

15 July 2024

Price (NOK)	32
Shares in issue (m)	96
Mkt Cap (NOKm)	3,062
Net debt (NOKm)	-88
EV (NOKm)	2,974
BVPS (NOK)	8.8

Share price performance	
1m	8.5%
3m	6.3%
12m	5.8%
12 m high/low	32.4/19.2
Ave daily vol (30D)	62,483

Shareholders	
Saffron Hill Venture	41.6%
Morgan Stanley	4.3%
Nordea Bank Abp	1.9%
Mp Pensjon Pk	1.4%
Ufi Capital As	0.6%
Ufi As	0.6%
Cmu Seb	0.5%
L-Vevabi Holding Aps	0.4%
Steen Jakobsen	0.4%
Faulkner Chris	0.4%
Total for top 10	52.1%
Free float	54.2%
Source: Bloomberg	03 Jun 24

Next news Ints Q4

Business description

Plastic waste recycling technology and feedstock management



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THE VALUE IN CYCLYX

The Cyclyx joint venture offers Agilyx exposure to potentially strong near term growth while it develops its waste conversion business over the longer term under the new investment holding company structure. We think last year's reorganisation of the JV, while reducing Agilyx's holding, increased the overall value of the business to the benefit of Agilyx. The strategic shift announced last month suggests options for developing both Cyclyx and the conversion business and we have reviewed these. Our central case valuation slightly rises to NOK 90 from NOK 86 with a range between NOK 48 and NOK 109.

Strategic Shift Focuses on Feedstock

Agilyx has announced a strategic shift that will see it focus on maximizing its investments in feedstock management and waste conversion. This follows the move in November when Agilyx reduced its share in the Cyclyx joint venture to 50% from 75%. While this reduced the company's exposure to the business it also made that business more valuable in our view as the complete funding package boosted the JV's growth prospects, opening up a wider opportunity set.

Cyclyx Process Optimises Feedstock for Recyclers

The Cyclyx proprietary process involves an integrated set of innovations focused on the chemical characterisation of plastic wastes. It then uses predictive modelling of feedstock sources to product pathways, custom feedstock recipes, and supply chains to meet the exact specifications of plastic recycling offtakers. The process targets the delivery of waste plastic feedstock appropriate for all existing and new mechanical and advanced recycling pathways.

New JV Structure Brings Investment

The deal brought chemical major LyondellBasell in as a new partner. LyondellBasell is the largest licensor of polyethylene and polypropylene technologies, as well as producing ethylene, propylene, polyolefins, and oxyfuels. The agreement sees ExxonMobil and LyondellBasell together invest US\$135m in a series of transactions which diluted Agilyx to 50% with the others holding 25% apiece. The new capital will be used to fund the first Cyclyx Circularity Centre (CCC) through to commissioning and expand sourcing and testing capabilities. Commissioning is expected shortly in H1 2025. Agilyx continues to provide shared management services to the JV for a fee and will receive a volume-based royalty for use of its intellectual property in this and future projects.

,\$_000 Dec	2022a	2023a	2024e	2025e	2026e	2027e
Sales	7,362	5,895	2,731	16,969	31,886	44,732
EBITDA	-17,918	-16,073	-23,421	2,332	14,785	34,909
PBT	-18,666	-17,157	-24,285	1,299	13,512	33,423
EPS	-0.2	-0.2	-0.2	0.0	0.1	0.2
CFPS	-0.2	-0.3	-0.1	-0.5	-0.1	0.0
DPS	0.0	0.0	0.0	0.0	0.0	0.0
Net Debt (Cash)	-12,939	-8,235	-62,829	-7,332	-2,654	-12,647
Debt/EBITDA	0.7	0.5	2.7	-3.1	-0.2	-0.4
P/E	-13.8	-16.4	-15.1	377.2	36.3	14.7
EV/EBITDA	-15.2	-17.3	-9.5	119.3	19.1	7.8
EV/sales	37.0	47.0	101.5	16.3	8.7	6.2
FCF yield	-8.2%	-9.7%	-3.4%	-18.1%	-3.5%	-1.5%
Div yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

