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DataBoard ApS: start-ups and downs

Thomas J. Howard, Carina Lomberg, Rasmus Bushøj, and Jesper Hart-Hansen

SETTING THE SCENE

It is a sunny Friday afternoon in Copenhagen in late October 2016, and Rasmus is ecstatic. His colleague Kasper has just shown him the alpha version for Rasmus's new business idea: DataBoard ApS, a user-friendly solution to configure info screens. Kasper had programmed it over some evenings and weekends, and it looks great! Rasmus knew it! Kasper is exactly the kind of guy needed for this early-stage start-up—a front-end developer who can make the technology look like it should for the final product. Kasper, too, is convinced by Rasmus's vision for DataBoard: 'The world's easiest and most flexible info-screen solution—like an app store for info screens.' With this alpha version in front of him, Rasmus hopes to finally get an investor for their newly founded IT start-up. Rasmus knows that the seed-stage investment is a critical stage for DataBoard but has high hopes for a meeting he has scheduled with Jesper from Capnova early next week.

With its digital technology as a core, DataBoard ApS is a typical start-up in the audio visual (AV) industry. In this industry, venture capital investments require relatively low levels of investment for potentially high levels of return because of the scalability of digital technology. Since the levels of intellectual property (IP) protection are often not as robust (often not even possible for software), the emphasis is all about speed, traction, and execution. Venture capitalists (VCs) invest if they believe a start-up can get to market quicker than the competition and generate revenue quickly to validate the investment. Within the due diligence process, the investor will review the company documentation in terms of its financials, team, contracts (supply, sales, and employment), IP, and technology to verify whether an investment prospect is good or whether there are any skeletons in the closet.

However, investments are rarely made from a static viewpoint; it is more often dynamic, following a team over a period of time to see whether they are able to identify and solve problems, make and capitalize on new opportunities, and execute their go-to-market strategy. It is therefore common that investments are based on a decision about the team first and

idea second. This is particularly true for Jesper, an experienced investor who likes to invest in founders that know their industry. Knowing that Rasmus has quite some years of experience in the AV industry, Jesper is looking forward to meeting Rasmus and hearing about his DataBoard start-up.

PART 1: THE PRE-INVESTMENT

This part describes the pre-investment situation in terms of the DataBoard founding team, Capnova, the VC undertaking the due diligence, the status of DataBoard both technically and commercially, and finally the mindsets and viewpoints of both the investor and the entrepreneurs when it comes to the investment prospect.

The Founding Team

Rasmus Bushøj is a business school graduate from Denmark. For the first 4 years of his career, Rasmus worked in sales before becoming a business manager at Atea ASA, a large business-to-business (B2B) AV/IT solutions supplier. He then moved on to a company in the same industry, ALSO Holding AG, where he was a sales and product specialist related to AV displays for 3 years. In 2015, he left the company to start his first venture, AV-Nerds.dk, focusing on AV solutions/support. During this period, Rasmus came up with the idea and recognizes the demand for DataBoard. While Rasmus has experience in the AV industry, his entrepreneurial experience is relatively limited, as is his experience in dealing with VCs and negotiating term sheets.

Joining Rasmus (the chief executive officer, CEO) is a hard-working front-end developer called Kasper (the chief technology officer, CTO), with around 12 years of experience in web and digital media. Kasper and Rasmus are of similar ages with complementary profiles. Kasper is a talented front-end developer and convinced by Rasmus's vision for DataBoard.

The third co-founder, Sten (the chief financial officer, CFO), is a hardware engineer with significant business and start-up experience. Sten has a lot of experience in AV, particularly in audio space and manufacturing. He also works as a co-founder and business consultant in several different ventures and lines of business. Rasmus knows Sten from the time he was running AV-Nerds, where he had employed Sten as an external consultant. Sten's main role is in creating the investor materials and going out to find business angels and VCs to make the early investment.

At the time of the fundraising round with Capnova, the founding team and staff were composed of the members shown in Table 18.1. Note that John, June, and Phil do not feature in this case study.

