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Research comment

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Pyrum Innovations AG

Revenue development on the verge of strong acceleration

Rating: Speculative Buy (unchanged) | **Price:** 51.00 € | **Price target:** 77.00 € (unchanged)

Analyst: Dipl.-Kfm. Holger Steffen
sc-consult GmbH, Alter Steinweg 46, 48143 Münster

Phone: +49 (0) 251-13476-93
Telefax: +49 (0) 251-13476-92
E-Mail: kontakt@sc-consult.com
Internet: www.sc-consult.com

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Current business development

Basic data

Based in:	Dillingen / Saar
Sector:	Recycling
Headcount:	65
Accounting:	HGB
Ticker:	PYR:GR
ISIN:	DE000A2G8ZX8
Price:	51.00 Euro
Market segment:	Scale
Number of shares:	3.25 m
Market Cap:	165.9 m Euro
Enterprise Value:	164.7 m Euro
Free Float:	approx. 38 %
Price high/low (12 M):	69.20 / 35.20 Euro
Øturnover (12 M Xetra):	35,400 Euro

FY ends: 31.12.	2022	2023e	2024e
Sales (m Euro)	1.0	2.0	17.2
EBIT (m Euro)	-7.6	-9.0	2.8
Net profit	-7.8	-9.3	1.7
EpS	-2.40	-2.87	0.53
Dividend per share	0.00	0.00	0.00
Sales growth	6.5%	103.5%	762.2%
Profit growth	-	-	-
PSR	168.99	83.03	9.63
PER	-	-	95.8
PCR	-	-	51.3
EV / EBIT	-	-	58.9
Dividend yield	0.0%	0.0%	0.0%

Renowned partner for UK

Pyrum has won the next partner for the construction of a new plant. Together with the renowned SUEZ Group, the company is looking in the UK for a site for a production facility with three lines and a recycling capacity of 20 thousand tonnes of scrap tyres on an exclusive basis over the next twelve months. If the project is successful, the approval process will start within this period, whose costs will be borne by SUEZ. This marks another milestone in the company's expansion in Europe, following the signing of a letter of intent with the Norwegian company Polyfuels in January for the realisation of a total of four plants in Norway, Sweden, Estonia and Finland. In addition, the search for locations for production facilities is underway, which are to be implemented with the tank storage operator Unitank and as part of the joint venture Revalit. In addition, a plant with Korn Recycling in Albstadt is planned, as well as a second own plant (presumably in Homburg). But first of all, the construction of two new production lines at the headquarters in Dillingen is currently still being completed.

Revenue still at previous year's level

It will take some time yet before the first revenue is generated from the supply of core components of the plant to the joint ventures. At the moment, Pyrum's group revenue is still low, in the first quarter it was at the low level of the previous year with EUR 218,000, with the majority likely resulting from the delivery of pyrolysis oil to BASF. The stored coke has not yet been sold, as it can be processed into rCB pellets (rCB = recovered carbon black) and thus achieve much higher prices. The series delivery of pellets to the first customers Continental and Ralf Bohle (bicycle tyre brand “Schwalbe”) was started in May after the final completion of the certifications.

Total output slightly down

The construction of the new production lines two and three has progressed further in the first quarter, including the installation of the two new thermolysis reactors in February. At EUR 3.0 m, own work capitalised in connection with plant construction was slightly below the previous year's figure (EUR 4.0 m), so that Pyrum's total output also fell from EUR 4.3 m to EUR 3.2 m.

EBITDA almost unchanged

On the other hand, the cost of materials decreased from EUR 4.0 to 2.9 m. Personnel expenses, however, rose by 22 percent to EUR 1.2 m within a year due to the continued expansion of the workforce. Together with lower other operating income (lower income from research projects) and other operating expenses (in the previous year, one-off costs of EUR 285,000 from the listing in the Scale segment), this led to EBITDA of EUR -1.6 m that was slightly below the previous year's figure (EUR -1.5 m). With slightly lower depreciation and amortisation (from EUR 623,000 to EUR 554,000), reflecting the end of depreciation of the pyrolysis plant commissioned in 2014, this resulted in a quarterly EBIT of EUR -2.2 m and thus at the previous year's level. The net result was also at this level – as in Q1 2022.

