propulsion Québec

Review of business models, valuation methods and market opportunities in the electric and smart transportation sector

SECTION 4

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KEY CONSIDERATIONS WHEN SEEKING FUNDING

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

1. CHOOSE INVESTORS WITH CARE

- No two investors are alike, and every investor brings their unique perspectives, preferences and values to a company. Therefore it's essential for a venture to carefully choose the investors it wants to approach and, ultimately, in deciding with whom it wants to do business.
  - It's crucial to identify investors who share the company's values and have a similar vision, particularly in terms of mobility and of investment.
  - They are the ones most likely to help the company reach its maximum potential.
- The company must therefore properly prepare the funding request by first investigating the relevant investors and then contacting those that best fit its needs.
  - While there are no universal rules here, investment professionals experienced in the world of mobility generally believe that a startup venture (Seed, Series A) must contact between 25 and 40 different investors in order to receive at least two funding offers.

➔ In a sector such as EST, it's more important to find investors who already believe in the company's vision of mobility than to convince potential investors of the relevance of the venture

Here are some questions that an entrepreneur/leader can consider in making the decision about which investors to approach:

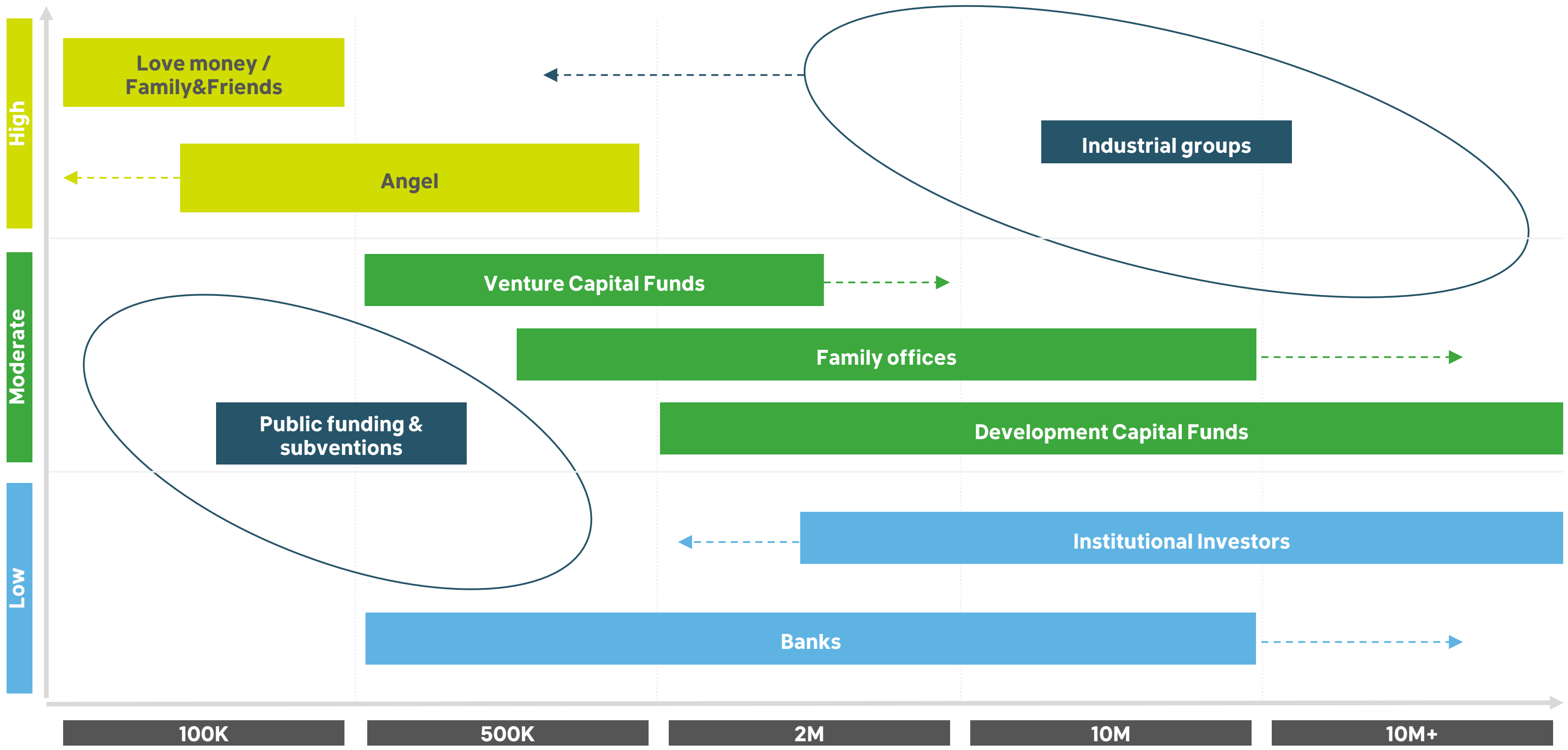
- Does the investor focus on specific sectors, geographic areas or growth stages? Do these specifics reflect the characteristics of the venture?
- Does the amount of funds to be raised correspond to the investor's average investment? Does the investor have sufficient liquidity to participate in my round of funding? If it's an investment fund, is the fund at the beginning or end of its investment period?
- What is the investor's average period of investment (short-, medium-, long-term)? What is the investor's strategy for realizing returns (forecasted vs. long-term)?
- Is the investor used to leading the funding rounds or is it more of a "follower?" With what other investors has it co-invested in the past?
- What are the investor's recent transactions? What are the main parameters of these transactions (e.g. amount invested, pre- and post-money valuation, etc.)?
- Does the investor have a history of following subsequent rounds of funding? What did it do with the other investments in its portfolio?
- To what extent is the investor active in the companies in which it invests? Do I need an active and vocal investor who can help shape the business? Or, on the contrary, do I need an investor who will stay in the background?

