



Consolidated interim report for the period
from 1 January to 30 June 2023

of

Pyrum Innovations AG

Dillingen/Saar

The Pyrum Group's KPIs at a glance

Financial position and results of operations

(EUR thousand)

	1 Jan. 2023 - 30 Jun. 2023	1 Jan. 2022 - 30 Jun. 2022
Sales	501	485
Total output	8,155	9,197
Other operating income ¹	356	916
EBITDA ²	-3,139	-2,112
EBITDA (adjusted) ³	-3,139	-1,827
EBIT ⁴	-4,262	-3,390
EBIT (adjusted) ⁵	-4,262	-3,105
Net income/loss	-4,408	-3,487

Net assets

(EUR thousand)

	30 Jun. 2023	31 Dec. 2022
Total assets	48,861	49,857
Equity	27,483	31,891
Equity ratio ⁶	56%	64%
Available liquidity	5,431	12,519
Employees ⁷	68	63

¹ Includes research grants and subsidies

² Consolidated net income for the year before depreciation, amortisation and write-downs, before financial result, before income taxes

³ 2022 reporting period: adjusted for costs of the secondary listing (EUR 285 thousand)

⁴ Consolidated net income for the year before financial result, before income taxes

⁵ 2022 reporting period: adjusted for costs of the secondary listing (EUR 285 thousand)

⁶ Equity/total assets

⁷ Annual average

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Letter from the Executive Board

Dear Shareholders,

we hope you are all well and had a nice and relaxing summer. For Pyrum and our entire team, it was definitely a turbulent summer due to the multitude of tasks that currently have to be processed in parallel and in a very short time. You surely know how it is: you spend months preparing for a move into a new house or apartment, but when the time comes, so many things come up at the same time that you don't know what to start with. You can imagine the commissioning of a large industrial plant in a similar way, only many times more extensive. However, we can proudly report that despite the current delivery problems, all components of the new pyrolysis plant have arrived at the Dillingen site and we successfully started commissioning in July 2023. Here is a list of the various stages of our commissioning, with the respective status in percent:

- **Loop checks: 100%.** Here, all parts of the system are connected and checked whether they react, move and whether sensors also display what they are supposed to display (incl. calibration of the sensors).
- **Cold commissioning cycle 1/4 supply (electricity/nitrogen/water/compressed air): 100%.** This is the first part of the commissioning, because without power and compressed air no valve and no conveying system of the plant can be tested.
- **Cold commissioning cycle 2/4 solids (rubber/rCB): 100%.** In this stage, the rubber is transported into the reactors, passed through them and at the end conveyed into the storage tanks for the rCB. Here, not only is it checked whether everything is working and the dosages are correctly dimensioned, but also the automatic operation is tested over several days. Meanwhile, the pyrolysis reactors are switched off.
- **Cold commissioning cycle 3/4 liquids (water/oil): 100%.** In this commissioning process step, the oil circuit is filled with water and all pumps, sensors and automatic operation are tested with water.
- **Cold commissioning circuit 4/4 gas (pyrolysis gas/city gas): 80%.** This is the last cycle that is started up with city gas and then switched over to pyrolysis gas. This cycle can only be finally started up in the "warm" state, because pyrolysis gas from the reactors is required. Therefore, the final phase of cold commissioning of the gas cycle is also the transition to hot commissioning and thus to production. The loop checks of the gas cycle have been completed and currently only the final insulation work on the hot blast lines has to be carried out.
- **Hot commissioning and start of production:** According to plan, the hot commissioning was to start in September 2023, but it currently looks like the beginning of October 2023. This is also when we expect to produce the first oil from the two new lines. The hot commissioning can take months, as it is only completed when the plant reaches 100% of its hourly target volume. To achieve this, we are gradually increasing the hourly capacity of the plant, but are already operating the plant on a regular three-shift basis.

To sum up, we expect to have managed to put the two new lines into operation soon, and that despite Covid-19, despite the Ukraine war, despite the temporary collapse of international supply chains, despite chip shortages, and all this in just under two years of construction time. This is really an achievement we can be proud of, and for this we would like to thank the entire team, our suppliers and supporters from the bottom of our hearts. This is also one of the reasons why Pascal Klein, CEO and founder, has donated 1,500 shares from his private holdings to the employees. A company is only as good as its employees. We must never forget that, and so we would like to take this opportunity to thank them once again!

But the work does not stop with the commissioning and production of the two new lines in Dillingen. Now things are really getting started for Pyrum. It's easy to forget that we are still at the beginning of our journey and that most of the work is still ahead of us. The roll-out of our technology has only just

Letter from the Executive Board

begun and our project managers are currently working simultaneously on the planning, approval documents and drawings of four plants, each with three Pyrum production lines. That's a total of twelve production lines to be built over the next two to three years with renowned joint venture partners. We are in negotiations for further plants, so that we expect that by the end of 2023 the project pipeline for the next two years will already be fully secured with corresponding consulting contracts. As in the past, we will continue to report promptly on the status of projects, further developments and concluded contracts as soon as they have been signed. In addition to these customer projects, Pyrum is building its next own plant in Homburg/Saar and is currently already looking for sites for further Pyrum-owned plants planned in the medium term, each with a capacity of 20,000 tons of end-of-life tyres. Extensive funding is required for this pipeline, which we would now like to talk about.

One of the main tasks of the Executive Board over the past 12 months has been to build up a financing structure for the future and put it on a secure footing. Against the backdrop of the current interest rate policy, the restraint of investors and banks worldwide, and global uncertainties, this was a major challenge, very time-consuming, and also sobering in parts.

However, we approached this task as we approach all Pyrum tasks: do it right or not at all.

This means that we have not only pursued a rigid "Plan A", but also other alternatives that have now "matured" to the point where we can now select the appropriate building blocks and implement them over the next few months.

We have never relied on just one plan at Pyrum, as a combination of several options has always proven to be the best solution so far. With regard to our financing structure, we pursue the following goals:

- We want to secure funding not only for a single plant, but directly for several at the same time.
- We consider both equity (up to 10%) and debt capital measures.
- The debt capital to be raised must be affordable and have a long maturity.

These objectives have not made the design of the planned financing structure any easier, but neither have they made it impossible. We are currently, for example, in advanced negotiations on a loan agreement for an initial EUR 25 million to finance Pyrum lines 4, 5 and 6 in Homburg and to co-finance two to three further plants. This financing would be low-interest, presumably repayment-free in the first two years and the entry point for the other financing components.

As you can see, ladies and gentlemen, we have achieved a lot, but we also still have a lot of exciting things ahead of us and can finally revolutionise the recycling market. We sincerely thank you for your patience and your loyalty and look forward to your continued belief in us and support for our idea. Now is exactly the moment for us to invest so that we can look forward to a positive and hopefully green future.

Warm regards,



Pascal Klein

Kai Winkelmann

Michael Kapf

The Pyrum Innovations AG Executive Board

Preliminary remark

In this report, we provide information about the business performance of the Group of Pyrum Innovations AG in the period from 1 January 2023 to 30 June 2023 and about the prospects for future development.

Pyrum Innovations AG has been listed in the Euronext Growth market segment of the Oslo stock exchange since 30 September 2021 and in the Scale market of the Frankfurt stock exchange since 30 March 2022. Neither segment is an organised market as defined by the German Securities Trading Act (WpHG). Pyrum Innovations AG is therefore not a capital market-oriented corporation and is not subject to the special regulations applicable to such corporations.

THE COMPANY – OPERATING ACTIVITIES

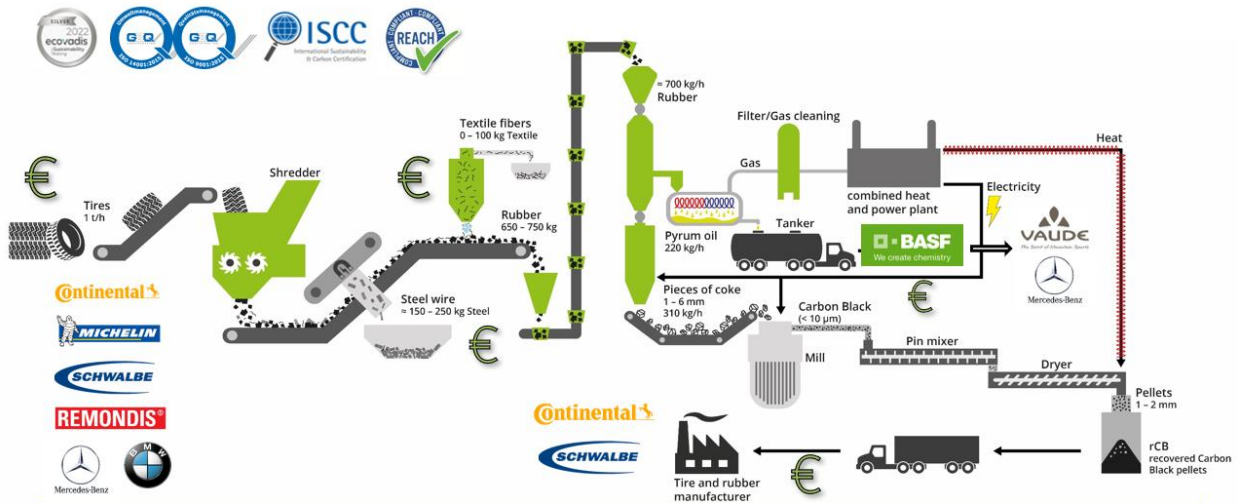
Operating activities

Pyrum Innovations AG operates with its patented pyrolysis technology in the attractive recycling market for end-of-life tyres. Pyrum's pyrolysis process is largely energy self-sufficient, saves significantly more CO₂ emissions, according to the Fraunhofer Institute, than the recycling processes normally used for end-of-life tyres today – especially compared with incineration at cement plants – and uses waste as input materials to produce new raw materials such as pyrolysis oil, gas and recovered carbon black (rCB). Pyrum thus closes the recyclable material loop and pursues a sustainable business model.

A trailblazer, Pyrum Innovations AG was the first company in the end-of-life tyre recycling sector to obtain, back in 2018, REACH registration from the European Chemicals Agency (ECHA) for the pyrolysis oil it produces. The oil is thus recognised as an official raw material that can be used in production processes. In addition, Pyrum has obtained ISCC+ certification for its pyrolysis oil and rCB. Both products are thus classed as sustainable and renewable raw materials. Based on the ISCC+ certification (since 2021), we can confirm to our customers that the secondary raw materials originate from sustainable production.

These successes have also been recognised by international experts in the tyre industry. For example, Pyrum won in the *Best Tyre Recycling Innovation* category at the inaugural Recircle Awards in 2021 and has been nominated for the 'Grand Prix Mittelstand' by the German state of Saarland on more than one occasion.

Value chain



This diagram presents an example of how one tonne of tyres is processed. In order to guarantee the product safety and quality of its end products, Pyrum operates its own tyre shredder. The volume flow and the quality of the input materials can thus be managed and monitored in a targeted manner.

The disposal fee that Pyrum receives for accepting the tyres is used to cover the running costs of the shredder.

The proportions of steel, textiles and rubber that are recovered vary depending on whether truck, car or bicycle tyres are being processed. The tyre wire that is recovered can be directly reprocessed into new products at steel plants.

