# Company Overview

The world’s leading carbon negative materials company

*November 4, 2022*

# Forward looking statements and disclaimers

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# Origin Materials – At a Glance

The world's leading carbon negative materials company

## Disruptive Materials Technology Company

*Origin produces low and negative carbon materials*

## Decarbonizing Platform Technology

$CO_2$

*Enables customers' net-zero commitments*

## Enormous TAM

**~$1+ Trillion**

*$390Bn near-term focus in polyesters; $750Bn across broad range of materials*

## Cost advantaged

*Timber feedstocks are competitive with oil and ~10x cheaper than bio alternatives*

## Global Fortune 500 Customers & Investors[1]

PEPSICO

DANONE ONE PLANET. ONE HEALTH

Nestlé

## Strong Customer Demand[2]

**$9.0Bn[3] and growing**

*from a diverse mix of industries*

## Protected & Validated Technology

**23 Patent Families[3]**

*Core technology protected in key countries*

## Cash on hand[4]

**$362 Mn**

*Origin expected to be fully financed until EBITDA positive with anticipated financing and grants*

1. Denotes ownership by PepsiCo, Danone and Nestle prior to business combination with Artius Acquisition, Inc.
2. Figures assume maximum offtake amounts and exercise of full capacity reservations. Refer to slide 31 for additional detail.
3. As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.
4. As of September 30, 2022. Represents cash, cash equivalents, restricted cash, and marketable securities. Refer to slide 62 for additional detail.

As previously reported on Origin's Form 8-K filed on August 12, 2021, except where otherwise noted.

Source: Origin Materials.

