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Metaverse Entrepreneurship: Analysis of Zielo Studio

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Abstract

During the eighth edition of Facebook Connect in 2021, Mark Zuckerberg announced the group's rebranding as Meta. "This is not the way we are meant to use technology", said Zuckerberg referring to how people are used to experiencing digital resources nowadays (Zuckerberg, 2021). This annual conference not only marked the centrality of the Metaverse for Meta's strategy. It also announced its disruptive potential to the world.

Meanwhile, in 2021 a groundbreaking Amsterdam-based startup was born. Zielo Studio, established by Laura Kytanen, today is positioned at the forefront of reshaping the dynamics of team interactions in the modern workplace. The company was founded on the principles of conscious leadership and equipped with a pioneering Metaverse-based coaching model. Laura's mission is to revolutionize the coaching industry by supporting positive transformation in teams and workplace cultures, and the Metaverse brilliantly serves to convey this vision.

This thesis aims to uncover the importance of the Metaverse as a transformative phenomenon in an industry. It will also analyze the different challenges brought by the adoption of such an innovative technology from the point of view of a young startup. From a literature review to interviews with the founder, this thesis unfolds to offer multiple reads on diverse topics. Finally, it will be presented to its readers as an engaging case study, based on concrete examples. This will allow an in-depth analysis of real-world scenarios, providing formative insights for business students and future entrepreneurs.

Keywords: Metaverse, Management, Innovation, Strategy, Entrepreneurship, Technology

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Sumário

Durante a oitava edição do Facebook Connect em 2021, Mark Zuckerberg anunciou o rebranding do grupo como Meta. "Esta não é a maneira como devemos usar a tecnologia", disse Zuckerberg referindo-se a como as pessoas estão acostumadas a experimentar os recursos digitais atualmente (Zuckerberg, 2021). Esta conferência anual não só marcou a centralidade do Metaverso para a estratégia da Meta. Também anunciou seu potencial disruptivo para o mundo.

Enquanto isso, em 2021, nasceu uma startup inovadora baseada em Amsterdã. O Zielo Studio, criado por Laura Kytanen, hoje está posicionado na vanguarda da reformulação da dinâmica das interações da equipe no local de trabalho moderno. A empresa foi fundada com base nos princípios de liderança consciente e equipada com um modelo pioneiro de coaching baseado no Metaverse. A missão de Laura é revolucionar a indústria de coaching, apoiando a transformação positiva em equipes e culturas de trabalho, e o Metaverse brilhantemente serve para transmitir essa visão.

Esta tese tem como objetivo desvendar a importância do Metaverso como fenômeno transformador em uma indústria. Também analisará os diferentes desafios trazidos pela adoção de uma tecnologia tão inovadora do ponto de vista de uma jovem startup. De uma revisão de literatura a entrevistas com o fundador, esta tese se desdobra para oferecer múltiplas leituras sobre diversos temas. Finalmente, será apresentado aos seus leitores como um estudo de caso envolvente, baseado em exemplos concretos. Isso permitirá uma análise aprofundada de cenários do mundo real, fornecendo insights formativos para estudantes de negócios e futuros empreendedores.

Palavras-chave: Metaverso, Gestão, Inovação, Estratégia, Empreendedorismo, Tecnologia

Título: Metaverso Empreendedorismo: Análise do Zielo Studio

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Table of Contents

- RESEARCH NOTE 1

- CASE STUDY 5

- INTRODUCTION..... 5

- 1. THE METAVERSE..... 6

- 2. STAKEHOLDER MANAGEMENT 8

- 3. TECHNOLOGY MANAGEMENT..... 10

- 4. FINANCIAL MANAGEMENT 12

- 5. THE CHALLENGES 15

- TEACHING NOTE..... 16

- APPENDIX 23

- REFERENCES..... 32

Research Note

In March 2023, Martijn von Hoek was invited to speak in my Lean Entrepreneurship class. A passionate Dutch serial entrepreneur, Martijn always felt that his true purpose was to enjoy the freedoms of an outdoor life. After university he started a marketing agency with friends. He loved surfing and became one of the first importers of foil surfing equipment in Europe. Surfing also brought him to Portugal which was how he ended up speaking at my university. During his talk, Martijn highlighted companies he had invested in, and, among them, one clearly stood out for its innovativeness. That company was Zielo Studio.

Based in Amsterdam, Zielo Studio was using the Metaverse to revolutionize the coaching industry. Even though almost everyone has heard of the Metaverse, for most it remains an abstract concept, at best related to gaming. Various questions needed to be answered: “What really is this Metaverse?”; “What are its applications for everyday life?”; “Most importantly, why should this be relevant for a fresh graduate?”. Given complexities associated with innovative technologies, most people tend to shy away from embracing them. In fact, the adoption rate at an early stage is low, as is the case for the Metaverse, which can still be considered an embryonic technology.

Nevertheless, the Metaverse is growing with a CAGR estimated at 47.2% for 2022-2027. The industry is valued at \$61.8 billion today and is expected to generate around \$426.9 billion by the end of 2027 (Markets and Markets, 2022).¹ After being in touch with the founder for a formal interview, the opportunity arose to do an internship at this innovative startup. Four months later, this case study regarding Zielo Studio began to take shape.

This case study is relevant for students of management, innovation & technology, strategy, entrepreneurship, and Web 3 in general. The aim is to shed light on challenges associated with a Metaverse-based startup. Zielo has the potential to change how we think of coaching and also presents use cases that can be employed in business schools.

¹ Moreover, projections to 2030 from different sources tend to confirm the previous studies. In fact, the global metaverse market is estimated to surpass \$1.3 trillion, as shown in Exhibit 1 (Precedence Research, 2022).

The Research Question is: “How is the Metaverse transforming Coaching, examined through the lens of Zielo Studio, a Metaverse Startup”.

Based on my internship experience at Zielo Studio, this question has several main avenues for exploration:

- Stakeholder Management: “How to manage internal and external expectations?”
- Technology Management: “How to make complex choices related to the technological backbone of a business with limited knowledge of computer science?”
- Financial Management: “How to sustain a business in its initial stages and best allocate scarce resources?”

Specific to this case is the company’s potential to disrupt the traditional education industry.² So-called Meta-Education has already been successful in STEM learning in higher education (Stylianios, Athanasios, & Nikolaos, 2021). It has been used for simulations and experimentations at the laboratory level (Chan, Van Gerven, Dubois, & Bernaerts, 2021) and for procedural skills development such as post-surgery rehabilitation (Logishetty, Rudran, & Cobb, 2019). The technology has the ability to break the traditional 2D learning limitations, offering an immersive 3D virtual space which fosters a more complete learning experience.³

As every entrepreneur knows, a key predictor of company success is having a strong value proposition (Magretta, 2011). In other words, a firm should strive to create value for its customers which is how it makes profits. Scholars have debated “Why firms exist?” (Alvarez, Zander, Barney, & Afuah, 2020), and suggested various economic theories of the firm.

Interestingly, instrumental stakeholder theories suggest that being able to develop a close relationship with stakeholders leads to a sustainable competitive advantage (Jones, Harrison, & Felps, 2018). The same study links a firm’s competitive edge inimitability which is one of the factors cited in the Resource Based View (Barney, 1991). I could appreciate this first-hand at Zielo Studio. Following its founder’s philosophy, the startup adopted a differentiated approach based on meaning and relationships.

² Education in this case is a term to be interpreted very broadly. It is not only related to the academical fields strictly speaking, but also to the other fields that are addressed more in detail in the paragraph.

³ Exhibit 2 provides a clear picture of the top sectors already aggressively investing in the Metaverse.

Issues surrounding meaning have been examined in recent literature, and witnessing meaning placed front and center really expanded my respect for the company.⁴ Meaning for a leader entail creating an environment where employees can identify and feel like their work is actually producing a tangible impact. Great leaders have learned that employee output is largely the result of how powerfully they perceive the meaning of their work coupled with how they are treated (Bailey & Madden, 2016). Moreover, according to the authors meaning is subjective. Thus, it is up to individual employees guided by their leader to discover motivations that drive them.

The foregoing fits Zielo Studio. It was founded on Laura's desire to change the paradigm of coaching that she'd experienced in her career. Thus, a shift in meaning elevated by innovative and powerful delivery methods was the catalyst for her trying to create a transformative new paradigm.

Furthermore, this notion of meaning was deeply rooted in the company's culture and vision. Founders are sometimes portrayed only seeking to exit with a huge nest egg within a few years by creating a so-called unicorn.⁵ Zielo Studio exemplifies the difference between a unicorn and a zebra. While the former tends to strive for exponential valuations even when the company is still pre-cashflow positive, the latter prefers to add value by seeking to contribute a relevant social good. This does not imply that zebra companies are indifferent to the bottom line. Doing social good and achieving profitability are mutually implicative, meaning that turning a profit can be accomplished while still being oriented towards social goals (Zebras Unite Collective, 2017). Just as zebras are simultaneously black and white, these companies are both profitable and serve society. This allows such companies to be resilient and capital efficient, both of which are strengths of Zielo Studio.

