

# A design consultancy intervention: how strategic design thinking delivers in practice

## A case study overview

**Dolmen has, over the past decade, evolved its process to include exploring and testing the thinking behind a variety of published theories in Design Leadership, Design Thinking, Strategic Thinking and Creativity. This article looks at how Dolmen have developed a toolset and applied their Strategic Design Thinking process (Discover, Develop, Deliver) to a number of companies, from start-up entrepreneur to dynamic SME, delivering tangible outcomes through a structured process. The case stories ultimately explain why and how Strategic Design Thinking works for a variety of sizes of businesses.**

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The Dolmen team have been trained to solve problems and identify market needs/gaps in services and products. They solve these problems using a variety of tools and processes to deliver to these needs in better and more efficient ways.

The mind-set change Dolmen is focused on in order to deliver these solutions is one that puts the leadership role first in how 'design as a structured process' is applied to deliver business growth and value. It focuses on defining '*what is the task/ job to be done*', what outcomes the key stakeholders require and understanding how they measure these outcomes. With this mindset Dolmen can creatively explore and envision the next generation of services and products that will deliver on those outcomes. This 'outcome driven' approach delivers up to an 80% success rate, while research into the 'ideas first' approach shows that it only delivers up to a 20% success rate (Ulwick, 2005).

### Introduction

Dolmen, through several years of practice and research, have proven the value of applying a process of Design Thinking combined with Strategic Thinking techniques across a range of businesses to consistently deliver successful business outcomes and impacts, whether for start-ups or for existing businesses who are

pivoting/ changing/ developing their business model to find larger markets/more growth. The process is customised to address the individual needs of each company and even reverse engineer the process for businesses whose services and products are static and failing to sell to their expected potential in a given market.

### Dolmen's Process Definitions

**Design Leadership** is about defining the future direction of a business and the skill sets this role requires to lead the process, people and manage the risks involved (Kelley, 2001).

Design Leadership is vital in taking and transforming a business's visions and goals into strategies that will deliver tangible services, products and new processes. It defines a structured approach that creates a meaningful set of outputs from which a business can evaluate and then formulate into a brief. The brief is then used to instruct a cross discipline team, including designers, to manage the creation of a set of tangible solutions.

Strategic Thinking is focused on the business model and its drivers, both internal and external; on how things can be done in new and better ways to create, capture and deliver value aligned to vision and goals. (European Committee for Standardization (CEN), 2014)



Dolmen's Strategic Design Thinking Process

**Strategic Thinking** begins when business goals are set and it becomes clear that a more desirable outcome is required over the current business norms. These can be around the business model; financial, new revenue streams, exploring new routes to market, new combination of partnerships and collaborations, and using new technologies and platforms to transform or change how the business operates, delivers and creates value. This also includes the level of innovation aimed for by the company.

This approach is linked to the vision and values of the business and how it wants these values realised, while addressing the outcomes required by all of its stakeholders. From this a number of strategies can be developed around the Business Model. Design Thinking is traditionally focused on service and product design. It is a methodology that is built around gaining an in-depth understanding of the user's needs and the outcomes they require. It involves a creative process of generating possible solutions and iterative testing of these proposed solutions with these users. These actions are linked to available technology and the practical constraints of business. (Kelley, 2001)

**Dolmen's Strategic Design Thinking Process Key Ingredients**

Dolmen's process focuses on identifying the needs of all the stakeholders (including the client) in the context of current solutions and systems. Dolmen then integrates Design

Thinking and Strategic Thinking techniques and tools to explore and envision potential solutions for their clients, aligned with their vision and set business goals.

However in order for this to practically work the leadership role is essential to lead, facilitate and drive the process and mindset change involved. Clients need to grow their capabilities in Design Leadership in order to develop the future direction of the organisation, involving new services and products that deliver for a variety of their internal and external stakeholders, their 'desired outcomes'. From this Dolmen can develop new solutions, systems and new technology platforms that will leapfrog their competitors and transform the marketplace and deliver significant value for all the stakeholders.