# Leading institutions are committing to a net zero future

The global industrial complex is committed to decarbonization

## 2030

**Patagonia**
Carbon neutral by 2025

**Proctor & Gamble**
Net zero between 2020 – 2030

**Siemens**
Net zero by 2030

**LG**
Carbon neutral by 2030

**IKEA**
Carbon negative by 2030

**Microsoft**
Carbon negative by 2030

**Unilever**
Carbon neutral before 2030

## 2030-2040

**AT&T**
Net zero by 2035

**Walmart**
Net zero by 2040

**PepsiCo**
Net zero by 2040

**Amazon**
Net zero by 2040

**Mercedes Benz**
Net zero by 2040

**Best Buy**
Net zero by 2040

**General Motors**
Carbon neutral by 2040

## 2040 - 2050

**Michelin**
Net zero by 2050

**BP**
Net zero by 2050

**Danone**
Net zero by 2050

**Ford**
Net zero by 2050

**Nestlé**
Net zero by 2050

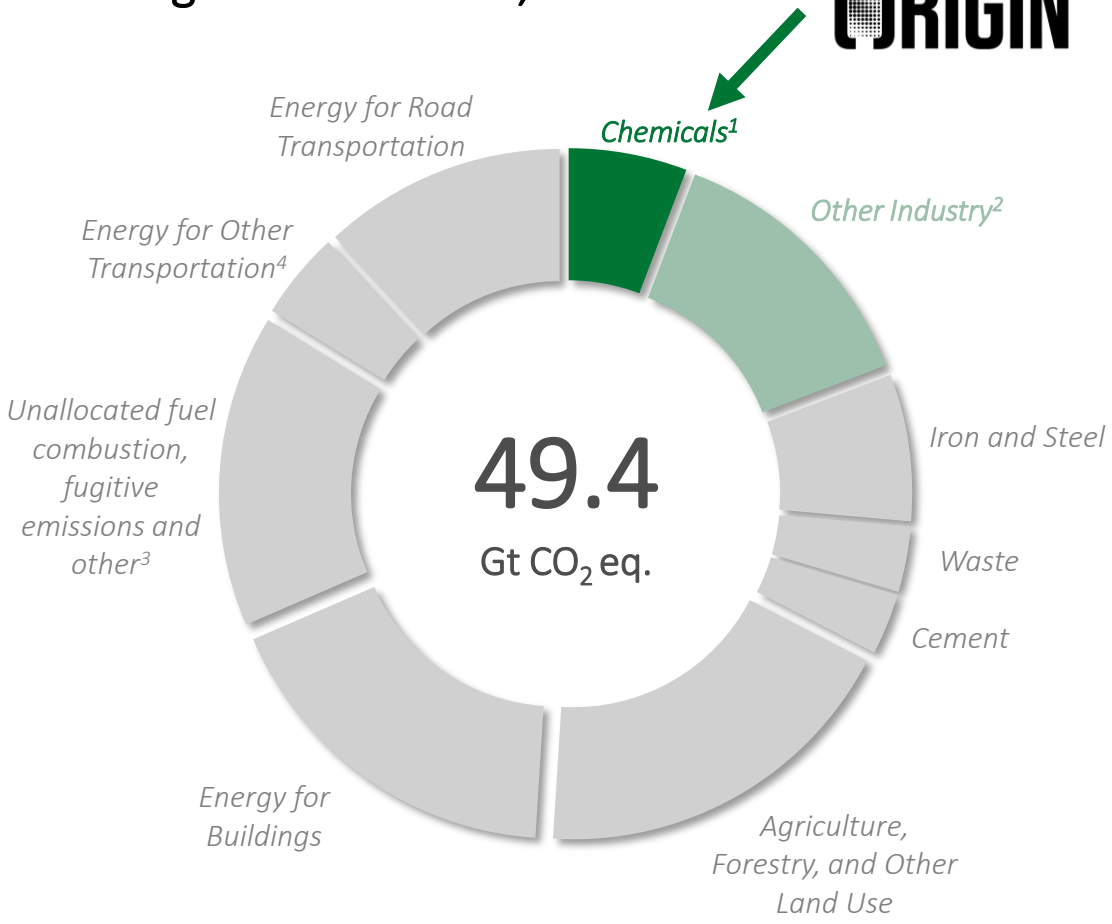
**Nike**
Net zero by 2050

**Shell**
Net zero by 2050

Note: Page not intended to represent that these are all Origin customers.
Source: Press search and company websites.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Nearly half of all global emissions come from making products

Total global emissions, 2016




# Origin's mission is to enable the world's transition to sustainable materials

**Fossil-based**

**10.6Mn**

*Daily barrels of oil consumed by the chemicals market*

**Sustainable-based**

**<1%**

*Of annually available 900Mn tons of forest residue and wood waste*

**Emitting**

**2.78kg**

*Carbon emissions per kg of fossil-based PET produced*

**Avoiding**

**>100%**

*Carbon reduction for Origin's PET vs. fossil-based PET*

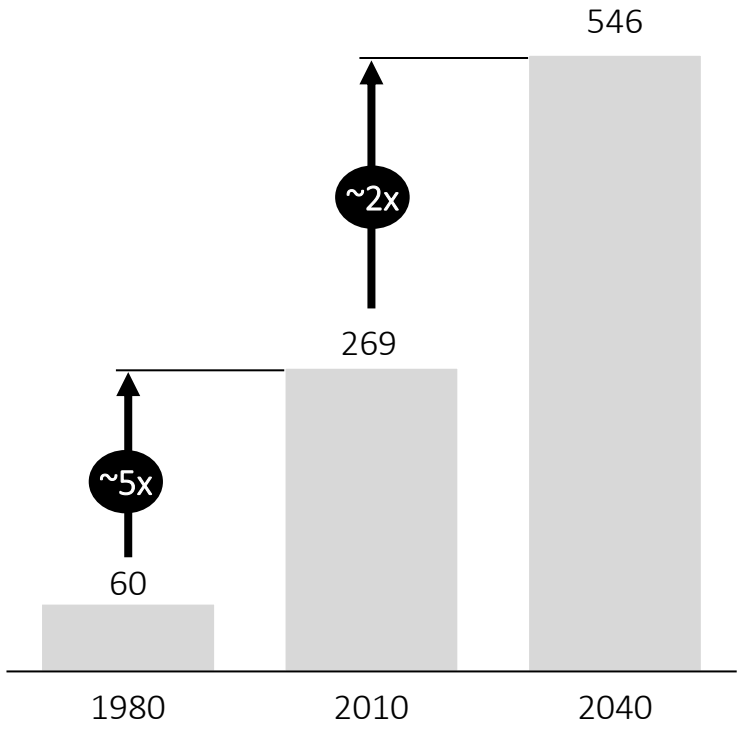
## The Origin platform can replace oil as the foundational feedstock for the materials economy

1. Includes energy-related emissions from the manufacturing of chemicals as well as direct industrial process. 2. Includes energy-related emissions in mining and quarrying, construction, textiles, machinery, food and tobacco, paper & pulp and other industries. 3. Includes energy-related emissions from the use of machinery in agriculture and fishing. 4. Includes energy-related emissions in aviation, shipping, rail and pipeline transportation.
Source: Origin Materials estimates, Climate Watch, the World Resources Institute (2020), ourworldindata.org.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Ubiquitous plastics are a prime target to begin reducing carbon emissions

## Plastics enable modern life…

Million tons




## … but we need better, scalable solutions

### Drop-in ready – change only happens at scale

Transforming the materials economy won't happen in niche markets. Plastics permeate every sector and Origin's products are supply-chain ready alternatives for fossil-based feedstocks

### Negative-to-low carbon

Sustainably harvested, renewable feedstocks (e.g., forest waste / residues) can convert naturally captured carbon into useable end products

### Sustainable, end of life solutions (recycle first)

Responsible plastics use goes from 'cradle to grave'. Enabling the circular economy through high rates of recycling is a must for any solution

Source: International Energy Agency and Origin internal estimates.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# The Origin platform: 'Once in a planet' shift from fossil to decarbonized materials