Zielo Studio is also part of a larger cultural and generational trend. Recent studies of successful startups in the Italian market highlight how young entrepreneurs tend to be more socially aware and seek to provide broader value to communities (De Gennaro, Mormile, Piscopo, & Adinolfi,

⁴ See for instance "What Makes Work Meaningful - Or Meaningless", one of the most cited MIT articles (Bailey & Madden, 2016).

⁵ The term Unicorn was introduced into the venture capital industry by Aileen Lee in 2013, and is used to describe a startup company with a value of over \$1 billion (Chen, Murry, & Schmitt, 2023).

2023). The authors surveyed founders and found that many were focusing on the social impact of their ventures. These results are especially true for Generation Z founders.

Regarding Zielo Studio's competitive positioning, a key differentiator is its proprietary technology. Indeed, Zielo Studio directed considerable energy towards developing a proprietary Metaverse space. This ultimately represents a moat that differentiates the company from its competition in the coaching industry (Mauboussin & Callahan, 2013). The fascinating thing is that Laura was not a native computer science expert. Consequently, technology naturally posed a challenge from the company's inception in 2021. And technology still represents one of the key themes that need to be attentively managed daily, yet the tech deployed has now been tested and proved, and is producing wonderful results.

The degree of innovativeness introduced by Zielo Studio essentially comes down to the traditional parameters outlined by Peter Drucker (Drucker, 1985). Specifically, innovation at this startup arises from two main sources. First, Laura identified incongruities and inefficiencies in traditional coaching methodologies carried out by corporations. A clear instance she mentioned was when an employee returns to the same problematic work environment after a coaching session. This might only solve for the symptoms, but does not address the root of the problem.

The second source of innovation lies in the rapid technological advancement brought to numerous industries by the Covid-19 pandemic. Suddenly, mobility plummeted and the world had to open itself up to the possibility of connecting virtually. Even prior to this exogenous shock, technology had significantly improved and yet coaching remained largely unchanged. This presented an opportunity for Zielo to fill a gap by leveraging the powerful delivery methods of the Metaverse (Rumelt, 2011).

Case Study

Introduction

Zielo Studio is a startup based in Amsterdam that seeks to transform the nature of team interactions in the workplace using the innovative concept of “Mindset Energy.” Founded in 2021 by Laura Kytanen, the company is part of the growing category of corporate actors focused on “conscious leadership.” Before Zielo, Laura was a Human Resources Business Partner for large multinationals, with a specific focus on change management and coaching. She then decided to transition to entrepreneurship to pursue her passion for coaching as a means of maximizing the potential inherent in people when they draw upon their full capacities, a niche she saw as underserved.

The Covid-19 pandemic and focus on workplace mental health were catalysts for Zielo Studio and its mission of fundamentally disrupting the way coaching is conducted. Its innovativeness lies in its proprietary transformational coaching methodology combined with immersive Metaverse tech. People have visual experiences and they interact and connect in a secure and dependable setting. And this serves the company’s mission of supporting positive transformation in teams and workplace cultures.

In terms of firm operations, the main processes are focused on the customer coaching experience. As a service company, Zielo Studio provides coaching sessions either for teams or individuals, depending on needs. The company is composed of a team of four experienced coaches, each specialized in different management and organizational areas, ranging from change management to self-development within an organization.⁶ The coaching methodologies are proprietary and have been developed and tested by Laura.

During the pandemic lockdowns people had to remain in their homes and many individuals were significantly impacted by socio-economic changes. These audiences allowed for beta testing and customer validation, which ultimately led to developing a novel coaching methodology rooted in the fields of psychology and behavioral sciences and tailored to the new

⁶ Data as of October 2023. The team is expected to grow by 50% in the next year. The 2 new coaches are already in the certification process, which overall takes up to 6 months.

virtual approach, rather than traditional one on one interactions. For the purposes of this study our focus will be on application at the company level. It is also important to note that all the coaches have a background in the fields of psychology and human resources, which allows them to understand the dynamics of complex corporations and the struggles of individuals working there.

Regarding the customer journey, the first contact a new client has with Zielo is through a questionnaire and demo session with a coach. This allows for two main outcomes: first, coaches understand the needs of clients and match them with a coach with relevant the expertise and background. Moreover, the demo call serves as a discovery interview for both the client and the coach, to approach the Metaverse space and also establish rapport and ascertain that coaching really is a pathway to a solution. It is not always the case that clients are a good fit, since coach is contingent upon a client's willingness to work on certain areas and with the methodologies being used.

Oftentimes, high-level managers and C-suite individuals simply want to enter a program to get rid of all the frictions within their team, ignoring the notion that such a request requires a transformative process also related to organizational culture. With traditional coaching it is often the case that after an issue has been addressed with a coach, the individual simply goes back to the same environment that caused the issue in the first place, therefore losing all the value which the coaching might have provided. Zielo's methodologies provide a competitive advantage because they aim to address the environment first. This is also the reason behind the choice to host team sessions alongside individual ones, as these tend to yield better results when the whole team is involved.⁷

1. The Metaverse

First, let's define the concept of Metaverse:

“The Metaverse is the post-reality universe, a perpetual and persistent multiuser environment merging physical reality with digital virtuality. It is based on the convergence of technologies that enable multisensory interactions with virtual environments, digital objects and people such as virtual reality (VR) and augmented reality (AR). Hence, the Metaverse is an interconnected web of social, networked immersive environments in

⁷ Interestingly, a team is preferred to be made up of fewer than 10 to contain dispersion and allow the coach to involve all team members simultaneously in the virtual activities.

persistent multiuser platforms. It enables seamless embodied user communication in real-time and dynamic interactions with digital artifacts. Its first iteration was a web of virtual worlds where avatars were able to teleport among them. The contemporary iteration of the Metaverse features social, immersive VR platforms compatible with massive multiplayer online video games, open game worlds and AR collaborative spaces.” (Mystakidis, 2022).⁸

Extensive internal consumer discovery research and surveys undertaken by the company at its early stage mentioned in the previous chapter, coupled with the power of virtual reality and the Metaverse, are the two elements Ziello leverages to foster a sense of place-connection. This elevates the traditional coaching experience, enhancing the effectiveness of delivering programs for teams, and differentiating the firm from its competition. Estimates from internal data suggest that the average learning retention derived from use of immersive technologies is 50-75% higher when compared to traditional methods. Moreover, visual information had an average retention rate 40% higher when compared to verbal communication. Ultimately, combining the two approaches in the form of highly visual content delivered in an immersive space, yields the best results, with overall learning improving by up to 400% (Ziello Studio, 2021). For confidentiality reasons, it is not possible to go into more in detail regarding internal research on the Metaverse, but these data already point to the validity and effectiveness of this innovative delivery method.

This prompted the decision to expand towards constructing a proprietary Metaverse. From a strategic point of view, this represented a milestone in the history of such a young company. Developing and implementing a complete and functioning multi-user space requires a great number of resources, both in terms of time and money. Before this, Ziello Studio was operating within a third-party Metaverse space, namely Spatial. This software platform creates immersive and collaborative experiences within environments based on Virtual and Augmented Realities.⁹ Spatial provides for users with a shared virtual space, allowing communications and interactions to occur remotely but as if everyone was within the same location. Its interface is based on avatars that users create and customize, to then interact with digital content in the 3D space, in a similar way as video games. This makes the interface accessible to users from a wide range of devices as well. For now, the main applications of the platform are related to holding virtual meetings and executive presentations, as well as creative activities such as design-

⁸ See Exhibit 3 and Exhibit 4 for Metaverse taxonomy.

⁹ The main difference between VR and AR is that former creates a fully immersive digital environment that replaces the real world, while the latter enhances the real world by overlaying digital elements onto it (Johnson, 2023). Exhibit 5 provides an example of a popular VR headset allowing for a more immersive experience.

thinking sessions, where engagement and collaboration are fundamental for sparking creativity (Spatial, 2023).¹⁰

2. Stakeholder Management

One of the management challenges for a startup is managing the quantity of stakeholders involved. Despite the internal team being composed of less than 10 individuals, the complexity of the relations between internal and external stakeholders was comparable to a far more complex organization. Take for instance the role of advisors. At Zielo Studio, important decisions are addressed through a panel, functioning as a board of directors. It is composed of 8 advisors, ranging from investors to business specialists.