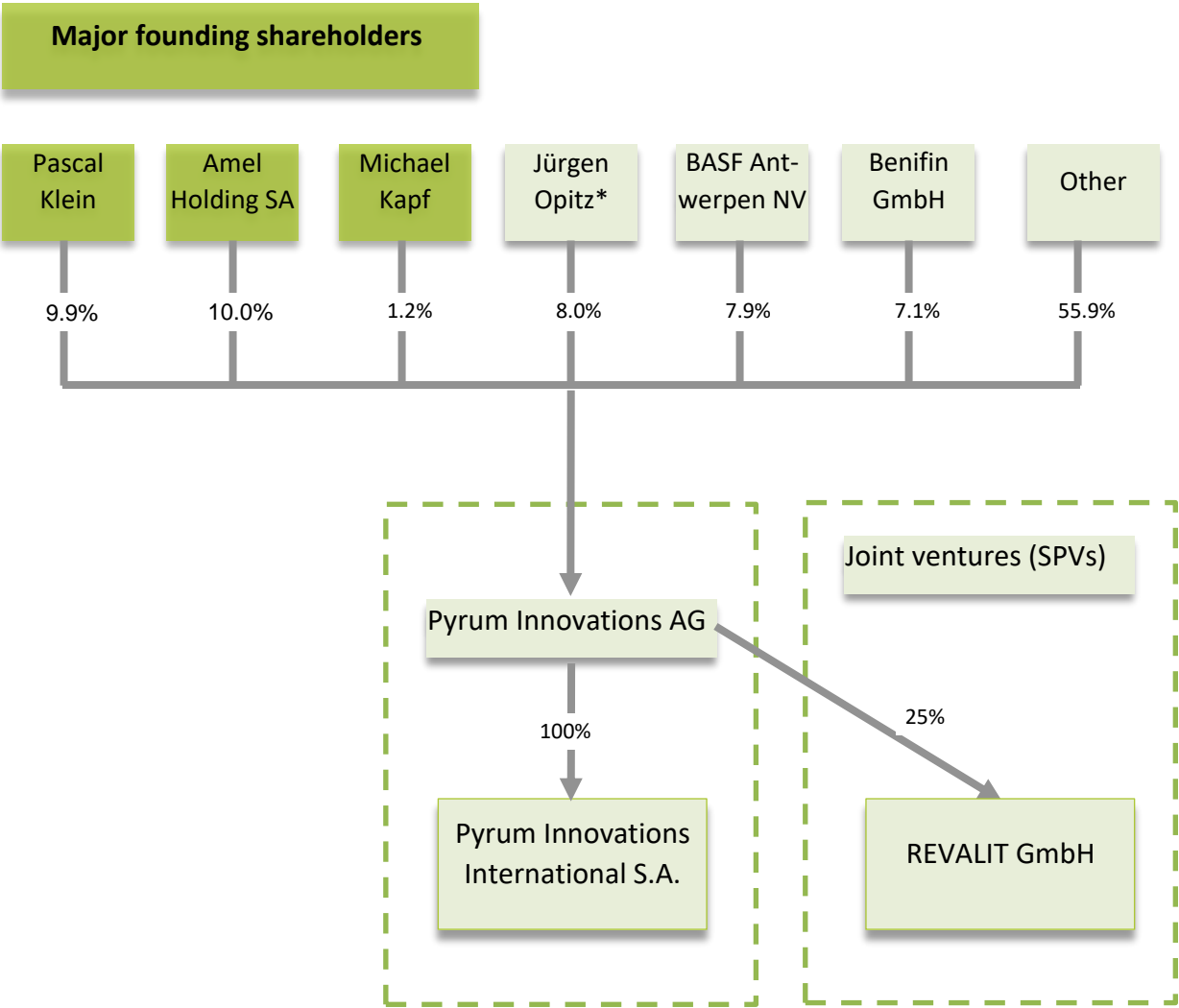
The pyrolysis reactor is energy self-sufficient and operated using electricity generated from the conversion of the pyrolysis gas recovered during the process. More than 150 heat sources thus ensure optimal and controllable distribution of the temperature in the reactor. This is the basis for producing high-quality pyrolysis oil and recovered carbon black (rCB) repeatedly over the long-term.

As there are no moving parts in the reactor, unwanted inflows of oxygen, which can arise in conventional processes such as batch ovens or rotary kilns, are consistently excluded. An optimal pyrolysis process is thus guaranteed.

The waste heat created by the in-house electricity generation can be used for the process to dry the rCB pellets, which results in an additional CO₂ saving compared with the current recovery mix for end-of-life tyres.

With the delivery of the pyrolysis oil to BASF, which manufactures high-quality products from it, and the use of the rCB in tyre production, optimal recycling is achieved.

Major shareholders and Group structure as of 30 June 2023



As of 30 June 2023, approximately 4,750 shareholders were recorded in the share register.

- ▶ Pyrum Innovations AG, based in Dillingen/Saar, Germany, runs the operating business, while Pyrum Innovations International S.A., based in Schengen, Luxembourg, owns the intellectual property and all patents.
- ▶ Pyrum Innovations AG has licensed the intellectual property of Pyrum Innovations International S.A.

*Including attributable shares

Our certificates and ratings

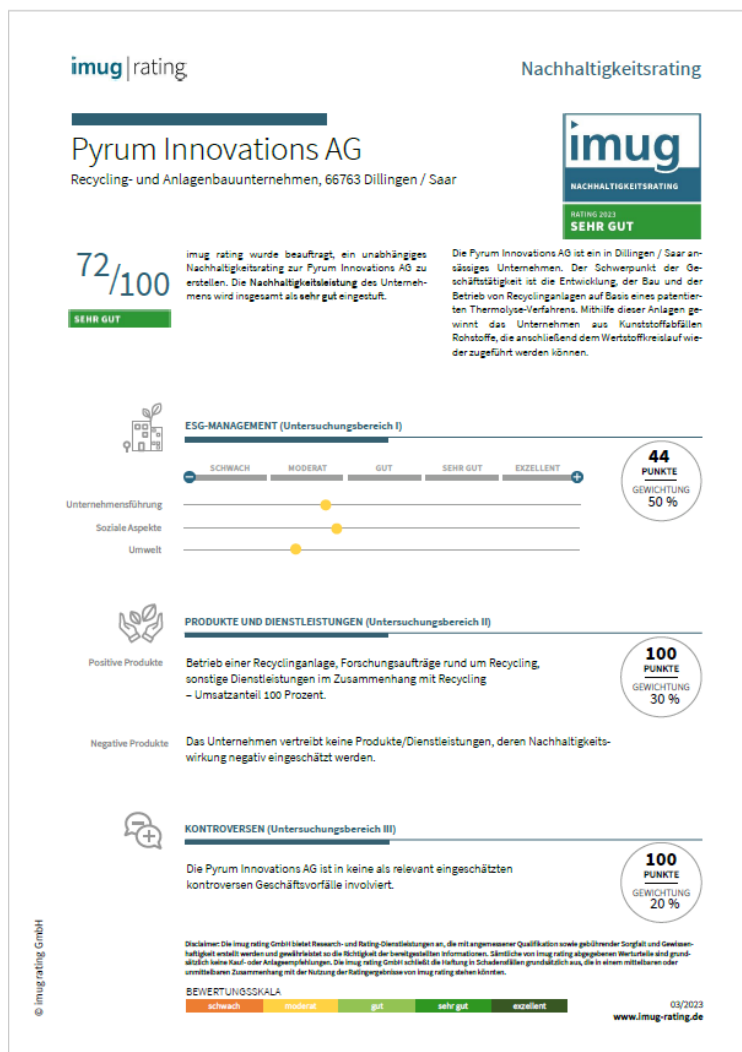
Pyrum was established with the idea of closing the loop.

We took our first step in 2021 through the partnership with BASF and our ThermoTireOil. Thanks to our **ISCC+ certification** (since 2021) based on the mass balance system, we guarantee transparent traceability of the oil production right down to the source of the end-of-life tyre.

We have also been able to guarantee this traceability for rCB for over a year now (since March 2022).

Thanks to the **disposal company audit** that we passed in February 2023, we can create a recycling loop with Mercedes. In the future, Pyrum will manufacture pyrolysis oil from the end-of-life tyres of Mercedes used car centres, which will then be used to produce BASF plastics, and these will in turn be installed in Mercedes vehicles.

Please refer to the 2022 annual report for details of the current certificates.



Interim Group management report

Interim Group management report for the first half of 2023

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Market, competition and customer relationships

Pyrum Innovations AG is active in the recycling market. Using its patented pyrolysis technology, the company recycles end-of-life tyres and obtains new raw materials such as recovered carbon black, pyrolysis oil and gas.

According to a study by Bryan, Garnier & Co, this market is still characterised by a high degree of fragmentation.⁸ There is still no leading company on the European market at the moment. Moreover, the sub-market for the output factor rCB remains underdeveloped and therefore offers major opportunities for development for Pyrum. The high demand from industry for sustainable raw materials and production processes as well as tightening regulation, especially in the EU, are also creating attractive conditions.

Pyrum obtains the input factor, end-of-life tyres, from workshops, tyre manufacturers, waste disposal firms or local governments. According to the World Business Council for Sustainable Development (WBCSD), around 3.4 million of the 30.9 million tonnes of end-of-life tyres arising globally every year can be attributed to Europe alone.⁹ And around 600,000 tonnes arise in Germany. These volumes of end-of-life tyres are additionally expected to continue growing over the next few years as a result of increasing electromobility. In Europe alone, this offers Pyrum the potential to use pyrolysis to sustainably recycle nearly 1.5 million tonnes of end-of-life tyres per year and thus introduce them to the circular economy.

The current recycling mix for end-of-life tyres in Germany is made up of the recycling of materials, accounting for a market share of 52%, the incineration of end-of-life tyres in cement plants (42%) and substitute fuel (SF) power plants (6%). Major CO₂ savings are already achieved through the material recycling of end-of-life tyres to produce playground surfaces and sports grounds from rubber granules (infill), for example. However, the pyrolysis process developed by Pyrum, including the use of waste heat, exceeds these savings by 187 kg of CO₂ equivalent per tonne of end-of-life tyres. Furthermore, the Fraunhofer Institute confirms there is a significantly limited market potential for this material recycling – at 52%, it has already reached its maximum market share right now, which will be very difficult to expand.

There are different technologies for pyrolysis-based tyre recycling. The process patented by Pyrum is characterised by its continuous production and the absence of mechanical conveying in the reactor. Pyrum Innovations AG is not currently aware of any competitors in tyre pyrolysis that do not still operate on the basis of existing batch oven/rotary kiln processes or that likewise maintain operations 24/7. Previous findings indicate that competitors are still operating test and semi-industrial facilities that are currently being scaled up.

Stricter regulations at the EU level and in the individual member states will additionally result in more restrictive handling of end-of-life tyres. For example, the rising carbon price triggered by European emissions trading means is making the incineration of end-of-life tyres much more expensive as time

⁸ Bryan, Garnier & Co: Tire pyrolysis – Solving a global environmental issue

⁹ World Business Council for Sustainable Development: Global ELT Management (2019)

goes on. In addition, disposing of end-of-life and shredded tyres in landfill is now prohibited in the EU. Countries such as Belgium, Finland, Norway and Sweden have also forbidden the incineration of rubber products and the use of shredded tyre granulate in the open – on playgrounds or sports grounds for example. In 2022, moreover, the EU SCHEER (Scientific Committee on Health, Environmental and Emerging Risks) identified the potential presence of polycyclic aromatic hydrocarbons (PAHs) and heavy metals in end-of-life tyres as an underestimated potential risk.¹⁰ Finally, approaches such as extended producer responsibility (EPR) require producers and distributors of products to consider the post-consumer phase of a product and thus enable a functioning circular economy. The EU is thus responding to the increasing scarcity of resources and incorrect handling of waste that have mostly negative consequences for people and the environment.

In line with this, Pyrum Innovations AG is seeing consistently growing demand for its sustainably produced raw materials such as pyrolysis oil and rCB, which has increased only since the outbreak of the war in Ukraine. The reason for this is that Germany imported around 60% of the total processed carbon black from Russia before the war. Carbon black is used as a raw material in numerous sectors, for example in the tyre industry for the production of new tyres, but also in the plastics and electronics industries. The growing demand for recovered carbon black is being encouraged by the fact that many international tyre manufacturers have set themselves ambitious sustainability targets. The Continental Group, with which Pyrum Innovations AG entered into a contract for the delivery of carbon black in March 2023, aims for example to use 100% sustainably produced materials in its tyre production by 2050.¹¹ The same target is being pursued by the French tyre manufacturer Michelin, with which Pyrum has conducted research into a circular economy for the efficient recycling of end-of-life tyres in the EU-funded BlackCycle project since 2020.¹²

Overall, Pyrum Innovations AG thus operates in a very attractive market. At the same time, Pyrum is in demand both as a sustainable disposal purchaser of the input material end-of-life tyres and as a supplier of sustainably produced raw materials. Pyrum Innovations AG intends to play an important role on this rapidly growing recycling market for end-of-life tyres.

