Xebec Adsorption Inc.
Management's Discussion and Analysis
First Quarter ended March 31, 2022

May 11, 2022

Additional information relating to the Company can be found on SEDAR at www.sedar.com

The following Management's Discussion and Analysis ("MD&A") provides a review of Xebec Adsorption Inc. ("Xebec" or the "Company") results of operations, financial condition and cash flows for the period ended March 31, 2022. This discussion should be read in conjunction with the information contained in the Company's consolidated Financial Statements.

The Company's subsidiaries are designated as follows: "Xebec Holding USA" for Xebec Holding USA Inc.; "Xebec Europe" for Xebec Adsorption Europe SRL; Xebec Europe B.V.; "CAI" for Compressed Air International Inc.; "ACS" for Applied Compression Systems Inc.; "RNG Holding" for Xebec RNG Holding Inc.; "GNR Bromont" for GNR Bromont L.P.; and "GNRQC" for GNR Quebec Capital L.P.

The Company recognizes and presents "Xebec Shanghai" for Xebec Adsorption (Shanghai) Co. Ltd. as an equity investment.

Xebec Holding USA Inc. has eight subsidiaries, "CDA" for CDA Systems LLC; "Xebec USA" for Xebec Adsorption USA Inc; "Air Flow" for Enerphase Industrial Solutions Inc.; "Titus" for The Titus Company; "Nortec" for Nortekbelair Corporation; "California Compression" for California Compression, LLC; and "Wisconsin" for XBC Flow Services – Wisconsin Inc and "UEC" for Xebec Systems USA LLC.

Xebec RNG Holdings Inc. has two wholly owned subsidiaries, GNR Bromont Management Inc. and GNR Quebec Capital Management Inc., both of which are wholly owned. GNR Bromont Management Inc. owns the 1% remaining of GNR Bromont L.P. and GNR Quebec Capital Management Inc owns 0.001% of GNR Quebec Capital L.P.; and Xebec Holding UK Limited.

Xebec Europe B.V. has two wholly owned subsidiaries: Xebec Deutschland GmbH and Green Vision Holding B.V. Green Vision Holding B.V owns HyGear Technologies and Services B.V., which has six subsidiaries: HyGear Operations B.V., HyGear B.V., Xebec Adsorption Asia PTE LTD, HyGear Fuel Cell B.V. and HyGear Hydrogen Plant B.V., which are wholly owned, and Buse HyGear LTD which is 50% owned. Buse-HyGear LTD is expected to start its activities in 2022. Xebec Deutschland GmbH has three wholly owned subsidiaries: Xebec Komplementar GmbH, Inmatec Gase Technologie GmbH & Co. KG and Inmatec Gas Technology FZC RAK.

Xebec Holding UK Limited has one wholly owned subsidiary: Tiger Filtration Limited ("Tiger").

The information contained in this MD&A and certain other sections of this report includes some figures that are not performance measures consistent with International Financial Reporting Standards ("IFRS"), such as earnings (loss) before interest, tax, depreciation and amortization ("EBITDA"), and Adjusted EBITDA (excluding integration and acquisition costs, and other gains and losses arising from significant strategic transactions or material events). The Company uses EBITDA and Adjusted EBITDA because these measures enable management to assess the Company's operational performance. These measures are widely accepted financial indicators of a company's financial performance. Investors should not regard these measures as alternatives to operating revenues or cash flows, or as measures of liquidity. As these measures are not established in accordance with IFRS, they might not be comparable to those of other companies.

Definitions of all non-IFRS financial measures are provided in Section 14 to give the reader a better understanding of the indicators used by management. In addition, when applicable, the Company provides a quantitative reconciliation of the non-IFRS financial measures and ratios to the most directly comparable measure calculated in accordance with IFRS.

The information contained in this Management's Report accounts for any major event occurring up to May 11, 2022, the date the Board of Directors approved the Condensed Interim Consolidated Financial Statements and Management's Report for the period ended March 31, 2022. It presents the Company's status and business context as they were, to management's best knowledge, at the time this report was written.

Unless otherwise indicated, all financial information presented in this MD&A, including tabular amounts, is in Canadian dollars and is prepared in accordance with IFRS. Certain totals, subtotals and percentages may not reconcile due to rounding.

This document contains forward-looking statements, which are qualified by reference to, and should be read together with, the "Forward-looking Statements" cautionary notice on page 38 of this MD&A.

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1. OUR BUSINESS

About Us

Established in 1967, Xebec has over 50 years of experience, supplying more than 20,000 systems to clients worldwide for industrial and cleantech applications. Our foundation is industrial, our focus today is cleantech and our future is a world powered by clean energy.

Xebec Adsorption Inc. is a global provider of sustainable gas solutions used in energy, mobility and industry applications. The Company specializes in deploying a portfolio of proprietary technologies for the distributed production of hydrogen, renewable natural gas, oxygen and nitrogen. By focusing on environmentally responsible gas generation, Xebec has helped thousands of customers around the world reduce their carbon footprints and operating costs. Headquartered in Québec, Canada, Xebec has a worldwide presence with nine manufacturing facilities, sixteen Cleantech Service Centers and five sales offices spanning over four continents.

Vision. Mission. Purpose. People.

Xebec's **Vision** is "A world powered by clean energy".

Xebec's **Mission** is to transition to a low carbon future by accelerating the production of renewable and low carbon gases.

Xebec's **Purpose** is profitable growth for a sustainable future as only a profitable company will have the strength and resources to support its employees, satisfy its shareholders, grow the company and the economy, and contribute positively to society while preserving and safeguarding our environment.

Xebec's **People** work hard to deliver profitable growth. Our senior leaders set direction, create customer focus, define clear and visible values, and communicate high expectations and goals for the organization. Our strategies, systems, and methods for achieving performance excellence are developed to stimulate innovation, build knowledge and capabilities in an environment of respect, trust, diversity and teamwork.

Profitable growth is also the foundation for attracting and retaining talented, motivated and engaged employees. We are focused on building highly skilled and motivated teams that can meet the end-to-end needs of a rapidly developing company and support the evolving renewable gas industry.

- Over 650 employees worldwide as of March 31, 2022
- Over 20 departments in a full range of disciplines from Sales, Finance, HR, Design, Engineering, Manufacturing, Production, Quality, Logistic, Service and Others
- Six engineering specialties including Process, Mechanical, Electrical, Controls, Manufacturing and Service Engineering.
- A range of qualifications including specialized and technical degrees, masters and doctorates
- A culturally diverse workforce with more than a dozen nationalities and languages from the

global community

Our Products

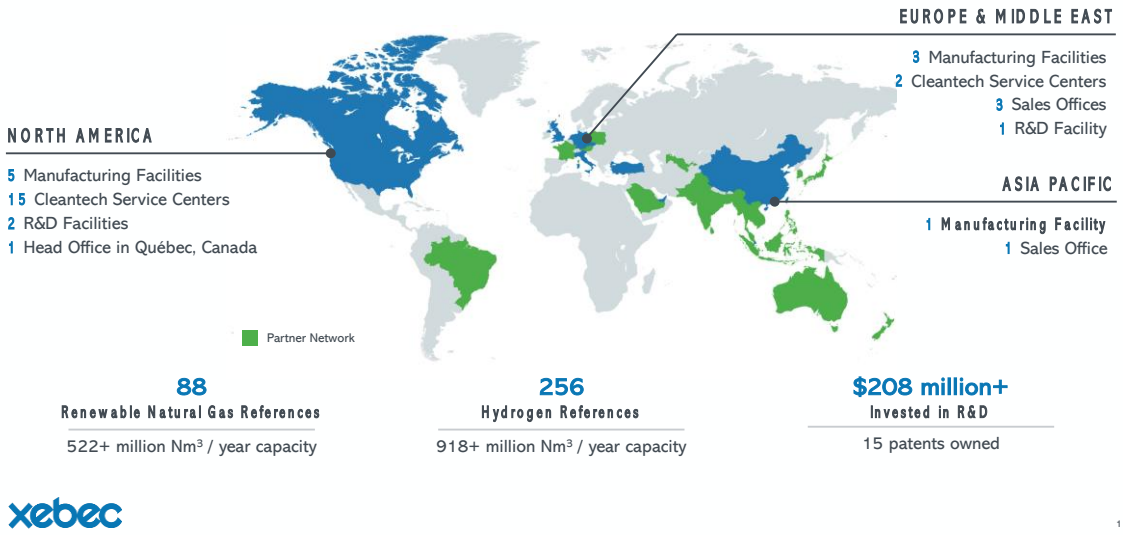
- Systems to convert biogas to renewable natural gas (“RNG”) from agricultural digesters, source separated organics facilities, landfills and wastewater treatment plants (“WWTP”)
- Small-scale, on-site systems for hydrogen generation from steam methane reforming of RNG or from electrolysis using renewable electricity
- Carbon capture equipment for removal of CO2 from assorted gas streams and compression of CO2 for transport
- Hydrogen generation and purification systems for energy, mobility and industrial applications
- Natural gas dryers for natural gas vehicles (“NGV”) refueling stations
- Energy-efficient compressed air dryers & compressed air and gas filters for a broad range of industrial applications
- Industrial purification systems, compressor packages, vacuum pumps, dryers, and chillers for air & gas streams
- Small-scale, on-site oxygen and nitrogen generators for industrial and healthcare applications
- Air & gas filters

Our Customers and Suppliers

Our technologies are deployed throughout the world and cover industries as diverse as renewable energy, transportation, industrial gases, commercial and industrial manufacturing operations, health care establishments, petrochemicals and pharmaceuticals.