Liquidity sufficient

Due to the still low revenue and the high investments for the new production lines, both the operating cash flow of EUR -1.7 m (previous year: EUR -1.8 m) and the cash flow from investing activities of EUR -3.2 m (previous year: EUR -4.2 m) remained clearly negative. With a slightly positive cash inflow from financing activities (EUR +1.1 m), this resulted in a decrease in cash and cash equivalents from EUR 12.5 to 8.7 m. The liquidity is thus sufficient for the completion of the construction of production lines two and three as well as for the financing of ongoing business operations, since a further injection of funds has already been agreed: In the period from May to August, the partner BASF will pay out EUR 4 m from a new loan agreement; in addition, the last instalment of EUR 2 m from a framework agreement on a convertible loan is still due after the commissioning of the two new lines. Despite increasing borrowing and current operating losses, Pyrum's balance sheet ratios are still comfortable, with an equity ratio of 61.5 percent at the end of March (after 64.0 percent at the end of 2022).

Increasing dynamics

In the further course of the business year, revenue dynamics will gradually increase. Already in the second quarter, the first rCB sales to customers will provide positive impulses. At the end of the third quarter, the first oil deliveries from the two new production lines are to be made to BASF, if the gradual commissioning of the plants proceeds as planned over the next few weeks. In the annual report in May, the management had therefore forecast an increase in revenue from EUR 1.0 m in 2022 to between EUR 1.8 and 2.5 m for the full year.

Revenue model (m Euro)	2023	2024	2025	2026	2027	2028	2029	2030
Revenue plant Dillingen	2.0	10.3	10.3	10.3	10.3	10.3	10.3	10.3
Further own plants (total number)				*1*	*2*	*3*	*4*	*5*
Revenue further plants				11.5	23.0	34.4	45.9	57.4
SPVs (total number)	*2*	*5*	*8*	*10*	*11*	*12*	*13*	*14*
Revenue sale of plants SPVs		6.9	31.1	24.2	13.8	6.9	6.9	6.9
Other revenue SPVs (maintenance etc.)			0.6	1.5	2.4	3.0	3.3	3.6
Plants without SPV (total number)				*1*	*2*	*3*	*4*	*5*
Revenue plants without SPV					6.9	6.9	6.9	6.9
Total revenue	**2.0**	**17.2**	**42.0**	**47.5**	**56.4**	**61.6**	**73.4**	**85.1**

Estimates SMC-Research

m Euro	12 2023	12 2024	12 2025	12 2026	12 2027	12 2028	12 2029	12 2030
Sales	2.0	17.2	42.0	47.5	56.4	61.6	73.4	85.1
Sales growth		762.2%	143.6%	13.1%	18.8%	9.2%	19.1%	16.1%
EBIT margin	-448.7%	16.2%	68.4%	63.2%	63.0%	59.4%	59.8%	60.3%
EBIT	**-9.0**	**2.8**	**28.7**	**30.0**	**35.5**	**36.6**	**43.9**	**51.4**
Tax rate	0.0%	5.0%	20.0%	33.0%	33.0%	33.0%	33.0%	33.0%
Adjusted tax payments	0.0	0.1	5.7	9.9	11.7	12.1	14.5	16.9
NOPAT	**-9.0**	**2.7**	**23.0**	**20.1**	**23.8**	**24.5**	**29.4**	**34.4**
+ Depreciation & Amortisation	2.7	3.5	6.7	9.5	11.7	14.5	17.3	20.1
+ Increase long-term accruals	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.5
+ Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross operating cash flows	-6.1	6.3	29.9	29.9	35.9	39.4	47.2	55.1
- Increase Net Working Capital	-0.3	-1.2	-2.5	-1.4	-1.7	-1.2	-1.5	-1.7
- Investments in fixed assets	-12.0	-25.8	-37.0	-34.0	-31.0	-31.0	-31.0	-31.0
Free cash flow	**-18.3**	**-20.7**	**-9.6**	**-5.5**	**3.2**	**7.2**	**14.7**	**22.3**

SMC estimation model

Minor model changes

We had then comprehensively revised our estimates and have now made only minor changes to the model following the quarterly figures. We have slightly reduced our estimate for other operating expenses and depreciation for 2023 and at the same time assumed slightly higher other operating income (due to an investment grant). In total, this now results in an estimated EBIT of EUR -9.0 m (previously: EUR -10.0 m). The projection for subsequent years is entirely unchanged. We thus continue to assume that by the end of the year there will be two joint ventures for plants with third parties – in addition to the existing special purpose vehicle Revalit, a joint venture with Unitank could be established next – and that the next own plant (probably in Homburg/Saar) will be in operation in 2026 (see the table at the bottom of the previous page and our detailed update of 6 June). In view of the unchanged basic structure that leads to the development of the key cash flow indicators shown above in the detailed forecast period until 2030 (further information on the estimated development of the balance sheet, income statement and cash flow is provided in the Annex), the fair value is hardly affected by the moderate adjustments. With an unchanged discount rate of 7.2 percent, it is now EUR 77.84 per share. On this basis, we leave our price target unchanged at EUR 77.00 (a sensitivity analysis for determining the price target can be found in the Annex). On a scale of 1 (very low) to 6 (very high), we continue to rate the forecast risk of our estimates as clearly above average at five points, since the data on the operation of the industrial plant in its final design is still fairly limited and, in addition, the marketing of the plant to third parties is still in its early stages.