Table 18.1 Founding team of DataBoard at the time of seed funding round

Name	Role	Time	Expected equity	Details
Rasmus	CEO	FT	60	Founder, employee
Sten	Commercial developer (CFO)	HR	15	Founder, external consultant
Kasper	Programmer (CTO)	FT	20	Founder, employee
John	Graphic and Scala support	PT		Employee
June	Marketing and sales	PT		Employee
Magnus	Board member	HR	5	Executive in digital signage, investor
Phil	Board member	HR		Experienced in start-up board work

Note: FT = Full time, PT = Part time, HR = Hourly.

The Investor

At the time of DataBoard's first investment round, Capnova A/S is one of the four so-called 'innovation environments' in Denmark—a venture capital firm that invests in both public and private funds. In May 2018, the Danish government decides to discontinue the innovation environment set-up. This means that Capnova will manage the portfolio of investments but no longer invest in either public or private funds.

At the time of investment, due diligence in Quarter 4, 2016, Capnova has a portfolio of four investment areas, one being digital technology. A typical investment range for Capnova is DKK500,000 to DKK6 million (EUR70,000 to EUR800,000).

The investor appointed to review the DataBoard case is Jesper Hart-Hansen, investment manager at Capnova, an experienced angel investor in his own right and former co-founder of a successful telecom operator, GlobalConnect A/S.

While there is a lot of commonality in the traits that investors look for to make their investment decisions, Jesper describes his critical success criteria in the following way:

1. Team: The initial idea is most likely wrong! Does the team have a mutual vision and are they strong enough to adapt along the way and figure things out?
2. Skills: Does the team possess knowledge in business development and technology? Do they have social skills, execution skills, and planning/administration competence?
3. Industry experience: Does the core team have industry experience from day one (not just as board members)?
4. Customer dialogue: Do they know about their customer dreams, needs, demands, and payment abilities?
5. Investor dialogue: Are they keeping an ongoing dialogue with (the right) investors?
6. Adaptability: Do they keep their overall vision but adapt their assumptions about the market if necessary? Do they validate with real customers? Are customer financing, feedback, and fast product iterations high on their agenda and already part of the start-up's culture?
7. Realistic budgets: No hockey sticks! Do they provide a business case per one customer? It takes time to get it right and, since the founders likely underestimate time and money, should I give them the benefit of the doubt?

Jesper has significant experience in the digital area as an entrepreneur and has had his own ups and downs, including a large failure from a start-up that was launching and scaling too early based on an unstable software architecture. In addition to the above criteria, Jesper has a key rule for start-up scaling: ‘Don’t scale your start-up too fast!’ According to Jesper, founders must be mature individuals who listen, reflect, and react in time, also often quoting the following from the Startup Genome project: ‘Premature scaling is the most common reason for start-ups to perform worse. They tend to lose the battle early on by getting ahead of themselves.’

The DataBoard Prospect

When walking into the reception of a company—whether an aircraft manufacturer, software coding house, public library, or university—chances are high you will see an info screen, like the one shown in Figure 18.1. The problem DataBoard solves is to make these company displays easy to configure and customize in a professional manner, allowing the user to easily insert apps/widgets, images, and video and resize them to fit within the display. Normally this process needs to be done by someone who can write code, but DataBoard makes it possible for the project manager, marketing team, or secretary to update the display.

