

January 20, 2022

A2Z Smart Technologies Corp. (AZ-US)

A Smart Idea That is Just Beginning to Roll. Initiate at Buy, PT \$18

Initiation of Coverage

► We are initiating coverage of A2Z Smart Technologies Corp (AZ) with a BUY rating and an \$18 per share price target. A2Z officially operates five different business segments – Retail Solutions; Security & Military; Automotive Safety; Portable Energy; and Maintenance and Technical Support. However, for the purposes of this report, we are focusing exclusively on A2Z's Retail Solutions segment and their mobile self-checkout (SCO) smart shopping cart, and assuming that the remaining businesses are spun out or sold. We believe A2Z's Cust2Mate smart shopping cart solution could be a material market share winner in this still extremely nascent but rapidly growing market for the following reasons: 1) Cust2Mate already has a proven product with existing orders in Israel and multiple pilots around the world; 2) We believe the Cust2Mate product is substantially differentiated from the peer group; 3) Management has extensive experience in retail connectivity, with the CEO and multiple team members previously holding high-level jobs within the world's largest retail POS/SCO company, NCR (NCR-Buy); 4) The team already has deep connections in Spain, Italy, Russia and Germany, with multiple partnerships and the most recent acquisition opening incremental doors, including to other potential verticals; 5) A2Z's solution contemplates service expansion into areas like advertising, couponing and big data; Cust2Mate is truly a SaaS offering.

► According to a study by Research and Markets, the global smart shopping cart market was estimated at about \$932 million in 2020, with expectations to reach roughly \$4 billion by 2026, a CAGR of 27.6%. This pales in comparison, however, to the over \$12 trillion grocery market and ~\$1 trillion mobile payment market, with the latter expected to experience a growth rate of over 40% through 2028. A recent study conducted by Anyline suggested that 77% of the 1,500 people they surveyed are more willing to shop at a store that offers scan-and-go (self-checkout). And if that is not enough proof of concept, advancements like Amazon Dash Cart/Go and the recent acquisition of computer vision startup Caper by Instacart for \$350 million (A2Z today has a more advanced product with verified orders and an EV of only \$280 million) should highlight the growth potential in the category.

► A2Z does not need to be THE winner to produce massive upside for investors. For example, the US has an estimated 63,419 supermarkets and grocery stores and nearly double that in total food stores, according to IBIS World and the USDA, respectively. At an average of 300 carts per store, that implies over 19 million carts for supermarket and grocery alone. Even if we assume a 30% maximum potential penetration rate for mix, 1% market share would be greater than our entire 2024 illustrative forecast; we say illustrative because our assumptions include what we view as ultra conservative order growth, minimal physical cost reductions and no improvement in the per month fee. A2Z already has a confirmed \$6 million order in Israel, three established pilots with projections for another 5-7 by year-end, along with a partnership with multiple partners around the world.

FY Dec		Q1	Q2	Q3	Q4	Total	EV/Rev
EBITDA	2022E	(\$23)E	(\$2)E	(\$8)E	(\$10)E	(\$42)E	
	2023E	(\$10)E	(\$10)E	(\$15)E	(\$23)E	(\$58)E	
	2024E	(\$15)E	(\$8)E	(\$8)E	(\$5)E	(\$37)E	
Revenue (m)	2022E	\$0E	\$8E	\$2E	\$6E	\$16E	NM
	2023E	\$5E	\$6E	\$10E	\$21E	\$43E	9.2x
	2024E	\$25E	\$33E	\$41E	\$54E	\$154E	1.9x

Rating:	Buy
Current Price	\$8.82
Price Target	\$18.00
52-Wk Range	\$1.80 - \$12.36
Market Cap (mm)	\$306
Enterprise Value (mm)	\$299
Shares Outstanding (mm)	35
Average Volume (000s)	50
Sector Weight	Overweight

AZ-US	01/18/2022
	1.0
	0.9
	0.8
	0.7
	0.6
	0.5
	0.4
	0.3
	0.2
	0.1
	0.0
Feb	Mar
Apr	May
Jun	Jul
Aug	Sep
Oct	Nov
Dec	22

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Investment Thesis

A2Z officially operates five different business segments – Retail Solutions; Automotive Safety; Portable Energy; Security & Military; and Maintenance and Technical Support. The first, second and fourth in that list are what we would consider the primary business units. On December 30, 2019, A2Z signed an agreement to purchase 19% of the shares of Cust2Mate Ltd, and on November 16, 2020, the Company exercised the Cust2Mate Option and purchased an additional 60.49% of shares. During 2020, the Company commenced the development of two products for the automotive market. A2Z has historically manufactured security and military robotics, mainly unmanned ground vehicles (UGVs). We suspect there could be incremental value unlock potential through sales or spins of all of these ventures but believe the greatest immediate business prospects lie within the Retail Solutions division and their efforts to participate in the rapidly growing smart cart market.

The move to reduce consumer friction in all aspects of the shopping journey has been a long, ongoing effort. While the smart cart market is still relatively nascent, the concept of scan or grab and go has been steadily building behind the scenes, with the headlines largely dominated by Amazon's just walk out technology (Go) and their more recent Dash Cart within their Amazon Fresh stores. We think the arrival of the next phase in awareness was trumpeted by Instacart and their \$350 million acquisition of competitor Caper, despite being what we view as an inferior product. The market appears primed and ready – SCO growth is already in the double-digits, mobile payment growth is forecast at over 40%, and multiple studies suggest that willingness to shop and basket size increase when stores offer this kind of technology. Given that the Cust2Mate team already has a background with NCR, the largest global player in SCO and POS, more doors are likely to open, while integration could be more seamless than the competitive peer group, giving A2Z an edge out of the box.

We think the Cust2Mate solution is one of the most technologically advanced on the market. Most competitor technologies are built on basic computer vision capabilities with a small bar and small-or-no screen. Weighing and security features can be erratic, charge times can be long, batteries bulky and functionality potential limited. Cust2Mate features a stackable, lighter-weight product with a much more robust recognition platform (for example, Caper's system only identifies some estimated 300 items with 80-90% accuracy, which can be an issue for both the consumer and store security) that leverages in-store wifi (ultimately 5G) and utilizes edge computing. We expect the capabilities will grow over time, especially as the Company considers ancillary revenue opportunities rather than just solving for the in-store friction point. Cost per cart is currently ~\$4,500 but a next-gen version is expected by year-end, and we project manufacturing costs will drop to \$2,000 or less within 1-2 years. In addition, the recent partnership with SensePass substantially expands the accepted payments capabilities, further reducing consumer and integration friction.

We are estimating A2Z can generate over \$15 million in their first revenue producing year (2022), with only ~\$2 million coming from SaaS/maintenance revenue. Based on publicly available estimates, this would be 50% greater than what Caper was generating prior to being acquired by Instacart for \$350 million. We see revenue scaling to over \$150 million in 2024, roughly evenly split between SaaS and hardware, based on just over 77,000 estimated cumulatively deployed units. The challenge is predicting timing (from pilot to deployment, order size, when SaaS fees begin, etc.), and so we have taken an ultra-conservative approach, assuming a maximum 60-day trial period, with carts deployed at the end of quarters, and no upside to our \$150/month fee, which we estimate could be more than double before assuming any benefit from ancillary opportunities like couponing, advertising or big data.

Investment Risks

We see a multitude of risks facing A2Z as they begin their journey in a relatively nascent marketplace. Although they already have one commercial order for \$6 million and three pilots signed, there is no guarantee that they will be successful in winning new business or expanding existing relationships. We think it is fair to say that the carts are still in the proof-of-concept stage and any major hiccup in performance or an inability to provide product could further hinder the growth trajectory.

There is also substantial competition in the space, with established big names and new startups entering on a regular basis. The Instacart-Caper deal provides immediate access to Instacart's retail network for one of their better-known competitors and could ostensibly make pitching new business more difficult. Meanwhile, Amazon has already developed a functional cashier-less store in Amazon Go, with substantial advancement of their own Dash Smart Cart solution as well. This puts two well-funded competitors at the center of the headlines and competitive universe, although we actually see Amazon as less of a competitive threat and acknowledge that the market is more than big enough to support multiple successful products.

COVID-19 has created substantial headwinds for the entire industry as well. To begin with, on-premise shopping has been drastically reduced, and there is likely a permanent impairment to that cohort given the rise in availability of online-to-door grocery delivery. Then there are the oft-quoted supply chain issues that have a compound effect – limited stock in-store, increased component costs and decreased component availability. Even having signed deals with a local manufacturer in addition to a broader deal with Flextronics, there is no guarantee A2Z will be able to secure sufficient product or deliver orders on time, which could also limit their ability to pitch new business.

Even with some initial wins on the books, A2Z is still effectively in start-up mode and will likely require additional capital infusions to fund growth. At a current cost of \$4,500 per cart and only a \$150 monthly fee, it will take both substantial time and scale to reach a profit inflection point. So far, the parent company has shown an exceeding willingness to fund operations, and we suspect there is substantial demand to be part of this growing story both within and outside of Israel. However, any limitations to funding would substantially curtail growth efforts and could derail operations entirely.

As is often the case in newly created, early-stage markets, valuation remains highly subjective. If public estimates are accurate, Caper was acquired by Instacart for ~35x revenue. We also believe Standard Cognition and Tracxpoint carry private valuations north of \$1 billion. However, there are no real public yardsticks by which to compare A2Z, and thus we are left to rely on an EV/Revenue multiple based off of a model that has a multitude of unknown variables around order size, timing and SaaS uplift. As such, equity performance will likely largely be more headline driven in the short-term, with longer-term valuation depending heavily on the likelihood of successful penetration of the smart shopping cart market and any TAM expansion that occurs during the business case development.

Everything from A2Z

A2Z deploys their technology in a multitude of markets and verticals. Historically specializing in military technology, A2Z has recently entered the civilian market. Their five main product areas are 1) Advanced retail solutions – revolutionizing in-store shopping via smart carts through their acquisition of Cust2Mate; 2) Defense Robotics – providing security and military grade unmanned ground vehicles (UGVs); 3) Automotive Safety – Eliminating the danger of fuel tank combustion in the event of a collision with their patented Fuel Tank Intelligent Containment System (FTICS); 4) Smart Energy Packs – serving multiple purposes in a safe, quiet and environmentally friendly way; and 5) Maintenance and Technical Support.

