

Building a trustworthy digital business:

Recommendations for SMEs

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Digital Future Society is a non-profit transnational initiative that engages policymakers, civil society organisations, academic experts and entrepreneurs from around the world to explore, experiment and explain how technologies can be designed, used and governed in ways that create the conditions for a more inclusive and equitable society.

Our aim is to help policymakers identify, understand and prioritise key challenges and opportunities now and in the next ten years under key themes including public innovation, digital trust and equitable growth.

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Executive summary

The purpose of this report is to inspire professionals and practitioners from SMEs operating in the digital domain. More specifically, it is an invitation to think forward and to reconsider business models beyond the data economy as it is known today. Mainstream business models rely on data monetisation, under a despotic perspective that erodes trust and benefits from opaque practices. We see this report as a conversation, with space to inspire, reflect and engage.

Trust and transparency are related concepts and often interwoven in many ways. However, in this report we define transparency as a mean to (re)gain citizens' and consumers' trust. We explore associated attributes and connections to privacy, security, ethics, and accountability and liability. Building a trusted, transparent environment is a continuous process. Here, we use the processual approach to avoid "hero" narratives and to tell stories that are attainable. To achieve this, we consider technical and non-technical aspects, including a company's values, organisational culture and openness. Qualitative methods are in place to escape common narratives that only focus on positive results and wins, as they are far from encouraging.

The core of this report is based on 10 inspirational companies of varying size, scope and reach. They include software solutions, mobility platforms, small SMEs with only 10 employees and a big corporation with over 13,000. Lessons are drawn from the experiences of Cozy Cloud, Qwant, Threema, Meeco, Mydex CIC, BlaBlaCar, Red Hat Inc, Element AI, Satispay and Dathena. A detailed examination of their journeys reveals that their strategies include many principles such as:

- Rethinking monetisation of data – monetising consented access, instead of data
- Practicing data minimalism – collecting the least amount of personal data possible to operate
- Developing strategic partnerships – collaborating for legitimacy and growth or participating in ethics debates
- Keeping solutions open and transparent – using open code that is available and auditable
- Protecting the core vision – keeping their mission, vision and values intact as they grow

From these strategies and experiences, we drew a set of eight recommendations accompanied by critical questions and sorted by levels of implementation difficulty. The recommendations are:

- 1.** Establish a mission, vision and values (and make them clear)
- 2.** Embed trust in your incentives and make it consistent (internally and externally)
- 3.** Be transparent, accessible and accountable
- 4.** Think about the business model as a design issue, with built-in incentives
- 5.** Remember data is not yours. Practice data minimalism and keep data safe
- 6.** Do not act alone (and partner wisely)
- 7.** Grow well and keep focused
- 8.** Never give up. Pivoting a thousand times is the only road to success

These recommendations are mainly for SMEs based in European countries, as they share the same context, cultural aspects and legal framework. However, the authors hope that any company around the globe can find sources of inspiration in these pages.

For a closer look at the origins of digital business models based on trust, transparency and privacy and how they can be incentivised from a policy perspective, see the Digital Future Society report “Rethinking Digital Business Models.”

Introduction

Due to the lack of regulatory incentives and the limited reach of public sector initiatives, the current report is designed to identify robust, sustainable and replicable business models in the digital economy based on trust and transparency.

There is a gap between theory about core business transformations and practice. To make this innovation opportunity a reality, organisations need to understand the drivers of success, the barriers and the facilitators. They must shift from business as usual to responsible business, to build trust and transparency in the digital economy.

The purpose of this report is to inspire professionals and practitioners from SMEs operating in the digital domain. This is an invitation to think forward, to reconsider business models beyond the data economy. Mainstream business models rely on data monetisation under a despotic perspective that erodes trust and benefits from opaque practices. We see this report as a conversation, with space to inspire, reflect and engage. After a brief overview of the discomfort and narratives surrounding surveillance capitalism, the core of the document is divided into three parts:

1

Inspirations: 10 case studies based on international best practices associated with business models for trust and transparency

2

Reflections and take-aways: a comparative analysis to find strategies and commonalities among the 10 case studies that could be drivers for success

3

Recommendations and calls to action: practical, stimulating guidance for incremental change and suitable options at different stages of the journey

The most basic invitation to action always starts with a question. So we end the report with an epilogue, in which we link the experiences and recommendations with the first stage of the journey: gaining awareness about the current approach to data.

The scope

Trust and transparency are related concepts and are often interwoven in many ways. In this report, we consider transparency in its widest sense as a means to (re)gain the trust of citizens and consumers. We explore associated attributes and connections with privacy, security, ethics, and accountability and liability.

Building a trusted, transparent environment is a continuous process. It is not helpful to focus only on positive results and wins. We prefer a processual approach, to avoid “hero” narratives and to tell stories that are attainable. To achieve this, we discuss technical and non-technical aspects, including values, organisational culture, managerial styles and legal aspects.

Geography

The report contains international examples for inspiration. However, given the importance of contextual and legal constraints, the actionable recommendations are aligned with current opportunities for European-based initiatives in terms of social, legal, political and financial circumstances.

Why are trust and transparency the next frontier?

“Trust is what makes contracts, plans and everyday transactions possible; it facilitates the democratic process from voting to law creation, and is necessary for social stability. It is essential for our lives. It is trust, more than money, that makes the world go round.”¹

If trust is basic to social functioning and economic growth, what happens to it when we move from a face-to-face model to a digital, global model? The premises change and traditional trust mechanisms such as familiarity or visual contact are ruled out. We find obstacles to validating and evaluating digital identity. The impersonal nature of the internet triggers psychological defences associated with facing the unknown. So users’ initial response will be to distrust others. Trust in the physical and digital worlds is vital for forging any link between two agents (whether individuals, institutions or countries). Trust strengthens relationships and is based on the likelihood that the other party will act as expected. It is fairly easy to forge trust in a small, known circle but it is much harder to create in the vast, virtual sphere of the internet.

Taking part in the digital economy is an ongoing act of trust, which is necessarily bound up with the image we have of the other as an abstract, general entity. We are faced with what has been called inter-personal trust, which stems from our previous experiences and our willingness (or otherwise) to enter into a relationship or transaction in the digital setting. Therefore, trust is the cornerstone of the digital economy. Observing the new forms that trust takes at this time of change helps us to understand the future of our society.

The digital economy has led to business models based on monetisation of data that diminish trust. The large quantities of data generated by digital citizens have been noted by business leaders, who are aware of their huge commercial potential. Given that business settings are fraught with uncertainty, top executives saw the potential of Big Data for making the world both more predictable and more profitable. The availability of micro-level data lets corporations customise consumer experiences, automate processes and make decisions in real time.

The context gave digital platforms an incentive to grab as much data on users’ online activities as they could so they could mine it later.² This is a revolution in how businesses are conducted. The main product of digital platforms is not the services they offer users (the services are often free) but rather the data they aggregate from online activities.

¹ Stiglitz 2013

² A good approach to this phenomenon can be found in Pollach (2011)

Bruce Schneier was one of the first people to claim that surveillance is the business model of the internet.³ In her book *Surveillance Capitalism*,⁴ Shoshana Zuboff explains that this model was born after the dotcom bubble burst, when data was converted into an asset to monetise. The following extract of an interview by John Naughton captures this:

“As investor pressure mounted, Google’s leaders abandoned their declared antipathy toward advertising. Instead they decided to boost ad revenue by using their exclusive access to user data logs (once known as ‘data exhaust’) in combination with their already substantial analytical capabilities and computational power, to generate predictions of user click-through rates, taken as a signal of an ad’s relevance.”⁵

Andre NG, the head of artificial intelligence at Baidu, in 2017 claimed: “At large [tech] companies, we often launch products not for the revenue but for the data... and we monetise the data through a different product.” Apple CEO, Tim Cook, named this the shadow economy during the Davos meeting in early 2019: “The trail disappears even before you know there is a trail. Right now, all of these secondary markets for your information exist in a shadow economy that’s largely unchecked – out of sight of consumers, regulators and lawmakers.”⁶

Which are the current business models?

To examine current business models, we take the most prevalent companies as a reference. According to market capitalisation, eight companies govern the internet. These are Apple, Microsoft, Alphabet (Google’s parent company), Amazon and Facebook (from the US), and Alibaba, Tencent and Baidu (from China). The figure below shows each company’s market capitalisation.

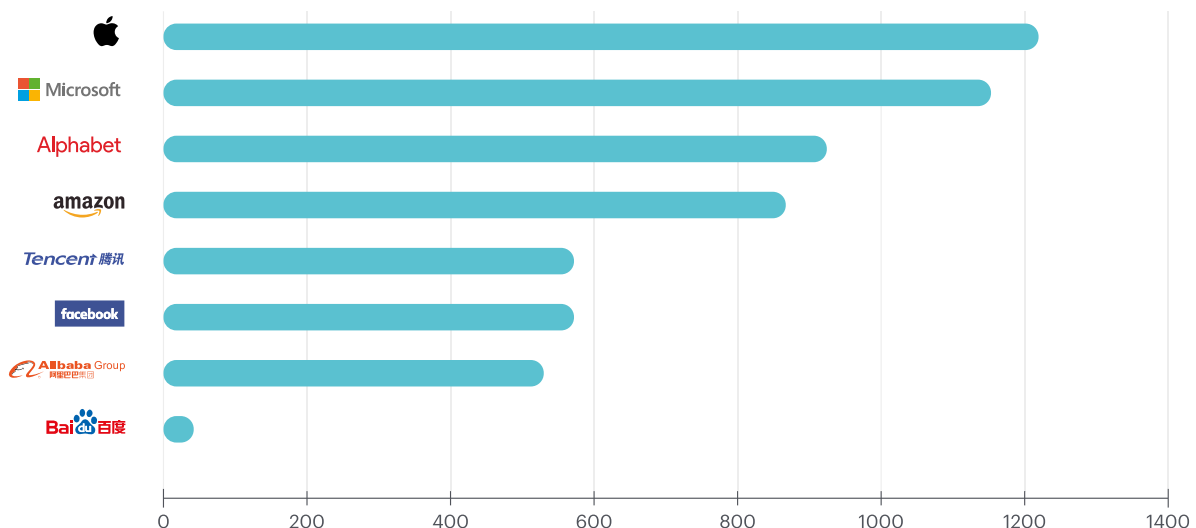


Figure 1: Market capitalisation of the largest internet companies in 2019 (in billion USD)⁷

³ Schneier uses the expression “hidden battles to collect user data” (Schneier 2015)

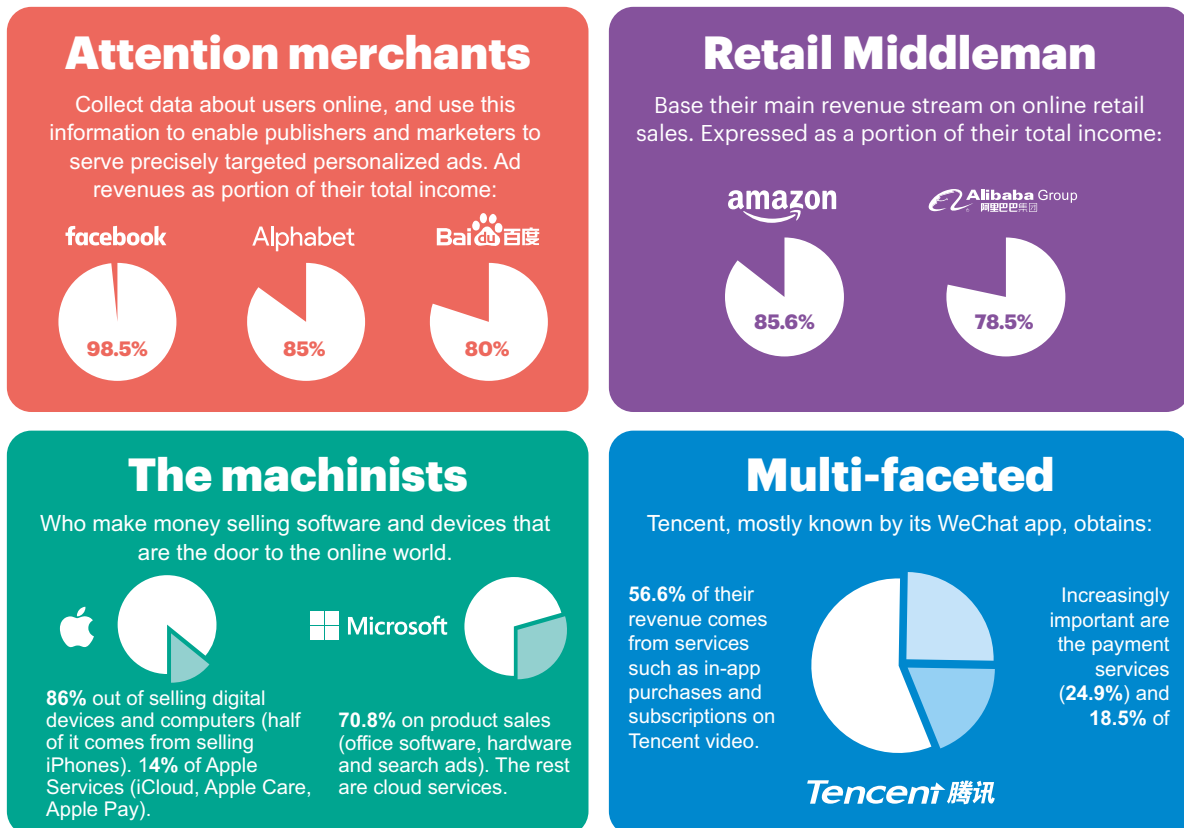
⁴ Zuboff 2019

⁵ Naughton 2019

⁶ Cook 2019

⁷ Source: Market capitalisation estimate from Yahoo Finance. Available at: <https://finance.yahoo.com/>

According to the Internet Health Report 2019,⁸ these companies' main revenue streams show three general business models and a multifaceted strategy:



These are the most prevalent business models in the digital economy. However, they are not used to generate trust and transparency. This has caused discomfort and increased awareness about the potentially abusive practices of big tech companies.

