



27 May 2021

Technology



Source: Refinitiv

Market data

EPIC/TKR	CYAN.L
Price (p)	8.10
12m High (p)	9.40
12m Low (p)	1.25
Shares (m)	186.7
Mkt Cap (£m)	15.1
EV (£m)	16.6
Free Float*	70%
Country of listing	UK
Market	AIM

*As defined by AIM Rule 26

Description

CyanConnode is a leading global vendor of intelligent communications solutions, bringing together narrowband RF mesh and cellular technologies and the Internet of Things (IoT) to create a highly scalable platform for transmission, collection and analysis of data. The company is headquartered in Cambridge, UK, with offices in India and Sweden. To date, it has spent in excess of \$50m on developing its technology platform, on which more than 1.5m endpoint nodes have been implemented globally. At the end of March 2020, total headcount stood at 48 employees, of which 10, or 21%, were women.

Company information

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CYANCONNODE

Major announcement in India with IntelliSmart

CyanConnode has announced a non-binding Memorandum of Understanding (MOU) with IntelliSmart, a partially state-owned entity that is at the centre of the smart meter rollout programme in India. Under the terms of the MOU, CyanConnode will utilise its hybrid RF/cellular technologies for existing and new IntelliSmart smart meter contracts amounting to millions of units. In the context of the Indian Government's programme to deploy 250 million smart meters, this is likely to be a leap forward for CyanConnode in securing a significant share of the Indian opportunity. Our DCF-implied equity fair value is £71.8m (equating to £0.38 per share).

- **Support for Indian utilities:** IntelliSmart was formed by EESL and the National Investment & Infrastructure Fund (which has \$4.5bn under management) to support the Indian utilities with the financing, procurement, deployment and operation of smart metering infrastructure. EESL is itself a JV between four of the largest Indian power companies.
- **Smart meters still to deploy:** We estimate IntelliSmart has in excess of ca.10 million smart meters still to deploy from existing contracts, of which up to 3 million may require CyanConnode's RF mesh connectivity to meet service level agreements (SLAs). At conservative pricing assumptions, 3 million units equate to ca.\$50m of revenue.
- **Successful implementations:** Cyber security concerns have resulted in an aversion on the part of the Indian Government to physical devices manufactured in China. In addition, it transpires that few smart meter technology providers are meeting stringent connectivity SLAs. CyanConnode has delivered many successful implementations.
- **Provision of capex funding to utilities:** An important aspect of IntelliSmart's role is the provision of capex funding to utilities in order that large-scale smart meter rollouts can be funded on an opex basis, i.e. per meter per month. Removing the upfront capex burden will help to accelerate the pace of the overall programme.
- **Investment summary:** Our FY'22 revenue estimate of £8.83m is based largely on existing contracts. The announcement confirms that the Indian business continues to perform in line with expectations, despite the COVID-19 escalation in India in recent months. The IntelliSmart relationship will contribute to revenue in FY'22 and beyond. Our DCF-implied equity fair value is £71.8m, versus the current market capitalisation of £15.1m.

Financial summary and valuation

Year-end Mar (£m)	Dec'18	Mar'20*	2021E	2022E	2023E
Revenue	4.47	2.45	6.20	8.83	18.84
EBITDA	-5.85	-5.46	-1.92	-0.86	3.08
EBITDA margin	-1.31%	-2.23%	-0.31%	-0.10%	0.16%
Adjusted EBIT	-5.28	-5.69	-2.28	-1.13	2.83
Adjusted pre-tax profit	-5.27	-5.70	-2.49	-1.32	2.66
Net income	-4.34	-5.13	-1.89	-0.70	3.30
EPS (p)	-3.71	-2.96	-1.09	-0.40	1.90
EV/Revenue (x)	3.7	6.8	2.7	1.9	0.9
EV/EBITDA (x)	-2.8	-3.0	-8.7	-19.4	5.4
P/E (x)	-2.2	-2.7	-7.5	-20.2	4.3

*15 months to Mar'20 (due to year-end change); Source: Hardman & Co Research

Investment highlights

Highly scalable platform for transmission, collection and analysis of IoT data

A leading global vendor of “smart” technologies

CyanConnode is a leading global vendor of intelligent communications solutions, bringing together narrowband RF mesh and cellular technologies and the Internet of Things (IoT) to create a highly scalable platform for transmission, collection and analysis of data. Although the company is best-known for its intelligent modules for smart meters, for which it continues to win major contracts for global deployments, its core Omnimesh platform can be applied to a range of smart city applications, including electricity, gas, water, street lighting and EV chargers. In a smart city context, where there are a myriad of connected devices all generating data, the proven scalability and network resilience of the platform are ideal.

