Zacks Small-Cap Research

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Lisa Thompson 312-265-9154 Ithompson@zacks.com

scr.zacks.com

10 S. Riverside Plaza, Chicago, IL 60606

IDEX Biometrics ASA (NASDAQ: IDBA)

Q1 2022 Adds Revenues From New Customers and Continues its Sequential Growth

We are valuing IDEX on 2025 revenues discounted to today using the average EV/Sales of other fabless semiconductor companies that trade at 7.4 times 2022 estimated sales.

Current Price (5/12/22) \$9.00 **Valuation** \$75.00

OUTLOOK

IDEX Biometrics is a Norwegian-headquartered fabless semiconductor company largely operating from the US with a US based senior management team that provides hardware and software systems to create biometric fingerprint protected payment cards and other smart card solutions. Next generation payment cards are being rolled out and starting to ship in volume at the end of this year. Visa, Mastercard and China UnionPay have already certified its technology. Its solution results in a payment card cost that is 30-50% less expensive than cards built with the competition's solution through leading-edge design and is protected by IP. Without legacy product to cannibalize, IDEX provides a pure play in fingerprint based biometric solutions.

SUMMARY DATA

52-Week High	\$31.25
52-Week Low	\$8.62
One-Year Return (%)	-54
Beta	2.5
Average Daily Volume (sh)	2,158
ADS Outstanding (mil)	13.5
Market Capitalization (\$mil)	\$122
Short Interest Ratio (days)	1.4
Institutional Ownership (%)	4.9
Insider Ownership (%)	21.6
Annual Cash Dividend	\$0.00
Dividend Yield (%)	0.00
5-Yr. Historical Growth Rates	
Sales (%)	N/A
Earnings Per Share (%)	N/A
Dividend (%)	N/A
P/E using TTM EPS	N/M
P/E using 2022	N/M
P/E using 2023	N/M

Risk Level	High
Type of Stock	Small-Blend
Industry	Elec. Comp-Semi

ZACK	S ESTIM	ATES								
Reven										
(in million	is of \$)									
	Q1	Q2	Q3	Q4	Year					
	(Mar)	(Jun)	(Sep)	(Dec)	(Dec)					
2020	0.1 A	0.1 A	0.2 A	0.6 A	1.1 A					
2021	0.6 A	0.7 A	0.7 A	0.8 A	2.8 A					
2022	1.0 A	1.2 E	1.5 E	3.5 E	7.2 E					
2023					50.0 E					
Earnings Per ADS										
	Q1	Q2	Q3	Q4	Year					
	(Mar)	(Jun)	(Sep)	(Dec)	(Dec)					
2020	-\$0.66 A	-\$0.65 A	-\$0.65 A	-\$0.67 A	-\$2.62 A					
2021	-\$0.65 A	-\$0.59 A	-\$0.61 A	-\$0.80 A	-\$2.66 A					
2022	-\$0.60 A	-\$0.57 E	-\$0.57 E	-\$0.49 E	-\$2.23 E					
2023					-\$0.63 E					

WHAT'S NEW

Q1 showed more product launches and design wins albeit at a slower pace than expected due to the worldwide chip shortage. While IDEX was able to deliver its part, shortages of secure element chips caused what was available to be used in some cases to support currently used contactless cards rather than allocated to new biometric cards. Revenues in Q1 were generated by Bloomberg, IDEMIA, Zwipe, Dongwoon (first time), and one other customer that is also using product for security access.

We believe revenues are on track for Q2 2022 and expect consistent sequential improvement throughout the year. Where we end up for Q4 is still a question based on China lockdowns, other chip shortages, and general economic uncertainties.

Q1 2022 Highlights







Source: IDEX Biometrics

Three cards were launched this quarter, with the first two via IDEMIA:

Rocker, an innovate fintech based in Stockholm, is already sold out of its new launched "Rocker Touch," fingerprint card from IDEMIA. To get this card, customers must subscribe to Rocker's Premium service, which costs SEK 99 (US\$10.54) a month. The Premium level also includes a virtual card, full control of finances in one app, up to 1.20% in savings interest, up to 10% cash back, no withdrawal fees or currency surcharges, and travel insurance.

<u>Manager.one</u> also has a Visa card based on IDEMIA's F.CODE that is a corporate payment card that also provides online expense management for businesses. Manager.one is an online banking platform, dedicated to professionals and company directors. It is a partnership between the <u>Banque Wormser Frères</u> and SaGa Corp, a Fintech company and was founded in 2017.

Zwipe is rolling out product to <u>fidor bank</u>. Fidor is a German bank with locations in Munich and Berlin.