International Footprint and Certifications

Xebec has established a direct presence and is focused on North America, Europe, the Middle East, and Asia; however, our business is global. Xebec works with several partner firms to establish a presence in new markets of interest. Xebec has obtained a variety of product and process certifications for the delivery of its products and systems in several different jurisdictions, including Europe, North America, Africa, the Middle East and Asia.



Technology

Adsorption

Almost all industrial gases, whether they are inert, flammable, acid, reactive, or oxidizing, can be purified or dried using what is commonly known as adsorption technology. Adsorption technology is used to remove targeted impurities or separate bulk mixtures. This technology is used in many industrial gas treatment processes including biogas separation and purification, hydrogen production and recovery, air separation, and oxygen enrichment for medical applications as well as drying applications for air, natural gas, carbon monoxide, carbon dioxide, sulfur dioxide, acetylene, propylene, propane, and syngas.

Pressure Swing Adsorption ("PSA")

Xebec's proprietary technology replaces the complex and bulky network of piping and valves used in conventional Pressure Swing Adsorption ("PSA") systems with two compact, integrated valves. Especially for biogas to RNG, Xebec's advanced biogas upgrading systems improve methane recovery rates, reduce operating costs and, consequently, improve the profitability of the project for the owner. Xebec's rotary valve technology is also integrated into some of its advanced hydrogen and gas purification products which operate at significantly higher cycle speeds (up to 50 cycles/minute) than conventional PSA systems. This results in a direct reduction in the amount of adsorbent material, the size of the equipment and the amount of energy required to purify a given volume of feed gas.

Xebec has one of the most compact, cost-effective and reliable PSA technologies available on the market. With minimal pressure drop, remarkable uptime performance, and occupying a fraction of the footprint of conventional systems, Xebec PSA systems have earned a reputation for easy, flexible

installation and problem-free, economic performance. Xebec's PSA technology is a versatile platform typically found as a component in many of the Company's products, including Biostream™, steam methane reformers, industrial gas recycling and its industrial gas purification systems.

Xebec's Proprietary PSA Advantage

- Proprietary and proven technology
- Lowest life cycle cost systems
- Reliable, quality reputation with thousands of adsorption units in the field
- In-house capabilities in relevant engineering discipline and complete production expertise
- A unique, win-win business model: sell innovative products to partners who then develop and serve local markets while Xebec drives aftermarket revenue with its proprietary technology or offers complete systems to end-users in clearly identified markets
- Commercial readiness to take advantage of opportunities driven by government incentives as well as regulations to curb CO2 emissions in transportation

Steam Methane Reforming

Hydrogen today is predominantly generated in two different ways. Xebec, through the HyGear acquisition in December 2020, miniaturized the most common technology to generate hydrogen on-site and in a decentralized manner. These hydrogen generation systems are built inside shipping containers, which makes them easy to transport and small in environmental footprint. They are based on SMR technology, a process by which hydrogen is created out of water and natural gas. These systems operate autonomously; once the system is installed at a customer's site and connected to the grid, the system has no need for an operator. It automatically follows the demand levels and increases or decreases its production based on the requirements of the customer.

Electrolysis

Xebec's second hydrogen generation technology is based on electrolysis, a process by which hydrogen is generated from water and electricity. The Company's systems are based on alkaline stacks, as this is a reliable and cost-effective solution for electrolysis. These systems are slightly larger compared to the SMR systems and for that reason only the 50 m3/h and 100 m3/h systems are built inside shipping containers. The larger systems, 150 m3/h and 250 m3/h, are both skid mounted. Like the SMR based systems, the Company's electrolyser systems are automated, do not require an operator, and can be load-following to ensure the customer always receives the correct volume of hydrogen.

On-site Oxygen and Nitrogen Generation

Using a form of adsorption and membrane-based technology, Xebec leverages these two proprietary technologies for generation of oxygen and nitrogen on-site. With nitrogen and oxygen production directly on site, customers avoid delivery bottlenecks and support the protection of the climate and the environment with the help of environmentally friendly gas generation.

Filtration

Air and gas filters are used to separate liquid droplets, particles or solid contaminants, and oil vapor out of air and gas flows. Xebec offers a range of specialized filters, including natural gas filters for onboard natural gas-fueled vehicles.

2. OUR OVERALL BUSINESS STRATEGY

Transitioning Our World to Sustainable Gases

Xebec has a clear strategic direction over a multi-decade horizon, as the world mobilizes to transition to a low-carbon economy. The challenge is how to best position the Company in this rapidly evolving field, to leverage our technological know-how, size, and improving flexibility to capture opportunities arising from successively emerging technologies and equipment having a life cycle of approximately 15 to 20 years.

We believe sustainable gases are a necessary component of a sustainable future. For Xebec, this means decentralized and on-site production of renewable and low carbon gases used in energy, mobility and industry. Decentralized production enables local ecosystems to become more efficient, allowing customers to reduce costs (35-75%) and emissions (partial or complete elimination). Xebec makes decisions based off this dual goal of cost and carbon reductions to ensure the long-term viability of the Company's business model while also safeguarding the environment.

To translate this long-term vision into a series of short-term strategic priorities, we have implemented a rolling three-year strategic plan approach. Our current three-year plan is articulated around three axes:

- Offer low, zero or negative carbon gases through significant expansion of our sustainable gas technologies. This translates into decentralized solutions in: biogas upgrading, hydrogen, carbon capture, and nitrogen and oxygen production.
- Continue to grow a Cleantech Service Network to support the growing number of RNG, hydrogen and carbon capture installations.
- Focus on profitable growth for a sustainable future.

Furthermore, given Xebec's diversified nature, the strategy is fine-tuned by market segment and geography.

Three-Year Strategic Plan Highlights

As presented at Xebec's inaugural analyst and investor day in Denver, Colorado on March 29, 2022

- **Adding U.S. renewable natural gas manufacturing and sales base** with a focus on small-scale agricultural applications, paired with a significant ramp up in annual Biostream production run

rate (from 4 units in 2020 to over 100 units targeted in 2024).

- **Going global with hydrogen business** supported by targeted industrial customers as demand from the hydrogen mobility sector ramps up, with a target of 20–25 decentralized hydrogen production hubs by 2024.
- **Expanding our PSA and compression technologies for Carbon Capture Utilization and Storage ("CCUS")** to reduce the carbon intensity of both our Cleantech Systems and to enter new markets in CO2 source capture and transportation.
- **Introducing XBC Flow Services** as a unified brand to encompass the U.S. Cleantech Service Network, industrial product sales & distribution, and targeting CAD$150+ million in global segment revenues by 2024.
- **Building on strong partnerships** in North America and China to support OEM growth and create long-term value.
- **Invest in new clean technologies** to help drive new business models by the end of 2025 and beyond, with a target of 2-3% per year of revenues earmarked for R&D.
- **Financial goals** of CAD$300–$350 million in revenues and adjusted EBITDA margin (non-IFRS) of 8-10% by 2024, representing up to a 40% revenue CAGR and an improvement in adjusted EBITDA margin (non-IFRS) from (7%) for our fiscal year ended December 31, 2021.

3. OUR BUSINESS SEGMENTS

Cleantech (Systems)

Renewable Natural Gas (RNG)

RNG is a significant opportunity for Xebec in the immediate term. Climate change is driving the energy transition toward 100% renewables, including the displacement of fossil natural gas with RNG. As much as wind and solar have been the prevalent renewable energy over the past 20 years, we are now at the cusp of similar strong growth for RNG[1].

Climate change is the macroeconomic driver for the adoption of renewable, zero-carbon energy, but for RNG we are seeing an additional driver, namely gas utilities and oil majors. As electricity utilities are successfully shifting to renewable solar and wind energy, gas utilities are 20 to 25 years behind in their adoption of renewable energy. It is leaving them in a precarious position as they face declining demand for their products and services, driven by an acceleration toward electrification of their customer base, especially in home-heating, water heaters, and gas stoves. Investors in traditional energy companies are starting to see the prospect of significant losses and hundreds of billions of dollars of stranded gas assets if the business model does not shift towards a low carbon option.

The good news is there is increasing alignment between policymakers and gas utilities to support this shift toward RNG with appropriate legislation and regulation. In Europe, several countries have

[1] https://theconversation.com/the-global-community-is-finally-acting-on- climate-change-but-we-need-to-switch-to-renewable-energy-faster-119841

announced targets to be completely fossil fuel-free by 2050, implying a complete shift to decarbonization options such as RNG. Accordingly, gas utilities and governments around the world are assessing their transition timelines and major energy players such as Engie in France (former Gaz de France), have announced their own plans to be 100% renewable gas by 2050[2], and states or provinces such as California have announced 12% renewable gas target by 2030[3], while Québec is targeting 10% by 2030[4].

