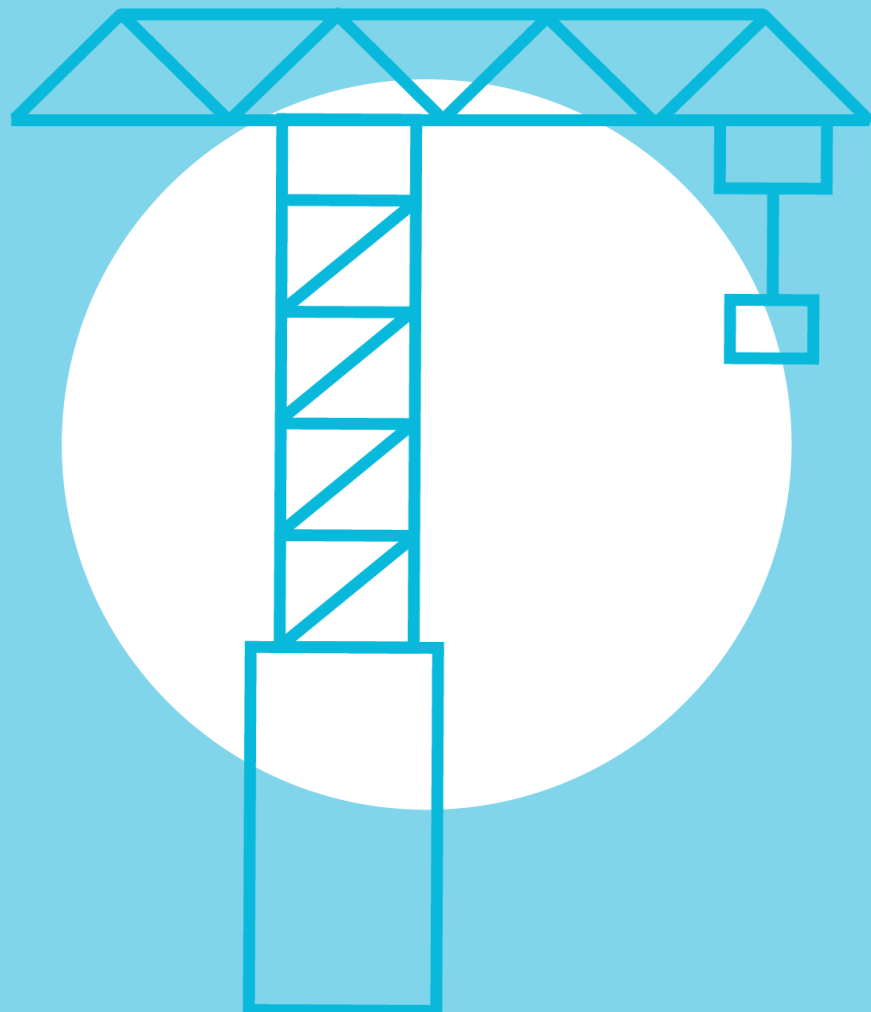# C-TECH CLUB

C-TECH CLUB

BUSINESS MODELS AND PRICING MODELS –
views from the perspective of construction technology start-ups

MAY 2021

SAAS or 'managed service'? While there is no 'magic bullet' to the question of business models and pricing for construction-tech start-ups, there are some common themes for success.

Construction technology start-ups are helping to drive the revolution in the way in which digital tools, analytics and data are being used. However, new ventures often face the question of what their business model should be (specifically - are they providing a service or selling a product?) and how to price it. We organised three discussion sessions for founders and CEOs of construction technology start-ups to share their thoughts on best practice and the lessons they have learnt on these topics. This report is the output of these discussions.

Productivity in the UK construction sector has barely improved over the past 20 years. There are a variety of reasons for this, including the different character and behaviour of the major clients in the construction sector and lack of cohesion across the supply chain. Construction technology start-ups are playing an important role in helping to drive innovation. A McKinsey report in October 2020[1] demonstrated considerable growth in Venture Capital (VC) activity in 'construct-tech' over the past decade and the fact that it outpaced investment by the overall VC industry by a factor of 15 during 2019.