Even though accessing expertise is extremely advantageous in certain instances, it also poses coordination inefficiencies. This is because members tend to express opinions on even minor day-to-day decisions. Ultimately, it remains up to Laura, as acting CEO, to filter inputs and decide how to implement each decision. Nevertheless, having to confront several sources of external pressure can sometimes be burdensome for decision-making.

Therefore, an organizational challenge for the CEO is deciding which strategies to adopt based on external stakeholder influence. According to instrumental stakeholder theory, building healthy relations with stakeholders is key for competitive positioning. Nonetheless, it also requires huge effort (Jones, Harrison, & Felps, 2018).

At Zielo Studio, there are three courses of action pertaining to strategic decisions. Scenario 1 involves open collaboration and engagement. It enhances relationships, helps to identify potential risks earlier, and result in reputation building for the company culture. Nevertheless, this scenario is also time consuming and potentially dilutes decision-making authority for the CEO. Scenario 2 is about strategic segmentation, promoting focused engagement with certain stakeholders, which translates into clearer communication, faster decision-making, and more efficiency. The downside of the second scenario is that it may limit the perspective of the CEO, for instance by overlooking potential risks and opportunities. It might also be perceived as favoritism if attention is only paid to a subset of stakeholders, potentially making others feel

¹⁰ See Exhibit 6 to get a clearer idea of the actual results.

neglected or excluded. The last Scenario 3, is based on a more balanced approach, resulting in holistic decision-making, sustainable relationships, and risk mitigation. However, this approach is more complex, as it is resource intensive in time and energy, and usually requires coming to compromises to accommodate all stakeholder positions.

Another major case of managing stakeholders was revealed by the search for a technology leader. As CEO, Laura knew that her limited experience in the tech field would not have sufficed to cover the expanding needs of the platform. Despite the fact that freelancers at the early stages of a startup lower financial burdens, as the company evolved an experienced figure was crucial to carry on the development and coordinate the team. Consequently, ever since the beginning of my time with Zielo Studio, the company met with experienced developers to find a qualified CTO.

That was when we met Daniel, a founder and developer with more than 25 years of experience in the gaming industry.¹¹ At first, he looked like a good fit for the role. He also demonstrated passion for the Metaverse and interest in the project. After having him meet trusted advisors, Laura decided to get him more involved. Besides, being a founder himself, he was able to provide useful knowledge on funding and scaling. However, the real intentions of an individual are difficult to grasp at the outset, which turned out to be the case here.

Everything seemed to be proceeding well with Daniel until the compensation discussion came up. He demanded either an annual salary of no less than €100,000, or equity participation of around 25-30%. This would pose an extraordinary burden on the startup and its operations. On one hand, compensating an experienced CTO generously might incentivize his performance, but this could not be reconciled with the commensurate financial strain on the company, especially relatively to its short-term operations and lost opportunities. Moreover, it could result in lack of strategic alignment, exemplifying the principal-agent problem. Equity compensation partially solves for liquidity issues created by cash compensation, but it generates its own problems. It would significantly dilute Laura's ownership and potentially promote managerial conflict. Also, equity is difficult to value at the early stages of a startup, which makes compensation decisions more challenging.

¹¹ To respect this actor's privacy, Daniel represent a fictional name.

3. Technology Management

Technology is clearly a major pillar for this project. It represents the differentiating factor for Zielo Studio to accrue competitive advantages over traditional coaching methodologies. Nonetheless, the development of a Metaverse-based company gives rise to numerous challenges related to the tech side, especially if the founder's background is far from computer science. The first fundamental decision lies into the choice of the platform.¹² This will determine the future strategy and effort the company will funnel into development. It denotes also a rather binding decision, as any mid-development platform switch would increase the financial commitment towards the project. Due to complexity of entry and relative novelty, the industry for the development of Metaverse-compatible programs is split among two major providers at the moment. These are namely called Unity and Unreal Engine, and represent a de facto powerful duopoly. Precisely, both engines are specialized in the development, design, and rendering of virtual spaces. Today they symbolize the most widespread solutions among programmers for games, simulations, and interactive visualization such as in the architecture and design fields.

The former, Unity, is best known for its accessibility and versatility. Its user-friendly interface made it popular among both experienced and beginner developers.¹³ Unity is designed in “Scenes”, running like canvas where programmers can implant “Game Object” that serve as building blocks. Unity also offers a variety of pre-built assets, like scripts and plug-ins, to accelerate the product development and reduce the need to code everything from scratch. It also supports the C# scripts, which allow developers to add custom interactions tailored and integrated for the Metaverse needs. For instance, this feature comes in handy for tasks such as importing 3D models, audio, and texture files. Lastly, Unity's accessibility is evident also in its ability to be cross-platform compatible to a wide spectrum of platforms and devices.¹⁴ Nonetheless, Unity is reported to present some struggles in optimization with larger scenarios. This likely derives from the high computational demand necessary for cross-compatibility and

¹² Software development platforms to build a Metaverse-compatible program are called “engines”, and they extremely complicated as they need to incorporate variability of outcomes into tridimensionality.

¹³ To this point, it has to be noted that at the latest Apple Worldwide Developers Conference in June 2023, Apple has chosen Unity-based apps to run natively on its newly introduced visor, the Apple Vision Pro. Furthermore, Unity is also the backbone of Spatial, the third-party software Zielo Studio has been adopting before the decision to implement its own proprietary space.

¹⁴ Unity arguably provides the most compatible and accessible Metaverse experience, ranging from VR headsets to PCs, consoles, and even mobile devices such as tablets and smartphones.

accessibility from the user's end. Ultimately, it ends up in one point of weakness for Unity compared to its rival, affecting especially visual fidelity. This is a burning topic for skilled and high-end graphic designers when evaluating their options for development (Unity, 2023).

On the other hand, Unreal Engine claims to offer vastly powerful computational capabilities, resulting in striking visual fidelity. It is a very complex tool targeting more experienced developers, but in turn allows for a greater level of customization and control. Similarly to Unity, Unreal Engine is built by "Levels", each containing a collection of "Actors" representing every element needed to build the space, from avatars to objects. These actors and their interactions are highly realistic, so to being even able to reconstruct the interactions that light has with different materials in the real world.¹⁵ It is also the reason behind the high rate of adoption of Unreal Engine in cinematic virtual experiences, alongside high-end gaming and architectural visualization. Furthermore, Unreal Engine provides "Blueprints", visual scripting systems granting developers a pre-coded library for the most commonly adopted complex behaviors and interactions. Alternatively, developers use C++ to code all the more advanced and custom functionalities. Like Unity, this software allows to importing external 3D models, audio and texture files, and can be deployed on a wide range of platforms and devices. The drawbacks of such engine are related to its complexity, as it requires a steep learning curve from developers to master its intricate functionalities and features. This usually results in a more intensive resource allocation from the company, in order to hire more senior and experienced developers and to give them enough time to be confident with the platform (Unreal Engine, 2023).

From Zielo Studio's point of view, there is also a third slightly different option. It entails embracing Spatial and defer the implementation of a proprietary Metaverse space. This option serves well a company at its early stages, as it requires a much less burdensome financial commitment compared to the other two options for development. Operationally speaking, Spatial allows to produce a satisfying user experience. However, it also raises a few critical points. Being a third-party software, its level of customization is far minor than the alternatives. Also, depending entirely on a supplier might pose some threats. For instance, privacy concerns might arise regarding the sensible information and data related to customers, as it is not managed and controlled by Zielo Studio itself.

¹⁵ This factor mainly contributes to the engine's exceptional reputation regarding its graphic quality, denominated "Photorealistic Rendering" by the experts in the field.

Having dug into the platforms' dynamics, there is also a workforce-related matter worth mentioning. At the beginning of the project, Laura's effort was enough to sustain the business using Spatial. Then the need for more advanced features and optimization led to hire an external developer, working freelance. He was likewise experienced in 3D graphic software design, which brought to Laura's decision to build the first render of the proprietary Metaverse space.¹⁶ Hence, the development of the space was launched, aiming to almost complete the rendering by the end of summer. But despite the premises, the following part of the process involved transposing the design from a simple local file to an actual space on the Cloud. This part, unexpectedly, was even more complicated than the first one. First of all, it required a new set of skills to manage all the Cloud uploading and backlog. Moreover, maintenance of the Metaverse space and its optimization to support a seamless multi-user experience required again more resources.¹⁷

Nonetheless, during summer a new opportunity arose. Laura approached a specialized team of South American programmers who would be able to manage the whole process. Financially, it would also be around 30% less expensive to outsource development to another country. The team, however, knew little about the project, and thus required more effort to coordinate. Keeping the original developer would imply a higher upfront cost of development and implementation, but could grant alignment in terms of vision and organization.

