Case Study Title: Commercial Development and Understanding our Data

Company Overview | CLÚID HOUSING | cluid.ie

Clúid Housing Association is a not-for-profit organisation leading the way in delivering high quality, affordable homes to people on the housing waiting list all over Ireland. Since its establishment in 1994, Clúid has provided over 10,000 homes to low-income families and single people, older people, people with a disability and traveller families all over Ireland. For further information about Clúid Housing, please visit www.cluid.ie.

In 2015, Clúid had 5105 homes in management. By the end of 2022 this number had doubled to 10,272 homes in management. This rapid increase of delivery requires input from all departments across the organisation. The information for managing the pipeline of homes was stored in multiple locations and manually updated. This resulted in inaccuracies and out of date information which did not support the decision-making process. In 2018, a decision was made to introduce a management system to store and track information and make available in a live setting. By 2019, the new system was in place, and it now stores all of the information on delivered homes, current year delivery and all future prospects.

This case study will focus on the implementation and benefits of the Delivery Management System implemented by Clúid.

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Overview & Background to the Lean Initiative

As providers of quality housing nationwide, Clúid collects and stores vast amounts of data.
This data was not always easily accessible across the business and duplicate data was often collected and stored by multiple internal departments. Clúid engaged an external consultant to assess Clúid's data maturity and provide a roadmap for a data strategy. The resulting data strategy set out the direction for data-related improvements at Clúid and the main objectives of the strategy were to:
1. Improve the quality of organisational data.
2. Invest in development and training for those who use the data.
3. Foster and encourage leadership that allows people to use data to inform business decisions.

The Commercial Development team at Clúid manages a pipeline of over 10,000 homes and we did not have a central location for our data. This resulted in a very manual approach to producing reports, as data had to be checked and rechecked numerous times. It was heavily reliant on the owner of the

In 2019, over 2,100 residents moved into 721 new homes across Ireland.

Priority:	Firm:	Clúid Solicitor	Scheme Name	Scheme Type	Funding	Phase	No. of Units	Contract Status
High	Clúid Legal	Jacinta	Gort na Fuinse, Headford, Galway	Turnkey	HFA	2	14	In Contract
High	Clúid Legal	Lorraine	Newfoundwell Road, Drogheda, County Louth **phase 2**	Turnkey	HFA	2	39	In Contract
Medium	Beauchamps	Laura	Bridge Meadows, Enniscorthy, Wexford	Turnkey	HFA	1	12	Contract under negotiation
Medium	HOS	Sian	Hillside Manor, Lucan Road, Chapelizod, Dublin 20	Turnkey	HFA	1	30	Contract under negotiation
Medium	Beauchamps	Lorraine	San Guida, Clondalkin, Dublin 22	Turnkey	HFA	1	22	Contract to be varied
Ongoing	Clúid Legal	Siobhan	Cherry Drive Ard Na Greine Miltown Co Kerry	Clúid D&B	HFA	1	44	Contract under negotiation
Ongoing	Clúid Legal	Siobhan	Tobar Muire, Creagh, Gorey, Wexford Phase 2 (5 Units)	Turnkey	HFA	1	15	Awaiting Contracts

Figure1: Sample data at Clúid

data and left us exposed to gaps when individuals were on leave. To bring lean ways of working into focus, it was agreed that a fresh new approach to data management was needed. We wanted to have the ability to analyse our data, understand market trends and report to the business and other external stakeholders without

delay. We could see that it was not sustainable to expect people to search through multiple copies of spreadsheets to get answers. We needed a much more efficient way to access data when needed and to be confident that the outputs would be accurate and up to date.

Lean Initiative Undertaken – Lean Thinking, Tools, Techniques

According to a survey carried out by research firm Gartner (Forbes, 2021), the cost associated with poor quality data amounts to 20% of revenue in an average organisation. Furthermore, using poor quality data for analytics could impact the quality of decision making. Knowing that data was stored in various locations and in various formats, it seemed reasonable to assume that making a change would result in significant cost savings to the business.

We needed to rethink how we gathered, stored, and retrieved our data. As a growing business, we recognised that our own reliance on data was increasing, and good data management would be critical to accessing accurate data quickly when needed.

Using the DMAIC methodology, we created a roadmap for improving our data management which is summarised in Table 1.

Area of Focus	Methodology
Define	Project Charter, Gemba, 9 Blocker, SIPOC
Measure	Survey Results, As Is Process Map, FMEA
Analyse	Cause & Effect Diagram, Focus areas for Improvement/Elimination, Projected Savings, Pick Chart
Improve	Future Process Map, Implementation Plan
Control	Control Plan, Lessons Learned

Table 1: DMAIC Methodology

Define
To remove waste work from our processes we participated in waste walks. Known as "Going to Gemba" by lean practitioners, these walks allowed us to witness first hand, the real experiences of everyone
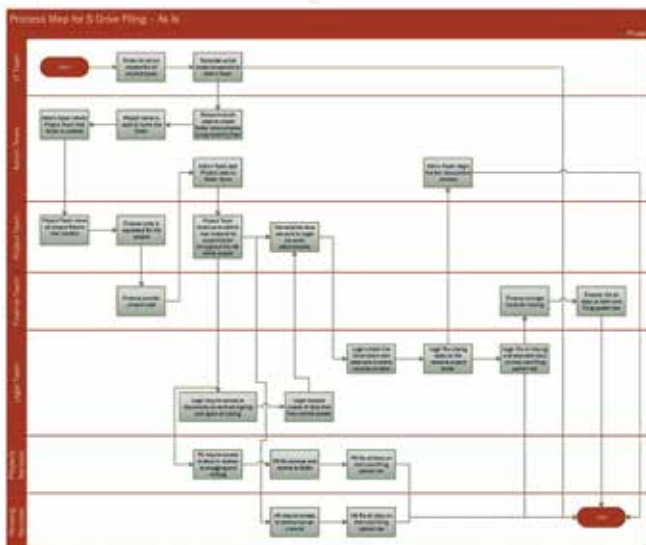

Figure 2: Process Map for S: Drive Filing

working with data on the Commercial Development Team. Feedback was encouraged and problems identified in a very informal way.