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

1. CHOOSE INVESTORS WITH CARE

- Depending on the needs of the company and its characteristics, it's important to choose the right type of investor.
- The graphic on the right shows the main types of investors observed in the EST sector, based on their capacity to take risks and their average investment ticket.



2. Key considerations when seeking funding

Key Considerations When Seeking Funding

1. CHOOSE INVESTORS WITH CARE

- Depending on the needs of the company and its characteristics, it's important to choose the right type of investor.
- The chart on the right shows the main types of investors observed in the EST sector, based on their preferred funding rounds and investment vehicles.

Category of investor	Private / Public	Preferred rounds of investment	Preferred types of investment
Angel	Private	Pre-seed / Seed	Equity / Convertible bonds
Love money / Family & Friends	Private	Pre-seed / Seed	Equity / Convertible bonds
Venture capital fund (VC)	Private	Seed / Series A / Series B	Equity
Development capital fund (PE)	Private	Series C and beyond (Series B is possible in certain cases)	Equity
Industrial groups (includes corporate VC)	Private	Seed and beyond	Equity / Partnership
Family offices	Private	Series C and beyond	Equity / Convertible bonds
Banks	Private	Series C and beyond	Debt
Institutional investors	Public / Semi-public	Series C and beyond	Equity / Convertible bonds
Public funding programs and grants	Public	Seed and beyond	Grants / Loan / Tax credit / Equity or quasi-equity

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

2. CHOOSE THE RIGHT MOMENT TO APPROACH INVESTORS – HARDWARE MODEL

- It's important to petition investors at the right time, taking into special consideration the company's stage of development. The following tables outline the key milestones that a mobility investor expects to see when considering a request for funding, based on the dominant business model of the company.

HARDWARE	SEED	SERIES A	SERIES B
Average ticket size*	• $1-5M	• $10-30M	• $30-60M
Industrial milestones	• Identification of market needs and definition of the proposed solution • Formulation and development of technology	• Virtual prototype/3D mock-up • Functional physical prototype • Actual physical prototype validated and safe	• Real-life validation of the product/solution • Initial development of production processes
Commercial milestones	• n/a	• Validation in the initial market • Initial positioning in the customer's industrial agenda (for B2B companies) • Definition of the revenue model	• Agreements (MoU) signed with customers • Supply chain secured • Alignment with customer specifications (for B2B businesses)
Financial milestones	• No revenues • No profitability • Limited investment	• No revenues • No profitability • Moderate investment	• No revenues • No profitability • High investment
Comments	• *The entrepreneur develops their technology and begins to understand the potential commercial applications of their product* • *The company focuses solely on product development*	• *The Series A funding will enable the company to develop a solid prototype, ultimately certified by the authorities* • *Achieving this milestone is the first major event that realistically reduces investor risk*	• *The first agreements with future customers are an important milestone in confirming the commercial potential of the product* • *The company anticipates the production of products by setting up initial industrial processes*

**In North America*

Note : Milestones submitted for a type of funding are those to be achieved once the funding is secured. It's therefore expected that, in order to secure specific funding, the company will have reached the milestones of the previous phase.

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

2. CHOOSE THE RIGHT MOMENT TO APPROACH INVESTORS – SOFTWARE MODEL

SOFTWARE	SEED	SERIES A	SERIES B
Average ticket size*	• $1-5 M	• $10-15 M	• $30-50 M
Industrial milestones	• Identification of market needs and the proposed solution is defined • Initial lines of code and proof of concept • Version of minimally functional software/application	• Massive development of algorithms • Interface development • Customization of the software/application according to the expectations of the first anchor customers (e.g. OEM, public transportation provider, etc.)	• Continuous optimization of algorithms and basic software interface • Development of new functionality of basic software and applications • First iterations on new products/solutions
Commercial milestones	• First closed-circuit tests of the software/application • Empirical validation of the product/solution, and of the value proposition with actual mobility users - First customer feedback • Definition of the targeted revenue model	• Signing of first agreements • Focus on a few anchor customers • Refinement of the revenue model • Set-up of customer support	• Significant increase in the number of customers in the initial market • Initiation of the expansion phase and search for the first customers outside the initial market • Optimization of customer support
Financial milestones	• No revenues • No profitability • Limited investment	• First revenues • Profitability in sight • Moderate investment	• Strong revenue growth • Profitability • Major investment
Comments	• *The company establishes its initial concept after identifying real-world market needs* • *The Beta version is tested with the first users* • *The company defines how it plans to monetize its activities*	• *The company develops its product/solution, both at the algorithm and interface levels, specifically based on the needs/feedback of the first major customers* • *The company focuses on a few key customers and refines its monetization strategy*	• *The company optimizes its software, both at the algorithm and interface levels, while developing additional functionalities* • *Revenues rise significantly, boosted by substantial investments to draw new customers*

**In North America*

Note : Milestones submitted for a type of funding are those to be achieved once the funding is secured. It's therefore expected that, in order to secure specific funding, the company will have reached the milestones of the previous phase.