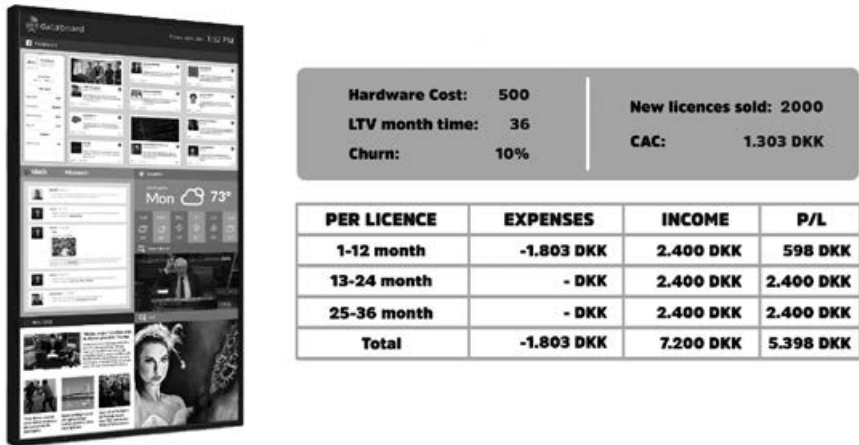


Figure 18.1 The DataBoard demo plus key statistics

DataBoard is a B2B company and has customer acquisition central to its investor pitch. Despite this being a typical challenge for B2B companies, Rasmus is very knowledgeable about the sales process and knows this large and growing market segment well. As can be seen from Figure 18.1, the digital licence-based element of the business model allows for a good-rate customer lifetime value (CLV), with the first-year licence fee covering all costs of the sale; the subsequent years and customer retention are therefore paramount to turning profit.

Although mainly relying on bootstrapping until this point, the company traction is strong for a start-up, with seven sales, five demos, and a pipeline of larger customers-in-waiting

and in-pipeline. The financials submitted for the investment round credibly project that the company will turn profitable in 2018, despite a small negative result in 2017.

This early traction is to a large extent fundamentally due to the exceptional persuasive quality of Rasmus, managing to recruit a CTO to build the alpha version product in his spare time as well as convincing early customers to pay for early prototype versions of the product. These early versions were not configurable by the customer. Instead, DataBoard developed and built their info screens for them and updated them. However, they served as good customer referees and gave examples of the product in the hands of the customer and appearing in a finished state.

PRE-INVESTMENT CONSIDERATIONS

As a further testament to Rasmus's persuasive qualities, he is told by Capnova that before they could invest, DataBoard would have to bring in a senior board member with relevant industry experience. Rasmus manages to convince Magnus (the perfect candidate) to become the board chair as well as invest some of his own cash into the company!

Capnova viewed the team now to be complete with:

- a CEO who is a great salesman, knowledgeable of the industry
- a committed CTO who manages to hack together good-quality proof of concepts in a short time and close to no budget
- a CFO good with financials, marketing, and investment who would be Rasmus's right-hand person to help keep him on track, follow up with customers, and manage the orders.

The equity split between the founders is done without any apparent friction. Rasmus was keen to close an investment fast to get the company moving. From the Capnova side, this was seen as eagerness and a bullish determination to get the company running at speed.

QUESTIONS

Please answer the questions for yourself before you discuss in your team.

1. How would you assess DataBoard ApS in terms of Jesper's critical success criteria? If you were Jesper, would you invest? Explain your decision.
2. Regarding the equity split in the founding team:
 - a. How would you distribute equity (%) between Rasmus, Kasper, and Sten?
 - b. What could you do to ensure commitment and engagement of the founders?
3. What valuation would you place on DataBoard ApS at the time before a potential investment from Capnova?
4. What terms would you want to include in the term sheet if you were a VC investing in DataBoard?

PART 2: THE INVESTMENT

The negotiation process goes smoothly. Rasmus has a great eagerness to reach an investment and is very flexible in the process, hoping to get moving quickly. On 27 March 2017, an investment contract is struck between DataBoard and Capnova for a DKK2 million investment. In this part, the terms of the investment agreement are described, followed by information regarding how DataBoard progresses towards the first milestone after the first tranche investment.

The Term Sheet Agreement

On review of the contract, the terms seem to be very favourable to the investor, Capnova. The term sheet is constructed in such a way that a low pre-money valuation is given to the company, but only a small equity investment is made by Capnova, securing them a stake of ~26% of DataBoard; the rest is in the form of a loan, giving Capnova a greater chance to recover its money.

From an investment point of view, this seems to be a very good investment strategy. As with most equity investments, the hope is that DataBoard scales well, becoming a dominant market player and eventually exiting at a much higher valuation. Unlike many early-stage start-ups, DataBoard is not pre-revenue, already securing sales with quite a well-developed pipeline. There is good reason to believe that even if the company does not scale at the hoped and intended rate, linear growth in sales will allow a steady revenue and enable the kind of cash flow required to pay back the loan.