4. Financial Management

Resource management represents a critical challenge during the early stages of a company. Many opportunities for investment and scarce availability of resources demand tough decisions, regularly resulting in trade-offs. Zielo Studio's main areas of focus include product development, marketing and customer acquisition, securing intellectual properties rights with patents, and assembling a skilled team to scale operations. Once again, completing the development of the proprietary space in the Metaverse remains a high order priority, as it represents the backbone of the operation.

¹⁶ The software of choice to develop the proprietary Metaverse space will not be disclosed here, as it is part of a case question. The solution in the Teaching Case will illuminate this point.

¹⁷ Regarding Cloud management, it is also to note that the main candidate to host the infrastructure had been identified as AWS. It is today the most popular choice also for the gaming industry, as it offers competitive pricing and several customizable functionalities. Nonetheless, it represents an additional monthly expense to be taken into account.

For practical purposes, let's assume Zielo Studio has already successfully secured €250,000 in initial funding.¹⁸ The CEO is now faced with the critical decision of how to allocate this budget effectively and has to evaluate three possible strategies. The first option consists of a full technology investment. It would imply a heavy allocation of the budget, around 80%, toward the finalization of the proprietary space. This aims to accelerate product development and bring a robust product to market as quickly as possible. Nonetheless, this option would also leave behind other areas like marketing, which could affect the future efficacy of the firm's development. A second option would entail a more balanced allocation, distributing the budget uniformly across the various areas of development. This strategic option aims to organically develop the product while fostering brand awareness and customer acquisition. The third and last option mixes the two precedent approaches with a lean technology investment. In this case, Zielo Studio could direct around half of the budget towards tech development, and balance the remaining half among other business functions.

Another major financial topic regarding startups and growth is related to equity. Every small private company will face the management dilemma of apportioning equity at a certain stage of its growth, which carries with it significant implications for its future direction. By selling a fraction of the company to venture capital investors, a startup can benefit from an immediate injection of capital to sustain its operations and investment opportunities. Moreover, selling shares allows the owners to mitigate their individual risk (while diluting ownership), and usually grants them access to strategic network of expertise from mentors and industry experts. Ultimately, the interest of investors and VC funds towards a private company also serves as proof for validation for the business, lending credibility in the eyes of customers, partners, and other potential future investors.

On the other hand, dilution of ownership introduces other stakeholders into the startup equation. External shareholders participate in the venture presuming to gain a return on their investment. Therefore, their expectations need to be reflected in strategic decisions taken by the company. This is a double-edged sword and sometime can upset the founding vision. Depending on their

¹⁸ The initial funding already available represents a form of so-called "patient" capital (Ivashina & Lerner, 2019). It is important to note again that, for confidentiality reasons, the amounts indicated in the examples of this case only serve for the purpose of the specific exercise, and they do not represent the real financial figures of Zielo Studio.

ability and means to put pressure on managers, equity investors can influence short-term decisions to achieve rapid growth and profitability, sometimes at the expense of long-term business sustainability. Thus, it is clear that multiple stakeholders can add layers of complexity to decision-making processes.

The alternative to not sell equity comes with drawbacks as well, including limited availability of funding resources and therefore possible missed opportunities for growth. This also makes it harder for startups to compete against better funded competitors, especially in the short-run. On the brighter side, by not selling equity a startup can maintain full ownership and control, thereby making strategic decision without external pressure. It also makes the firm more flexible to pivot and adjust its course at the initial stages of its journey, allowing for iteration and experimentation with customers to grant organic and long-term sustainability.

Considering such trade-offs and the desire to align financial strategy of the company with its long-term vision, Laura came to the decision to not sell Zielo Studio's equity for the time being. Her commitment to prioritizing organic and customer-centric growth led to electing for a slower growth rate in the short-term to remain independent from external shareholders. This should allow for a sustainable and resilient financial foundation in the long run.

5. The Challenges

Let's imagine you have been hired from Zielo Studio as an external consultant.

Laura has given you all the information contained in the case study as preparation material.

Now she needs your help to address the following questions:

1. Considering the situation with stakeholders at Zielo Studio, which of the 3 scenarios presented would be advisable to manage their expectations optimally?
2. Regarding the new CTO's compensation request, is there a preferable solution? Otherwise, would it be better to keep searching for another person?
3. Which platform would be recommended to foster development of a proprietary space in the Metaverse? Would there be another path to propose?
4. Regarding the strategic management of technology, should it be carried on locally or be outsourced?
5. Which type of financial allocation would be the most beneficial, considering Zielo Studio's situation and availability of resources?

Please make sure to justify each answer adequately. Remember that these questions are qualitative in nature, therefore there is no single right answer. The key to providing a satisfactory solution to Laura lies in the reasoning behind your recommendations. Consider all the consequences when evaluating each decision, and carefully explain each one's points of strength and weakness before coming to a final conclusion.

Teaching Note

This section aims to answer questions posed to the readers at the end of the actual case. It is based on evidence gathered from personal experience and from interviews conducted with Laura Kyttanen.¹⁹ It is also important to note that this material is not intended to be distributed to students when solving the case study, as it may influence their judgement. On the other hand, it is supposed to offer the teachers a more comprehensive understanding of Laura's philosophy and mission. This should provide them with a richer picture when evaluating the students' answers to case questions.

Question 1

The first question refers to management of stakeholders at Zielo Studio. Given the premises of this case, it is clear that stakeholders exercise different forms of influence on Laura's management decision-making. That is why students need to evaluate each scenario carefully and provide motivations before jumping to an answer.

The first Scenario proposed a strategy based on open collaboration and engagement. This means considering the positions of all stakeholders and regularly engaging with them before coming to a decision. It is advantageous to build robust relationships and foster innovation, as this engages with different perspectives for the CEO to consider. It also facilitates risk identification and mitigation, making the company more resilient to ever changing circumstances. However, this approach would be significantly burdensome for Laura, especially in terms of time. Some days she would have to spend more than half of her time trying to align with stakeholders on sensible matters, repeating the same topic over and over to different people. Especially at the earlier stages of a company, effective time management is essential for a CEO. Laura already had to conduct the main business operations, her sessions with clients, and have time for her family. Therefore, removing precious time from core business activities would not represent an optimal solution.

¹⁹ Refer to Exhibit 7 for the full interview carried out with Zielo Studio's CEO. During the interview, Laura addressed in detail the topics necessary to answer the case questions. This interview is particularly helpful for the readers, as it also offers a more detailed overview of Zielo Studio from the founder's perspective.

The second Scenario entailed a strategy based on strategic segmentation of stakeholders. This effectively translates into concentrating the efforts on key stakeholders who can provide the most significant contribution to matters at hand. It is a practical choice that ensures more focused and efficient management of stakeholders compared to the first Scenario. The key lies in tailored communications to address specific business needs, likewise promoting purer interactions. In theory, it allows the CEO to streamline the decision-making process and allocate resources more effectively, which would be beneficial in a dynamic business environment. Nonetheless, segmenting communication and the decision-making process might result in dissatisfaction from some excluded stakeholders. When addressing specific matters with only a few selected stakeholders, Laura had to be extremely careful to prevent making others feel neglected. She had to consider all the potential risks associated with overlooking a group of stakeholders and evaluate whether the efficiency gained strategic segmentation was greater than the alternative. This pertains to the topic at hand, but more often than not the risks are greater than the rewards.

Considering the downsides of the two scenarios just examined, Laura's approach tended to steer towards a third holistic decision-making approach. This is why she decided to foster relations with her stakeholders. The third Scenario opts for a balanced stakeholder management strategy, which is closest to Laura's values. This approach is more comprehensive than the second one, as it considers a wider array of perspectives and interests from her stakeholders. On the other hand, it minimized the time required to discuss in depth the topics with each stakeholder, as it implements different levels of focus and detail with each one. Doing this, their involvement is proportional to their ability to impact the decision. This holistic approach also ensures that decisions align with a broader set of stakeholders involved, preventing discontent. Laura can benefit from input and ensure that the company is adapting to market changes, while nurturing sustainable relationships with key stakeholders at the same time (Jones, Harrison, & Felps, 2018). Despite being complex and resource-intensive, this strategy has helped Laura to navigate stakeholder differences effectively. Nevertheless, it is important to note that maintaining such balance is not an easy task as it involves a continuous compromise of interests. Ultimately, the strategic decision of managing expectations of stakeholders depends on the company's specific objectives and circumstances. It is left up to Laura to carefully evaluate each situation and implement the approach leading to an informed decision that most aligns with Zielo Studio's values, resources, and goals.

Question 2

The second question is about the new CTO's compensation. The two options to evaluate are either a high salary or equity participation. First of all, cash compensation could represent the optimal choice to attract talent quickly. It is also useful to position the firm as a competitive employer particularly for competitive tech jobs. In this case, opting for cash compensation would have allowed Zielo Studio to predict its cash outflows and accurately budget its financial needs. The new CTO would also benefit from immediate financial stability, which should positively affect his job performance. On the other hand, cash compensation might lead to opportunistic behaviors and lack of long-term alignment. Furthermore, the financial burden of this option, even if predictable, would be burdensome for a young startup like Zielo Studio.