¹⁰ Scientific Committee on Health, Environmental and Emerging Risks Statement II on emerging health and environmental issues (2022)

¹¹ Continental AG: Vision 2030

¹² Compagnie Générale des Établissements Michelin SCA: The Vision Concept

REPORT ON INTERNAL AND CUSTOMER PROJECTS



Development at the main facility in Dillingen/Saar

Please refer to the 2022 annual report for a detailed description of the construction progress of individual plant components.

The section below outlines the construction progress of individual plant components in the current 2023 financial year, including the current status.

Trial operation of the new **shredder** started in June 2023. In the meantime, the plant has reached about 90 % of the targeted hourly throughput of end-of-life tyre processing. Minor modifications are currently being made in order to reach full capacity (e.g. adjustments in screen sizes). The intended steel purity within the range of 95-98% steel content of the recovered tyre wire has been verified, so the higher selling prices expected in the future for the tyre wire are likely to be achieved.

The two new **thermolysis reactors** (TAD2 and TAD3), including heating elements, insulation, cabling and sensors, have been fully assembled and connected to the control centre.

The start-up simulations in the digital twin were commenced to provide support in the first quarter of 2023. By the end of August 2023, all employees currently working in production have already been trained to use the plant under construction with the digital twin. This ensures that enough specialists have command of the new control technology before the plant goes into operation.

The start-up of the compressed air supply unit began in July 2023 with the commissioning of the thermolysis recycling plants. All components of the overall plant are now being commissioned successively:

Solid cycle: The conveyance of the rubber from the shredder to the pyrolysis plant, the transport through the reactor (in cold state) and the transport of the rCB into the storage silos have now been under way since mid-August with no errors and in automatic operation (continuous operation has been tested).

Fluid cycle: The oil and water pipelines were filled with water and cleaned, and all pumps, sensors and valves were tested over a period of several days. Automatic operation has also started here. The gas compressor was likewise successfully commissioned.

Profile of the Group and of Pyrum Innovations AG

The other parts of **gas tract (power generation)**, namely the turbines, exhaust gas purification system and emergency flares, are currently being put into operation. The gas pumps are already running. In the case of the combustion chamber for pyrolysis gas conversion, loop checks began in August 2023, and the subsequent plant components for the conversion are currently being wired before these components are successively included in the (cold) commissioning.

All five turbines have been delivered and assembled. Warm commissioning and the associated start of production in the partial-load range are expected in the fourth quarter, so the current timetable foresees starting the pyrolysis process in October 2023. After product quality tests and ensuring compliance with specifications, the output will be successively increased over the next six to seven months. After completion of the certifications required by the customer, the products are also ready for sale in this "ramp-up" phase.

An additional, second milling technology (jet mill) will be used for the plant extension in Dillingen in the future. The new jet mill for TAD 2 and 3 was ordered in April 2023. The pelletisation from this additional plant is in the engineering phase. Delivery and start-up of the new mill and pelletisation are currently planned for the second quarter of 2024.

Current (customer) projects in plant construction

At the same time as the new construction at its own site, Pyrum's team is also working on planning for several new plant construction projects to advance the roll-out of the patented technology and to quickly create additional recycling capacity at additional sites.

Company plant in Homburg an der Saar

In February 2023, the city council of Homburg an der Saar approved a settlement of Pyrum on the planned site.

A reservation agreement was entered into with the City of Homburg in May 2023, which also already includes an agreement on the purchase price and the infrastructure development costs. The preparation of the approval documents likewise began in May 2023, and an application meeting with the State Environmental Agency already took place in July 2023, so surveying work and the necessary soil investigation have already been completed. The scope of approval is currently being defined and the suitability of the site examined in detail (e.g. with regard to noise protection, environmental protection and occupational safety).

Greece ("Thermo Lysi SA")

In the third quarter of 2023, Pyrum Innovations AG signed a contract for the planning of a new plant in Greece. Pyrum is mandated to perform all the necessary planning that will be used for building permits, as required by the Greek Law, for the new plant. The plant of the Greek project company Thermo Lysi SA is to be built about 140 km north of Athens. It will have a capacity of 20,000 tonnes of end-of-life tyres per year and will thus be able to cover almost half of the total amount of end-of-life tyres in Greece - the country produces about 45,000 tonnes of end-of-life tyres per year. The new plant will help to recycle these end-of-life tyres in a sustainable way and recover valuable resources.

Under the consulting contract, which is already partially paid by EUR 200 thousand, Pyrum will carry out the basic engineering and draw up some of the approval documentation for the new plant.

The location of the prospective plant is already the site of an existing tyre recycling plant with a shredder. The planning and implementation of the new plant can therefore benefit from synergies and

Profile of the Group and of Pyrum Innovations AG

the existing structures. The site on which the new plant will be built offers ample space for future capacity expansions.

REVALIT GmbH

The management of REVALIT GmbH, in which Pyrum has a 25% share, is currently examining funding possibilities and the suitability of newly offered sites/locations.

UNITANK

The memorandum of understanding (MoU) entered into with UNITANK Betriebs- und Verwaltungs GmbH in September 2022 envisages implementing up to ten joint plants by 2030. The suitability of the site for potentially the first joint project in Thuringia is currently being carefully examined, and discussions have already been held with local government representatives and utility companies in order to co-ordinate which special site-specific features will need to be taken into account and to ensure the supply to the public grid in the required extent at an early stage. In collaboration with our partner UNITANK, extensive preliminary work is already in progress at the project level for the pre-engineering, the drafting of a business plan and preparations for the ownership structure planned in the future for a potential joint venture for building and operating a plant. In parallel with this, UNITANK is already holding discussions with future suppliers for the tyre input and with potential customers for the end products.

Other projects

In addition to the projects described above, Pyrum Innovations AG has a full pipeline of attractive projects in their early stages, such as the potential construction of a plant in the UK with SUEZ and other projects in Germany and Europe. Moreover, Pyrum is now already looking for the next site for another plant of its own.

Research and development

In Pyrum’s own interest, research and development is one of its core competencies. The activities serve to improve know-how and products, ensure Pyrum’s technological advantage and guarantee the quality of the products it delivers.

To explore additional application areas for its technology, Pyrum operates an experimental laboratory of its own, which, alongside the advancement of the application areas for our own technology, is also used for customer research projects and thus generates additional sales. The public funding that is committed usually covers up to 70% of the respective project costs, sometime more in individual cases.

The research focuses on homogeneous input materials, for which there are currently few to no solutions for circular material cycles. This produces major opportunities in markets that, from a technology perspective, it has not so far been possible to tap commercially.

Selected projects

After a development time lasting almost four years, Pyrum Innovations AG has put into operation, in the second quarter of 2023, the **first automated, semi-industrial recycling plant for carbon-fibre reinforced plastics (CFRP)** and thus fully recycled CFRP for the first time in the world. The plant is located at the main facility in Dillingen/Saar and will be used as the cornerstone for the construction of an industrial plant. Discussions with interested parties are already under way.

New fields of application

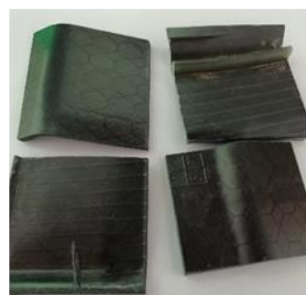


Project duration: Jan '21 – Jun '23

- Basic & detail engineering of a continuous and automated demonstration plant for recycling of carbon-fiber-reinforced plastic (CFRP)
- Installation of an operating container incl. machine, lock and control room
- Successful commissioning and operation of the demonstration plant

➔ First time holistic recycling of CFRP

Funded by  Bundesministerium für Wirtschaft und Klimaschutz



CFRP from car



- ✓ **Perfect separation of the fiber matrix**
 - ✓ **High proportion of recycling**
 - ✓ **Sustainable supply of rCF due to substantially lower CO₂ emissions compared to new production**
- ➔ Already in this plant size**

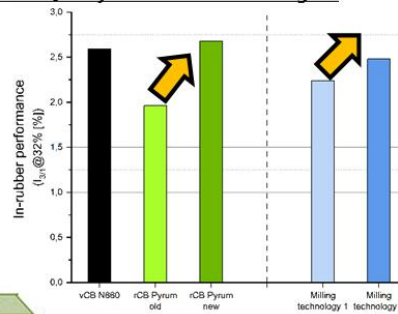
Optimisation of rCB



Creating of a high quality rCB for the implementation into new tires:

- Ideal **feedstock** composition
- Optimized **pyrolysis** process conditions
- Optimized rCB **refining** process conditions
- Application and tests in **tire** compounds

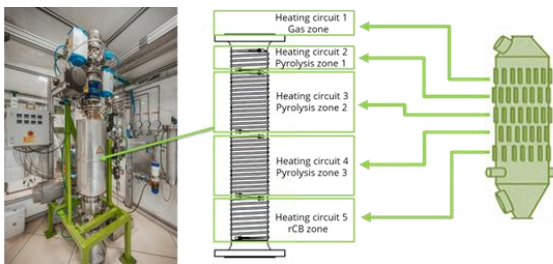
Goal: Quality level of N660 and higher



Major milestones since July 2022:

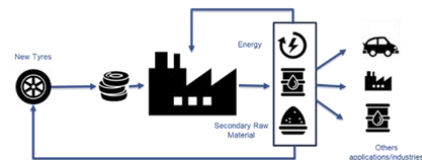
- Operation of all **laboratory plants** (shredding, pyrolysis, milling)
- Identification of ideal **milling technology**
- Scan of **pyrolysis** process conditions completed

Reproducible scale down of the industrial plant



- At this early stage we...
- ...highly increased the quality
 - ...obtained knowledge about impacts
 - ...already surpassed the level of N660

Applications of pyrolysis oil



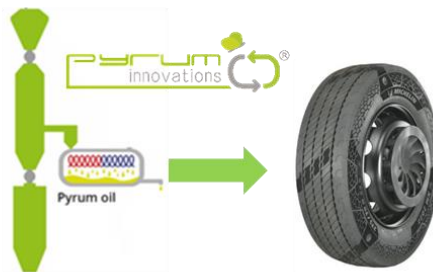
Funded by Horizon2020 European Union Funding for Research & Innovation

The BlackCycle project aims at creating, developing, and optimising a full value chain:

- To valorize **100%** ELTs selected
- To increase up to **10 times** SRMs rate into a new tire
- To decrease **CO2** emission at least **50%**

Major milestones since July 2022:

- Process chain evaluation at **industrial scale**
- Production of the **first SRM tires**
- LCA studies** for the value chain
- Scenario deployment and **roll out**



Please refer to the 2022 annual report for a detailed overview of research and development work.

ECONOMIC REPORT

Overview of economic conditions

According to the German Federal Statistical Office (Destatis), gross domestic product (GDP) decreased by 0.1% quarter-on-quarter in the first quarter of 2023 after adjustment for inflation, seasonal and calendar effects.¹³ In the second quarter of 2023, GDP adjusted for inflation, seasonal and calendar effects stagnated (0.0%). Consumer spending by private households in particular stabilised in the second quarter of 2023 following a weak winter. Adjusted for inflation and calendar effects, GDP in the second quarter of 2023 was 0.2% lower than in the same period of the previous year.

One likely reason for Germany's weak economic development is the continuing high inflation in Germany. Having previously dropped for three months in a row until reaching 6.1% in May 2023, the inflation rate climbed to 6.4% in June 2023, according to Destatis.¹⁴ Food remained the biggest driver of inflation, but energy product prices were also up 3.0% in June 2023 on the same month of the previous year. From June 2022 to June 2023, price increases were particularly pronounced for solid fuels (+26.6%) and natural gas (+20.8%). Above-average price increases were also recorded for electricity (+10.5%) and district heating (+9.3%).