⁸ Mozilla 2019

Discomfort in response to surveillance capitalism

“The web has evolved into an engine of inequity and division, swayed by powerful forces that use it for their own agendas. People want apps that help them do what they want and need to do – without spying on them. Apps that don’t have an ulterior motive of distracting them with propositions to buy this or that.”

- Tim Berners-Lee, father of the WWW⁹

Several cases have been exposed, including privacy violations, automated discrimination as a result of algorithmic decision-making and unethical data practices associated with political campaigns. In 2018, a series of scandals emerged in the areas of privacy and digital rights. Techlash, defined as “growing public animosity towards large Silicon Valley platform technology companies and their Chinese equivalents”, was the word of the year according to the Financial Times.¹⁰ The Edelman Trust Barometer reveals that trust in the tech sector is wavering and has weak foundations:¹¹ only **55% of customers think that big tech companies protect their data, while 63% of internet users are worried about how companies use their personal data.**

Organisations such as the New Economics Foundation¹² have warned that privacy is being commoditised. There are two main risks. First, the internet could become exclusive, for the elite only, due to the need to purchase tools and the time needed to maintain privacy effectively. Second, privacy may be an increasingly unmanageable burden for individuals.

For this and other reasons, there is a public call for transparency and accountability, to rebalance information asymmetries and regain trust. Every company, from big corporations to SMEs, must put aside business as usual and rethink their corporate social responsibility. The next frontier is responsible business: companies that are aware of global challenges (such as the sustainable development goals) and sector-specific risks including privacy, automated decision-making, discrimination and data governance. At the crossroads, trust-enhancing business models based on transparency represent the next competitive advantage. Eventually, transparency efforts could increase digital literacy and related skills, which are becoming essential to escape the digital divide.

As the aim of this report is more practical than theoretical, only three trends are mentioned. Below are three perspectives that can help to understand the approach in many of the case studies and their foundation values.

⁹ Read the full article: Web Creator Works to Liberate Personal Data (BBC News 2018)

¹⁰ Forroohar 2018

¹¹ Edelman 2019

¹² McCann 2018

a) The rise of the anti-tech movement

Discomfort about surveillance capitalism has prompted the rise of the anti-tech movement and even antiGAFAM (with reference to Google, Facebook, Apple and Amazon).¹³ This has taken root in European countries, particularly in France where digital taxes for tech companies were first debated, and Germany where Chancellor Angela Merkel recently called for a European digital system.¹⁴

Many experts like Zeynep Tufekci¹⁵ have claimed that surveillance capitalism is avoidable. However, her solution is connected to encryption, blockchain or other sophisticated security measures, which may not be affordable or realistic in every company.

Within the tech sector, a new tech worker movement¹⁶ has emerged in the last two years. Employees have been protesting for human and labour rights and against the creation of technologies that foster discrimination and exclusion. Good examples are Zebras Unite,¹⁷ the Purpose Foundation¹⁸ and platform cooperatives.¹⁹

b) New narratives on the value of data

There are many new narratives on the value of data to establish a fair economy, protect data from profit maximisation or even rethink the value of data beyond monetisation.

a) Sitra, a Finnish innovation fund, has been given the task of studying the future to promote competitiveness, economic growth and well-being. They are leading advocates of a **fair data economy for business**, in which “a sustainable data economy is based on trust”. They envision the fair data economy as “presenting a competitive model for building business value from data in new, trust-based ecosystems.”²⁰ This model is grounded in three principles on rethinking the value of data:

- Data only has value when it is used.
- Unused data is a major cost.
- The value of data increases every time it is used.

¹³ Heskett 2019

¹⁴ Foroohar 2019

¹⁵ Tufekci 2018

¹⁶ Moira Wegel discussed this at the Berkman Klein Center: <https://cyber.harvard.edu/events/goodbye-california>, see also the #TechWontBuildIt rally: <https://twitter.com/hashtag/TechWontBuildIt>

¹⁷ Zebras Unite calls for a more ethical and inclusive movement to counter existing start-up and venture capital culture, more information: <https://www.zebrasunite.com/>

¹⁸ They promote steward-ownership as a legal structure to prioritise mission over profit: <http://steward-ownership.com/>

¹⁹ Scholz and Schneider 2017

²⁰ Sitra Fund, see their fair data economy for business. Available at: <https://data-economy.sitra.fi/>

b) The New Economics Foundation's motto is "protection before profit". The organisation has proposed many principles for the new economy²¹, among others:

- Hardware, software and platforms should protect users by default.
- Digital infrastructures should be based as far as possible on decentralised architecture to disperse power.
- As the data economy enters more areas of personal lives, clear accountability for those collecting and processing our data needs to be ensured.
- There must be transparency within the system to help rekindle trust in the data economy and avoid opaque practices by big corporations.

c) The focus on the financial value of data has skewed the conversation.

- Other incentives beyond financial rewards could be data commons, open data and data for good.
- Organisations that are responsible for data management could be designed. One example is data cooperatives in which users own the platform or can take part in decision-making.²²

²¹ McCann 2019

²² Arroyo, Amjad and Murillo 2019

c) Digital sovereignty and empowered citizens

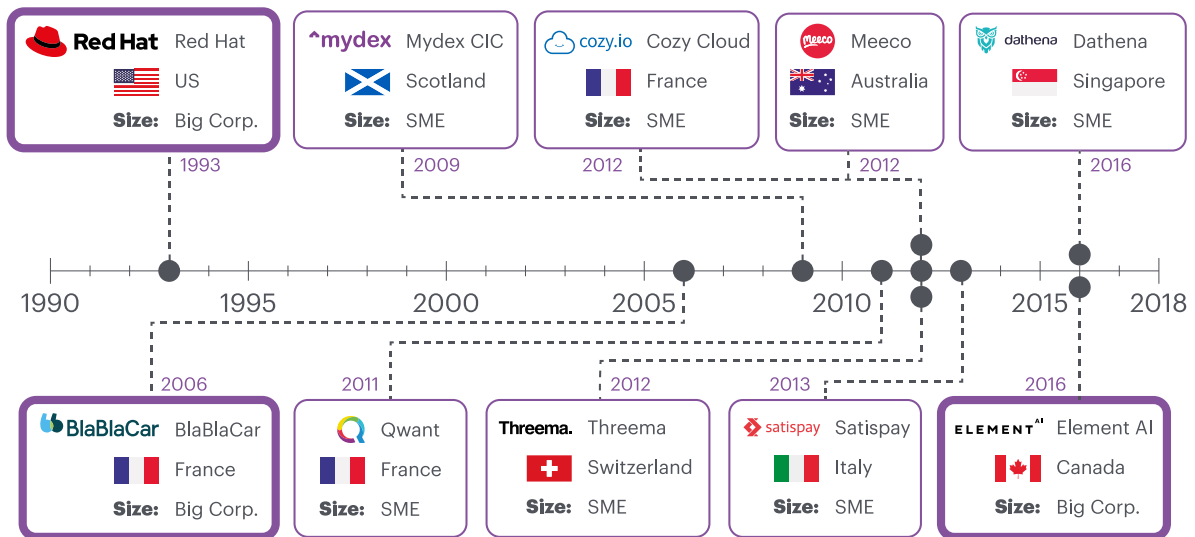
The current logic of the data economy is completely disenfranchising individual users.²³ For this reason, a debate has emerged on digital sovereignty and digital empowerment:

- The narrative on individual rights and actions needs to be supplemented by a narrative on collective rights and actions. Again, this is connected to the idea of data cooperatives.
- Sovereignty is necessarily linked to offering more control over personal data as well as increasing transparency, accountability and digital literacy.
- Common principles of good practices to empower individuals through their own data include: the need to break down data silos and move towards personal data ecosystems, the participation of citizens in the lifecycle of data management and the separation of service editor and data collector.

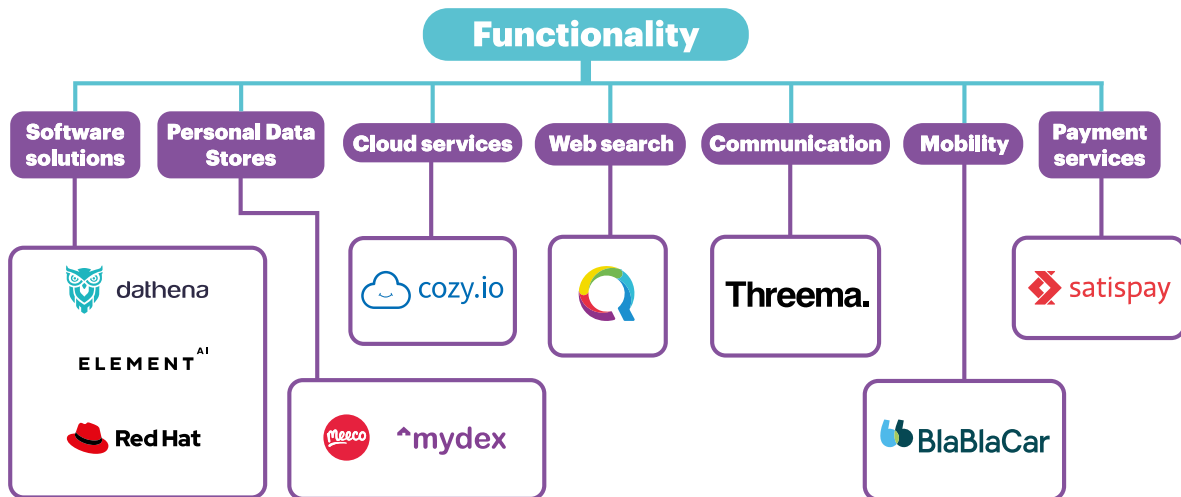
²³ Ibid.

Ten inspirations

This section presents 10 examples of best practices in business models for increasing trust and transparency.^{24 25}



These initiatives offer seven functionalities:



Each case study covers four areas:

1. General overview: demographics of the company, mission, vision and values
2. Their commitment to trust and transparency
3. Economic sustainability and viability, considering their current revenue streams
4. Data management considerations

²⁴ Further details of the sample, data and methods can be found in Appendix 1

²⁵ According to the EU definition, SMEs are companies with a staff headcount of 250 or fewer. Big corporations have over 250 employees:

https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

Case 1. Cozy Cloud



This French start-up offers personal cloud storage services. Founded in Puteaux in 2012, its main product for individuals was launched in 2018. Cozy Cloud provides a ‘digital home’, a personal cloud in which individuals can store and centralise all their data, giving them greater control. The company is helping to democratise privacy-enhancing personal clouds by making them accessible, affordable and easy to use. With 30 employees, Cozy Cloud serves over 40,000 users, mainly in France, and is expanding across European countries.²⁶

Commitment to trust and transparency

Cozy Cloud fosters trust by preserving users’ rights and freedom of choice and aligning its core business with customers’ interests and needs. The cloud services are built on the right to portability (as in the General Data Protection Regulation [GDPR]) and the company avoids what is known as vendor lock-in. Its motto is “you can stay, because you can leave”. Users can choose which server is used to host their cloud.

Cozy Cloud is completely open sourced, so it is auditable and traceable. The code is stored in GitHub and relies on a huge community of developers for application programming interface (API) development. Whenever you want to use a plug-in, you first see a self-explanatory message expressing which types of data you are disclosing to connect to the service, with one icon per category, and an indication of the purpose. Cozy Cloud’s privacy policy is available in a legally compliant version and a user-friendly version, which has been co-created with its users. In terms of privacy and security, Cozy Cloud servers and all the personal clouds are hosted in locations in France by OVH (known for being WikiLeaks’ hosting provider in 2010). All data is encrypted and securely stored.

²⁶ Arroyo, Amjad and Murillo 2019

Economic sustainability and viability

Since its launch, Cozy Cloud has received 5.2 million EUR of funding.²⁷ It has three synergetic business models. The first is a freemium model (B2C): for individual users Cozy Cloud is free up to 5GB, then pricing plans are offered depending on the required storage. The second is white label (B2B): the white label is corporate-oriented. This revenue stream empowers service operators to pursue digital transformation beyond their boundaries to build trust with consumers. The third is development of VRM (B2B2C): VRM stands for vendor relationship management. Instead of selling personal information, the company monetises opportunities for interaction. For instance, when a user has bought a car, the bank may offer a car insurance service within the Cozy Cloud environment, i.e. while the user is checking their bank status. This stream is still in test mode and requires critical mass to work. Venture capital (VC) is still the main source of capital for the company.²⁹ However, beyond VC, the three business models are distributed unevenly: 95% of earnings come from the white label model while the rest are from the freemium model for users.

Data management

Cozy for individuals is based on data retrieval from third parties and integration within a personal data store. The company is mainly involved in data collection and data storage. However, it does not collect and store personal data other than that requested by users. Data erasure and data sharing depend solely on the user.³⁰

²⁷ Corporate website: <https://cozy.io/en/about/>

²⁸ Searls 2009

²⁹ Cozy Cloud does not publish financial data given that it is not publicly listed. Its yearly turnover has not been disclosed by the company.