As Figure 1 shows, many start-ups face a challenge in how they develop their businesses. VCs may favour a Software-as-a-Service (SaaS) model – with the application running in the cloud remotely – because it is hugely scaleable. But start-ups who are producing innovative tools are often, effectively, creating their own markets. If they try to implement a SaaS model too early, there may be minimal demand as their product is ahead of their clients' ability to buy and use it. However, once they start down a 'managed services' route, providing consultancy support to help deliver advice and outcomes for their clients, how and when can they move to sell on a SaaS basis? Or is this unnecessary because a 'managed service' model on its own can lead to success?

This report has been based on conversations with founders and CEOs of construction technology start-ups. It is intended to offer thoughts and advice to current and future start-ups on best practice and what has and has not worked.

About the C-Tech Club
The C-Tech Club is a networking group for founders and CEOs of construction technology start-ups. It is a global, not-for-profit group spanning more than 100 members in 20 countries.
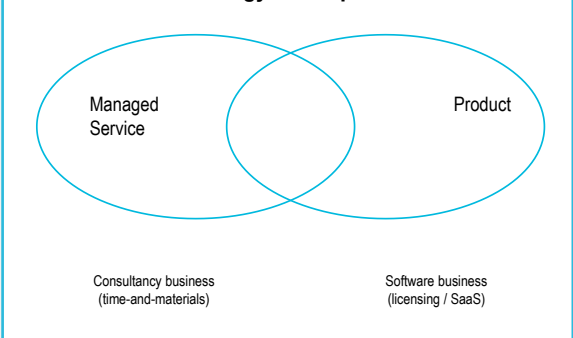*www.c-techclub.org*

About this study
We brought together around a dozen founders and CEOs in three separate discussion groups to share ideas around business models and pricing. This was in both a structured (i.e. based around specific questions) and freeform way.
The only two conditions were that the results were to be anonymised and be shared with all participants.
[Subsequently, the C-Tech Club has agreed that it would be useful to share this report more broadly in the hope that it can help and assist others who are embarking on the challenge of setting up a new venture in and around construction technology].

Figure 1: Two approaches for business models for construction technology start-ups

Managed Service

Product

Consultancy business
(time-and-materials)

Software business
(licensing / SaaS)

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[1] *Rise of the platform era: The next chapter in construction technology*, McKinsey (October 2020)

Start-ups come in many shapes and sizes, and are addressing a number of different and varied challenges in construction. So it should come as no surprise that there is no one-size-fits-all answer to the question of business and pricing models. Some start-ups adopt a SaaS model from the outset. Some have started offering services and have been able to move to a more scaleable model over time. Others appear to be comfortable selling services in relatively low volumes .

However, there are a number of common themes around what is more likely to contribute to success

Part 1 – Business Models

Theme 1a. *It is easier to develop a viable business model if you enhance, rather than disrupt, your clients' current way of working.*
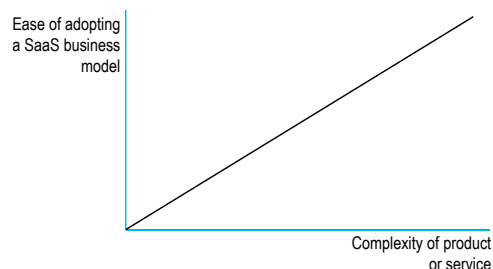
Many start-ups are looking to sell digital tools and services that disrupt their clients' processes. For example, automated layout software can radically change the way in which a design practice does its work. This is a tricky sell if there are hundreds of designers to keep busy. Contrast this with selling site management software that digitises construction workflows and saves site workers' time. Here, the business model works with, rather than against, the people who will use it. Most will buy into a system that eliminates bureaucracy and reduces paperwork.

Theme 1b. *For a SaaS business model to work, the product or system needs to be simple and intuitive. More complex systems need to start as managed services.*

For new products and systems, a potential client needs to ask two questions. First, can I use it? And secondly, will I get value from it? A managed service approach removes the need for the client to ask the first question. This means that more complex products and systems are likely to benefit from a managed service approach, initially at least. One participant said that clients do not want to pay to use their software, but rather to pay them to use it. Growth, however, is limited by how many 'consultants' it has in its business to support clients.

Conversely, one participant described its workflow tool as requiring only 10 minutes' of training before site workers are able to use it. This start-up has always embraced a SaaS model and has been able to scale its business quickly from the outset.

Figure 2: There appears to be a strong correlation between the complexity of the product or service and whether a SaaS model is likely to work

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Theme 1c. *There is no substitute for detailed research to understand the whole value chain.*

A number of the more successful start-ups talked about the hours of research they had undertaken on 'market discovery'. They wanted to understand the whole value chain. They argued that there is no short cut to establishing what clients want and what they are prepared to pay for.