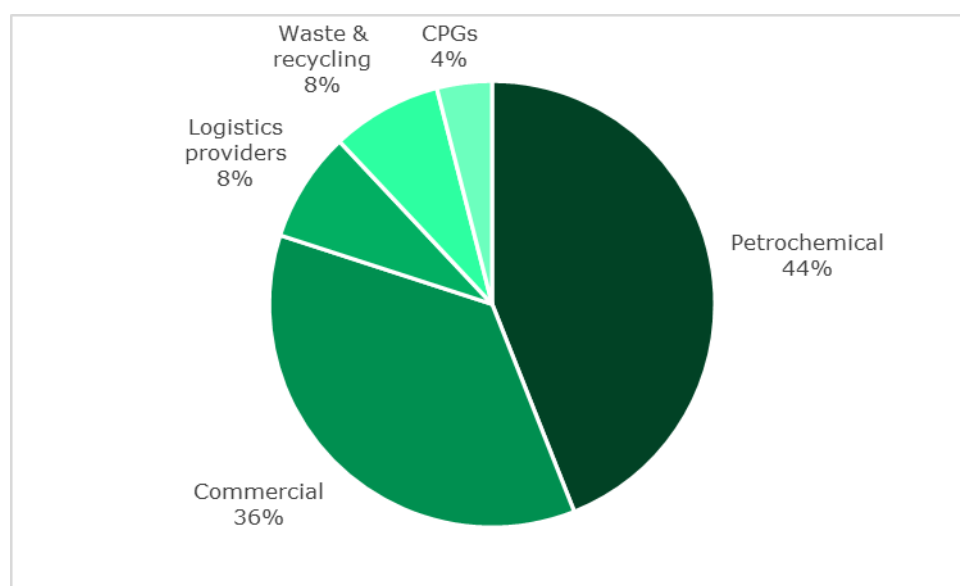
THE CYCLYX JV

Maximising the yield of plastic recycling processes starts with the waste feedstock. Processes require that feedstock meets the specification of advanced recycling technologies and product pathways. Meeting these requirements has been a challenge for the industry given the chemical complexity of the various polymers and compounds involved. Cyclyx draws on a chemical database of plastics which it has been developing since 2004. This allows it to fully understand the chemical profile of different plastic products and their ability to be used in different conversion technologies.

The Cyclyx feedstock management service integrates with the downstream chemical conversion technology resulting in a truly circular economy solution. Cyclyx operates a consortium-based model with non-shareholding membership open to companies looking to recycle waste plastic. Membership allows these companies to identify the right recycling options for their waste following full analysis and then to establish take back programmes to regularise feedstock supply chains and maximise their potential. It can provide enough feedstock certainty to underpin the development of new processing facilities.

Cyclyx now has 49 members and is actively involved in further membership discussions.

Cyclyx membership breakdown



Source: Agilyx

COMPETITIVE ADVANTAGE

The process at a CCC differs from other waste pre-preparation. The key to the Cyclyx process is the active sampling of waste streams with chemical profiling embedded in the operating system. Notably, Cyclyx actively samples incoming waste rather than simply undertaking remote sensing. The business has already spent many years creating a proprietary data base giving it strong first mover advantage. The company estimates that replicating this work would take 5-8 years and cost US\$150m. Additionally, because Cyclyx is already dealing with meaningful volumes, its database has more depth than any smaller scale entrant could come near replicating.

CYCLYX TAKES CONTROL AT THE INPUT STAGE

The database of waste types matched to offtaker's specifications means that Cyclyx can match inputs and focus on those which can match offtakers specifications most profitably. In particular, this allows it to identify value in the most difficult waste with mixed composition and contamination, as this is often the cheapest of inputs allowing a better margin when compared to more homogenous waste streams.

AND AT THE OUTPUT STAGE

Cyclyx also has an advantage in the design of its plant which allows for batch mixing of outputs to achieve offtakers specifications. It can sample outputs by batch and then blend these to specification. This may sound complex but actually means that output specifications can be reached and delivered consistently.

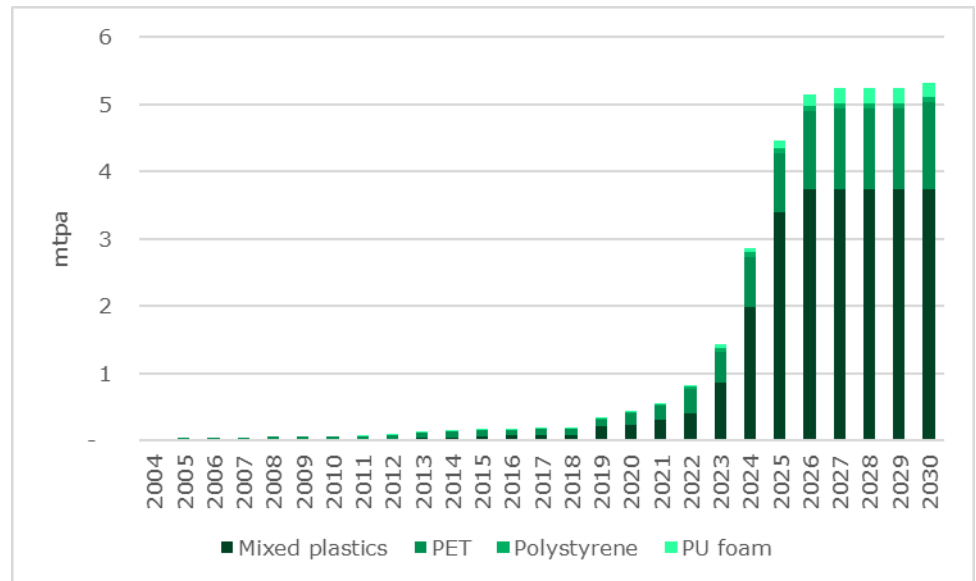
Cyclyx is continuing to improve on its process creating further competitive advantage. While it already uses what we would describe as big data at the sampling stage and advanced optical and infrared sensing technology to sort waste streams into different polymer types, it is also developing artificial intelligence for matching sensing inputs with recipes and pattern recognition for unusual outcomes. However, while there is some degree of novel applications, most of what the company does is to use proven equipment but in a new configuration. As a result, the technology risk is relatively low.