³⁰ Tran-Van, Anciaux and Pucheral 2018

Case 2. Qwant



Qwant is a web search engine founded in Paris in 2011 and launched in 2013 to provide a privacy-enhancing alternative to Google. Qwant delivers search results without collecting personally identifiable information from its users and guarantees that searches remain confidential. It has 150 employees across Europe and, since 2018, in China. Qwant serves around 50 million searches every month³¹ and it is the fourth biggest search engine in France (7% of user share) after Google, Yahoo and Bing.³²

Commitment to trust and transparency

Qwant is fostering trust by protecting privacy, offering data security and ensuring information neutrality. Search results are displayed in line with the specific interest and are only search related. The company does not use cookies or collect any personal information about the users and avoids social sorting and behavioural profiling.³³ Qwant states: “We believe you will possibly find commercials interesting when they are directly related to what you are searching.”³⁴

To provide a neutral search experience, Qwant set up an independent index based on open source technology. According to the former CEO, the company has won enough trust to carry about 6% of France’s search traffic, 1.5% of Germany’s and 1% of Italy’s. When Qwant realised that trust and transparency in the digital domain is vital for families, it came up with Qwant Junior. This version of the search engine targets kids (from 6-12), offering them content that is free of sex and violence, without serving ads. This strategy “entrusts parents with a controlled internet service access for their children/minors”.

³¹ <https://www.similarweb.com/website/qwant.com>

³² Statista 2019

³³ Both are practices of discrimination and filtering enabled by new technologies, and are generally used for targeted servicing (Arroyo and Frowd 2018)

³⁴ <https://about.qwant.com>

Economic sustainability and viability

Qwant has received 43.5 million USD funding from investors. Qwant does not publish financial data given that it is not publicly listed. In terms of business model, Qwant is an example in the advertising industry as its main source of revenues are the ads displayed on a results page. Profit has been made through commission received when users visit advertised websites from the search results. VC is the main source of capital for the company, while the estimated annual commission-based revenues are 1 million USD (estimated by third parties³⁵). Qwant is currently exploring other business models.

Data management

Qwant practices data minimisation. It does not collect data about users' searches and avoids any tracking activities. It also guarantees that user data will never be shared or sold to third parties. The only exception is for job applications, unless the user forbids this.

The data is stored on its own servers and kept as long as the services provided by the site are being used. Data erasure is on user request and the procedure is easy and straightforward.

³⁵ <https://www.crunchbase.com/organization/qwant>.

Case 3. Threema

Threema.

The company was originally founded in 2012. It became Threema as it is known today when the three co-founders worked on the first version of an end-to-end encrypted messaging application (EEEMA). This early version was launched in 2012 to provide secure instant messaging to communicate with friends and prevent the systematic collection and misuse of user data by companies and mass surveillance by authorities. Today, Threema employs about 20 professionals and the headquarters have been in Pfäffikon SZ (Switzerland) since 2014. As of January 2018, Threema served more than 4.5m users³⁶. Over 80% of its users are in German-speaking countries (Germany, Austria and Switzerland), followed by the US and Russia.

Commitment to trust and transparency

Threema's mission is privacy and data protection. The company considers trust the cornerstone of its model and transparency the condition to foster confidence. Threema's most crucial components are open source (e.g. the encryption library). The entire security architecture is documented in Threema's Cryptography Whitepaper,³⁷ and there are ways users can validate the encryption themselves.³⁸

In addition, independent experts conduct external audits to check and confirm Threema's respect of its customers' privacy and security.³⁹ Threema makes sure that customers are aware of these audits, which can be found publicly. Another good practice is the Transparency report, published yearly, which includes how the company handles requests from authorities and how many requests it has received since 2014.⁴⁰

Numerous leading businesses use Threema Work as their internal messenger, including well-known corporations, such as Daimler and Bosch, as well as many small and medium-sized enterprises and a large number of public institutions.

³⁶ General information retrieved from: https://threema.ch/press-files/1_press_info/Press-Info_Threema_EN.pdf

³⁷ Find the white paper here: https://digi77.com/software/public/threema_cryptography_whitepaper.pdf.

³⁸ Information retrieved from: https://threema.ch/en/faq/why_secure.

³⁹ More about code audits: https://threema.ch/en/faq/code_audit

⁴⁰ The report can be found here: <https://www.job-und-bildung.de/threema-hoccer-vergleich>.

Economic sustainability and viability

Since the beginning, Threema has only been committed to its users. In fact, the company has refused external investments many times over the years, often giving up opportunities to expand significantly, due to the strong desire of the co-founders to keep sovereignty over decisions and maintain transparency. The business model is traditional, based on one-off payments: individuals pay once for the app and have unlimited access, with no time restrictions. In late 2019, the app cost 2.99 euros for Android and Windows and 3.49 euros for iOS per user. Threema does not serve ads to users to avoid conflicts of interest. Corporate accounts are charged 1.9 euros per month and device.

Most of the revenues come from Threema Work, which offers additional business features, APIs and more. The price for this service is subscription-based, and thus depends on the plan. The company is continuously expanding the B2B portfolio and has developed further services such as Threema Education, Threema Broadcast and Threema Gateway.

Data management

Threema has many interesting data management features. The company states: “The underlying idea is that where there is no data, no data can be misused.” Thus, it offers the service based on anonymity, as phone numbers are not required. It has a specific identification system (Threema ID, a randomly generated identification code), which serves as a unique identifier without revealing any details about the owner’s identity. Linking personally identifiable information to your Threema ID is optional.

Threema comes under Swiss law, which is strict about privacy and data protection. The company’s conception of data minimalism also includes what it calls metadata restraint. Metadata refers to all data relating to communication except for the message content itself. While other messenger providers manage contact lists, groups and conversations on a centralised server, Threema “only assumes the role of a switch: once a message is delivered, it will be immediately deleted from the server”. However, it will be stored on the user’s device.

Overall, Threema collects minimal information that is only stored temporarily. It does not process or analyse data, and sharing with third parties is forbidden. However, any corporation operating in Switzerland is obliged to provide insights to its national government and the EU in case of emergency. For this reason, the solution has been to store only as much data as strictly required by the relevant government bodies.

Case 4. Meeco



Meeco was founded in 2012 in Australia, as a personal data marketplace that gives individuals tools to manage their digital lives. Meeco lets individuals gather and aggregate their personal data from many activities across their life, including identity, financial, social, health and IoT, then share it directly with the people and organisations they trust. The first API was launched in 2014.

Meeco's mission is to give consumers greater control over the information they share and provide the opportunity to share it with various parties simultaneously. Meeco also wants to offer companies and organisations real-time, accurate data about their customers. It has been a pioneer in the data economy or, in its terms, Me2B markets.⁴¹ It has offices in Sydney and Brussels, with more than 20 employees. The number of users is undisclosed.⁴²

Commitment to trust and transparency

Customers' and peoples' trust remains the company's top priority. According to the CEO: "We're committed to enabling greater customer participation in the Digital market." The CEO sees significant benefits for revenue growth, trust and transparency for partners across B2B, B2B2C and the emerging Me2B markets through the adoption of Meeco technology.⁴³

The value proposition for individuals is that they can gain control of personal data, instead of it being commoditised. For companies, generally service providers, the offer is to reduce the risks associated with data management. Meeco never monetises personal data and all data is encrypted. Security is ensured by using blockchain, and all the solutions are available on GitHub for the sake of transparency. At the end of the year, the company is launching a developer portal, which will allow developers to dive deep into the technical nuances of the products. In their employment contract, every employee including the CEO agrees to be terminated if they breach trust or contravene the core values.

⁴¹ Read about the company's Me2B approach: <https://blog.meeco.me/the-me2b-onion/>

⁴² See the corporate information: <https://meeco.me/>

⁴³ Retrieved from the corporate blog: <https://blog.meeco.me/meeco-announces-capital-raise-acquisition-and-european-expansion/>

Economic sustainability and viability

In 2012, the founder started the project with her own money. Back then, her team was building a prototype. Since 2013, Meeco has raised 14.2 million AUD.⁴⁴

Meeco is still trying to settle on a specific business model that will form a confident revenue stream. Currently its revenues come from contracts with partner companies, which outsource compliance for data processing and storage. The main revenue is from B2B sales. While Meeco is free for individuals, organisations that are willing to join its ecosystem pay subscription fees to gain access, and usage fees depending on the volume of data used. The competitive advantage of Meeco is that it allows larger corporations to process data in a simpler, more secure way.

Data management

Meeco positions itself as an end-to-end data management tool. Individual users can collect, store and manage their data. They can analyse who uses their data and how it is used. If any party behaves too pervasively in terms of data usage, its access can be revoked. All data is encrypted and stored in a decentralised ledger (built in blockchain).⁴⁵ Data sharing is seamless as the platform has a built-in consent engine to make data transaction easy.

⁴⁴ Estimate retrieved from: <https://www.crunchbase.com/organization/meeco>

⁴⁵ Read the full technical white paper: <https://digify.com/a/#/view/55d40168f67c4676bed9e49ed99832fc>

Case 5. Mydex CIC



Mydex CIC is a Scottish company founded in 2009. Its mission is to empower individuals to manage their lives more effectively through convenient, trustworthy access and control of their personal data and how it is used by them and others. The core product is personal data stores, which enable information exchange between individuals and service providers in ways that protect the individual's privacy and data. Mydex is registered as a community interest company⁴⁶ (CIC), a legal form introduced in the UK in 2005. These companies are mission-oriented and are conceived as enterprises that are tackling social challenges.

Mydex CIC is present throughout Scotland, serving over 750,000 citizens and 220 collaborating organisations. It has identified over 430 use cases, creating solutions to problems involving personal data that typically cover public services, health and social care, employability, financial services and utilities. It employs 10 people and relies on a community of developers and contributors.

Commitment to trust and transparency

Trust is built through safety, security and ease of use of the personal data ecosystem. Citizens are the integration point, so they can view their content and manage their connections to services. Mydex offers a zero-knowledge platform, where privacy and security are assumed. Efficiency is another advantage for trust. For instance, the company claims to have the capacity to turn an administrative process that usually takes six weeks into 45 seconds. This is achieved by connecting the stakeholders. Transparency is also vital to Mydex, so it makes all its documentation available.⁴⁷

Mydex connects and activates current interactions: most users come via the services that they are already working with, and access and store data in the personal data store. This allows clusters of organisations to work together to serve a common cohort of citizens seamlessly, safely and securely under a trust framework and data sharing agreements that are GDPR-compliant.

⁴⁶ For further information, see the CIC association: <http://cicassoc.ning.com/>

⁴⁷ Read more on the developers' site: <https://dev.mydex.org/>

Economic sustainability and viability

Mydex has been backed by individual investors, people who support the vision and are not pressing for return on investment (ROI). The company considers it is still in investment mode. It is not in the business of data monetisation. Instead, it is selling access to data via this personal data ecosystem.⁴⁸

The core product is a platform that individuals can access and use freely, while organisations pay to connect to it. The company's current business model is project-based funding to develop certain products for specific use cases.

In addition, Mydex is testing subscription models in which organisations would pay a low one-off fee for every system and citizen they connect with over the platform. Thereafter, they pay an annual support fee based on the volume of services and citizens connected. Mydex conceives this as an exponential business model: given its operational gearing is low, the more users and the more organisations that connect to the platform, the greater the revenue growth will be.

Revenues are not disclosed by the company and there are no estimates by third parties.

Data management

As a personal data store, Mydex is involved in data collection, storage and sharing. It does not directly process information, and collection and erasure are on demand.

For individuals, the platform has been developed to manage their identity, and to collect, store, distribute and control their personal data. Individuals choose which data they collect and store in their personal data stores, and from a dashboard they can decide with whom they share their personal data. Data sharing is always with the consent of the individual from the platform and data is shared with connected providers.

⁴⁸ The approach to the value of data can be found at: <https://medium.com/mydex/what-is-the-economic-value-of-data-ef129e6485e1>

Case 6. BlaBlaCar



BlaBlaCar is a car-pooling service app. Since its foundation in 2006 (Paris, France), BlaBlaCar's mission has been to create a global people-powered travel solution, bringing together drivers with empty seats and passengers looking for a ride for long-distance journeys. Its platform connects drivers and passengers who share the cost of the journeys.⁴⁹

BlaBlaCar has added to this peer-to-peer matching service. In November 2018, it made a radical departure from its traditional carpooling business by buying Ouibus, a bus service that was operated by France's national railway company SNCF. BlaBlaCar's new motto is "zero empty seats on the road", and the company keeps its promise to lead social impact by reducing CO2 emissions.

It has over 80 million users across 22 countries including many in Europe, Russia, India, Mexico and Brazil. France is still the country where it has most users, at around 15 million. Service adopters are relatively young: 40 percent of people aged between 18 and 35 use BlaBlaCar. The company now has over 600 employees.

Commitment to trust and transparency

BlaBlaCar's success is highly dependent on trust because it connects strangers to share a journey and people will only adopt the service if they feel safe. Given that trust is of utmost importance to the functioning of the business, the company developed the DREAMS framework⁵⁰ with researchers to foster interpersonal confidence among peers. BlaBlaCar believes that implementing a trustworthy, transparent environment inside the company is crucial to gain these qualities externally.

The core idea is that now, in the trust age, you have immediate access to a person's trust capital, which is accumulated through multiple one-shot interactions with people. Based on this insight, BlaBlaCar devised the **DREAMS** framework, an acronym that stands for:

- **D**eclared information: the official name of the user, age and an up-to-date photo.
- **R**ated: average rating provided by users who the person has been in contact with.
- **E**ngaged: financial commitment to a transaction ahead of the experience, via a pre-payment service.
- **A**ctive: number of rides and average response time to compare ratings.
- **M**oderated: all information provided by users of a sharing service must be third-party verified, whether this is verification of contact or bank details, or the approval of user-generated content.

⁴⁹ See this BBC video for the Inside Story of the company until 2017: <https://www.bbc.com/news/av/business-38597506/the-inside-story-of-blablacar>

⁵⁰ This framework is fully explained in their report *Entering the Trust Age* (Mazzella and Sundararajan 2016)

- **Social:** connecting a profile with other existing social networks will allow a person to leverage their existing online presence to create trust and assess coherence.

