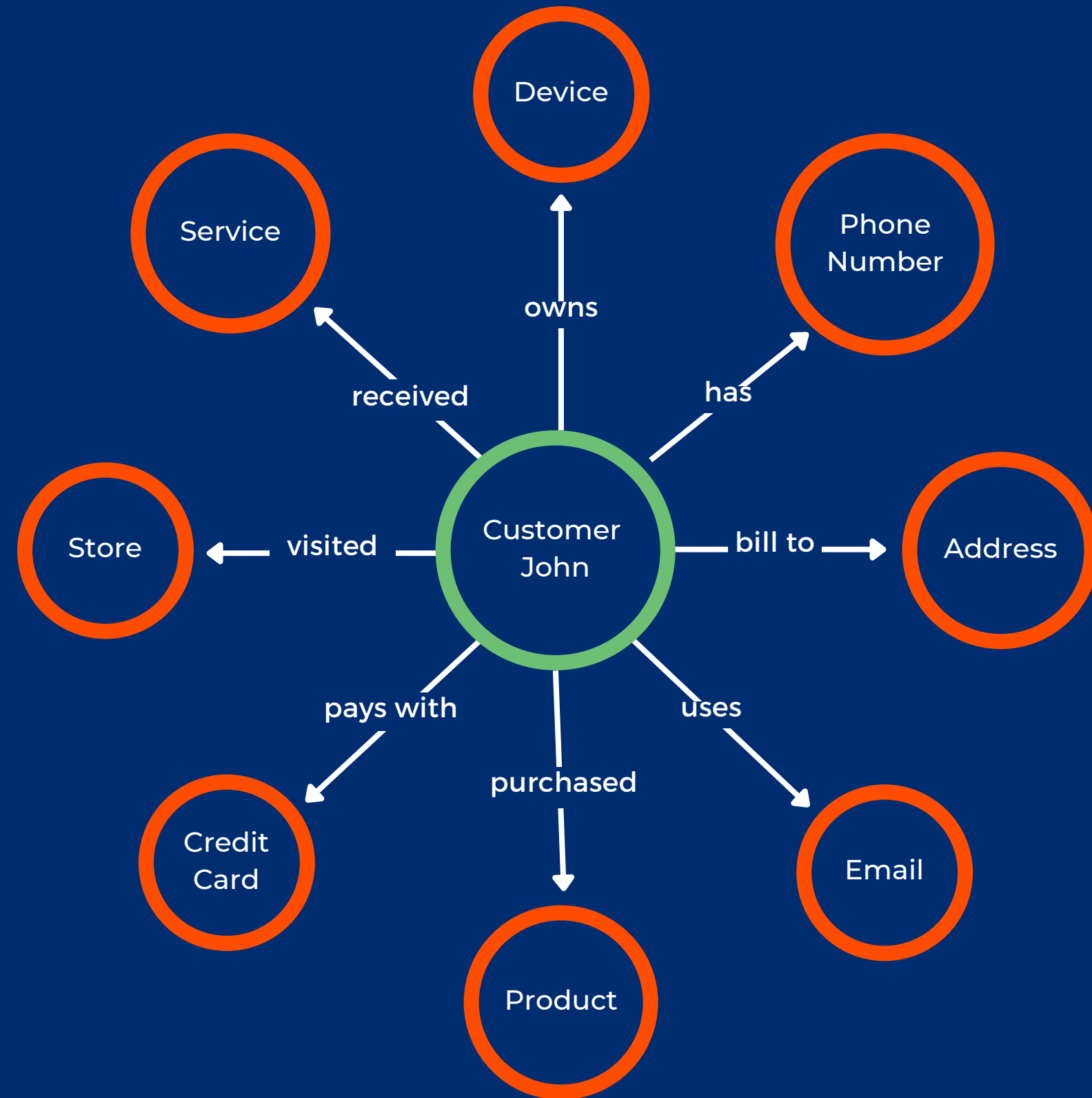


# Reality to Resolution

The task of matching and merging multiple data sources is known as entity resolution. It aims to resolve the question of who is whom or what is what across different data sources.

Some additional industry use cases for knowledge graphs include enhanced information searches using powerful graph traversal queries, impact analysis and root cause analysis, and a single view of X, for example, a customer360 view.

The benefits of a connected view within your organisation cannot be understated. It allows information to flow more efficiently, improving the effectiveness of your employees and the experiences of your customers.