There also will be six new cards coming to market in 2022 via the Infineon partnership:

- 1. IDEX announced its first design win for its turnkey solution in partnership with Infineon in Q4. The customer is unnamed Asian company and a leading global smartcard manufacturer. It expects its card to be certified in Q3 2022 with initial shipments to follow in Q4.
- 2. On December 17th IDEX announced that Dongwoon Anatech of South Korea selected IDEX Biometrics as its biometric sensor partner for secure access control and digital identity solutions. Dongwoon Anatech received its first shipments from IDEX in Q1 2022.
- 3. On January 28th, IDEX announced its second design win for its turnkey solution and its first named customer. It now has a development agreement with MKSmart based in Hanoi who is a top ten provider of smart cards.
- 4. On April 11th, IDEX announced collaboration with E-Kart to market to Eastern Europe. E-Kart is a joint venture between global card manufacturer Gisecke & Devrient (G+D) and Eczacıbaşı Holding. E-Kart, as one of the largest card manufacturers in Europe, has a production capacity of 60 million smart cards. Cards are expected to begin being delivered to issuers in Q4 2022. This new biometric smart card represents the sixth design win for the IDEX Biometrics and Infineon Technologies platform solution.
- 5. The fifth card is from a US card manufacturer.
- 6. The sixth is from a card manufacturer based in Europe with US operations that caters to fintech companies aka challenger banks.

Chart 2. Design Wins With IDEMIA



- Full solution includes proprietary COS and custom inlay
- Six confirmed design wins coming to market
- Six additional new designs in the pipeline
- Combined contactless card volumes > 1.5 billion cards

Smart card manufacturers in development with IDEX Turnkey

RuPay»



After the Quarter Ended

On May 12th, IDEX announced a collaboration with payment software provider Verisoft A.S. Verisoft is working to upgrade software systems so that biometric cards seamlessly operate with payment processors. This will ensure that transactions made with biometric cards are accepted for all size transactions despite not providing a PIN.

Q1 2022 Earnings Results

In Q1 of 2022 the company generated \$787,000 in revenues sequentially up again from \$787,000 in Q4 2021 and compared to \$624,000 in Q1 2021.

Q1 sales yielded a gross margin of 31.6% versus 64.7% due to product mix. With these small numbers, gross margin is not that meaningful and we believe the low gross margin this quarter was caused by contracts that enforce large volume pricing even though small volume are being delivered. We expect gross margins to improve as volumes ramp to production levels. Operating expenses increased to \$8.3 million in Q1 2022 versus \$7.9 million in Q1 2021 with most of the increase in development costs and other. R&D spending was \$1.3 million compared to \$608,000 last year due to government grants last year and none this year. At the end of March there were 94 employees and 20 contractors slightly up from 93 employees and 18 contractors at the end of December and 92 and 13 a year ago.

The operating loss and net loss for the quarter were both \$8.0 million compared to a loss of \$7.5 million last year. The non-GAAP loss was \$7.3 million versus \$6.5 million, an increase of \$819,000. The non-GAAP loss takes out stock-based compensation and the currency adjustment.

GAAP loss per share was \$0.008 versus \$0.009, and non-GAAP was a loss of \$0.007 flat with last yea6. The average share count increased 19% to 1.011 billion primary shares. GAAP loss per ADS was \$0.60 versus a loss of \$0.65 last year. The non-GAAP loss per ADS was \$0.54 in both year's quarters. Adjusted EBITDA loss in this quarter was \$6.8 million compared to \$6.2 million in Q1 2021. Cash flow (not including changes in working capital) was a negative \$7.0 million compared to a negative \$6.3 million as was free cash flow.

Balance Sheet

At the end of March, IDEX had \$25.5 million in cash, \$26.7 million in working capital and no debt. In Q1, free cash flow was a negative \$7.0 million.

As of May 3, 2021, the company had 1,012.5 million primary shares outstanding or 13.5 million ADSs.

KEY POINTS

- ➤ IDEX Biometrics was founded in Norway in 1997 and since 2014 has largely become a US centric product company with extensive expertise in fingerprint biometrics and semiconductor and systems design. It is a fabless semiconductor company that targets primarily the payment card industry and is just starting to ship production volumes of its next generation sensors and solutions to major card providers.
- Next generation payment cards will have fingerprint authentication embedded sensors and chips. Importantly this generational switch will not require new POS equipment as with chip and PIN and the transition should occur much faster. This technology is expected to reduce fraud and increase usage easily providing payback for banks even with the incremental cost. IDEX's unique patent-protected "off-chip" design allows cards to be manufactured at less than half the price of competitors by separating the fingerprint sensor from its controller chip thus allowing the use of a smaller, newer, and more powerful chips.
- Despite the existence of smartphone-based payment systems, market researcher Nilson still believes the market for payment cards will increase 7.3% per year. There are 23.6 billion payment cards in use globally. Biometric payment card units are expected to grow to 500 million by 2025. IDEX could receive \$3 per card of the market share it captures.