BlaBlaCar has adapted its app to this framework, which covers its founding blocks of trust in online communities. Besides this technology-enabled trust, the company also works to respond in case something unexpected happens to passengers (e.g. in cases of driver no-shows, the platform offers alternative solutions so that a passenger can reach the destination).

Economic sustainability and viability

The company has received over 448.5 million EUR in six rounds of funding.⁵¹ It started as a free product under the sharing economy mindset. Monetisation only began after acquiring a critical mass of users and having to invest harder in IT development. The company generates revenue through the transaction fees for arranged car shares that range between 12 and 20% of total ride costs (depending on a set of variables, such as distance covered).⁵²

Now BlaBlaCar is at the diversification stage. New business streams include insurance per ride and the BlaBlaBus scheme (putting the BlaBla brand on local bus operators that already have drivers). Although its core business is related to long-distance rides, the company is testing the BlaBlaLine, which is the same idea but for the city (only available in France). Based on [owler.com](https://www.owler.com),⁵³ the estimated revenues for 2018 amounted to 80 million EUR (92.5 million USD).

Data management

BlaBlaCar participates in data collection, storage, processing, sharing and erasure of personal data. It only collects data provided for security purposes and platform activity. Users must give their name, email, date of birth, gender, phone number, password, photo, address, etc. Drivers must also provide car details, a short biography and their driving license.

Although it is a data-driven company, personal information is only used for internal purposes, meaning the company never monetises personal data.⁵⁴ Data sharing only affects activities related to insurance services if needed during the ride (and always under consent) with trusted insurance providers.

The security of data is ensured by outsourcing its security efforts to DataDome for the true representation of user data and its protection. Moreover, BlaBlaCar stores data on several servers to ensure no loss. Data is stored for 5 years after a person's last log-in or 1 year after closing an account.

⁵¹ https://www.crunchbase.com/organization/blablacar/funding_rounds/funding_rounds_list

⁵² Read more on their commission-based business model here: <https://www.ncrypted.net/blog/blablacar-business-model/>

⁵³ Retrieved from: <https://www.owler.com/company/blablacar>

⁵⁴ See this case study for further details about their data protection policy: https://ec.europa.eu/newsroom/document.cfm?doc_id=46223

Case 7. Red Hat



Founded in the US in 1993,⁵⁵ Red Hat is a software company offering open-source products for enterprises. Its mission was to “reinvent the software industry and materially improve our society functions by empowering engineers to do the right things with software”.⁵⁶ Until 2018, the company was publicly traded on the New York Stock Exchange. IBM, a US-based computer hardware company, offered a buyout of all common stocks, which made Red Hat an IBM business unit.

Red Hat’s unique approach to open source has an important role in the success of the company. Its commitment to openness led to the publication of *The Open Company*, a book written by Red Hat’s CEO,⁵⁷ to help companies to implement this approach in their enterprises. Red Hat has 13,360 employees (as of May 2019) and offices worldwide.

Commitment to trust and transparency

Transparency is the company’s main source of trust and security. Its open source operating system and software prevents data theft or misuse by making movements of data visible to the user. In addition, the support of developers from the open source community creates another layer of trust around coders, as Red Hat uses code written by a third party. On the service side, the company is reliable and customers feel comfortable because they know it will respond well if there is a problem.

Red Hat is known worldwide as a paradigmatic open organisation. The company’s culture is built on freedom, courage, commitment and accountability. Thus, transparency is a vital quality (internally and externally). For example, Red Hat does not make decisions at management level about the company. Instead, it involves employees and lets them share their opinions directly.

⁵⁵ See further details in their corporate blog: <https://www.redhat.com/en/blog/25-things-you-should-know-about-red-hat-0>

⁵⁶ Discover more about their origins in the documentary *Default to open: The story of open source and Red Hat*, freely available from: <https://www.youtube.com/watch?v=vhYMRtqvMg8>

⁵⁷ Whitehurst 2015

Economic sustainability and viability

When Red Hat was founded, the company initially relied on credit debt. It went public (via an initial public offering) in 1999⁵⁸ and has received funding from well-known investors (amount undisclosed).⁵⁹

For many years, the company has been sustainable based on its own revenue. The business model is focused on selling services on top of the open source products in a subscription model base. Subscriptions include support, training and integration services that help customers to use the open-source software products. Customers pay one set price for unlimited access to services such as the Red Hat Network and support at any time of day. The company invented this model, which is known as the Red Hat business model. The model has not been changed since the company's launch.

Red Hat has around 40% of the servers' market share. Its biggest competitor is Microsoft with 50% market share. A lot of big companies are its customers, including IBM that acquired the company over summer 2019 for 34 billion USD, after 20 years of using Red Hat products.⁶⁰

According to Red Hat's open innovation approach, its customers have a huge share in the creation of solutions through two channels: a lot of open source programmers are customers and are one of the company's biggest source of value creation; the company has a very good vision of its customers' needs based on their support requests. Using these two sources, Red Hat is close to co-creation of new or better solutions.

Data management

Red Hat open source solutions can be used for data collection, storage, processing/analysis, sharing and erasure. No data is monetised and thus the company does not profit from user data. The fact that it is open source and can be audited is a means for data usage prevention.⁶¹

⁵⁸ See further details on their corporate blog: <https://www.redhat.com/en/blog/25-things-you-should-know-about-red-hat-0>

⁵⁹ See the list of investors: <https://angel.co/company/red-hat/funding>

⁶⁰ Read the company's full communication: <https://www.redhat.com/en/about/press-releases/ibm-closes-landmark-acquisition-red-hat-34-billion-defines-open-hybrid-cloud-future>

⁶¹ See their approach "more eyes, more security": <https://www.redhat.com/en/topics/security>

Case 8. Element AI

ELEMENT^{AI}

Element AI was founded in Canada in 2016. This company develops artificial intelligence (AI) software to foster efficiency and provides AI consulting services. One of the main pillars of the company is its research department,⁶² which aims to turn cutting-edge research and industry expertise into AI-powered solutions and deliver these solutions to entrepreneurs, start-ups and large corporations. Its goal is to be a trusted partner for companies that want to start using AI but lack knowledge and/or expertise. Its products are adapted to various industries but are mainly used in financial services and the supply chain industry.⁶³

Although Element AI was founded in Canada three years ago, it already has a global reach, with five international offices across the USA, Europe and Asia (Montreal, Toronto, London, Seoul and Singapore). The number of employees is around 500, including more than 100 PhD holders.

Commitment to trust and transparency

Element AI is built around the values of trust, transparency and ethics, as the adoption of AI without trust will be limited.⁶⁴ The company has been involved in drawing up the EU⁶⁵ and OECD guidelines⁶⁶ and white papers on ethics and principles of trustworthy AI application (Ethics Guidelines for Trustworthy AI, Principles on Artificial Intelligence). One of the seven requirements in the Ethics guidelines for Trustworthy AI is transparency. AI business models and systems should be transparent, and decisions should be explained in a way that the stakeholder can understand. Humans must be aware when they interact with an AI system, and must be informed of the system's capabilities and limitations.

The input data used to develop an AI model sometimes contains sensitive personal information, and thus respecting data privacy is crucial. Mozilla⁶⁷ and Element AI are exploring the idea of data trusts: a data collection approach that aims to provide individuals with more control over their personal data (an alternative approach to Europe's GDPR). The idea is that a data trust, that is, an independent watchdog agency approves and controls the collection of data and manages access to it, while balancing privacy and responsible use of technology.⁶⁸

⁶² Its approach to research: <https://www.elementai.com/research>

⁶³ Further details about its solutions: <https://www.elementai.com/industries>

⁶⁴ Learn more about its approach to trust and adoption of AI: <https://www.elementai.com/news/2018/a-missing-ingredient-for-mass-adoption-of-ai-trust>

⁶⁵ EU Ethics Guidelines are available from: <https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai>

⁶⁶ OECD principles for AI are available from: <https://www.oecd.org/going-digital/ai/principles/>

⁶⁷ Learn more about this partnership: <https://www.elementai.com/news/2019/collaborating-with-the-rockefeller-and-mozilla-foundations-to-close-the-human-rights-gap-in-ai-governance>

⁶⁸ Element AI has published a report on data trusts together with the UK Innovation Lab NESTA, available from: <https://hello.elementai.com/data-trusts.html>

Economic sustainability and viability

Element AI received total funding of 257.5 million CAD⁶⁹. Generally speaking, Element AI's revenues come from two sources. The first are advisory services to help companies understand how to utilise AI. Thus, Element AI gets money from consultancy contracts. The second are products: standalone products for customers, which they can use on a software as a service (SaaS) recurring basis. Thus, Element AI receives a monthly fee, similar to a licence.⁷⁰

Element AI does not publish financial data and has not disclosed revenues neither. However, a gradual shift is taking place and in the long-term most revenues will come from products. Nevertheless, the company will still have advisory and enablement services to help clients to adopt AI and use it in their business.

Data management

Element AI helps to build AI systems for companies. AI systems are always built on a data input that is then processed. Therefore, Element AI is involved in data collection and data analysis. Indirectly, the data that is fed into the AI systems is also stored and shared, not in the original form but as an output of the AI model.

The company believes from a policy standpoint that a data trust is probably the best mechanism to help companies, governments and individuals control how their data is being used. The idea of data trusts is that data subjects can select an approach to data governance that mirrors their privacy preferences and values. Data subjects can pool their own data into a legal structure (the trust). A trustee organisation then manages the data in the data subject's best interests, according to the terms of the trust.

⁶⁹ Information retrieved from: <https://www.crunchbase.com/organization/element-ai#section-overview>

⁷⁰ Information partially retrieved from: <https://medium.com/predict/choosing-the-right-ai-business-model-df5d81420d74>

Case 9. Satispay



The company was founded in 2013 in Milan, where card payments are scarce. Its core product is a payment solution through a mobile app. The goal of the company is to become the WhatsApp for payments so that everyone can send and receive money independently, regardless of their bank and mobile operators.

Satispay is currently expanding to other European countries (Germany and Luxemburg). It has around 110 employees. Since January 2015, Satispay has reached over 600,000 app downloads and more than 820,000 registered users who can exchange and spend money on a daily basis in the 90,000 partner shops that are part of the Satispay network.⁷¹

Commitment to trust and transparency

Satispay stresses the importance of ethics, transparency and trust in managing its platform. Merchants and users need to trust the platform to use it as a payment system. The stronger the reputation of the company and its trustworthiness, the easier it will be to attract new users and retain existing ones.

Satispay guarantees that payments are safe and easy. The only sensitive data required is a phone number and an IBAN. Credit card details are not exposed, so risk levels are lower.⁷² This decreases the amount of sensitive data that is collected and reduces and avoids intermediaries' involvement. Satispay is also protected by a five-digit PIN and can be blocked immediately if the phone gets lost or stolen. The company uses InfoCert⁷³ to verify user identity and reliability. InfoCert is the largest certification authority in Europe and enables companies to innovate in customer interactions and operational processes, leveraging from a portfolio of trust-based business solutions and services. Satispay also has an agreement with PagoPA, which is part of the Italian government's payment system.⁷⁴

In terms of security and privacy, Satispay uses a level of protection that is superior to current banking standards as well as an advanced encryption system.

⁷¹ Information retrieved from: <https://www.finextra.com/pressarticle/74723/investors-pledge-eur10-million-towards-satispay-eur15-million-round>

⁷² Learn more about security reasons to use IBAN instead of credit card: <https://support.satispay.com/en/articles/why-the-iban>

⁷³ For further information on InfoCert, see: <https://infocert.digital/customer-story/satispay-and-the-digitization-of-subscription-processes/>

⁷⁴ Read more about this partnership: <https://gomedici.com/satispay-now-on-pagopa>

Economic sustainability and viability

The company has raised total funding of 50.6 million EUR in 7 rounds.⁷⁵ Its business model is commission-based and it differentiates between individual and corporate users.⁷⁶

- Personal accounting pricing: 1 euro for paying payment slips, PagoPA bills and road taxes.
- Business accounting pricing: 0.5% on transactions less than or equal to 10 euros; 0.5%+€0.20 on transactions above 10 euros.

In addition to payments, Satispay offers various other values to the consumer, such as cashback from instore or online purchases, in-app sales that include services such as mobile credit top-up and public service bills and a savings feature where the user can deposit money. Its estimated revenues for 2018 are 1.5 million USD, which indicates it is still relying heavily on external investment.

Data management

Satispay is involved mainly in data collection and data storage. However, it also shares data with subscribed merchants and IT service providers, suppliers of commercial information and others. Satispay collects data such as ID, IBAN, tax code and other contact information like phone number and email on registration. However, the company does not share sensitive data with any other parties. Additionally, Satispay does not track information such as account balance or activity within the bank account.⁷⁷

On the website, users can find an easily understandable security policy covering all the relevant information on data storage and use. In this way, customers feel they are in control of their data, they know what data is stored, how data is handled and who it is shared with.

⁷⁵ See funding rounds and investors: <https://www.crunchbase.com/organization/satispay#section-funding-rounds>.

⁷⁶ Their pricing plans are transparent and self-explanatory: <https://www.satispay.com/en/pricing/>.

⁷⁷ As disclosed here: <https://support.satispay.com/en/articles/privacy>.

Case 10. Dathena



dathena

Dathena is a software solutions company, founded in Singapore in 2016. The founder worked as lead investigator of Swiss Leaks, which was the largest data leak in Swiss banking history. After this investigation, he understood that it was crucial to accurately identify and classify sensitive information.⁷⁸ Accordingly, Dathena's mission is to create a world where data is safe for every organisation and every individual.

Dathena's value proposition is to prevent data loss and promote data compliance by systematically identifying, categorising and thereby protecting data for companies and their customers. The first use cases were Swiss banking and luxury product markets and the first commercial customer signed with Dathena in 2017. Currently, the company has over 60 employees and a global reach, with offices in Singapore, Paris and Geneva.