Clearly the ability of Cyclyx to capture strong economics depends on its ability to compete against alternatives available to petrochemical companies and other advanced recyclers as they seek meaningful volumes of plastic feedstock. Cyclyx's ability to exploit its chemical conversion database and to source feedstock in partnership with municipalities and corporate partners creates a material advantage in our view. A clear example of this is the relationship with Tencate, the market leader in synthetic grass and playing surfaces. Cyclyx allows Tencate to send its end-of-life turf for analysis and processing allowing ExxonMobil to turn feedstock into polymers. This is a major step up from traditional turf recycling which saw material used as basic filler with low value.

POTENTIAL CONTRIBUTION TO AGILYX

Cyclx membership is growing with many companies in ongoing membership discussions. Existing members include Braskem, Dow, ADS, LyondellBasell, Sabic and Sonoco all with major recycling commitments. Cyclx forecasts demand from existing customers reaching over 6,000ktpa by 2031 from c. 5ktpa in 2022. This would equate to around 60 CCCs. This forecast demand is backed by existing and announced plastic recycling capacity which will top 5mtpa by 2030 with more announcements likely to follow.

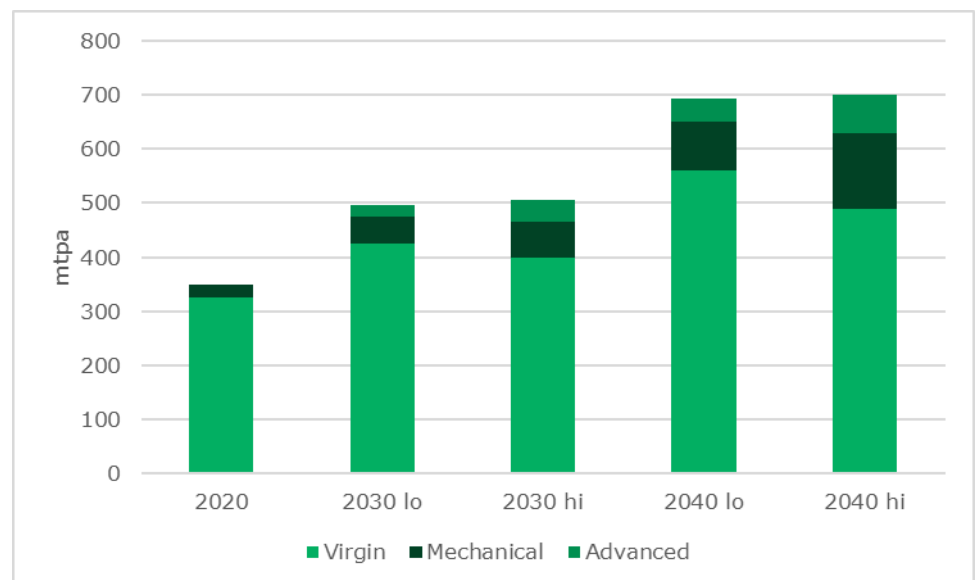
Commissioned and announced plastic recycling capacity



Source: Bloomberg New Energy Finance

However, market demand could be far higher than that suggested by existing customers only. Consultants McKinsey see demand for advanced recycling averaging 30 mtpa in 2030 and 58 mtpa in 2040. This would equate to 285 CCCs by 2030 and 530 by 2040.