**Build on the wisdom of others**

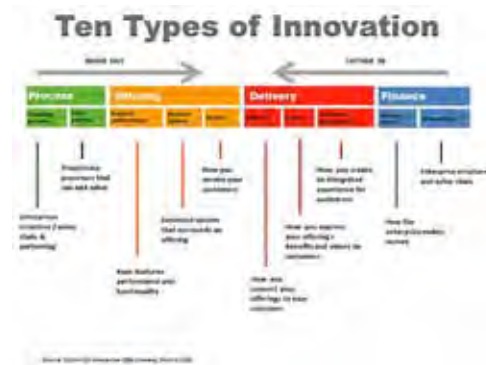
Dolmen's approach is sourced from a range of international experts that include Steve Blank, Ron Mascitelli, Alex Osterwelder, Tim Ogilvie, Clayton Christensen and Tom Kelley. The process is also aligned with the CEN/TS 389 'Innovation Management System'. Sean McNulty, CEO of Dolmen, leads the working group on 'Innovation Thinking' for the third section of this CEN. This is currently being developed into an ISO standard. (European Committee for Standardization (CEN), 2014)

**Process Overview**

The Dolmen process is grounded in the three stage approach: Discover, Develop, and Deliver.



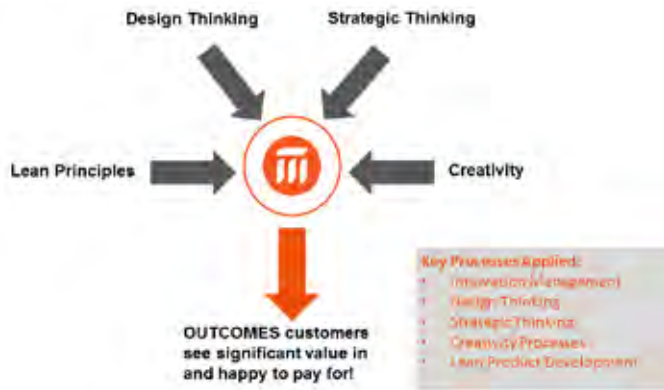
Dolmen's Process



Ten Types of Innovation (Larry Keely, Ryan Pikkell, Brian Quinn, Helen Walters, 2013)

This process looks at the product development funnel, from the early stage Discovery work needed to understand the end user needs, through to Developing and Delivering the product or service.

In this paper the primary focus is on the Discovery stage of the process, that early stage that really digs deep into the unmet and unarticulated needs of the end user. Ideation and structured creative techniques are used to generate new ideas in a measurable business outcome focused manner. The Dolmen process is illustrated via case study discussion and focusing in on the 'job to be done' in a highly practical manner.



Dolmen's Key Ingredients

**Process Inputs required:**

- A problem area that might be worth solving
- Access to a range of customer types and key stakeholders
- Cross disciplined team with a champion to lead them through this process
- A open mindset to exploring better ways of finding new business growth

**Process Outputs:**

- Detailed information on the current job to be done and which current problems encountered are worth solving
- Tools for transforming information into knowledge. This identifies the outcomes the key stakeholders require, how these will be measured, without defining how these will be technically solved
- A range of solution hypotheses that incorporate a better business model strategy
- Rapid learning by testing with Customers/Clients to validate and verify the solution for problem fit and the solution for market fit
- An early stage business case based on bringing the selected solution to market. This identifies the risk involved and the product strategy on how to get, keep and grow clients and customers
- A structure and presentation that the champion and their team can present to Senior Management for a full evaluation prior to implementing a project/ design management programme

This is a process that at each step delivers outputs that can be measured. The process can then be inputted into creating a business case evaluation around a future solution.

**CASE STUDY 1**

**Cyc-Lok Limited**

Introduction – market problem identified  
Cyc Lok Limited is a new enterprise, started by an experience business team. They had researched and identified a market problem, caused by the high number of bikes stolen in Ireland: 75% of these in Dublin. The average values of these bikes are in the region of €850.

This prompted them to develop an idea for a secure storage system where individuals could lock their bikes in an enclosure, safely out of the sight of potential bike thieves and the weather.

After reviewing the competitive options available, Cyc-Lok decided that this was a problem worth solving and the scale of the problem offered major business opportunity if their product had significant differential over current competitive options.

They decided to apply professional design and innovation services to differentiate their product and make it more relevant to the range of potential customers from corporate companies and public bodies to facilities and property managers.

**Defining the company goals and vision**

This started a process which identified the founder’s vision and their financial and market goals for the business.