In the tyre market, more than 1.6 billion new tyres are sold each year around the world.¹⁵ Accordingly, a roughly equal volume of tyres reach the end of their lives. According to the German Federal Environmental Foundation, this amounts to around 600,000 tonnes per year in Germany alone.¹⁶ In comparison, a standard Pyrum pyrolysis plant with three reactors will in the future have a recycling capacity of around 20,000 tonnes of end-of-life tyres per year. At the same time, according to a feasibility study by Chemnitz University of Technology on behalf of the German Tyre Retail and Vulcanisation Trade Association, a deficit is emerging in the recycling capacity available for end-of-life tyres in Germany.¹⁷ This deficit could lead to increased illegal dumping, rising disposal costs and increasing exports of end-of-life tyres. Half of end-of-life and used tyres in the EU are already transported abroad.¹⁸ It is suspected that a large proportion of the export volume is probably incinerated without regulation, which is why Allianz Zukunft Reifen (Alliance of Future Tyres, AZuR), for example, is calling for an export ban on end-of-life tyres.¹⁹ Accordingly, demand for the acceptance of end-of-life tyres remains high. At macroeconomic level, the circular economy is garnering increasing public attention.

In connection with the transition to renewable energy, there is a growing focus on sustainable products, which is also affecting the regulatory conditions. For example, the incineration of end-of-life

¹³ Destatis: press release 299 of 28 July 2023

¹⁴ cf. Destatis press release 311 of 8 August 2023

¹⁵ BlackCycle Project: press release of 3 September 2020

¹⁶ German Federal Environmental Foundation: *DBU aktuell Nr. 1 | 2023*

¹⁷ Chemnitz University of Technology: *Neue Nutzungsperspektiven und Anwendungsfelder für Altreifenzyklal* (2022)

¹⁸ World Business Council for Sustainable Development (WBCSD): *Global ELT Management* (2019)

¹⁹ Allianz Zukunft Reifen: press release of 27 June 2023

Economic report

tyres involves increasing costs for CO₂ emissions. Pyrum Innovations AG can make a decisive contribution to the desired transformation of the economy with the recycling of end-of-life tyres in the reusable material cycle.

Economic development of Pyrum AG and the Group

The most important developments in the reporting period regarding cooperations/partnerships, the main facility in Dillingen/Saar, certifications/analyses and financing are outlined below.

The new reactors were installed in the Dillingen extension on 8 February 2023.

The approval of the city council in Homburg/Saar to establish Pyrum's next company plant was also issued in February 2023. A reservation agreement for the future property was entered into in May 2023. This agreement includes a letter of intent for the purchase of the site, in which the purchase price and the infrastructure development costs have already been finalised and fixed. According to the plans, Pyrum's next company plant is to be built on the site by 2025.

ISO 14001 certification was successfully completed in March 2023. All certificates that have so far been required in order to supply the tyre industry have now been successfully obtained.

In addition, an audit with Pirelli was successfully completed in March 2023, meaning that the basis for future deliveries of rCB has also been laid here.

After the specifications of the pelletising plant required by the customer were fulfilled in the first quarter of 2023 and the certificates and the audit required in the automotive supply industry were finalised at the same time, the plant approval for the pelletised rCB was issued by Continental, which is a requirement for the series supply to the Continental factories. Series supply then began in May 2023.

On 3 May 2023, Pyrum announced that, after a development time lasting almost four years, the first automated, semi-industrial Pyrum recycling plant for carbon-fibre reinforced plastics (CFRP) had been put into operation, meaning that CFRP can be fully recycled for the first time in the world. The plant is located at the main facility in Dillingen/Saar and will be used as the cornerstone for the construction of an industrial plant.

The construction progress of the expansion in Dillingen is described in detail on pages 13 and 14 of this report.

On 20 June 2023, Ralf Bohle GmbH ("Schwalbe") presented the "Green Marathon", the first bicycle tyre that closes the product cycle and is made, among other things, from used tyres recycled by Pyrum. This proved that it is possible to turn a tyre into another tyre that is no different to conventional tyre types in terms of quality. Pyrum recycles bicycle tyres for Schwalbe and, in return, supplies Schwalbe with the rCB it needs.

Financing

Pyrum Innovations AG was paid an investment grant of EUR 1.5 million in February 2023, with positive liquidity effect, in order to create new jobs in Dillingen/Saar.

Pyrum Innovations AG signed a loan agreement for EUR 4 million with BASF Antwerp in May 2023. The loan was disbursed in four tranches between May and August 2023. EUR 2 million was paid out in the reporting period. The other two tranches were disbursed after the reporting date in July and August 2023.

The third tranche of the **convertible loan** available in accordance with the milestone plan agreed with BASF was likewise drawn down by Pyrum after the reporting date on 11 July 2023, and EUR 2 million was paid out to Pyrum. The convertible loan totalling EUR 7 million has therefore been disbursed in full.

Financing: Outlook

Pyrum Innovations AG is currently in advanced discussions for the financing of further growth. The current state of negotiations provides for an interest-bearing loan of presumably EUR 25 million in the first step, which is to be made available to the company with a longer term and free of repayment in the initial phase. This loan is to be used both to finance the company's own new pyrolysis plant in Homburg / Saar and to co-finance up to three of the customer projects currently under negotiation.

The Executive Board expects the loan negotiations to be finalised by the end of October 2023, thereby securing the Group's growth planning.

On the basis of these funds, the plant components with long delivery times (so-called "long lead items") can then be ordered promptly for the planned plant in Homburg/Saar.

In the case of the first customer plants, classic project financing options are only available to the clients to a limited extent due to the novelty of the technology. The loan enables Pyrum to participate in the client's respective project company (the "SPV") and thus provide part of the project financing. This relieves the principal's own financing share and facilitates project financing. This participation of Pyrum in the respective project company is also expected and welcomed by the current negotiating partners in plant construction as part of Pyrum's commitment.

Pyrum is aiming for a participation rate of between 15% and 33% in each case, which corresponds to a share of 7.5% to a maximum of 30% of the total financing of the plant construction project - depending on the share of external financing in the project company itself.

Further financing steps are being prepared or negotiated for the complete financing of the plant in Homburg/Saar.

NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS

This section elucidates the interim consolidated financial statements of Pyrum Innovations AG for the period from 1 January to 30 June 2023.

The figures for the reporting period are followed by the respective figures for the same period of the previous year in brackets.

The result and the net assets of the Pyrum Innovations AG Group in the first half of the year were primarily influenced by the high investments at the company's headquarters in Dillingen/Saar, investments in personnel, the further development of organisational structures and the throughput in the rCB milling and pelletising plant, which is not yet satisfactory in terms of volume.

Results of operations

The Pyrum Innovations Group generated **sales** of EUR 501 thousand in the first half of 2023. This represents an increase of 3.2% over the first half of 2022 (EUR 485 thousand).

In the first quarter of 2023, all required certifications were successfully completed for three customers, so that serial deliveries of high-quality, pelletised rCB were started in May 2023. However, the throughput of the mill and pelletisation is still significantly below the quantities expected when the plant components were ordered, so that alternative marketable options are also being examined at the reporting date in order to reduce the inventory costs back to a normal level.

The **change in inventories of finished goods and work in progress** amounted to EUR 40 thousand (EUR 216 thousand). This mainly relates to engineering services for consulting contracts. In the case of work in progress, the productive operation of the pelletising plant from May 2023 enabled part of the rCB stocks to be processed and sold; however, the increase in intermediate materials from the upstream recycling stages of shredding and pyrolysis still predominates.

With the plant expansion in Dillingen progressing as planned, **own work capitalised** amounted to EUR 7,613 thousand (EUR 8,495 thousand). The decline corresponds to the reduction in the cost of materials required for the generation of own work as the plant expansion draws closer to completion.

As expected, **total output** decreased year-on-year by EUR 1,042 thousand or 11% to EUR 8,155 thousand (EUR 9,197 thousand) due to a decline in own work.

In the same period of the previous year, **other operating income** was dominated by research grants for the BlackCycle project. Income of EUR 356 thousand (EUR 916 thousand) was generated in the first half of 2023. These resulted mainly from investment grants of EUR 152 thousand (EUR 0 thousand) and research grants of EUR 150 thousand (EUR 807 thousand).

The **cost of materials** includes raw materials, consumables and supplies as well as the cost of materials of EUR 6,215 thousand required for the generation of own work. The recognised cost of materials decreased in the first half of 2023 to EUR 7,447 thousand (EUR 8,444 thousand).

Personnel expenses increased by 24.2% to EUR 2,471 thousand (EUR 1,990 thousand) due to the increase in personnel for the upcoming growth and inflation. The increase in personnel concerned all areas of the company, as planned.

Depreciation and amortisation decreased to EUR 1,113 thousand (EUR 1,278 thousand); the decline results from the end of depreciation for the first construction phase of the existing plant at Pyrum

Economic report

Innovations AG. At Group level, EUR 434 thousand resulted from the amortisation of Pyrum Innovations International S.A.'s patents.

Other operating expenses fell to EUR 1,716 thousand (EUR 1,770 thousand). They include current costs of the stock exchange listings of EUR 185 thousand (EUR 150 thousand).

At EUR 156 thousand (EUR 97 thousand), **interest expenses** increased year-on-year, particularly due to the disbursement of the second tranche of the convertible loan.

The **consolidated net result for the period** was EUR -4,408 thousand (EUR -3,487 thousand).

Net assets

Intangible assets were written down on a regular basis by EUR 452 thousand in the period under review. The value on the reporting date thus declined to EUR 6,089 thousand (31 December 2022: EUR 6,492 thousand).

Tangible assets increased by EUR 7,737 thousand year-on-year to EUR 35,835 thousand (EUR 28,759 thousand). The key driver here was a further EUR 7,576 thousand for payments on account and assets under construction that accompanied the plant expansion in Dillingen.

Financial assets relate to the investment in REVALIT GmbH. In the consolidated financial statements, the investment was further reduced by the pro rata deficit for the first half of 2023.

Total **fixed assets** added up to EUR 41,956 thousand (31 December 2022: EUR 35,288 thousand).

Inventories increased to EUR 429 thousand (EUR 389 thousand) as a result of increases in the stock of produced rCB and an increase in the manufacturing costs of work in progress in the first half of 2023.

Trade receivables decreased to EUR 117 thousand (EUR 147 thousand).

Other assets decreased from EUR 1,259 thousand to EUR 659 thousand. These essentially involve value added tax refund claims. The reduction is the result of optimised internal processes that enable faster registration of claims and thus more timely refunds than in the previous year.

At EUR 48,861 thousand, **total assets** are slightly lower than in the 2022 annual financial statements (EUR 49,857 thousand).

FINANCIAL POSITION

Capital structure

The **equity base** of the Pyrum Group amounted to EUR 27,483 thousand as of 30 June 2023 (31 December 2022: EUR 31,891 thousand).

The **equity ratio** declined as a result of the consolidated net result for the reporting period to 56.2% (64.0%).

Provisions increased slightly to EUR 3,198 thousand (EUR 3,114 thousand). The provisions in the Group also include inventor remuneration, which will be utilised only once Pyrum Innovations International S.A. is profitable.

Liabilities to banks decreased by EUR 240 thousand to EUR 3,831 thousand as of 30 June 2023 (EUR 4,061 thousand).

Liabilities from advance payments increased to EUR 309 thousand (EUR 100 thousand). These include the advance payments made by customers under consulting contracts for the preparation of approval documents.

Trade payables increased by EUR 262 thousand to EUR 2,943 thousand (EUR 2,681 thousand).

Other liabilities increased by EUR 3,087 thousand to EUR 11,097 thousand as of the reporting date (EUR 8,010 thousand). This increase included a grant of EUR 1,500 thousand for the creation of new jobs at the Dillingen/Saar site that has been disbursed but not yet posted to profit or loss. The increase additionally resulted from the disbursements of two tranches totalling EUR 2,000 thousand from the financing agreed with BASF in May 2023.

Liquidity situation

The company continuously monitors the available liquidity and potential investment effects. To preserve liquidity, land purchases are usually refinanced in the long term in order to secure the roll-out planning.

The decrease in **cash in hand and in bank** was particularly marked by the investments in the expansion of the plant in Dillingen/Saar (EUR 7,576 thousand). At Group level, cash amounted to EUR 5,638 thousand as of 30 June 2023 (31 December 2022: EUR 12,726 thousand).

Cash flow statement

The cash flow statement has been prepared in accordance with the requirements of German Accounting Standard DRS 21. In accordance with the amendment to this standard in June 2023, the payments received from research grants are now shown in the cash flow from operating activities and no longer in the cash flow from financing activities. The previous year's statement was adjusted for better comparability.