While we do believe that any of the above could be of material value in their own right, the recent acquisition of Cust2Mate has created what we believe to be the most tangible, near-term opportunity. Most likely we will see the other parts of the business either spun-off or sold in the coming quarters. For the purpose of this report, we will consider those segments as discontinued operations and will be focused entirely on their developing smart cart technology, which stands as the basis for our valuation and investment thesis, with the remaining segments considered free incremental optionality.

Getting Smarter

In an age where it seems almost everything has become “smart,” from smart phones to smart homes, it seems the time has come for the age-old shopping cart to enter the 21st century. While this is still a relatively nascent concept and market, there is a small handful of larger players, along with an increasing, albeit still modest, number of start-ups, launching pilot programs with grocery chains around the world. As with all things commerce related, the goal is to enhance the customer shopping experience by providing a simple, secure and efficient method to shop – no more unloading and reloading at the register, no more waiting in line, and perhaps even a chance to save the consumer some money. According to a study by Research and Markets, the global smart shopping cart market was estimated at about \$932 million in 2020, with expectations to exceed \$1 billion in 2021 and reach roughly \$4 billion by 2026, growing at a CAGR of 27.6%.

Figure 1: Global Smart Cart Market



Source: Research and Markets

Cust2Mate

On December 30, 2019, A2ZAS signed an agreement to purchase 19% of the shares of Cust2Mate Ltd., and on November 16, 2020, the Company exercised the Cust2Mate Option and purchased an additional 60.49% of shares. Cust2Mate intends to become the leading mobile checkout system in the international market, providing a solution to the hassles of shopping for both consumers and retailers. Utilizing their smart shopping cart, the consumer can shop while simultaneously ringing up their own groceries (a screen/scale combination with embedded computer vision further reduces friction while enhancing security), pay right on the cart and walk out of the store without ever waiting in line or loading and unloading groceries at checkout. The on-cart screen also allows for a personalized shopping experience and digital coupons, resulting in a happier customer, increased loyalty, savings to the consumer and increased revenue. The use of smartphones on premise continues to rise exponentially, and the grocery store is no exception, whether consumers are trying to find sales, budget or take advantage of the loyalty rewards through grocers' loyalty apps. A study conducted by Anyline found that 79% of consumers shop with their phone in hand, within reach or easily accessible. A2Z's aim is to make their smart cart as ubiquitous as the handheld devices that fuel the data and payments behind it.

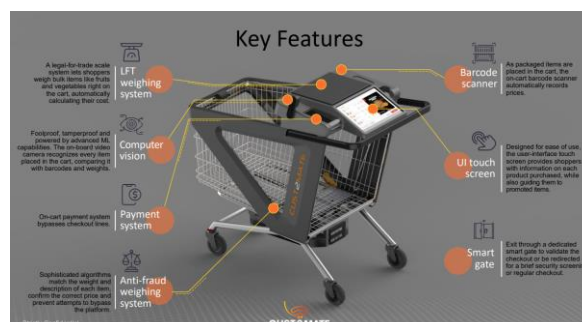
Figure 2: Cust2Mate Smart Cart Overview



Source: A2Z Investor Presentation

Cust2Mate is a highly innovative, end-to-end solution that enables shoppers to enjoy significant savings in time and reduce their overall purchase costs. For the retailer, it creates business intelligence and big data relating to the shoppers' in-store behavior and can be used to create personalized experiences for the consumer, ultimately driving revenue, enhancing shopper loyalty and creating a better shopping experience. Cust2Mate uses proprietary data gathering technology to adapt to changes in the traditional shopping marketplace, utilizes safe and secure connectivity services, either on the customer's intranet or via a secure cloud based third-party solution, and a smart agent to help retailers manage their stores at all operating levels, helping them predict likely outcomes of sales/coupon and special offers targeted to the individual store or consumer.

Figure 3: Cust2Mate Smart Cart Key Features



Source: A2Z Investor Relations

As of now, the standard Cust2Mate smart carts are all made to look the exact same way, as shown in the figure above and the real pictures in the figures on the ensuing page. But what if certain grocery stores need or want certain customization? Or, perhaps more importantly, what if A2Z wants to target additional verticals that would inherently have different feature needs and basket size – home improvement stores, department stores, pharmacies, etc. could all be possible targets. Our base case scenario assumes 60,000 orders in 2024, but we suspect that number could prove highly conservative, not just from the grocery vertical alone, but by increasing their exposure to adjacent opportunities.

With the recent acquisition of Isramat, an Israeli-based manufacturer of precision metal mechanic parts, A2Z gains the vertical integration needed in certain manufacturing capabilities to enter these new retail markets. This will also allow the Company to bring manufacturing to scale to meet the growing demand of smart carts as well as reduce production costs, provide enhanced margins, and enable them to realize supply chain and logistics benefits.

Isramat has 42 full-time employees, with a 5,600 square foot manufacturing facility in Holon, Israel. According to the company website, this facility houses 20 CNC Swiss-type lathes that allows them to produce complex and precise parts with a precision level of 1 micron meter, 32 high precision automatic Swiss-type lathes that allow them to produce parts with a precision level of 10-micron meters, and their product design & engineering services departments with more than 40 years of experience. For the year ended December 2020, Isramat had revenues of approximately \$5.6 million, net profit of \$1 million and current assets of approximately \$3.3 million. Total consideration for the deal is approximately \$3 million, with \$0.9 million in cash and the remaining \$2.1 million in equity consideration. We are assuming that A2Z will be able to maintain Isramat's fairly stable revenue contribution while also obtaining substantial synergies and TAM expansion, although we are not including the revenue explicitly in our quarterly forecast until we have a clearer picture of the go-forward ramifications.

The smart cart market is still in its relative infancy. To date, there have been a few successful pilot programs across the universe of A2Z and their competitors, with A2Z winning a commercial order and Caper being acquired by Instacart, but there are few, if any, fully integrated stores. In 2021, A2Z announced multiple partnerships, making significant progress towards getting their smart carts up and running in some of the largest supermarkets around the world. Here is where the story stands today:

- A commercial purchase order was received for its Cust2Mate product from a leading Israeli supermarket chain during the first quarter of 2021, with the expected roll out scheduled to commence during the fourth quarter of 2021 and persist through to the end of 1Q22/early 2Q22.
- A Cust2Mate pilot project with the largest hypermarket chain in the Middle East was initiated. The integration process is almost complete, but due to Covid-19, the physical delivery of the units is due to commence in the coming months.
- A2Z signed a manufacturing contract with AVCO Systems Integrations Ltd to begin the initial manufacturing of A2Z's Cust2mate smart shopping carts.
- A2Z subsequently signed an agreement with Flex, a global diversified manufacturer, for the production of its Cust2Mate smart carts for the retail industry, providing enhanced batching and scale.
- A2Z signed a distribution agreement with POLIT100 for the promotion, distribution, and service of the Company's Cust2Mate Smart Shopping Carts throughout Italy

- A2Z was selected by a leading grocery chain in Mexico to pilot their SCO solution. The retailer has over 250 stores and the pilot is expected to commence in Q1 2022.
- A2Z signed a sales partnership agreement with Tulik Sky to support the Company's expansion of its Cust2Mate smart cart Platform in North America.
- Following the above, the Company announced a pilot program with Morton Williams Supermarkets, a leading upscale grocery store chain, operating 16 stores in the New York metropolitan area. The 60-day pilot program will employ 50 Cust2Mate smart carts at two of the chain's locations.
- A2Z signed a partnership agreement with "Conect Are Us" for the sales, distribution and service of the Company's Cust2Mate Smart Shopping Carts throughout Spain.
- A2Z began integrating AI from Edgify, for detection of non-barcoded items (fruits and vegetables). Edgify's software provides a 99.98% accuracy and will be in all its carts outside of Israel.
- A2Z launched a new remote attendant system for its Cust2Mate Smart Shopping Carts. The SaaS, IoT system will help store employees to monitor and assist customers shopping in the store via the cart's location and provide valuable business intelligence to store management
- A2Z announced their second US pilot program for its Cust2mate smart carts with Evergreen Kosher Market in New York and New Jersey.
- On January 4th, A2Z successfully concluded a NASDAQ uplisting and began trading on January 5th under the ticker AZ.
- Most recently, A2Z partnered with SensePass, a digital payment Network, which enables customers to pay seamlessly with a digital wallet app, using a PIN pad and contactless pad for frictionless, on-cart, self-checkout. The acquisition of Isramat is detailed above.

Figure 4: Smart Cart in Use

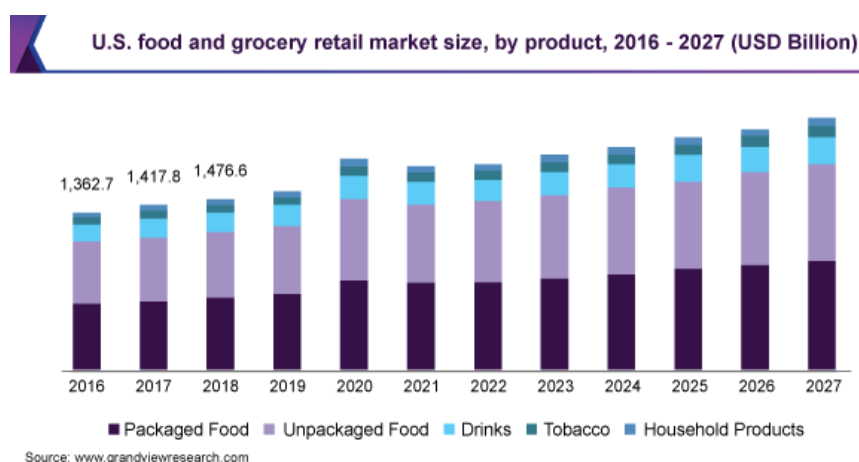


Source: A2Z

Supermarket Opportunity

Grandview Research estimates the global food & grocery retail market size was worth \$12.3 trillion in 2020 and is anticipated to reach \$17.3 trillion by 2027, resulting in a CAGR of 5% over 2021-2027. Rising disposable income and affordability, along with rapid urbanization, have been driving the market across the globe. Also, more middle-income consumers have been raising the demand for quality consumables and grocery retail in developing nations. Furthermore, home delivery and online ordering offered by most supermarkets has become an extremely popular option for those consumers pressed for time or uncomfortable at the grocery store with the current state of the pandemic. It is estimated that in 2021 and 2022, grocery stores will offer between two and four delivery options to customers. Online ordering is one option that many retailers are increasingly thinking about due to its convenience since COVID.