Theme 1d. *It is possible to move from a services business mode to a fully self-service model, but you need the cash and time to invest in the change.*

One of the participants was a structural engineering business that now sells specialist software to support modular housebuilders. They have been able to make the transition from pure consultancy to SaaS software sales. But they have had to be very disciplined about making enough time to invest in the development of the software. It would be easy to be distracted by day-to-day project issues, but they have managed to keep the development team focused and to ringfence the funds needed for investment. They have also had to consider the cultural change needed for this journey.
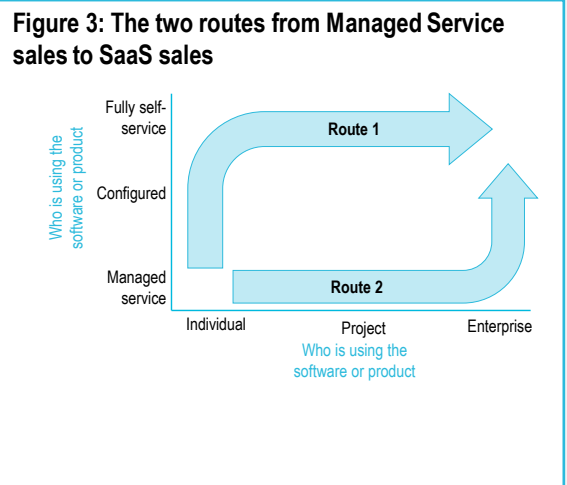
Theme 1e. *VCs give no credit for revenue from services, but this revenue can help 'bootstrap' the business for longer.*

Our discussions confirmed the view that VCs are looking for the scaleability that SaaS models provide, to the point that they will give little or no credit for revenue from services. However, they have to accept that construction is socially-driven, so relationships matter. This means that construct-tech business models are likely to be less scaleable than other sectors.

A couple of participants suggested that selling services had been valuable in providing cashflow for the business. This allowed further development before the point at which external investment was sought and may have helped secure higher valuations.

Theme 1f. **D**eciding *to have a go is the most important first step.*

In construction, there is a considerable reluctance to try new things. So the act of starting to try is worth a huge amount. The advice of several participants was – back yourself, think big and go and do it!

Figure 3: The two routes from Managed Service sales to SaaS sales

Part 2 – Pricing Models

Theme 2a. *It is important to understand the market and to choose the pockets and segments that are likely to be most receptive to your product or software.*

As with Theme 1c, participants talked about the lengths that they had gone to in order to research their clients' needs. One explained that he had spent eighteen months in discussion with contractors on possible pricing models before settling on the preferred approach. Another explained how he had chosen a number of 'trusted clients' (that is, where there was a connection beyond a pure business relationship) and asked them what they really wanted.

A detailed understanding of the market allows the start-up to choose the segment of clients that are most likely to be receptive to its product or service – be it housebuilders, general contractors or multi-family developers. This allows them to focus their business development effort and reduce the cost-of-sales.

One CEO of a fast-growing SaaS-based start-up said that he had cold-called the CEOs of the top 20 housebuilders and signed up five of the top ten. (The key to his success was to convince them not what the software could do now, but what its potential was over the next few years). He would not have known to target housebuilders without having put in the hard work on the research.

Theme 2b. *The importance of good test cases, to prove the benefits, cannot be overstated.*

The first sale is always the most difficult one. From that point onwards, start-ups can use test cases and references to prove the benefits of their product or software as part of the sales cycle. One participant talked about using time-lapse photography on a project to bring the benefits of his start-up's system to life.

Building the start-up's brand can be accelerated by piggy-backing on the brand of the early-adopter clients. This is one of the reasons why choosing the right clients to target is so important. One participant said that being able point to the product being used by the right clients – and using their logos in the pitch to new clients – was better than any marketing strategy.

Figure 4: Examples of pricing models

Managed Service model
- Based on hours plus a mark-up.
- Linked to the project size (e.g. a percentage of build cost).

SaaS model
- Per seat (e.g. AUS$350 per seat per month up to seven seats), followed by an enterprise level of AUS$1,800 per month.
- Per project. This may be based on the size of the project or its complexity (e.g. US$2,000 for 'simple' projects, up to US8,000 for 'complex' projects).
- Enterprise-wide fee
- Based on the size of the client (US$149-$599 for clients with US$0-$10m revenue, US$599-$1,099 for clients with US$10-$20m revenue, above that to be discussed but on a sliding scale).
- Based on a matrix of services, with features that can be 'toggled' on or off.
- Based on processing/number of calculations.