Smart meter rollout in India is accelerating

At the present time, India has one of the most ambitious smart meter rollout programmes in the world. The Indian distribution utilities have been struggling for many years, weighed down by inefficiencies across their operations. The Indian government plainly understands that this loss represents a drain on the economic development of the country, at a time when the strategic value of power is becoming significant. The Indian Smart Meter National Programme (SMNP) aims to replace 250 million conventional meters with smart meters over the next four years.

If CyanConnode were to secure additional contracts to supply 10 million smart modules (i.e. less than 5% of the total programme), this would imply revenue to the company in excess of \$150m over the next five years. Our estimate is that IntelliSmart has orders representing ca.10 million smart meters that have yet to be implemented. Within this total figure, we estimate that around 3 million meters will require connectivity through RF Mesh (a technology in which CyanConnode is a global market leader). This would represent a revenue opportunity for CyanConnode in excess of \$50m, a figure that conservatively assumes sizeable volume discounts.

EESL and IntelliSmart are key entities in India

Two of the most important players in the Indian smart meter market are EESI and IntelliSmart. EESL (Energy Efficiency Services Limited) was established in 2009 as a JV comprising four of the largest power companies in India, namely NTPC Limited, Power Finance Corporation Limited, REC Limited and POWERGRID Corporation of India Limited. A subsequent JV, named IntelliSmart Infrastructure, was formed in 2019 by EESL and the National Investment and Infrastructure Fund (NIIF) to support the distribution utilities with the financing, procurement, deployment and operation of smart metering infrastructure. IntelliSmart is essentially under the ownership of the largest power companies in India, making it the obvious recipient, over time, of the lion's share of smart meter contracts under the SMNP.

NIIF is an investment platform, described as “being anchored by the Government of India”, with \$4.5bn of equity capital commitments across its three funds. Our understanding is that NIIF is a funding partner for the opex model that is offered to the utilities to accelerate smart meter rollouts by removing the potentially immense upfront infrastructure costs.

Closer relationships with EESL and IntelliSmart

CyanConnode has a demonstrably improving relationship with each of EESL and IntelliSmart. In April 2021, EESL's Dubai entity announced that it had selected CyanConnode as a technology partner for smart metering and smart lighting projects in the Middle East and Africa. At the time, we observed that this announcement was likely to be a precursor to a closer working relationship in India.

That has, indeed, proven to be the case, and we now see that EESL's IntelliSmart entity has chosen to work more closely with CyanConnode to ensure that SLAs on the existing stock of contracts and new contracts awarded to IntelliSmart are fulfilled.

An important driver of these collaborative initiatives is the proven capabilities and scalability and versatility of CyanConnode's Omnimesh platform. In March 2020, CyanConnode announced its new Omnimesh cellular products, which use mobile network technologies as an alternative to RF to connect meters, where required. The products are available in all cellular regions and bands, and support all the 2G, 3G, 4G and emerging 5G standards, including NB-IoT and Cat-M1-IoT cellular technologies. As a consequence of these hybrid capabilities, and in light of the successful SLA delivery from the several existing Indian implementations of Omnimesh, CyanConnode is seen as a proven technology provider for the Indian rollout. New tenders in India are typically specifying dual cellular and RF Mesh capabilities for bidders, playing firmly to CyanConnode's strengths.

Emphasis in India on sourcing meters and equipment from Indian manufacturers, not from other countries

Growing focus on cybersecurity standards

A further important aspect is the growing requirement from the Indian government for sourcing of meters from domestic manufacturers. The power network is critical infrastructure, and there are valid concerns among governments globally that cyberattacks have scope to paralyse entire countries and economies. It is inevitable, given the scale of the opportunity, that the Chinese utility meter manufacturers have been aggressively targeting the Indian market with low pricing. They are typically relying on their own smart meter technology, which tends to be based around cellular. However, the Indian government's appetite to source smart meters from China is understandably low, and the last two years have seen a growing emphasis in India on sourcing smart meters and related equipment from Indian manufacturers. As part of these developments, the Indian government has sought to ensure greater adherence to specific standards, including for cyber security. These initiatives also bring a related benefit of driving investment into domestic capabilities to manufacture smart meters and related infrastructure. By partnering with CyanConnode, the Indian manufacturers are able to access the intelligent communications modules, which can be embedded into domestically produced meter hardware.