RNG Market Drivers and Size

- The urgency, driven by these new environmental targets and governmental policy and regulations incentivizing utilities and businesses to use renewable gases, has resulted RNG being priced within the range of $9 to $150 USD MMBtu, or 2 to 30 times the price of fossil natural gas[5].
- RNG or renewable gas targets by states, provinces and countries around the world.
- As the cost of biogas products continues to decrease and markets develop, there will be a growing global market share of small-scale biogas solutions in the sub 250-300 Nm3/hr flow rates.
- According to the American Biogas Council, it is estimated that 8,574 dairy, poultry, and swine farms are primed for biogas and RNG production.
- Xebec estimates its obtainable market is in the hundreds of RNG systems per year in the markets we operate in, namely North America, representing a total market size of over $12 billion USD.

The transition toward 100% RNG is expected to involve three phases, starting with anaerobic digestion (organic waste converted to RNG), followed by pyro-gasification (the conversion of cellulosic forestry waste to RNG) and finally followed by Power-to-Gas ("P2G") (the conversion of electricity to gas for energy storage). Xebec has a position in each of these commercial opportunities, either through gas purification or through methanation technology which is applicable to P2G.

Xebec's RNG Strategy

- Focus on agricultural projects as they represent the largest opportunity of all the subsectors (WWTP, landfill, source separate organics, agriculture) by number of units, with a goal to capture 25%+ North American anaerobic digester applications.
- Execute on the successful transition to standardized, containerized systems from large-scale, custom systems – a key differentiator from competitors.
- Accelerate customer education on the lifecycle cost and reliability benefits of PSA technology versus membrane and other legacy technologies (e.g., water wash, chemical scrubbing).

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[2] https://www.snam.it/en/Media/Press-releases/2018/gas-for-climate.html

[3] https://www.prnewswire.com/news-releases/socalgas-applauds-establishment-of-first-renewable-gas-standard-in-the-united-states-301490159.html

[4] https://www.quebec.ca/en/government/policies-orientations/plan-green-economy

[5] https://www.epa.gov/sites/production/files/2018-11/documents/7._deanna_haines-508.pdf

- Develop smaller variants of the Company's Biostream product to accommodate even smaller flow rates as projects become more accessible due to improving economics and other feedstocks come online (e.g., swine manure).
- Leverage the Cleantech Service Network as a competitive advantage to secure customers by providing them parts, service, operations, and maintenance, as well as peace of mind.

Hydrogen

As a result of the acquisition of HyGear, Xebec acquired a leading small-scale SMR and electrolysis technology with a reference base of more than 80 hydrogen generation installations worldwide to both industrial and the fast-growing hydrogen fuel market.

The acquisition positioned Xebec to execute and accelerate its distributed hydrogen generation strategy, which focuses on on-site production of smaller hydrogen quantities. HyGear's SMR technology provides access to new markets and enables Xebec to launch a commercially viable green and cyan (carbon negative) hydrogen product offering. Moreover, HyGear's products and technologies complement Xebec's PSA platform which has been deployed in over 200 installations worldwide for hydrogen purification.

Xebec believes it is critical to focus first on the displacement of existing use cases for hydrogen which predominantly revolves around industrial applications. This approach of using the industrial sector as a launchpad for hydrogen mobility, allows Xebec to build technology, expertise and local supply and be ready for when the mobility sector comes online.

Xebec has built decentralized production hubs ("DPHs"), with one DPH in The Netherlands and one in development in the United Kingdom, that allow the Company to maximize asset utilization and create more local hydrogen supply for filling and refueling stations. Building additional DPHs continues to be a core component of this segment's strategy as Xebec looks to expand geographically.

Xebec considers hydrogen purification for fuel cell applications and hydrogen as fuel for FCEVs to be another significant opportunity over the next decade and beyond. As fuel cells gain traction, the market will increasingly look for specialized purification solutions in a compact design. Xebec is already working with several fuel cell manufacturers in Europe, North America and China to provide such equipment.

Xebec has formed strategic partnerships in the hydrogen space to offer integrated systems, from hydrogen generation to refueling, namely with FuruiHP in China, JNK Heaters in South Korea, and Coregas, a Wesfarmers company, in Australia and New Zealand. In addition, Xebec's joint venture partner, Shanghai-based Shenergy Group, has been nominated to build-out the Shanghai hydrogen refueling infrastructure.

Industrial Hydrogen Market Drivers and Size

- For industrial customers who want to not only reduce costs but also carbon and air particulate emissions from their hydrogen supply, Xebec offers cost savings between 35% to 75% and significant carbon emission reductions depending on the feedstock used.
- Centralized facilities for hydrogen production are a legacy business model which opens room

for disrupting local hydrogen supply in markets where production facilities are far from the delivery destination. On-site hydrogen production cuts out transportation which is the largest cost component in delivered hydrogen.

- Xebec's focus is on smaller quantities of hydrogen which are used in processes within flat glass manufacturing, food manufacturing, metal treatment, semiconductors, lubricant recycling, research, and refueling stations.
- Xebec estimates there are over 1,850 industrial facilities worldwide that could utilize the smaller flow rates offered by Xebec's on-site hydrogen generation technologies.
- The Biden administration launched an industrial decarbonization initiative with $9.5 billion USD for clean hydrogen[6].

Hydrogen Mobility Market Drivers and Size

- Organizations and countries around the world are becoming deeply invested in hydrogen such as Hyundai's $6.7 billion USD investment to boost fuel-cell output[7]; Germany's funding of €8 billion for 62 IPCEIs[8]; Japan's Ministry of Economy, Trade, and Industry's hydrogen funding of approximately $560 million USD for 2019.
- As of 2021, countries that have adopted hydrogen strategies have committed at least $37 billion USD along with the private sector announcing an additional investment of $300 billion USD[9].
- Countries are also specifically investing in fuel cells. China, for example, has broadcast plans to emerge as the fuel cell leader over the next 10 years, with ambitions deploy one million FCEVs by 2030 and with a refueling infrastructure target of over 1,000 hydrogen refueling stations[10].
- As the on-road FCEV market evolves globally, the need for renewable hydrogen (RH2) is expected to grow. RH2 can be produced through electrolysis using renewable electricity, or through steam methane reforming of RNG (upgraded biogas to RNG). Consequently, RH2 is one of the lowest cost sources for a carbon neutral form of hydrogen, making it an ideal low carbon transport fuel.
- As announced by industry participants like Nikola, Budweiser, Cummins and Hanwha, there is an urgent need to deploy a distributed hydrogen fueling infrastructure to support the launch of the heavy-duty trucking fleets with fuel cells. The potential for on-site hydrogen generators at truck stops is significant, and according to available data could initially be 600 to 1,000 on-site containerized SMR units.

Xebec's Hydrogen Strategy

[6] https://www.utilitydive.com/news/biden-launches-initiatives-decarbonize-industrial-sector-hydrogen/618928/
[7] https://www.auto123.com/en/news/hyundai-investing-billions-hydrogen-nexo-fcev/65408/
[8] https://www.csis.org/analysis/germanys-hydrogen-industrial-strategy
[9] https://iea.blob.core.windows.net/assets/e57fd1ee-aac7-494d-a351-f2a4024909b4/GlobalHydrogenReview2021.pdf
[10] https://www.electrive.com/2019/09/04/china-wants-1-million-fcevs-on-their-roads-by-2030/

- Use the industrial sector, a successful hydrogen business model today, as a launchpad for hydrogen mobility in order to operate profitably while still being able to participate in high-growth mobility as demand comes online.
- Build expertise in hydrogen generation, compression, storage and delivery with these industrial customers.
- Accelerate the deployment of DPHs by partnering with infrastructure funds to leverage their lower cost of capital and to gain scale.
- Transition from one-time equipment sales to recurring Gas-as-a-Service contracts to support more profitable and predictable revenue streams.
- Expand into North America by bringing technology from Europe to access new industrial customers and new locations with existing customers.
- Leverage RNG sale and business development resources to promote SMR based products to produce green hydrogen.
- Continue to execute a pipeline of new products and services for the hydrogen market.

Carbon Capture and Sequestration

Carbon capture and sequestration is an emerging segment for Xebec, with demand from customers to assist them in further reducing the carbon emissions from its equipment and to build new cleantech solutions. Xebec initially started by utilizing its PSA platform for new applications in separating associated gas streams. This was showcased with a partnership that Xebec announced in 2020 with Washington-based CarbonQuest.

The Company is now accelerating its efforts to gain more exposure in the carbon capture and sequestration market, including developing carbon capture modules for its RNG and hydrogen systems, compressor packages for CO2 transport, and continuing to leverage its PSA platform for CO2 separation applications.