- IDEX has already had its design certified by the three major card networks, VISA, Mastercard and China UnionPay. It is already providing cards in small quantities to card issuers to sample and conduct pilots at banks in various countries, with rollouts expected by year-end.
- In 2021 the company started providing product to major card providers who in turn will sell to their customers worldwide. In addition, it will be selling production volumes to customers in the secure access control business and other applications such as IOT. A new opportunity that is just starting to ship samples is for wallets for the Chinese digital currency with rollout predicted for 2022.
- As a fabless semiconductor company with high operating leverage, it is expected to be at very high pretax margins once it ramps revenues and it deserves a enterprise value to sales valuation in line with its peers that trade at 7.4 times 2022 revenues. It currently trades at \$123 million market cap and a \$98 million enterprise value. We believe that by 2025 it has the potential of \$500 million in sales at which point it could be valued as a \$3.7 billion company.

OVERVIEW

IDEX Biometrics was founded in 1997 and is headquartered in Norway. The company has 94 emplyees and 20 contractors and currently operates from offices in Wilmington, MA and Rochester, NY, Farnborough, UK, Shanghai China, and Norway. It files financials in Norway and is listed on the Oslo Bors and NASDAQ trades its ADR.

It sells its system solutions which include fingerprint sensors, chips, and the software to make them function, to companies that incorporate fingerprint identification technology into their products. IDEX is targeting primarily the payments card market including contactless debit and credit cards. The company also supplies its products for access control and IoT. It has developed a unique design that fits the specific parameters required for cards including energy harvesting and low power operation at industry leading costs. Its only competitor is Fingerprint Cards AB (FPC) of Sweden, who has participated in more pilots with partners but is offering an older, more expensive, larger, and kludgy solution. IDEX believes customers will see its cost, design, and performance advantages and it will capture large market share in this nascent industry.

VALUATION

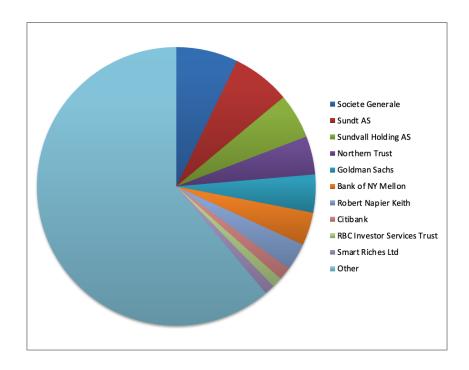
IDEX is now at a run rate of \$3.2 million in revenue but entering the production ramp of its life cycle. To value the company, we need to look to future years and discount valuations back to today to calculate a current price for IDEX. From the comp chart below we see that the average fabless semiconductor company trades as an average of 7.4 times enterprise value to 2022 estimated sales. If the market is 500 million cards by 2025, and the company can take 50% of the market (since there are only two players) and gets paid \$3 per card, by 2025 IDEX could easily reach \$500 million in sales or higher. That would result in an enterprise value of \$3.7 billion. The company has 1.01 billion primary shares outstanding and fully diluted share count of approximately **1.03 billion fully diluted shares**. Divided by 1.03 billion gives us a stock price of \$3.59 share. Discounting that by 30% per year to current value gives a stock price of \$1.63 per share. To be conservative we are starting with a valuation of \$1.00 per share and will increase that as we see it ramp revenues and land design wins on it path to our earnings expectations. Translating that \$1.00 price per shares to ADS is \$75.00 per ADS.

	Calendar						Ente	erprise Value / S	Sales	EV/EBITE		
Company	<u>Ticker</u>	2023E	2022E	<u>LTM</u>	EBITDA	<u>Margin</u>	2023E	2022E	LTM		in Average?	Ent. Value
AMD	AMD	\$29,980	\$26,360	\$16,430	4,060	25%	5.0x	5.7x	9.1x	37.0x	у	150,120
Broadcom	AVGO	NA	\$32,900	\$28,500	15,690	55%	NA	8.2x	9.4x	17.1x	y	268,293
Cirrus Logic	CRUS	NA	\$1,773	\$1,590	340	21%	NA	2.4x	2.7x	12.6x	y	4,298
Marvell	MRVL	\$7,250	\$6,100	\$4,460	1,190	27%	7.2x	8.6x	11.7x	44.0x	y	52,379
Monolithic Powe	r Sys MPWR	\$2,060	\$1,730	\$1,210	297	25%	9.4x	11.2x	16.0x	64.9x	У	19,300
NVIDIA	NVDA	\$40,600	\$34,790	\$26,910	11,210	42%	10.6x	12.4x	16.0x	38.4x	у	430,692
Qualcomm	QCOM	NA	\$46,800	\$39,260	14,489.0	37%	NA	3.3x	3.9x	10.7x	У	154,630
Average						-94%	8.1x	7.4x	9.8x	32.1x		154,245

RISKS

- ➤ The use of biometric payment and security cards is primarily in the pilot stage. There is no assurance more customers will ultimately choose to use this technology or that it will work as expected.
- ➤ IDEX is just starting to move to produce larger volumes of product. There is no assurance they will be able to successfully manufacture product in the volumes needed at the cost expected.
- Production ramps and customer acceptance and rollouts may take longer than expected and forecasts may not be achieved in the time frame we predict.
- ➤ The company is still losing money and is cash flow negative. It may need further funding before reaching cash flow break even, diluting current shareholders.