In the first half of 2023, the **cash flow from operating activities** improved to EUR -2,300 thousand (EUR -2,888 thousand). This development was mainly due to the reduction of receivables, whereas in the previous year the operating current assets had increased significantly.

Economic report

The **cash flow from investing activities** decreased significantly from EUR -11,765 thousand to EUR -7,434 thousand. The focus of investments in the expansion of the plant at the Dillingen site took place in the previous year.

The **cash flow from financing activities** amounted to EUR 2,647 thousand (EUR -325 thousand). This resulted from the payment of EUR 2,000 thousand from the loan agreement concluded with BASF in the first half of 2023 and the payment of the investment grant in the amount of EUR 1,500 thousand.

The Group companies were able at all times to meet their payment obligations.

Report on key performance indicators

Key financial performance indicators

Pyrum Innovations AG is guided in financial terms by the key performance indicators sales, total output and earnings before interest and taxes (EBIT). Adjusted values are determined if necessary.

In addition, available liquidity is an important performance indicator. Liquidity planning and management, which is monitored closely, plays a central role here.

	1 Jan. 2023	1 Jan. 2022
	- 30 Jun. 2023	- 30 Jun. 2022
(EUR thousand)		
Sales	501	485
Total output	8,155	9,197
EBIT	-4,262	-3,390
EBIT (adjusted)*	-4,262	-3,105
Available liquidity	5,431	12,519

* adjusted for costs of the secondary listing of EUR 285 thousand in 2022

Sales in the first half of 2023 fell considerably short of expectations, especially in terms of rCB production and sales, on account of the unsatisfactory throughput of the pelletising plant. Pyrum therefore looked at alternative applications and sales opportunities for the unpelletised material in the first half of the year, sent samples to potential customers and worked with the manufacturer of the plant to come up with solutions to permanently increase throughput.

Total output, which represents the costs of materials and own work in connection with the construction of the new thermolysis plant, was in line with expectations.

In project business with customer plants, Pyrum focused more sharply in the first half of 2023 on customers expected to have strong financing. This resulted already in the signing of an initial consulting contract. The inflows from this are recognised as earnings when the respective approval documents are submitted, so there was no earnings effect in the reporting period.

Non-financial targets and key performance indicators

A detailed description of the non-financial targets and performance indicators can be found in the 2022 annual report.

OUTLOOK

Future economic conditions

In its current outlook from July 2023, the International Monetary Fund (IMF) expects a significant slowdown in growth of 3.0% in the global economy in 2023.²⁰ This is 0.2 percentage points more than were expected in April 2023, but is still well below the 2022 growth of 3.5% and below historic growth rates. At the same time, the IMF continues to view inflation and central banks' associated measures as one of the biggest challenges for the world economy. Although the IMF expects inflation to slow as 2023 goes on, continuing high or further increasing interest rates could lead to a sharper downturn in the economy and weaker labour markets. Risk on the finance and credit markets is also growing, which is making it more difficult for companies to get hold of money. There is also a risk of a financial and economic crisis triggered by the real estate sector in China, and the global geopolitical situation also remains fragile.

The IMF expects a slight increase in gross domestic product of 0.9% for the euro area for 2023 as a whole compared with the previous year. With regard to Germany's economic performance, the IMF expects economic output to decline by -0.3% after it had initially assumed in January 2023 that output would experience slight growth of 0.1%. The current forecast is also a 0.2 percentage point decline compared with the April outlook. Deutsche Bundesbank likewise expects a 0.3% decline in German GDP and an inflation rate of 6.0% for 2023.²¹

Outlook for oil/steel/rCB

According to Allied Market Research, the market volume for pyrolysis oil was around USD 320 million in 2021, equivalent to a market share of approximately 0.02% of the global crude oil market (with a market volume of around USD 1.4 trillion).²² The global pyrolysis oil market is expected to grow to approximately USD 481 million by 2031, which would equate to an annual growth rate (CAGR) of 4.3%.

According to information from the World Steel Association, global demand for steel will increase by a good 2% to around 1.9 billion tonnes in 2023. It is expected here that the trend towards further falls in prices seen since the second half of 2022 will also continue in 2023.

There are still only a few publicly available outlooks for the future main product rCB. At a minimum, the company expects the price of rCB to come close to the price of virgin carbon black, which is traditionally produced from burning oil, and so prices in excess of EUR 1,000 per tonne seem realistic for rCB.

²⁰ IMF: World Economic Outlook Update July 2023

²¹ Deutsche Bundesbank, press release of 16 June 2023

²² Allied Market Service: Pyrolysis Oil Market by Feedstock, by Process, by End use: Global Opportunity Analysis and Industry Forecast, 2021-2031, January 2023

Outlook for the rest of 2023

The outlook for 2023 was described in detail in the Annual Report 2022, which is referred to here.

Pyrum's focus in the second half of 2023 will be on the commissioning of the new plants (TAD 2 and TAD 3) in Dillingen/Saar, the preparation of approval documents for the planned plant in Homburg/Saar and for the consulting contracts already signed and those expected in the short term, as well as the implementation of the targeted financing structure.

The company is satisfied with the success achieved so far regarding the commissioning of the new pyrolysis plant, which is almost on schedule, but not yet with the monetary results, which is mainly due to the challenges with the purchased milling and pelleting plant described in the economic report. The focus here in the second half of the year is on increasing throughput volumes.

After completion of the financing measure described in more detail on page 20, Pyrum will start the investments at the Homburg/Saar site described there, as well as the measures for co-financing customer projects.

From today's perspective, achieving the sales targets set for 2023 in the lower range of the forecast from the Combined Management Report 2022 (EUR 1.8 million to EUR 2.5 million) is ambitious, but still possible. With regard to the total output, the expectations (EUR 14 million to EUR 16 million) for the entire year 2023 are unchanged compared to the forecast from the Combined Management Report 2022.

RISKS AND OPPORTUNITIES

The identification of risks and opportunities and the introduction of measures to contain risks are a core issue for corporate governance.

In the reporting period, there have been no material changes in the assessments of opportunities and risks since the preparation of 2022 annual and consolidated financial statements. Please refer to the 2022 annual report for detailed opportunity and risk assessments.

Supplementary report

Supplementary report

The third tranche of the **convertible loan** available in accordance with the milestone plan agreed with BASF was drawn down by Pyrum on 11 July 2023, and EUR 2 million was paid out to Pyrum. The convertible loan totalling EUR 7 million has therefore been disbursed in full.

In addition, the remaining amount of EUR 2 million from the loan agreed with BASF in May 2023 was disbursed.

A consulting contract relating to the planning of a new Pyrum plant with a processing capacity of 20,000 tonnes of scrap tyres in Greece was also concluded in the third quarter of 2023.

Pyrum Innovations AG

Dillingen/Saar, 14 September 2023

Pascal Klein
CEO

Michael Kapf
Member of the
Executive Board

Kai Winkelmann
Member of the
Executive Board

Interim consolidated financial statements

Interim consolidated financial statements for the first half of 2023

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Consolidated interim balance sheet as of 30 June 2023

ASSETS (in €)	30. Jun 2023	31. Dec. 2022
A. Non-current assets		
I. Non-current intangible assets		
1. Self-created rights and similar intangible assets	68,248.00	78,236.00
2. Acquired rights and licences in such rights	5,962,195.79	6,394,276.79
3. Intangible assets under development	58,267.33	19,734.13
	<u>6,088,711.12</u>	<u>6,492,246.92</u>
II. Property, plant, and equipment		
1. Land and buildings	3,980,946.84	4,009,216.84
2. Technical equipment and machinery	4,400,108.32	3,449,205.32
3. Other equipment, operating and office equipment	1,152,223.00	1,272,559.00
4. Advances paid and assets under construction	26,301,772.89	20,027,994.92
	<u>35,835,051.05</u>	<u>28,758,976.08</u>
III. Non-current financial assets		
Shares in associates	31,921.62	36,921.62
Total non-current assets	41,955,683.79	35,288,144.62
B. Current assets		
I. Inventories		
1. Raw materials and supplies	23,000.00	23,000.00
2. Work in progress	94,900.00	69,700.00
3. Finished and unfinished goods	256,664.40	241,640.38
4. Advance payments made	54,270.00	54,270.00
	<u>428,834.40</u>	<u>388,610.38</u>
II. Receivables and other current assets		
1. Trade receivables	117,391.01	146,728.46
2. Other current assets	659,001.16	1,258,986.39
	<u>776,392.17</u>	<u>1,405,714.85</u>
III. Cash at hand and in bank		
	5,638,307.65	12,725,508.05
Total current assets	6,843,534.22	14,519,833.28
C. Deferred expenses	61,713.01	49,389.85
Total assets	<u>48,860,931.02</u>	<u>49,857,367.75</u>

Consolidated interim balance sheet as of 30 June 2023

EQUITY AND LIABILITIES (in €)	30. Jun. 2023	31. Dec. 2022
A. Equity		
I. Subscribed Capital	3,253,735.00	3,253,735.00
II. Capital Reserves	52,058,141.06	52,058,141.06
III. Accumulated Losses	-27,828,889.20	-23,420,539.29
Total Equity	27,482,986.86	31,891,336.77
B. Provisions and Accrued Liabilities		
Other provisions and accrued liabilities	3,197,793.66	3,113,897.55
C. Liabilities		
1. Liabilities to banks	3,830,601.52	4,060,778.08
2. Advance payments received	308,674.31	100,000.00
3. Trade payables	2,943,465.04	2,681,088.24
4. Other liabilities	11,097,409.63	8,010,267.11
Total liabilities	18,180,150.50	14,852,133.43
Total equity and liabilities	48,860,931.02	49,857,367.75

Pyrum Innovations AG
Dillingen/ Saar

Consolidated interim income statement for the first half 2023

	01.01.-30.06.2023	01.01.-30.06.2022
	€	€
1. Revenues	501,158.83	485,465.59
2. Increase/decrease of finished and unfinished goods	40,224.02	216,328.78
3. Other own work capitalised	<u>7,613,186.84</u>	<u>8,494,890.62</u>
4. Total output	8,154,569.69	9,196,684.99
5. Other operating income	355,957.49	916,363.64
6. Expenses for materials		
a) Expenses for raw materials and supplies	6,494,954.04	7,950,067.76
b) Expenses for purchased services	<u>951,765.16</u>	<u>493,626.64</u>
	7,446,719.20	8,443,694.40
7. Personnel expenses		
a) Wages and salaries	2,108,324.10	1,683,932.47
b) Social security contributions and expenses for pension provision	<u>362,590.83</u>	<u>306,173.60</u>
	2,470,914.93	1,990,106.07
8. Depreciation, amortisation and write-downs of intangible non-current assets and property, plant, and equipment	1,112,815.50	1,278,250.30
9. Other operating expenses	1,716,268.09	1,769,836.74
10. Other interest and similar income	5,097.24	128.59
11. Interest and similar expenses	156,342.83	96,696.01
12. Cost of equity valuation of associates	<u>5,000.00</u>	<u>2,000.00</u>
13. Result after taxes	-4,392,436.13	-3,467,406.30
14. Other taxes	15,913.78	20,027.80
15. Net loss for the year	-4,408,349.91	-3,487,434.10
16. Loss carried forward from the previous year	<u>-23,420,539.29</u>	<u>-15,612,428.62</u>
17. Balance sheet loss	<u>-27,828,889.20</u>	<u>-19,099,862.72</u>