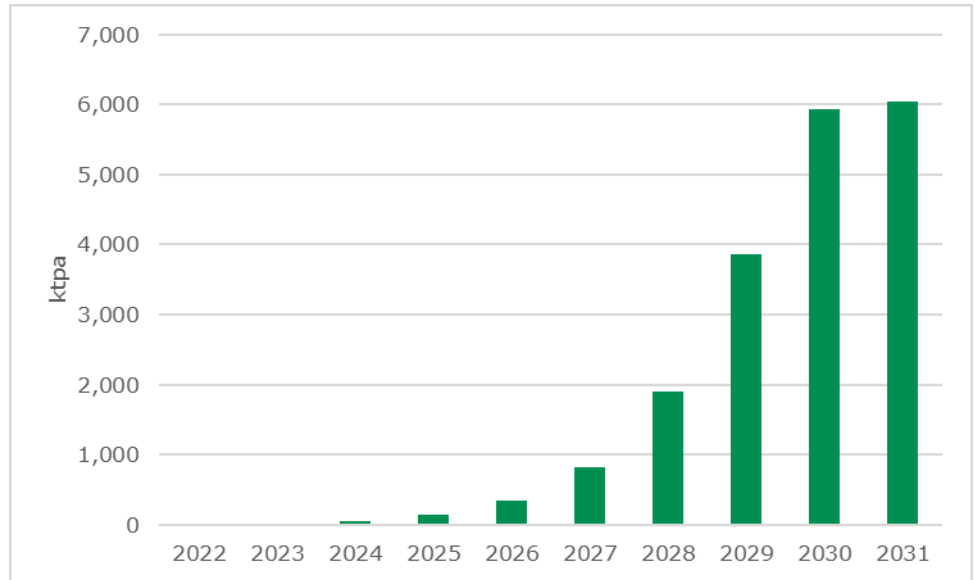
Advanced recycling begins to show significance in market



Source: Longspur Research, McKinsey analysis of CI Circular data

Cyclyx has targeted sales of 6,000ktpa in 2030 and we see this new JV structure making that more achievable. While the company has presented this as a straight-line increase, we would normally use an “S” curve of sales and our original forecasts used a Bass Diffusion model with standard coefficients to drive our forecasts.

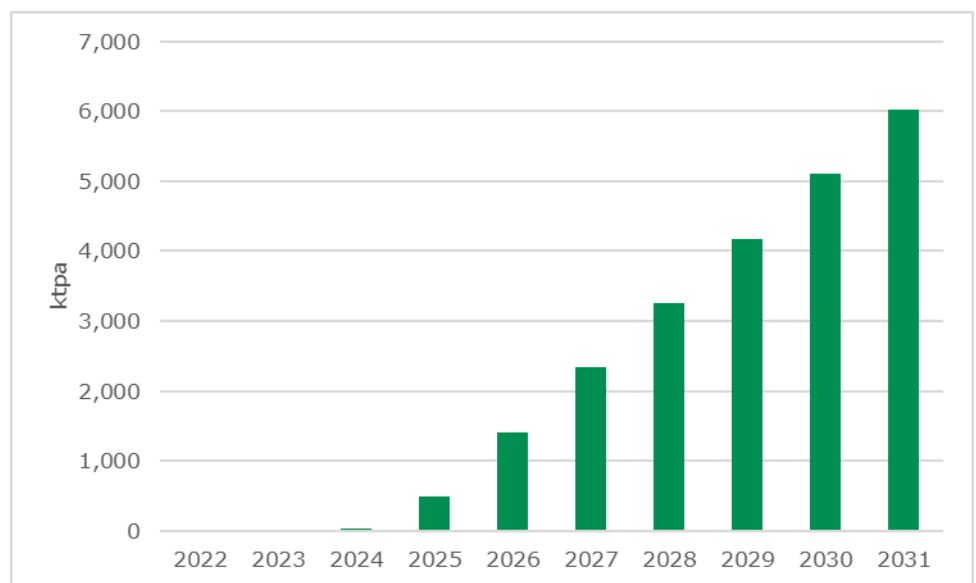
Original modelling assumptions of Cyclx Feedstock demand



Source: Longspur Research

However, it is worth pointing out that there is already pent-up unsatisfied demand and the key driver of growth is more likely to be the JV’s ability to develop and deploy rather than growing demand. As a result, we think the straight-line growth profile suggested by the company could be achieved and we are now reflecting this in our forecasts for Cyclyx although as we shall see overleaf Agilyx’s direct project exposure will be tempered by fundability. For the overall Cyclyx business we have continued to assume an end point of c.6,000ktpa in 2031 but with straight line growth from 2024.