OWNERSHIP



INCOME STATEMENT

US\$ in Thousands												
	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22E	Q3 22E	Q4 22E	2020	2021	2022E	2023E
Product sales	623	696	731	787	989	1,200	3,000	15,000	1,013	2,837	7,189	\$ 50,000
Other operating income	1	1	1	0	0	0	0	0	82	3	0	
Total Revenue	\$ 624	\$ 697	\$ 732	\$ 787	\$ 989	\$ 1,200	\$ 1,500	\$ 3,500	\$ 1,095	\$ 2,840	\$ 7,189	\$ 50,000
Yr-to-yr growth	524.0%	367.8%	195.2%	31.6%	58.5%	72.2%	104.9%	344.7%	158.3%	159.4%	153.1%	595.5%
Cost of revenue	220	304	300	430	676	636	780	1,785	275	1,254	3,877	25,500
Gross margin	404	393	432	357	313	564	720	1,715	820	1,586	3,312	24,500
Gross margin %	64.7%	56.4%	59.0%	45.4%	31.6%	47.0%	48.0%	49.0%	74.9%	55.8%	46.1%	49.0%
Operating expenses												
Payroll expenses	5,101	4,682	5,044	6,280	4,978	5,200	5,300	5,400	17,672	21,107	20,878	21,600
Development expenses	608	881	659	532	1,029	700	700	700	1,895	2,680	3,129	2,800
Other operating expenses	1,713	1,763	1,729	2,142	1,938	1,938	1,938	1,800	5,936	7,347	7,614	7,000
Amortization and depreciation	454	460	460	428	369	430	425	425	1,719	1,802	1,649	1,500
Operating expenses	7,876	7,786	7,892	9,382	8,314	8,268	8,363	8,325	27,222	32,936	33,270	32,900
Operating income	(7,472)	(7,393)	(7,460)	(9,025)	(8,001)	(7,704)	(7,643)	(6,610)	(26,402)	(31,350)	(29,958)	(8,400)
Net financial items	(56)	156	(9)	(1,203)	(120)	0	0	0	(451)	(1,112)	(120)	0
Pretax loss from operations	(7,528)	(7,236)	(7,469)	(10,228)	(8,121)	(7,704)	(7,643)	(6,610)	(26,853)	(32,462)	(30,078)	(8,400)
Income taxes	0	0	0	90	0	25	25	25	99	90	75	100
Net loss	(7,528)	(7,236)	(7,469)	(10,318)	(8,121)	(7,729)	(7,668)	(6,635)	(26,754)	(32,552)	(30,153)	(8,500)
Non-GAAP net loss	(6,522)	(6,678)	(6,935)	(8,338)	(7,341)	(7,029)	(6,968)	(5,935)	(22,899)	(32,552)	(27,273)	(8,500)
Exchange differences on foreign	(91)	(60)	274	(113)	0	0	0	0	670	10	0	0
operations												
Total comprehensive income	(7,619)	(7,296)	(7,195)	(10,431)	(8,121)	(7,729)	(7,668)	(6,635)	(26,084)	(32,542)	(30,153)	(8,500)
Basic net loss per share	\$ (0.009)	\$ (0.008)	\$ (0.008)	\$ (0.011)	\$ (0.008)	\$ (0.008)	\$ (0.008)	\$ (0.007)	\$ (0.035)	\$ (0.035)	\$ (0.030)	\$ (0.008)
Yr-to-yr growth	-2.2%	-7.4%	-5.9%	19.5%	-6.7%	-3.2%	-6.9%	-38.8%	-35.6%	1.6%	-15.9%	-72.0%
Non-GAAP loss per share	\$ (0.007)	\$ (0.007)	\$ (0.008)	\$ (0.008)	\$ (0.007)	\$ (0.007)	\$ (0.007)	\$ (0.006)	\$ (0.030)	\$ (0.035)	\$ (0.026)	\$ (0.008)
Basic shares outstanding in mil	874.4	917.5	918.9	964.9	1,011.1	1,012.5	1,013.0	1,013.5	767.1	918.9	1,012.5	1,020.0
Yr-to-yr growth	21.8%	22.2%	16.9%	19.1%	15.6%	10.4%	10.2%	5.0%	28.2%	19.8%	10.2%	0.7%
Diluted shares	898.5	915.3	922.8	986.5	1,026.7	1,034.1	1,034.6	1,035.1	773.4	940.4	1,032.6	1,062.6
Yr-to-yr growth	24.9%	21.7%	17.2%	13.0%	14.3%	13.0%	12.1%	4.9%	28.9%	21.6%	9.8%	2.9%
Basic net loss per ADS	\$ (0.65)	\$ (0.59)	\$ (0.61)	\$ (0.80)	\$ (0.60)	\$ (0.57)	\$ (0.57)	\$ (0.49)	\$ (2.62)	\$ (2.66)	\$ (2.23)	\$ (0.63)
Non-GAAP loss per ADS	\$ (0.54)	\$ (0.55)	\$ (0.56)	\$ (0.63)	\$ (0.54)	\$ (0.51)	\$ (0.51)	\$ (0.43)	\$ (2.22)	\$ (2.60)	\$ (1.98)	\$ (0.60)
Basic ADS outstanding in millions	11.7	12.2	12.3	12.9	13.5	13.5	13.5	13.5	10.2	12.3	13.5	13.6
Diluted ADS	12.0	12.2	12.3	13.2	13.7	13.8	13.8	13.8	10.3	12.5	13.8	14.2
Adjusted EBITDA	(6,212)	(6,375)	(6,466)	(6,540)	(6,852)	(6,574)	(6,518)	(5,485)	(21,927)	(25,593)	(25,509)	(3,400)

