LINQ

TRANSFORM YOUR BUSINESS

1: Mastering Information Flow

Change is neither an option nor easy. An organisation that attempts to ignore change is doomed to fail; an organisation that tackles change without the right approach risks failure. That's a tough choice.

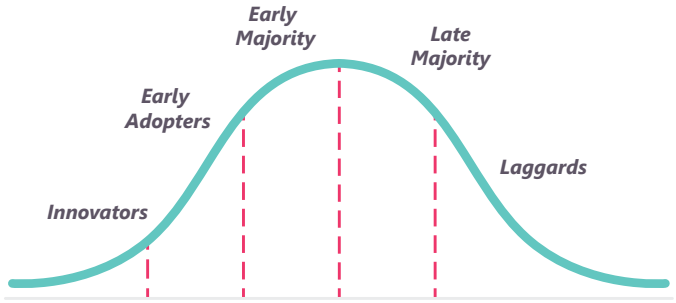
Perhaps the biggest external driver for change is information. Information forms the sensory system of a business – there's never been more of it and improving its use disrupts entire industries. Think Uber – the biggest transportation company in the world; that doesn't own its vehicles or employ any drivers. Uber's disruption is in mastering how information flows between customer and driver. In those terms, it becomes easy to see how Amazon, Salesforce and Xero have all disrupted their industries – by mastering information flow.

Whether you're setting out to be the next great disruptor, defending your business from that disruption, or merely wanting to improve the bottom line in your organisation, mastering information flow is a great way to get change right.

Information has always fuelled decision processes in organisations. What's changed is that familiar paper-based, manual handling of information has been subsumed into Information Technology (IT). The technology of information has come to dominate the information itself to the point where many organisations have lost sight of the purpose of the technology – which is to master the flow of information by making it as effective and efficient as possible.

When we strip away the complexity of the technology and focus on how information flows within an organisation, clarity emerges from confusion. As much as anything, this is a shift in mindset which creates new change insights and the foresight to tackle transformation with confidence.

One of the major barriers to transformation is communication. Any change process must battle the law of diffusion of innovation – the classic bell curve:



Only communication can enable innovators to persuade early adopters, early adopters to persuade early majority… and so on. Communication is particularly challenging for information-driven change because the technology is an obstacle to effective communication.

In the absence of effective communication:

As Chief Executives struggle to execute transformational strategies.

Boards are unable to assess or mitigate technology-related risk.

Chief Financial Officers are unable to contribute to technology investment cases.

In each case, the corporate leadership are forced into a position of being reluctant followers of IT-driven change rather than the drivers of business transformation. Change becomes a slave of the technology rather than technology being the servant of transformation.

Having previously been strategic consultants, the LINQ® founders had observed four symptoms that caused particular damage in a wide range of organisations:

Few organisations maintain an understanding of the current state of their information ecosystem and even if they do, it is an IT-centric view.

The result :
No prospect of continuous improvement.

The immediate consequence :
Damaging realities hidden from Board and Executive view.

The long-term effect :
Ever-increasing competitive threat as the technology gap widens.

A non-technical executive has to make a go / no-go decision about a technology project. The language used to describe the decision parameters is highly technical and therefore impenetrable. The decision is deferred, often with a request for more analysis.

The result :
An expensive delay.

The immediate consequence :
Frustration on all sides.

The long-term effect :
Endless and expensive analysis with no results.

There are always more IT projects than money. For non-technical executives, prioritisation is all too often based on presentation eloquence than factual analysis.

The result :
Subjective decisions.

The immediate consequence :
Spending on technology, not business.

The long-term effect :
Inability to transform the business.

One of the consequences of the endless analysis from the first symptom is that projects are forced to be big to justify the endless analysis. Big projects are risky. The majority of the risks are highly technical in nature and extremely challenging for non-technical executives to control.

The result :
Project disaster.

The immediate consequences :
Wasted time and money. Lost opportunity.

The long-term effect :
Change aversion and more decision paralysis.

These symptoms all have a common cause:

The communication gap between those with specialist knowledge and non-specialist executives. Even an executive who attempts to stay current is faced with constantly changing specialist descriptions with perplexing depth.

These challenges resonate with organisations of all kinds and there is genuine excitement from Early Adopters as they use LINQ to improve the communication between IT specialists and non-technical executives. The non-technical executives recognise that they can then lead transformation change rather than being the reluctant followers of technology-driven change; the IT specialists see a way of alleviating their frustration about the unrealised potential of IT.

2: LINQ - Seeing Information in a New Way

LINQ enables an organisation to see how information flows through an organisation today and offers insights into how those flows could be improved – using a visual approach which is accessible to all.

In LINQ, systems and people are shown as enablers of these information flows which removes both complexity and emotion from change discussions. A non-specialist executive can lead improvement initiatives by those with specialist skills to describe their technical proposals in terms of improved information flows.

LINQ provides organisations with a persistent and authoritative view of the current state of their information ecosystem that is readily understood by Board members and executives. This is significant for the same reasons that transparency of manufacturing processes led to the revolution of the Toyota Production System; transparency leads to transformational enablement from executive to knowledge worker.

What has proven interesting is just how quickly audiences grasp the implications of LINQ: Boards can understand and mitigate risks; Executives understand and can act upon transformational opportunities.

IT specialists are also enthusiastic about LINQ. Far from threatening their expertise, Enterprise Architects and other senior technical roles are embracing LINQ as a 'Babel Fish' that allows them to communicate more effectively to non-technical executives and ensure that the resulting work puts technology to work on behalf of the business.

Summarising the Value Proposition

Persistent and Authoritative Current State :
The current state of the Information ecosystem is immediately visible. Problems and opportunities for improvement can be acted upon immediately

Decision Enablement :
Non-technical decision makers are presented with options with objective risk and opportunity measures. Decisions can be made quickly and in the best interests of the business.

Objective Prioritisation :
The value and cost benefit of improvements are immediately visible. Beyond that, it becomes possible to see the transformation opportunity of IT, even for non-technical executives

Project Control :
A consequence of all of the above is that projects become smaller, more clearly defined and understood by the governance entities. Project scope is easily managed and decisions based on objective evidence. Project success rates increase.

2.1: The Business Benefits of LINQ

2.1.1: Board of Directors

LINQ enables Board members to identify, measure and mitigate the risks that are present in their information ecosystems. They are also better able to judge the objective merits of investment cases to make the necessary improvements. Perhaps most significantly, LINQ allows Board members to understand the transformational potential of digital investment.