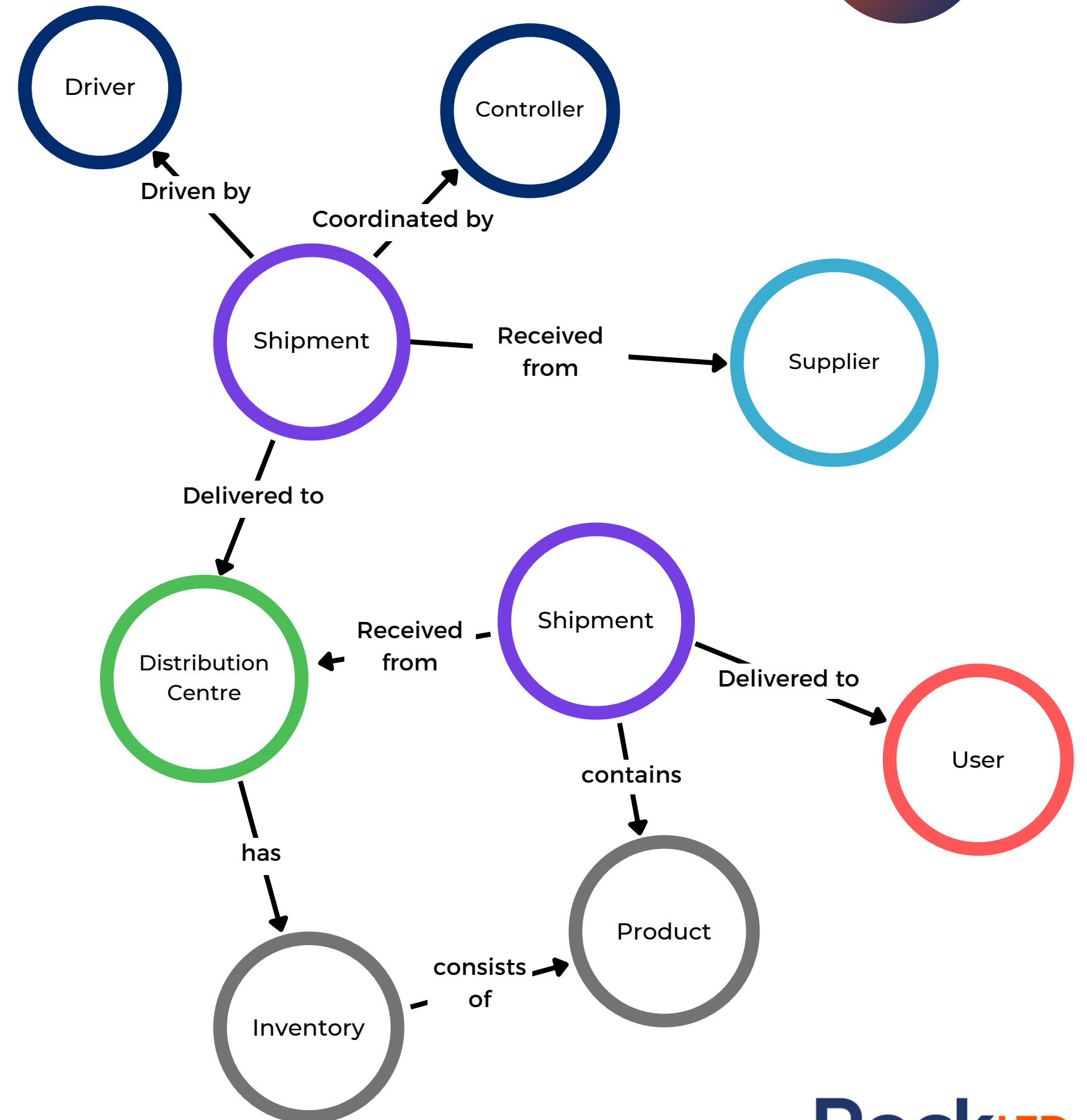
# Industry example

## Supply Chain and Logistics Management

Managing supply chains are a complex problem due to the sheer volume of dependencies and cross-connected entities. To operate effectively, business leaders and operators need to understand and manage risk within their systems.

Our graph data management and intelligence solutions integrate with your existing source systems to provide a consolidated view of business entities. With this new capability, organisations will be able to see where risks lie within their system and be able to plan for and optimise for worst-case scenarios.

Large organisations fully committed to vertical integration can also perform cross-chain analysis to improve service delivery and customer satisfaction.





# Unlock a Global View of System Risk

Gain a new level of visibility throughout your supply chain by analysing business entities (distribution centres, suppliers, logistics, customers etc.) and their relationships (shipments, transport legs, recalls etc.) in real-or near-real time.