Conclusion

In the first three months of 2023, Pyrum's revenue was still low and the operating loss was roughly on a par with the previous year. In the coming quarters, however, the revenue trend will gain significantly in momentum. While Q2 revenue will already benefit from the sale of rCB pellets that started in May, the first pyrolysis oil produced from the two new production lines, which will be commissioned successively over the next few weeks, is to be delivered to BASF at the end of the third quarter.

Overall, Pyrum's growth prospects thus remain promising. Preparations are also progressing for further plants, which are to be realised mainly together with partners, but – to a lesser extent – also on Pyrum's own.

We have made only minor changes to our expansion model, and we continue to expect very strong revenue growth over the next few years, enabling high margins. On this basis, our price target remains unchanged at EUR 77.00. Even after the recent dynamic recovery of the share, it thus offers substantial upside potential, which is why we confirm our “Speculative Buy” rating.

Annex I: SWOT analysis

Strengths

- Patent-protected, innovative solution for scrap tyre recycling and the production of high-quality raw materials (pyrolysis oil, carbon black).
- The plant has been in regular operation since 2020; capacities are currently being tripled.
- Strong focus on R&D with participation in numerous important research projects.
- Strong partners: BASF and Continental are shareholders and close cooperation partners. The chemical group also supports the expansion financially.
- The founders run the company.
- With a liquidity of around EUR 9 m, an equity ratio of 61.5 percent (31.03.) and promptly available funds from BASF amounting to EUR 6 m, the company is currently solidly financed.

Weaknesses

- Relatively short period of operation of the plant in the final design.
- Revenue has been low so far, so the company is still operating at a loss.
- The delays in setting up the second and third production line and in projects with third parties require further capital in order to realise the further expansion as planned.
- So far, only one joint venture for plant operation has been established with partners; especially financing issues have led to a delay in the implementation of the first customer projects.
- Small team, dependent on key people.

Opportunities

- The strong expansion of the company's own plant in Dillingen will ensure increasing revenue with high margins. Together with partners, numerous other plants are also planned. After two LOIs, more JVs could be established soon.
- The sale of plants to third parties provides revenue leverage.
- Due to the great need for efficient scrap tyre recycling, the demand could increase strongly after first successful projects.
- The market environment in the commodities sector is currently comfortable. Especially the demand for carbon black is high, as so far 50 percent of the volume comes from Russia.
- Policy makers are pushing for the development of a circular economy in the tyre industry. A ban on thermal recycling in other EU countries or on exports of used tyres is another potential driver of market development.

Threats

- Due to price increases for plant components, the necessary investment sum has increased significantly (but the potential revenue has increased as well).
- The acquisition of capital for further expansion could fail. The expansion goals could then be missed.
- Bank financing of new plants is a challenging task due to the still limited database and is also becoming more expensive due to interest rate developments.
- A significant drop in raw material prices, for example in the event of a recession, could reduce revenue (however, a minimum price for pyrolysis oil has been agreed with BASF).
- With advances in recycling, the raw material “used tyres” could become a scarce resource.
- Alternative recycling technologies could prove more efficient.

Annex II: Balance sheet and P&L estimation

Balance sheet estimation

m Euro	2022 act.	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
ASSETS									
I. Total non-current	35.3	44.6	66.9	97.3	121.8	141.1	157.6	171.3	182.2
1. Intangible assets	6.5	5.8	5.1	4.4	3.7	3.0	2.3	1.6	0.9
2. Tangible assets	28.8	35.8	49.8	71.8	91.1	108.1	122.3	133.7	142.2
II. Total current assets	14.5	11.2	14.4	18.0	20.6	28.3	39.1	45.8	58.1
LIABILITIES									
I. Equity	31.9	22.6	24.3	45.6	64.1	86.0	108.6	124.9	143.6
II. Accruals	3.1	3.3	3.5	3.8	4.1	4.5	4.9	5.3	5.9
III. Liabilities									
1. Long-term liabilities	10.4	25.4	46.8	55.6	61.5	64.4	67.3	70.2	73.2
2. Short-term liabilities	4.5	4.6	6.7	10.3	12.8	14.6	15.9	16.7	17.6
TOTAL	**49.9**	**55.9**	**81.4**	**115.3**	**142.5**	**169.4**	**196.7**	**217.1**	**240.3**