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

2. CHOOSE THE RIGHT MOMENT TO APPROACH INVESTORS – OPERATOR MODEL

OPERATOR	SEED	SERIES A	SERIES B
Average ticket size*	• $1-5M	• $10-15M	• $30-50M
Industrial milestones	• Identification of market needs and the proposed solution is defined • Identification of hardware and software requirements for operations	• Initial implementation of the concept and discovery of the first operational realities • Refinement of the concept based on what has been learned in the field • Development of the customer interface	• Fully functional customer interface • Initial deployment of the asset fleet • Continuous improvement of the solution in response to the realities on the ground
Commercial milestones	• Iterative search for target operational metrics for the concept to work (e.g. minimum utilization rate, minimum uptime, etc.) • First iterations on the revenue model and cost structure (fixed vs. variable)	• Empirical validation of product/solution and of the value proposition with "guinea pig" customers • First customer feedback • Refinement of the business model, including pricing strategy and cost structure	• Investigation of a healthy balance between supply (deployment) and demand (customers) • Defining the target critical mass • Securing the first major customers (B2B) • Set-up of customer support
Financial milestones	• No revenues • No profitability • Limited investment	• Marginal revenue • Profitability in sight • Moderate investment	• Moderate revenue growth • Break-even point reached • Major investment
Comments	• *The company established its initial concept after identifying real-world market needs* • *Target operational metrics begin to emerge, allowing the company to outline a potential revenue model and target cost structure*	• *The company deploys its concept in the field in a controlled/restricted environment* • *Early customer feedback allows the company to i) fine-tune its pricing strategy and strike the right balance in terms of cost structure and ii) fine-tune the customer interface before actual operations begin*	• *Asset deployment is demand-driven to maintain a sound cost structure, while moving closer to the objective of profitability* • *The company discovers new realities on the ground, allowing it to fine-tune its operations, revenue model and cost structure*

**In North America*

Note : Milestones submitted for a type of funding are those to be achieved once the funding is secured. It's therefore expected that, in order to secure specific funding, the company will have reached the milestones of the previous phase.

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

3. ASSESS YOUR FUNDING NEEDS

- Many new ventures underestimate their actual funding needs. They focus too much on product/solution funding, rather than on the broader needs of the business, such as marketing or costs associated with seeking future funding.
  - Underestimating funding needs can eventually result in the company being unable to meet the growth targets defined in the funding round, forcing it to rush its next round of fundraising.
- On the other hand, it's also a mistake to overestimate the need for funds. This can lead the company to deviate from its ideal trajectory and accelerate the cash burn in a non-optimal manner. It can also cause an excessive dilution effect.
- It's essential that the company plan its fundraising, in order to:
  - Set realistic growth targets, which can be easily measured when specific milestones are met…
  - … While allowing for some operational flexibility to absorb the impact of unforeseen setbacks and pitfalls, which will inevitably occur.
- It's vital to understand that time itself is neither a relevant milestone nor a value creator, especially in a relatively immature market such as that of EST. The company must base its funding request on concrete and measurable milestones (e.g. product viability, validation of the business model, etc.), rather than on what it assumes will happen in the future. Reaching these concrete milestones will further reduce investor risk.
- It's generally recommended that a company always be one step ahead and plan for the next cycle of fundraising, specifically anticipating the amounts and the intended use of the funds. Investors generally like to have a medium-term view of a company's needs, primarily to make it possible for them to follow future rounds.

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

4. KNOW YOUR COMPANY'S VALUE

- It's desirable that valuation be done in a relatively expeditious manner, particularly if there is a natural link between the company and the investor. Nevertheless it's essential that the company prepare beforehand and set a reasonable valuation range, which can be defended to the investor.
- To do this, it's important that the company:
  - Learn about recent transactions of comparable companies (activities, geography, stage of development, etc.) and understand the main metrics of its own comparable transactions (amounts, pre- and post-money valuation, etc.). Investors tend to estimate and/or confirm the valuation of an enterprise by observing what is happening in the market.
  - Complete this analysis by carrying out an intrinsic valuation of the company. This includes an assessment of its future cash flows.
- Properly valuing the company beforehand will allow the entrepreneur/leader to be consistent and honest in negotiations with investors, by knowing how to set a limit on what is acceptable and what is not, particularly in terms of dilution. This valuation need not always be shared with the investor; it's often advisable to let the investor offer their opinion of the valuation first.

5. BE AMBITIOUS, YET REALISTIC IN YOUR PROJECTIONS

- The company should make solid and realistic growth projections, and avoid overly optimistic or even unrealistic assumptions and numbers.
  - Even when investors are looking for companies with high potential, they also want to see that the entrepreneurs/leaders are grounded in reality and are aware of the work and methods required to execute a business plan.
  - The projections of the company must be supported by the most robust analysis possible. They must also propose concrete historical milestones, which will further strengthen the credibility of the management team and, in turn, the confidence of investors.
  - The company's growth must be compared with its human resource requirements, which will enable the company to achieve its development objectives. Investors are generally very sensitive to the management team's ability to estimate human resource requirements consistently.
- The company must be ready and willing to adjust its projections, particularly in order to understand and justify its trajectory under conditions that may be more adverse than expected.

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

6. FOCUS NOT ONLY ON THE PRODUCT/SOLUTION, BUT ON THE VENTURE AS A WHOLE

- While it's necessary to have and present an optimal product or solution to investors, it's essential to always keep in mind that investors don't invest in a product/solution, but in a venture. Investors seek to support entrepreneurs/leaders who demonstrate competence in developing and leading a business, not a product/solution alone.
- Therefore, the fundraising presentation to investors should not focus solely on a product roadmap. It should also include a comprehensive business plan that pertains to the entire company and its evolution in a given market, and explain how the product/solution fits into that business plan. It's important that investors understand how the company will monetize its business, how it will acquire new customers, etc., and that it has a clear plan to expand its activities (see Section 1 of this document).
- Moreover, beyond the current product/solution or its current version, it's essential that the company show investors that it has anticipated its future development, specifically through a clear and precise R&D roadmap.
  - Many entrepreneurs/leaders tend to put all their efforts into a single product/solution (over-engineering) without thinking about future evolutions and/or products/solutions. This tends to make investors doubt the company's ability to remain sustainable over the long term. This is particularly true in the EST sector, where product development often requires significant CapEx investments and where development and sales cycles are long.

2. Key considerations when seeking funding

Key Considerations When Seeking Funding

7. INCLUDE RISK ANALYSIS AND MITIGATION STRATEGIES

- In a fast-growing and immature sector such as the EST, all companies face numerous risks, whether technological, regulatory, operational or market-related.
  - Many entrepreneurs/leaders perceive the risk analysis exercise as a "negative" process that can adversely affect how their company is perceived. This bias must be overcome. The company should instead conduct a comprehensive analysis of the risks it faces, estimating the likelihood of occurrence and the potential impact of each risk, and developing possible mitigation strategies to deal with these risks if they arise.