Theme 2c. *Negotiating on price is to be avoided, and (almost) nothing good ever comes from giving things away for free.*

One participant said that they had started giving their software away for free – then when they required clients to start paying, they lost all those early clients! The reason was that they had chosen the wrong clients. They had to start all over again with a different segment of the general contractor market. Another participant noted that giving software away for free reduces the priority for a client to test and use it. Not only does this reduce the potential for an actual sale, it also makes it less likely that there will be any useful feedback.

The one example of giving software away for free that proved successful was where a start-up was entering a new geographical market. In this case, they found that accelerating the adoption by the right local contractors justified this move.

Negotiating on price is also unhelpful: once you discount on price, you never get it back. It is better to discount a pilot project (as the client's budgets will already be set), reduce the price of one-off services or offer additional support or training within the quoted price.

Theme 2d. *There are big differences between the approach to be adopted for project sales and enterprise sales.*

The consensus view was that start-ups need to begin with project-level sales and move up to the enterprise level. It is too big a leap-of-faith for a client to buy on a company-wide basis too early. But it depends on the client. Architects and contractors are more likely to contract per-project; asset owners (with many projects) are more likely to be on an enterprise basis.

Large clients can take a long time to buy on a company-wide basis, as they can be very siloed. There is also a difference in the key decision-maker for a sale. End users are decision-makers in smaller companies; in larger companies it is the C-Suite level. A mistake that CEOs, CFOs and CTOs can make is that they want to choose only a small number of software packages for the company a whole – perhaps only three or four – and this makes each package too complex with everything in one system. The software becomes disconnected from site workers who cannot use such a complex system. It is better to use something simpler and more bespoke for the task at hand that really works on the ground

Figure 5: Comparison of costs within a construction-tech start-ups, compared with large, established software vendors

Established software vendor
- **34% -** R&D (product development)
- **18-20%** - sales
- **37%** - Delivery and support
- **12%** - Administration

Construction-tech start-up

Typically, construct-tech start-ups are spending a much larger proportion on development, less on sales and much less on delivery and support. It is challenge, as they mature, to build a sales and support organisation. They also tend to underspend on important 'administrative functions' such as HR and Finance.

Theme 2e. *There are many different models for pricing – per seat, per project, by size of client – but think about the behaviours in the client you are trying to encourage.*

Pricing is hard! One start-up began by charging $10 per apartment per month + set up fee + support fee, which seemed reasonable. But when this moved to new and additional markets and started to scale, it turned out they were charging more than Procore! They had to move to a new pricing model based on 1-2% of the cost of construction. Another participant gave the example of where they were able to bring clients with them when they radically changed their pricing model.

A per-seat model may seem like a good starting point, but it limits the number of users in the client organisation. It is better to aim to get a large number of end users in the client to use your product. Once you have 15-20 users in a particular company, you can start to connect them together and create demand for your software. Users can then start to convince their superiors – and you move in the direction of enterprise-level sales. This logic extends into allowing clients to use the software across the whole of their supply chain. That way, you can secure advocates for your product in other companies who become prospective clients.

Value-based pricing is difficult, especially where the benefits of the software run across the lifecycle of the asset in question. You might save the client tens of millions over the 60-year design life, but good luck with pricing on that basis. Further, value perception in construction is not easy or straightforward. One customer may find a price very cheap and another may find the same price expensive.

Start-ups may do well to link their pricing to the model adopted by a large software vendor in the sector. One participant had the approach of pricing at "a seventh of the cost of Procore". This has the twin advantages of being simple and appearing to be good value.

Some start-ups were trying quite innovative models – charging based on the amount of server time used or by the number of calculations done. This caused some difficulty when complex bills were presented to clients who did not understand how they had been calculated. Others tried to price on the basis of a basic service with fees for additional services. Clients often hated this as they wanted price certainty and felt that the extra charges could be described as 'sharp practice'. Simplicity has considerable advantages and, ultimately, value is everything!.

There is no 'silver bullet' for business models and pricing. We hope that the examples in this paper are useful and thank all participants for their involvement and input

To find out more about the C-Tech Club,
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