**Table 2.** Minimal dataset

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| **Enterprise** | **Technological knowledge** | **Sustainable idea generation** | **Sustainable opportunity recognition and evaluation** | **Venture launch** | **Sustainable product development** | **New sustainable enterprise financing** | **Scaleup sustainable enterprise** |
| Enterprise A | Doctor of Philosophy degree in Control and Dynamic Systems from the California Institute of Technology | Thought that robotics and artificial intelligence could improve operations of recycling industry | Got connected to Closed Loop Fund and Carton Council to understand the real business issues.  Learnt the industry economics to strategize | 9.2014: Formed Enterprise A | 2014-2015: Started with some sketches, prototypes. 2019: Sprawled recycling center in Florida.  1.2020: launched recycling pilot in Toronto | 2014: Grant from National Science Foundation  2015-2021: received various funding rounds, as well as series A funding of $16 million and series B fundings of $55 million | 4.2020: Marked major AI-driven recycling milestone |
| Enterprise B | Bachelor of Engineering degree in Industrial Engineering from Polytechnique Montreal, Certificate programme in Logistics at the University of Georgia Tech. | Realized that the HVAC industry hadn’t really changed much over last 40 years, and no one really thought about automation technology into buildings | No one had really thought to apply automation technology to buildings. Found fact 20% of global greenhouse gas emissions originated from buildings and HVAC systems responsible for over 50% those emissions | 2017: Formed Enterprise B in Canada | 2017 – 2018: started to develop the technology and began testing in a beta program  2019: installed self-learning technology  2020: Launched the first AI | 2020: Rise $12 million to Drive Global Growth of Autonomous Building Technology | 2020: Rapidly global adoption, expanded to 16 countries, achieved 51% total energy usage in commercial building |
| Enterprise C | Degrees in Life science and Cleantech engineering | Manufacturing accounted for 20 percents of the world’s CO2 emissions, and 80% of factories are still using a spreadsheet to analyze energy data. | Cloud technologies and AI are driven by startups and, interests in industry as well as ambitions of the entrepreneurs to start a new business | 04.2013: Enterprise C was founded in Rennes, France | 2014: developed an innovation apps that seeks out new potential sources for energy saving.  2015: launched version 1.0  2021: launched three products | 2014-2015: raised fund and seedings from various sources.  2017-2020: continuously raised funding for the company such as €2.7 million capital seedings, €2.5 million joined venture fund, €2.2 million from Encevo, and InnoEnergy, and latest in 2020 was €4.5 million capital investment | 2018: saved more than 3% or €150,000 on annual energy bills.  06.2020: generated savings up to 15% and reached financial equilibrium. |
| Enterprise D | Doctoral studies in Electrical engineering at Stanford University | Technology in trucking wasn’t developed over last decades and numerous of truck accidents annually. | There is strong potential of AI to make a big impact on business and society. Trucking is primary means of shipping in America, the founders decided to focus on self-driving technology to transform the trillion-dollar commercial trucking industry | 2016: Enterprise D was founded | 2016: started to build first prototype  2017 – 2020: conducted testing, demo and pilot drives.  2021: began to commercialize its technology | 2020: raised a $200 million series B | 2021: Amazon placed an order for 1000 autonomous driving systems.  2022: launched Product |
| Enterprise E | Doctor of Philosophy degree in Cognitive Science or Artificial Intelligence from Stanford University | Ran neutral networks on a NeXT machine and did own code running Computer vision networks, and looked at the ethics of artificial intelligence (AI) and how concepts arise. | Settled on data and being able to understand the dynamics in real time through AI, and using safety as the initial value proposition | 2015: Enterprise E is founded | 2017: delivered the second generation of Enterprise E’s device.  08.2017: Autonomous driving data from real drivers. | 2015: raised $2.8 million from Trucks Venture Capital  2016: raised $12 million series A  2017: raise $159 million series B | 2019: Enterprise E’s product was in cars in Asia, North America, and Europe. Reduced 35% of accidents. |
| Enterprise F | A four-year tenure at Microsoft, actively contributed to the development and implementation of an AI-driven sales process | Had a lifelong passion for the issue of gun violence while growing up in South Africa | Attended a Run Hide Fight training to understand the need.  Ran research with computer vision algorithms if it increased in accuracy. | 01.2018: Enterprise F.1 was founded in New York city | Spent 18 months building technology.  10.2019: launched the products that targets healthcare, education, corporate and public-sectors.  2021: demonstrated for US Army | 2018: raised various funding from venture capitals,  2019 – 2021: Raised over $10 million from Bling Capital and other capital firms | 2019: rebranded as Enterprise F to mark the growth of the enterprise.  2020: grew over 10 times |