Some additional benefits include:

## Supply Management

- Alternate supplier scores
- Inventory forecasts
- Shipment re-routing

## Risk Alerts

- Rule-based risk scoring
- Live monitoring

## Demand Sensing

- Forecasting entity/relationship behaviour



# Industry example

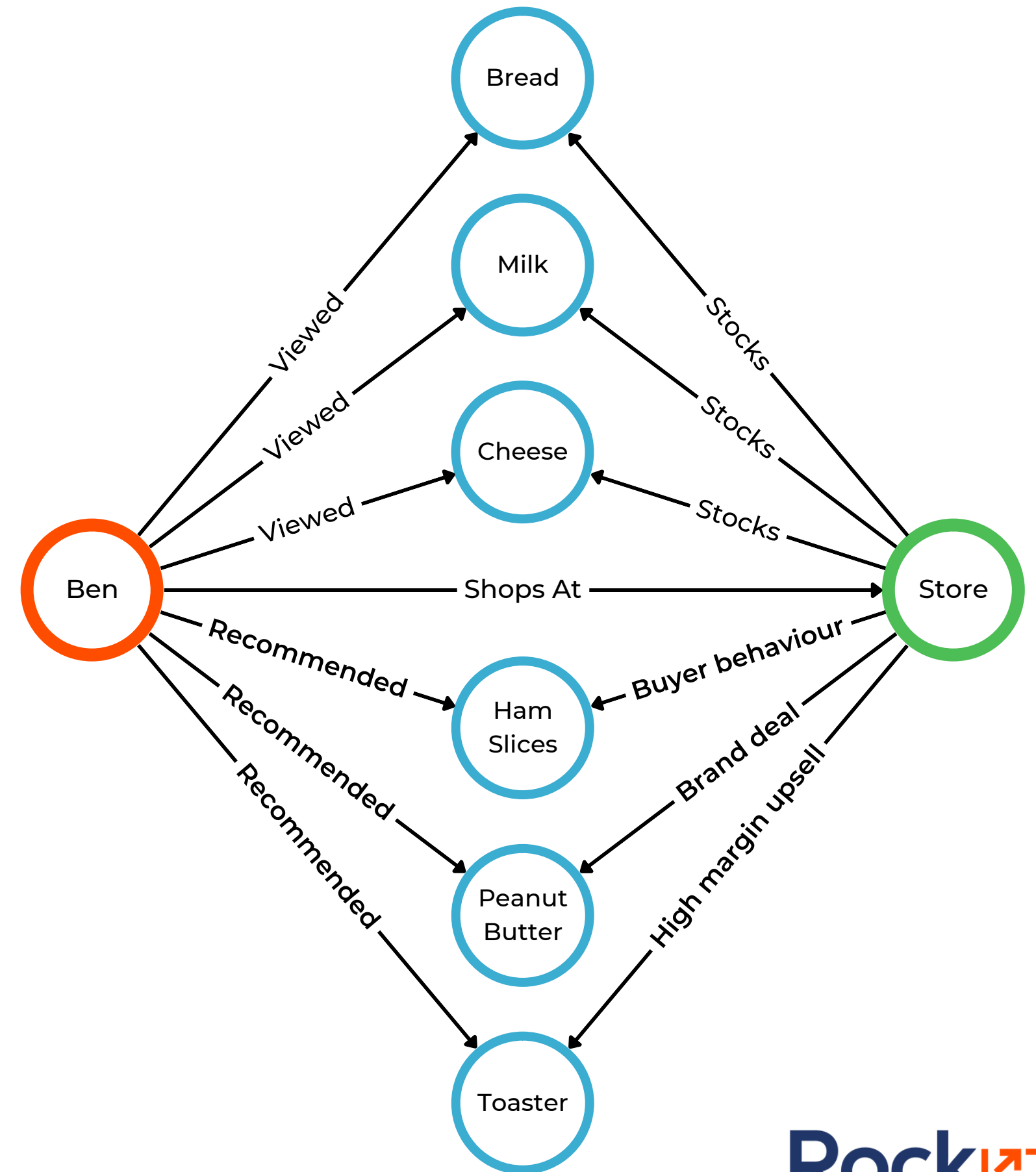
## Online Groceries and Personalised Retail Experiences

Understanding customer needs and improving user experience are critical business problems all retailers must deal with.

By connecting large datasets of customer, product and supplier information, retailers can gain incredible insights into buyer behaviour and make high-conversion recommendations to shoppers intending to purchase.

More personalised offers will also allow retailers to increase their revenue through brand deals, personalised savings incentives, and high-margin upsells.

We build end-to-end solutions allowing your organisation to make real-time recommendations at a store, customer and even product level.



# Find Your Golden Customers

Scenario: You have 100 units of goods with a sell-by date expiring in a few hours. Can we find the most suitable customers for that specific product and reach out to them directly? Yes, we can!

A store manager will log into an easy-to-use dashboard and enter the product type, number of units and the sell-by date before submitting the request.



Using graph intelligence, we can now traverse our knowledge graph to find the customers most likely to buy (taking into account past purchases and usual shopping time) our soon-to-be expired products. We can reach out to them through an app or sms and notify them of the offer, improving customer experience, increasing revenue and reducing waste.



At Rockup, we believe in the power of relationships.

If your organisation can benefit from a deeper understanding of the data that drives your success, reach out to us.

[rockup.consulting/contact](https://rockup.consulting/contact)