Consolidated cash flow statement for the first half 2023

	01.01.-30.06.2023	01.01.-30.06.2022
	€	€
Net income/loss for the period	-4,408,350	-3,487,434
Depreciation, amortisation of non-current assets / reversals of write-downs of non-current assets	1,112,816	1,278,250
Increase/decrease in provisions	83,977	77,060
Other non-cash expenses/income	5,000	0
Increase/decrease in inventories, trade receivables and other assets not related to investing or financing activities	576,603	-882,390
Increase/decrease in trade payables and other liabilities not attributable to investing or financing activities	324,895	40,068
Profit/loss from the disposal of non-current assets	0	-9,999
Interest expenses/income	155,838	96,568
Other income and expenses not attributable to cash flow from operating activities	-150,908	0
Cash flow from operating activities	-2,300,129	-2,887,877
Payments for investments in intangible non-current assets	-48,556	-4,004
Proceeds from disposals of property, plant and equipment	0	10,000
Payments for investments in property, plant and equipment	-7,386,343	-11,771,171
Interests received	424	128
Cash flow from investing activities	-7,434,475	-11,765,047
Proceeds from short- or long-term (financial) loans	2,000,000	0
Payments from the redemption of (financial) loans	-696,428	-228,533
Proceeds from grants/subsidies received	1,500,000	0
Interests paid	-156,342	-96,696
Cash flow from financing activities	2,647,230	-325,229
Net change in cash funds	-7,087,374	-14,978,153
Cash funds at beginning of period	12,518,505	34,239,010
Cash funds at end of period	5,431,131	19,260,857

Consolidated statement of changes in equity

Consolidated statement of changes in equity as of 30 June 2023

	Subscribed capital	Capital reserve		Total reserves	Consolidated loss carried forward	Consolidated net loss	Consolidated balance sheet loss	Total group equity	
		according to § 272 Para. 2 No. 1 - 3 HGB	according to § 272 Para. 2 No. 4 HGB						Total
	€	€	€	€	€	€	€	€	
As of 1 January 2022	3,253,735.00	43,815,165.06	8,242,976.00	52,058,141.06	52,058,141.06	-7,261,100.97	-8,351,327.65	-15,612,428.62	39,699,447.44
Allocation to/withdrawal from reserves						-8,351,327.65	8,351,327.65		0.00
Net loss for the period							-3,487,434.10	-3,487,434.10	-3,487,434.10
As of 30 June 2022	3,253,735.00	43,815,165.06	8,242,976.00	52,058,141.06	52,058,141.06	-15,612,428.62	-3,487,434.10	-19,099,862.72	36,212,013.34
As of 1 January 2023	3,253,735.00	43,815,165.06	8,242,976.00	52,058,141.06	52,058,141.06	-15,612,428.62	-7,808,110.67	-23,420,539.29	31,891,336.77
Allocation to/withdrawal from reserves						-7,808,110.67	7,808,110.67		0.00
Net loss for the period							-4,408,349.91	-4,408,349.91	-4,408,349.91
As of 30 June 2023	<u>3,253,735.00</u>	<u>43,815,165.06</u>	<u>8,242,976.00</u>	<u>52,058,141.06</u>	<u>52,058,141.06</u>	<u>-23,420,539.29</u>	<u>-4,408,349.91</u>	<u>-27,828,889.20</u>	<u>27,482,986.86</u>

Condensed notes to the consolidated financial statements of Pyrum Innovations AG for the first half of the financial year as of 30 June 2023

I. General disclosures on Pyrum Innovations AG and the Group

The parent company, Pyrum Innovations AG, Dillingen/Saar, was founded as a limited liability company under German law (Gesellschaft mit beschränkter Haftung) on 10 September 2008. It was transformed into a stock corporation (Aktiengesellschaft) by way of resolution of 18 August 2017.

It is entered in the commercial register of the Saarbrücken Local Court under HR B 104458.

Since 30 September 2021, Pyrum Innovations AG has been listed in the Euronext Growth market segment of the Oslo stock exchange in Norway. Since 30 March 2022, it has had a secondary listing in the Scale market segment of Deutsche Börse AG at the Frankfurt stock exchange. Neither segment is an organised market as referred to by section 11(2) of the Wertpapierhandelsgesetz (WpHG – German Securities Trading Act). Pyrum Innovations AG is therefore not a listed company as referred to by section 264d of the Handelsgesetzbuch (HGB – German Commercial Code).

The **interim consolidated financial statements** of Pyrum Innovations AG and its subsidiary were prepared in accordance with the regulations of sections 290 et seq. HGB in compliance with the standards of the German Accounting Standards Committee.

The presentation of the consolidated balance sheet and the consolidated income statement are prepared in accordance with the regulations for large corporations. The consolidated income statement has been prepared in line with the total cost (nature of expense) method. The consolidated statement of cash flows has been prepared in accordance with German Accounting Standard GAS 21 as amended by Amendment Standard No. 13 dated June 16, 2023. The consolidated statement of changes in equity has been prepared in accordance with German Accounting Standard DRS 22. German Accounting Standard DRS 18 on deferred taxes has been applied with the early adoption of Amending German Accounting Standard DRÄS 11.

The interim consolidated financial statements were also prepared in accordance with the principles of German Accounting Standard DRS 16. The comparative figures of the previous period in the balance sheet refer to 31 December 2022 and in the income statement to the first half of the 2022 financial year (1 January 2022 – 30 June 2022).

The interim consolidated financial statements are presented in euro. The financial year of Pyrum Innovations AG and of the Group is the calendar year. The reporting date of the interim consolidated financial statements is 30 June 2023.

General disclosures on Pyrum Innovations AG and the Group

II. Consolidated Group

As the parent company, Pyrum Innovations AG prepares the consolidated financial statements for the largest and, at the same time, the smallest group of entities included in the statements.

Fully consolidated companies

The subsidiary Pyrum Innovations International S.A., Schengen, Luxembourg, is included in the consolidated financial statements. It has been a subsidiary of Pyrum Innovations AG since 7 October 2021 (date of first-time consolidation).

Associates

REVALIT GmbH, in which Pyrum Innovations AG holds a share of 25% of the capital and voting rights, was founded on 10 June 2022. The company's purpose is to build and operate a pyrolysis plant.

III. Principles of consolidation

The assets, liabilities, prepaid expenses, deferred income, income and expenses of the individual companies included in the consolidated financial statements are combined in the consolidated financial statements.

First-time consolidation is performed in accordance with the purchase method. The assets and liabilities are recognised at fair value as at the date when the company became a subsidiary; however, provisions and deferred taxes are measured in accordance with the applicable German accounting policies. Any excess of assets from first-time consolidation is recognised as goodwill, while a negative difference is reported as a difference arising from capital consolidation after equity. This procedure also applies to asset deals and contributions.

Intercompany balances are consolidated by the elimination of receivables against the corresponding liabilities between the companies included in the consolidated financial statements.

The consolidation of income and expenses is achieved by offsetting intragroup income against the corresponding expenses. Intercompany profits and losses from transactions between consolidated companies are eliminated.

In line with section 306 HGB, deferred taxes from differences between the carrying amounts of assets and liabilities in the consolidated balance sheet and their tax carrying amounts that are expected to reverse in future are recognised accordingly as deferred tax assets and liabilities in the consolidated balance sheet.

Equity investments not controlled but significantly influenced by Pyrum Innovations AG or another Group company are included in the consolidated financial statements as shares in associates accounted for using the equity method in accordance with sections 311 ff. HGB. The equity investment is initially carried at acquisition cost under financial assets. Any difference between the acquisition cost and Pyrum Innovations AG's share in the balance sheet equity of the associate is allocated to hidden reserves and liabilities and carried forward; any remaining difference is carried forward according to the principles of goodwill. Pyrum Innovations AG's share in the profit or loss of the associate is recognised in the consolidated income statement together with the expenses and income from the subsequent measurement of the difference.

IV. Accounting policies

The accounting policies are applied uniformly and consistently in the interim consolidated financial statements.

Purchased intangible assets are carried at acquisition cost less amortisation if applicable.

Internally generated intangible assets are recognised using the option provided in section 248(2) HGB and measured at production cost. They are amortised over their useful life from the time of their completion. The capitalisation phase commences as soon as the development phase for an asset that will be individually usable after completion has begun, there is a high probability of completion and the development costs can be reliably allocated.

Goodwill from the acquisition of companies and first-time consolidation is capitalised and written down over the expected useful life.

Tangible fixed assets are reported at acquisition or production cost less depreciation if applicable.

Subsequent acquisition or production costs are capitalised if the scope, function or performance of technical equipment in operation is significantly expanded. Depreciation and amortisation are recognised on a straight-line basis over the remaining useful life.

The production cost of tangible and intangible assets includes direct costs of materials, direct labour costs and overheads, depreciation/amortisation of the fixed assets used and appropriate amounts of administrative overheads. Interest on borrowings is not capitalised.

Depreciation and amortisation are recognised on a straight-line basis over the expected useful lives of the assets. The following useful lives are assumed:

	Years
Buildings and other structures	14-35
Patents, licences, expertise	10.6
Technical equipment and machinery	5-10
Equipment and facilities	4-11
Internally generated intangible assets	5
Computer software	5
Computer hardware	3-5

Low-value assets with acquisition costs of up to EUR 800.00 are written down in full in the year of their acquisition.

Financial assets are capitalised at acquisition cost including incidental purchase costs. They are written down to the lower fair value in the event of permanent impairment. Associates are accounted for at equity in the consolidated financial statements in deviation from this.

Raw materials, consumables and supplies are carried at acquisition cost. Work in progress and finished goods are recognised at their production cost in accordance with the upper limit value under commercial law. Inventories are written down to their fair value at the balance sheet date.

Receivables and other assets are recognised at their nominal value and measured taking all discernible risks into account.

Other provisions are recognised for all uncertain liabilities and, if necessary, expected losses from onerous contracts. All discernible risks are taken into account. Provisions are measured at the amounts required to settle the underlying obligation in line with prudent business judgement. The costs at the expected settlement date of the obligation are taken into account.

Provisions expected to be settled more than one year after the balance sheet date are discounted.

General disclosures on Pyrum Innovations AG and the Group

The remaining terms estimated for this are based on management forecasts of expected future utilisation, including in particular the medium-term budget planning for plant engineering. The maturity-based average market rates of the past seven years calculated by the Deutsche Bundesbank in accordance with the Rückstellungsabzinsungsverordnung (German Regulation on the Discounting of Provisions) are used for discounting. The income from discounting and interest effects from changes in interest rate and amended estimates or terms are recognised net as interest income or interest expenses.

Provisions relating to the full financial year are recognised in the half-year financial statements pro rata temporis.

Deferred taxes are recognised and measured in accordance with section 274 HGB. Deferred tax assets and liabilities relating to the same tax jurisdiction are offset – including deferred taxes from consolidation adjustments within the Group; exercising the option provided by section 274(1) sentence 2 HGB, any excess assets from first-time consolidation are not recognised. Deferred tax assets and liabilities are reported net. Deferred tax assets from tax loss carryforwards are recognised if they are expected to be utilised. Future taxable income expected to arise in the same tax jurisdiction is included in the measurement here only if it is expected that there will be loss carryforwards against which they can be utilised in the next five years. They are recognised at least in the amount of any net deferred tax liabilities relating to the same tax jurisdiction.

Liabilities are carried at their settlement amount.

Transactions in foreign currency are translated into euro using the exchange rate on the day of the transaction. In the balance sheet, foreign currency receivables and liabilities with a remaining term of up to one year are translated into euro at the average spot exchange rate on the reporting date. Foreign currency receivables and liabilities with a remaining term of more than one year are translated using the closing rate or the lower/higher rate on the transaction date.

The functional currency of both Group companies is the euro; currency translation of the single-entity financial statements of the Group companies is not necessary.

Sales are recognised on delivery or completion of the service.

Income from government grants is recognised when commitments are made or grant agreements signed and to the extent that the activities funded are performed. Income from grants for assets for which capitalisation is required is recognised in full as income as at the date that the asset is completed or commences operations; it is not recognised pro rata temporis in line with the useful life of the asset.

The income is reported as other operating income; claims to realised subsidies are reported as other assets; funds already received but not yet realised are recognised as other liabilities.

Accounting and classification policies that deviate from the previous year

The accounting and classification policies have not changed and are applied in the same way as in the previous year.

V. Balance sheet disclosures

1. Fixed assets

The development of the individual items of fixed assets is shown in the following statement of changes in fixed assets of the interim consolidated financial statements with disclosures on depreciation and amortisation for the financial year.

The purchased industrial and similar rights and assets capitalised in conjunction with first-time consolidation in the 2021 consolidated financial statements comprise the two patents owned by Pyrum Innovations International S.A. for the recycling of end-of-life tyres and the expertise acquired in applying this process by the end of 2017 under a research services agreement between Pyrum Innovations International S.A. and Pyrum Innovations AG. These are written down on a straight-line basis over the remaining period of patent protection for the two patents.