Revised modelling assumptions of Cyclx feedstock demand



Source: Longspur Research

Agilyx will continue to provide shared management services to the JV for a fee and will receive a volume-based royalty for use of its intellectual property in the first CCC and future projects. It will also receive 50% of distributed cashflows provided it can continue to invest in new CCCs beyond CCC1. Agilyx effectively gets a free ride on CCC1 but will need to find funding for its equity stake in CCC2. We believe it will do this and, if successful, the cashflows from these projects will be sufficient to fund further investment in new projects.

With at least two projects operating, further projects should also be able to attract project finance debt funding and capacity reservation agreements. These are common in the petrochemical industry and see the offtaker investing capital at the final investment decision (FID) stage to secure an offtake from the facility. Subsequent offtake pricing then reflects this allowing the offtake a return on their up-front payment. Such deals would reduce the net funding required to build out CCC projects, accelerating the build-up of the fleet.

The company has presented a view of how its exposure could build with growth in CCC numbers.

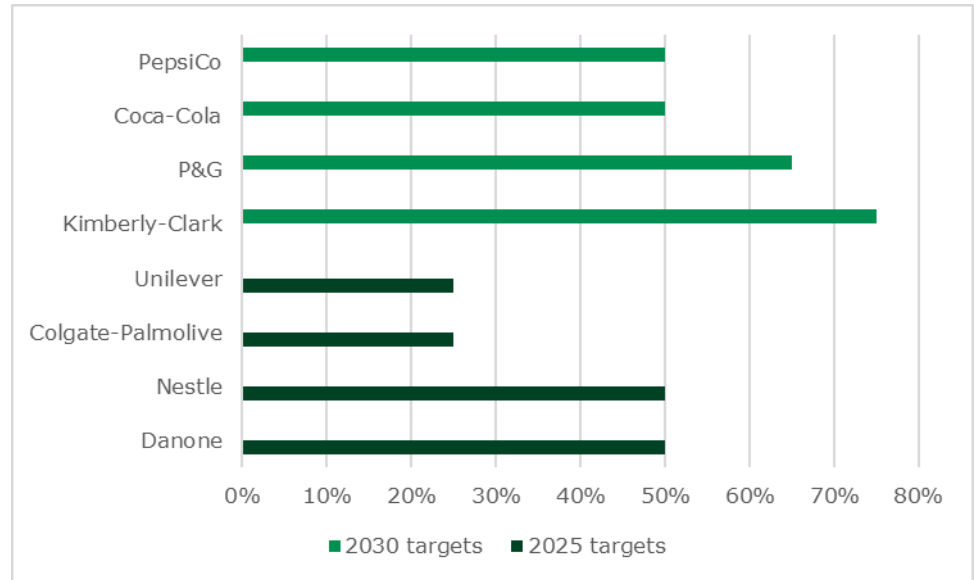
Annual EBITDA at Steady State

US\$m	1 CCC	2 CCC	3 CCC	4 CCC	5 CCC
CCC#1	7	7	7	7	7
CCC#2		25.2	25.2	25.2	25.2
CCC#3			26.7	26.7	26.7
CCC#4				26.7	26.7
CCC#5					26.7
Cyclyx Opex	-16.7	-21.4	-26.1	-30.8	-35.5
Cyclyx's OH contribution from CCC's	6.6	13.2	19.8	26.4	33
Cyclyx Corporate Costs	-10.1	-8.2	-6.3	-4.4	-2.5
Cyclyx PF EBITDA	-3.1	24	52.6	81.2	109.8
Agilyx 50% Interest	-1.5	12	26.3	40.6	54.9
Royalties	2.5	5	7.5	10	12.5
Net to Agilyx	1	17	33.8	50.6	67.4

Source: Agilyx

We see these economics as conservative given the potential for stronger pricing in the market. Advanced recycling margins will vary from site to site given differences in local regulatory frameworks and also different logistical infrastructure. But margins and pricing are strong and being driven in part by the fact that consumer packaged good (CPG) brands are happy to pay premia in excess of US\$1,500/ tonne in order to meet self imposed recycling targets.