Figure 5: US Food & Grocery Market Size



Source: Grandview Research

Consumer expectations are higher than they have ever been before. A safe, clean and reliable supermarket must be the norm, and it is becoming more evident to store owners that they will have to step up their game to survive. Words like quick, efficient, and up-to-date technology are how the store needs to be seen. High customer service levels used to be a nice thing to have, but now it is a necessity if stores want to grow. In a study conducted by Service Channel, they noticed that over one-third of shoppers reported that a grocery store they recently visited did not measure up to their standards. That means a majority did not have speedy checkouts, organized shelves, and even clean bathrooms.

The most significant trend we see in the grocery retail industry is grocery stores using technology to improve efficiency, reduce waste, and increase profit. A recent study conducted by Anyline suggested that 77% of the 1,500 people they surveyed are more willing to shop at a store that offers scan-and-go (self-checkout). When asked what they prioritize when shopping in store, their first priority was speed of the shopping trip (32%), second was an independent and autonomous shopping experience (27%), and lastly, only 16% of shoppers prioritized interacting with retail workers when going into a brick-and-mortar store, which indicates a growing consumer acceptance of in-store technologies. Grocery automation software, updated POS, mobile grocery apps, kiosk ordering and, most importantly, self-checkout are the future of in-store retail shopping – this is where A2Z is looking to capitalize; A2Z believes they can be in 50% of all the major retail chains around the world.

Sizing the Global Basket

Without going into lengthy detail, if A2Z can bring their Cust2Mate carts into new verticals, this could significantly increase their TAM. For simplicity, to help understand the increased TAM, the following facts are based on the US only, but this is a global company, with global sales, so our hope is the rest of world is seeing similar or better retail trends. According to the Bureau of Labor Statistics, as of Q3 2020, there were 1,045,422 retail establishments in the US, up 4,801 versus Q2 2020, representing the highest establishment count in the last decade despite the pandemic. A study by NRF helps confirm this, showing that retail sales have grown by almost 4% annually since 2010, and as we emerge from pandemic, retail is growing at levels not seen in over 15 years. Retail sales grew an estimated 6.7% in 2020, well above the five-year average of 4.4%. NRF forecasts that sales will have grown between 10.5% and 13.5% to more than \$4.4 trillion in 2021.

Figure 6: Annual Retail Sales and Growth

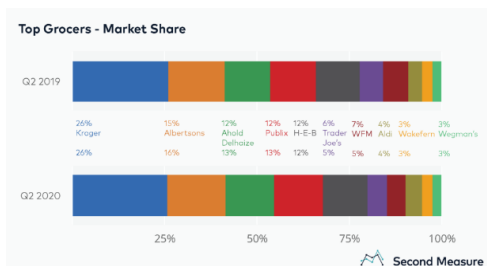


Source: NRF

Eating Up the Competition

The Food Institute reports food retailers comprised 17% of the merger and acquisitions in a given year. Notable deals of the recent year include United Natural Foods acquiring SuperValu, Lidl making a deal for Best Markets, Walmart's majority stake in Flipkart, Spartan Nash's deal for Martins, the acquisition of Safeway by Albertson's, the acquisition of Delhaize by Ahold and Amazon acquiring Whole Foods. Over 300 food industry mergers and acquisitions were recorded in 2019 alone. Take the US for example – in 2018, retail grocery store count declined by 2.5%, and industry experts are expecting the trend will continue at the same level or faster in the next five years. Food Partners reports the number of supermarket bankruptcies has remained steady over the past couple of years, but it ticked higher in 2018. Since 2010, five companies with more than 100 stores have filed for bankruptcy — A&P, Fresh & Easy, Haggen, Southeastern Grocers and Tops. In order to avoid this fate, small and medium size chains are increasingly turning to advanced technologies such as smart carts to entice the consumer back to the store and reduce friction once there. We will discuss the US opportunity later in this report as, while it is large, we see a greater likelihood of material international near-term success.

Figure 7: Top Grocers by Market Share



Source: Second Measure

Going Global**Israel**

Although only 14% larger than the size of the state of New Jersey with a population of about nine million, it only seems fitting to begin the international conversation with the country where Cust2Mate received their first commercial order, validating the proof of concept. According to MarketResearch.com, the Israeli food & grocery retail market had total revenues of \$43.8 billion in 2020, representing a compound annual growth rate (CAGR) of 4.5% between 2016 and 2020. The food segment was the market's most lucrative in 2020, with total revenues of \$33.7 billion, equivalent to 76.8% of the market's overall value. The value of the Israeli food and groceries market grew by 6.5% in 2020 as a result of the COVID-19 pandemic, with increased demand driven by precautionary buying and a spending shift from foodservice channels. In 2020, over 65% of the sales of the total retail market were from supermarket chains, with the top three leading supermarket retailers accounting for over half of the market.

Figure 8: Israel – Quick Facts

<p><i>Quick Facts CY 2020</i></p> <p><u>Imports of Consumer-Oriented Agriculture³</u> (\$million) \$3,598 (2019 data)</p> <p><u>Top Trends:</u> Milk alternatives, Protein-enriched products, Organic, Vegan, Premium, Gluten-free, Online food shopping, Home cooking and baking, Home delivery and Private label.</p> <p><u>Top Host Country Food Retailers</u> Shufersal, Rami Levi – Hasikma Distribution, Merav-Mazon Kol/Osher Add, Dor Alon Israel Ltd, Yochananof, Kol-bow Chazi Hinam, Victory, Freshmarket and Tiv Taam.</p> <p><u>GDP/Population 2020</u> Population (millions): 9.34 (as of April 2021) GDP (billions USD): \$385 (calculated value) GDP per capita⁴ (USD): \$40,800</p>

Source: USDA

Mexico

A2Z plans to launch a pilot in Mexico, the 10th largest country in the world by population, in Q1 of 2022. According to the Mexican Association of Nationwide Retailers (ANTAD), there are 33 supermarket chains, with 3,227 stores, 2,365 department stores, and 53,793 specialized stores throughout the country. Still, nearly 50% of the retail market is covered by informal establishments, such as mobile street vendors and open public markets, which traditionally distribute local, domestic products. ANTAD also reports that retail sales keep a steady growth pace of around 7.8% per year.

Traditional trade (public markets, mom & pops, wet markets) remains important in Mexico due to its convenience and tradition, mainly for the middle and low-income population. Separately, Mexican retailers are adopting an omnichannel strategy to maximize the consumer experience and improve their services at different points of sale. It is common in Mexico to find physical stores and digital platforms. Some retailers are adapting the size of their stores according to each niche market needs.

Figure 9: Mexico – Quick Facts

<i>Quick Facts CY 2020</i>	
Imports of Consumer-Oriented Products \$7.53 billion	
List of Top 10 Growth Products in Mexico	
1) Milk	2) Beef (fresh)
3) Pork (fresh)	4) Processed foods
5) Chicken (cuts)	6) Sauces, condiments
7) Turkey (cuts)	8) Pork (frozen)
9) Beef (frozen)	10) Apples (fresh)
Food Industry by Channels (U.S. billion) 2019	
Food Industry Output	\$5.8
Food Exports	\$24.5
Food Imports	\$9.02
Retail	\$2.7
Food Service	\$12.5
Top 10 Mexico Country Retailers	
1) Bodega Aurrerá (owned by Walmart)	
2) Walmart	
3) Soriana	
4) Chedraui	
5) Comercial Mexicana	
6) Casa Ley	
7) HEB	
8) Oxxo (convenience store owned by FEMSA/ Coca-Cola)	
9) Superama (owned by Walmart)	
10) La Comer	
Source: ANTAD	
GDP/Population	
Population (millions): 124.7 million (IMF WEO 10/18)	
GDP (billions USD): \$1.2 trillion (2018)	
GDP Real Growth: 2.2% (2IMF WEO update 10/18)	
Sources: Mexico by the numbers- ECON Section – U.S. Embassy Mexico	

Source: USDA

In 2018, supermarkets were only 13% of retail sales in the country, while there is a large piece of the Mexico market that may never be reachable due to the traditional markets and corner stores in Mexico that made up 59% of retail sales in 2018. On the conservative side, if we are just using the 33 supermarkets with 3,227 stores – if A2Z can get 50% penetration, with 100 carts per store, charging \$150 per cart per month (\$1,500 down payment) – that gives us total revenue coming from Mexico of over \$25 million per month on the low end. If we use 300 cart per store, which management has suggested would be considered full penetration, Mexico could generate over \$80 million per month. Alternatively, even just a 5% penetration level would yield a range of \$2.5-\$8.0 million/month.

Thailand

Thailand is the world's 20th largest country by population and Southeast Asia's second largest economy, with a 2020 Gross Domestic Product (GDP) of \$502 billion. Supermarkets are highly competitive and are concentrated in Bangkok and in other major provinces such as Chiang Mai, Phuket, Chonburi, and Nakorn Rachasima. Thailand's supermarket segment has many players including Central Food Retail (Central Food Hall and Tops Supermarket), MaxValu, The Mall Group (Gourmet Market and Home Freshmart), Villa Market, UFM Fuji, and Foodland. Middle to high income consumers remain the key target segment for supermarkets, driven by a desire for premium products and services. It is estimated that the average sales per square meter of supermarket was \$291 per month in 2020, a 15% decrease from the previous year.

Rapid growth in smartphone penetration, the growing awareness of technology in the young and tech-savvy population, and rising internet penetration has allowed Thais to access the internet at their convenience and at faster speeds. The increased access to the internet has driven more growth in the retail online market. COVID-19 transformed consumer behavior and accelerated the growth of online grocery purchases. People are demanding more convenience and speed from their products and services. The demand for online purchases pushed grocery retailers to quickly launch or expand their technology offerings when the pandemic first started.