The internally generated intangible assets capitalised during the financial half-year under intangible assets under development relate to the development of a “digital twin”. This is a virtual environment for the pyrolysis plant that has been developed using simulation software. It will in the future be used for employees to be trained, unexpected incidents to be simulated and the plant to be tested as the pyrolysis technology continues to be developed without having physically to conduct changes beforehand. This development project is expected to be completed at the end of 2023, when the first actual data from the operation of the new plant will be available to validate the model parameters. With the current expansion stage, employee training could already be carried out.

Payments on account and assets under construction of EUR 26,302 thousand (previous year: EUR 20,028 thousand) essentially break down as follows:

		<u>30 Jun. 2023</u> EUR thousand	<u>31 Dec. 2022</u> EUR thousand
Pyrolysis line 2 and 3	Start of project 2020	26,190	18,688
Pelletiser	Start of project 2020	0	1,289

The start-up of the pelletising plant took considerably more time than was expected when it was delivered by the manufacturer in February 2022. Series production was commenced at the end of the first quarter of 2023. Series supply for the automotive industry began in May 2023. The plant will continue to be optimised with the primary goal of further increasing availability and the material throughput.

The project to extend the plant at the company’s headquarters in Dillingen with the construction of pyrolysis lines 2 and 3 was launched in 2020 after continuous operation of the first industrial pyrolysis tower was commenced. Construction on the plant began in September 2021. The balance as of 30 June 2023 also includes the manufacturing costs already incurred for the second shredder and for other peripheral facilities.

Pyrum Innovations International S.A. holds an interest of 10% in Pyrum Innovations SAS, Flévy, France. The company has neither assets nor business activities. The interest is not shown in the consolidated balance sheet.

Disclosures on the consolidated balance sheet of Pyrum Innovations AG
Consolidated gross statement of changes in non-current assets

Consolidated Gross Statement of Changes in Non-current Assets as of 30 June 2023

	Acquisition and production costs			30 June 2023	Cumulative depreciation and amortisation			Book value	
	1 January 2023	Additions	Reclassifications		1 January 2023	Additions	30 June 2023	30 June 2023	31 December 2022
	€	€	€	€	€	€	€	€	
I. Non-current intangible assets									
1. Self-created rights and similar intangible assets	99,875.19	0.00	0.00	99,875.19	21,639.19	9,988.00	31,627.19	68,248.00	78,236.00
2. Acquired rights and licences in such rights	7,522,152.76	10,022.00	0.00	7,532,174.76	1,127,875.97	442,103.00	1,569,978.97	5,962,195.79	6,394,276.79
3. Intangible assets under development	19,734.13	38,533.20	0.00	58,267.33	0.00	0.00	0.00	58,267.33	19,734.13
	7,641,762.08	48,555.20	0.00	7,690,317.28	1,149,515.16	452,091.00	1,601,606.16	6,088,711.12	6,492,246.92
II. Property, plant, and equipment									
1. Land and buildings	4,112,288.69	19,670.64	0.00	4,131,959.33	103,071.85	47,940.64	151,012.49	3,980,946.84	4,009,216.84
2. Technical equipment and machinery	9,771,991.80	19,980.12	1,302,110.95	11,094,082.87	6,322,786.48	371,188.07	6,693,974.55	4,400,108.32	3,449,205.32
3. Other equipment, operating and office	2,067,782.75	121,259.79	0.00	2,189,042.54	795,223.75	241,595.79	1,036,819.54	1,152,223.00	1,272,559.00
4. Advances paid and assets under construction	20,027,994.92	7,575,888.92	-1,302,110.95	26,301,772.89	0.00	0.00	0.00	26,301,772.89	20,027,994.92
	35,980,058.16	7,736,799.47	0.00	43,716,857.63	7,221,082.08	660,724.50	7,881,806.58	35,835,051.05	28,758,976.08
III. Non-current financial assets									
Shares in associates	50,000.00	0.00	0.00	50,000.00	13,078.38	5,000.00	18,078.38	31,921.62	36,921.62
	43,671,820.24	7,785,354.67	0.00	51,457,174.91	8,383,675.62	1,117,815.50	9,501,491.12	41,955,683.79	35,288,144.62

2. Current assets, prepaid expenses

Inventories primarily comprise intermediate and finished products from the operation of the plant in Dillingen and customer orders in progress. It is also possible in principle to sell the intermediate products of the recycling process from the individual processing stages. Further processing into higher-quality end products is envisaged for the major share, however.

There are no trade receivables with a remaining term of more than one year. No write-downs have been necessary.

EUR 1,078.17 (previous year: EUR 6,882.26) of other assets have a remaining term of more than one year.

3. Equity

The development of consolidated equity is shown in the consolidated statement of changes in equity.

4. Share capital, authorised capital

On 30 June 2023, the share capital of Pyrum Innovations AG consists of 3,253,735 bearer shares in total, each with a nominal amount of EUR 1.00.

As of June 30, 2023, the authorized capital still existed in the amount of EUR 87,570.00, corresponding to 87,570 shares.

By way of resolution of the Annual General Meeting on 13 July 2023, the Executive Board was authorised, with the approval of the Supervisory Board, to increase the share capital up to a total amount of not more than EUR 1,301,494.00 in return for cash or non-cash contributions, once or in tranches, by the end of 12 July 2028. Shareholders' preemption rights can be disappplied under certain conditions. The previous authorized capital was cancelled.

5. Capital reserves

The capital reserves are still held in full by the parent company.

The capital reserves in accordance with section 272(2) no. 1 HGB amount to EUR 43,815,165.06 as of 30 June 2023 and are unchanged as against 31 December 2022.

The capital reserves in accordance with section 272(2) no. 4 HGB amount to EUR 8,242,976.00 as of 30 June 2023 and are unchanged as against 31 December 2022.

6. Contingent capital, convertible loan

By way of resolution of the Annual General Meeting on 9 September 2020, the Executive Board was authorised to issue convertible bonds of EUR 6,600,000.00 with a coupon of 3% by 31 December 2024. Shareholders' direct pre-emption rights were disappplied. BASF Antwerpen NV is permitted to subscribe to the convertible bond.

The Annual General Meeting on 9 September 2020 also adopted a resolution on a contingent increase of the share capital of Pyrum Innovations AG of EUR 199,576.00 (Contingent Capital 2020/I). The contingent capital increase will be carried out only to the extent that the holder of the convertible bonds is permitted to exercise and actually exercises its conversion right.

On 9 September 2020, the Executive Board of Pyrum Innovations AG, with the approval of the Supervisory Board and Pyrum Innovations International S.A. as the joint and several debtor, entered into a convertible loan agreement of EUR 7,000,000.00 with BASF Antwerpen NV. EUR 6,600,000.00 of the convertible loan agreement relates to Pyrum AG and EUR 400,000.00 to

Disclosures on the consolidated balance sheet of Pyrum Innovations AG

Pyrum Innovations International S.A. The loan bears interest at 3% p.a. The loan will be paid out in tranches on the achievement of certain milestones. The term of each tranche is 10 years. Repayment starts at the beginning of the third year after the loan is extended. Ordinary termination is not permitted. The lender is authorised to terminate the loan for good cause. The lender's option to convert the loan into shares in accordance with the above conversion ratio applies only in the event of termination for good cause. The nominal amount for the shares arising on conversion is to be settled in cash. The conversion agreement stipulates dilution protection. The loan liabilities have been subordinated by a corresponding clause.

As the conversion right associated with the loan can be exercised only on termination for good cause and the other loan terms are deemed to be in line with market conditions, this conversion right is not assigned a distinct economic value that would have to be transferred to the capital reserves in accordance with section 272(2) no. 3 HGB.

In order to cover the dilution protection, the Annual General Meeting on 13 July 2023 resolved to contingently increase the share capital of Pyrum Innovations AG by EUR 74,335.00 (Contingent Capital 2023/I). The contingent capital increase will be carried out only to the extent that the holder of the convertible bonds is permitted to exercise and actually exercises its conversion right.

Unchanged as against 31 December 2022, a total of EUR 5,000,000.00, divided into two tranches, was extended as of 30 June 2023; EUR 4,700,000.00 of the convertible loan relates to the parent company. The loan is reported under other liabilities.

7. Restriction on distribution in accordance with section 268(8) HGB

The total amount subject to a restriction on distribution in accordance with section 268(8) HGB is EUR 126,515 and relates to the capitalisation of internally generated intangible fixed assets.

8. Provisions

Other provisions break down as follows:

	30 Jun. 2023 EUR	31 Dec. 2022 EUR
Obligations from cooperation agreements	1,608,434.88	1,624,957.08
Inventor remuneration (Pyrum S.A.)	990,357.93	987,912.47
Provisions for personnel	298,100	239,600.00
Preparation of financial statements, audits, legal and consulting expenses	167,650	183,200.00
Outstanding invoices, other	133,250.85	78,228.00
	<u>3,197,793.66</u>	<u>3,113,897.55</u>

Long-term obligations from cooperation agreements result from the construction phase of the first plant in Dillingen. Multiple cooperation partners have deferred claims to remuneration until the completion of the subsequent plants. In conjunction with the construction of pyrolysis lines 2 and 3 in Dillingen, claims were made on some of these obligations when orders were placed for new plant components since the 2022 financial year.

There is an agreement with the inventor of the tyre pyrolysis process to the effect that the inventor will receive remuneration of EUR 1,000,000.00 based on the profits of Pyrum Innovation International S.A. The obligation has been recognised in the consolidated financial statements at discounted presented value based on when this is likely to occur.

Disclosures on the consolidated balance sheet of Pyrum Innovations AG

9. Liabilities

The Group's liabilities break down as follows:

	Remaining term of less than one year		Remaining term of more than one year	
	30 Jun. 2023 EUR	31 Dec. 2022 EUR	30 Jun. 2023 EUR	31 Dec. 2022 EUR
Liabilities				
to banks	464,117.75	461,604.35	3,366,483.77	3,599,173.73
Advance payments received	308,674.31	100,000.00	0.00	0.00
Trade payables	2,589,795.66	2,075,263.86	404,614.98	605,824.38
of which hire-purchase liabilities	494,283.16	481,812.60	404,614.98	605,824.38
Other	3,021,487.15	1,892,590.96	8,024,976.88	6,117,676.15
of which convertible loan	229,406.25	294,326.90	4,590,110.80	4,705,673.10
of which other loans	66,305.78	117,447.80	3,434,866.08	1,426,103.87
of which from government grants	2,515,198.61	1,166,106.94	0.00	0.00
of which taxes	67,760.97	68,024.70	0.00	0.00
of which social security	13,962.35	21,570.98	0.00	0.00
Total	6,384,074.87	4,529,459.17	11,796,075.63	10,322,674.26

Group liabilities with a remaining term of more than five years amount to:

	Remaining term more than five years	
	30 Jun. 2023 EUR	31 Dec. 2022 EUR
Liabilities		
to banks	2,017,592.02	2,147,718.55
Other	3,626,497.16	2,628,505.30
of which convertible loan	2,314,416.08	2,628,505.30
Total	5,644,089.18	4,776,223.85

Liabilities to banks of EUR 3,278,771.69 are secured by mortgages on fixed assets. Liabilities of EUR 82,179.49 are secured by cash; they relate exclusively to the parent company.

Hire-purchase liabilities of EUR 898,891.14 are secured by retention of title or the assignment of fixed assets as collateral.

A manufacturer loan of EUR 222,664.85 (previous year: EUR 287,907.69) reported under other liabilities is secured the assignment of the asset as collateral.

As at 30 June 2023, the other loans reported under other liabilities include EUR 2,000,000.00 from the loan granted by BASF NV in May 2023. Further loans amounting to EUR 1,278,507.01 (previous year EUR 1,255,643.98) have been granted by other shareholders of the company. They are unsecured, have terms of up to four years and interest rates of between 2.5 and 6.0%.

10. Off-balance sheet financial commitments

The purchase commitment from purchase agreements for plant components amounts to EUR 4,768,000.00, of which EUR 4,000,000.00 with long term maturity.