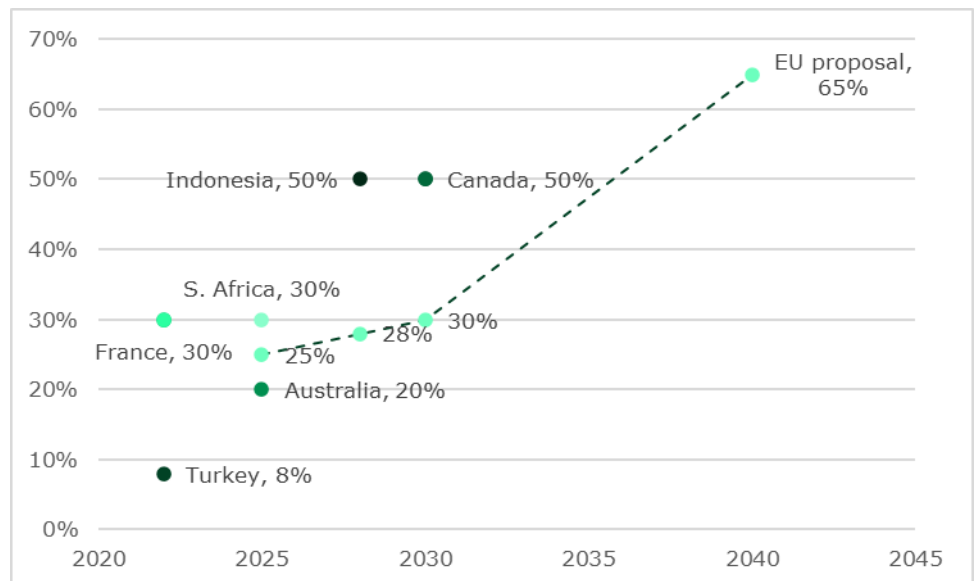
CPG brand recycling targets



Source: Bloomberg New Energy Finance

These self-imposed targets are partly a response to impending mandatory policy driven targets.

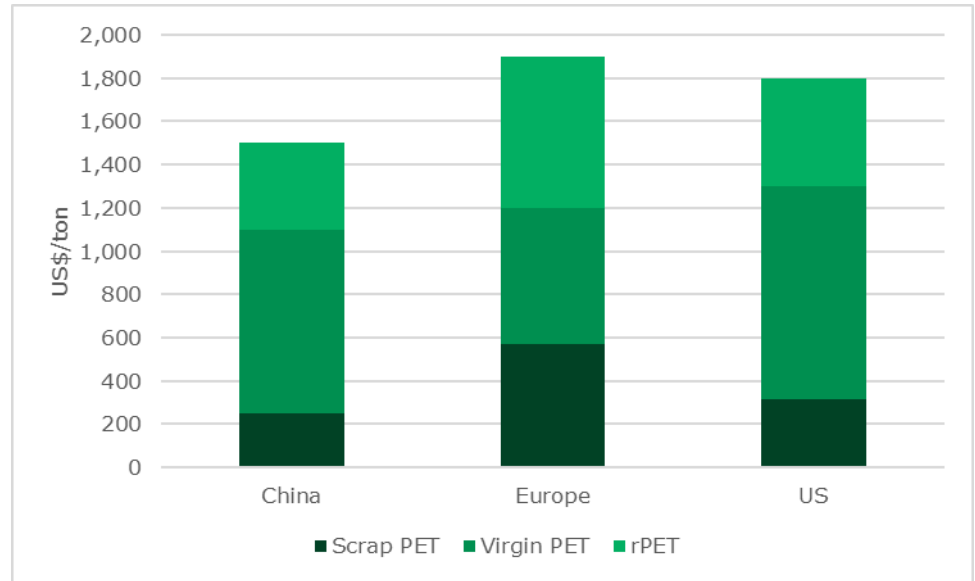
Selected post-consumer recycled content (PCR) mandates



Source: Bloomberg New Energy Finance

Overall pricing of towards c.US\$2,000 per tonne are being seen notably in Europe.

Recycled PET (rPET) price build up in three key markets



Source: Bloomberg New Energy Finance

Critical to Agilyx will be its ability to fund new CCC projects so that it can continue to participate in with 50% interest. It should be stressed though that it will receive royalties on all project whether it is invested or not.

OPTIONS FOR AGILYX

In order to examine the company's exposure to Cyclyx going forward we have looked at four possible cases. In every case we have assumed that Agilyx funds a 50% stake in CCC2 with a US\$75m equity raise at the current share price but with no debt assumed for this early project. We then assume that projects out to FY 28 can be funded with 66% debt in line with what we see for similar proven but early-stage clean energy projects. Once proven we think debt-based project finance of 80% will be achievable.

Current main assumptions adjusted for Cyclyx funding

We assume that all our existing conversion business assumptions remain but cashflows are kept in this business and not available for investment in Cyclyx CCCs which are funded only with cash from the initial CCCs (1 and 2). Our original conservative Cyclyx growth assumptions using a Bass Diffusion model S curve remain. This results in a near term reduction in forecasts but longer term the impact of CCCs compensates for this leaving our valuation almost unchanged at NOK 87 against the original NOK 86. In effect it is an updated version of our existing forecasts to better reflect Cyclyx funding constraints in the near term.