- During the due diligence exercise, and also potentially during initial discussions/presentations, investors will inevitably question entrepreneurs/leaders on how they perceive and plan to manage the main risks facing the company.
  - Careful advance preparation will further enhance the credibility of the leadership team and, by extension, the confidence of investors in the entrepreneurial project.
  - The "ostrich policy" of ignoring the subject of risks, including the idea that the product/solution or business is sufficiently dominant or high-performing to deal with any problems, can have a counterproductive effect.
- This topic does not necessarily need to be addressed directly in the presentation to investors, but entrepreneurs/leaders should be well prepared with answers when it's raised by investors.

1

TEMPLATE FOR A FUNDING REQUEST PRESENTATION TO INVESTORS

1. Template for a Funding Request Presentation to Investors

Typical Structure of an EST Sector Funding Request Presentation to Investors

- Although each mobility company/project and each funding request is unique, the fact remains that investors, specialized or not, tend to see all such requests as having the same structure and components.
- This presentation is often an opportunity to make a first impression, and first impressions are lasting. If the presentation is well organized, professional and clear, it can have a very positive impact for the company. Conversely, a poor presentation will create a negative image of the company, even if the ideas and business opportunities put forward are excellent. This may raise doubts about the management team's ability to sell their product effectively.
- The following pages outline the content that investors generally expect to see in each section of the presentation. A few standard investor questions are also included to help the entrepreneur/leader see things from their perspective. The last part contains key pitfalls to avoid in each section.

- It's generally advisable to deal with the following subjects in separate sections of the funding request:
  - A. Concept/main idea of the company/project, vision of mobility and the solved mobility problem
  - B. Description of the product/solution or services offered
  - C. Potential and target market
  - D. Value proposition, differentiation factors and product/solution benefits
  - E. Analysis of the competition
  - F. Monetization strategy and revenue model
  - G. Marketing and business strategy
  - H. Growth and development plan
  - I. Founder(s), management team and advisors
  - J. Financial elements and financial projections
  - K. Short- and long-term funding plan, including amount requested and use of funds

1. Template for a Funding Request Presentation to Investors

Content Investors Expect to See in Each Section of the Presentation

	WHAT SHOULD BE INCLUDED/CONSIDERED TO CONVINCE INVESTORS	ELEMENTS TO AVOID

A. Concept/main idea of the company/project, vision of mobility and solved mobility problem	• Briefly describe the mission of the company and why it was created.
	  • What is the raison d'être for the company and how did it come about?
	• Explain the mobility problem identified, and the other issues that the company wants to address (it's recommended to highlight the specific issues of interest to the investor to whom the presentation is made).
	  • What doesn't work or can be improved in the world of mobility? How does the company respond to this challenge?
		○ Avoid talking about the product/solution in this section

B. Description of the product(s)/solution(s)/se rvice(s) offered	• Take the time to properly describe the product/solution offered by the company; find a balance between technical details and oversimplification.
	  • How to demystify the product/solution?
	• Include a demonstration (virtual or physical) of the product and its key features/functionality.
	  • How to turn the product/solution into reality?
		○ Avoid using overly technical jargon
		○ Avoid assuming everyone knows the industry, product/solution
		○ Avoid using too many superlatives

C. Addressable and target market	• Provide a compelling and realistic description of the total addressable market (TAM).
	  • Does the company take into account growth metrics that are relevant to the marketplace (population, purchasing power, etc.)?
	• Define, in a reasonable but ambitious way, the total addressable market share that the company wants to reach over time (serviceable addressable market or SAM).
	  • How and why did the company choose this SAM?
	• Define the market share that the company thinks it can capture in the SAM (serviceable obtainable market or SOM).
	  • Is the company aware of the work and resources needed to secure access to its SOM?
	  • Which geographic market(s) were selected for the development of the business?
		○ Avoid being too ambitious or too conservative in terms of market size and targeted market share, which could lead to a loss of credibility
		○ Avoid presenting the market solely in the best-case scenario

1. Template for a Funding Request Presentation to Investors

Content Investors Expect to See in Each Section of the Presentation

	WHAT SHOULD BE INCLUDED/CONSIDERED TO CONVINCE INVESTORS	ELEMENTS TO AVOID
D. Value proposition, differentiation factors and benefits of the product/solution	• Link the vision of mobility and the resolved mobility problem to an explanation of the added value that the company brings to the market and the key advantages of the product/solution to the customer/user. ○ Why do customers/users want to buy/use the product/solution? • Show how the company stands out from the competition and explain how this motivates a customer or user to use the company's product or solution rather than that of the competition. ○ How and why does the competitive edge of the company turn into additional sales? ○ What are the factors that drive a customer/user's purchasing decision and why does the company offer a better alternative than the competition?	○ Avoid using a tautological approach, assuming that the product/solution is "naturally" superior to others.
E. Analysis of the competition	• Analyze current AND future competition, whether direct or indirect, demonstrating a thorough understanding of the company’s market and its key players. ○ Who are the main current competitors? Who could become a competitor in the medium term? ○ Is the company confident that it has a clear understanding of what its competitors are doing or offering? ○ What are the competitors' strengths and weaknesses and how does the company justify its positioning in this regard? • Explain the "defensibility" strategy of the product/solution in the medium term. ○ How will the competition react to the arrival of the product/solution? ○ How will the company defend the position of its product/solution in the future against a competitor that is bound to react and propose an equal or even superior alternative?	○ Avoid thinking that an overly detailed and comprehensive presentation of the competition will have a negative impact on the investor's perception On the contrary, it will lend credibility to the company’s ability to stand out from the competition and show investors that the management team understands the evolving market in which it operates.