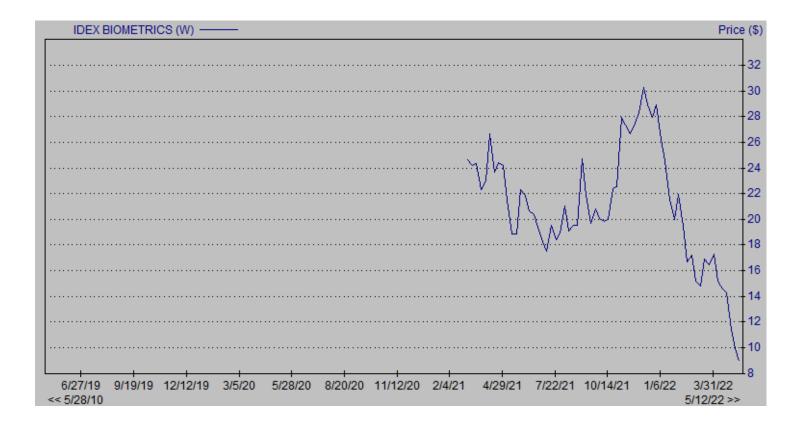
BALANCE SHEET

Thousands US \$	Mar 31, 2022	Dec 31, 2021	Qtr-Qtr % Growth	Mar 31, 2021	Yr-Yr % Growth
Current					
Cash and cash equivalents	\$ 25,532	\$ 33,827	-25%	\$ 25,892	-1%
Inventory	2,010	1,234	63%	912	120%
Trade receivables	1,306	801	63%	537	143%
Prepaid expenses	867	851	2%	1,088	-20%
Other current receivables	671	740	-9%	1,277	-47%
Current Assets	30,386	37,453	-19%	29,706	2%
Goodwill	968	968	0%	969	0%
Other intangible assets	1,846	1,965	-6%	2,323	-21%
Property, plant and equipment	1,228	1,301	-6%	1,612	-24%
Right of use asset	224	357	-37%	812	-72%
Long-term receivable	80	87	-8%	79	1%
Total Assets	34,732	42,131	-18%	35,501	-2%
Liabilities					
Accounts payable	813	685	19%	593	37%
Current lease liabilities	228	410	-44%	610	-63%
Public duties payable	365	461	-21%	302	21%
Other current liabilities	2,286	2,850	-20%	2,292	0%
Current Liabilities	3,692	4,406	-16%	3,797	-3%
Non-current lease liability	7	0	NA	238	-97%
Total liabilities	3,699	4,406	-16%	4,035	-8%
Shareholders' Equity					
Share capital	20,446	20,410	0%	18,760	9%
Share premium	9,768	55,452	-82%	27,865	-65%
Other paid-in capital	22,194	21,414	4%	19,470	14%
Total paid-in capital	52,408	97,276	-46%	66,095	-21%
Foreign currency translation effects	(12,015)	(12,312)	-2%	(12,413)	-3%
Accumulated loss	(9,360)	(47,239)	-80%	(22,216)	-58%
Total shareholder's equity	31,033	37,725	-18%	31,466	-1%
Tot Liabilities and Share. Equity	34,732	42,131	-18%	35,501	-2%
Cash	\$ 25,532	\$ 33,827	-25%	\$ 25,892	-1%
Current ratio	8.2	8.5	-3%	7.8	5%
Quick ratio	7.7	8.2	-7%	7.6	1%
Working capital	26,694	33,047	-19%	25,909	3%
Debt	0	0	0%	0	0%
Debt/total assets	0.0%	0.0%	0%	0.0%	0%