The alternative option entails equity compensation. This means allocating a percentage of Zielo Studio's shares to the new CTO as part of his compensation, de facto granting him power over the firm. This usually represents a strategic move for a startup, as it requires a great commitment from both sides and aims to create alignment. In this case, the CTO has every interest to make the company succeed in the long-term, as his participation is at stake and will grow with the company. This option also fosters a greater sense of ownership and dedication towards the company's vision, which is why it's fundamental that the candidate is fully aligned with the company's values. Regarding our CTO, Laura's had the impression that his long-term vision was not moving along the same trajectory as Zielo's. Moreover, equity is a more complex compensation mechanism than cash, and diluting her power would have been too risky in this precise instance. Ultimately, Laura decided that none of these options would have worked out based on the company's vision and financial position. Although this person was not selected for the new CTO's job, he still contributed to the development and implementation of some tech features. Today Laura and him remain in touch and exchange opinions as founders, showing how pivoting is at the core of every entrepreneurial journey (O'Reilly III & Tushman, 2008).

Question 3

The third question specifically addressed development of a proprietary Metaverse space. The two main options for development are represented by Unity and Unreal Engine. The former is the most user-friendly software, commonly adopted by programmers at any level of experience.

Its accessibility grants a quick learning curve even for beginner developers, which contributed to the success of this software. However, Unity is generally considered inferior to its competitor in terms of graphic fidelity, especially in large-scale open worlds like Zielo's. Considering the complex graphics involved and the level of optimization needed for a multi-user interface, at the beginning of the journey Laura elected Unreal Engine as the preferred software for development. This choice is typical for high-end graphic experiences, like cinematic ones. Additionally, Laura's software developer was already familiar with Unreal Engine, hence the choice to focus on a more immersive and realistic experience. The project had already started before summer and was scheduled to be launched by fall. It only consisted in the creation of one full scene, not the entirety of the Metaverse space, but would have served as beta testing for the entire development. However, many challenges came up throughout the project due to Unreal Engine's complexity and its steep learning curve, especially working with a sole developer. This translated into more time than was estimated to complete the rendering of the space, and external aid was needed to formulate creative solutions.

Once the development was finally completed, Laura faced another major dilemma. Up to this point, only the local development had been accounted for. The second step would be to upload the complete Metaverse space from a physical file on the developer's computer to an actual server in the Cloud. When online, the program would be finally ready to host multiple users for Zielo's sessions. Nonetheless, this second step and its optimization turned out to be at least as burdensome as the first. This created an issue, both in terms of time and resources, as the original plan created by Laura started to seem less viable. Ultimately, she came to the decision to momentarily pause development of a proprietary space in the Metaverse, and to keep focusing on the actual core business of Zielo Studio through Spatial. It was a very tough decision since Laura had invested so much time and energy into this project. On the other hand, she had realized the challenge was greater than anticipated, and decided to be effective with the resources available at that precise moment. This does not imply Laura had abandoned the project, it was just delayed to a more suitable time. It was a huge learning moment for all, and the development done up to this point still remains valid and ready to be uploaded when the right time comes. Once again, being courageous enough to pivot while avoiding behavioral traps like the sunk cost fallacy and confirmation biases are essential for a young company. Laura's choice to keep using a third-party software like Spatial was very intentional, driven essentially by the need of expanding the customer base. Spatial already provides for immersive meetings, real time collaboration and accessibility, which provide sufficient functionalities for

the time being. Perhaps Laura had just slightly anticipated the right timing for the proprietary development, as Spatial's limitations alone didn't entirely validate a full switch. When the core business will be consolidated with a broader customer base, then focusing on long-term scalability and data ownership will surely represent the optimal strategic decision for Zielo Studio.

Question 4

The fourth question opens an unforeseen opportunity for development. Despite Laura's decision to pause development of the proprietary Metaverse, she previously faced the outsourcing dilemma. This project represented a milestone in Zielo's young history, thus it was also crucial to decide how to carry on the tech development. At the beginning, Laura had opted for retaining the local developer as he was knowledgeable with Unreal Engine and shared Zielo's values. One of the major advantages to this option was the immediate and effective communication it allowed, as proximity and in person meetings fostered clearer collaboration. He also had been involved in this project since its inception, therefore his in-depth understanding reduced the learning curve. Finally, it was also easier for Laura to have direct control over advancing the project and aligning with quick corrections when needed. On the other hand, working with a single developer also presented drawbacks. A specialized freelance developer in Amsterdam generally requires a substantial hourly fee. Moreover, a single programmer may not possess all the necessary skills and expertise to address the requirements of a complex project, and his work capacity was also limited. These issues can lead to potential risks, like gaps in development and delays. They also created potential scalability concerns, as the expanding needs of the company cannot be adequately covered by a single person in the future. Lastly, from a risk-evaluation perspective, relying solely on one person can create a single point of failure (Eisenmann, 2021).

However, during summer Laura found a team of programmers from South America. Specializing in the field of Metaverse development, they possessed complementary skills that balanced the local developer. It was a more efficient solution cost-wise as the team's fee would have been 30% less expensive. Outsourcing to a team with expertise in various industries and technologies could also be relevant when access to specialized skills is not available locally. For instance, regarding the Cloud and its challenges, the team had a diverse range of expertise which the local developer did not possess. It was their advice that gave Laura a more concrete

sense of the time and resources needed to finalize the project, which resulted in momentarily pausing the second step. Lastly, deploying an entire team would allow Laura to scale the tech side of the operations when the need arises in the future. Nonetheless, this option also presented some disadvantages. First, confidentiality and data security are delicate issues when approaching the virtual world, and these would be simpler to manage locally. Especially when it comes to sharing sensitive project information to a novel third-party, robust measures to ensure confidentiality have to be put in place. Also, these countries may have differing legal and compliance standards, and all potential regulatory issues must be addressed preemptively. Furthermore, communication challenges may arise with a fully remote team in a different time zone, adding a layer of risk on the effectiveness of Zielo's business model (Teece, 2010). In the worst case, this might affect Laura's ability to control the team and development of the project, leading to delays and sub-optimal quality output. The conclusion to this question remains open, as the path Laura will follow when implementing the second step of the development is not defined yet.

Question 5

The fifth and last question is about financial commitments and allocation of resources. Once again, this question is not about the actual amount of money involved but aims to stimulate a line of reasoning based on Zielo Studio's contextual situation when evaluating strategic options. The three options proposed represent the most probable scenarios based on Laura's priorities and strategic plan. Moreover, it's evident how the financial scenarios are deeply connected with the previous questions as well. Laura's first option was a full technology investment, meaning a heavy allocation of the available budget towards the finalization of the proprietary space in the Metaverse. This allows for fast product development and market entry, which could grant Zielo the first-mover competitive edge (Kopel & Löffler, 2008). Nonetheless, this approach would also carry the risk of leaving behind other strategic areas and depleting the budget before having achieved sufficient traction in the market. Laura had to be very careful when evaluating this option, as statistically many startups fail because they burn cash faster than they can recover it (Eisenmann, 2021). The second option entailed a balanced allocation, allowing Zielo to expand homogeneously across all the areas of development. This implies building a resilient product while also acquiring customers and implementing the brand presence with efficient operations. However, this safer approach would not allow Zielo to excel in one particular area, and requires a longer time before coming to market with a complete product. That is why Laura

decided to opt for the third option, the lean technology investment. The lean approach has largely been adopted in today's startup landscape, as it presents several benefits (Ries, 2011). It is effective because it focuses on the preservation of capital based also on future growth stages, which is imperative for startups. Likewise, it reduces the risk of cash depletion before having an adequate market fit. The trade-off of prioritizing efficiency with a lean approach is that product development might take longer based on the iterative response of the market. Considering the latent market demand and the underdeveloped competitive landscape, Laura had decided to opt for the lean approach. By doing so, she aims to align her risk tolerance with the company's long-term vision and to be prepared when market dynamics mature and shift towards Zielo Studio's value proposition.