The vision was to offer the users secure enclosed and safe bike storage, aligning with a European wide strategy to encourage more people to cycle to and from work, funding infrastructure and technologies to make it easy for cyclists to book, secure and access these enclosures.

Target costs were set for the development of this service based on initial research and the plan to maximise the number of bikes that could be stored in a standard car park space.

**Strategic Thinking**

From this, the design team developed a business strategy for the desired design solution, which consisted of:

- A platform technology that would allow a flat pack assembly, modular unit construction, a central lock control system and possible unit size variations



Dolmen Discovery Process	Lean Product Development (LPD)	Lean Production
Research	Concept Design	Production Specification
Ideation	Mechanical Design	Production & Liaison
Visualisation	Prototyping	Commercial Roll-out

Discover, Develop, and Deliver Stages



Dolmen's Discovery Stage





Generating Solutions Wall

- A range of revenue options to attract a range of different customers and markets, including co-branding and other business model collaborations and partnerships
- Sourcing a range of sub contract manufacturers for parts manufacture, supply and assembly right through to its installation and ongoing servicing and system maintenance

### Design Thinking

Directed by these key design strategies, the following steps were undertaken as part of the design thinking process:

#### Step 1 - Information gathering.

Initially the focus was on identifying and researching the contacts, data and inputs that Cyc-Lok had gathered and filtering and evaluating these.

#### Step 2 - Generating solutions.

Dolmen then explored a range of creative solution directions, focused on the different customer and stakeholder needs and required outcomes. These solutions explore User's/ Stakeholder's specific required outcomes as well as the Client's and their Investor's business focused required outcomes.

#### Step 3 - Rapid learning and validation of solution hypotheses.

These solutions were then evaluated against the different customer and stakeholder required outcomes, being aware that once the solution/ concept is selected, 80% of manufacturing costs are locked into the product (Fredrikson, November 1994).

The Client had these solutions/ concepts evaluated by potential customers to validate

the best solutions and verify the 'problem-solution fit' and the 'solution-market fit' with cyclists, different client types and key stakeholders

#### Step 4 - Synthesis of outputs.

These outputs immediately allowed potential solutions to be measured and ranked.

#### Step 5 - Outcomes.

The Cyc-Lok team were then able to evaluate all the outputs and make a decision to select and proceed through to the management of a design development and prototyping programme of work. To date Cyc-Lok have already exceeded their Year 1 projections for sales orders based on a stand at the Facilities Management Showcase in Dublin. The company is going from strength to strength.

#### Conclusion

A business model was developed by the founders that offers major differential in partnership and revenue options for the target clients and their customers; Corporates, Facilities Managers and Public Bodies.

#### Case study 2

##### AXIOM

AXIOM Limited, an Irish based company, was a subcontractor for a multinational computer corporation who was their main customer. When the multinational company relocated its Irish operation, Axiom had an urgent need to establish a new customer base. Some alternatives included developing a new business using the skill sets of those employees of the multinational who chose to remain in Ireland or to scale down its operation and face the possibility of closure. "We are in a difficult situation right now in

*that our main client is moving a significant amount of their production to another country, with a consequent reduction in our workforce, unless we apply some innovative thinking and do something about it",* Managing Director Tony Tracy.

#### Strategic Thinking

**The Key Drivers were: Vision:** 'Find a new service and product that would sustain their current and loyal and highly skilled workforce.' The CEO and his senior management team decided that they needed to try and find new customers and/ or develop a new replacement business model for their organization or risk losing the work force, skill resource and knowledge that they had developed over the previous 20 years.

**People:** All the people associated with the business (ranging from the current work force to associates, suppliers and overseas partners) who were affected by the situation and would gain by a potential solution were included in this activity.

**Goals:** The Company had developed a specialised skill set around high speed turnaround in technology fault finding, custom builds and testing on micro electronic parts and sub-assemblies. The skill base and enthusiasm of the work force was a major driver which motivated the senior management team to authorise and apply an innovation thinking approach to explore new business opportunities.

**Constraints:** Axiom had limited time and capital resources. The business needed an approach that would allow them to explore service, product and business model concepts and at the same time balance the various risks and uncertainties. To achieve, this, a robust and facilitated approach for the



Dolmen's process applied to Cyc-Lok

generation and evaluation of new business concepts was required.