To further de-risk the investment, the payments are in tranches based on meeting a milestone. The first tranche of DKK1 million is paid out on signing the agreement. The second tranche is to be paid out on meeting the first milestone defined by Clause 2.2 (see Figure 18.2).

2.2 Terms for the loans granted by the Investors and one of the Entrepreneurs are defined in separate Loan Agreements. Upon meeting the following milestone no later than 6 months after entering into this Shareholders' Agreement, the creditors shall pay the applicable tranches of the loans indicated in the Loan Agreements to the Company:

- (a) New customers of the Company shall be able to implement their own solution online within 15 minutes, and
- (b) The Company shall have established an international sales setup with online demos and remote support.

Figure 18.2 Clause 2.2 of investment contract relating to the milestone for the second investment tranche

There are differing viewpoints on the importance of the above milestone definition, but as the old saying goes, what gets measured gets done. Jesper believes the above milestone definition to be unimportant, stating he likes to set milestones that are relatively easy to obtain but can be subjectively interpreted, essentially making it up to the investor on whether they wish to invest

in the next tranche or not. Rasmus has the milestones very much in his mind and is aiming for them.

Other notable items of the investment agreement are related to the key persons listed as Rasmus, Kasper, and Sten. While the obligations of the key persons are quite standard, the employment agreement is not. Rather than a standard employment agreement, DataBoard has a consulting contract with Sten at a flat rate of DKK18,500 per month. The terms of the contract are otherwise quite loose, requiring Sten ‘to be available’ for activities such as sparring on business, financial, and marketing tasks and can be conducted at the DataBoard office or at another location.

Progress Towards the Milestone

After the investment agreement is signed, Rasmus is fired up and ready to work all hours to bring DataBoard to market. Yet problems with the team dynamics come into play almost immediately after the investment agreement is signed, with Sten wanting to be paid for work he has already done. As time passes, it becomes clear that the team is not as strong as had been hoped. Sten is almost never in the office and only does well-defined tasks, rarely taking the initiative—he is working as a consultant with higher-priority contracts and in no way acts as a co-founder or entrepreneur investing himself in the company. Even when scheduled to come to the office, there is a regular occurrence of Sten calling in sick on behalf of himself or his children. Jesper comments that Sten, the guy who is supposed to balance and support Rasmus, is just not there doing his job.

Kasper is also struggling with the orders coming in. The software that is already out in the demo is unstable, and the bug-fixing is becoming an all-consuming task for him. Kasper was ideal in the initial stages to make the ‘looks like’ prototypes where he managed to develop a product that the customer could potentially customize and implement for themselves in 15 minutes (a core product promise). However, he is not a back-end or full-stack developer. The software coded is not just unstable but built on an unsuitable base scaling. The bug-fixing becomes a whack-a-mole process; with every bug fixed, several new ones arise. Inexperience often shows when estimating development or implementation time, and while Kasper’s guess is the best guess the team has, everything is substantially delayed beyond estimates.

The funding for the first DKK1 million investment soon runs out. Despite feeling that DataBoard has not met the milestone criteria, Jesper believes that execution always takes longer than the entrepreneurs expect, and the 6-month deadline for achieving the milestone was too short and based on founder optimism. Jesper takes the case to the board at Capnova and agrees for the second DKK1 million investment tranche to be paid out, completing the investment agreement.

Completion of Investment Round

Following the second tranche investment, Rasmus is out hitting the sales hard, spending money on marketing, product launch, and scaling up. The commercial traction he achieves is truly impressive, but the product is not yet fit for the market. As a result, there is no launch

of the actual product, and instead a series of deliveries, patching, and updating. According to Jesper, the process is a mess. DataBoard has the product in the hands of the customers, which is not working, while selling more. They implement a bug fix Friday afternoon before leaving for the weekend to find out the following week that there are new and often worse bugs as a result of the fix. Capnova has implemented DataBoard in their office, and it is frustrating to arrive on a Monday to see that their display simply is not working at all after the recent bug fix.