Commitment to trust and transparency

As Dathena is basically working to protect sensitive data, trust is fundamental. Normally clients hand over their sensitive data to be analysed and/or protected, which means that they need to strongly believe in Dathena's values and trustworthiness. That is why Dathena aims to build long-term relationships based on mutual trust (such as becoming a co-seller with Microsoft).⁷⁹

Dathena provides several solutions to identify, classify and categorise data in different languages; encrypt and protect data; and monitor, track and control data. It can map sensitive data with high levels of accuracy (the company claims 99% accuracy).⁸⁰

It is also reliable for companies because it offers systems that are compatible with the GDPR and other legal frameworks.

⁷⁸ See its story: <https://www.dathena.io/about/our-story>

⁷⁹ Read more about this agreement: <https://markets.businessinsider.com/news/stocks/microsoft-dathena-sign-co-sell-partners-hip-1027863636>

⁸⁰ Further details: <https://www.dathena.io/products/dathena-classify>

Economic sustainability and viability

Dathena has received external investments but the total amount has not been disclosed.⁸¹

Its business model beyond VC is based on subscription and usage fees defined in pricing plans. The solutions are organised around data privacy compliance, data loss prevention and cloud access security. It offers fine-tuned solutions for sectors in which personal data is critical: financial services, defence and security, healthcare, travel and hospitality, and consumer and luxury goods.

Data management

Dathena is essentially a tool for data management and a layer of information security for business. Its basic services cover consent management and privacy law, including policy change detection, vendor risk monitoring and GDPR representation.

Necessarily, Dathena is involved in data collection for identifying, classifying and protecting sensitive information as well as discovering and eliminating redundant data and storing relevant data securely in the cloud. Its technology is designed to ensure the privacy and security of information.



⁸¹See the funding rounds and investors: <https://www.crunchbase.com/organization/dathena-science#section-funding-rounds>

The take-aways

In this part of the report the take-aways of the 10 inspirational cases are described and analysed. Every company has its own journey, depending on its nature. However, some shared characteristics, contextual factors and commonalities can be identified. The aim of this section is to synthesise factors experienced by the companies during their journeys. An overview of the companies is included below.

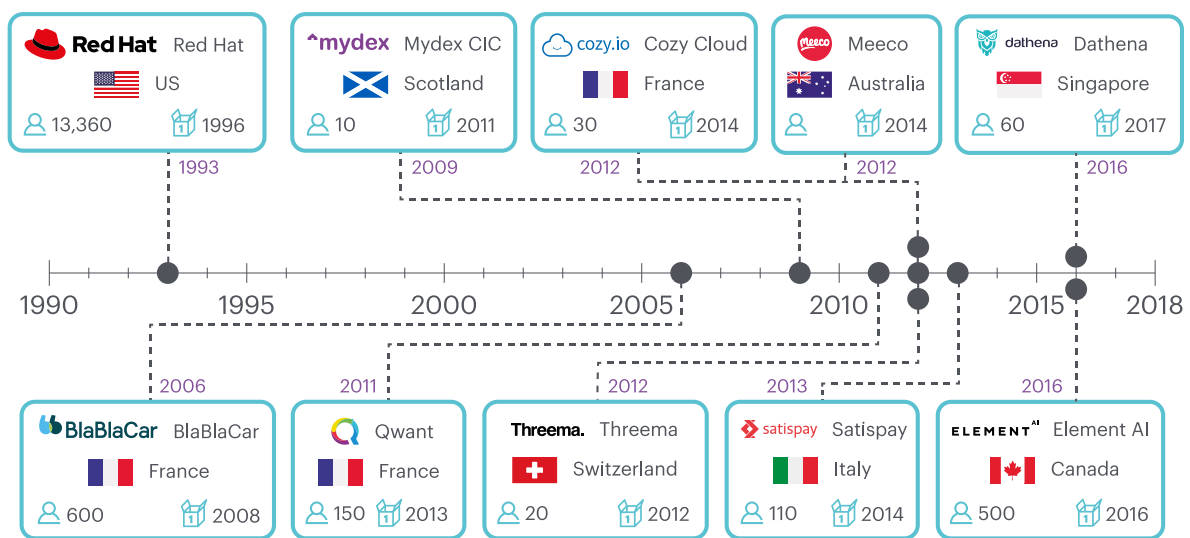










Table 1: Overview of the companies

In fact, most of the companies included in this report were founded in the last decade. Red Hat is the largest and oldest (1993), followed by BlaBlaCar (2006). Venture capital and external investments have been crucial in most of the examples, with the exception of Mydex CIC and Threema, which have purposefully avoided receiving funds beyond their circle of trust.

Although the companies' journeys differ greatly depending on their mission, vision and sector of activity, all have business models for trust and transparency. B2B models are prevalent and often combined with a second revenue stream. None of the companies monetise data. The table below summarises the business models found in these 10 inspirational companies. As noted, most of them combine at least two revenue streams: all have B2B models and most combine this with B2C services or products, mainly under free schemes or one-off payments.

	B2B	B2C	B2B2C	P2P
 Red Hat	3			
 BlaBlaCar	5			5
 mydex	6 5	1		
 Q	4	1		
 cozy.io	3	1		
Threema.	2 3	2	4	
 meeco	6	1		
 satispay	5			5
ELEMENT ^{AI}	3 6			
 dathena	3 5			

- 1 Free or freemium models
- 2 One off-payment
- 3 Subscription-based, Price plans (depending on the service or product)
- 4 Commission based on conversion rates (i.e: click on adverts)
- 5 Commission based on usage (i.e: duration of the ride, payment amount)
- 6 Project-based contracts (developing use cases, testbeds)

Table 2: Business model mix from a comparative perspective

Regardless of their revenue stream design, these models are backed by several strategies for trust and transparency, which are described in the next section.

Factors for success

Usually, success stories are told as linear, cautiously planned trajectories. However, most of the companies included in this report have operated in an emerging space at some point. Their most frequent comment is “pivoting a thousand times is the norm”. Consequently, this section is on examining their journeys: what were the pain points for these companies during their journey? Which external and internal factors act as barriers or facilitators?

Generally, contextual trends, such as regulations or consumer concerns about data misuse, have played an important role in how the 10 inspirational companies have responded to these challenges, found alternatives or used these factors in their favour (e.g. regulations can be seen as a barrier or as a facilitator). The table below lists favourable external factors and the companies that benefitted in each case.








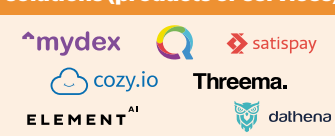
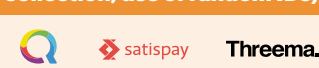



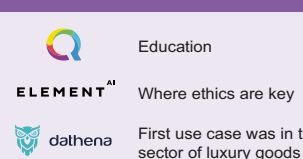

<p>Regulations (GDPR, Strict national regulation with Privacy, Payment Services Directive 2 – PSD2)</p>  <p>“Heavily regulated markets are favourable; they have structures upon which you can rely. In this case of data management, regulations, agreements, reports and laws actually provide valuable guidelines for SMEs and are here to help prosperity of the industry” (Meeco)</p>	<p>Data Scandals, data breaches and raising awareness of consumers’ concerns, advocacy movements, etc.</p>  <p>“After the Snowden revelations the number of users doubled” (Threema)</p> <p>“Cambridge Analytica was a Big Day for us” (Cozy Cloud, Qwant)</p>	<p>The raise of the personal data economy, personal data wallets</p>  <p>“Offering a personal data store with individuals as the integration point, has been our road to seamless healthcare for cancer patients, for instance. We deliver ownership to customers and increase efficiency for organisations at the same time” (Mydex CIC)</p>	<p>Large-scale investment rounds</p>  <p>“Our main investor has been key to attract other believers, when we were barely a proof-of-concept” (Cozy Cloud)</p>
	<p>Support and backing by prescribers</p>  <p>“Investors being knowledgeable has been a good source of legitimization to us” (Element AI)</p> <p>“Gartner has included Dathena as Cool Vendors in a few industry reports” (Dathena)</p>	<p>Supportive Public Administrations (using or promoting them)</p>  <p>Default browser in French ministries</p> <p>US executive depts.</p> <p>Canada supporting them by usage and funding</p> <p>“Qwant does not receive public funds for development. However, the French administration supports the company by using it as the default search engine on its 20 million computers, which will prevent the tracking of civil servants’ online searches” (Qwant)</p>	<p>Partners trusting them in early stages offering testbeds to generate know-how based in real-world examples</p>  <p>“The way that the business evolved initially was that while they were building the core components of the platform, they mainly focused on doing advisory services for clients. The reason why they did that was to validate some of the main points they had as hypothesis” (Element AI)</p>



Table 3: External factors and facilitators (with examples and quotes)

Other trends that were observed but less prevalent are environmental awareness (reducing emissions) and the rise of the peer-to-peer and sharing economy in the case of BlaBlaCar. Several industries as well as consumers have increased demands for transparency, which Red Hat and Dathena have responded to with their software. For Satsipay, the current level of adoption of mobile tech for payments has been crucial.

While global trends have affected the 10 inspirational companies to a varying extent, aspects related to the nature and idiosyncrasy of each company are also relevant. The following table includes aspects referring to internal conditions, drawn from many examples. These factors are grouped in five categories: vision and focus, trustworthy financial sustainability, data awareness, organisational culture, and partnerships and collaborations.

Data awareness		
<p>Offer privacy-enhancing solutions (products or services)</p>  <p>"To ensure its survival and guarantee a trustworthy business model, Threema provides full anonymity to users and stores as little data on servers as possible. For that reason, data like e.g. contacts or group chats are stored in a decentralized way on user devices, instead of on a Threema server. Their servers assume the role of a switch; messages and data get forwarded, but not permanently stored. As soon as a message has been successfully delivered to the recipient, it is immediately deleted from the server" (Threema)</p>	<p>Data Minimalism (limited data collection, use of random IDs)</p>  <p>"We wanted to become the WhatsApp of payments, only using your phone number and IBAN" (Satsipay)</p>	<p>Empowering individual users</p>  <p>"You will stay with us, because you can leave anytime you want" (Cozy Cloud)</p> <p>"Meeco is Katryna's idea born of the movement of like-minded thinkers who believe in the possibility of a shift in the relationship between the person, their privacy and the online world. The Meeco platform allows people to take control of their digital lives, with Katryna's commitment ensuring that, from its inception, Meeco will create and generate real value for the community and be a nexus of online social interactions, brand engagement and mutual value creation" (Meeco)</p>
	<p>Combination of technical robustness with self-explanatory transparency</p>  <p>"We have two versions of terms & conditions: one is in friendly language, two pages long. This is followed by the legally binding" (Cozy Cloud)</p> <p>"Transparency can be a cognitive load. So we are offering lay explanations for users and for experts we publish thorough reports" (Mydex CIC)</p>	
Vision and focus		
<p>Anticipation, capacity to align with global trends, launching products timely</p>  <p>"We wanted to be ready for when the GDPR came into force, so we launched our end-user product in January 2018, 4 months in advance. In March of the same year, the Cambridge Analytica Scandal was a big day to us" (Cozy Cloud)</p>	<p>Specialisation on sensitive data or sensitive sectors</p>  <p>Education</p> <p>Where ethics are key</p> <p>First use case was in the sector of luxury goods</p> <p>"Qwant Junior was born to give response to anxiety of the education sector and parents that are worried for the pervasive collection of their children's data" (Qwant)</p>	<p>Shared long-term vision</p>  <p>"Don't lose the track of what you really want to do. Is so easy to delute yourself. Self-knowledge and self-awareness are important all along the way" (Mydex CIC)</p>

Trustworthy financial sustainability

Independence from VC or investors sacrificing the company for ROI	Offering free service (or at very a cheap price) without monetisation of personal data
 <p>Threema & MyDex CIC have no external investors precisely as a measure of protection of the core vision. Alternatively, Meeco is protecting the mission in front of profit maximisation, by contract.</p> <p>“Threema’s founders could have accessed venture capital many times before, which could have brought the company significant additional growth, but this was avoided because for threema’s founders, the most important factor was to be able to have 100% control of the company” (Threema)</p> <p>“Here we have in place a protective contract of the founder: in order never to sacrifice the concept for value, investors cannot kick her out judging they would make more money” (Meeco)</p>	 <p>“We are not in the business of data monetisation and never will be. We were born as antiGAFA” (Qwant)</p>

Organisational culture

Organisational culture based on internal-external consistency	Hiring talent committed with transparency and trust	Capacity to develop costly technology as competitive advantage (Blockchain, AI...)
 <p>DREAMS trust framework</p> <p>Open innovation, open organisation</p> <p>“Build inside what you want to transmit outside” (BlaBlaCar)</p>	 <p>“Our employees have to respect transparency, privacy and security by contract. In case of data breach, data loss or lack of prevention, he or she will be fired” (Meeco)</p>	 <p>“Using Blockchain is costly so is helping us to pioneer and discourage competitors” (Dathena)</p>

Partnerships and collaborations




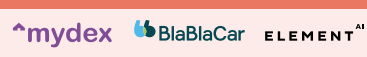
Creating a community & trust networks around them	Active role in partnerships for offering complementary products	Acquisitions as a growth strategy
 <p>rely to a great extent on their community of developers</p> <p>“Customers have a huge share in creation of solutions through 2 different channels. First, many open source programmers are customers, one of our biggest source of value creation. Second, Red Hat has a very good vision of the customers’ needs based on their support requests. Using these two sources, customers’ opinion are very present in the co-creation of new or better solutions” (Red Hat)</p>	 <p>“We are partnering with Brave as we wanted to be the default search engine of the most fiable browser we know until this date” (Qwant)</p>	 <p>“FinTech is constantly changing so our last acquisition is an Australian start-up which is complementary to our value proposition but and already patented and compliant” (Meeco)</p> <p>“With the acquisition of Ouibus, a French bus company, Drivers who share their trips, and bus operators, will benefit from the increased traffic and new demand generated by this enriched offer” (BlaBlaCar)</p>
	Research partnerships	
	 <p>“Element AI was founded with the mission to bring entrepreneurs and academics together and help them incubate advanced AI-First solutions. That is why we have a first-class research lab within the company (1 every 5 is involved in research activities)” (Element AI)</p>	

Table 4: Internal factors and facilitators (with examples and quotes)

Tips and milestones in their journeys

Following the non-linear logic expressed in the previous section, there are specific features of each of the selected companies that make them unique. What follows is a collection of capsules, one for each case, summarising some tips and milestones in their journeys. Each card contains a number of observations and the specific internal and external factors that have facilitated the company's sustainability and success.