### Design Thinking

The following steps were undertaken as part of the design thinking process:

#### Step 1 - Information gathering.

Activities undertaken initially focused on identifying the skills and inputs that Axiom had developed through its experience of working with the multinational organization.

#### Step 2 - Generating solutions.

A facilitated creativity activity was undertaken with selected cross functional teams. The outputs and findings from step 1 were combined to generate new solutions through creative thinking exercises. These were developed in a template format and documented as potential new business opportunities. The outputs were shared with the groups after which the senior management team undertook an initial evaluation, selection and prioritisation of the 'best bets' and 'best fits'. Five teams were then authorised by the senior management team to further investigate these ideas and run quick market 'tests trials' within a short set timescale. A champion was appointed to lead each team.

#### Step 3 - Rapid learning.

The teams gathered more specific market information around the concept and adapted it to their current skill base and

resource capabilities, identifying any skill and knowledge gaps. As part of this research they explored competitive product options and reviewed all competitive business model options. They then undertook a short and focused market trial on specific high risk areas, using visualisations and mock-ups to achieve feedback and rapid learning outputs about what would be feasible. These rapid learning outcomes provided the most crucial learning on what worked and what didn't work from the market's perspective and what created new value they would be happy to pay for over the competitive options.

Each team reported back to senior management on their findings and defined how potential solutions addressed the problem including any verification tests taken. Three concepts were then selected for trial implementation, within a set timescale and budget.

#### Step 4 - Validation.

The three new concepts were trialed in the market place through online sales portals with selected lead customers/ clients. This was undertaken to validate the solutions in the market place and to identify the value of the service and products being offered. Initial trials were undertaken within a four week period, with measurable criteria identified for each concept.

#### Step 5 - Synthesis of outputs.

The outputs of step 4 immediately allowed potential solutions to be measured and ranked.

#### Step 6 - Outcomes.

The senior management team were then able to evaluate all the outputs and make a decision to immediately fund two opportunities which were deemed worthy of further development and investment funding. One of the opportunities was aligned closely to the existing business (in terms of skill sets and expertise required), while the second needed new expertise to be brought into the business.

#### The two opportunities were:

- Custom built products: establishing a successful business customising hearing aids for B2B customers in Ireland and UK, becoming profitable after twelve months, a innovative game changing step for Axiom
- Partnership in the repair, recertification and selling of branded products that fail during their warranty period for a range of customers, Creative Industries, etc. A more obvious evolution step for Axiom.

Additionally a longer-term opportunity around medical device manufacturing in cooperation with a regional cluster was identified. However, pursuing this opportunity will required new procedures, certification and team up skilling.

The senior management team prioritised the custom built product concept. This opportunity was developed into an online business to business service and was self-sustaining within 12 months.

### Conclusion

Within 12 months Axiom developed a new business that was financially self sustaining and that had major market growth potential in the UK and Ireland. The Process involved all the employees so that everyone was brought into the final solution. Their energy was essential to driving the growth, which included quickly learning new skills and a new business sector.

Dolmen's Process was also embedded in Axiom as a way to systematically review their business as they are in a very competitive and dynamic market place.

### Process Differential

Dolmen's process is all about gathering information and turning that into knowledge and generating solutions to verify and test early with potential target clients and customers early.

Through iterations the solutions are tested in a structured process against the current options in order to confirm that the solution selected has significant added value and differential and to understand from the client and operator/ user perspective where they actual see value, and the price they will pay for this value. From this solutions can be refined and developed for early stage business case evaluation.

This approach reduces the level of start-up failure, currently circa 90% and new product development failure 60% - 70% with established businesses (Cooper, 2011)

### What would have happened without Dolmen's process:

Without Dolmen's Process there would be a higher risk of '*error of commission*' as all key stakeholders' requirements may not be captured at the start of the process. These requirements when added into the process at a later stage will be more costly in time and resources as they have to integrate them after the initial solution hypotheses have been selected.

### Some other key advantages:

This process can kill off ideas. Two of the ten companies Dolmen put through this process in the last five years showed that the return on investment (ROI) available to be captured by solving the specific problem, would not deliver on their expectations, so they killed off the concept.