Smart meter opportunities in several international markets

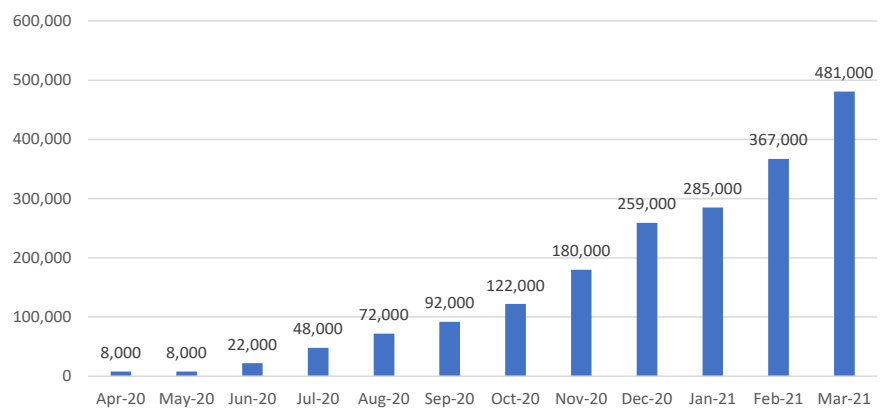
While much of the focus is currently on India, CyanConnode is engaged in discussions regarding opportunities in a number of international markets. Further orders are expected in Thailand, the UK, the Middle East and Africa (where EESL is the primary partner and likely to provide funding). As ever, the timeframes over which these large-scale opportunities may come to fruition are uncertain, but we would expect some announcements over the next six months.

Financials

FY'22 estimates based largely on existing contracts

The most recent trading update, announced on 7 April 2021, confirmed that the marked revenue uplift seen in 3Q'21 was followed by a further acceleration in 4Q'21. Further strong growth is expected in FY'22 (to end-March 2022). We have largely confined our base-case estimates for FY'22 to contracts that have been won, with a modest contribution assumed from prospective contract wins, even where the company's partners are in late-stage discussions. It is only in our FY'23 estimates where we start to materially factor into our estimates the pipeline of opportunities incremental to existing contracts.

Cumulative smart meter modules shipped to end-March 2021



Source: Company data

Strong order book

The table below shows orders to date in India, together with the number of modules that are yet to be shipped for each contract. Using a revenue estimate of \$28 per meter endpoint (a figure that includes software and services), the implied total revenue per endpoint to come relating to the modules still to be shipped is ca.\$14.4m, of which the hardware modules represent ca.\$6.7m. This sum is expected to be recognised during the current financial year. These figures will continue to be updated as additional contracts are secured.

CyanConnode order book breakdown (to end-March 2021)

Project	Ordered	Delivered by 3Q'21	Delivered by 4Q'21	Yet to Ship
JVVNL(1)	281,782	81,202	136,302	145,480
JVVNL(2)	149,089	65,057	113,357	35,732
Tangedco	142,069	39,000	108,800	33,269
MPWZ	350,000	16,050	50,850	299,150
Total	922,940	201,309	409,309	513,631

Source: Company data

Revenue model

We estimate revenue to more than double in FY'23

The table below sets out our revenue estimates for FY'22 and FY'23. Based on a sharp uptick in the number of modules shipped, we expect revenue to more than double in FY'23, to £18.84m, from £8.83m in FY'22.