First, the journeys of Threema and Mydex CIC are described. These two companies are independent from external fundraising. They both started to develop their proofs-of-concept with the financial support of acquaintances or even the founders themselves.

Threema's journey

Founded in 2012 in Switzerland. This end-to-end encrypted messaging application is a good example of data minimalism, encryption, user security, anonymity and financial independence. Some characteristics of its journey are:

- The company is financially independent and has been led by the three founders from the outset.
- The proof-of-concept took less than one year after the foundation, which is significantly less than the average of two years.
- In the beginning, growth was extremely slow. However, several important data breach events helped the company. For instance, when Facebook bought WhatsApp, the number of users almost doubled in just a few weeks.
- Threema's growth has been organic and through word of mouth. It expanded beyond Europe in 2015.
- The company's competitive advantage is its core value, which has been the trigger to continuous interest from journalists and the general public. This has been an effective external growth driver.
- One thing that has changed over time is Threema's product portfolio. While the company started with P2P messaging, since 2016 a business version has been available: Threema Work, which is tailored to the needs of companies and corporations.

External	Internal
Snowden revelations about the PRISM program (2013)	Its independence and core principles of privacy and security
WhatsApp takeover by Facebook (2014)	Being technically robust but pedagogically transparent
Regulation (Swiss regulation, GDPR)	Data minimalism, the generation of a random ID and the fact that no number is needed
Increased awareness of users and certain groups such as journalists	Transparent and traditional business model, (for individuals around a 3 euros one-off payment and unlimited access)

Table 5: Internal and external facilitators for Threema

Mydex CIC's journey

Founded in Scotland in 2009. This personal data ecosystem application is a good example of service integration, encryption, efficiency and financial independence. Some characteristics of the company's journey are:

- After 12 years, it has pivoted a thousand times and struggled to keep its values and essence. Fortunately, it has a support network of investors who are more aligned with patient capital than venture capital.
- Choosing to be a CIC was carefully considered and aligned with the company's vision. The service had to be free to individuals for life, the data had to be under their control, and Mydex as a company had to be self-sustaining and protect its core values.
- Mydex conceives its business model as a design issue, in the sense that incentives need to be built in and consistent with the value proposition.

External	Internal
A trust circle of investors supporting the project since the start without pressure for ROI	It was developed after a personal experience with the healthcare system and has always been designed to make processes easier and safer. It has never focused on data.
Regulations (GDPR)	Since the beginning, the core values have been clear and remained the same. They are reinforced by its status as a social enterprise and protected by the CIC formula.
Increased awareness among citizens	Projects have grown organically and the number of employees accordingly. All those directly involved in Mydex share the long-term vision.

Table 6: Internal and external facilitators for Mydex CIC

The following capsules contain examples that have or still rely on funding rounds and external investment. The following set includes five SMEs: companies whose staff number 250 employees or fewer.⁸² Big corporations are presented separately, as scale matters.

⁸² According to the EU Definition: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

Cozy Cloud's journey

Founded in 2012 in Paris. This personal cloud solution is a good example of data minimalism, encryption, the antiGAFAs narrative, data portability rights and GDPR anticipation. Some characteristics of the company's journey are:

- The early version was limited. By February 2013, the founder had created a core team and started to work towards scalability and growth.
- Cozy Cloud launched its Personal Cloud at the beginning of 2018, in anticipation of the GDPR, which came into force in May the same year. This law includes the right to portability, which is the concept underpinning the value proposition of Cozy Cloud.
- Regarding its business models, it has pivoted many times. The company started with B2C (freemium storage), which created a community around Cozy Cloud rather than generating profits. It was a source for trust that users could actually test and become familiar with Cozy Cloud. This was followed by B2B services, as Cozy Cloud realised that companies are more aware of the importance of data security and have more capacity to pay. This led to the white label approach, which is a generalised revenue stream in B2B. The VRM business model (still in test mode) followed.
- For end-users, Cozy Cloud relies on organic growth. For companies, its strategy is to seek proactively new contracts for developing ad hoc cloud services.

External	Internal
Partners who trusted in the company in early stages and offered use cases that allowed Cozy to generate know-how, based on real-world examples	Anticipation: launching the product before May 2018, when the GDPR came into force
Regulation played a role, particularly the GDPR, including the right to data portability, which is the main condition Cozy Cloud relies on	Capacity to align with global trends (mainly hiring expert consultants in the digital sector)
The growing interest in personal clouds and data wallets	Offering understandable business models - if customers do not know the brand, at least they should understand the value proposition
Increasing concerns of individuals regarding their data - the company saw a 20% surge in users in the aftermath of the Cambridge Analytica scandal	

Table 7: Internal and external facilitators for Cozy Cloud

Qwant's journey

Founded in 2011 in France. This personal cloud solution is a good example of data minimalism, antiGAFAs narrative, an advert-based business model without monetisation of personal data and fostering information neutrality. Some characteristics of its journey are:

- Qwant works on the hypothesis that the digital advertising industry can be privacy-enhancing, serving relevant ads without collecting sensitive personal information.
- It has developed its own algorithm for information indexing.
- It has been very proactive with partnerships to embed its search engine as the default option in many like-minded browsers.
- Besides its general browser, the company has developed Qwant Junior, focusing on child protection following debates in the education community.
- It has recently hired a new CEO, who co-founded Mozilla Europe.

External	Internal
GDPR	Its European approach
The adoption of Qwant as the default search engine by the French government	Its active role in partnerships offering complementary products (e.g. Brave, a browser offering Qwant as the default search engine)
French-specific aspect: the fact that buying national digital tech is seen as a savvy product choice and good politics	Free service, commission-based on adverts

Table 8: Internal and external facilitators for Qwant

Meeco's journey

Founded in 2012 in Australia. This personal data marketplace is a good example of individual consent, customer participation in the digital market, transparency and mission consistency across the corporation. Some characteristics of its journey are:

- Meeco's focus was and is to enable people and organisations to exchange personal data securely with auditable consent for all life events, compliant with the regulatory changes.
- The core values and mission are protected by contract: investors cannot fire the CEO for the sake of greater profit.
- After many years, Meeco found that it was crucial to enable individuals to participate in the process of value creation. Thus, the company aims to be at the forefront of what it calls the Me2B economy.
- The company prefers working with industries where data is particularly valuable, such as healthcare, banking and insurance, as these sectors are better regulated and therefore have bigger budgets for data security.
- Acquisitions have been key to the company, particularly in the FinTech sector.
- Data protection was considered a potential barrier in the long-term. Nevertheless, the opposite situation was found: data protection was an accelerator for the company, as it provides a framework and most importantly an incentive for companies to start searching for solutions to partner or develop with field specialists.

External	Internal
Regulations: GDPR, Payment Services Directive 2 (PSD2), open banking, Australian Consumer Data Right (CDR) across banking, telecommunications and government services	Financially independent in early stages, thanks to the solid economic conditions of the founder
Greater adoption of data wallets, pushing more data and control back to data subjects with new user-centric business models	Blockchain technology development cost is an entry barrier and serves as an obstacle against competition
Public data scandals (Cambridge Analytica) and data breaches (British Airways, Capital One)	Determined values for trust (4Ps) and responsibility on data breaches by contract
Increasing awareness among individuals	Meeco is positioning itself based on the long-term vision that data quantity and quality (accuracy and intimacy) will continue to increase, making it valuable for the consumer and more prone to misuse.

Table 9: Internal and external facilitators for Meeco

Satispay's journey

Founded in 2013 in Italy. This cashless payment solution through a mobile app is a good example of data minimalism, easing micropayments, fighting corruption and avoiding intermediaries. Some characteristics of the company's journey are:

- Satispay began with the main vision of lowering the high commissions that are typical of electronic payments. Its main aim was to eliminate the large number of vendors involved in a transaction. The company wanted electronic payments to be available for smaller amounts of money, which could be achieved by eliminating the huge commissions.
- One of its main strategies is to seek investments for capturing customers by investing heavily in marketing.
- It is now looking to enter investment services, to become a one-stop shop for all financial services. Its main driver is to make financial services easily accessible and easy for people to use.
- It developed the B2B and the P2P sides simultaneously. The company tries to foster the retention of users and to attract as many merchants as possible. It retains users through the introduction of cashbacks and additional benefits.
- In cities in which Satispay is already operating, it attracts new merchants through online advertising, while new individual users are targeted through investments in user acquisitions.
- Furthermore, by contributing to the cashless culture, Satispay hopes to lower the government's tax evasion problem.

External	Internal
Development of mobile technologies and their use for economic transactions	Identification of a daily need such as micropayments and finding a mobile-first solution with low prices, due to reducing intermediary redundancies
The growth of cashless payments	Definition of a privacy-enhancing service (based on a phone number and IBAN), without exposing credit card details
	The company has made a great effort to build a very active, loyal customer base.

Table 10: Internal and external facilitators for Satispay

Dathena’s journey

Founded in 2016 in Singapore. Dathena’s software solutions for data protection and security are a good example of an approach based on risk assessment rather than mere compliance, AI B2B solutions and sectorial leadership. Some characteristics of its journey are:

- The business is still fairly young, consolidating products and expanding to other sectors where data is highly sensitive.
- Its solutions are based on critical risk assessment of data. The main reason for this is the background of the founder, who was involved in investigating the Swiss Leaks case.
- Its strategy is to become the market leader in providing data compliance software to large corporations, while generating revenue through software, services and applications.
- It has associated with big players. It gained the first commercial client within a year and has developed solutions ad hoc and on a case basis as collaborations were formed.

External	Internal
Data breaches, which reflect the increasing amounts of data use across industries	The background of the founder and his first-hand information and expertise about risks in data breaches
Regulations on data protection (GDPR and others) as well as enforcement measures	The company focused on hiring senior business leaders to speed up commercial development and build an R&D department
Increasing demand by companies for consultancy services and software solutions for data management	Given the sensitivity of its activity, it has focused on building long-term clients, based on mutual trust
Gartner consultants ranked the company as “Cool Vendors” in the sector two years in a row	Great efforts in marketing and user experience design

Table 11: Internal and external facilitators for Dathena

The third and last group of capsules is composed of the three examples of big corporations included in this report. Their staff numbers are 500 in Element AI, 600 in BlaBlaCar and almost 14,000 in Red Hat

Element AI's journey

Founded in 2016 in Canada. Its AI software solutions and consultancy services are a good example of responsible innovation, AI and ethics, AI for good, partnerships with research organisations and sectorial leadership. Some characteristics of the company's journey are:

- When the business started, the roadmap was very clear. The company knew exactly where it wanted to go and at the time the market validated exactly the approach it was taking. Initially, Element AI was focused on getting revenues externally from advisory services and then it shifted towards product development.
- Element AI began to work with clients from all kinds of industries. Through this wide range of clients and use cases, the company's perspective changed. However, it is still close to the original business plan, as there will always be a business first, one that creates AI frameworks for some of the largest companies in the world.
- Soon after the first year, the company realised that AI development includes the community as well as the technology.
- Element AI wanted to influence the sector and lead it. Therefore, it had to act fast, and more importantly, responsibly. Element AI started to work with partners and create AI "responsibly, with proper governance and frameworks, along with social responsibility".
- The company's approach to trust led it to establish a cutting-edge research department and to be proactively involved with the Academy in the field of AI.
- The growth of the company relies greatly on strategic partnerships with companies, governments and NGOs.

External	Internal
External validation by attracting investors who are very knowledgeable people, which provides legitimacy	Pioneering in the responsible AI domain, become a research-oriented business
Growing interest in AI solutions	Strategic partnerships with governments, NGOs, big companies and prestigious research labs
Increasing concerns about the ethics of AI and its implications for society	Its commitment to the development of AI, both as a community and a technology
	The company's involvement in the dialogue on ethical AI makes it a trustworthy and credible partner.