Carbon Capture and Sequestration Market Drivers and Size

- As of May 2021, there were 64 carbon pricing policies in operation or scheduled for implementation covering 22% of worldwide emissions[11]. Prices on carbon further incentivize the need for capturing carbon from existing sources.
- Carbon capture utilization and storage ("CCUS") will be an important tool for hitting the required net zero scenarios by 2050 as outlined by IEA, which equates to 1.7 billion tonnes of CO2 capture capacity deployed by 2030[12].
- The U.S., a core market for Xebec, has a tax credit for sequestering carbon, called 45Q, which is scheduled to rise to $50 USD a tonne in 2026. Congressional bills have proposed raising the credit to $85 USD per tonne.
- If the U.S. is to deliver on net-zero ambitions to bury or utilize 1 billion tonnes of carbon per

[11] https://citizensclimatelobby.org/laser-talks/carbon-prices-around-world/
[12] https://www.iea.org/fuels-and-technologies/carbon-capture-utilisation-and-storage

year by 2050, it will need 19,000 kilometres (11,806 miles) of carbon pipelines, moving at least 65 million tonnes per year by 2030, according to a 2021 Princeton University study[13].

- CO2 transport in pipelines needs to be compressed to a higher pressure, driving the need for Xebec's compression platform.

Xebec's Carbon Capture Strategy

- Respond to existing customer needs for continued carbon emission reductions of products as new regulations and incentives come online.
- Invest in emerging carbon capture technologies which allow the Corporation to continue its competitive edge and goal of reducing the emissions and costs of gases.
- Partner with key market participants to leverage our technologies within their applications and projects.

On-site Oxygen and Nitrogen Generation

As a result of the acquisition of Inmatec, Xebec now offers several products for the on-site generation of nitrogen and oxygen, which significantly reduces the burden on the environment and costs for customers. Inmatec's compact generators do not require cylinders and bundles to be delivered by truck on a regular basis, resulting in environmentally friendly gas generation through reduced CO2 emissions, particulate matter, delivery bottlenecks and congestion on the road network.

On-site oxygen generators are also used directly in the production of biogas and RNG. Oxygen is used to desulphurize (remove H_2S) biogas plants, as a targeted and accurately dosed addition of oxygen introduced into the fermenter promotes bacteria development. The bacteria decompose the H2S microbially and, in doing so, help prevent damage to biogas production plants.

Oxygen & Nitrogen Market Drivers and Size

- Like hydrogen, on-site oxygen and nitrogen generation provides a more economical option for smaller flow rates as customers look to reduce costs and emissions.
- Global oxygen and nitrogen markets are valued at approximately $30.0 billion and $26.1 billion USD worldwide respectively[14]. Our oxygen and nitrogen products are, in many cases, displacing existing market sources typically provided by the industrial gas giants.

Xebec's Oxygen & Nitrogen Strategy

- Drive organic growth by expanding the global presence of our distributor network, while capturing more aftermarket business through them.
- Leverage existing sales offices by bringing generator manufacturing to the U.S. and selling

[13] https://www.reuters.com/business/sustainable-business/n-americas-old-pipelines-seek-new-life-moving-carbon-climate-push-2022-02-23/

[14] Company estimates

turnkey products to new international markets.

- Drive synergies through existing subsidiaries and customers to cross-sell products, source parts and optimize manufacturing utilization.

Systems Product Lines

We offer a full suite of products based on proprietary technologies in the following categories:

- Biogas to RNG systems under the BGX Solutions® brand
- Hydrogen purification systems under the H2X Solutions® brand
- Natural gas dehydration units for refueling stations under the NGX Solutions® brand
- SMR products for production of hydrogen from (renewable) natural gas under the Hy.GEN brand
- Electrolysis products for production of hydrogen from electricity under the Hy.GEN-e brand
- On-site oxygen and nitrogen generators under the Inmatec brand
- Custom and standardized compressor packages for (renewable) natural gas, hydrogen, CO2 and specialty gases

Support – Industrial Products & Services

Service, maintenance and operational support are foundational components in the clean energy business where multi-year, multi-million-dollar project commitments hinge on reputation, reliability, and resilience. This segment is the foundation for the Company's Cleantech Service Network which is a long-term initiative to build a service footprint to support customers, create a competitive advantage and capture aftermarket value.

With over 50 years of experience in adsorption technology, Xebec manufactures and services industrial equipment for compressed air and gas dehydration, separation, purification and filtration worldwide.

To date, Xebec has supplied more than 20,000 adsorption systems to more than 1,500 customers for a wide variety of industrial applications such as manufacturing, food processing, medical & pharma, and petrochemical industries. This historically high margin business creates a significant recurring revenue base with 60-70% of revenues recurring from sales of parts and service.

Industrial Service and Support Market Drivers and Size
Xebec estimates that the U.S. market is approximately $700 to $800 million USD for Xebec related products, with the Canadian market for similar products estimated to be in the range of approximately $60 to $70 million USD. Xebec estimates that its service network is ranked third largest in North America by number of technicians and service revenues.

Xebec's Industrial Service and Support Strategy

- Growth in this segment for Xebec has historically been driven by acquisitions of sole proprietor

led businesses across North America.

- Our goal is to support the cleantech OEM business with technicians and personnel who can oversee product installation, commissioning, multi-year service contracts, aftermarket and ancillary products.
- Enables Xebec to sign 5-10+ year service contracts on RNG, hydrogen and carbon capture equipment, which we expect to be comparable in revenues to the OEM equipment sale over the period.
- Targeting approximately 30 service locations by 2025, resulting in a yearly revenue run rate in the segment of approximately $250 million by year-end 2025.
- Launch independent manufacturer representatives network to cross-sell industrial and cleantech products.

Support Product Line & Services

- Multi-year service agreements for cleantech systems equipment
- Compressed air and gas compression packages, dryers and filters
- On-site air dehydration
- Products for the filtration & separation of air and gases
- Industrial process chillers
- Fluid savers and pumping stations
- Spare parts and replacement filter elements
- Dew-point probes and calibration services
- Regular and 24-hour emergency compressed air service & maintenance
- All of these products and services will operate under the XBC Flow Services brand

Renewable Gas (Infrastructure)

Activity in this segment is being driven by newly established renewable gas requirements in two Canadian provinces, combined with continuing efforts by the Canadian federal government to become net-zero by 2050. GNR Quebec Capital L.P., (GNRQC) a limited partnership created by Xebec and the Fonds de solidarité FTQ, identifies locations and partners for the deployment of high-quality renewable gas assets to produce low carbon RNG that can not only fill the current provincial requirements but also the future requirements under potential federal legislation.

The fund has evaluated 31 projects to date and is actively engaged with 18 greenfield and brownfield projects in agriculture, municipal, landfill, mixed use, and industrial waste applications. The fund has now successfully executed several letters of intent (LOI) for projects in Québec, Canada.

4. Key Events

Key Events in Q1 2022

- March 29, 2022, Xebec presented its three-year strategic plan to power its growth in sustainable gases
- March 28, 2022, Xebec signed an MOU with Summit Carbon Solutions for 51 carbon dioxide (CO_2) reciprocating compression packages
- March 17, 2022, Xebec announced the accelerated transition of Jim Vounassis into the role of President and CEO
- February 24, 2022, Xebec announced the resignation of Karen Nielsen from Xebec's Board of Directors
- February 23, 2022, Xebec announced that it would be hosting its first analyst and investor day in Denver, CO on March 29, 2022
- February 8, 2022, Xebec announced that Kurt Sorschak would retire as Chairman, President and Chief Executive Officer effective May 12, 2022, with Jim Vounassis to be appointed President and CEO and Mike Munro to assume the role of COO
- February 4, 2022, Xebec signed an agreement for the exclusive supply of the Company's pressure swing adsorption technology to Air Liquide Advanced Technology US, for North American based helium projects
- February 1, 2022, Xebec announced that it signed a contract with Belgium-based Desmet Ballestra Group to deliver the company's first Hy.GEN-e on-site electrolyser unit for a food application

5. Q1 2022 Results Highlights

- For the three-month period ended March 31, 2022, Xebec reported revenues of $41.2 million, a $20.6 million or a 100% increase compared to $20.6 million for the same period in 2021
- Order bookings increased from $88.5 million as at May 12, 2021, to $260.5 million as at May 11, 2022, representing a 194% increase
- Net loss for the three-month period ended March 31, 2022 was $18.4 million, representing EPS of ($0.12), compared to a net loss of $10.1 million, representing an EPS of ($0.07), for the same period last year
- Adjusted EBITDA loss increased from $4.9 million for the three-month period ended March 31, 2021 to $9.0 million for the three-month period ended March 31, 2022
- Adjusted EBITDA loss excluding legacy BGX activities increased from $1.7 million for the three-month period ended March 31, 2021 to $6.4 million for the three-month period ended March 31, 2022
- Working capital decreased from $82.1 million as at December 31, 2021, to $66.6 million as at March 31, 2022 (current ratio decreased from 1.96 to 1.83)
- Quick Ratio decreased from 1.19 as at December 31, 2021 to 0.95 as at March 31, 2022

6. OPERATING RESULTS

Selected Financial Information

(in millions of $) Q1

	For the three-month period ended March 31,	
	2022	2021
Systems	18.8	9.9
Support	22.4	10.7
Total revenue	**41.2**	**20.6**
Total COGS	**36.6**	**16.4**
Gross margin	**4.6**	**4.2**
Gross Margin %	**11%**	**20%**
Research and Development expenses	0.7	0.5
Selling and administrative expenses	16.2	10.7
Other (gains) and losses	3.7	1.7
Share of after-tax profit of equity accounted investees	0.6	0.1
Operating profit (loss)	(16.7)	(8.8)
Finance expenses	1.9	1.2
Income taxes	(0.1)	0.1
Net profit (loss)	**(18.4)**	**(10.1)**
Net profit (loss) per share	(0.12)	(0.07)
ADJUSTED EBITDA (1)	(9.0)	(4.9)
Adjusted EBITDA excluding legacy BGX activities	(6.4)	(1.7)
Cash used in operating activities	(11.3)	(20.2)
Cash and restricted cash	34.7	51.1
Working capital	66.6	82.1
Total Assets	464.1	496.6
Total non-current liabilities	91.9	96.6

(1) Adjusted EBITDA is Non-IFRS measure. Refer to section 13 - Reconciliation of Non-IFRS Measure.