CASH FLOWS

Cash flows from operating activities: S month S month S (6,439) S (6,439) S (6,439) S (6,739) S (7,259) S (7,259) S (7,269) S (7		Mar. 31, 2020	June 30, 2020	Sept 30, 2020	Dec. 31, 2020	YR 2020	Mar. 31, 2021	June 30, 2021	Sept 30, 2021	Dec. 31, 2021	YR 2021	Mar. 31, 2022
Net loss	Cash flows from operating activities:					110 2020					110 2021	
Adjustments to reconcile net loss to net cash used in operating activities: Amortization and depreciation						\$ (26.853)					\$ (32.462)	
Amortization and depreciation 429 429 430 439 1,719 454 460 460 460 428 1,802 369 550ck-based compensation 513 404 1,064 775 2,755 806 558 534 852 2,750 780 7		Ψ (0,120)	ψ (0,-100)	Ψ (0,700)	Ψ (1,202)	ψ (20,000)	ψ (7,020)	ψ (1,200)	ψ (1,100)	Ψ (10,220)	Ψ (02, 102)	Ψ (0,121)
Stock-based compensation 513 404 1,064 775 2,755 806 558 534 852 2,750 780	•											
Changes in working capital: Inventories (16) (42) (140) 59 (139) (52) (87) (95) (141) (375) (776) Accounts receivables (59) (63) (72) (220) (414) (50) (186) (35) (43) (314) (505) Accounts payable 217 329 (447) 41 141 (39) 402 (368) 58 53 129 Change in other working capital 12 (695) (69) 133 (618) (247) (653) 611 839 550 (426) Cheroperating activities 197 325 (51) 109 579 (218) 59 67 187 95 142 Interest expense (20) - (2) (5) (27) (5) (27) (5) (2) - (4) (111) (6) Income taxes (16) 43 - (464) (437) (49) (411) (6) Income taxes (16) 43 - (464) (437) (47) (477) (477) Cash flows from investing activities: Purchases of property, plant & equipment (522) (8) (571) (5) (242) (333) (70) (39) (20) (12) (141) (51) Proceeds from sale of assets - 1 19 56 1 75 (4) - (25) 16 (13) 6 Net cash flows from investing activities (503) 1 6 (203) 1 6 (236) (2329) (70) (36) (45) 8 (45) 8 (143) (39) Cash flows from investing activities (503) 1 6 (200) (199) (202) (793) (215) (216) (216) (221) (192) (844) (134) Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (216) (221) (192) (844) (134) Payment related to financed asset purchase (193) (10,051) (199) 7,833 (17,038) (25,892) (25,892) (19,255) (12,938) 7,298 Net increase (decrease) in cash (1,265) (5,610) (5,510) (5,501) (5,988) (22,379) (6,669) (6,269) (6,218) (6,475) (6,948) (27,910) (6,972)	Amortization and depreciation	429	422	430	439	1,719	454	460	460	428	1,802	369
Inventories (16) (42) (140) (59) (139) (52) (87) (95) (141) (375) (776) (200) (220) (414) (50) (186) (35) (43) (314) (505) (505) (420) (414) (505) (418) (427) (418) (427) (418) (427) (418) (427) (418) (427) (428) (427) (428)	Stock-based compensation	513	404	1,064	775	2,755	806	558	534	852	2,750	780
Accounts receivables (59) (63) (72) (220) (414) (50) (186) (35) (43) (314) (505) Accounts payable 217 329 (447) 41 141 (39) 402 (368) 58 53 129 (426) Change in other working capital 12 (685) (68) 133 (618) (247) (653) 6611 839 550 (426) Change in other working capital 12 (685) (69) 133 (618) (247) (653) 6611 839 550 (426) Chier operating activities 197 325 (51) 109 579 (218) 59 67 187 95 142 Interest expense (20) - (2) (5) (27) (5) (2) - (4) (11) (6) Income taxes (16) 43 - (464) (437) 4447 447 447 447	Changes in working capital:											
Accounts payable 217 329 (447) 41 141 (39) 402 (368) 58 53 129 Change in other working capital 12 (695) (69) 133 (618) (247) (653) 611 839 550 (426) Other opperating activities 197 325 (51) 109 579 (218) 59 67 187 95 142 Interest expense (20) - (2) (5) (27) (5) (27) (5) (2) - (4) (11) (6) Income taxes (16) 43 - (464) (437) 447 447 - Net cash flows from operating activities: Purchases of property, plant & equipment (522) (18) (51) (242) (333) (70) (39) (20) (12) (141) (51) Proceeds from sale of assets	Inventories	(16)	(42)	(140)	59	(139)	(52)	(87)	(95)	(141)	(375)	(776)
Change in other working capital 12 (695) (69) 133 (618) (247) (653) 611 839 550 (426) Other operating activities 197 325 (51) 109 579 (218) 59 67 187 95 142 Interest expense (20) - (2) (5) (27) (5) (2) - (4) (11) (6) Income taxes (16) 43 - (464) (437) (47) (688) (6,880) (6,885) (6,295) (7,605) (27,465) (8,414) Cash flows from operating activities: Purchases of property, plant & equipment (522) (18) (51) (242) (333) (70) (39) (20) (12) (141) (51) Proceeds from sale of assets	Accounts receivables	(59)	(63)	(72)	(220)	(414)	(50)	(186)	(35)	(43)	(314)	(505)