Using an "as is" process map it was easy to identify where over processing was occurring and where a more streamlined approach to data processing would lead to more efficient results.

The Suppliers, Inputs, Process, Outputs and Customers (SIPOC) model allowed us to consider and understand the flow of data across some key processes. See Figure 3.

Figure 3: SIPOC Table

Measure
We created a survey and invited the Commercial Development Team to respond along with data users from other departments at Clúid. From a sample set of the respondents, you can see that lots of time was wasted searching for documentation, confidence was low, need for training and/or fresher training was high, and over 80% of people stored data elsewhere.

Figure 4: Survey Findings

A Failure Modes & Effects Analysis (FMEA) table was used to assess the severity of failures in our processes and to identify potential

Process / Product
Failure Modes and Effects Analysis
(FMEA)

Process or Product Name:		Process Map for S Drive Filing					Prepared by:			Page __1__ of __1__						
Responsible:		Debbie, Amy & Ann					FMEA Date (Orig) 15/06/2022 (Rev) 0									

Process Step	Key Process Input	Potential Failure Mode	Potential Failure Effects	SEV	Potential Causes	OCC	Current Controls	DET	RPN	Actions Recommended	Resp.	Actions Taken	SEV	OCC	DET	RPN
Project team move all project files to new location	migration of files from various folders in different departments	ensuring that most up to date information is captured at the time of migration	transfer of folders into pre-determined sub-folders can result in misfiling and misplacement of certain documents	5	lack of time for Admin by PMs, lack of awareness of what is contained within each folder (in terms of version control). Other departments continuing to save into previous folders	4	checked at audit or when a particular document is required and cannot be found	4	80	Create a clear set of SOPs for DMS management including regular internal auditing and training	All Depts	Creation of working group with rep from each Dept	5	1	4	20
Folder structure created for all product types	IT Created different script for each product type	outdated folder structure within each product type. Not adaptable to current requirements	inefficient folder structure being implemented	5	inability to make changes to current script to update folder structure	3	Limited ongoing input or checks from IT team	5	75	Recreate a new agile script for filing structure and provide training	IT/New Business	1. Send out survey to assess what works and what needs to change 2. Request optimum file structure for each Dept	3	1	5	15
Legal Department create One Drive Share folder with external consultants	set up shared folder with relevant documents	ensuring correct permissions for access to externals are in place (email addresses, time etc)	over processing - waste time for any changes to team or dept. Unlimited access to sensitive material	4	Permission on S drive restrict sharing	4	Time limits on shares are in place	4	64	Create SOP for sharing docs with external shareholders and training	Legal and NB	Request training and informational from IT re security, risks and solutions re doc sharing	1	1	4	4
Project team populate files	Project team continue to add files to project folders in an adhoc way	Project team create additional folders, save documents in incorrect folders and on various platforms	Waste work, multiple versions of same document on file, latest version not saved to the folder and/or another platform	5	Uncertainty of where to file docs, lack of training and no SOPs in place	4	Internal audit and informal team quality checks.	3	60	1.Streamline filing structure based on survey findings and input from other Depts. 2. Develop SOPs and training for all stakeholders	All Depts	1. Share results of survey 2. Organise workshop to agree optimum filing structure	2	2	5	20

Figure 5: FMEA and Actions Recommended

causes. This tool was used later in the process to measure if controls would have the desired impact on the failure areas.

Analyse

After the challenges with the 'as is' process were identified, it was clear that there was a lot of duplication of effort and data, which resulted in inaccuracies and waste work. A cause-and-effect analysis revealed that multiple spreadsheets were in use by multiple people in each department. In some instances, the information was out of date, and it was not clear who was responsible for keeping it live. It was agreed that by having 'one version of the truth' in a central location, with clear lines of responsibility and data ownership, would be a more efficient way to manage the pipeline.

Improve

A scope of works was issued to six different companies to investigate options and suitable software systems to address the challenges raised during the analysis phase. The optimum solution for Clúid was mapped out in a future process map. Clúid then worked with the chosen supplier to customise the software package to best deliver Clúid's requirements. Once this was completed, a user manual was developed, and training was provided to all users.

Control

Initially a 12-month pilot phase was implemented to test the management system and to understand its functionality. Following this period, some small tweaks were made with the supplier to better manage Clúid's requirements, and the system was rolled out in full. The user manual is live and updated on a continuous basis to respond to market changes (i.e. interest rate changes, new methods of delivery and funding changes). See Figure 6 for sample report.

Figure 6: Sample Data Report- New Business Delivery

Lean Initiative Improvements & Impact

Clúid is now part of the user group, which influences the next development phase of the software system. Users make suggestions for enhancements and the user group vote on the top three, which the supplier company will develop and implement in next version release. This is extremely beneficial to Clúid as it ensures that the system continues to meet their requirements and is agile and flexible into the future.

Summary and Lessons Learned

A report is provided to all departments each week ensuring consistency, accuracy and up to date information. However, one challenge is that this information is dependent on accurate data being imputed by several stakeholders. Continuous training is required, particularly for any new staff. Overall, the benefits of the system are understood and used widely and buy in to ensuring its continued success is evident.