Highlights for the three-month period ended March 31, 2022, compared to the three-month period ended March 31, 2021:

- ***Revenues*** increased by $20.6 million to $41.2 million for the three-month period ended March 31, 2022 compared to $20.6 million for the same period the prior year. The increase is mainly explained by the integration of newly acquired companies, delivery of second-generation Biostreams and organic growth initiatives. The increase is partly offset by the reduction of revenue from our Shanghai Joint-Venture as it was fully consolidated last year.

- **Gross margin** increased from $4.2 million to $4.6 million for the three-month period ended March 31, 2022 compared to the same period the prior year. The gross margin % decrease from 20% to 11% is due to loss provisions taken for legacy RNG contracts currently in the startup and commissioning phase, lower margin hydrogen contracts and increasing material and supply chain costs.

- **Selling and administrative expenses ("SG&A")** for the three-month period ended March 31, 2022 were $16.2 million, an increase of $5.5 million, compared to $10.7 million for the same three months of 2021. $2.2 million of the increase was associated with depreciation and amortization of intangible assets in addition to SG&A expenses associated with newly acquired companies.

- ***Research and development expenses*** of $0.7 million for the three-month period ended March 31, 2022 related to the continued development of the Company's second generation Biostream product and new hydrogen generation technologies.

- **Other (gains) and losses** of $3.7 million for the three-month period ended March 31, 2022 compared to $1.7 million for the same three months of 2021. The increase is mainly due to a net loss on foreign currency exchange differences, a legal settlement and related costs, partly offset by lower integration and acquisition costs.

- ***Operating loss*** of $16.7 million for the three-month period of 2022 compared to an operating loss of $8.8 million for the same quarter in 2021. The increase in operating loss is mainly explained by the above-noted lower gross margin and the increase in SG&A expenses due to the impact of acquisitions as well as legal settlement and related costs.

- ***Net loss*** of $18.4 million or $0.12 per share in the three-month period ended March 31, 2022 compared to a net loss of $10.1 million or ($0.07) per share for the same period the prior year.

- ***Adjusted EBITDA*** loss increased to $9.0 million for the three-month period ended March 31, 2022 from $4.9 million for the same period last year.

- **Adjusted EBITDA loss excluding legacy BGX activities** increased to $6.4 million for the three-month period ended March 31, 2022 from $1.7 million for the same period last year.

Current Backlog as of May 11, 2022

The order backlog is calculated based on contracts received and considered as firm orders.

Business Segment: In million of $	**May 11, 2022**	**March 16, 2022**	**November 10, 2021**	**August 11, 2021**	**May 12, 2021**
Support	32.4	27.6	23.2	19.7	27.1
System	228.1	96.2	76.9	56.2	61.4
Consolidated Backlog	260.5	123.8	100.1	75.9	88.5

Business Segment Review

We report our results in two business segments – Systems and Support. Our reporting structure reflects the way we manage our business and how we classify our operations for planning and measuring performance. The corporate office and administrative support are reported under Corporate and Other.

Systems - Cleantech

Selected Financial Information

(in millions of $)

	Q1	
	For the three-month period ended March 31,	
	2022	2021
Revenues	**18.8**	9.9
COGS	**20.5**	9.5
Gross margin	**(1.7)**	0.4
Gross Margin %	-9%	4%
Research and Development expenses	**0.7**	0.5
Selling and administrative expenses	**3.3**	2.7
Segment gain/(loss)	**(5.7)**	(2.8)
Adjusted EBITDA	**(2.4)**	(1.9)
Adjusted EBITDA excluding legacy BGX activities	**0.2**	2.1

Revenues increased by $8.9 million to $18.8 million for the three-month period ended March 31, 2022 compared to the same period of 2021. The increase was attributed to the acquisitions of Inmatec and UEC combined with the delivery of several second-generation Biostreams.

Gross Margin decreased by $2.1 million to ($1.7) million for the three-month period ended March 31, 2022 compared to $0.4 million in the same period of 2021. Gross margin % decreased to (9%) for the three-month period ended March 31, 2022 compared to 4% in the same period of 2021. The decrease in Q1 2022 gross margin % is attributable to RNG contracts estimated to result in losses and lower margin hydrogen contracts.

SG&A Expenses for the three-month period ended March 31, 2022 increased by $0.6 million to $3.3 million in the Systems segment compared to $2.7 million for the same period the prior year. The increase is mainly due to the acquisitions of Inmatec and UEC.

Research and development expenses of $0.7 million for the three-month period ended March 31, 2022 related to the continued development of the Company's second generation Biostream product and our biogas upgrading and hydrogen technologies.

Support – Industrial Products and Service

Selected Financial Information
(in millions of $)

	Q1	
	For the three month period ended March 31,	
	2022	2021
Revenues	**22.4**	10.7
COGS	**16.1**	6.9
Gross margin	**6.3**	3.8
Gross Margin %	28%	35%
Selling and administrative expenses	**3.0**	2.3
Segment gain/(loss)	**3.3**	1.5
Adjusted EBITDA	3.9	2.0
Adjusted EBITDA excluding legacy BGX activities	**3.9**	2.0

Revenues increased by $11.7 million to $22.4 million for the three-month period ended March 31, 2022. The increase is mainly explained by the impact of the newly acquired companies.

Gross Margin increased by $2.5 million to $6.3 million for the three-month period ended March 31, 2022. Gross margin % decreased to 28% from 35% for the three-month period ended March 31, 2021, mainly due to product mix and increased material and supply chain costs.

SG&A Expenses for the three-month period ended March 31, 2022 increased by $0.7 million, to $3.0 million from $2.3 million in the same period last year. The increase is mainly due to newly acquired companies.

Corporate and Other

Selected Financial Information
(in millions of $)

	Q1	
	For the three-month period ended March 31,	
	2022	2021
Selling and administrative expenses	**9.9**	5.7
Other (Gains) and Losses	**3.7**	1.7
Share of after-tax profit or equity in investees	**0.6**	0.1
Total	**14.2**	7.5
Financial income	**(0.1)**	(0.2)
Financial expense	**2.0**	1.4
Finance loss	**1.9**	1.2
Income taxes	**(0.1)**	0.1
Corporate Expenses	**16.0**	8.8
Adjusted EBITDA	**(10.5)**	(5.8)
Adjusted EBITDA excluding legacy BGX activities	**(10.5)**	(5.8)

SG&A Expenses for the three-month period ended March 31, 2022 increased by $4.2 million, to $9.9 million from $5.7 million. The increases are caused by organizational scale up of employees and associated costs to support the increased level of sales and global expansion of the business as well as amortization of intangibles.

Other (gains) and losses of $3.7 million for the three-month period ended March 31, 2022 compared to $1.7 million for the same three months of 2021. The increase is mainly due to a net loss on foreign currency exchange differences, a legal settlement and related costs, partly offset by lower integration and acquisition costs.

7. FINANCIAL CONDITION

Summary Balance Sheet

Balance Sheet Analysis

In millions of $	March 31, 2022	December 31, 2021
Current assets	**147.2**	167.2
Non-current assets	**316.9**	329.4
	464.1	496.6
Current liabilities	**80.6**	85.1
Non-current liabilities	**92.0**	96.7
Shareholders' equity	**291.5**	314.8
	464.1	496.6

The Company's total assets decreased by $32.5 million between December 31, 2021 and March 31, 2022 to $464.1 million mainly due to the use of cash to fund operating losses, the repayment of loans and the impact of foreign currency exchange differences.

Liabilities decreased by $9.2 million between December 31, 2021 and March 31, 2022 to $172.6 million, mainly due to the repayment of loans and deliveries impacting contract liabilities.

Working capital amounted to $66.6 million as at March 31, 2022 for a current ratio of 1.83:1, compared with working capital of $82.1 million and a current ratio of 1.96:1 as at December 31, 2021.

Shareholders' equity totaled $291.5 million as at March 31, 2022, a decrease of $23.3 million from December 31, 2021. The change is mainly explained by the current period loss and the other comprehensive loss resulting from currency fluctuations.