The nine major supermarket brands have 387 supermarkets within Thailand. Applying the same logic as Mexico, Thailand can generate revenues from \$3 million (100 carts/store) to \$9 million (300 carts/store) per month. Pilots will be starting in Thailand in Q1 of this year, most likely by next month, and we are already hearing Thailand chains are asking for carts.

Figure 10: Thailand – Quick Facts

Quick Facts 2020	
<u>Imports of Consumer-Oriented Products: \$6.5 billion</u>	
<u>List of Top 10 Growth Products in Host Country</u>	
1) Dairy products	2) Fresh vegetables
3) Seafood products	4) Food preparation
5) Fresh fruits/.	6) Bread, pastry, cakes
7) Tree nuts	8) Wine and beer
9) Chilled/frozen beef	10) Healthy beverages
<u>Food Industry by Channels (U.S. billion) 2020</u>	
Total Agricultural Exports:	\$37.9
Total Agricultural Imports:	\$18.0
Full-Service Restaurant Sales	\$4.3
Food Delivery Sales (Est. by 2020)	\$1.1
Food and Drink E-commerce Sales	\$0.4
<u>Top Thailand Retailers</u>	
Supermarkets	Hypermarkets
1) Central Food Retail	1) Tesco Lotus
2) Gourmet Market	2) Big C
3) Villa Market	
4) Foodland	Cash and Carry
5) UFM Fuji Super	1) Makro
6) MaxValu	
<u>Convenience Stores</u>	
1) 7-Eleven	2) Family Mart
	3) Lawson 108
<u>GDP/Population</u>	
Population (millions): 69.18	
GDP (billions USD): \$502 (as of 11/2021)	
GDP per capita (USD): \$7,217 (as of 11/2021)	

Source: USDA

Italy

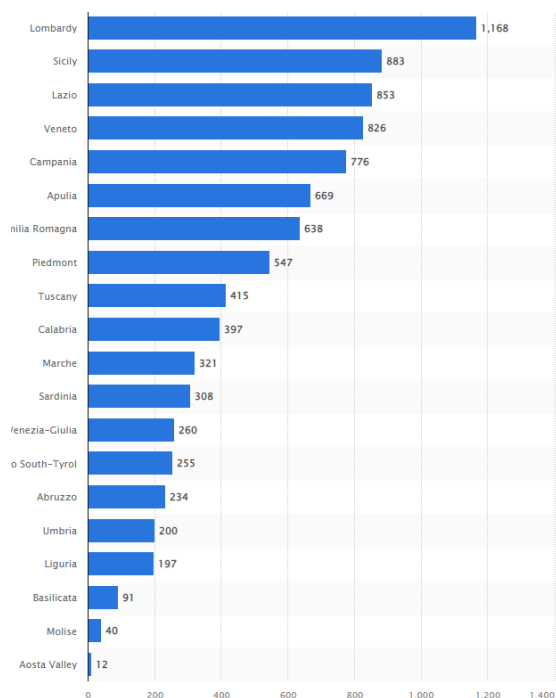
Italy is the world's 23rd largest country by population and is on the list for A2Z to launch a pilot phase of their Cust2Mate shopping cart. A2Z already announced a partnership with POLIT100 to bring their smart carts into Italy and we expect to see a pilot launched sometime in Q1 or Q2 this year. We suspect additional partnerships in the region could lead to TAM expansion as well.

The Italian food retail industry is highly diversified. Hypermarkets, supermarkets, convenience stores, major discount stores, and specialized stores coexist with traditional corner grocery stores and open-air markets similarly to what we saw earlier in the report with Mexico. Italy's food retail sales reached \$175 billion in 2020, up 5.6% y/y. While online grocery shopping grew by 134.4%, increased sales were also registered in discount stores (+8.7%), supermarkets (+6.8%) and grocery retailers (+5.6%). Conversely, sales in hypermarkets (-3.4%) were penalized by the closure of shopping centers during COVID-19 lockdown.

In Italy, the distribution of supermarkets can be related to the distribution of its population. Lombardy, the region with the highest population, took the lead with 1,168 stores as of June 2020. Sicily followed with 883 supermarkets, while Lazio ranked third with 853 supermarket and so on (chart below).

Through data provided by the USDA, there are about 9,090 supermarkets in Italy. Again, applying the same logic as previous countries earlier in the report, Italy could generate anywhere from \$68 million to over \$200 million in revenue per month, or still \$7-20 million per month at just 5% penetration. Pilots should be underway shortly and we will be following closely.

Figure 11: Grocery Stores in Italy



Source: Statista

Figure 12: Italy – Quick Facts

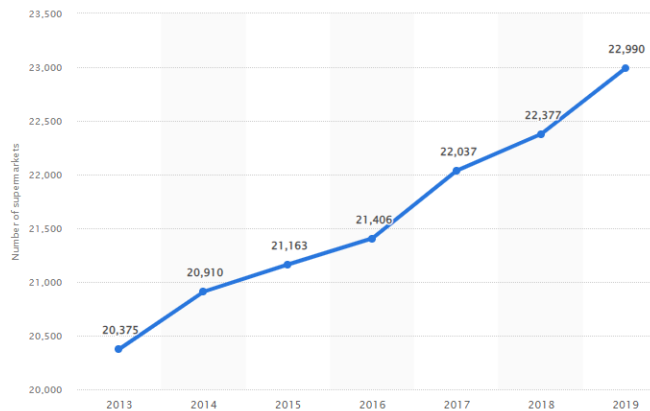
Quick Facts CY 2020	
Imports of Consumer-Oriented Products: \$25.6 billion	
List of Top 10 Growth Products in Italy	
1) Baked goods	
2) Processed meat and seafood	
3) Dairy products	
4) Ice cream and frozen desserts	
5) Pasta and rice	
6) Confectionary	
7) Savory snacks	
8) Sauces, dressings, and condiments	
9) Sweet biscuits, snacks bars, and fruit snacks	
10) Ready meals	
Food Industry by Channels (\$ billion)	
Food Industry Output	\$169.5
Food Exports	\$45.4
Food Imports	\$25.6
Retail	\$175.0
Food Service	\$62.6
Top 10 Italian Retailers	
1) Conad	2) Coop Italia
3) Selex Gruppo Commerciale SpA	4) Esselunga SpA
5) Crai Secom SpA	6) Gruppo VèGé
7) Gruppo Eurospin	8) Schwarz Gruppe
9) Carrefour SA	10) Spar Intl.
GDP/Population	
Population: 60.3 million	
GDP: 1.9 trillion	
GDP per capita: \$31,630	

Source: USDA

Spain

Spain is the world's 30th largest country by population and, in October 2021, A2Z announced that it has signed a partnership agreement with "Connect Are Us" for the sales, distribution and service of the Company's Cust2Mate Smart Shopping Carts throughout Spain. According to Statista, there are roughly 23,000 supermarkets throughout Spain. Again, using the same method of estimating revenue, Spain could potentially generate somewhere between \$172 million and \$518 million at 50%, or \$17-52 million at 5%.

Figure 13: Grocery Stores in Spain



Source: Statista

Figure 14: Spain – Quick Facts

Quick Facts CY2020	
World Imports of Consumer-Oriented Products	
\$16.6 billion	
List of Top 10 U.S. Growth Products	
1) Pistachio	2) Whiskey, Bourbon
3) Gin	4) Chickpeas
5) Food Preparations	6) Surimi/Pollock
7) Hake	8) Frozen Fish Fillets
9) Sweet Potatoes	10) Cranberries
Food Processing Industry Facts 2020	
Food Industry Output	\$157 bn
Food Exports	\$41 bn
Trade Surplus	\$15 bn
No. of Employees	431,800
No. of Food Processors	30,573
% of total GDP	2%
Top Country Retailers Sales 2020 (\$ Million)	
1) Mercadona	29,140
2) Grupo Carrefour	10,749
3) Lidl	5,726
4) EGrupo Eroski	5,460
5) DIA	5,349
6) Alcampo, S.A.	4,027
7) Consum. S.Coop.	3,678
8) El Corte Ingles	3,303
9) Ahorramas	2,214
10) Bon Preu	1,928
GDP / Population 2020	
Population: 47.3 million* (Provisional)	
GDP: \$13,08 trillion (-11%)	
GDP Per capita: \$26,500	
Sources: FIAB, Alimarket, TDM, GATS, Eurostat	

Source: USDA

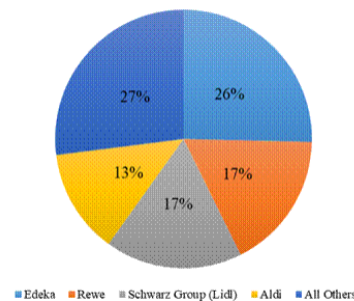
Germany

Germany is the world's 19th largest country by population and Europe's biggest market, with a population of 83.1 million where the food retail sector represents by far the biggest market for food and beverages in the EU. Germany is also a potential target for a pilot program in 2022, with roughly 30,000 supermarkets throughout the country. Interestingly, German supermarkets are typically cheaper than neighboring countries, attracting residents from Belgium, Denmark, Switzerland, and the Netherlands across the border for their weekly groceries.

The German grocery market is saturated, highly consolidated and competitive. The German grocery retail space has traditionally been dominated by only a few key players—supermarket chains Edeka and Rewe and discount grocery retailers Lidl (owned by Schwarz-Group) and Aldi. Considering the 30,000 supermarkets in Germany, A2Z could conceivably generate revenue somewhere between \$225 million and \$675 million, assuming 50% penetration, or \$22.5-67.5 million at just 5%.