Having covered the different financial strategies at Zielo Studio, it is also valuable to consider how this aligns with Laura's philosophy. As founder, Laura is also part of the conscious capitalism movement. This represents more a philosophy than a business strategy and aims to align profits with making a positive impact. As previously mentioned in the case of zebra companies, startups embracing conscious capitalism seek to prioritize society and the environment at large. This is immediately reflected on the company's culture, as it values social responsibility, ethical practices, and environmental sustainability. The consequences of this choice relate also to Zielo's financial path, as the immediate launch of the product was not prioritized over offering its best version to add value in the market. Another source of inspiration for Laura came from the Unreasonable Group, which focuses on conscious capitalism as a catalyst for change (Unreasonable, 2023). This group has inspired founders to promote socially conscious entrepreneurship, and significantly supports business that address arduous global challenges. Zielo perfectly fits with the Unreasonable Group's purpose-driven model, and its community is fostered by the impact of similar ventures that amplify this message. In an era where consumers are increasingly mindful of their habits, embracing this logic can help a startup to position itself in a so-called Blue Ocean (Kim & Mauborgne, 2005). Zielo Studio is seeking to advance a paradigm where conscious capitalism is the norm, predicated on notions of collective responsibility for bettering the world.

Appendix

Exhibit 1

Metaverse Market Size, estimated from 2021 to 2030 (Precedence Research, 2022).

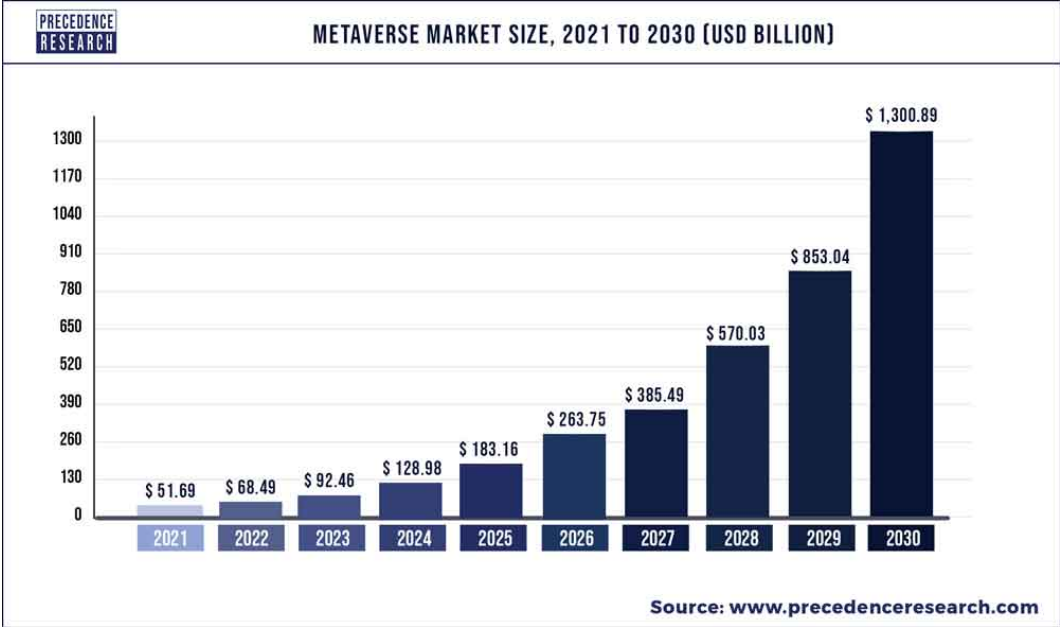


Exhibit 2

Split of total Metaverse investments by sector (Howarth, 2023).

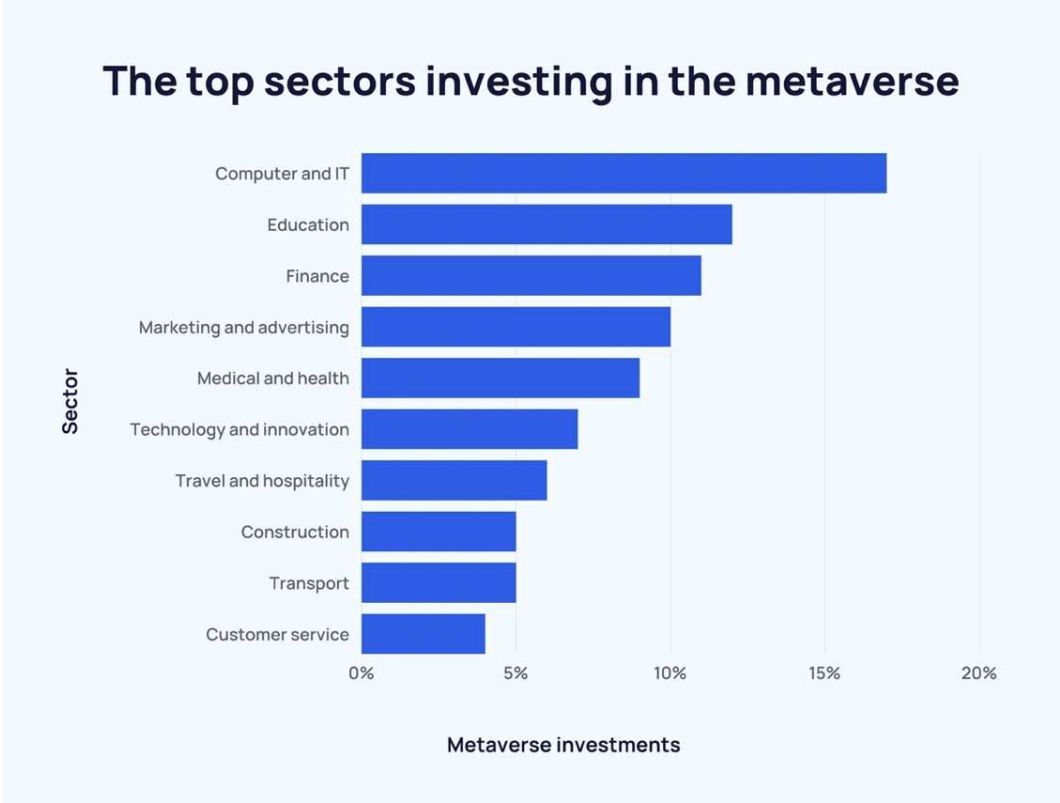


Exhibit 3

Metaverse technologies, principles, affordances and challenges (Mystakidis, 2022).

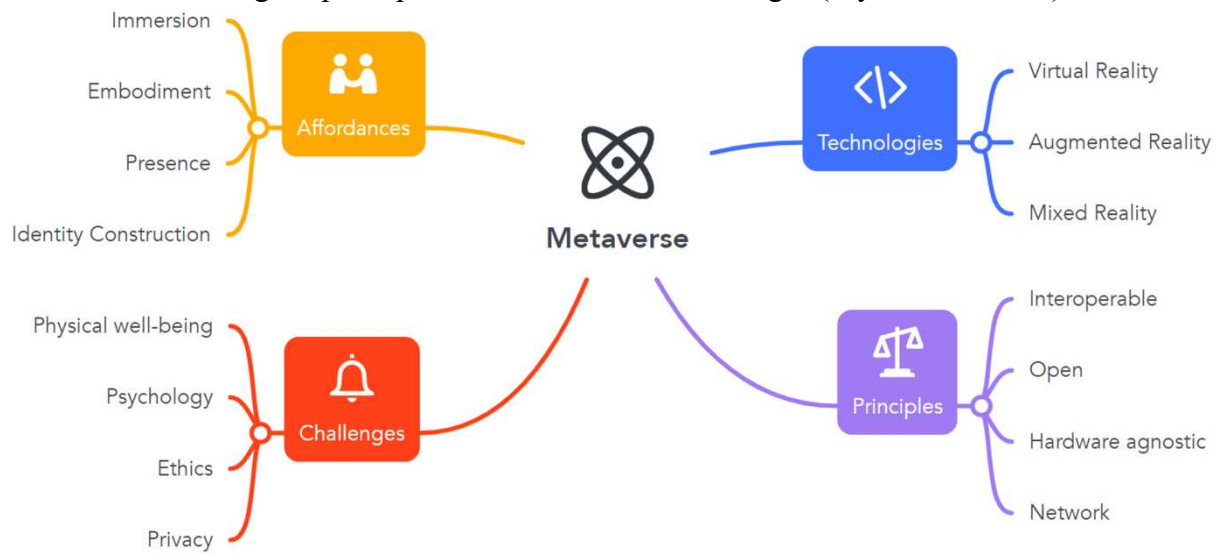


Exhibit 4

Metaverse taxonomy focus on the applications and technologies that can give social meaning in a Metaverse hardware, software, and content with three approaches (i.e., user interactions, implementation, and applications) (Sang-Min & Young-Gab, 2022).