Cyclyx Contribution to Agilyx Forecast – no cross funding

	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e
CCCs #	1	1	3	5	12	23	34	34
Revenue	0	0	0	0	0	0	0	0
EDIT	-20	-14	18	113	326	738	1,190	1,249
Royalties (\$m)	2.5	2.5	7.8	13	31.2	59.8	88.4	88.4
AGLX CCCs #	1	1	2	2	2	3	5	7
Dividend (\$m)	-10	-7	4	17	13	14	27	35
Net to Agilyx (\$m)	-7	-4	12	30	44	73	116	124

Source: Longspur Research

Cyclyx growth updated for market opportunity

We again assume that all our existing conversion business assumptions remain but our Cyclyx forecasts are now updated for straight line growth. We still constrain AGLX exposure to what the company can fund but now we include channelling longer term conversion business income into new CCCs further out. This results in an overall upgrade in forecasts in every year and the valuation rises to NOK108.

Cyclyx Contribution to Agilyx Forecast – maximum cross funding

	2024e	2025e	2026e	2027e	2028e	2029e	2030e	2031e
CCCs #	1	3	8	14	19	24	29	34
Revenue	0	0	0	0	0	0	0	0
EDIT	-20	19	126	322	542	774	1,012	1,255
Royalties (\$m)	2.5	7.5	20.8	36.4	49.4	62.4	75.4	88.4
AGLX CCCs #	1	1	2	2	3	5	10	15
Dividend (\$m)	-10	9	12	11	11	2	32	107
Net to Agilyx (\$m)	-7	16	33	48	60	64	108	196

Source: Longspur Research

NEAR TERM FOCUS ON CYCLYX

It is obvious that the near-term value in Agilyx is in Cyclyx and the recent strategic shift to an investment holding company allows flexibility in how the further development of the waste conversion business takes place. This could see continued development as we have assumed in the previous scenarios or other options including more hands-off licencing, allowing others to pursue project development. We want to highlight the near-term value of Cyclyx so have run two scenarios where we assume the conversion business is curtailed to only the very near-term projects (Toyo and Kumho Petrochemicals) which are continued to be worked on.

Conversion business development curtailed to focus on Cyclyx

Here we assume the conversion business curtailed as above with only the very near-term projects (Toyo and Kumho Petrochemicals) contributing. Cyclyx is funded as per the assumptions above, but Agilyx participation is less than overall CCC growth due to funding constraints. Again, the more conservative S curve assumption is used to forecast overall Cyclyx demand growth. This results in downgraded forecasts in all years and our valuation drops to NOK48. The Cyclyx contribution is the same as in the first scenario.

Cyclyx growth updated for market opportunity

Again, the conversion business is curtailed to only near-term projects, but this time Cyclyx demand is based on the straight-line assumption which we now believe is deliverable. This sees a downgrade in profits in FY 24 but upgrades in FY 25 ad FY 26. Valuation comes in unchanged at NOK 90.

We summarise these valuation scenarios as follows. We think the final scenario with curtailed development activity in the conversion business but overall higher Cyclyx growth and constrained Agilyx investment in CCCs represents the most likely path forward and revise our central case forecasts on that basis.

Forecast scenarios – valuations in NOK per share

Cyclyx	Conversion business	
	<i>Active</i>	<i>Passive</i>
S curve	87	48
Straight line	108	90

Source: Longspur Research

FINANCIAL MODEL

Profit and Loss Account

US\$,000, Dec	2022a	2023a	2024e	2025e	2026e	2027e
Turnover						
Agilyx	7,362	5,895	2,731	16,969	31,886	44,732
Cyclyx	0	0	0	0	0	0
Cyclyx adjustments	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	7,362	5,895	2,731	16,969	31,886	44,732
Operating profit						
Agilyx	-17,191	-15,760	-14,308	-7,625	7,643	20,186
Cyclyx	0	0	0	0	0	0
Cyclyx adjustments	0	0	0	0	0	0
Other	0	0	0	0	0	0
Operating profit	-18,463	-14,774	-14,308	-7,625	7,643	20,186
P&L Account						
Turnover	7,362	5,895	2,731	16,969	31,886	44,732
Operating Profit	-18,463	-14,774	-14,308	-7,625	7,643	20,186
Investment income	0	-1,973	-9,983	8,887	5,865	13,235
Net Interest	-204	-410	5	38	4	2
Pre Tax Profit (UKSIP)	-18,666	-17,157	-24,285	1,299	13,512	33,423
Goodwill amortisation	0	0	0	0	0	0
Exceptional Items	0	0	0	0	0	0
Pre Tax Profit (IFRS)	-18,666	-17,157	-24,285	1,299	13,512	33,423
Tax	0	0	0	-325	-3,378	-8,356
Post tax exceptionals	-5,503	113,279	0	0	0	0
Minorities	1,376	1,351	0	0	0	0
Net Profit	-22,794	97,474	-24,285	974	10,134	25,067
Dividend	0	0	0	0	0	0
Retained	-22,794	97,474	-24,285	974	10,134	25,067
EBITDA	-17,918	-16,073	-23,421	2,332	14,785	34,909
EPS (p) (UKSIP)	-0.22	-0.18	-0.20	0.01	0.08	0.20
EPS (p) (IFRS)	-0.28	1.12	-0.20	0.01	0.08	0.20
FCFPS (p)	-0.24	-0.29	-0.10	-0.54	-0.10	-0.04
Dividend (p)	0.00	0.00	0.00	0.00	0.00	0.00