A key advantage of LINQ is the improved communication of change initiatives between the Executive and the Board. The opportunities to improve shareholder value through digital transformation and the competitive risks of not investing can be discussed against the objective backdrop of LINQ.

2.1.2: Executives

LINQ enables executive teams to have a new framework for exerting leadership over digital initiatives

Continuous Improvement :
LINQ provides a constant visibility into the organisation's information ecosystem. This is an essential precursor to initiating a continuous improvement strategy for digitisation.

Objective basis for IT Decision Making :
LINQ provides executives with a non-technical framework which maintains a constant visibility of cost and value across the information ecosystem. Any changes can be objectively measured in terms of business value set against cost savings.

Objective Prioritisation of IT Spend :
Any proposed changes can be readily prioritised since LINQ makes the value / cost / improvement transparent to all. The prioritisation is based on an objective measure, ensuring that discussions can be grounded in reality and focused on business outcomes.

Better, Smarter IT Projects :
The use of LINQ tends to encourage smaller IT projects because the benefits of small units of change become much easier to define and understand.

Each of these business benefits is significant in its own right. Together they represent significant enablers for digital transformation. In this respect, LINQ is to transformational change today as the Toyota Production System was to manufacturing in the 1980s and Critical Path Programming was to project management in the 1960s.

2.1.3: IT Specialists

It is in an IT specialist's interest to have non-technical executives better understand their work; it enables a correct prioritisation of spending on technology. LINQ enables this by presenting dashboards which allow IT specialists to present value-based needs. Using LINQ, IT specialists are able to explain the inefficiencies and risks of the current state, get these fixed quickly and then move on to present the transformational opportunities of digitisation to the Executive team.

2.1.4: Strategic Consultants

Strategic consultants are paid to effect change in organisations. Good strategic consultants create positive change; Great strategic consultants create transformational business change. LINQ Ltd was founded by four consultants who had become frustrated that the difference between good and great was often based on the client's ability to understand how digitisation would create change.

When LINQ is presented to strategic consultants, there is an immediate 'leaning in' to the conversation which rapidly iterates with *'…and'* ideas. Indeed, the range of great ideas for the use of LINQ often has to be tempered by the realities of LINQ's development pace.

Strategic consultants want to use LINQ as a client engagement tool through the whole project life cycle

Business Development :
Using LINQ to differentiate their practice to prospective clients

Procurement :
Using LINQ to add value to client proposals

Scoping :
Using LINQ to scope the extent of the project

Current State Analysis :
Using LINQ to capture the client's current state

Future State Analysis :
Using LINQ to show a client how change will benefit the business

Implementation :
Using LINQ as a project control mechanism

Post-project :
Using LINQ to retain a relationship with the client

This creates value for the practice which is realised at the individual consultant level through improved client engagement. Strategic consultants make up the majority of LINQ's Early Adopters.

3: How LINQ Works

3.1: The LINQ Model

LINQ is b LINQ is based on a very simple concept that can be used to model any scale of information ecosystem from global to small organisation. The model comprises four node types: Information; Action (processes); Systems; People

An Information Supply Chain (ISC) is based on the notion that an Action creates Information which supports an Action… Information… Action and so on. Systems and People nodes are added to show how they support the Actions and Information. This is shown in Figure 1.

This simple model can be used to quickly and successfully describe even the most complex Enterprise environment at any level of digitisation.

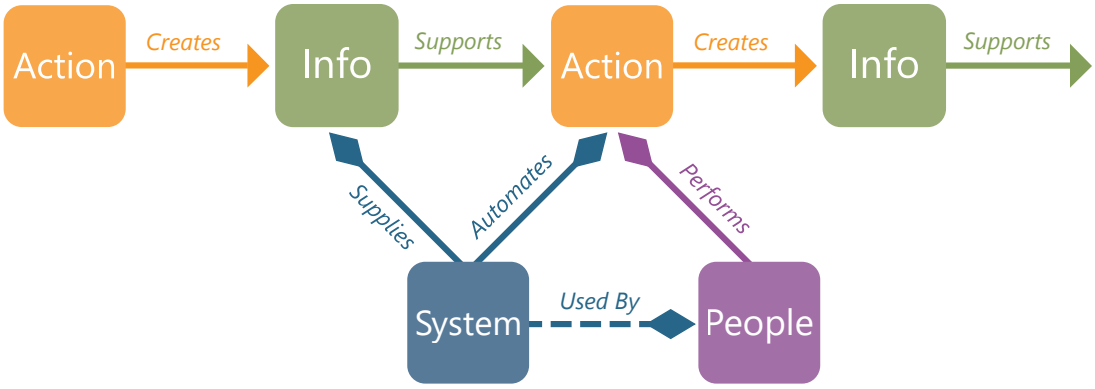


Figure 2: LINQ Model

3.1.1: Removing Complexity and Emotion

A major barrier to communication is the technical complexity coupled with emotional responses to change. LINQ eliminates this barrier by showing how information flows from a

Capture Action – Source – Action – Information – Action – Output – Business Outcome

as shown in Figure 2 below. Non-technical executives appreciate the concept of an information supply chain because it clearly focuses on information flow as a basis for improvement.