P&L estimation

m Euro	2022 act.	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
Sales	1.0	2.0	17.2	42.0	47.5	56.4	61.6	73.4	85.1
Total output	19.1	15.1	30.7	64.4	69.9	78.8	84.0	95.8	107.5
Gross profit	1.4	0.1	15.4	44.9	48.7	56.1	59.7	69.8	80.0
EBITDA	-5.0	-6.3	6.2	34.6	37.3	43.5	46.0	55.1	64.3
EBIT	-7.6	-9.0	2.8	28.7	30.0	35.5	36.6	43.9	51.4
EBT	-7.8	-9.3	1.8	26.7	27.5	32.8	33.8	41.1	48.5
EAT (before minorities)	-7.8	-9.3	1.7	21.3	18.4	22.0	22.6	27.6	32.5
EAT	-7.8	-9.3	1.7	21.3	18.4	22.0	22.6	27.6	32.5
EPS	-2.40	-2.87	0.53	6.56	5.67	6.75	6.95	8.47	10.00

Annex III: Cash flows estimation and key figures

Cash flows estimation

m Euro	2022 Ist	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
CF operating	-6.9	-7.0	3.2	23.7	24.3	29.5	33.3	40.7	48.2
CF from investments	-20.8	-12.0	-25.8	-37.0	-34.0	-31.0	-31.0	-31.0	-31.0
CF financing	6.0	15.4	23.0	11.1	8.5	5.8	6.0	-5.2	-7.5
Liquidity beginning of year	34.2	12.5	9.0	9.5	7.2	6.0	10.3	18.6	23.1
Liquidity end of year	12.5	9.0	9.5	7.2	6.0	10.3	18.6	23.1	32.8

Key figures

percent	2022 Ist	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
Sales growth	6.5%	103.5%	762.2%	143.6%	13.1%	18.8%	9.2%	19.1%	16.1%
EBITDA margin	-512.3%	-313.6%	36.2%	82.5%	78.7%	77.1%	74.7%	75.2%	75.6%
EBIT margin	-772.4%	-448.7%	16.2%	68.4%	63.2%	63.0%	59.4%	59.8%	60.3%
EBT margin	-792.0%	-466.5%	10.6%	63.5%	58.0%	58.1%	54.8%	56.1%	57.0%
Net margin (after minorities)	-795.2%	-466.5%	10.1%	50.8%	38.8%	38.9%	36.7%	37.6%	38.2%

Annex IV: Sensitivity analysis

	Perpetual cash flows growth				
WACC	**2.0%**	**1.5%**	**1.0%**	**0.5%**	**0.0%**
6.2%	124.17	109.59	97.83	88.14	80.01
6.7%	105.14	93.78	84.43	76.59	69.92
7.2%	89.90	80.87	**77.84**	66.87	61.33
7.7%	77.46	70.15	63.94	58.59	53.94
8.2%	67.12	61.12	55.96	51.47	47.53

Disclaimer

Editor
sc-consult GmbH
Alter Steinweg 46
48143 Münster
Internet: www.sc-consult.com

Phone: +49 (0) 251-13476-94
Telefax: +49 (0) 251-13476-92
E-Mail: kontakt@sc-consult.com

Responsible analyst
Dipl.-Kfm. Holger Steffen

Charts
The charts were made with Tai-Pan (www.lp-software.de).

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II) Preparation and updating

The present financial analysis was prepared by: Dipl.-Kfm. Holger Steffen

Participants in the preparation of the present financial analysis: -

The present analysis was finished on 27.06.2023 at 7:30 and published on 27.06.2023 at 8:15.

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The price targets published within the assessment are calculated with common methods of financial mathematics, especially with the DCF (discounted cash flow) method, the sum of the parts valuation and a peer group analysis. The valuation methods are affected by economic framework conditions, especially by the development of the interest rates.

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Date	Investment recomm.	Target price	Conflict of interests
06.06.2033	Speculative Buy	77.00 Euro	1), 3)
05.04.2023	Speculative Buy	80.00 Euro	1), 3)
03.02.2023	Speculative Buy	80.00 Euro	1), 3)
05.10.2022	Speculative Buy	86.00 Euro	1), 3)
03.08.2022	Speculative Buy	86.00 Euro	1), 3)
27.06.2022	Speculative Buy	88.00 Euro	1), 3), 4)

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