Contingent liabilities in connection with the cooperation agreements amount to EUR 341 thousand. The Executive Board of Pyrum Innovations AG considers it unlikely that claims will be made on these contingent liabilities as it is currently expected that it will be possible to use all the related components in other systems.

In addition to the above financial commitments in the consolidated financial statements, Pyrum Innovations AG has joint and several liability for the loan liabilities of its subsidiaries under the convertible bond agreement jointly entered into with BASF Antwerpen NV. The liability remains unchanged from 31 December 2022 at EUR 300,000.00.

Furthermore, under this agreement, in the event of the conversion of the loan relating to the subsidiary after termination by the lender for good cause, Pyrum Innovations AG has an obligation to admit the lender as a minority shareholder with an interest of up to 7.4%.

The Executive Board of Pyrum Innovations AG considers it unlikely that a claim will be made on this contingent liability as its subsidiary has sufficient financial resources to fulfil its obligations under the agreement as they become due.

Disclosures on the consolidated income statement of Pyrum Innovations AG

VI. Income statement disclosures

Sales break down as follows:

	<u>H1 2023</u> EUR	<u>H1 2022</u> EUR
Operation of the recycling plant	441,636.11	446,285.10
Research orders	14,524.55	0.00
Rental income	47,562.16	27,917.76
Other sales / sales reductions	-2,563.99	11,262.73
	<u>501,158.83</u>	<u>485,465.59</u>

Sales are generated with customers in Germany and the European Union; the transaction currency is the euro.

The other own work capitalised in the first half of 2023 of EUR 7,613,186.84 essentially results from the expansion and optimisation of facilities in Dillingen/Saar. In 2023, they mainly concern the construction and commissioning of pyrolysis lines 2 and 3 and the new shredder.

The own work includes the total expense for internally generated tangible assets for the year, primarily comprising the use of materials (EUR 6,215 thousand; previous year: EUR 7,775 thousand), third-party services (EUR 881 thousand; previous year: EUR 312 thousand) and own work by Pyrum staff measured at full cost (EUR 518 thousand; previous year: EUR 406 thousand).

The other operating income of EUR 355,957.49 (previous year: EUR 916,363.64) essentially includes investment grants of EUR 150 thousand (previous year: EUR 0 thousand) and ongoing research project grants of EUR 92 thousand (previous year: EUR 807 thousand).

Personnel expenses include all wages and salaries of the staff and the Executive Board, expenses for temporary work and mini jobs, and the employer's share of social security costs.

Pension costs amount to EUR 3,882.00 (previous year: EUR 4,065.36).

Other operating expenses break down as follows:

	<u>H1 2023</u> EUR	<u>H1 2022</u> EUR
Private placement and listing	0	288,250.00
Current stock exchange (follow-up) costs	184,966.66	149,751.81
Financial statement, audit, legal and consulting expenses	352,297.41	301,360.60
Repairs and maintenance	345,737.67	286,470.04
Land, building rents and ancillary costs	167,380.76	143,812.16
Insurance, contributions, levies	140,686.83	155,974.53
Vehicle costs	162,523.55	113,637.20
Miscellaneous operating expenses	362,675.21	330,580.40
	<u>1,716,268.09</u>	<u>1,769,836.74</u>

Legal and consulting expenses also include technical, economic and tax consulting and analysis.

Interest and similar expenses include interest income from the discounting of provisions of EUR 4,672.84 (previous year: EUR 0.00).

Disclosures on the consolidated income statement of Pyrum Innovations AG

The interest expenses essentially served to finance fixed assets. The expenses from the compounding of long-term provisions amount to EUR 2,445.46 in the Group (previous year EUR 4,982.15).

Deferred taxes

To calculate deferred taxes on differences between the accounting carrying amounts of assets and liabilities and their tax carrying amounts or on tax loss carryforwards, the amounts of the resulting tax benefits and expenses at the time of reversal are measured using tax rates specific to the company and are not discounted. Differences due to consolidation adjustments are also taken into account. The tax rates used are 30.53% (Pyrum Innovations AG) and 27.19% (Pyrum Innovations International S.A.).

Deferred tax assets from tax loss carryforwards of Pyrum Innovations AG and Pyrum Innovations International S.A. were recognised in the amount of the excess of liabilities at the respective company after netting deferred tax assets and liabilities from temporary differences.

The corporation and trade tax loss carryforwards of Pyrum Innovations AG can be offset against future taxable profits indefinitely; at Pyrum Innovations International S.A. this period is limited to 17 years from the relevant year of origin.

The amounts of the deferred tax assets and liabilities are as follows:

	30 June 2023	31 December 2022
	Group EUR	Group EUR
Loss carryforwards	434.390,00	530.949,00
Long-term provisions		
	340.433,00	316.880,00
Purchased intangible assets		
	-559.413,00	-599.853,00
Internally generated intangible assets		
	-38.619,00	-23.882,00
Property, plant, and equipment	-83.566,00	-119.552,00
Government grants	-93.225,00	-104.542,00
Remainder after netting	0,00	0,00

VII. Related parties

Related parties have been defined in accordance with IAS 24.

The following are classed as related parties:

- all members of the Executive Board and the companies they control;
- all members of the Supervisory Board and the companies they control;
- all employees at the first level of management below the Executive Board and the companies they control;

and on the basis of the amount of its investment, possibly with other factors, the shareholders BASF Antwerpen NV and Amel Holding S.A.

Pyrum Innovation International S.A. is similarly a related party and has also been an affiliated company since 7 October 2021.

All transactions with related parties are entered into and carried out at arm's length.

Key transactions and relationships with related parties are described below:

Unchanged as against 31 December 2022, a tranche of EUR 5,000,000.00 of the BASF convertible loan has been extended as of 30 June 2023; EUR 4,700,000.00 of the convertible loan relates to the parent company. The loan is reported under other liabilities.

Interest-bearing loan liabilities continue to exist as before to the shareholder Benifin GmbH (EUR 107 thousand), the top executive of which is Alf Schmidt, chair of the Supervisory Board, and to the shareholder and Supervisory Board member Jürgen Opitz and the companies that he controls (totalling EUR 651 thousand).

Disclosures on the cash flow statement

VIII. Cash flow statement

Cash funds break down as follows:

	30 Jun. 2023	31 Dec. 2022	30 Jun. 2022	31 Dec. 2021
	EUR	EUR	EUR	EUR
Cash-in-hand and bank balances	5,638,307.65	12,725,508.05	19,467,860.22	34,446,013.72
less balances pledged as collateral	207,176.41	-207,003.48	-207,003.48	-207,003.48
Cash funds	5,431,131.24	12,518,504.57	19,260,856.74	34,239,010.24

A bank balance of Pyrum AG in the amount of EUR 207,176.41 has been pledged as collateral for bank loans of Pyrum AG.

The cash flow from operating activities is presented using the indirect method.

In accordance with the amended accounting standard DRS 21, payments received from public and private grants, in particular the research grants from public funding bodies that are based on the actual costs incurred, are now reported in the cash flow from operating activities. This figure also includes the majority of payments from subsidised research expenditures. To improve comparability, the previous year's figures were adjusted.

Investments not directly recognised as cash flows were conducted in previous financial years by entering into hire-purchase agreements. The planned repayments are recognised as a cash outflow of the cash flow from financing activities.

IX. Significant events after the end of H1 2023

On 11 July 2023, the third tranche of the convertible loan from Pyrum, which was available according to the milestone plan with BASF, was drawn and EUR 2 million was disbursed to Pyrum. This means that the convertible loan totalling EUR 7 million has been fully disbursed.

In addition, the remaining EUR 2 million from the loan agreed with BASF in May 2023 was disbursed.

A consulting contract for the planning of a new plant in Greece was also signed in the third quarter of 2023.

Other disclosures

X. Other disclosures

1. Employees

The average number of employees in the company was 68 in the reporting period (previous year: 56). Of these, 30 are industrial employees and 38 are salaried employees.

2. Executive bodies of the company

The Supervisory Board

Alf Schmidt

Chairman

Managing Director of IBG Industrie-Beteiligungs-Gesellschaft mbH & Co. KG

Renata Bandov

Deputy Chairwoman

Executive Director (in-house lawyer) - Listing Service & Rule Enforcement at Deutsche Börse AG

Jürgen Opitz

Managing Director of Satherm GmbH

Matthias Lindner

Division controller at BASF Petrochemicals Division

Hans-Jürgen Maas (since 13 July 2023)

Auditor and tax consultant, managing director of THS

Treuhand Saar Steuerberatungsgesellschaft mbH, Saarbrücken.

Manfred Alt (until 13 July 2023)

Deputy Chairman

of Counsel at ALT + Kollegen Steuerberatungsgesellschaft mbH

The Supervisory Board member Matthias Lindner was seconded by the shareholder BASF Antwerpen NV on the basis of the right of secondment added to the Articles of Association on 9 September 2020.

Executive Board

Pascal Klein

CEO

Michael Kapf

Deputy Chairman

Executive Board member for IT & Personnel

Kai Winkelmann

CFO

Other disclosures

Preparation of the interim consolidated financial statements

The Executive Board has today prepared the interim consolidated financial statements for the period from 1 January to 30 June 2023 and approved them for publication.

Pyrum Innovations AG

Dillingen/Saar, 14 September 2023

Pascal Klein
CEO

Michael Kapf
Member of the
Executive Board

Kai Winkelmann
Member of the
Executive Board

Auditors' Review Report

To Pyrum Innovations AG
Dillingen / Saar

We have reviewed the condensed interim consolidated financial statements of Pyrum Innovations AG, Dillingen / Saar – comprising the interim consolidated balance sheet, the interim consolidated income statement, the consolidated statement of changes in equity, the consolidated statement of cash flows and the condensed notes – and the interim group management report as of 30 June 2023 and for the period from 1 January to 30 June 2023.

Responsibilities of the Legal Representatives

The preparation of the condensed interim consolidated financial statements and the interim group management report in accordance with the requirements of German commercial law applicable to business corporations is the responsibility of the Pyrum Innovation AG management. In addition, the legal representatives are responsible for such internal control as they have determined necessary to enable the preparation of the condensed interim consolidated financial statements and interim group management report that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities

Our responsibility is to issue a report on the condensed interim consolidated financial statements and the interim group management report based on our review.

We performed our review of the condensed interim consolidated financial statements and the interim group management report in accordance with the German generally accepted standards for the review of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW) and additional application of the International Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity" (ISRE 2410). Those standards require that we plan and perform the review so that we can preclude through critical evaluation, with a certain level of assurance,

that the condensed interim consolidated financial statements not

- have been prepared, in all material respects, in accordance with the requirements of German commercial law applicable to business corporations, or
- give a true and fair view of the assets, liabilities and financial position, and of its financial performance in compliance with German Legally Required Accounting Principles or the interim group management report not, in all material respects,
- is consistent with the condensed interim consolidated financial statements or
- complies with the German legal requirements or
- provides, as a whole, an appropriate view of the group's position or appropriately presents the opportunities and risks of future development.

[translation of the sole authoritative German report]

BRBD Reger Hecht GmbH

Wirtschaftsprüfungsgesellschaft

A review is limited primarily to inquiries of parent entity's employees and analytical assessments and therefore does not provide the assurance attainable in a financial statement audit. Since, in accordance with our engagement, we have not performed a financial statement audit, we cannot issue an auditor's report.

Review Opinion

Based on our review, no matters have come to our attention that cause us to presume that the condensed interim consolidated financial statements not

- have been prepared, in all material respects, in accordance with the requirements of German commercial law applicable to business corporations, or
- give a true and fair view of the assets, liabilities and financial position, and of its financial performance in compliance with German Legally Required Accounting Principles or the interim group management report not, in all material respects,
- is consistent with the condensed interim consolidated financial statements or
- complies with the German legal requirements or
- provides, as a whole, an appropriate view of the group's position or appropriately presents the opportunities and risks of future development.

Frankfurt am Main, September 14, 2023

BRBD Reger Hecht GmbH
Wirtschaftsprüfungsgesellschaft

[original version signed by:]

[original version: professional seal]

Christian Hecht
Wirtschaftsprüfer [German Public Accountant]

[translation of the sole authoritative German report]