CyanConnode: revenue model									
Year-end Mar (£000)	1H'2021	1H'2021	2021E	1H'2022E	2H'2022E	2022E	1H'2023E	2H'2023E	2023E
Modules shipped	92,000	389,000	481,000	260,000	427,000	687,000	540,000	925,000	1,465,000
Contract val. per endpoint (\$)	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
£/\$ exchange rate	1.38	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
Contract val. per endpoint (£)	20.3	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total contract value of shipped modules	1,866.7	7,780.0	9,646.7	5,200.0	8,540.0	13,740.0	10,800.0	18,500.0	29,300.0
Hardware proportion	50%	50%	46%	50%	50%	50%	50%	50%	50%
Hardware revenue recognised	933.3	3,890.0	4,823.3	2,600.0	4,270.0	6,870.0	5,400.0	9,250.0	14,650.0
Software proportion	11%	11%	11%	11%	11%	11%	11%	11%	11%
Total software revenue	205	855.8	1,061.1	572.0	939.4	1,511.4	1,188.0	2,035.0	3,223.0
Services revenue proportion	9%	9%	9%	9%	9%	9%	9%	9%	9%
Recognised in the period	30%	30%	30%	30%	30%	30%	30%	30%	30%
Services revenue recognised	61.6	256.7	318.3	171.6	281.8	453.4	356.4	610.5	966.9
Total revenue for the period	1,200.3	5,002.5	6,202.8	3,343.6	5,491.2	8,834.8	6,944.4	11,895.5	18,839.9

Source: Hardman & Co Research

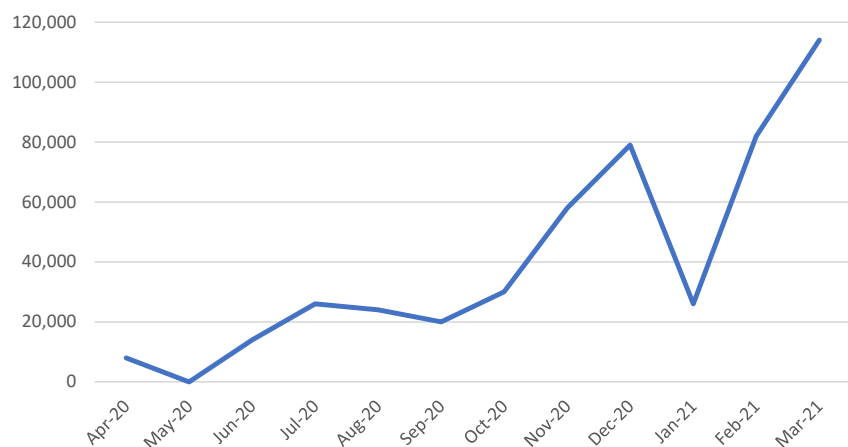
Upward trend in monthly shipments of modules in last 12 months...

...and expected to accelerate

Short-term revenue drivers

CyanConnode's financial performance over the next two to three years will primarily be a function of smart meter module shipments. The marked acceleration in the number of meters shipped during FY'21 is noteworthy and consistent with the order book summary presented in the table above. The chart below looks at monthly shipments of modules over the last 12 months and shows a clear upward trend, which is expected to accelerate. Additional support and maintenance revenue streams will build up gradually over the next two to three years.

Module shipment estimates



Source: Company data, Hardman & Co Research

Valuation

DCF analysis produces implied fair enterprise value of £73.3m and implied fair equity value of £71.8m

Our approach to understanding the potential valuation of CyanConnode centres on a DCF analysis. Our assumptions are set out in their entirety in the table below and are relatively conservative, particularly the weighted average cost of capital (WACC) of 11.5% and the medium-term revenue profile, given the international pipeline of opportunities.

The analysis produces an implied fair enterprise value of £73.3m and an implied fair equity value of £71.8m (equating to £0.38 per share). These valuation outcomes are materially higher than the current enterprise value of £16.6m and market capitalisation of £15.1m.

CyanConnode – Hardman & Co DCF analysis

Key inputs

Terminal FCF growth rate	3.0%
Long-term sustainable EBIT margin	28.0%
Long-term tax rate on EBIT	20.0%
WACC	11.5%