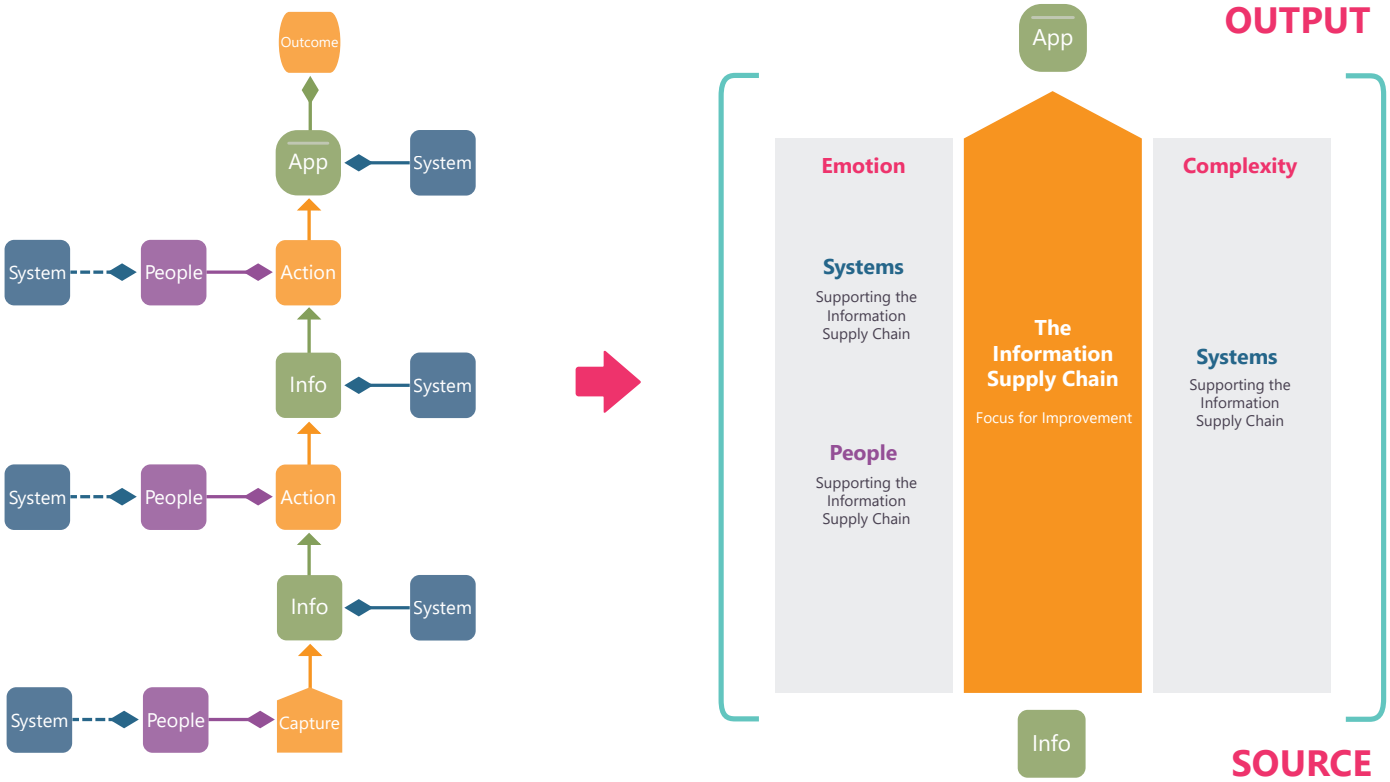


Figure 3: Removing Complexity and Emotion

Systems are abstracted away as an enabler of the information flow; the value of people is clear as another enabler of information flow. This approach removes the complexity of a system-centric view and defuses the emotion that often accompanies change.

"We don't do things like this round here"
is an emotional response to change based on the perceived threat of changing roles. LINQ can deflect this response by focusing on the desired improvements to information flow.

"We're an [open source / name that vendor] shop"
is another emotional response to change easily deflected by the **LINQ-equipped non-technical executive :**

"Okay, but please explain how [insert favoured vendor] will improve my information flow."

3.1.2: Simplicity from Complexity

Figure 3 below depicts a typical ISC. This incorporates three information sources at the bottom with a single decision-support application (output) at top. The ISC is a typical triangular system with many sources at the base supporting a single output at the apex.

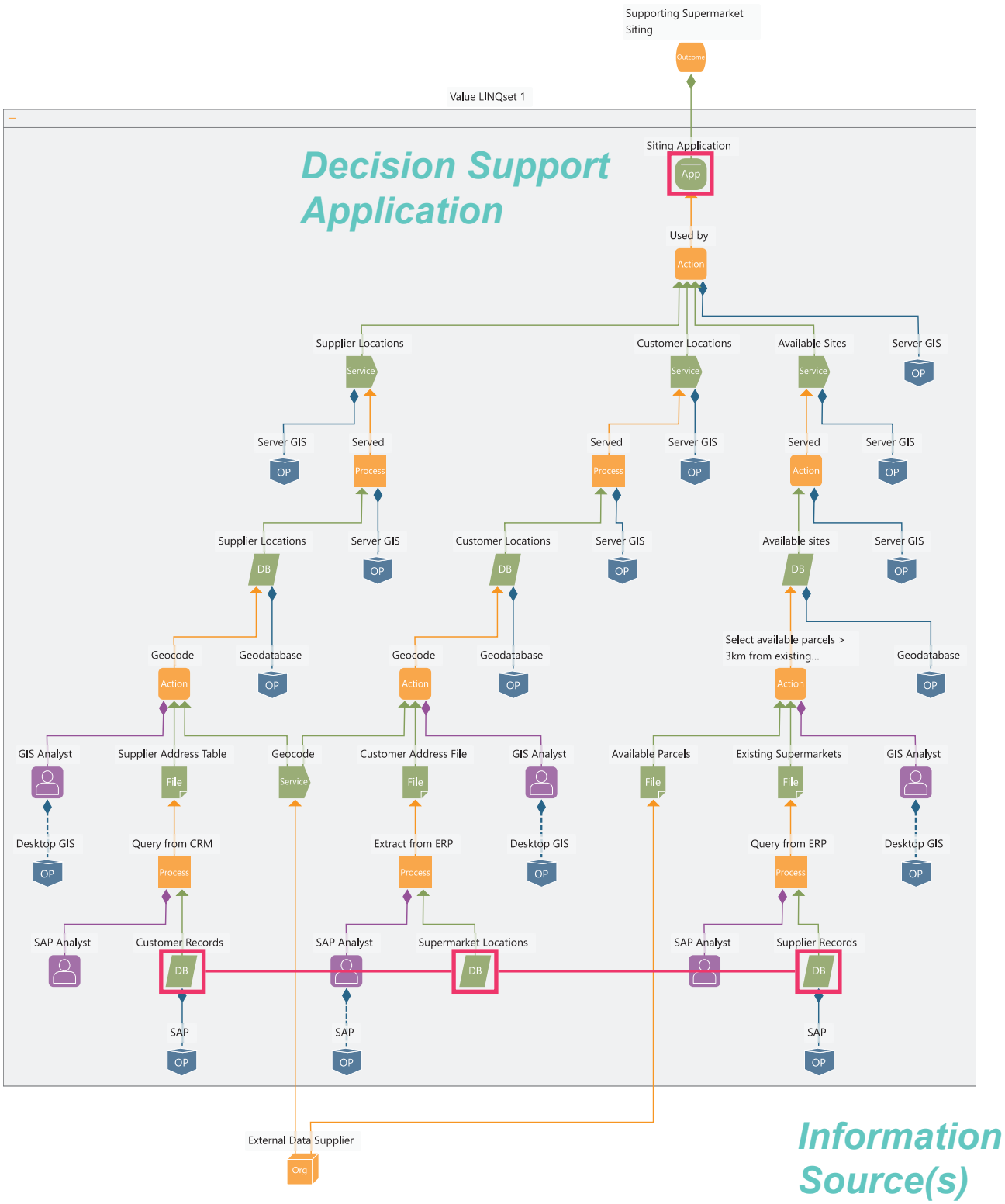


Figure 3: Information Supply Chain for a Single Decision Support Application

By focusing on the flow of information several insights are immediately obvious. People and systems involved in the ISC can be identified along with the actions they are performing and the information they are using and where it comes from.