Figure 15: Grocery Retail Market Share in Germany

Comparative Market Share of Major German Grocery Retail Chains



Source: USDA

Figure 16: Germany – Quick Facts

<i>Quick Facts CY 2020</i>	
Imports of Consumer-Oriented Products	
USD 70,566 (USD million)	
List of Top 10 Growth Products in Host Country	
1) Pistachios	2) Almonds
3) Walnuts	4) Alaska Pollock
5) Food preparations	6) Wine
7) Hops	8) Peanuts
9) Bread & Pastry	10) Cranberries
Food Industry by Channels (USD billion) 2019	
Food Industry Output	207.4
Food Exports	69.6
Food Imports	62.4
Retail	234.9
Food Service	92.7
Food Industry Gross Sales (USD Billion) 2019	
Food Industry Revenues	
- Food (Domestic market) USD 137.5	
Top 10 Host Country Retailers	
1) Edeka/Netto	6) Real
2) Rewe/Peanny	7) Rossmann
3) Schwarz (Lidl/ Kaufland)	8) Metro
4) Aldi North/South	9) Globus
5) dm	10) Bartels Langens
GDP/Population	
Population (millions): 83.1	
GDP (billions USD): 3,810	
GDP per capita (USD): 45,878	
Sources: TDM, BVE, Destatis, Lebensmittel Praxis	

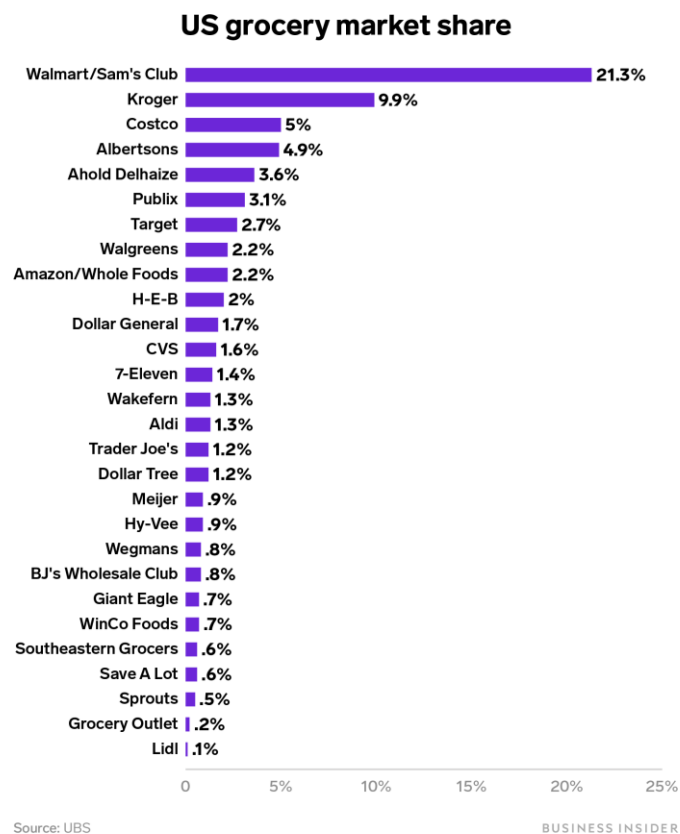
Source: USDA

US

The United States is the 3rd largest country in the world by population and the number one country in the world by GDP, making the US an ideal pilot country. In fact, A2Z has already signed an agreement to launch a pilot program with Morton Williams Supermarkets, a leading upscale grocery store chain, operating 16 stores in the New York metropolitan area. It will be a 60-day pilot program employing 50 Cust2Mate smart carts at two of the chain's locations. A2Z recently signed a second pilot with Evergreen Kosher Market in New York and New Jersey, which we suspect could be a gateway to other chains as well. A USDA report from 2019 shows the nation's 115,526 food stores sold \$717 billion of retail food and non-food products. Grocery stores—including supermarkets and smaller grocery stores (except convenience stores)—accounted for the largest share of store sales (92.1%). In the most up-to-date report on US supermarkets and grocery stores from IBIS World, they calculate that there are currently 63,419 supermarkets and grocery stores in the US as of 2022, a decline of 1.1% from 2021.

The top five grocery retailers in the US in 2020 were Walmart, Kroger, Costco, Albertson's and Ahold Delhaize, together making up roughly 43% of the total US market. In a report on the supermarket and grocery industry by IBIS World, the market size of the industry in the US has grown 2.7% per year on average between 2017 and 2022. With the current amount of grocery stores, A2Z would be looking at a revenue potential of somewhere between \$475 million and \$1.5 billion. Even a 5% share would represent almost \$50 million/month at the low end and \$150 million at the high end.

Figure 17: US Grocery Market Share

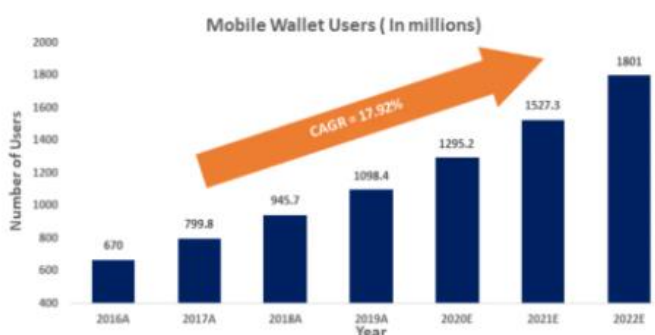


Source: Business Insider

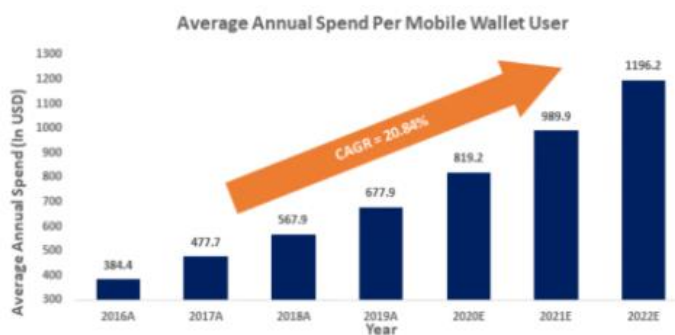
The SCOpe of what is POSSible

Cust2Mate carts are equipped with their own digital payment hub and, through a partnership with SensePass, an omnichannel payments network that connects multiple payment methods and financial services to allow seamless user experiences. The platform enables shoppers to pay quickly and securely from their payment of choice (including cryptocurrency) at any POS or checkout. SensePay also offers Tap & Pay and QR scanning, and can be connected to any loyalty program available at the POS.

Mobile payment is an alternative method for traditional payment systems where customers use cash, checks or credit cards. Mobile payment provides customers a way to purchase any good or services with the help of wireless devices such as smartphones, tablets and others. In addition, mobile payment uses different technologies such as NFC (Near Field Communication), SMS-based transactional payments and direct mobile billing, for improving the security of the transaction and to provide hassle-free transactions.

Figure 18: Mobile Wallet Users

Source: Mobility Foresights

Figure 19: Average Annual Spend per User

Source: Mobility Foresights

The rise in penetration of smartphones across the globe and increase in the commerce industry in emerging countries are the major factors driving the growth of the market. Strategy Analytics concludes that half the world's entire population now owns a smartphone as of June 2021; some four billion people are estimated to use a smartphone today. According to a report by Verified Market Research, the mobile payment market size was valued at \$980 billion in 2020 and is projected to reach \$15.7 trillion by 2028, growing at a CAGR of 41.10% from 2021 to 2028.

Figure 20: Global Mobile Payment Market

Source: Verified Market Research

Cust2Mate's smart carts are basically mobile self-checkout terminals, allowing customers to save time by avoiding long checkout lines. Verified Market Research estimates the self-checkout market could grow at a 13% CAGR from 2021 to 2028, with the TAM exceeding \$9.2 billion in 2028 from \$3.5 billion on 2020. In a 2019 study done by Bizrate Insights, nearly half of respondents (47%) said they use self-service checkouts on a regular basis. Meanwhile, 31% said they have used them before but not as regularly. Only 2% of those surveyed had never heard of self-service checkout. According to data from Statistic Brain, the U.S. maintains the lion's share of terminals at 138,000 out of a total estimated 624,500; 47,000 units were shipped globally last year, highlighting the continued growth in the space.

Figure 21: Global SCO Market

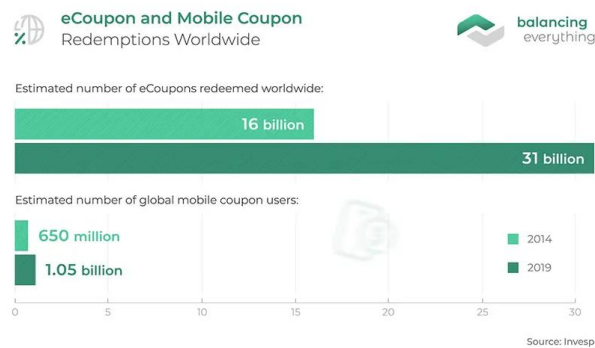
Source: Verified Market Research

"Screenfield" Opportunities

An additional feature of the on-cart screen is the ability to push digital advertisements and targeted ads directly to the consumer. Through a loyalty membership, the store can then gather data on purchases to provide the shopper with a personalized shopping experience. Digital coupons are vouchers that are available online. Digital mediums such as cell phones and laptops are used to distribute digital coupons among customers, aiding many businesses in direct marketing of their brands and improving their sales. Furthermore, digital coupons are delivered to customers in different ways such as short message services (SMSs), multimedia message services (MMSs), E-mails, push notifications, social media platforms and retailers' websites or mobile apps, and with Cust2Mate they will be right on your shopping cart.

The popularity of coupons is not slowing down, and mobile coupons are especially favored. While customers love them for the discounts they guarantee, they pay off for businesses as well. Studies show that 77% of shoppers spend between \$10 and \$50 more than expected when redeeming mobile coupons, with about 17% reporting spending over \$50 when redeeming mobile coupons. Furthermore, according to statistics on coupon usage, about 49% of smartphone users took advantage of mobile coupons. So, while mobile coupons are undoubtedly popular, they are, unsurprisingly, mostly used on smartphones. Juniper Research data shows that the total value of redeemed digital coupons was \$47 billion in 2017. By 2022, the research center forecasts that total redemptions will surpass \$91 billion for a five-year increase of over 93%.

Figure 22: eCoupon & Mobile Coupon Market



Source: Invespro

Time to Refresh the Fleet

Just like any piece of hardware, shopping carts cannot last forever, and to determine how long the typical shopping cart lasts, we gathered information about replacement cycles of retail shopping carts from a study conducted on five different industry sources.