This process can be reverse engineered so that if a product has failed to sell, and if the company is open to reviewing their product and market fit, they can then revisit their original business model and come up with solutions so to identify a new market fit or adapt their product offering/services.

### How this process differs or improves on others:

Table 1 is taken from Steve Blank Business Harvard Review (Blank, 2013), and is integrated with Innovation Strategies from M. Mueller and Katja Thoring (M. Mueller and Katja Thoring, 2012). This table allows us to position Dolmen's Discovery Process and demonstrate its practical approach and how it has built on the wisdom of the other processes.

### Conclusion

The approach to problem solving that Dolmen's Strategic Design Thinking Process follows has delivered significant impact for our clients throughout the past 24 years. The process itself is relatively flexible and therefore can be adapted to the needs of a variety of clients, depending on their desired business outcomes. Dolmen have found that clients themselves adopt these processes within their organisations long after Dolmen are gone, reusing the tools and methodologies to continue to grow their businesses.

This inherent flexibility in approach means that Dolmen can deliver tangible outcomes for businesses no matter the size, whether it is for a start-up entrepreneur who needs to find the most appropriate offering and business model to create a market game changer, or a dynamic SME looking to innovate and leapfrog competitive options, or established multinational who need a next generation platform solution and technology.

Ultimately it is about understanding the '*job to be done*' and outcomes required using strategic design thinking tools to develop the best service and product offerings combined with an appropriate business model to create products and services that markets see value in and will pay for that value. It is about how ideas work.

**We should have had this learning two years ago - it has to be facilitated in order to change the mindsets and define a process which empowers and motivates everyone to identify & explore new opportunities and then commercialise within reasonable timeframes (Tony Treacy, MD Axiom).**

	Lean start-ups	Traditional	Design Thinking	Dolmen's Process
Goal	Innovations - all aspects, business model and product	Successful new services and products.	Better products and outcomes	Focuses on Horizon 1: new to world and Horizon 2: new to industry innovations
Scope/ focus	Hi-Tech innovations	Product innovations	General innovations	All aspects of innovation are focused on here
Strategy	Business model	Business plan	Business case	Innovative business model with business case
Approach	Customer orientated	Problem solving needs...	User centred	Market desired outcomes
New Product Process	Customer development get out interview, split test Five Whys, Business Model	Product management linear step by step programme. prepare offering then	User deep understanding process, Ethnography, interviews, etc	Market focus around the job to be done and the key uses. Also uses observations, empathy and interviews to gather information.
Engineering	Agile development. learn and build iteratively and incrementally	Gate process, some build, iteratively or fully specific first	Step learning process	Spiral learning and knowledge building.
Idea generation	Not normally part of process founder has vision / ideas	Yes, brainstorm ideas based on needs/ gaps	Core part generated to deliver desired outcomes	Core part to develop a range of ideas/ solutions integrating the business models elements.
Testing-product iteration	Business model is core part and process	Implementation mode yes, but limited	Complex solutions yes core part of process	Business Model is combined with design thinking to find the best solution hypotheses
Target group	Customers; Influencers, economic buyer, Decision Makers, etc.	Customer segments by tradition segmentation	Users(Usually End Users, sometimes other Stakeholders	Customers/ markets by desired outcomes and how they will measure a good outcome.
Qualitative methods	Not a focus		Major End User research	Customer outcomes defined as requirement statements.
Quantitative Methods	Customer development teams hired in for speed	Not a focus, Departments by function hire for experience / pm	Cross functional teams	Cross functional teams
Financial Reporting	Metrics that matter CAC, LCV, churn rates, etc.	Income statement, cash flow, balance sheet, P&L	Cost benefit analysis, ROI	Cost of Acquisition of Customer, churn rate, Risk sensitivity analysis, Strategy on how to get, keep and grow customers ROI, cost benefit analysis
Time/speed	Rapid - good enough	Measured and complete	Efficient	Rapid and flexible
Failure	Expected, ready to iterate pivot away from what fails	Exception, fix by firing or liquidating as € gone	Solution general found, but fall short on ROI expectations	Fail early as key part of Rapid learning step in the process.
Failure	75% failure rate - Stanford	98% failure rate		To date and over 10 diverse sector clients, 85% success rate

Table 1: Process Comparison Table