Total Indebtedness

Indebtedness

In millions of $	March 31, 2022	December 31, 2021
Bank loans	**5.0**	5.0
Short-term debt	**12.7**	13.9
Long-term debt	**65.2**	69.4
	82.9	88.3

Total Indebtedness amounted to $82.9 million as at March 31, 2022, a decrease of $5.4 million when compared to December 31, 2021. The decrease is mainly explained by repayment of loans combined with the impact of foreign currency exchange differences.

Capital Stock Information

The authorized share capital of the Company consists of an unlimited number of common shares and an unlimited number of preferred shares. As at March 31, 2022 Xebec Adsorption Inc. had 154,717,934 common shares issued.

Share Purchase Warrants Outstanding

As at March 31, 2022, the Company had 7,500,000 warrants outstanding. In the three-month period ended March 31, 2022, no warrants were exercised.

Stock Options Outstanding

On June 25, 2020, the Shareholders of Xebec approved the adoption by the Company of the long-term incentive plan (LTIP) replacing the prior Stock Option Plan. The LTIP permits the granting of options ("LTIP Options"), Restricted Stock Units ("RSUs") and Deferred Share Units ("DSUs") to eligible participants of the Company and is administered with oversight by the Human Resources Committee ("HR").

Although the shareholders of the Company and the Exchange have approved common shares reserved for issuance under the LTIP of up to 20% of the total issued and outstanding common shares, the Board of Directors of the Company has fixed the number of common shares reserved to a lower number. Therefore, consistent with the Board of Directors' decision, the total number of common shares reserved and available for grant and issuance pursuant to Awards (including the common shares issuable upon exercise of the outstanding options previously granted under the prior Stock Option Plan) shall not exceed 8,393,115 common shares.

As at the approval of the LTIP, all existing options granted under the prior Stock Option Plan remained outstanding and subject to the prior Stock Option Plan.

The LTIP provides that the aggregate number of common shares issued to insiders and associates of such insiders under the LTIP or any other proposed or established share compensation arrangement within any one-year period and issuable to insiders and associates of such insider at any time under the LTIP or any other proposed or established share compensation arrangement, shall not in each case exceed 10% of the issued and outstanding common shares.

The aggregate number of common shares issuable to any one consultant, within anyone-year period, under the LTIP, or when combined with all of the Company's other security-based compensation arrangements, shall not exceed 2% of the Company's total issued and outstanding securities, calculated on the date the Award is granted to the consultant.

The aggregate number of common shares issuable to all participants retained, within any one-year period, under the LTIP, or when combined with all of the Company's other security-based compensation arrangements, shall not exceed 2% of the Company's total issued and outstanding

securities, calculated on the date the Award is granted to the participant, and options granted to such participants retained to provide investor relations activities must vest in stages over a period of not less than one year with no more than ¼ of the options vesting in any three month period.

The purchase price per share purchasable under an option shall be determined by the HR Committee and shall not be less than 100% of the Fair Market Value of a common share on the date of grant of such option; provided, however, that the HR Committee may designate a purchase price below Fair Market Value on the date of grant if the option is granted in substitution for a stock option previously granted by an entity that is acquired by or merged with the Company or an affiliate. The term of each option shall be fixed by the HR Committee at the date of grant but shall not be longer than 10 years from the date of grant.

8. SUMMARY OF QUARTERLY RESULTS

In million of $, except net earnings (loss) per share	2022	2021				2020		
	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2
Revenues	41.2	45.9	26.7	32.7	20.6	6.4	18.4	19.6
Net income (loss)	(16.7)	5.8	(10.4)	(8.8)	(10.1)	(28.3)	(2.2)	(0.8)
Earnings (loss) per share								
Basic	(0.12)	0.04	(0.07)	(0.06)	(0.07)	(0.26)	(0.02)	(0.01)
Diluted	(0.12)	0.04	(0.07)	(0.06)	(0.07)	(0.26)	(0.02)	(0.01)

9. LIQUIDITY AND CAPITAL RESOURCES

Cash flow from (used in)	For the three-month period ended March 31,		
in million of $	**2022**	2021	Change
Operating activities	**(11.3)**	(20.2)	8.9
Investing activities	**(0.9)**	(36.2)	35.3
Financing activities	**(4.4)**	(3.5)	(0.9)

Analysis of principal cash flows for the three-month and the three-month period ended March 31, 2022

Operating activities in the three-month period ended March 31, 2022 used $11.3 million of cash, compared to $20.2 million of cash used for the same period in 2021. The use of cash for the three-month period is mainly explained by the net loss of $18.4 million, partly offset by divestment in non-cash working capital.

Investing activities generated a cash outflow of $0.9 million for the three-month period ended March 31, 2022. These cash outflows relate mainly to the acquisitions of property, plant and equipment.

Financing activities for the three-month period ended March 31, 2022 resulted in a cash outflow of $4.4 million. The cash outflow is mainly explained by the payment of debt liabilities and earn-out payments.

Credit Facilities

In January 2022, the Company and National Bank of Canada's Technology and Innovation Banking Group executed a Consent Agreement to amend the existing February 2021 Credit Agreement. The credit facilities are available until June 30, 2022, with a total value of up to $59.3 million ($59.3 million as at December 31, 2021).

The credit facilities are secured by a first ranking hypothec of $75.0 million on all movable property of the Company. Following the repayment of the debt-related guarantees, the financial account put in place by National Bank of Canada as a first ranking hypothec was extinguished ($11.4 million as at December 31, 2021).

As at March 31, 2022, an amount of $5.0 million was outstanding under the Operating and Acquisition Credit Facility ($5.0 million as at December 31, 2021) and an amount of $7.5 million was outstanding under the Letters of Guarantee Credit Facility ($6.9 million as at December 31, 2021). In addition, only the Credit Card Facility was used at the end of the first quarter.

As at March 31, 2022 Standby Fees of 0.70% are applicable on the unused portion of the Operating and Acquisition Credit Facility and the Pre-Shipment Credit Facility.

In February 2022, the Company renewed its Account Performance Security Guarantee ("Account PSG") Facility with Export Development Canada (EDC) until December 31, 2022, for an amount not to exceed $16.5 million ($10.0 million as at December 31, 2021). As at March 31, 2022 an amount of $6.7 million was outstanding under this facility ($5.8 million as at December 31, 2021).

As at March 31, 2022, all applicable financial covenants and conditions were respected by the Company.

10.OUTSTANDING SHARE DATA

Outstanding common shares and stock options:

	Number of shares	Exercise Price	Expiring Date
Issued and outstanding Common Shares as of March 31, 2022	154,717,934		
Stock Options	200,000 200,000 350,000 37,000	$0,55 $0.05 $0.49 $0.55	December 19, 2022 January 7, 2023 August 29, 2024 December 19, 2024
	787,000	$0.40	
Warrants	3,000,000 4,500,000	$4.58 $4.44	May 5, 2022 November 9, 2024
LTIP Options	50,000	$5.01	May 21, 2025
RSUs	369,001		
DSUs	180,527		
Fully diluted as at March 31, 2022	**163,604,462**		

11.SUBSEQUENT EVENTS

On May 11, 2022, in line with its three-year plan to optimize Operations, the Company formalized a comprehensive Center of Excellence Framework to assess all activities to improve margins and increase cash generation from operations. This review will focus on three main elements: assessing core vs. non-core activities, product rationalization and workforce and supply chain synergies. This framework includes wrapping up the continued costs of legacy BGX activities which impacted adjusted EBITDA negatively by $2.6 million in Q1 2022. The Company estimates that execution of the plan over twelve months is expected to drive a 2%–4% absolute improvement in adjusted EBITDA margin. The financial impact of this comprehensive review is on track to be finalized in the upcoming quarter and any required provisions will be recorded in the second quarter of the current fiscal year.

12.CRITICAL ACCOUNTING ESTIMATES

The Company makes estimates and assumptions concerning the future that will, by definition, seldom equal actual results. The following are the estimates and judgments applied by management that affect the Company's consolidated financial statements.

Inventories must be valued at the lower of cost and net realizable value

A write-down of inventory will occur when its estimated market value less applicable variable selling expenses is below its carrying amount. Materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost. This estimation process involves significant management judgment and is based on the Company's assessment of market conditions for its products determined by historical usage, estimated future demand and, in some cases, the specific risk of loss on specifically identified inventory. Any change in the assumptions used in assessing this valuation will impact the carrying amount of the inventory and have a corresponding impact on cost of goods sold.

Impairment of internally generated intangible assets

The Company performs a test for internally generated intangible assets impairment when there is any indication that internally generated intangible assets have suffered any impairment in accordance with the accounting policy stated in the summary of significant accounting policies of these consolidated financial statements. The recoverable amounts of internally generated intangible assets have been determined based on value-in-use calculations. The value in use calculation is based on a discounted cash flow model. These calculations require the use of estimates and forecasts of future cash flows. Qualitative factors, including the strength of customer relationships, the degree of variability in cash flows as well as other factors are considered when making assumptions about future cash flows and the appropriate discount rate. A change in any of the significant assumptions or estimates used to evaluate internally generated intangible assets could result in a material change to the results of operations.