- Premier Carts, which is based in Kansas, says most shopping carts last four to six years in high-volume stores. However, shopping carts can last longer if they are kept inside and taken care of.
- Florida-based Jimco Maintenance Inc., which provides a preventative maintenance program for shopping carts, says carts will last eight years with Jimco's preventative maintenance program, while carts on a reactive maintenance program will last four years, and carts with no maintenance will last two years.
- Tennessee-based shopping cart distributor Good L Corp states that carts not located in tough, urban places should last over five years but also noted that shopping carts should be inspected and repaired at least annually.
- Swanson of America says carts will last at least five years in high-volume stores and seven to ten years in medium-volume stores if they are kept in good working condition. Swanson also notes that shopping carts should be repaired after 12 to 18 months to avoid excessive repair costs.
- Weis Markets, which is based in Pennsylvania, says that shopping carts last an average of seven years.
- Therefore, based on the data given by industry experts, a typical shopping cart lasts about six years on average, which, interestingly enough, largely matches both the TV and ATM/SCO replacement cycles.

We expect maintenance and next-gen manufacturing will be critical components to the A2Z story in years to come. We see the possibility that someday A2Z gives the cart away for free, monetizing the entire transaction through maintenance, SaaS and ancillary revenues with a very rapid payback period. Currently, carts cost ~\$4,500 to manufacture. We think that number could come down to \$2,000 or less over time, with A2Z's goal to produce a next-gen cart every December. While this may sound ambitious, given their location, manufacturing partnerships and technological savvy, we would not be surprised to see the Company exceed our forecast of a cost reduction drop well in advance of our 2-3 year time horizon. Alternatively, as we have seen in the fintech world, the advent of remote maintenance should enhance fees and reduce servicing costs, driving margins higher over time.

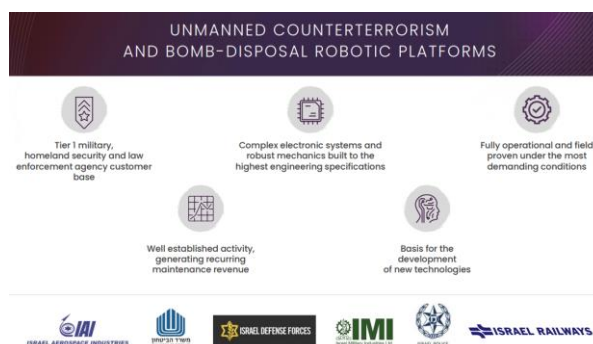
Defense Robotics

A2Z has historically manufactured security and military robotics unmanned ground vehicles (UGVs). UGVs, are used in scenarios that are hazardous to human health, dangerous, or repetitive for extended periods of time. In addition to military use, many commercial industries have successfully made use of robotic technology. Manufacturing and semi structured environments such as automated agriculture use UGVs. There is also extensive use of UGVs in the relatively uncluttered environments of air and sea operations.

The Company's UGVs have real world applications that save lives and have been sold to various divisions within the Israeli security community. The unmanned bomb disposal units allow for trained personnel to get an up-close view (with the aid of sensors, cameras and monitors) of suspected packages to determine if the packages contain explosive devices. If upon examination a package is determined to be an explosive device, the bomb disposal UGV has robotic arms that can lift the device and bring it to a safe area where it can be disposed. Similarly, the firefighting UGVs can access areas dangerous to firefighters and provide remote extinguishing abilities.

UGV products that the Company has historically sold include – Fire Fighting Unmanned Robot, Unmanned Robotic Bulldozer and Unmanned Bomb Disposal Robot

Figure 23: Unmanned Ground Vehicles (UGVs)



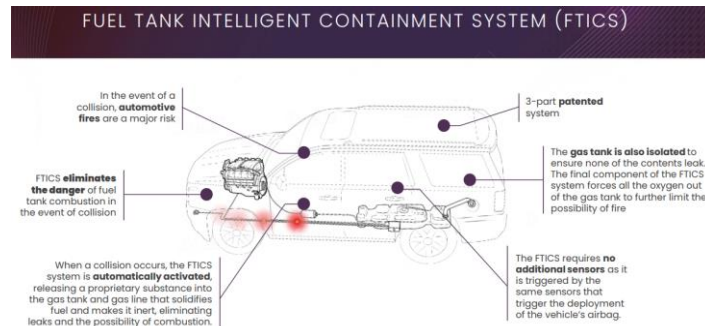
Source: A2Z

Automotive Safety

In February 2019, A2ZAS completed the purchase of 80% of the share capital of AAI Advanced Automotive Innovations Inc. (AAI). AAI holds a patent application with the U.S. Department of Commerce for a "Fuel Tank Inertia Capsule System", or FTICS, that can be inserted into automobile gasoline tanks to suppress combustibility of any remaining gasoline or gasoline fumes inside the gasoline tank in the event of a collision. The Company is developing a patented 3-part system, known as FTICS, that is designed to suppress combustion of fuel and deploy in the event of a vehicle collision. The FTICS technology remains in development as of November 2021.

The Company is planning to commence testing the FTICS in a pilot program with the Israeli military and plan to use the results of the pilot to initiate trials with automobile manufacturers.

Figure 24: Fuel Tank Intelligent Containment System (FTICS)



Source: A2Z

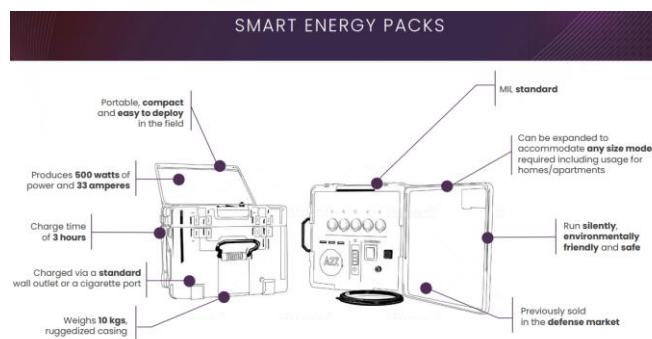
Smart Energy Packs

The Energy Smart Power Pack is a unique portable smart energy package, originally developed by the Company for the Israel Home Front Command, that can easily be carried and deployed in the field. The portable energy pack generates 500 watts of power and 33 amperes with a charge time of three hours. It can be charged via a standard wall outlet or a cigarette port and weighs 10kg.

Generators provide an ancillary source of power for buildings or individuals to allow systems and appliances which require electricity to continue operating in the event the user does not have access to conventional power. Generators are used for powering hospitals, homes, farms, and business areas, as well as to provide power for rural places. Traditionally, generators are the combination of an electrical generator and an engine to form a single unit of power supply. The generator unit includes a fuel supply, a speed governor, a voltage regulator, lubrication system, and cooling and exhaust systems. They come in a variety of styles and models. They may run on gas, natural gas, propane, they even come as a hybrid dual-fuel power. Their sizes range from very small that can supply few hundreds of watts and are portable, to large turbine plants.

The power pack technology can be expanded to accommodate a variety of energy needs, including usage for homes/apartments. All generator units run silently, are environmentally friendly and safe. While the Company has previously sold this product strictly for military primarily for use by home-front commands to provide emergency electricity for use in civilian areas, A2Z is currently adapting this technology to be sold to the civilian markets.

Figure 25: Smart Energy Packs



Source: A2Z

Management

Joseph Ben Tsur – CEO and Director A2Z

A serial entrepreneur, Joseph Ben Tsur has vast experience establishing successful companies and expanding them into new markets and industries. Among other roles, he has been Chairman of the international Elad Hotels chain, Director of MARLAZ Holdings, with a portfolio of publicly traded industrial, real estate, communications, and hi-tech companies, and CEO of DIG Ltd., which produces and markets electronic components sold throughout Israel. With several patents to his name and a proven track-record, Mr. Ben Tsur is the driving force leading A2Z into the future.

Amnon Peleg – CTO A2Z

A recognized specialist in telecommunications, energy, and systems operations, Amnon Peleg has vast experience in overseeing the development, introduction and implementation of new technological processes and the execution of complex projects. His background includes more than two decades of service as Technological Project Manager for Israel's Prime Minister's Office.

Rafael Yam – CEO Cust2Mate Ltd.

With a rich background in identifying growth opportunities and introducing new products to satisfy ever-changing customer trends and demands, Rafael (Rafi) Yam is transforming Cust2Mate from a technology orientated company to a world leading solutions provider for the retail grocery space. He previously served as head of NCR Israel BU for 6 years. He also held senior sales and marketing positions with Retalix Ltd as well as companies in the security sector. Mr. Yam is focusing on continued Cust2Mate product development and adaptation to new markets, introducing the system to leading retailers worldwide.

Amir Benkel – CFO Cust2Mate Ltd

Mr. Benkel has extensive experience in financial and operations management, business development and project management as CFO of companies and projects in Israel, the United States, the Far East, Europe and Africa. Mr. Benkel's international expertise will be especially valuable to A2Z's fast-growing multi-jurisdictional operations.

Financial Analysis

A2Z currently generates revenue from five different segments. For this report, however, we will be focusing exclusively on the revenue opportunity for the smart cart solution within the Cust2Mate retail division. We acknowledge that there is a substantial degree of uncertainty, as well as a significant impact from timing relating to orders and deployment. As such, we are taking what we view as an ultra-conservative initial approach to modeling, forecasting 6,000 deployed units in 2022 with orders for 8,000 units. We expect those numbers will essentially triple each year through 2024, which depending on timing of orders and assuming no change to the underlying SaaS fee, would produce revenue of \$153.5 million, split roughly 50/50 between upfront and SaaS fees. We note that our assumptions include a baseline of \$1,500 upfront payment per cart and a monthly fee, inclusive of maintenance, of \$150. We expect the upfront payment will decline over time as the carts are incrementally monetized by ancillary services but that should also result in substantially higher SaaS fees – some countries like Mexico are recording as much as \$400 per month in fees even *before* including any ancillary services like couponing, advertising and big data. Alternatively, we have also assumed that the cost per cart does not reach \$2,000 until 2024, which seems very conservative given managements initiative to create a next-gen cart every 12 months. Most importantly, given access to credit and capital, we believe Cust2Mate will have more than sufficient funding to accelerate production and meet a much higher level of orders should their go-to-market prove successful. We believe our model represents a base-case scenario, inclusive of the upfront, \$6 million Israeli supermarket chain commercial order, with material upside to our forecast should the product gain traction.