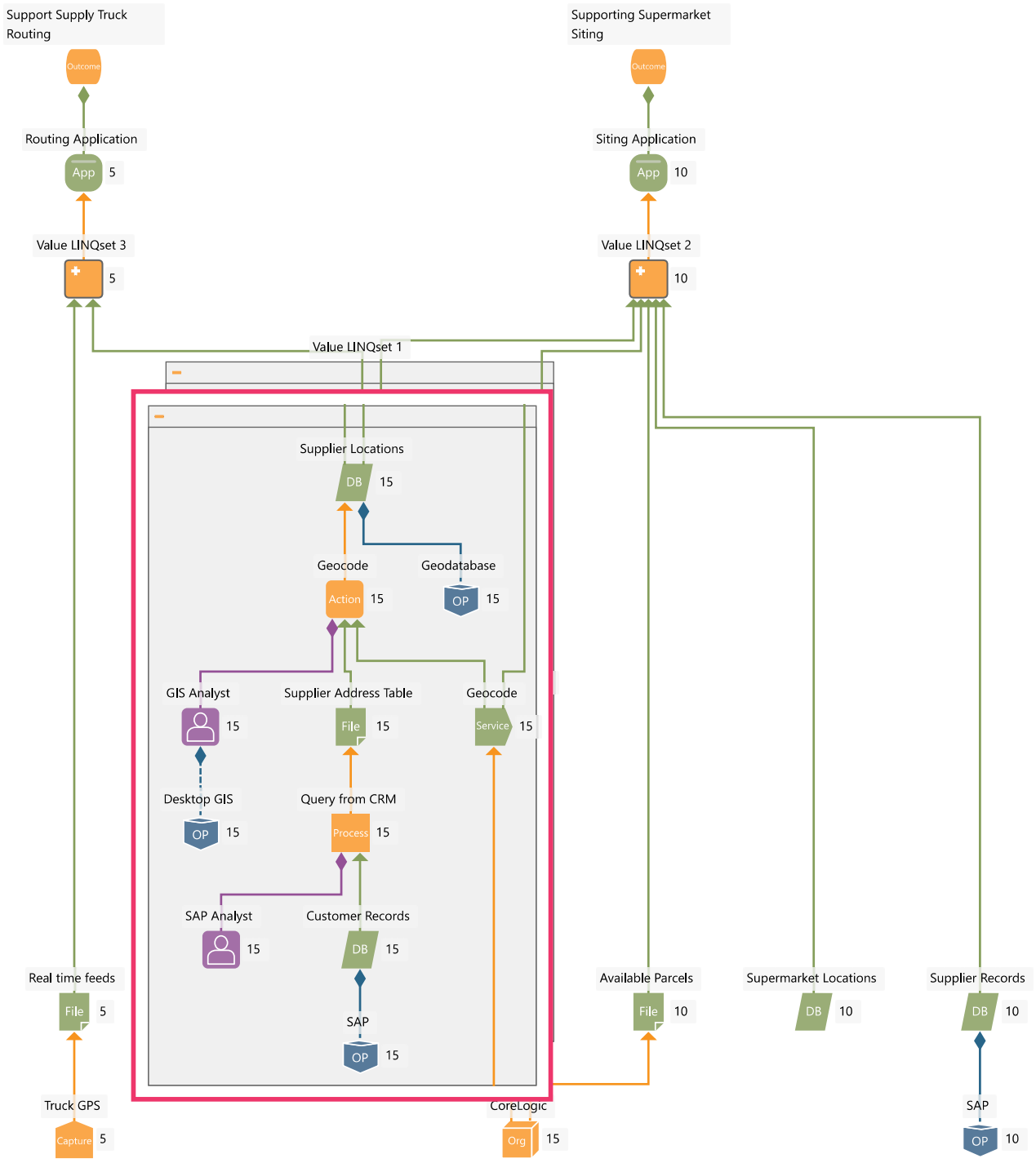


Figure 4: Overlapping Information Supply Chains

In the example in Figure 4 below, the highlighted nodes support both outputs – so any improvements in this area will realise benefits in both outputs. Logically, this area has enhanced value.

3.1.3: Determining value

LINQ allows sophisticated modelling of the value created through the reuse of information. The start of this process is for the LINQ user to assign a value to each information output – the point in an ISC where business value is supported. The value scale ranges from 0 (no value) to 10 (high value). Although this may seem arbitrary, it provides a consistent and normalised measure of value across the organisation and beyond, whatever the focus for value may be.

LINQ cascades this value 'upstream' against the information flow direction and then sums the values where reuse occurs. This can be seen in Figure 5 below where the overlap area is scored at a combined 12 (4 + 8). LINQ groups all nodes of like pedigree so all nodes within the overlap area have this value of 15. What does this mean? For the first time, organisations can see how valuable a piece of information is, based empirically on how much it is used in the organisation.