Table 12: Internal and external facilitators for Element AI

BlaBlaCar's journey

Founded in 2006 in France. Its platform for matching drivers and passengers is a good example of digitalisation of trust among strangers (with the DREAMS framework), interesting roll out strategies in new markets and acquisitions as a growth strategy. Some characteristics of the company's journey are:

- Patience has been crucial. In the beginning, founders struggled to convince everyone, including angel investors, customers and employees, that the trust model of booking a seat in someone else's car is scalable and works. It took over five years to reach a good product-market fit.
- BlaBlaCar has identified certain markets that it has avoided, including the United States because of cheap gas, long distances between cities, and impractical pick-up options for customers.
- Internal and external coherence: ensuring trust and transparency across the company is the best way to foster trust and transparency externally.
- BlaBlaCar selects its own partners through similarities in business, culture and target. It wants to create partnerships only if it can guarantee win-win-win results for the company, the partner and the users.
- The carpooling industry remains highly fragmented, as there are many bus operating companies and platforms to find rides. This led to many acquisitions (as a market entry strategy) for BlaBlaCar in other locations.
- BlaBlaCar has been pivoting its business model under several trial-and-error exercises. The table below shows six discarded revenue streams over five years:

Business Model	Reason for discarding
B2B Business model	Connecting carpooling services for max. 20km trips (i.e. IKEA, Carrefour were early adopters of the service but it didn't get traction for others)
Premium Model	Still B2B - this created an unfair competitive advantage for businesses with means to pay the fee
Monthly Fee Model	It was impossible to develop a price formula because of the sporadic nature of booking by some customers
Advertising Model	Personal data trust issues, that could compromise their confidence
Phone Bridge Model	The members could remain anonymous, but could be reached through paid phone channels where revenues could be split between phone operators and BlaBlaCar. Unscalable, because of differences in phone plans and payment methods and it was not reliable because the call may not go through or the receiver may not pick up
Event Agenda Model	This model was targeted at event organizers but although the model was used for a couple years the model required lots of back-end work with little revenue

External	Internal
Large-scale investment rounds	To penetrate a new country, BlaBlaCar starts by providing the service for free. Once a minimum mass of users is reached, monetisation starts
The rise of the sharing economy and collaborative consumption in response to the financial crisis	The company tested and discarded six business models in a five-year period before adopting its current business mode
Ecological aspects of mobility (car-sharing, reducing CO2 emissions)	Partnering with sociology experts and researchers to develop a trust framework
	New services in the portfolio (the launch of BlaBlaBus) and start-up acquisitions (such as Ouibus and Less).

Table 13: Internal and external facilitators for BlaBlaCar

Red Hat's journey

Founded in 1993 in the USA. Its open source products are a good example of open innovation, the disruptive business model, community building around the product and an open managerial model. Some characteristics of the company's journey are:

- It is referred to as an open source corporation.
- Its business model has always been the same: selling services on top of its open software products, known as the Red Hat model.
- The company's open innovation scheme is embedded in the culture of the open organisation policy. Red Hat's commitment to transparency also leads it to share organisational aspects and recommendations constantly. The company is continually publishing content about this topic on open source, to help people implement it and understand how it works.⁸³
- Red Hat's reputation has been quite good until now, but after its acquisition by IBM there is some scepticism among the open source community.

External	Internal
An increasing demand for transparency	Pioneering in open source software
The inclination of big corporations to use open source software for security reasons	Creating a community of developers and contributors
	Its organisational culture (open innovation within an open organisation)
	Internal-external consistency in terms of trust and proximity to employees and customers

Table 14: Internal and external facilitators for Red Hat

⁸³ Whitehurst 2015

Strategies for trust and transparency

Building trust is not a straightforward process. Every company has developed its own strategies and almost all of them have “pivoted a thousand times” to find a business model that does not compromise the mission, vision and values. What follows is a set of strategies found among the companies.

Rethinking the monetisation of data

The first choice is to decide whether data is considered an asset for designing the revenue streams. Those who answer yes have overcome usual data monetisation at two levels:

a) Monetise access to data (and not the data itself). This requires a mindset shift in which data is no longer conceived as a product and data access becomes the service. In these cases, the company acts as a data broker, to build trust and foster transparency.

b) Involve individuals in the process so they can consent to data sharing. This is aligned with the rise in the personal data economy, where individuals count with their data wallets or personal data stores. From his or her dashboard, every person can decide what information they share, with whom, for what purposes, for how long, etc. Control over personal data is ensured, as this dashboard is also a place for revoking consent at any time and for any reason.

Good examples of this are:

- **Meeco and their approach to the Me2B economy.** In this case, every individual user has a personal data wallet in which to collect, store and manage their data. They can analyse who uses it and how. If any party behaves too aggressively in terms of data use, access can be revoked. Depending on the case, the user can even get money in return for data sharing.
- **Cozy Cloud and their vendor relationship management business model** (still under development). Cozy Cloud offers trustworthy interactions, as only companies that are already providing services can offer further interactions. For instance, after a car purchase, the bank may offer insurance services while the person is checking their bank account.

In both examples, the revenue stream comes from B2B subscription or usage fees, while individuals have free access to the platform.

Practicing data minimisation

Against the general trend of data hoarding that is prevalent within surveillance capitalism, data minimisation is a counter practice that may generate trust and reduce inefficiencies and maintenance costs. It implies a different mindset: from collecting everything by default, to collecting on purpose and following the proportionality principle, which is based on gathering the least amount of data possible to deliver adequately.

Good examples of this are:

- **Qwant:** This search engine offers results that are based on the specific interest and only related to the search. It does not use cookies or collect any personal information about users, and it avoids social sorting and behavioural profiling. While its business model is based on advertising and it monetises every click on the ads served, it works on the assumption that showing ads that are sensitive to the current search is profitable, without compromising users' privacy.
- **Satispay:** It offers a payment solution through a mobile app that only relies on the user's IBAN and phone number. It practices data minimisation that offers a seamless experience while protecting sensitive information (i.e. credit card details cannot be compromised as they are not linked to the user's profile). Identities are verified through InfoCert and other similar services, but the personal information required to use the app is kept to the minimum.

Offering privacy-enhancing solutions

Solutions can be privacy-enhancing in two ways: either through the concept or the real conditions of the solution. The first type includes products or services that are born under a privacy mindset, while the second is more about data security measures. Generally, the two types are found simultaneously, but the former is closer to the vision of the company, while the latter is about building proper data infrastructure. This type of infrastructure is crucial to reduce costs related to breaches and data loss prevention, and to facilitate compliance with regulations, which eventually helps in cost reduction.

Good examples of this are:

- **Threema:** Its mission is privacy and data protection. The company was founded to offer a secure messaging service and it was a pioneer in end-to-end encryption. It offers the service based on anonymity, as phone numbers are not required. The service has a specific identification system (Threema ID, a randomly generated identification code) that serves as a unique identifier without revealing any details about the owner's identity. Linking personally identifiable information to one's Threema ID is optional. The service can be for P2P use, but the company also has pricing plans for corporate users.

- **Dathena:** This is essentially a tool for data management and a layer of information security for business. Necessarily, Dathena is involved in data collection for identifying, classifying and protecting sensitive information, discovering and eliminating redundant data, and storing relevant data securely in the cloud. Its technology is designed to ensure the privacy and security of information. Its approach is B2B only, as the company learnt that corporations are in a better position to afford data protection solutions, given their risks and their capacity to allocate significant budgets for this purpose.

Partnering wisely

Partnerships are necessary and can serve many purposes. Allies can be competitors or partners from other sectors. Partners can help a company to grow, gain influence or even lead the sector in a certain direction. Partnerships are all about trust among partners, and sometimes can be a strategy for building trust beyond them. However, partnerships are also time-consuming and require high commitment levels. Collaborating wisely is crucial.

Good examples of this are:

- **BlaBlaCar:** BlaBlaCar selects its partners according to similarities in terms of the business, culture and target. The company only wants to create partnerships if it can guarantee win-win-win results: for itself, the partner and the users. The strategy is growth via acquisitions. BlaBlaCar constantly ensures that acquisitions match the company's cultural values or it integrates start-ups into the culture of its digital trust framework.
- **Element AI:** The adoption of artificial intelligence is closely linked to trust and transparency, and Element AI is clearly aware of that. Element AI has a cutting-edge research department. However, it is not only committed to the development of AI as a technology but also as a community through partnerships, collaborations and networking opportunities to create AI responsibly. Collaboration between its fundamental and applied research teams and academic fellows, university labs, research communities, AI ecosystems and industry labs helps to set up a system of transparency to deliver more impact. Element AI has been involved in the development of EU and OECD guidelines and white papers on ethics and principles of trustworthy AI application.
- **Qwant:** From the outset, Qwant has relied on collaborations with strategic partners, which have helped further develop the platform and consolidate the company. Notable examples are Microsoft, for its quality technology, and Bing, Microsoft's search engine. Qwant relied on Bing indexing algorithms while it was developing its own, aligned with non-discrimination of information. More recently, it has partnered with Brave, a French search engine that is using Qwant by default, as some French administration departments have adopted Qwant as the default search engine.

Keep solutions open and transparent

Most of the companies surveyed rely on open source solutions and their code is stored publicly. This is beneficial at two levels: it positions companies as transparent and accountable because their code is auditable; it fosters the creation of a community of developers around the service, which helps to enlarge functions and capabilities.

Good examples of this are:

- **Red Hat:** It is the very definition of open source as it was a pioneer in the field back in 1996. The company has been a leader in the world of software development, and most relevant enterprises and governments use it for transparency. While its software is open source and thus freely available, its business model is built on associated services. This model is known as the Red Hat business model. Red Hat is also an example of open innovation and open organisational culture, where employees have a voice and important decisions are taken collectively. This vision has in fact created internal and external consistency, increasing satisfaction among customers and employees.
- **Meeco:** Security is ensured by using blockchain and all the solutions are available on GitHub, for the sake of transparency. At the end of the year, Meeco is launching a developer portal, which will allow developers to examine the product's technical nuances.
- **Threema:** Its most crucial components are open source (e.g. the encryption library) and there are ways users can validate the encryption themselves. Independent experts conduct external audits regularly, and Threema makes sure that customers are aware of these audits, which can be found publicly. Another good practice is the Transparency report, published yearly, which includes how the company handles requests from authorities and how many requests it has received since 2014.

Protecting the core vision

One of the challenges that was repeatedly mentioned by the 10 companies is the risk of compromising the core vision, mission and values. However, many of them shared strategies to protect their initial commitment over time.

Good examples of this are:

- **Mydex CIC:** This is a mission-oriented company and keeping this as a principle is critical to the founders. Choosing to be a CIC (community interest company, a legal form in the UK) was carefully considered and aligned with the company's vision. The service had to be free to individuals for life, the data had to be under their control, and Mydex as a company had to be self-sustaining and protect its core values. The donors and financial backers are trusted people who are aligned with this vision and believe in the mission of Mydex, so they will never push to maximise profits.
- **Meeco:** Its protection is ensured at investor and employee levels. First, by contract, investors agree that they cannot fire the CEO for the sake of greater profit. Second, the company is accountable and responsive, and every employee (including the CEO) in their employment contract agrees to be terminated if they breach trust or contravene the core values.

Recommendations for SMEs

The companies were invited to share their recommendations for SMEs in the digital domain on how to increase trust and transparency. This section is the result of the recommendations provided by them and the factors identified by the research team during the preparation of the case studies and their journeys. The recommendations are organised by topic. Some are basic and easy to implement, while others are more advanced and require greater effort. The recommendations are followed by a critical question which may trigger the process of reflection.

What remains clear for all is that the path to trust and transparency is anything but straightforward or flat, which makes persistence a crucial value. Whatever challenges arise on the journey, these recommendations can be helpful.



Establish a mission, vision and values (and make them clear)

BASIC

Always make sure that the company mission and vision are clear to the customer to create a sense of community and establish long-lasting relationships based on trust.

- What are the main principles and values that will last forever within your organisation? How can you protect them?*

Ensure your trust values and transparency practices remain the same over time. If something changes, make it transparent and tell the customers why it has happened.

- Is there any legal form in your country to protect your mission, such as the CIC formula in the UK? If you are receiving external funding, is there any way to avoid the prevalence of maximisation of profit, when it compromises the mission and vision?*

ADVANCED

Tech is not always the answer. In the right context, technology can foster trust. However, there are always other approaches to trust, including transparency. New technologies are expensive for SMEs and change very fast.

- Does this technology really solve the problem, or is just a technological fix? If a certain type of tech is the answer, what is the question (again)?*

Measure your social impact. When you create anything, you should think of the potential effects. It has been said that whoever invented the airplane, invented the plane crash.

- What benefits and pitfalls can be derived from your innovation? What are the potential dual uses you can imagine?*

2

Embed trust in your incentives and make it consistent, internally and externally

BASIC

Do not focus on data-centric messages. Trust and transparency need to be taken for granted.

- What is your main value proposition, beyond trust, transparency or privacy-enhancing solutions? What need are you aiming to cover?*

Trust is not something people should give away for free, so provide something in return, at least, transparency.

- How can you embrace open culture? Could you be more clear, reliable, accessible, compliant or consistent? Could you renounce something valuable to show how important this topic is for the company?*

Engage consumers, for instance by offering free trials. Clearly mark the differences your service makes. If customers can see the difference, it is a strong purchase argument.

Do not only communicate for trust and transparency but create aligned environments.

- How can you increase trust and transparency across teams? How can you improve your delivery of responsible innovation? When was the last time you assessed your values, processes and resources? Trust and transparency are aligned with management schemes based on freedom and responsibility, rather than control and obedience. On which side of the spectrum are you?*

ADVANCED

Make the acceptance of terms and conditions a pleasant experience.

- Can you design a user experience (UX) around privacy policies? What creative ways can you devise to inform users and request their consent?*

Humanise your company, create a friendly but professional relationship with your customers.

- Could you present your team and their stories? Potential customers want to know who they are working with and want to know where those people come from.*

Abandon management practices that rely on a false sense of control by dictating teams' agendas and embrace an intent-driven management strategy that allows for self-directed teamwork and development.

3

Be transparent, accessible and accountable

BASIC

Be as transparent as your product allows you to be. This approach will support fast approval by your customers and will be rewarded in the long run.

Make all trust issues (good and bad) your highest priority to foster trust in your brand.

- Do you know it can take years to build trust, but only seconds to destroy it?*
- Could you publish a regular transparency report in which information related to data management is shared with the public?*

Be proactive and make interactions easy.

- As a user, is it easy to reach someone in the company and speak to them? Do you have different channels and contact points for every segment?*

Perform external audits: allow external organisations to perform audits of your company processes or code. This will help your company identify any weaknesses and will show transparency.

- Have you been audited externally? Have you thought that this will give the company the opportunity to be part of audit reports?*

ADVANCED

Engage consumers. Offer them free versions so they can become familiar with your product/service.

- Could you offer webinars and other formats to invite customers to free information sessions?*

Validate your product and eliminate false assumptions. Never assume customers will adopt it.