Figure 26: Key Performance Indicators

	2022	2023	2024
# of Orders	8,000	20,000	60,000
# of Deployed Units	5,300	18,000	54,000
Upfront Price/Unit	\$1,500.00	\$1,500.00	\$1,500.00
Product Revenue	\$ 13,950,000	\$ 27,000,000	\$ 81,000,000
# of Units in Circulation	2,300	13,300	59,300
YoY Grow th		478%	346%
q/q grow th			
Quarterly Subscription Price/Unit	\$450.00	\$450.00	\$450.00
YoY Grow th		0%	0%
q/q grow th			
Data Services			
Subscription and Services Revenue	\$ 1,620,000	\$ 15,840,000	\$ 72,540,000
YoY Grow th		877.8%	358.0%
q/q grow th			
Total Revenue	\$ 15,570,000	\$ 42,840,000	\$ 153,540,000
YoY Grow th		175%	258%
Cost/Unit	\$4,500.00	\$3,000.00	\$2,000.00
Product COGS	\$ 36,000,000	\$ 60,000,000	\$ 120,000,000
Other COGS	\$ 10,000,000	\$ 20,000,000	\$ 40,000,000
Total COGS	\$ 46,000,000	\$ 80,000,000	\$ 160,000,000

Source: The Benchmark Company, LLC

Valuation

As is often the case in newly created, early-stage markets, valuation remains highly subjective. If public estimates are accurate, Caper was acquired by Instacart for ~35x revenue. We also believe Standard Cognition and Tracxpoint carry private valuations north of \$1 billion. However, there are no real public yardsticks by which to compare A2Z, and thus we are left to rely on an EV/Revenue multiple based off of a model that has a multitude of unknown variables around order size, timing and SaaS uplift. While growth multiples have come in substantially, most of our broader streaming, early stage and SaaS-exposed companies still tend to trade in a range of 4-6x. As such, we are ascribing a 5x 2024E revenue multiple to arrive at our \$18 per share price target. We note that our target does *not* include any incremental value from the other A2Z business segments, which we view as free as optionality.

Figure 27: Valuation Analysis

A2Z Valuation Analysis (\$ in millions, except per share data)		
Fiscal Year Ending December 31,	2023E	PF2024E
Stock Price	\$8.82	\$8.82
Revenue		
Diluted Shares	34,674	34,674
Market Capitalization	\$305,822	\$305,822
Total Debt	(859)	(859)
Cash	7,777	7,777
Enterprise Value	298,904	298,904
Revenue	42,840	159,140
Multiple	7.0x	1.9x
Target Multiple		5x
Implied Price		\$18.17
Price Target		\$17.94
Upside to Target		103.4%

Source: Company reports and The Benchmark Company Estimates.

Source: The Benchmark Company, LLC

Figure 28: A2Z Income Statement (2019-2024E)

A2Z - Income Statement, 2019-2024E (\$ in thousands, except per share data)						
Fiscal Year Ending December 31,	2019	2020	2021E	2022E	2023E	2024E
Revenues	\$1,384	\$1,068	\$2,598	15,570	42,840	153,540
Yr.-Yr. Pct. Change	-99.3%	-22.8%	0.0%	0.0%	175.1%	258.4%
COGS	(783)	(853)	(1,338)	(46,000)	(80,000)	(160,000)
Pct. of Revenue	56.6%	79.9%	51.5%	295.4%	186.7%	104.2%
Gross Profit	601	215	1,260	(30,430)	(37,160)	(6,460)
Pct. of Revenue	43.4%	20.1%	48.5%	-195.4%	-86.7%	-4.2%
Yr.-Yr. Pct. Change	-99.3%	-64.2%	486.0%	-2515.1%	22.1%	-82.6%
Operating expenses						
Research and Development	(414)	(418)	(4,015)	(5,500)	(7,900)	(10,300)
Pct. of Revenue	29.9%	39.1%	154.5%	35.3%	18.4%	6.7%
Sales and Marketing	(87)	(108)	(434)	(5,500)	(11,500)	(17,500)
Pct. of Revenue	6.3%	10.1%	16.7%	35.3%	26.8%	11.4%
General and Administrative	(754)	(2,365)	(6,147)	(2,150)	(3,150)	(4,150)
Pct. of Revenue	54.5%	221.4%	236.6%	13.8%	7.4%	2.7%
Total Operating Expense	(1,255)	(2,891)	(10,596)	(13,150)	(22,550)	(31,950)
Pct. of Revenue	90.7%	270.7%	407.9%	84.5%	52.6%	20.8%
Adjusted EBITDA	(385)	(1,862)	(7,992)	(41,880)	(58,010)	(36,710)
Yr.-Yr. Pct. Change	-101.9%	-109.2%	0.0%	0.0%	38.5%	-36.7%
EBITDA margin	-64.1%	-866.0%	-307.6%	-269.0%	-135.4%	-23.9%
Depreciation and amortization	205	213	275	356	356	356
Stock based compensation & Other	64	601	1,069	1,344	1,344	1,344
Operating income	(654)	(2,676)	(9,336)	(43,580)	(59,710)	(38,410)
Operating margin	-47.3%	-250.6%	-359.4%	-279.9%	-139.4%	-25.0%
Other, Net	(1,792)	(3,228)	(30,895)	0	0	0
Financial Expense, Net	(109)	(32)	(578)	(440)	(440)	(440)
Income before taxes	(2,555)	(5,936)	(40,809)	(44,020)	(60,150)	(38,850)
Tax provisions	(380)	(17)	0	0	0	0
Tax percentage	-14.9%	-0.3%	0.0%	0.0%	0.0%	0.0%
Other Comprehensive/Non-Controlling Interest	(75)	(1,311)	884	0	0	0
Net Loss Attributable to A2Z Shareholders	(\$3,010)	(\$7,264)	(\$39,925)	(\$44,020)	(\$60,150)	(\$38,850)
EPS	(\$0.07)	(\$0.12)	(\$1.67)	(\$1.85)	(\$2.52)	(\$1.63)
Shares Outstanding	40,455	50,275	23,847	23,847	23,847	23,847
Free Cash Flow (FCF)						
EBITDA	(385)	(1,862)	(7,992)	(41,880)	(58,010)	(36,710)
Cash Interest	(109)	(32)	(578)	(440)	(440)	(440)
Cash Taxes	(380)	(17)	0	\$0	\$0	\$0
Capital Expenditures	(28)	(227)	(217)	(\$200)	(\$200)	(\$200)
Working Capital Adjustments	0	0	0	\$0	\$0	\$0
Free Cash Flow	(902)	(2,138)	(8,787)	(42,520)	(58,650)	(37,350)
FCF per Diluted Share	(\$0.02)	(\$0.04)	(\$0.37)	(\$1.78)	(\$2.46)	(\$1.57)
Yr.-Yr. Pct. Change						

Source: Company Reports and The Benchmark Company Estimates

Source: The Benchmark Company, LLC

Figure 29: A2Z Income Statement – 2022E

A2Z - Income Statement, 2022E (\$ in thousands, except per share data)					
	1QE	2QE	3QE	4QE	2022E
Revenues	\$0	\$7,950	\$2,085	\$5,535	\$15,570
<i>Yr.-Yr. Pct. Change</i>					
COGS	(20,500)	(7,000)	(7,000)	(11,500)	(46,000)
<i>Pct. of Revenue</i>		88.1%	335.7%	207.8%	295.4%
Gross Profit	(\$20,500)	\$950	(\$4,915)	(\$5,965)	(\$30,430)
<i>Pct. of Revenue</i>		11.9%	-235.7%	-107.8%	-195.4%
<i>Yr.-Yr. Pct. Change</i>					
Operating expenses					
Research and Development	(1,000)	(1,250)	(1,500)	(1,750)	(5,500)
<i>Pct. of Revenue</i>		15.7%	71.9%	31.6%	35.3%
Sales and Marketing	(1,000)	(1,250)	(1,500)	(1,750)	(5,500)
<i>Pct. of Revenue</i>		15.7%	71.9%	31.6%	35.3%
General and Administrative	(500)	(525)	(550)	(575)	(2,150)
<i>Pct. of Revenue</i>		6.6%	26.4%	10.4%	13.8%
Total Operating Expense	(2,500)	(3,025)	(3,550)	(4,075)	(13,150)
<i>Pct. of Revenue</i>		38.1%	170.3%	73.6%	84.5%
Adjusted EBITDA	(22,575)	(\$1,650)	(\$8,040)	(\$9,615)	(\$41,880)
<i>Yr.-Yr. Pct. Change</i>					
<i>EBITDA margin</i>		-20.8%	-385.6%	-173.7%	-269.0%
Depreciation and amortization	89	89	89	89	356
Stock based compensation & Other	336	336	336	336	1,344
Operating income	(\$23,000)	(\$2,075)	(\$8,465)	(\$10,040)	(\$43,580)
<i>Operating margin</i>		-26.1%	-406.0%	-181.4%	-279.9%
Other, Net	0	0	0	0	0
Financial Expense, Net	(110)	(110)	(110)	(110)	(440)
Income before taxes	(23,110)	(2,185)	(8,575)	(10,150)	(44,020)
Tax provisions	0	0	0	0	0
<i>Tax percentage</i>	0.0%	0.0%	0.0%	0.0%	0.0%
Other Comprehensive/Non-Controlling Interest	0	0	0	0	0
Net Loss Attributable to A2Z Shareholders	(\$23,110)	(\$2,185)	(\$8,575)	(\$10,150)	(\$44,020)
EPS	(\$0.97)	(\$0.09)	(\$0.36)	(\$0.43)	(\$1.85)
Shares Outstanding	23,847	23,847	23,847	23,847	23,847
Free Cash Flow (FCF)					
EBITDA	(22,575)	(1,650)	(8,040)	(9,615)	(41,880)
Cash Interest	(110)	(110)	(110)	(110)	(440)
Cash Taxes	0	0	0	0	0
Capital Expenditures	(50)	(50)	(50)	(50)	(200)
Working Capital Adjustments	0	0	0	0	0
Free Cash Flow	(22,735)	(1,810)	(8,200)	(9,775)	(42,520)
FCF per Diluted Share	(\$0.95)	(\$0.08)	(\$0.34)	(\$0.41)	(\$1.78)
<i>Yr.-Yr. Pct. Change</i>					