1. Template for a Funding Request Presentation to Investors

Content Investors Expect to See in Each Section of the Presentation

	WHAT SHOULD BE INCLUDED/CONSIDERED TO CONVINCE INVESTORS	ELEMENTS TO AVOID

F. Monetization strategy and revenue model	• Explain how the company monetizes its business and describe the preferred revenue model(s).
	  ○ Does the company have one or more revenue models?
	  ○ Are they adequate for the products/solutions? Do they meet customer/user expectations and help the company maximize its revenues?
	• Explain the company’s strategy to generate consistent revenues over the medium/long term.
	  ○ Is the company capable of generating consistent revenues with the same customer?
		○ Avoid presenting a monetization strategy that is not sufficiently consistent with the company's stated positioning

G. Growth and development plan	• Together with sections C (market) and J (funding needs), describe the company's major development milestones (past and future). Three levels of analysis are generally suggested:
	    • The product / the market / the organization
	  ○ Can the company demonstrate specific past accomplishments that will provide credibility for future growth?
	  ○ Has the company identified specific, concrete and realistic milestones against which to measure its development?
	  ○ Has the company developed an appropriate strategy to achieve these objectives?
	  ○ Does the company have consistent growth objectives, particularly in relation to its past trajectory?
		○ Avoid presenting overly ambitious growth scenarios, which could appear unattainable for the company, especially in light of its past achievements

1. Template for a Funding Request Presentation to Investors

Content Investors Expect to See in Each Section of the Presentation

	WHAT SHOULD BE INCLUDED/CONSIDERED TO CONVINCE INVESTORS	ELEMENTS TO AVOID
H. Marketing and business strategy	• Describe and quantify the human and financial resources allocated to sales/marketing. ○ Are these dedicated resources sufficient to support anticipated sales levels? ○ Has the company accurately estimated the cost of acquiring a new customer? • Together with sections D and E (Value Proposition - Competition), explain how the company intends to attract new customers, and then retain its existing customers/users. ○ Does the company have a good understanding of the alternative products/solutions available to customers/users? ○ Is the company's sales/marketing strategy adequate to minimize customer/user turnover? • List and describe the company's main sales channels. ○ Are they adapted to the company's target clientele? ○ Do they help the company maximize sales?	○ Don't underestimate the time and effort required to secure the first customers ○ Don't think that sales growth can be achieved without a sustained marketing/sales effort
I. Founder(s), management team and advisors	• Introduce the key personnel of the company. ○ What is the role and background of each individual? ○ Do the members of the management team complement one another in terms of experience, background and skills? • Introduce the people who advise/assist the company (advisory committee, consultants, etc.). ○ Does the company have the support of experienced people to guide its development? ○ Do these individuals have the relevant experience and background, especially in startup development and/or fundraising? ○ Do they have a truly active role alongside the founder/leadership team?	○ Avoid introducing "straw" consultants who play little or no role for the company

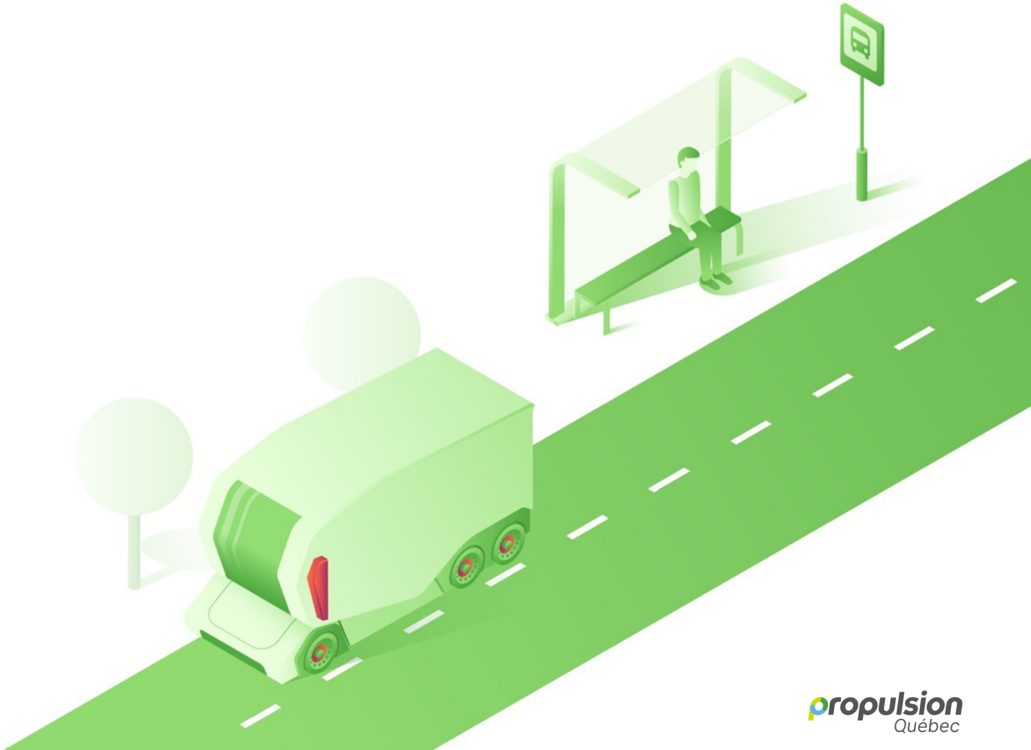
1. Template for a Funding Request Presentation to Investors