Y/end March, £m	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	Terminal value
Revenues	6.2	8.8	18.8	24.5	31.1	38.9	46.7	52.3	54.9	
yoy growth	2.7%	42.4%	113.2%	30.0%	27.0%	25.0%	20.0%	12.0%	5.0%	
EBIT margin	-36.8%	-12.8%	15.0%	22.0%	23.5%	25.0%	26.0%	27.0%	28.0%	
EBIT	-2.3	-1.1	2.8	5.4	7.3	9.7	12.1	14.1	15.4	
Depreciation & amortisation	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	
Adj. EBITDA	-1.7	-0.6	3.4	6.0	7.9	10.3	12.8	14.8	16.0	
Tax rate	0.0%	0.0%	5.0%	10.0%	15.0%	20.0%	20.0%	20.0%	20.0%	
Tax on EBIT	0.0	0.0	-0.1	-0.5	-1.1	-1.9	-2.4	-2.8	-3.1	
Change in net working capital	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	
Cashflow from operations	-2.2	-1.1	2.8	4.9	6.3	7.9	9.8	11.4	12.5	
Capex	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.9	
Unlevered free cash flow	-2.4	-1.3	2.5	4.6	5.9	7.4	9.2	10.7	11.6	136.6
Year	1	2	3	4	5	6	7	8	9	10
Discount factor	1.12	1.24	1.39	1.55	1.72	1.92	2.14	2.39	2.66	2.66
Present value	-2.1	-1.0	1.8	3.0	3.4	3.9	4.3	4.5	4.4	51.3

Note: based on medium-term assumptions from 2024E

Implied valuation metrics	£m
Sum of 9-year cash flow	22.0
Terminal value	51.3
Value of the firm	73.3
Net funds	-1.5
Total equity value	71.8
No. of shares in issue (m)	186.7
Fair value share price (£)	0.38

Source: Hardman & Co Research estimates

Profit and loss

CyanConnode P&L								
Year-end Mar (£000)	12M Dec 2017	12M Dec 2018	6M Jun 2019	15M Mar 2020	1H'2021	2021E	2022E	2023E
Revenue	1,171	4,465	1,014	2,451	1,499	6,203	8,835	18,840
Cost of sales	-674	-1,724	-537	-1,081	-668	-3,194	-4,859	-10,739
Gross profit	497	2,741	477	1,370	831	3,008	3,976	8,101
Gross margin	42%	61%	47%	56%	55%	49%	45%	43%
Operating expenses	-11,161	-8,589	-3,386	-6,827	-2,148	-4,930	-4,831	-5,025
EBITDA	-10,664	-5,848	-2,909	-5,457	-1,317	-1,922	-856	3,077
Share-based payments	-689	-445	-107	-267	-130	-200	-300	-320
Stock impairment	-55	-578	0	-4	0	0	0	0
Foreign exchange losses	-52	-16	-115	-267	-71	-71	0	0
Adjusted EBITDA	-9,868	-4,809	-2,687	-4,919	-1,116	-1,651	-556	3,397
EBITDA margin	-911%	-131%	-287%	-223%	-88%	-31%	-10%	16%
Depreciation & amortisation	-489	-472	-235	-772	-305	-630	-576	-570
EBIT	-11,153	-6,320	-3,144	-6,229	-1,622	-2,552	-1,432	2,506
Adjusted EBIT	-10,357	-5,281	-2,922	-5,691	-1,421	-2,281	-1,132	2,826
Adjusted EBIT margin	-884%	-118%	-288%	-232%	-95%	-37%	-13%	15%
Investment income	16	13	10	17	1	2	2	2
Net finance income	-6	-2	-2	-30	-102	-210	-189	-170
Adjusted PBT	-10,347	-5,270	-2,914	-5,704	-1,522	-2,489	-1,319	2,658
Taxation/tax credit	1,402	927	300	576	377	603	621	640
Effective tax rate	-14%	-18%	-10%	-10%	-25%	-24%	-47%	24%
Net income	-8,945	-4,343	-2,614	-5,128	-1,145	-1,885	-697	3,298
EPS (basic, p)	-10.18	-3.71	-1.51	-2.96	-0.66	-1.09	-0.40	1.90
EPS (diluted, p)	-10.18	-3.71	-1.51	-2.96	-0.66	-1.09	-0.40	1.90
Average shares in issue (basic, m)	95.740	116.976	172.931	173.048	173.548	173.548	173.548	173.548
Average shares in issue (dil., m)	95.740	116.976	172.931	173.048	173.548	173.548	173.548	173.548