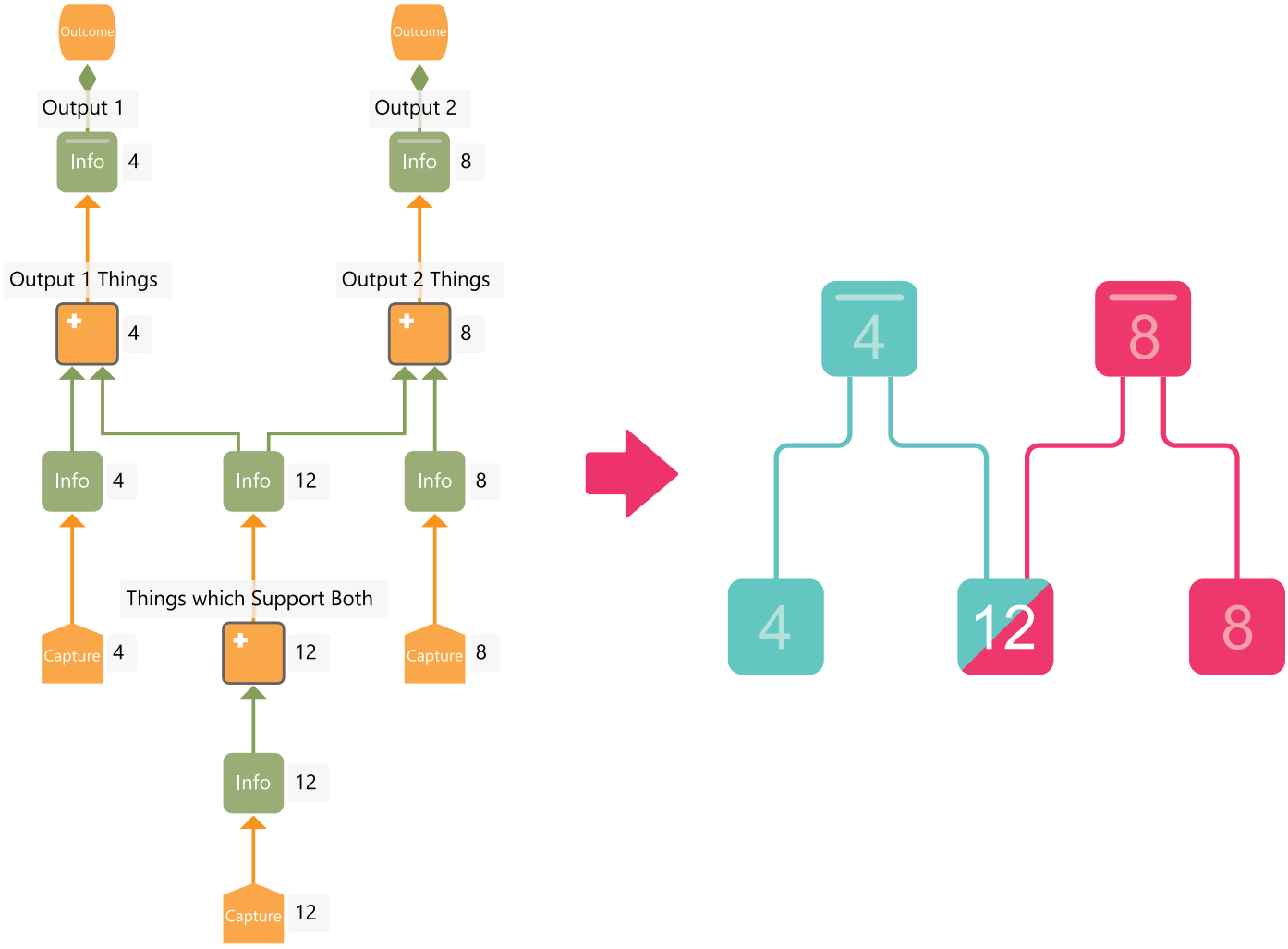


Figure 5 : Cascading Values

LINQ automatically groups nodes of like value. These LINQsets provide a powerful visual cue to show where value is concentrated in any scale of enterprise. In Figure 5 above, these LINQsets are shown minimised (for example – 'Things which Support both' is a minimised LINQset containing nodes of value 12).

3.1.4: Determining cost

Over 80% of the costs in a typical Information Ecosystem are incurred as People perform Actions. LINQ records the frequency and duration of Actions and the hourly cost of the person performing the Action and calculates an annual expenditure by multiplying these variables.