Content Investors Expect to See in Each Section of the Presentation

	WHAT SHOULD BE INCLUDED/CONSIDERED TO CONVINCE INVESTORS	ELEMENTS TO AVOID
J. Financial elements and financial projections	• Present financial projections with a reasonable level of detail; build investor confidence without burdening investors with too much information. ○ Has the company identified the key ratios that make it straightforward to analyze its activities? ○ Are the assumptions on which the company bases its projections sound? ○ Does the company understand the market elements that explain its future growth? • Present financial projections through the three classic financial statements: income statement, balance sheet and cash flow. ○ Can you analyze the company's projections easily and according to accepted standards? • Take into account a certain variability in the company's key financial elements and develop a sensitivity analysis. ○ Can the business withstand adverse revenue and margin scenarios? • Present the history of fundraising and the investors who participated in the various rounds. ○ Is the selection of current and past investors consistent? ○ Are current investors compatible with potential new investors?	○ Avoid underestimating the working capital needs of the company ○ Avoid presenting projections that are too tight and do not allow for flexibility in revenues and margins
K. Short- and long-term funding plan, including amount requested and the use of funds	• Provide a detailed analysis of the intended use of forecasted funds. ○ Is the intended use of the funds clear? ○ Does the funding request include funding for the entire company and not just of the product? ○ Is the requested funding yield appropriate for the needs of the company? • Present the future needs of the company in relation to the anticipated growth plan. ○ Is the company already anticipating future fundraising? Has it included the cost of this future fundraising in the current fundraising? ○ What are the potential exit routes for current investors?	○ Avoid underestimating the actual and total needs of the company until the next fundraising

5

RISK MANAGEMENT



EST Risks

5.1 Methodology and Context

The risk analysis exercise allows investors to make adjustments to their valuation of a company

- While each company has intrinsic value associated with tangible and easily identifiable elements such as its activities, sales volume, margins (gross, operating, net, etc.) or its growth prospects, investors also look at other more intangible aspects of the business to understand and determine its real value.
  - In fact, two businesses that are relatively similar in terms of activities, revenue model, sales or profitability can have very different values. This is largely due to the investor's perceptions of the risks associated with the company and the company's strategy to manage them.
- Risk analysis, often performed during the due diligence exercise, is therefore a key point in the investment process. Each investor approaches it in a specific way, although they generally structure their analysis along four main axes: technological risk, operational risk, regulatory risk and market risk.
- This type of analysis gives investors a better understanding of the company's operations and of its business model, as well as a clear picture of how the organization approaches the various issues it faces and will face.
  - More than a "negative" exercise, risk analysis is an exercise that should allow investors to ask themselves the right questions in order to fine tune their understanding of the company, adjust the value they place on it and ultimately confirm or cancel their investment decision.

Risk analysis methodology

- In the rest of this section, we will analyze about 15 risks that typically apply to startups in the EST sector, including:
  - Type of risk (market, operations, regulations, technology)
  - The main business models affected by the given risk
  - The degree of risk to an investor, based on the business model
- We also offer some avenues to explore and some sample questions that an investor might ask themselves in order to fully understand the risk faced by the company and how it responds.
- This analysis is not meant to be comprehensive, but aims instead to make a "layperson" aware of the typical risks that a startup in the EST sector may face. Many other risks exist and should be considered when making an investment decision.
- We have deliberately excluded from the analysis "generic" risks, those applicable to all business lines and stages of growth of a company.

EST Risks

5.2 Market Risk Analysis

Vertical consolidation of the business line

Type of risk	X Market	Operations	Regulations	Technology
Description of risk	Upstream (suppliers) or downstream (customers) players in the mobility value chain want to quickly integrate the company's product/solution within their scope.			
Primary models	X Hardware	X Software	Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	Several strategies can help mitigate the likelihood of this risk, such as breaking down supplier sources, diversifying sales channels, or strengthening the customer-supplier relationship.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- What can protect the company's position in the current value chain?
- What are the power relationships in the value chain that may change as a result of the startup's arrival on the scene?
- Which ones have a positive or negative impact on the startup's current positioning?

Impact of accidents or incidents on the new brand

Type of risk	X Market	Operations	Regulations	X Technology
Description of risk	A startup and its newly created brand may not survive the first wave of external or internal incidents (failures, accidents, bugs, etc.).			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	It's essential for the company to develop a contingency plan to deal with these complex situations and respond rationally.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Is there an inventory of the potential foreseeable risks of accidents or incidents and projected mitigation measures?

EST Risks

5.2 Market Risk Analysis

The new player's cost of positioning

Type of risk	Market	Operations	Regulations	Technology
	X			

Description of risk	
	Positioning yourself as a new player in a new mobility market is complex and costly, something that startups often overlook

Primary models	Hardware	Software	Operator
	X	X	X
Magnitude of risk level for investors	●	◔	◕

Additional considerations and mitigation measures	
	The company must be well aware of the efforts required to position itself as a key player in the mobility market. This must be well reflected in the financial projections, for example in the level of sales ramp-up or expected costs.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- How much effort to date has it taken to build the current pipeline?
- Did management factor in all direct and indirect costs to make this happen?
- Are you realistic about how long it takes to close a sale?

Marketing costs

Type of risk	Market	Opérations	Regulations	Technology
	X			

Description of risk	
	The company underestimates its marketing strategy needs, which are insufficient to quickly obtain a relevant market share in a relevant mobility sector.

Primary models	Hardware	Software	Operator
	X	X	X
Magnitude of risk level for investors	◑	◑	◔

Additional considerations and mitigation measures	
	Marketing costs are very often overlooked by startups and are difficult to quantify in the fast-moving mobility industry. It's therefore essential to plan a realistic budget.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Are you spending enough on marketing needs to properly position the business within its market?
- Is the ratio of marketing expenses to sales forecasts realistic and sustainable over time?

propulsion Québec

EST Risks

5.2 Market Risk Analysis

Window of opportunity in the customers' industrial agenda

Type of risk	X Market	Operations	Regulations	Technology
Description of risk	The startup misjudges the time and effort required to position and promote its product/solution in the customer's industrial agenda and sales cycle.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	Often, the company's strategy and business model reflect an overly theoretical entry into the market. This demonstrates a poor understanding of how long it takes to position products/solutions with potential customers in the mobility sector.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Does the company demonstrate a good understanding of the industrial agenda of the targeted customers?
- Does the time required to convince these potential customers take into account their production or market entry cycles?