Source: Hardman & Co Research

Balance sheet

CyanConnode balance sheet						
@31 Mar (£000)	12M Dec 2018	15M Mar 2020	1H'2021	2021E	2022E	2023E
Non-current assets						
Intangible assets	5,048	4,558	4,365	4,170	3,736	3,255
Goodwill	1,930	1,930	1,930	1,930	1,930	1,930
Fixed asset investments	44	93	91	91	91	91
Property, plant and equipment	73	43	41	30	21	15
Right of use asset	0	274	196	94	0	0
Total non-current assets	7,095	6,898	6,623	6,315	5,778	5,290
Current assets						
Inventories	319	308	304	930	1,149	1,884
Trade and other receivables	4,827	3,676	3,863	1,799	1,767	2,826
Cash and cash equivalents	4,563	1,172	952	1,508	1,286	3,234
Total current assets	9,710	5,156	5,119	4,237	4,201	7,944
Total assets	16,805	12,054	11,742	10,552	9,979	13,235
Current liabilities						
Short-term borrowing	-1,994	-560	-785	-785	-785	-785
Trade and other payables	0	-1,491	-2,157	-1,489	-1,767	-1,884
Lease liability	0	-121	-131	-90	-50	-14
Total current liabilities	-1,994	-2,172	-3,073	-2,364	-2,602	-2,683
Net current assets	7,716	2,984	2,046	1,874	1,599	5,261
Non-current liabilities						
Lease liability	0	-153	-65	-65	-25	-1
Deferred tax liability	-690	-912	-853	-853	-853	-853
Total non-current liabilities	-690	-1,065	-918	-918	-878	-854
Total liabilities	-2,684	-3,237	-3,991	-3,282	-3,480	-3,537
Net assets	14,121	8,817	7,751	7,271	6,499	9,698
Equity						
Share capital	3,648	3,656	3,666	3,666	3,666	3,666
Share premium account	69,515	69,547	69,556	69,556	69,556	69,556
Own shares held	-3,253	-3,253	-3,253	-3,253	-3,253	-3,253
Share option reserve	1,761	2,028	2,158	2,158	2,158	2,158
Translation reserve	-76	-20	111	111	111	111
Retained losses	-57,474	-63,141	-64,487	-65,026	-65,724	-62,540
Total equity attributable to owners	14,121	8,817	7,751	7,271	6,499	9,698

Source: Hardman & Co Research

Cashflow

CyanConnode cashflow						
Year-end Mar (£000)	12M Dec 2018	15M Mar 2020	1H'2021	2021E	2022E	2023E
Operating loss for the period	-6,320	-6,229	-1,622	-2,552	-1,432	2,506
Depreciation of property, plant and equipment	51	247	95	200	103	50
Amortisation of intangible assets	421	526	210	430	473	520
Foreign exchange	55	59	71	71	0	0
Share-option payment expense	445	267	130	275	91	64
Op. cashflows pre-movements in work. cap.	-5,348	-5,131	-1,116	-1,576	-765	3,140
Decrease/(increase) in inventories	809	11	4	-622	-218	-735
Decrease/(increase) in receivables	-2,377	1,124	-79	1,877	32	-1,059
Increase/(decrease) in payables	-253	-503	666	-2	278	117
Cash reduction from operating activities	-7,169	-4,499	-525	-323	-673	1,463
Income taxes or tax credit received	1,326	822	150	603	621	640
Net cash outflow from op. activities	-5,843	-3,677	-375	280	-51	2,103
Investing activities						
Interest received	13	17	1	2	2	2
Purchases of property, plant and equipment	-41	-20	-11	-24	-49	-56
Capitalisation of software development	0	-36	-20	-42	-40	-39
(Purchase)/disposal of investments	4	-49	0	0	0	0
Net cash used in investing activities	-24	-88	-30	-64	-87	-93
Financing activities						
Interest paid	-2	-4	-24	-210	-189	-170
Capital repayments of lease liabilities	0	560	-33	-119	-80	-60
Cash inflow from borrowings	0	-197	225	225	0	0
Interest paid on lease liabilities	0	-26	-3	-6	-4	-1
Proceed on issue of shares	5,467	40	20	20	0	0
Share issue costs	-428	0	0	0	0	0
Net cash from financing activities	5,037	373	185	120	-84	-61
Net change in cash and cash equivalents	-830	-3,392	-220	336	-222	1,949
Cash and cash equivalents at beg. of period	5,394	4,564	1,172	1,172	1,508	1,286
Cash and cash equivalents at end of period	4,564	1,172	952	1,508	1,286	3,234

Source: Hardman & Co Research

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