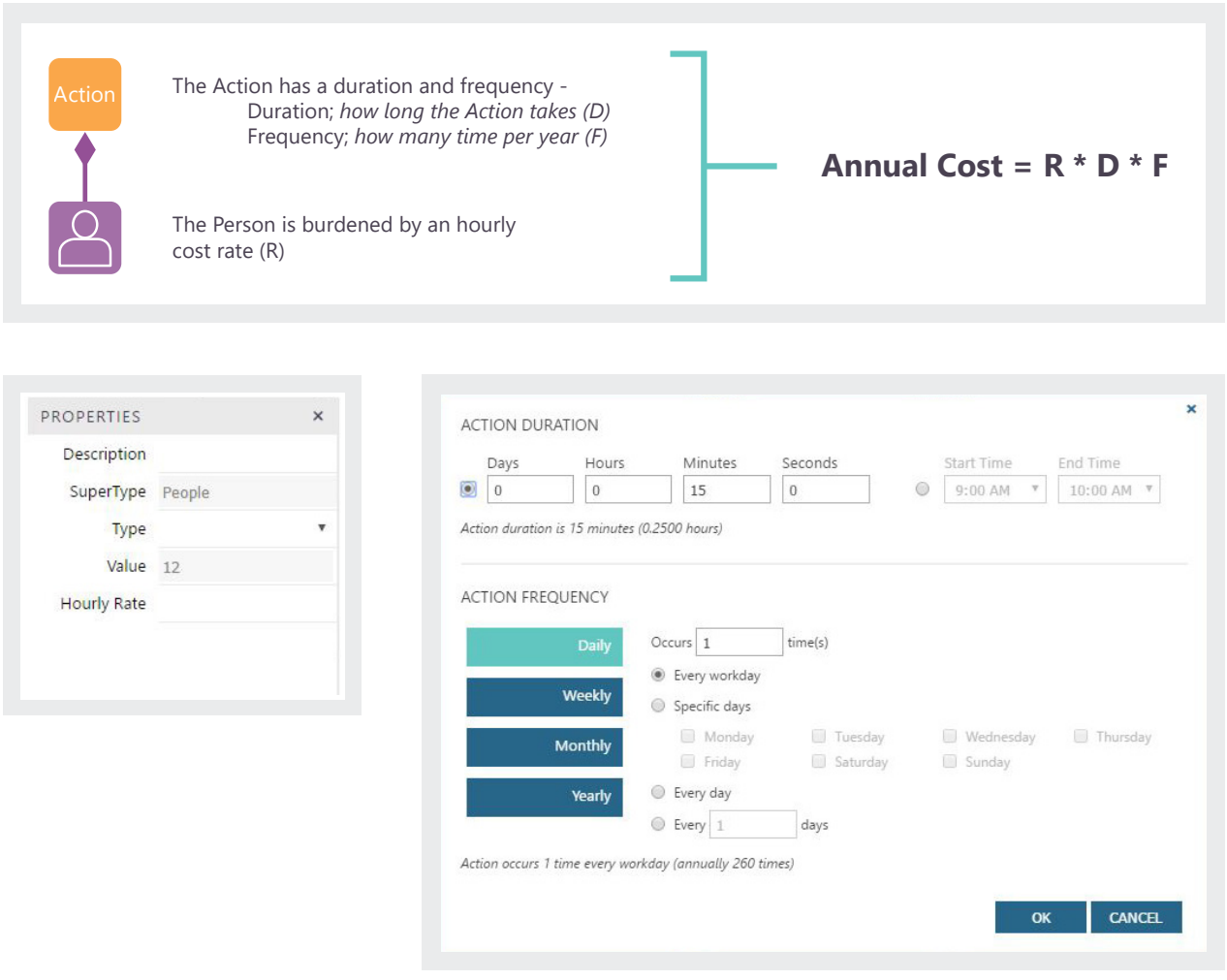


Figure 6 : Cost calculation in LINQ

In the example in Figure 6, Simon's cost is $150 an hour. He performs an action which takes 2 hours, 220 times a year. Therefore, LINQ calculates the annual cost as $150 x 2 x 220 = $66,000. These individual Person – Action costs are aggregated up to the Value overlap level.

Costs are aggregated within a Value LINQset as illustrated in Figure 7 below. This is a foundation for the cost / value insights described below.

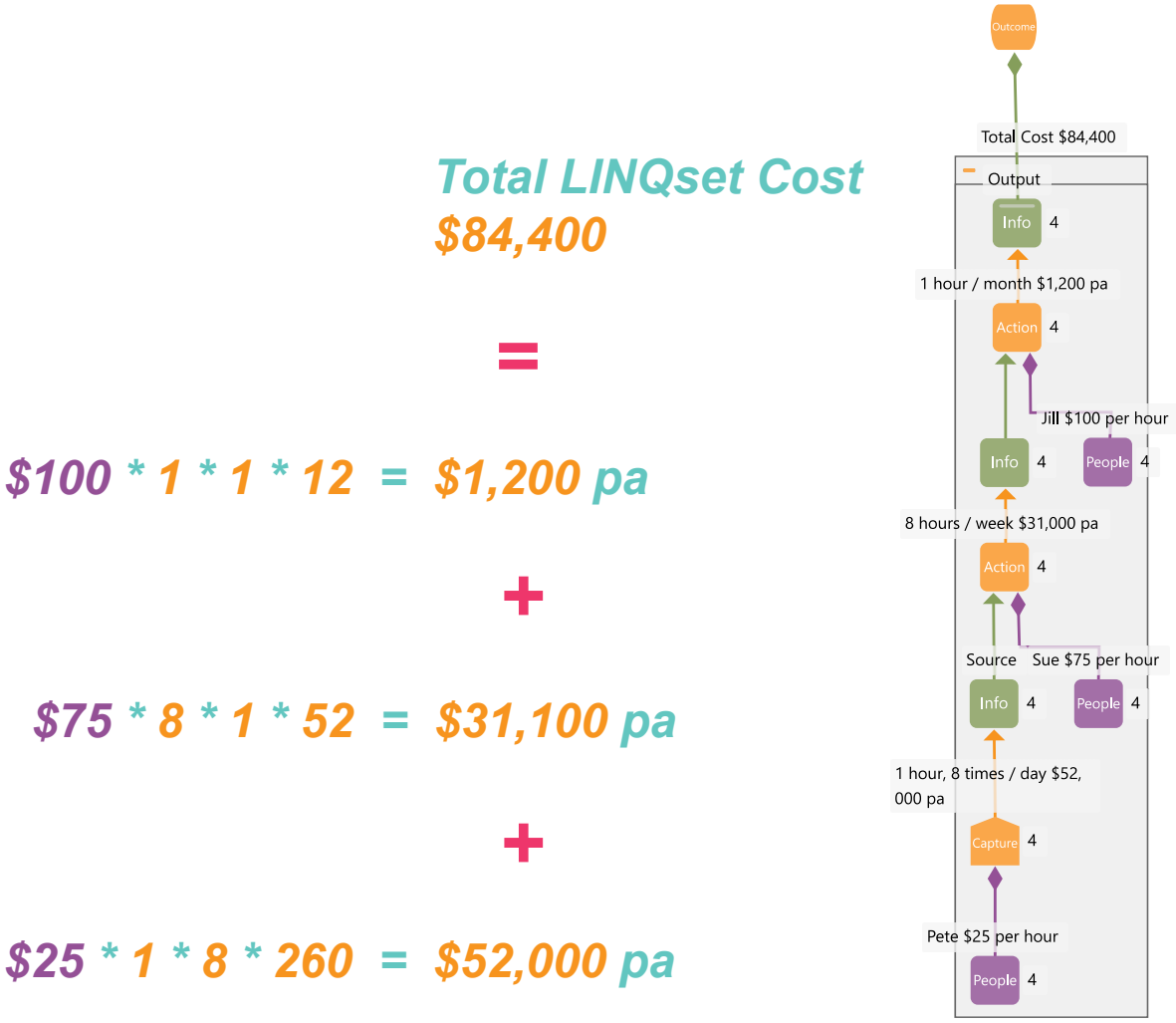


Figure 7 : Cost Aggregation in a LINQ Set

Customers report that previously they relied on anecdotal evidence or intuition in such areas. LINQ provides the empirical evidence many Change Leaders have always desired but struggled to articulate. When it comes to moderating the budget across the organisation, this level of insight becomes instrumental in making the right decisions.

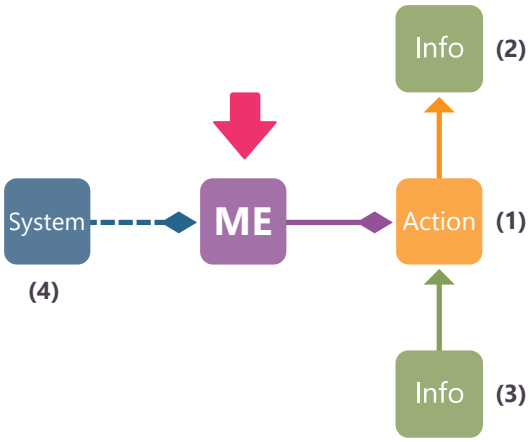
3.2: How to Think Like LINQ; Shifting the Perspective to Information

LINQ introduces a new methodology for seeing the enterprise in a new way. One of the key lessons from LINQ Early Adopters is that it can be challenging to 'think like LINQ' when building ISC diagrams, especially when users are familiar with other approaches such as Business Process Modelling or Data Flow Diagramming.