OEM risk

Type of risk	X Market	Operations	Regulations	Technology
Description of risk	The startup has a poor understanding of the "rules of the game" and the norms that govern its target mobility market, including the traditional automotive industry.			
Primary models	X Hardware	X Software	Operator	
Magnitude of risk level for investors				

Additional considerations and due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Does management have an in-depth understanding of the established rules of the industry where the product or solution is intended to be positioned?
- For example, becoming a tier 1 supplier in the traditional automotive industry means that a startup is prepared to produce at very high volumes and at very low margins. Only in very rare situations do automakers agree to trust a startup to innovate. It's often necessary for the startup to find an intermediary to manage the relationship with the automaker.

EST Risks

5.2 Market Risk Analysis

Difficulty in identifying competitive strengths in the sector				
Type of risk	X Market	Operations	Regulations	Technology
Description of risk	The startup has a poor grasp of its competitors and their solutions/products. It has difficulty understanding/explaining how it will defend its competitive edge over competing companies.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors	Half	Full	Half	
Additional considerations and mitigation measures	Very often, the startup only sees the excellence of its mobility solution, without taking the time to position itself in a (relatively close) future where there is competition that will inevitably want to respond to its launch. It's important to understand what drives the customer's decision to acquire the company's solution.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Is management fully aware of this competition? Has it identified the parties involved?
- Does the company anticipate the competition's next moves and how it will defend its position?
- Does management understand the barriers to entry for current and prospective competitors?

Other market risks not specific to the mobility sector but important to consider

- Poor investor-company fit

(see details on pages 33-34)

EST Risks

5.3 Operational Risk Analysis

Supply chain control and risk management of mobility "supplier"

Type of risk

Market	Operations	Regulations	Technology
	X		

Description of risk

The startup often struggles to fully control its entire supply chain, mainly costs and procurement lead times.

The startup has little initial bargaining power with its suppliers. Also, it can be very difficult to mobilize them in an initial environment of small volume production.

Too much exposure to suppliers located in Asia can undermine the growing startup, particularly because of fluctuating prices, increased logistical constraints and even intellectual property issues.

Primary models

Hardware	Software	Operator
X		X

Magnitude of risk level for investors

Additional considerations and mitigation measures

Suppliers willing to work with startups may require conditions/clauses in procurement contracts that leave very little control to the companies. Moreover, suppliers often tend to transfer their risk to startups by drastically increasing costs or imposing crippling operational constraints (advance cash payment, minimum unrealistic volumes, etc.). This can have a significant impact on the company cash flow and working capital.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Do contracts with suppliers permit the startup, which is still vulnerable, financial flexibility?
- Are there any alternatives to the primary supplier selected by the company? Can sources of supply be diversified?
- Will the current supply chain be able to keep up with a possible increased production rate?
- How good is the relationship with suppliers? Why are they interested in working with the startup?
- How good is the relationship with suppliers? What do the contracts say? Are they flexible for a startup?
- What are the payment terms? Are the operating costs or constraints too crippling? How does the startup position itself in this situation?
- If access to suppliers located in Asia were no longer available or they became a source of competition, how would the company respond?

EST Risks

5.3 Operational Risk Analysis

Risk of industrialization/operationalization				
Type of risk	Market	X Operations	Regulations	Technology
Description of risk	The startup often tends to neglect the constraints of industrialization/operationalization that lead to smooth and cost-effective production/operations.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	Even if these constraints are often anticipated, they frequently turn out to be even greater than expected and the company can only see them once they are in play.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Can the proposed product be industrialized/operationalized in the simplest way possible?
- Are the repercussions of large-scale production or operation controlled? Does the startup use outside expertise for industrializing and operationalizing processes to determine processes/costs of production/operations?
- Are maintenance costs and operational constraints well integrated into the industrialization processes?

Financing the product vs. the project/company				
Type of risk	Market	X Operations	Regulations	Technology
Description of risk	The startup makes its projections too superficial for the holistic capital needs of the company and neglects to take into account the cash flow requirements beyond the initial product.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	The management team must advance quickly from a "product" to a "corporate" vision. This is so it doesn't ignore blind spots during growth and the associated financing needs of the organization.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Does the business model correspond to the financing of a product or of a company?
- Does the model consider the needs of cash flow linked to only the initial product or to the combination of activities to implement the launch of an organization that will quickly become more complex?

EST Risks

5.3 Operational Risk Analysis

Choosing a location to start operations

Type of risk	Market	X Operations	Regulations	Technology
Description of risk	The location where the mobility startup chooses to launch its business strongly influences its growth prospects. A bad choice can jeopardize the future potential of the company.			
Primary models	X Hardware	X Software	Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	It's generally expected that the startup be geographically close to its first key customers, so as to be agile and responsive to their requests. This is also true for the software business model. Ideally, the startup is located near main mobility hubs.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Who is the company's first major customer?
- Is the customer located at a convenient distance, making it easy to visit?
- How good is the relationship with this customer?

Management of recalls/repayments and customer support

Type of risk	Market	X Operations	Regulations	Technology
Description of risk	The impact of recalls/repayments on startups and the management of customer support reduces the confidence of an already hesitant market, which can slow the growth of the startup.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	Recalls and repayments are a reality the company cannot avoid. It's essential to prepare a contingency plan to manage operational and business constraints by the most effective means possible.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Is there a contingency plan? Is it realistic?
- At a minimum, does the initial capital safety margin consider costs related to recalls/repayments and to customer support?

EST Risks

5.3 Operational Risk Analysis

Dependence on a few strategic materials/components	
Type of risk	Market; **X Operations**; Regulations; Technology
Description of risk	Many companies in the mobility sector rely heavily on certain strategic materials, and certain components can be difficult to access, given scarcity and competition.
Primary models	**X Hardware**; Software; Operator
Magnitude of risk level for investors	Hardware: half; Software: none; Operator: none
Additional considerations and mitigation measures	If certain materials/components can't be substituted, it's crucial that the company analyze the weak/vulnerable points in its supply chain, by determining the potential impact of a supply disruption and potential mitigation strategies.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Is the supply chain reliable?
- Is it easy for suppliers to become competitors?
- Should the startup plan to be onsite and oversee production quality?