Despite these issues, Rasmus is an unstoppable train on the sales side, learning where the bugs are in the system so he can perform the live demos without hitting a glitch. All entrepreneurs might experience this process at some stage, but DataBoard is now commercially maturing and scaling, yet without having the actual product ready. They still sell an early-stage software and scale based on Kasper's estimations of the time to have the product ready. DataBoard is also international now, selling the product in Chile to a TV station, to a school in Pakistan, and to some prestigious co-branding on the NEC stand at a major AV conference.

Rasmus is increasingly feeling alone in the process. While it is possible to receive support and advice from Magnus, the board chair, even Magnus is not fully committed, refusing to activate his network until the product is closer to being ready for market.

Financially, DataBoard's burn rate is too high. They are constantly reporting their actual financial figures as exceeding their budgeted ones. Despite having an unstable product, a large proportion of the budget is being spent on marketing, building momentum for launch, and scale-up. DataBoard is running out of money fast and needs to raise another funding round!

QUESTIONS

PART 2A

1. What are your thoughts on the investment agreement?
 - a. Was it good from both sides?
 - b. What were the main risk factors involved?
 - c. What were the potential issues related to the agreement?

PART 2B

1. Looking back over Part 2, how do you evaluate the ups and downs of the investment case and the causes?
2. What would you have done differently if you were acting on the board of DataBoard during this time?
3. What do you think will happen next? What will we read in Part 3?

PART 3: NEW INVESTMENT ROUND

Coming close to bankruptcy, Rasmus approaches Jesper, asking for additional investment. Jesper agrees but adds a requirement that before investing in any future tranches outside the original investment agreement, Rasmus will have to persuade another private investor to

co-finance with Capnova. True to form, Rasmus manages to bring on board a new investor—Lars, the DataBoard accountant—and seals an investment of DKK300,000 each from both parties. However, with the high burn rate and unstable product, the additional funding does not last long.

Rasmus genuinely believes that DataBoard has executed very well, the business is full of scaling potential, and the issues will be solved down the road. Having seen other start-ups in the ecosystem that have launched products with software issue and are still thriving, Rasmus sees no reason not to maintain belief in the business, and keeps marching forward.

Jesper, on the other hand, has a different viewpoint. He has experienced a similar situation in the past that showed very similar issues. He concludes that continuing to develop and roll out the product built on code that is structurally unsound is futile. He also believes that in such a situation, the company could be saved by a great, well-functioning team, but this is unfortunately not in place, with the CTO and CFO both being out of their depth in regard to the challenge ahead.

Rasmus manages to convince Lars to make a further DKK300,000 investment on the same terms, but this time Lars has to approach Jesper to ask for the match funding. After a Saturday morning phone call, Jesper says that he will consider the match investment. Lars understands from the phone call that Jesper is committed to the match investment and with that understanding makes the DKK300,000 investment into DataBoard without any formal agreement being in place.

Now, just 1 year (approximately) after the initial investment agreement and with roughly DKK3 million total investment (DKK2.3 million from Capnova), Jesper decides that Capnova will make no further investment into DataBoard.

Lars is extremely unhappy with the situation after making his investment on a misunderstood premise. Capnova's decision to not invest more money changes the company outlook entirely. Almost immediately, Rasmus takes the decision to let six members of staff go, and the company is left running on the fumes of Lars's investment and Rasmus's own money.

After trying to find a new CTO, Rasmus finds himself being sued by the old CTO, Kasper. The company now has to survive without a CTO and no suitable replacement. New investment is sought but has not yet been obtained. Roughly 1 year after Capnova declines the additional investment round, DataBoard ApS goes into bankruptcy in mid-2019 and is finally dissolved on 3 August 2020.

Jesper now works as an investor for Vækstfonden, the sovereign fund of Denmark, investing in early-stage venture companies and looking for entrepreneurs like Rasmus. Since closing down DataBoard, Rasmus has gone back to study business administration and management (based on Jesper's advice) and now works for a new company (Atea ASA) selling AV solutions, where he receives regular requests from customers for a DataBoard-like solution.

Jesper and Rasmus remain friends with mutual respect and appreciation for each other and the relatively short but exciting journey they took together.