LINQ's focus is on how Information gets transformed from the Capture of an Information Source to an Information Output's delivery of business value. LINQ helps retain this focus by allowing a fast association of Sources to Outputs. This allows a user to quickly understand the concept of Information Supply Chains.

The biggest challenge emerges as Information Supply Chains are being densified. Business Analysts who are trained on Business Process Modelling tend to think in terms of chains of Actions rather than the flow of Information.

To 'think like LINQ', it is useful to ask these questions:



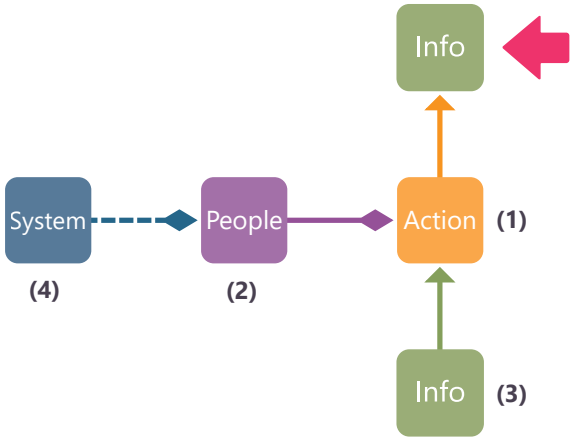
From the '**Me**' Perspective:

1. What **Action** did I do?
2. What **Information** did **I** create?
3. What **Information** did **I** need to perform the **Action**?
4. What **System** did **I** need to perform that **Action**?

Figure 8 : Thinking Like LINQ as Business Analyst

There's a similar challenge for LINQ users who have a background in data modelling. They tend to think in terms of individual tables and records, rather than in terms of the flow of information along an Information Supply Chain.

To 'think like LINQ', it is useful to ask these questions:



From the '**Information**' Perspective:

1. What **Action** created this **Information**?
2. **Who** created this **Information**?
3. What **Information** inputs did **they** need to create this **Information**?
4. What **System** did they need to perform this **Information**?

Figure 9 : Thinking Like LINQ as a Data Modeller

LINQ also assists users to 'think like LINQ' by providing a range of starter templates in the LINQ Gallery. These provide typical Information Supply Chains for a variety of scenarios which can be easily adapted to a specific situation.

Each template is accompanied by a video which explains the thinking behind the Information Supply Chain and thoughts about how it can be adapted to a specific user's situation.

Over time, it is planned that the LINQ Gallery will become a framework for sharing best practice and authoritative Information Supply Chains.

4: LINQ - Insights that Enable Transformation

Insights emerge as soon as Information Supply Chains are captured. Value and Cost are quickly and easily captured as described above; the alignment of cost and value become clear. Inefficiencies are seen clearly and improvements are obvious. These core insights start the communication process as soon as ISC capture commences

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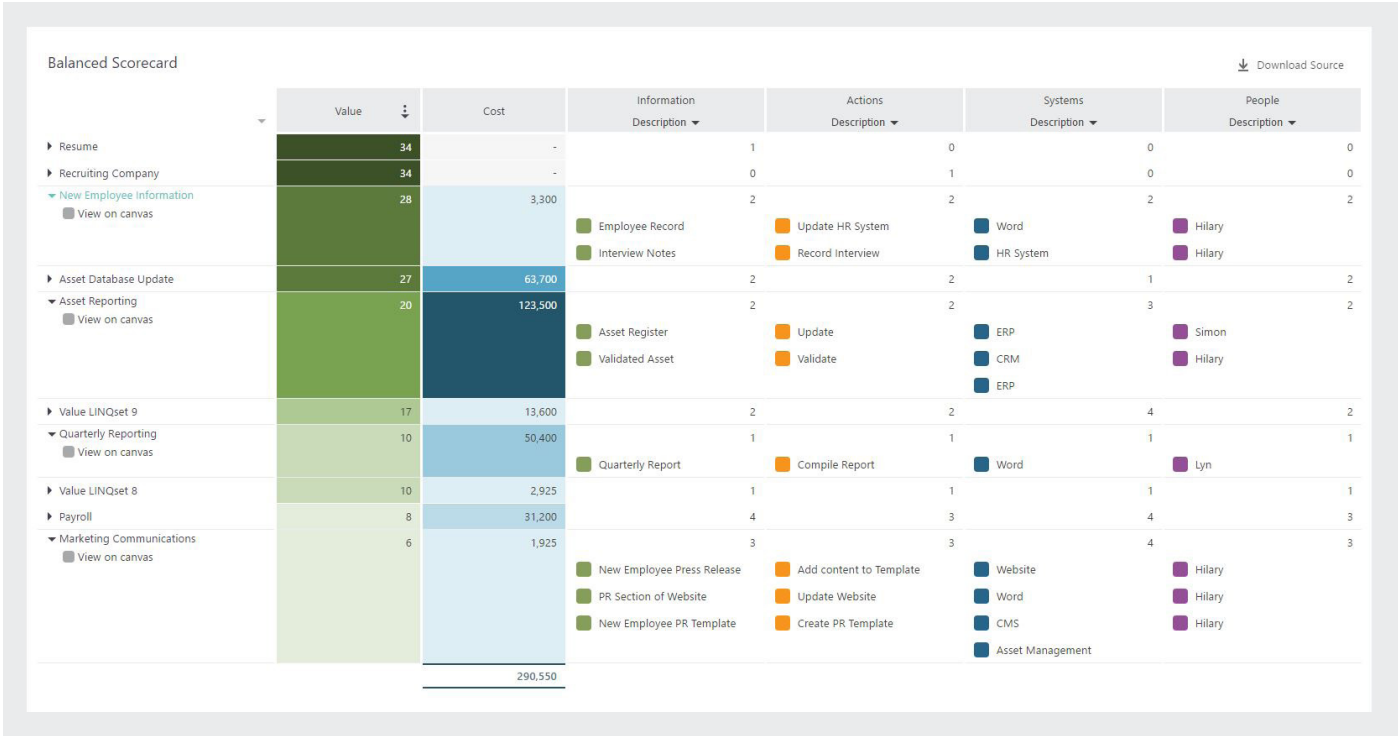
LINQ is designed to capture all information flows across an organisation in a consistent and objective way. This means that measures of cost and value can be

LINQ has a Dashboard environment to share insights across the organisation.