- Could you organise some focus groups to co-create or assess the product together with prospective users?*

Share your code, especially if you promote your company as trustful and transparent.

- Could you make (at least part of) your code publicly available?*

4

Think about the business model as a design issue

BASIC

Let customers know how you use their money, what your business model is based on.

- Is it easy to find your business model, through your website or social media?*

Combine business models: embrace B2B opportunities rather than focusing on users only. This makes users more aware about the importance of data management, gives them incentives to be compliant and have budgets allocated for that particular aspect.

- Can you offer freemium models for individuals? Could this be a good strategy to attract users and generate a trustworthy community around your product?*

Avoid monetisation of data. It will risk your trustworthiness. If you are currently monetising data:

- Can you manage without this? If data is your main asset, could you consider monetising access to data instead of data itself? In either case, involve individuals to empower them with a consent engine. This solution is particularly relevant for data wallets and personal data stores.*

ADVANCED

Benchmark often and know your competitors.

- Could you hire someone who is an expert in the sector or comes from consultancy companies that may have privileged information?*

Be realistic with the revenue prediction.

- Take your revenue prediction and divide it by 10. Could your company still exist?*

5

Remember data is not yours. Practice data minimalism and keep data safe

BASIC

If you are collecting personal identifiable information, even for internal use, apply data minimalism.

- What data are you collecting? What is the least amount of data you need to operate and/or provide the service? Can you find ways to minimise the concreteness of the data gathered? Imagine your company is collecting age for all clients, but the only information needed is whether they are under legal age or not (which could be a yes/no variable).*

Keep data safe. Building a proper data infrastructure will be crucial to reduce costs related to breaches, data loss prevention and compliance.

- Have you been through a risk assessment about your data management? Are you aware of the threats to your systems and weaknesses?*

ADVANCED

Take responsibility and action by anticipating new models of data governance, since reactive approaches to government policy are not enough to regulate new technologies like AI and to protect individuals' data privacy.

- What is the next frontier in your field? Are you and your team aware about current and future trends? Have you worked with future scenarios to understand your opportunities to innovate?*

6 Do not act alone (and partner wisely)

BASIC

Partnerships for proving your concept.

- Which big companies could help to testbed your proof-of-concept with real use cases that can serve purposes of security, compliance, efficiency, etc?*

Partnerships for alignment and legitimation. Try to partner with companies and institutions that have an established name and represent the same values as you.

- Which companies and institutions in your sector or in other sectors represent your values? Approach those who have a good reputation so you will benefit from alignment and will win in legitimation.*

Avoid collaborations with companies that are or have been involved in data scandals.

- Data scandal stories have an impact on awareness raising of consumers and push them to search for better alternatives.*

Partnerships for complementarity: partner with other businesses that deliver complementary products to add value and increase user awareness.

Allow and follow up partnerships with academic research to improve and give something to society in return.

Create B2B partnerships only if they bring added value for both companies and users (create win-win-win situations).

ADVANCED

Think like a platform.

- Can other service providers boost your relevance, for example by creating an API and enriching your services?*

Leverage your collaborative partners' knowledge and engage in a continuous conversation with them.

- Do you consider that in any environment of discovery and innovation nothing is permanent, and it is a continuous path of learning?*

Push for ecosystems. The opportunities of SMEs can rely on the top of ecosystems created by big companies or the public sector.

- Have you approached the government to explain your solution? The public sector can create conditions through regulations and public procurement.*

Push the development of your industry by participating in the dialogue of ethics, trust and externalities, by reaching partners from all spheres.

- ❑ *Which governments, companies, civil society organisations and foundations would be interested in discussing the innovation dilemmas in your field*

7 **Grow well and keep focused**

BASIC

Think big, prepare your solution to manage an increasing number of users and their data.

- ❑ *What would happen if you double the number of customers within three months? Can you rely on your current model, what changes would you need to make it scalable?*

Have a focus: it is certainly true that you need to pivot along the way, but having a clear, measurable focus will empower you in the process of decision-making. *Have you been through a risk assessment about your data management? Are you aware of the threats to your systems and weaknesses?*

- ❑ *How can you ensure that every decision, whether financial, cultural or managerial, reinforces the original mission and vision? If you need to shift, what does it mean in terms of trust?*

ADVANCED

If you use acquisitions as a growth strategy, make sure acquisitions match the company's cultural values.

- ❑ *If you are acquiring start-ups, how can you assess whether they also adhere to the culture of trust and transparency? If they do not, how can you help them in the transition?*

8 **Never give up:** finding a good team or a reasonable amount of capital is never easy. You will encounter millions of obstacles and will need to pivot millions of times.

Epilogue

A call to question

As mentioned in the introduction, an increasing number of movements are taking a stance against surveillance capitalism. However, much of the population is still unaware of the risks of the digital age in terms of privacy. Generation Z seems to have few objections to this phenomenon: they have grown up with another concept of privacy and accept personalisation as positive and desirable. In fact, they have no concerns about technology companies' use of their data, for example to restrict the advertising that reaches them. They prefer restricted advertising and do not mind their data being used because they have "nothing to hide".

There is some latent relativism in this position: centennials question whether we are free in our current society. They think that, if things got worse and we entered a 1984 scenario, we would probably feel that we are as free as we believe we are today. In other words, this is ultimately a question of perceptions that has little to do with real freedom, and it all amounts to the same thing.

This situation has come upon the older generation without warning. Nobody explained the dangers of the digital invasion. Like a sort of silent irruption, it has infiltrated the system in an unforeseen way. We only realise what has happened now that colonisation is complete. Those who were against the idea of control in other eras are demanding their rights and are frightened, while those who never had to fight for these rights do not seem to be worried. We could say that two groups are concerned: the generations that grew up in a world fighting for its freedoms, and those who have had a bad experience with digital control – consider the Arab Spring, digital resistance manuals for protesters in Hong Kong and at-risk groups such as journalists investigating certain topics, among others. Their awareness comes from a negative reference, past or present, personal or collective. Both groups coexist with those born assuming that technology and control is an integral part of our lives.

Faced with the relative indifference of new generations, legislators, especially in Europe, are concerned about how companies' use of data is violating our privacy and making us even more unpredictable and subject to constant nudges from corporations. Companies are gradually reinforcing the tunnel effect: by only letting us see advertising about what supposedly interests us, we cannot develop criteria, taste and preferences in a context of diversity and openness. All this starts at an age when taste has not even formed.

In this context, if we agree that the fight for human rights, including the right to privacy, is something that had and still has value, how can we ensure that technological tools serve this universal good in the future, rather than the other way around? Several factors could help us. One could come from demand. That is, citizens can become aware of their rights and claim them. They can exercise their power as consumers by rewarding companies that are transparent and accountable, and punishing those that are not. In other words, **individuals are a factor of change that can put pressure on companies.**

A second factor could be **employees, the talent.** Although centennials do not lament their loss of privacy, they are much more demanding in terms of transparency and consistency with values. One example is Silicon Valley employees who protested to stop projects with China that they thought went against Google's premise of "Don't Be Evil". **A third motor for change would be legislation:** national and supranational governments can legislate in favour of protection and the transparency of companies, and against bad practices. What is the problem with this? While Europe is at the forefront of this movement, many other countries do not give it importance. Even in Europe, there are many practices that are far from ideal.

Capital could also be a factor of transformation. If those with money decide to deposit it in companies that are responsible, transparent and reliable, and publicise this, other companies will start to move in this direction, following the money. This movement has already taken various forms, such as patient capital or impact investment, made by investors who expect a social return on investments above and beyond ROI.

These factors can bring about progress. However, **part of the change must come from companies themselves.** That is, change will occur because companies choose to be transparent and reliable. But why would they do this? We can think of several reasons. One is passive: they want to sleep peacefully at night and not be burdened with remorse for treating their customers like puppets or numbers. They want to be able to look at others or their children in the eye, without feeling ashamed. A second reason is more active: the desire to be part of an organisation that helps make the world liveable, which does not leave future generations in a situation similar to that of 1984. Companies want to be a part of the solution and not the problem. Another factor is proactive: they want to put into practice what the winner of the 2017 Nobel Prize in Economics, Richard Thaler, recommended in his book *Nudges*. In other words, **companies want to regard customers as friends, as people they care about, and therefore they want to design products and services to be a nudge for good.**

One of Socrates' most famous sayings is: "There is only one good, knowledge, and one evil, ignorance." In other words, according to the father of philosophy, we harm or behave badly because of ignorance. We could apply this to the case of Threema. The company applies a policy of transparency and trust to prevent data loss, security breaches and failures because of the founders' professional careers and knowledge. Hence, we believe in the value of spreading good practices. Companies might be lacking in ethics and transparency because they do not know that it is possible to be more transparent and more trustworthy. By providing examples of companies that have achieved this, we believe that some will consider following this path.

We do not know your intention or concerns as a reader of this report, but we are sure that the good practices described here, the success stories of companies that are being responsible about transparency, are really important. Cases like these foster a more reliable and trustworthy world. A world without trust would be an uninhabitable jungle. So, whatever your intention, we believe that it is important to take these recommendations seriously. **Trust and transparency are the new frontier and there is no future for business as usual.**

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Institute for Social
Innovation (IIS)

Research leaders and coordinators

- **Liliana Arroyo, PhD**
- **Sira Abenoza, PhD**

Research team

Master of Innovation and Entrepreneurship Students (cohort 2019):

Sara Abu, Arnav Agarwal, Alvis Baia Curioni, Vladyslav Bazarov, Laurin Matthias Binger, Andrea Carlone, Jean Jacques Ange De Cassaigne de Beaufort de Miramon de Fitz-James, Isabela De Cesare, Simone De Toni, Kevin Kinan Eyber, Natalie Farmer, Simón Andrés Ferro, Rao Fu, Renata Fulmer, Victor Gérard Pierre-Henri Goundry, Tanay Goyal, Johannes Gronbach, Marloes Jerphia Willemina Grutter, Niket Gupta, Clara Louisa Heinemann, Mikael Jaakko Honkaniemi, Henry Hooper, Pavel Kalinin, Julian Robert Kaupper, Manan Kedia, Philipp Kundratitz, Matthias Kai Lange, Nicoline Lührs, Leonard Lutz, Pierre-Antoine Marie Jean-Paul Magdelain, Eleonora Malvino, Rishabh Modi, Saskia Sophie Muelheim, Naman Nahar, Francisca Valentina Negri, Hideaki Okubo, Alexander Oreschenko, Chiara Pascazio, Alessandro Pacchione, Marta Pinheiro de Melo Perestrelo, Enrico Piroso, Santiago Prada López, Ayush Amit Raniwala, Robin Jesper Reber, Victoria Regina Margaret Reimelt, Zachary Rubens, Maximilian Schollum, Timo Alexander Schulze, Franz Schürmann, Barbara Sebestyén, Mohammad Hadi Shirani, Felicia Norina Siegrist, Carolina Silva Neves E Filipe Torneiro, Patrik Sörös, Hannah Vanquaille, Laurenz Vavrovsky, Jacob von Der Decken, Alexander Georg Waldner, Nadja Tina Weisskopf, Christian Michael Weyer, Maximilian Julian Michael Wilhelm, Megha Yadav, Ann Yu, Yi Bin, Yuan Feng and Gleb Zhukov

Teaching Assistant: Andrea Terzaghi

Expert Contributors

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- **Roman Flepp** - Head of Marketing and Sales, Threema
- **Katryna Dow** - Founder and CEO, Meeco
- **Derek Munneke** - Chief Architect and Head of Engineering, Meeco
- **Vanessa Butt d’Espous** - Head of Corporate Communications, BlaBlaCar
- **Florent Bannwarth** - Business Development Manager, BlaBlaCar
- **Valentine Yonchev** - Open Innovation Labs Engagement Lead EMEA, Red Hat
- **Alex Shee** - Head of the Office of the CEO and Director of Corporate Development, Element AI
- **Benjamin André** - CEO and Founder, Cozy Cloud
- **Alan Mitchell** - Co-Founder and Non-Executive Director, Mydex CIC

Appendix 1:

Data and methods

The research combined desk research, document analysis and web ethnography. All companies were invited to an interview. Seven accepted and their views are included in the form of quotes.

Given the nature of the report, qualitative methods were considered the best approach. The qualitative perspective was critical to focus on why and how questions about organisational decision-making. This approach enabled the research team to capture subjective experiences of the process of gaining trust and transparency, far beyond results and wins.

Inclusion criteria

The eligibility of the case studies was assessed according to a set of variables, including:

- a) Private initiatives (B2B, B2C and P2P)
- b) Operating in the digital domain
- c) Fostering trust and transparency

After we compiled a long list of around 70 examples based on desk research, industry reports and consultation with experts, the short-list was guided by:

- d) Geographical diversity: examples based outside Europe and the US.
- e) Size of the company: covering SMEs and big corporations.
- f) Maturity of the business model: many initiatives are in early stages and operate using venture capital. In this report, we have included initiatives that move beyond investment and have consolidated other revenue streams.
- g) Replicability potential: we avoided companies that use the technological fix, i.e. those that solve the trust problem using blockchain, technologies that are not widespread, are difficult to understand and unaffordable for most SMEs.

Analysis

We identified and analysed 10 best-practices for trust and transparency. For each example, we developed a deep case study, covering the company's mission, vision and values and examining the journey that led them to their current mindset on revenue streams. These case studies are based on publicly available information and in most cases are enriched with interviews, to conceive the business model as a journey rather than a fixed solution. The template for analysis was inspired by the five variables of social innovation.⁸⁴

Secondly, from a comparison of the 10 best practices, we identified common factors for success, which in turn served as the basis for recommendations and critical questions.

Many other aspects were discussed by the research team during the fieldwork. These have been gathered in an epilogue and a call to question.



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