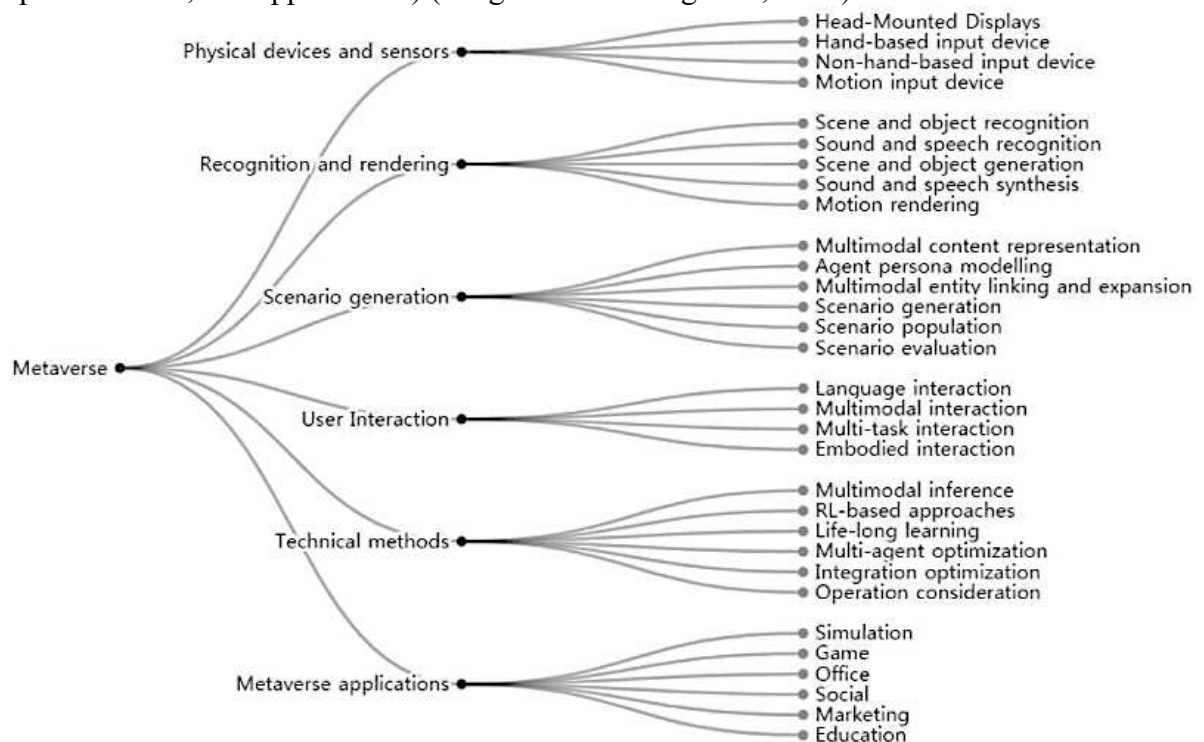


Exhibit 5

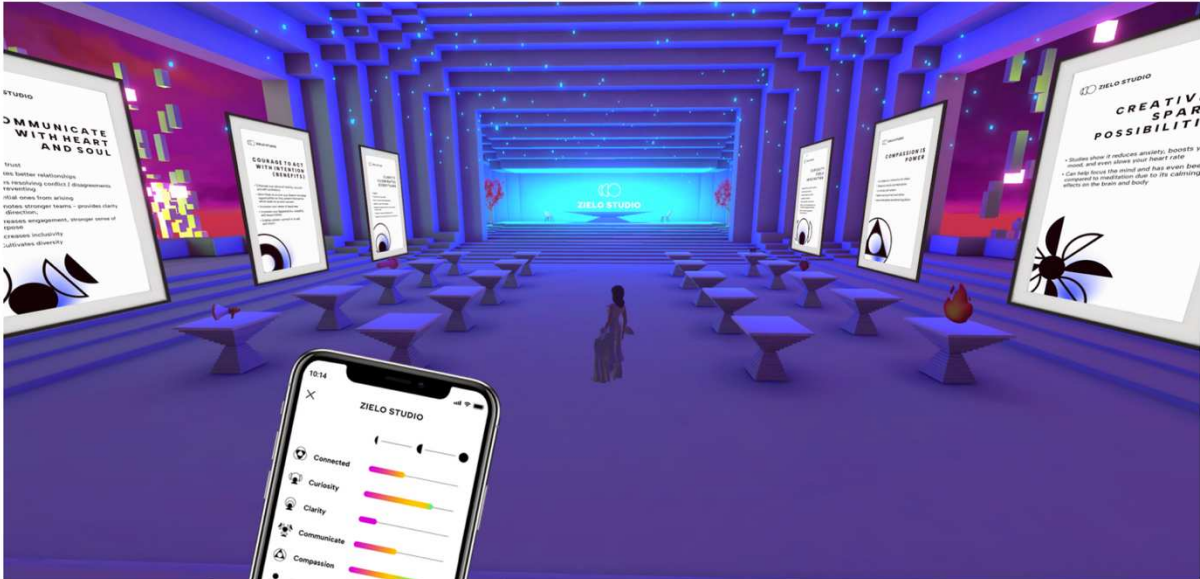
A man experiences Google's Daydream View VR headset (Johnson, 2023).



Exhibit 6

Representations of Ziello Studio's spaces in its Metaverse.

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Exhibit 7

Interview with Laura Kytanen (Founder & CEO), 30/09/2023

Pietro: “Hi Laura, great to see you again! I’d start by asking to give readers some context. For instance, why and how did you start the company? What’s your purpose?”

Laura: “Ciao Pietro! Let’s talk about startups: I think it’s so easy to say, “How much money do I need and how do I go and raise that?”. But I think it’s much more important to be intentional about what your purpose is, what you want to achieve with your business, and what’s the best structure that will support it. The structure should come first, and it then dictates where you want to receive the funding. And it’s so common that people want to go to, you know, to the big VC’s and start thinking how to pitch and raise really quickly and make a unicorn-type company. Now we see that unicorns are very rare and anyhow that the money they receive can go wasted. Because not many of them make it. So yes, I thought: “OK, do I want to create a sustainable business and what does that mean to me and what are the other options in in this process?”. Looking at the case studies of Bosch or Patagonia, or any other more stewardship owned company, you start noticing that the employees have a larger part of the share, and they get to then make decisions that are beneficial to the company because they get to see the day-to-day rather than an investor who just wants to cash out. So it’s really important to think through the structure and then of course, once you receive the funding, it’s important to strategize the allocation of the money. But I think the allocation becomes easier when you’re making the initial structural business decisions align to what you really want as a company and you’re not feeling pressure to do what everybody else is doing. There’s more and more vehicles that are coming up and more networks and systems that are going to support these different types of funding and investment approaches.”

Pietro: “I know you particularly care about being a female founder. Could you elaborate on this point? Also, how was it at the beginning, and why did you choose to name your company Zielo Studio?”

Laura: “Statistically, women get less funding, but they tend to have better results with it. So being a female founder is tough in today’s market. But there’s a lot of initiatives like The Unreasonable Group, in particular, who are trying to change that landscape. And not to mention female founders that are doing something like me in the tech space with a non-tech background.

Everybody expects you to have a tech cofounder at least. And so there's a lot of dynamics that play into this whole fundraising game and process and it all needs to be tilted on its head. [...] I would say I really started Zielo in 2021. Late in 2021 is when I got my first investor and 2022 is when I got other 2 investors. Regarding the name, “Ziel” means “Soul” in Dutch, and the “O” symbolized unlimited potential. It's really super clear to me that it's about helping people tap into that. With the 8C's methodology, we're not putting people in boxes, like a lot of assessments do. It's more like we all have these significant competencies and mindsets that when expanded, can help to elevate our potential and it's not such a linear process.”

Pietro: “That brings me to something I wanted to mention as well, which is how do you effectively build a tech startup with a non-tech background. It must be a very big challenge for you as well because it's not something that you can manage directly at this stage.”

Laura: “It’s a huge learning curve. But I think that's where asking the right questions really is essential and the stakeholders that you have around here, of course become super important. The challenge I saw in HR and also as a coach, with the mental health pandemic, is that generally organizations culture hasn't caught up to the needs of becoming a more human workplace. And plus, the innovation requirements are so incredibly fast now because the environment is becoming so competitive. Also with all the challenges that companies are being faced with, like sustainability and environmental matters, we just need a different level of thinking. And what's happening is that a lot of the times the coaching was reserved for a select few people or also like people that went on burnout, but the coaching is offered too late. We know the environment has a huge impact on our individual health and well-being. So if you change one person, but the team still operates in a way that's not healthy, then that person is either going to leave or completely burn out again. That’s really the whole idea behind Zielo, to empower these leaders and organizations so that they can elevate the potential of their teams and innovate the workplace culture. But then slowly I started to realize that I don't want to just target any company. I really want to target purpose-driven companies. Companies that are actually living and aligning to their purpose, not just putting it on the website, and want to slowly implement new changes in in the in the team and increase psychological safety.”

Pietro: “Let’s talk about how you manage your stakeholders.”