4.1: LINQ Balanced Scorecard

The Information – Actions – Systems – People (IASP) analysis offers a powerful way to tackle improvement. This is brought to life in the LINQ Balanced Scorecard.

A balanced scorecard is a powerful way of prioritizing change by exploring the big picture of value and cost whilst appreciating the detail which shows the Information – Actions – Systems – People that will need to participate in the change.



	Value	Cost	Information Description	Actions Description	Systems Description	People Description
Resume	34	-	1	0	0	0
Recruiting Company	34	-	0	1	0	0
New Employee Information View on canvas	28	3,300	2 Employee Record Interview Notes	2 Update HR System Record Interview	2 Word HR System	2 Hilary Hilary
Asset Database Update	27	63,700	2	2	1	2
Asset Reporting View on canvas	20	123,500	2 Asset Register Validated Asset	2 Update Validate	3 ERP CRM ERP	2 Simon Hilary
Value LINQset 9	17	13,600	2	2	4	2
Quarterly Reporting View on canvas	10	50,400	1 Quarterly Report	1 Compile Report	1 Word	1 Lyn
Value LINQset 8	10	2,925	1	1	1	1
Payroll	8	31,200	4	3	4	3
Marketing Communications View on canvas	6	1,925	3 New Employee Press Release PR Section of Website New Employee PR Template	3 Add content to Template Update Website Create PR Template	4 Website Word CMS Asset Management	3 Hilary Hilary Hilary
		290,550				

Figure 10 : LINQ Balanced Scorecard

4.2: LINQ People

People play a critical role in an information ecosystem. People performing actions are a major cost factor and they can also create bottlenecks that impede the flow of information. People are impacted when change is implemented, often in ways that weren't fully understood during planning.

It can be extremely challenging to understand the relationship between people, the systems they use, the actions they perform and the information they use and create. Using an HR System, a System Design Tool, a Business Process Modelling tool or a data flow diagram creates highly technical descriptions which fail to create a holistic picture.

LINQ People allows the role of people to be clearly understood in the current state and in proposed future states. This is done by pivoting from the standard flow-centric view to a person-centric view:

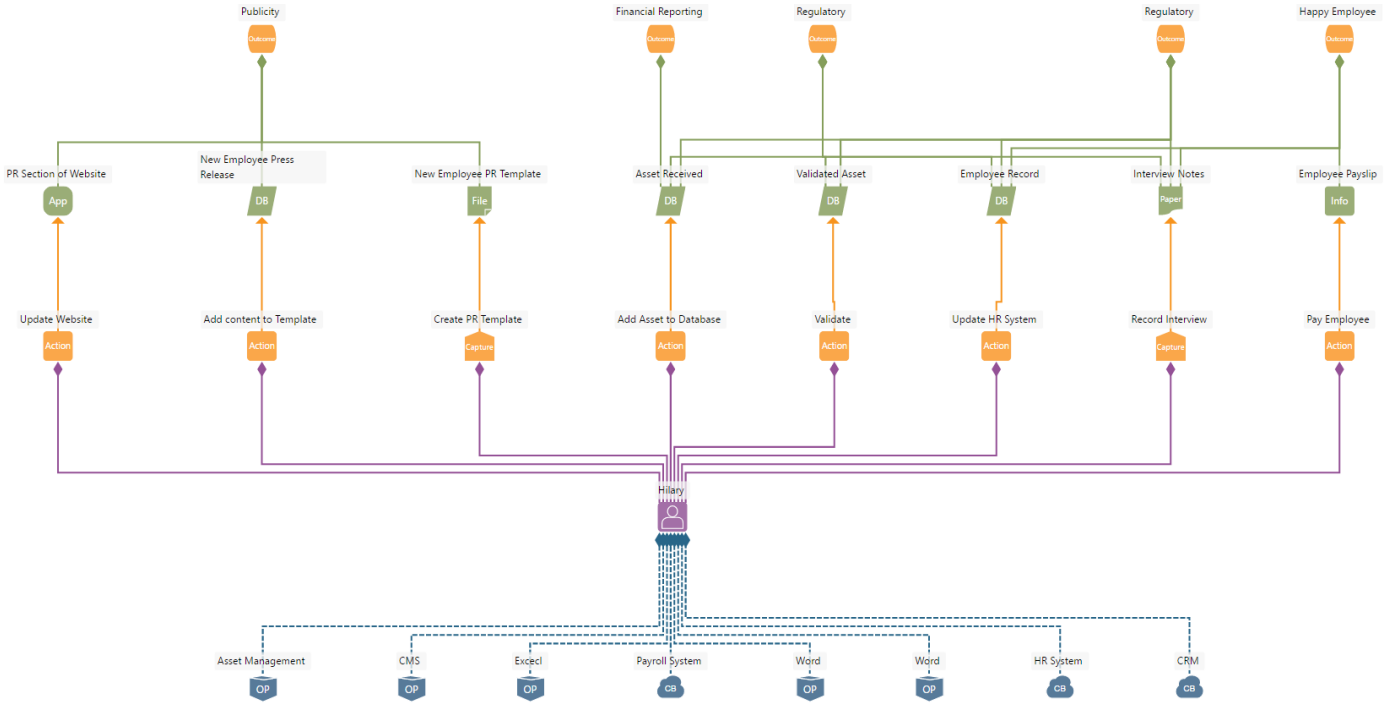


Figure 11 : LINQ People view

In this case, by clicking on 'Hilary' in the LINQ canvas, this diagram is created which shows the Actions that Hilary performs (which provides insight into her real job description), the Systems that Hilary uses (which provides insight into her training needs) and the Business Outputs that Hilary supports. This can be done for the current state and for a variety of future state options.

5: LINQ - Starting Your Journey

LINQ will help your organisation see the enterprise in a new way. Non-specialist executives will be able to effectively lead digitisation initiatives and Board members will be able to better appreciate the balance between risk and reward in change investments. You will quickly see improvements in efficiency and effectiveness. To start your LINQ journey please visit www.linq.it and send us an e-mail to sales@linq.it.

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