Source: Company Reports and The Benchmark Company Estimates

Source: The Benchmark Company, LLC

Figure 30: A2Z Income Statement – 2023E

A2Z - Income Statement, 2023E (\$ in thousands, except per share data)					
	1QE	2QE	3QE	4QE	2023E
Revenues	\$5,385	\$6,285	\$10,185	\$20,985	\$42,840
Yr.-Yr. Pct. Change		-20.9%	388.5%	279.1%	175.1%
COGS	(11,000)	(11,000)	(20,000)	(38,000)	(80,000)
Pct. of Revenue	54.5%	53.3%	52.5%	52.0%	186.7%
Gross Profit	(\$5,615)	(\$4,715)	(\$9,815)	(\$17,015)	(\$37,160)
Pct. of Revenue	-104.3%	-75.0%	-96.4%	-81.1%	-86.7%
Yr.-Yr. Pct. Change	-72.6%	-596.3%	99.7%	185.2%	22.1%
Operating expenses					
Research and Development	(1,600)	(1,850)	(2,100)	(2,350)	(7,900)
Pct. of Revenue	29.7%	29.4%	20.6%	11.2%	18.4%
Sales and Marketing	(2,500)	(2,750)	(3,000)	(3,250)	(11,500)
Pct. of Revenue	46.4%	43.8%	29.5%	15.5%	26.8%
General and Administrative	(750)	(775)	(800)	(825)	(3,150)
Pct. of Revenue	13.9%	12.3%	7.9%	3.9%	7.4%
Total Operating Expense	(4,850)	(5,375)	(5,900)	(6,425)	(22,550)
Pct. of Revenue	90.1%	85.5%	57.9%	30.6%	52.6%
Adjusted EBITDA	(10,040)	(\$9,665)	(\$15,290)	(\$23,015)	(\$58,010)
Yr.-Yr. Pct. Change	-55.5%	485.8%	90.2%	139.4%	38.5%
EBITDA margin	-186.4%	-153.8%	-150.1%	-109.7%	-135.4%
Depreciation and amortization	89	89	89	89	356
Stock based compensation & Other	336	336	336	336	1,344
Operating income	(\$10,465)	(\$10,090)	(\$15,715)	(\$23,440)	(\$59,710)
Operating margin	-194.3%	-160.5%	-154.3%	-111.7%	-139.4%
Other, Net	0	0	0	0	0
Financial Expense, Net	(110)	(110)	(110)	(110)	(440)
Income before taxes	(10,575)	(10,200)	(15,825)	(23,550)	(60,150)
Tax provisions	0	0	0	0	0
Tax percentage	0.0%	0.0%	0.0%	0.0%	0.0%
Other Comprehensive/Non-Controlling Interest	0	0	0	0	0
Net Loss Attributable to A2Z Shareholders	(\$10,575)	(\$10,200)	(\$15,825)	(\$23,550)	(\$60,150)
EPS	(\$0.44)	(\$0.43)	(\$0.66)	(\$0.99)	(\$2.52)
Shares Outstanding	23,847	23,847	23,847	23,847	23,847
Free Cash Flow (FCF)					
EBITDA	(10,040)	(9,665)	(15,290)	(23,015)	(58,010)
Cash Interest	(110)	(110)	(110)	(110)	(440)
Cash Taxes	0	0	0	0	0
Capital Expenditures	(50)	(50)	(50)	(50)	(200)
Working Capital Adjustments	0	0	0	0	0
Free Cash Flow	(10,200)	(9,825)	(15,450)	(23,175)	(58,650)
FCF per Diluted Share	(\$0.43)	(\$0.41)	(\$0.65)	(\$0.97)	(\$2.46)
Yr.-Yr. Pct. Change	-55.1%	442.8%	88.4%	137.1%	37.9%

Source: Company Reports and The Benchmark Company Estimates

Source: The Benchmark Company, LLC

Figure 31: A2Z Income Statement – 2024E

A2Z - Income Statement, 2024E (\$ in thousands, except per share data)					
	1QE	2QE	3QE	4QE	2024E
Revenues	\$25,485	\$32,985	\$41,385	\$53,685	\$153,540
Yr.-Yr. Pct. Change	373.3%	424.8%	306.3%	155.8%	258.4%
COGS	(34,000)	(34,000)	(42,000)	(50,000)	(160,000)
Pct. of Revenue	52.0%	51.5%	51.0%	50.8%	104.2%
Gross Profit	(\$8,515)	(\$1,015)	(\$615)	\$3,685	(\$6,460)
Pct. of Revenue	-33.4%	-3.1%	-1.5%	6.9%	-4.2%
Yr.-Yr. Pct. Change	51.6%	-78.5%	-93.7%	-121.7%	-82.6%
Operating expenses					
Research and Development	(2,200)	(2,450)	(2,700)	(2,950)	(10,300)
Pct. of Revenue	8.6%	7.4%	6.5%	5.5%	6.7%
Sales and Marketing	(4,000)	(4,250)	(4,500)	(4,750)	(17,500)
Pct. of Revenue	15.7%	12.9%	10.9%	8.8%	11.4%
General and Administrative	(1,000)	(1,025)	(1,050)	(1,075)	(4,150)
Pct. of Revenue	3.9%	3.1%	2.5%	2.0%	2.7%
Total Operating Expense	(7,200)	(7,725)	(8,250)	(8,775)	(31,950)
Pct. of Revenue	28.3%	23.4%	19.9%	16.3%	20.8%
Adjusted EBITDA	(15,290)	(\$8,315)	(\$8,440)	(\$4,665)	(\$36,710)
Yr.-Yr. Pct. Change	52.3%	-14.0%	-44.8%	-79.7%	-36.7%
EBITDA margin	-60.0%	-25.2%	-20.4%	-8.7%	-23.9%
Depreciation and amortization	89	89	89	89	356
Stock based compensation & Other	336	336	336	336	1,344
Operating income	(\$15,715)	(\$8,740)	(\$8,865)	(\$5,090)	(\$38,410)
Operating margin	-61.7%	-26.5%	-21.4%	-9.5%	-25.0%
Other, Net	0	0	0	0	0
Financial Expense, Net	(110)	(110)	(110)	(110)	(440)
Income before taxes	(15,825)	(8,850)	(8,975)	(5,200)	(38,850)
Tax provisions	0	0	0	0	0
Tax percentage	0.0%	0.0%	0.0%	0.0%	0.0%
Other Comprehensive/Non-Controlling Interest	0	0	0	0	0
Net Loss Attributable to A2Z Shareholders	(\$15,825)	(\$8,850)	(\$8,975)	(\$5,200)	(\$38,850)
EPS	(\$0.66)	(\$0.37)	(\$0.38)	(\$0.22)	(\$1.63)
Shares Outstanding	23,847	23,847	23,847	23,847	23,847
Free Cash Flow (FCF)					
EBITDA	(15,290)	(8,315)	(8,440)	(4,665)	(36,710)
Cash Interest	(110)	(110)	(110)	(110)	(440)
Cash Taxes	0	0	0	0	0
Capital Expenditures	(50)	(50)	(50)	(50)	(200)
Working Capital Adjustments	0	0	0	0	0
Free Cash Flow	(15,450)	(8,475)	(8,600)	(4,825)	(37,350)
FCF per Diluted Share	(\$0.65)	(\$0.36)	(\$0.36)	(\$0.20)	(\$1.57)
Yr.-Yr. Pct. Change	51.5%	-13.7%	-44.3%	-79.2%	-36.3%

Source: Company Reports and The Benchmark Company Estimates

Source: The Benchmark Company, LLC

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Benchmark Disclosures as of January 20, 2022

Company	Disclosure
A2Z Smart Technologies Corp.	3
NCR Corporation	

Investment Risk

There are a multitude of risks we see A2Z facing as they begin their journey in a relatively nascent marketplace. Although they already have 1 commercial order for \$6 million and 3 pilots signed, there is no guarantee that they will be successful in winning new business or expanding existing relationships. There is also substantial competition in the space, with established big names and new startups entering on a regular basis. COVID-19 has created substantial headwinds for the entire industry as well. Even with some initial wins on the books, A2Z is still effectively in start-up mode and will likely require additional capital infusions to fund growth. And, As is often the case in newly created, early-stage markets, valuation remains highly subjective.

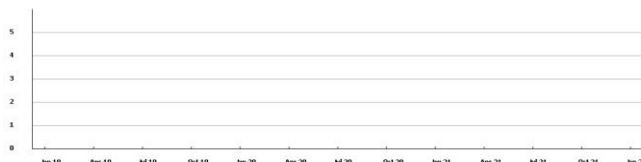
Valuation Methodology

As is often the case in newly created, early-stage markets, valuation remains highly subjective. If public estimates are accurate, Caper was acquired by Instacart for ~35x revenue. We also believe Standard Cognition and Tracxpoint carry private valuations north of \$1 billion. However, there are no real public yardsticks by which to compare A2Z, and thus we are left to rely on an EV/Revenue multiple based off of a model that has a multitude of unknown variables around order size, timing and SaaS uplift. While growth multiples have come in substantially, most of our broader streaming, early stage and SaaS-exposed companies still tend to trade in a range of 4-6x. As such, we are ascribing a 5x 2024E revenue multiple to arrive at our \$18 per share price target. We note that our target does not include any incremental value from the other A2Z business segments, which we view as free as optionality.

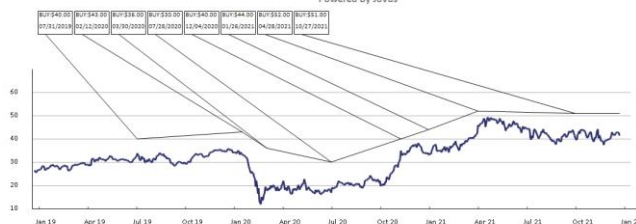
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AZ-US Rating History
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