Laura: “Well, I think stakeholder management goes back to the values of your company and the principles of how you want to lead your company. And I think this is a big challenge for a lot of companies. This is why I come in and help with change management. We talked about this, I believe in a holistic balanced approach. If unlimited potential and innovation is important to me, then that's how I want to interact with my stakeholders as well, so trying to embody your values. It's all creating the culture, it's creating the brand. I think these are really important things to consider and be intentional about. And that also means: “How are you reflecting on your growth in your areas of expansion as a leader?”. Because every instance, even the instance with Daniel required me to take a pause and think about: “How do I want to show up here and what's my intention and what do I want to achieve?”. And not just brush him off, but leverage that to be sort of a conversation and be real and authentic about it, so than I can make sure that I'm aligned to the values that I'm saying are important. Because this ultimately is creating your brand and your culture.”

Pietro: “What about technology? What was your take on that and why did you choose one platform instead of the others?”

Laura: “First of all, in the beginning when there was the debate between Unity versus Unreal Engine, there were so many people with lots of opinions about pros and cons. I had to recognize that, and to be honest, all of it is got a lot of cons, because in fact we're just not where we need to be with the Metaverse to be able to support a lot of the visions of different things. So I'm just going with the gut feeling, honestly, and this is a big one because it does go back to stakeholder management. You know, I think the biggest thing as a leader and a CEO is to learn how to be discerning and when to shut out the external noise and go within. According to startup leaders and founders, even very successful ones like Richard Branson, a lot of it is intuition based, it's not fact based. It's not like I looked at all the pros and cons solely. Probably I would have gone with Unity from a cost perspective, but I think you have to bear in mind also the type of people that you want to bring in and work with, and there's so many factors. [...] Then, to go with Spatial it was kind a step back, but was needed to focus on the proof points in the attraction that I still needed to make. Maybe I was investing too early in the Metaverse development, because it became quite evident that the cost was much bigger than what I had initially thought. So it was the balance of getting the traction, making sure that you're clear on what you want to build, because you want to make it better than the than the platform you're currently using, at to do

that you need to test it with a lot more clients and a lot more customers so you can really build the real deal”.

Pietro: “That's also connected to finance. How to then find the funding and not just be concerned about the money at the beginning? Because it's something of course you need to be aware of.”

Laura: “One comment about finances is not to underestimate the unexpected costs. Because with any type of business, there's always going to be unplanned or unforeseen costs. I had no idea certain things would come up, whether it be in taxes or legal costs or for certain conversations. So the cash burn rate happens because people don't really think about that. Founders also wait too long to protect certain areas of the business that are smart to protect. Most of the time they would put more of the money into the tech part, but I think that equally important is protection for trademark and more of the legal stuff. Zielo Studio’s logo and name has been protected now in all the Benelux, which was quite expensive actually.”

Pietro: “Great! Any last comments you want to add for the case?”

Laura: “One thing that also could be interesting, and I was talking about this a lot recently with many founders how that's underestimated, is the operations. A lot of startups have great ideas but sometimes lack organization skills and operations. From the start, is critical to make sure things are processes are documented. Or that you have a clear flow, cause a lot of the times what end up happening is they people start scaling and they get lost because they didn't have the right operations and process set up. [...] That also ties into finance of course because if you want to be attractive to investors these are things they look at, they want to see how organized you are.”

Pietro: “Thank you a lot for your time Laura, we covered some great points and you gave me a lot of material for this project, I’ll keep you updated!”.

References

- Alvarez, S. A., Zander, U., Barney, J. B., & Afuah, A. (2020). Developing a Theory of the Firm for the 21st Century. *Academy of Management Review*, 45(4), 711–716.
- Bailey, C., & Madden, A. (2016). What Makes Work Meaningful - Or Meaningless. *MIT Sloan Management Review*, 53-61.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Chan, P., Van Gerven, T., Dubois, J.-L., & Bernaerts, K. (2021). Virtual chemical laboratories: A systematic literature review of research, technologies and instructional design. *Computers and Education Open*, 2.
- Chen, J., Murry, C., & Schmitt, K. R. (2023). *Unicorn: What It Means in Investing, With Examples*. Retrieved from Investopedia: <https://www.investopedia.com/terms/u/unicorn.asp>
- De Gennaro, D., Mormile, S., Piscopo, G., & Adinolfi, P. (2023). In the jungle, the mighty jungle, the zebras are real tonight: investigating the organizational forms of Generation Z-driven Italian start-ups. *Journal of Small Business and Enterprise Development*, 1-27.
- Drucker, P. F. (1985). The Discipline of Innovation. *Harvard Business Review*, 143-156.
- Eisenmann, T. (2021). Why Start-ups Fail. *Harvard Business Review*, 1-18.
- Howarth, J. (2023). *75+ Metaverse Statistics (New 2023 Data)*. Retrieved from Exploding Topics: <https://explodingtopics.com/blog/metaverse-stats>
- Ivashina, V., & Lerner, J. (2019). *Patient Capital: The Challenges and Promises of Long-Term Investing*. Princeton University Press.
- Johnson, A. (2023). *Augmented Reality (AR) Vs. Virtual Reality (VR): What's The Difference—And How Do They Work*. Retrieved from Forbes: <https://www.forbes.com/sites/ariannajohnson/2023/06/02/augmented-reality-ar-vs-virtual-reality-vr-whats-the-difference-and-how-do-they-work/>
- Jones, T. M., Harrison, J. S., & Felps, W. (2018). How Applying Instrumental Stakeholder Theory Can Provide Sustainable Competitive Advantage. *Academy of Management Review*, Vol. 43(3), 371–391.
- Kim, W. C., & Mauborgne, R. (2005). *Blue Ocean Strategy*. Harvard Business School.
- Kopel, M., & Löffler, C. (2008). Commitment, first-mover-, and second-mover advantage. *Journal of Economics*, DOI 10.1007/s00712-008-0004-4(94), 143–166.
- Logishetty, K., Rudran, B., & Cobb, J. P. (2019). Virtual reality training improves trainee performance in total hip arthroplasty: a randomized controlled trial. *The Bone & Joint Journal*, 101-B, 12, 1585-1582.

- Magretta, J. (2011). *Understanding Michael Porter: The Essential Guide to Competition and Strategy* (Vol. 2). Harvard Business Review.
- Markets and Markets. (2022). *Metaverse Market by Component (Hardware, Software (Extended Reality Software, Gaming Engine, 3D Mapping, Modeling & Reconstruction, Metaverse Platform, Financial Platform), and Professional Services), Vertical and Region - Global Forecast to 2027*. Markets and Markets.
- Mauboussin, M. J., & Callahan, D. (2013). *Measuring the Moat: Assessing the Magnitude and Sustainability of Value Creation*. Credit Suisse.
- Mystakidis, S. (2022). Metaverse. *Encyclopedia*, 2(1), 486-497.
- O'Reilly III, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Elsevier*, doi:10.1016/j.riob.2008.06.002(28), 185–206.
- Precedence Research. (2022). *Metaverse Market*.
- Ries, E. (2011). *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses* (Vol. ISBN 0307887898). Crown Business.
- Rumelt, R. (2011). The perils of bad strategy. *McKinsey Quarterly*.
- Sang-Min, P., & Young-Gab, K. (2022). A Metaverse: Taxonomy, Components, Applications, and Open Challenges. *IEEE Access*, 10, 4209-4251.
- Spatial. (2023). *Official Website*. Retrieved from Spatial: <https://www.spatial.io/>
- Stylianou, M., Athanasios, C., & Nikolaos, P. (2021). A systematic mapping review of augmented reality applications to support STEM learning in higher education. *Education and Information Technologies*, 27, 1883–1927.
- Teece, D. J. (2010). Business Models, Business Strategy and Innovation. *Elsevier*, doi:10.1016/j.lrp.2009.07.003(43), 172-194.
- Unity. (2023). *Official Website*. Retrieved from Unity: <https://unity.com/>
- Unreal Engine. (2023). *Official Website*. Retrieved from Unreal Engine: <https://www.unrealengine.com/en-US>
- Unreasonable. (2023). *Unreasonable: Re-Purpose Capitalism*. Retrieved from <https://unreasonablegroup.com/>
- Zebras Unite Collective. (2017). *Zebras Fix What Unicorns Break*. Retrieved from Zebras Unite: <https://medium.com/zebras-unite/zebrasfix-c467e55f9d96>
- Zielo Studio. (2021). *The Metaverse Effect*. Unpublished internal company document.
- Zielo Studio. (2022). *Official Website*. Retrieved from Zielo Studio: <https://www.zielostudio.com>
- Zuckerberg, M. (2021, October 28). *The Metaverse and How We'll Build It Together -- Connect 2021*. Retrieved from <https://www.youtube.com/watch?v=Uvufun6xer8>