Other operating activities 197 325 (51) 109 579 (218) 59 67 187 95 142 Interest expense (20) - (2) (5) (27) (5) (27) (5) (2) - (4) (11) (6) Income taxes (16) 43 - (464) (437) 4 447 447 - Net cash flows from operating activities (5,163) (5,713) (6,082) (6,335) (23,294) (6,880) (6,685) (6,295) (7,605) (27,465) (8,414) Cash flows from investing activities: Purchases of property, plant & equipment (522) (18) (51) (242) (333) (70) (39) (20) (12) (141) (51) Proceeds from sale of assets	Accounts payable	217	329	(447)	41	141	(39)	402	(368)	58	53	129
Interest expense (20) - (2) (5) (27) (5) (2) - (4) (11) (6) Income taxes (16) 43 - (464) (437) 447 447 - 147 - 147 (451) (5) (5) (6,880) (6,885) (6,295) (7,605) (27,465) (8,414) (11) (6) Income taxes (5,163) (5,713) (6,082) (6,335) (23,294) (6,880) (6,685) (6,295) (7,605) (27,465) (8,414) (11) (51) (11) (11) (11) (11) (11) (11	Change in other working capital	12	(695)	(69)	133	(618)	(247)	(653)	611	839	550	(426)
Income taxes (16) 43 - (464) (437) 447 447 447 - Net cash flows from operating activities (5,163) (5,713) (6,082) (6,335) (23,294) (6,880) (6,885) (6,295) (7,605) (27,465) (8,414) (8,414) (124) (194	Other operating activities	197	325	(51)	109	579	(218)	59	67	187	95	142
Net cash flows from operating activities (5,163) (5,713) (6,082) (6,335) (23,294) (6,880) (6,685) (6,295) (7,605) (27,465) (8,414) (23,414	Interest expense	(20)	-	(2)	(5)	(27)	(5)	(2)	-	(4)	(11)	(6)
Cash flows from investing activities: Purchases of property, plant & equipment (522) (18) (51) (242) (333) (70) (39) (20) (12) (141) (51) Proceeds from sale of assets	Income taxes	(16)	43	-	(464)	(437)	-	-	-	447	447	-
Purchases of property, plant & equipment (522) (18) (51) (242) (333) (70) (39) (20) (12) (141) (51) (51) (70) (70) (70) (70) (70) (70) (70) (70	Net cash flows from operating activities	(5,163)	(5,713)	(6,082)	(6,335)	(23,294)	(6,880)	(6,685)	(6,295)	(7,605)	(27,465)	(8,414)
Proceeds from sale of assets 19 56 1 75 (4) - (25) 16 (13) 6 Interest received 19 - 1 5 26 4 3 - (25) 16 (13) 6 Interest received Net cash flows from investing activities Cash flows from financing activities: Proceeds from issue of shares (1) 10,251 - 8,035 18,731 25,755 295 257 28,685 54,992 369 Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (221) (192) (192) (844) (134) Payment related to financed asset purchase Net cash provided by financing activities (193) 10,051 (199) 7,833 17,438 25,540 79 36 28,493 54,148 235 Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) Effect of exchange rate changes on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 33,827 25,532 Cash flow (5,478) (5,610) (5,610) (5,501) (5,988) (22,379) (6,669) (6,218) (6,475) (8,948) (27,910) (6,972)	Cash flows from investing activities:											
Payments on non-current receivables - 19 56 1 75 (4) - (25) 16 (13) 6 Interest received 19 - 1 5 26 4 3 - 4 11 6 Net cash flows from investing activities (503) 1 6 (236) (232) (70) (36) (45) 8 (143) (39) (239)	Purchases of property, plant & equipment	(522)	(18)	(51)	(242)	(333)	(70)	(39)	(20)	(12)	(141)	(51)
Interest received 19 - 1 5 26 4 3 - 4 11 6 Net cash flows from investing activities (503) 1 6 (236) (232) (70) (36) (45) 8 (143) (39) Cash flows from financing activities: Proceeds from issue of shares (1) 10,251 - 8,035 18,731 25,755 295 257 28,685 54,992 369 Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (221) (192) (844) (134) Payment related to financed asset purchase (500) Net cash provided by financing activities (193) 10,051 (199) 7,833 17,438 25,540 79 36 28,493 54,148 235 Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) Effect of exchange rate changes on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Proceeds from sale of assets	-	-	-	-	-	-	-	-	-	-	-