Source: Company data, Longspur Research estimates

KEY POINTS

- FY 24 sees Agilyx early development fees
- FY 25 and beyond development fees including Cyclyx royalties
- Cyclyx grows from a low start driving investment income from FY 25
- Company moves into profit in FY 25

Balance Sheet

US\$,000, Dec	2022a	2023a	2024e	2025e	2026e	2027e
Fixed Asset Cost	2,939	2,372	3,061	3,768	4,492	5,235
Fixed Asset Depreciation	-610	-752	-1,622	-2,692	-3,969	-5,456
Net Fixed Assets	2,329	1,620	1,440	1,076	523	-222
Goodwill	0	0	0	0	0	0
Other intangibles	4,002	3,587	3,587	3,587	3,587	3,587
Investments	0	113,003	113,003	175,503	196,753	218,003
Stock	1,687	0	0	0	0	0
Trade Debtors	2,443	589	224	1,395	2,621	3,677
Other Debtors	457	2,975	809	809	809	809
Trade Creditors	-2,641	-1,831	-898	-5,579	-10,483	-14,706
Other Creditors <1yr	-7,855	-925	-925	-925	-925	-925
Creditors >1yr	-6,303	-3,293	-3,293	-3,293	-3,293	-3,293
Provisions	0	0	0	0	0	0
Pension	0	0	0	0	0	0
Capital Employed	-5,880	115,725	113,946	172,572	189,591	206,929
Cash etc	13,671	8,528	62,829	7,332	2,654	12,647
Borrowing <1yr	267	233	0	0	0	0
Borrowing >1yr	465	60	0	0	0	0
Net Borrowing	-12,939	-8,235	-62,829	-7,332	-2,654	-12,647
Share Capital	8,735	9,595	36,863	37,624	38,405	39,205
Share Premium	53,854	73,240	123,073	124,465	125,892	127,354
Retained Earnings	-56,125	41,349	17,064	18,038	28,173	53,240
Other	-101	-224	-224	-224	-224	-224
Minority interest	697	0	0	0	0	0
Capital Employed	-5,880	115,725	113,946	172,572	189,591	206,929
Net Assets	7,060	123,959	176,775	179,903	192,245	219,575
Total Equity	7,060	123,959	176,775	179,903	192,245	219,575

Source: Company data, Longspur Research estimates

KEY POINTS

- Cash in FY 24 benefits from assumed equity raise to fund CCC2
- Working capital expands with sales growth although payment cycle relatively efficient

Cashflow

US\$,000, Dec	2022a	2023a	2024e	2025e	2026e	2027e
Operating profit	-18,463	-14,774	-14,308	-7,625	7,643	20,186
Depreciation	545	674	870	1,071	1,277	1,488
Provisions	0	0	0	0	0	0
Other	-2,585	-4,996	0	0	0	0
Working capital	4,460	5,453	1,598	3,186	625	-1,810
Operating cash flow	-16,043	-13,643	-11,840	-3,368	9,544	19,863
Tax paid	0	0	0	0	-325	-3,378
Capex (less disposals)	-934	-8,005	-689	-707	-724	-742
Investments	-2,539	-3,670	0	-62,500	-21,250	-21,250
Net interest	-1,323	-225	5	38	4	2
Net dividends	0	0	-9,983	8,887	5,865	13,235
Residual cash flow	-20,840	-25,544	-22,507	-57,651	-6,885	7,730
Equity issued	13,418	19,404	77,101	2,154	2,208	2,263
Change in net borrowing	4,365	4,705	-54,594	55,497	4,678	-9,993
Adjustments	1,432	1,435	0	0	0	0
Total financing	19,215	25,544	22,507	57,651	6,885	-7,730

Source: Company data, Longspur Research estimates

KEY POINTS

- Operating cashflow becomes positive from FY 26
- Working capital initially positive dependent on project timings
- Low capex reflects licencing business model
- Investments assume Cyclyx project investment can be funded
- Cyclyx as investment income from FY 25

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