Percentage of completion and revenues from long-term production-type contracts

Revenues recognized on long-term production-type contracts reflect management's best assessment by taking into consideration all information available at the reporting date and the result on each ongoing contract and its estimated costs. Management assesses the profitability of the contract by applying important judgments regarding milestones marked, actual work performed and estimated costs to complete. Actual results could differ because of these unforeseen changes in the ongoing contracts' models.

Allowance for expected credit loss

The Company recognizes the impairment of financial assets in the number of expected credit losses by means of the simplified approach, measuring impairment losses as lifetime expected credit losses and the trade receivables that have been assessed on a collective basis as they possess shared credit risk characteristics and have been grouped based on the days past due.

Acquisition valuation method

The Company uses valuation techniques when determining the fair value of certain assets and liabilities acquired in a business combination. In particular, the fair value of the intangible assets, goodwill and contingent consideration is dependent on the outcome of many variables including the acquirees' future profitability.

Leases

Recognizing leases requires judgment and use of estimates and assumptions. Judgement is used to determine whether there is reasonable certainty that a lease extension or cancellation option will be exercised. Furthermore, management estimates are used to determine the lease terms and the appropriate interest rate to establish the lease liability.

Classification of finance and operating leases requires management to make assumptions related to the economic life and the fair value of the leased asset. In addition, at the commencement date of finance leases, the measurement of selling profit requires assumptions such as the determination of the unguaranteed residual value, the fair value of the leased asset and the rate implicit in the lease. Those assumptions are based on management's best estimate by considering all information available at the reporting date, including profit margins by reference to transactions involving assets of a similar nature, market funding rates, the economic life of assets of a similar nature and the expected value of the asset at the end of the lease.

Impairment of non-financial assets and goodwill

In assessing impairment, management estimates the recoverable amounts of each asset or cash-generating unit based on expected future cash flows and uses an interest rate to discount them. Estimation uncertainty relates to assumptions about future operating results and the determination of a suitable discount rate.

13. OUTLOOK AND MANAGEMENT GUIDANCE

Current Market Outlook

As evidenced by strong revenue, backlog and quote growth, Xebec remains optimistic about the outlook as the Company continues to execute on its three-year plan. Supply chain, logistics and material costs were unprecedented hurdles in Q1 2022, and the Company is working to address these

challenges alongside other cost savings measures under its Center of Excellence Framework. This framework gives the Company an opportunity to drive intended synergies from the acquisitions completed in the last 24 months and leverage recent senior hires in global manufacturing and strategic sourcing. As a result, Xebec expects to continue its topline revenue growth and see its cost profile improve as the framework is executed.

Systems - Cleantech

Renewable Natural Gas

Xebec continues to execute its strategy of focusing on standardized and containerized products. The Company's target market (North American agriculture) continues to see solid quoting levels for the all-in-one solution. As of April 2022, the number of outstanding quotes in Q1 2022 are approximately double the number from the same period last year. Xebec is aiming to convert a number of these quotes into the backlog this year and expects these efforts will be important in backfilling excess capacity at its recently acquired facility in Denver, Colorado.

Production of the second generation Biostream is ongoing at two of Xebec's North American manufacturing facilities (Blainville and Xebec Systems USA). Q1 2022 saw revenues recognized from second generation Biostream units destined to Brightmark RNG Holdings LLC, a joint venture between Brightmark and Chevron U.S.A. Inc.

Lastly, the Company has continued to experience the impact from legacy BGX contracts during the commissioning phase of several projects. Higher than anticipated costs were incurred to ensure that projects are running to specification for customers. Xebec is focused on moving the last of these projects to the serviceability stage as soon as possible which is expected to be positive for margins in the segment. Going forward, standardized and containerized products bring benefits in shorter installation and commissioning times, and less exposure to engineering, procurement and construction (EPC) work which reduces the risks seen in its legacy BGX activities.

Hydrogen

Xebec's hydrogen activities continue to develop with a goal this year to secure a financial partner to go global with its hydrogen business as the Company expands out of Europe. Q1 2022 saw a Gas-as-a-Service hydrogen generation project with Messer Group in the Czech Republic commissioned for two end users. Lastly, this quarter also saw lower revenues and gross margins due to timing and an increase in raw materials costs.

Furthermore, the Company is seeing increased activity for hydrogen equipment for mobility applications which it believes will be a key trend in supporting the target of 20–25 decentralized hydrogen production hubs by 2024. For example, a hydrogen PSA order was received this quarter for a hydrogen refueling station in India and quotes for this product continue to increase. Xebec continues to target industrial hydrogen users to build the initial infrastructure as mobility demand comes online, allowing the Company to profitably scale up local supply.

Carbon Capture and Sequestration

Carbon capture and sequestration is an emerging vertical for Xebec as the world transitions to a net-zero or carbon negative economy. Xebec has leveraged its PSA and compression technology platforms to create new carbon capture solutions for customers who wish to reduce their emissions further in energy, heating and industrial processes.

On April 12, 2022, Xebec announced the Company's largest order ever valued at $143.2 million with Iowa-based SCS Carbon Removal LLC, a subsidiary of Summit Carbon Solutions. The contract is for 51 carbon dioxide (CO_2) reciprocating compression packages which is expected to be used in the world's largest proposed carbon capture project to date. The Company will manufacture these units out of its Denver-based facility over the course of 2022 and 2023. Xebec expects that as new markets emerge for carbon capture and sequestration, its unique technologies and solutions will play a more important role in broader decarbonization efforts.

Oxygen and Nitrogen

Xebec's oxygen and nitrogen business came off a record year in 2021 with more than 600 units produced. However, an increase in material and logistics costs weighed on gross margins in Q1 2022 which were partly attributable to the ongoing Russian invasion of Ukraine. As with Xebec's other verticals, the Company is working to improve margins by leveraging new senior executive hires in supply chain and manufacturing to drive synergies and cost reductions.

In addition, Xebec successfully concluded a 12-month test period for a sustainable urban farming project in Wiesbaden, Germany. An on-site oxygen generator was provided to ECF Farmsystems that combines fish and basil production in an urban environment by building on the rooftop of a grocery store. This aquaponic farm system grows approximately 800,000 basil plants and 20,000 cichlids per year and requires no fertilizer for the plants. Xebec's oxygen generator ensures the necessary oxygen saturation of the water. This approach to combine fish farming with urban agriculture closer to consumers, has proven to be a more sustainable food production method due to reduced transportation, higher energy efficiency and resource savings.

Support – Industrial Products & Services

The Support segment, now being rebranded under XBC Flow Services, delivered solid results in Q1 2022 but felt the impacts of supply chain constraints, increased logistics costs and continued COVID-19 restrictions. Despite this, backlog for this segment is at record highs and as such, securing skilled technicians remains a top priority this year as the segment continues growing organically.

Furthermore, over 1,000 hours were logged in Q1 2022 to support renewable natural gas installations in the U.S., which coincides with the official launch of the new cleantech service training program for new hires. As Xebec executes on its brand transition to XBC Flow Services this year, its customer-centric values in providing a consistent, high-quality customer experience irrespective of which location is taking the lead.

14. RECONCILIATION OF NON-IFRS MEASURES

The following section provides information regarding non-IFRS financial measures used by the Company to analyze and evaluate its results. These measures do not have any standardized meaning under IFRS and therefore may not be comparable to similar measures presented by other issuers. Management believes that, in addition to conventional measures prepared in accordance with IFRS, these measures provide additional insight into the Company's operating performance and financial position and certain investors may use this information to evaluate the Company's performance from period to period. However, these measures have limitations and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

"**EBITDA**" means the earnings before interest, income taxes, depreciation and amortization, where interest is defined as net finance costs as per the consolidated statement of comprehensive income.

"**EBITDA margin**" being EBITDA as a percentage of revenues.

"**Adjusted EBITDA**" starts with EBITDA and adjusts for Stock-based compensation expenses, impairment of inventories, exchange gain/loss on the obligation arising from non-controlling interest participation in a subsidiary, foreign exchange loss (gain), accretion of debt, impairment charge of tangible assets, remeasurement of investments, M&A transaction fees, and one-time payments arising from the prior departure of employees and legal costs.

"**Adjusted EBITDA margin**" being Adjusted EBITDA as a percentage of revenues.

"**Backlog**" means contracts that have been received and are considered as firm orders.

The table set forth below provides a quantitative reconciliation of EBITDA, EBITDA margin, Adjusted EBITDA, Adjusted EBITDA margin and backlog of Xebec, each of which are non-IFRS financial measures, to the most comparable IFRS measure disclosed in the Company's financial statements to which the measure relates for the three months ended March 31, 2022 and March 31, 2021. The reconciliation of non-IFRS measures to the most directly comparable measure calculated in accordance with IFRS is provided below where appropriate. Backlog does not have a directly comparable IFRS measure.