Net cash flows from investing activities (503) 1 6 (236) (232) (70) (36) (45) 8 (143) (39) Cash flows from financing activities: Proceeds from issue of shares (1) 10,251 - 8,035 18,731 25,755 295 257 28,685 54,992 369 Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (221) (192) (844) (134) Payment related to financed asset purchase (500) Net cash provided by financing activities (193) 10,051 (199) 7,833 17,438 25,540 79 36 28,493 54,148 235 Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) Effect of exchange rate changes on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 25,532 Cash flow (5,478) (5,610) (5,610) (5,501) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Payments on non-current receivables	-	19	56	1	75	(4)	-	(25)	16	(13)	6
Cash flows from financing activities: Proceeds from issue of shares (1) 10,251 - 8,035 18,731 25,755 295 257 28,685 54,992 369 Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (221) (192) (844) (134) Payment related to financed asset purchase (500) Net cash provided by financing activities (193) 10,051 (199) 7,833 17,438 25,540 79 36 28,493 54,148 235 Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) Effect of exchange rate changes on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Interest received	19	-	1	5	26	4	3	-	4	11	6
Proceeds from issue of shares (1) 10,251 - 8,035 18,731 25,755 295 257 28,685 54,992 369 Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (221) (192) (844) (134) Payment related to financed asset purchase (500)	Net cash flows from investing activities	(503)	1	6	(236)	(232)	(70)	(36)	(45)	8	(143)	(39)
Payments on lease liabilities (192) (200) (199) (202) (793) (215) (216) (221) (192) (844) (134)	Cash flows from financing activities:											
Payment related to financed asset purchase Net cash provided by financing activities (193) 10,051 (199) 7,833 17,438 25,540 79 36 28,493 54,148 235 Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) 25,540 25 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 33,827 25,532 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Proceeds from issue of shares	(1)	10,251	-	8,035	18,731	25,755	295	257	28,685	54,992	369
Net cash provided by financing activities (193) 10,051 (199) 7,833 17,438 25,540 79 36 28,493 54,148 235 Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) Effect of exchange rate changes on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Payments on lease liabilities	(192)	(200)	(199)	(202)	(793)	(215)	(216)	(221)	(192)	(844)	(134)
Net increase (decrease) in cash 5,861 4,339 (6,275) 1,262 (6,088) 18,590 (6,642) (6,304) 20,896 26,540 (8,218) Effect of exchange rate changes on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 25,532 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Payment related to financed asset purchase	-	-	-	-	(500)	-	-	-	- 1	-	-
Effect of exchanges on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 25,532 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Net cash provided by financing activities	(193)	10,051	(199)	7,833	17,438	25,540	79	36	28,493	54,148	235
Effect of exchanges on cash (1,265) 62 577 332 (740) 4 5 (13) (7) (11) (9) Cash at beginning of period 14,126 7,001 11,402 5,704 14,126 7,298 25,892 19,255 12,938 7,298 33,759 Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 25,532 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Net increase (decrease) in cash	5.861	4.339	(6.275)	1.262	(6.088)	18.590	(6.642)	(6.304)	20.896	26.540	(8.218)
Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 33,827 25,532 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	,	(1,265)	,	. , ,	332	, ,			. , ,	,		
Cash at end of period 18,722 11,402 5,704 7,298 7,298 25,892 19,255 12,938 33,827 33,827 25,532 Cash flow (5,478) (5,610) (5,301) (5,988) (22,379) (6,269) (6,218) (6,475) (8,948) (27,910) (6,972)	Cash at beginning of period	14.126	7.001	11.402	5.704	14.126	7.298	25.892	19.255	12.938	7.298	33.759
$(\bullet, \dots, (\bullet, \bullet, \bullet)) (\bullet, \bullet, \bullet) (\bullet, \bullet, \bullet$,	, -		,	,	-,			,	,
$(\bullet, \dots, (\bullet, \bullet, \bullet)) (\bullet, \bullet, \bullet) (\bullet, \bullet, \bullet$	Cash flow	(5.478)	(5.610)	(5.301)	(5.988)	(22.379)	(6.269)	(6.218)	(6.475)	(8.948)	(27.910)	(6.972)
Free cash flow (6,000) (5,628) (5,352) (6,230) (22,712) (6,339) (6,257) (6,495) (8,960) (28,051) (7,023)	Free cash flow	(6,000)	(5,628)	(5,352)	(6,230)	(22,712)	(6,339)	(6,257)	(6,495)	(8,960)	(28,051)	(7,023)

HISTORICAL STOCK PRICE



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