Other Non-specific, but Important, Operational Risks in the Mobility Sector

- Hidden, unanticipated costs
- Inadequate level of customization
- Unrealistic growth projections

(see details on pages 33-34)

EST Risks

5.4 Regulatory Risk Analysis

Risk of certification/approval

Type of risk	Market [ ] · Operations [ ] · Regulations [X] · Technology [ ]
Description of risk	In a highly standardized mobility sector, it's often difficult and costly for startups to have their products/solutions certified/approved. Moreover, with each jurisdiction imposing its own standards, the certification process can quickly become a burden for the company.
Primary models	Hardware [X] · Software [X] · Operator [X]
Magnitude of risk level for investors	Hardware: full · Software: quarter · Operator: half
Additional considerations	It's important to understand the portion of R&D costs dedicated to the certification/approval processes, and to understand in which regulatory environment the company is evolving. The choice of markets is a crucial issue for the company, which has to combine potential economic benefits with the cost/time needed for certification.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Is the company aware of the time and costs involved in a certification process?
- Are the markets selected by the company relevant to the challenges of certification/approval? (Is it worth the effort and the money?)

Cost of recycling/recovering materials

Type of risk	Market [ ] · Operations [ ] · Regulations [X] · Technology [ ]
Description of risk	Startups that are too focused on developing their product/solution rarely include the recycling/end-of-life of the product/solution in their strategy.
Primary models	Hardware [X] · Software [ ] · Operator [X]
Magnitude of risk level for investors	Hardware: half · Software: empty · Operator: three-quarters
Additional considerations	This critical issue will become even more crucial over the next few years. Mobility companies offering "green" solutions will have to "green" their entire value chain and align with current good ESG practices.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Does the proposed solution factor in the processes required to remove the products from the market and recover the materials they contain at their end-of-life?

EST Risks

5.5 Technology Risk Analysis

R&D risk				
Type of risk	Market	Operations	Regulations	X Technology
Description of risk	The future R&D agenda is frequently overlooked or forgotten by startups, which are often too focused on the short-term development of their initial product/solution.			
Primary models	X Hardware	X Software	Operator	
Magnitude of risk level for investors				
Additional considerations	In mobility, the first customers often require all the talent the startup has to offer. Their initial orders leave little room to continue research activities.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Beyond the current solution, what is the company's development strategy?
- Is there a projection of projects and improvements that result in a realistic R&D agenda?

Over-engineering				
Type of risk	Market	Operations	Regulations	X Technology
Description of risk	All the company's expertise is in the first product brought to market, leaving few options for the next version.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations	It's important to understand the company's R&D roadmap and to ensure that new products, versions or technologies will support the company's future growth.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Does management have a game plan to gradually bring all the company's ideas to market?
- Does a customer really want everything that is offered and are they willing to pay for that value proposition?
- What is the elasticity of the asking price: is maximum profit derived from each sale? How does the company respond to this issue?

EST Risks

Other risks not specific to the mobility sector but important to consider

Hidden, unanticipated costs

Type of risk	Market	X Operations	Regulations	Technology
Description of risk	Startups often tend to overlook many of the hidden variable costs of doing business.			
Primary models	X Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	Examples of "hidden" variable costs: maintenance, server management, data management, cybersecurity, employee turnover, customer replacement costs, etc.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Could variable costs that are not covered by the projected fixed revenues hinder the company's growth?

Inadequate level of customization

Type of risk	Market	X Operations	Regulations	Technology
Description of risk	Startups often struggle to find the right balance between standardization and product/solution customization.			
Primary models	Hardware	X Software	X Operator	
Magnitude of risk level for investors				
Additional considerations and mitigation measures	While it's important to be close to your first customers and attentive to their needs, too much customization prevents the company from smoothly adjusting to other realities. Too much standardization can harm the company's ability to attract customers with specific needs.			

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Does the solution bring you closer to the needs of various customers without too much difficulty or does a global approach prevent you from personalizing the customer experience?
- Is it relevant and possible to quickly refocus on new types of customers?

EST Risks

Other risks not specific to the mobility sector but important to consider

Unrealistic growth projections

Type of risk	Market; **Operations (X)**; Regulations; Technology
Description of risk	The startup's financial projections are unrealistic and very difficult to achieve.
Primary models	Hardware (X); Software (X); Operator (X)
Magnitude of risk level for investors	Hardware: 3/4; Software: 1/2; Operator: 3/4
Additional considerations and mitigation measures	Startups often tend to underestimate the pitfalls and challenges associated with an organization’s rapid growth, whether in human resources, operational/industrial processes, financing needs, etc.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Has the company identified all the potential challenges that could arise during its development?
- Does the growth plan entail normal delays associated with typical startup and growth challenges?
- Are the projections too ambitious, considering the team currently in place?

Poor investor to company fit

Type of risk	**Market (X)**; Operations; Regulations; Technology
Description of risk	The investors selected have inappropriate expectations regarding the company's growth cycle, their profitability requirements and capital tolerance.
Primary models	Hardware (X); Software (X); Operator (X)
Magnitude of risk level for investors	Hardware: 4/4; Software: 3/4; Operator: 4/4
Additional considerations and mitigation measures	Beyond the financial aspects alone, it's important that entrepreneurs and investors are on the same page to develop the company and to take the risks necessary to succeed in the future.

Due diligence questions to help an investor reduce the risks associated with this aspect of your business

- Do all investors in the company have a similar risk tolerance?
- Do any of them have commercialization or profitability expectations that are not appropriate given the complex nature of the project?

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