In millions of $	For the three-month period ended March 31,	
	2022	**2021**
Net income (loss)	**(18.4)**	(10.1)
Depreciation and amortization	**3.9**	2.2
Income taxes	**(0.1)**	0.1
Financing Expenses	**1.9**	1.2
EBITDA	**(12.7)**	(6.6)
Foreign exchange loss (gain)	**1.1**	0.7
Legal settlement and related costs	**1.8**	-
Integration and acquisition costs	**0.8**	1.0
Adjusted EBITDA	**(9.0)**	(4.9)
Adjusted EBITDA in percentage of sales	**-22%**	-24%
Legacy BGX activities	**2.6**	3.2
Adjusted EBITDA excluding legacy BGX activities	**(6.4)**	(1.7)
Adjusted EBITDA excluding BGX activities in percentage of sales	**-16%**	-8%

* EBITDA is a non-IFRS financial measure.

EBITDA is not a performance measure defined under IFRS and is not considered an alternative to income from operations or net (loss) earnings. EBITDA does not have a standardized meaning and is therefore not likely to be comparable with similar measures used by other publicly traded companies.

The adjusted EBITDA for the three-month period ended March 31, 2022 was ($9.0) million compared to ($4.9) million in the same period of 2021, mainly due to RNG contracts estimated to result in losses and legal settlement and related costs.

The adjusted EBITDA excluding legacy BGX activities for the three-month period ended March 31, 2022 was ($6.4) million compared to ($1.7) million in the same period of 2021.

15. ENTERPRISE RISK MANAGEMENT

Our Definition of Business Risk

We define business risk as the degree of exposure associated with the achievement of key strategic, financial, organizational and process objectives in relation to the effectiveness and efficiency of operations, the reliability of financial reporting, compliance with laws and regulations and the safeguarding of assets within an ethical organizational culture.

Our enterprise risks are largely derived from the Company's business environment and are fundamentally linked to our strategies and business objectives. We strive to proactively mitigate our

risk exposures through rigorous performance planning and effective and efficient business operational management.

The Company maintains director and officer liability insurance for errors, misstatements, misleading statements, acts, omissions, neglects, or breaches of duty committed, attempted, or allegedly committed or attempted by its directors and officers (the "Executive Protection Policy"). Claims under the Executive Protection Policy are limited at $10 million per loss for a maximum aggregate liability of $10 million per policy period. The Executive Protection Policy's policy that was ending on December 1, 2021, was extended for an additional 6 month-period ending on June 1, 2022.

For a summary of the principal risks and uncertainties that could affect our future business results going forward and our associated risk mitigation activities, please refer to section 16 of the Management Discussion and Analysis of the fiscal year ended December 31, 2021 (the "2021 Annual MD&A") and the "Risk Factors" section of the Company's Annual Information Form dated March 16, 2022 (the "AIF"). A copy of the AIF and the Company's other publicly filed documents can be accessed under the Company's profile on the System for Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com.

The risks and uncertainties and risk management practices of the Company described in the 2021 Annual MD&A and the AIF have not materially changed in the first quarter of 2022.

16.CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We are committed to providing timely, accurate and balanced disclosure of all material information about the Company and to providing fair and equal access to such information. Management is responsible for establishing and maintaining our disclosure controls and procedures to ensure that information used internally and disclosed externally is complete and reliable. Due to the inherent limitations in all control systems, an evaluation of controls can provide only reasonable, not absolute assurance, that all control issues and instances of fraud or error, if any, within the Company have been detected. We continue to evolve and enhance our system of controls and procedures.

Management, at the direction and under the supervision of the Chief Executive Officer and the Chief Financial Officer of the Company, has evaluated the design of our disclosure controls and procedures. The evaluation was conducted in accordance with the requirements of National Instrument 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings ("NI 52-109") of the Canadian Securities Administrators. This evaluation confirmed, subject to the inherent limitations noted above, the appropriateness of the design of disclosure controls and procedures as at March 31, 2022. Management can therefore provide reasonable assurance that material information relating to the Company and its subsidiaries is reported to it on a timely basis so that it may provide investors with complete and reliable information.

Internal Controls over Financial Reporting

Management has designed and is responsible for maintaining adequate internal control over financial reporting ("ICFR") to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

Management has limited the scope of design of its disclosure controls and procedures and its ICFR to exclude the controls, policies and procedures of Tiger Filtration Limited, California Compression, LLC and Xebec Systems USA LLC (together the "Acquisition Entities") which were acquired by the Company or one of its subsidiaries. Tiger Filtration Limited was acquired in June 2021, California Compression, LLC in August 2021 and finally UE Compression in November 2021.

On a combined basis, the Excluded entities' contributions to our consolidated statements of loss and comprehensive loss for the three months ended March 31, 2022 was approximately 31% of total revenues. Additionally, as at March 31, 2022, these entities' current assets and current liabilities, on a combined basis, represented approximately 12% and 19% of our consolidated current assets and current liabilities, respectively. Combined non-current assets, which includes intangible assets and goodwill from these acquisitions, represented approximately 2% of our consolidated non-current assets. The amounts recognized for the assets acquired and liabilities assumed as at the date of these acquisition are described in Note 3 of the Consolidated Financial Statements. Management is committed to removing this limitation within the timeframe permitted by regulation.

Management has evaluated the design of its ICFR as defined in NI 52-109. The evaluation was based on the criteria established in the "Internal Control-Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). This evaluation was performed by the Chief Executive Officer and the Chief Financial Officer of the Company with the assistance of other Company management and staff to the extent deemed necessary. Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the ICFR were appropriately designed as at March 31, 2022.

In spite of its evaluation, management does recognize that any controls and procedures, no matter how well designed, can only provide reasonable assurance and not absolute assurance of achieving the desired control objectives.

No significant changes were made to our ongoing ICFR during Q1-2022 that have materially affected, or are reasonably likely to materially affect, the Company's ICFR.

17. FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements within the meaning of applicable Canadian securities law. These statements relate to future events or future performance and reflect the expectation of Management regarding the growth, results of operations, performance and business prospects and opportunities of the Company or its industry. Forward-looking statements typically contain words such as “believes”, “expects”, “anticipates”, “continues”, “could”, “indicates”, “plans”, “will”, “intends”, “may”, “projects”, “schedules”, “would” or similar expressions suggesting future outcomes or events, although not all forward-looking statements contain these identifying words. Examples of such statements include, but are not limited to, statements concerning: (i) actions expected to be undertaken to achieve the Company’s strategic goals; (ii) the key market drivers impacting the Company’s success; (iii) intentions with respect to future renewable gas work; (iv) expectations regarding business activities and orders that may be received in fiscal 2022 and beyond; (v) trends in, and the development of, the Company’s target markets; (vi) the Company’s market opportunities; (vii) the benefits of the Company’s products, (viii) the intention to enter into agreements with partners; (ix) future outsourcing and supply chain initiatives; (x) expectations regarding competitors; (xi) the expected impact of the described risks and uncertainties; (xii) intentions with respect to the payment of dividends; (xiii) the management of the Company’s liquidity risks in light of the prevailing economic conditions; (xiv) the Company’s cost reduction plan; (xv) the search for additional financing over the next months; (xvi) statements regarding the merits of the class action complaints filed against the Company; and the expectation that the Blainville facility will allow production of 30 to 40 Biostream systems per year and that UE Compression facility will allow production of 130 to 150 systems and (xix) that the expected delivery of second generation Biostream systems in 2022.

These statements are neither promises nor guarantees but involve known and unknown risks and uncertainties that may cause the Company’s actual results, level of activity or performance to be materially different from any future results, levels of activity or performance expressed in or implied by these forward-looking statements. These risks include, generally, risks related to revenue growth, operating results, industry and products, technology, competition, the economy, the conflict in Ukraine, the supply chain shortage, impact of COVID 19, the sufficiency of insurance and other factors which are discussed in greater details in this MD&A and in the Annual Information Form of the Company filed on SEDAR at www.sedar.com.

Forward-looking statements contained herein are based on a number of assumptions believed by the Company to be reasonable as at the date of this MD&A, including, without limitations, assumptions about trends in certain market segments, the economic climate generally, the pace and outcome of technological development, the identity and expected actions of competitors and customers, assumptions relating to the merits of the class action complaints filed against the Company and their impact, the value of the Canadian dollar and of foreign currency fluctuations, interest rates, working capital requirements, the anticipated margins under new contracts awards, the state of the Company’s current backlog, the regulatory environment, the sufficiency of internal and disclosure controls, the ability of the Company to successfully integrated acquired business, and the acquisition and integration of businesses in the future. Other assumptions, if any, are set out throughout this MD&A. If these assumptions prove to be inaccurate, the Company’s actual results may differ materially from those expressed or implied in the forward-looking statements. The forward-looking statements contained

herein are made as of the date of this MD&A and are expressly qualified in their entirety by this cautionary statement. Except to the extent required by law, the Company undertakes no obligation to publicly update or revise any forward-looking statements contained herein. Readers should not place undue reliance on forward looking statements.

18.CORPORATE GOVERNANCE

The Board of Directors of Xebec Adsorption Inc. is comprised of seven directors, six of whom are independent.

Approval

The Board of Directors of Xebec Adsorption Inc. has approved the disclosure contained in this MD&A. A copy of this MD&A will be provided to anyone who requests it.

Additional Information

Additional information relating to Xebec Adsorption Inc. is on SEDAR at www.sedar.com or by contacting:

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