## Abundant, low-cost, bio-feedstocks


wood chips


cotton trash


bagasse


pulp waste


cardboard


rice hulls

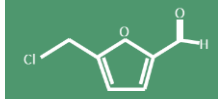

whole cane

## Origin Core Technology

ORIGIN

- Carbon Negative
- Flexible
- Lowest Cost, Beats Petroleum

"CMF"
5-Chloro-methyl-furfural



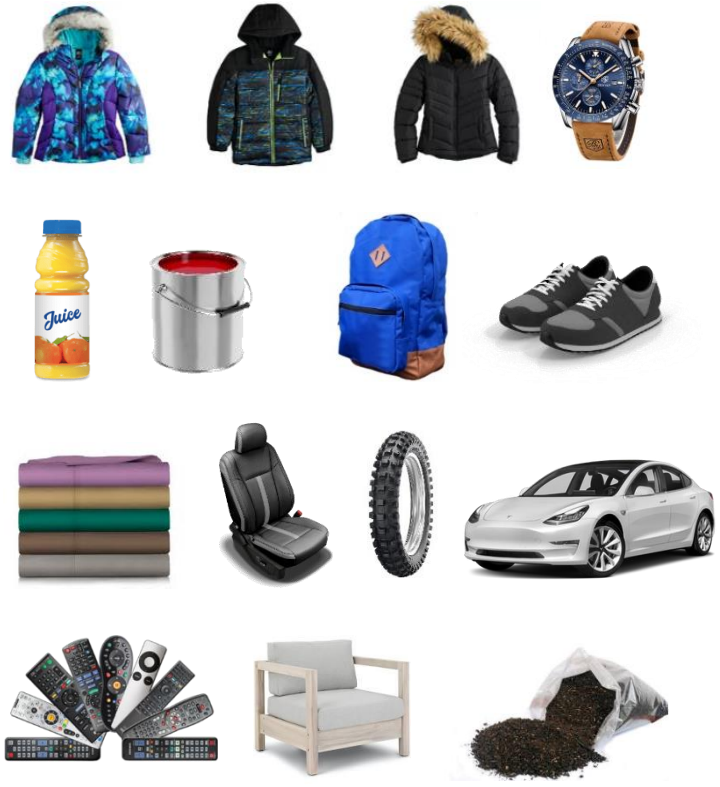
"HTC"
Hydrothermal Carbon

C

## Countless products can be manufactured using Origin's carbon negative materials...

NOT EXHAUSTIVE

- Textiles and fabrics
- Next-gen packaging
- Paints, coatings, and epoxies
- Filler for tires and more
- Solid fuels
- Agriculture & soil products




Source: Origin Materials.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

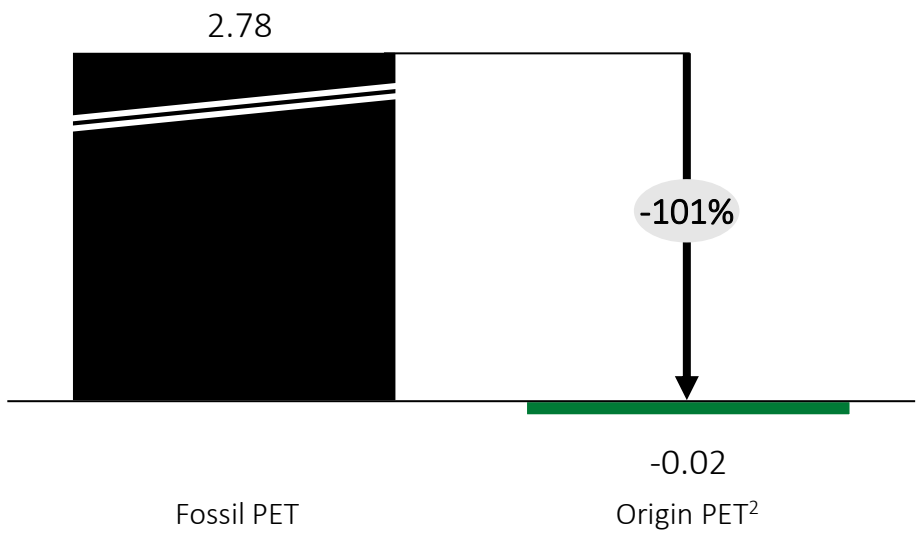
# Origin's CMF is a carbon negative solution for recyclability and degradability

Today — Near-term (2022-25+) — Mid-term: PET/F Blend (2025-27+) — Long-term (2027+) — Future

## PET

*Drop-in ready; 100% recyclable*

**PET Production Life Cycle Analysis**, kg-$CO_2$ / kg-PET[1]




## PEF

*Technology is ready; timing dependent on market adoption*

- High-Performance ✓
- Strong Gas Barrier Properties ✓
- High Heat Resistance ✓
- 100% Recyclable[3] ✓
- Degradable[4] ✓

1. Process step carbon impacts are derived from Deloitte ISO compliant LCA report. Deviations from supply chain described in LCA report may affect carbon impacts. 2. Southern Pine based bio-PET. 3. PEF can be recycled by the same mechanical methods used for PET. Currently there are no independent PEF recycling stream or U.S. guidelines for blending PEF and PET streams. 4. PEF degradation time in industrial composting conditions (58 °C) range from 7 to 13 months to 90% degradation, depending on conditions, according to "First Results Accelerated Tests Biodegradation of PEF," Organic Waste Systems (OWS), Gent, Belgium.
Source: Origin Materials. As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin's HTC is a diverse, high-potential carbon negative platform material

Today | Near-term (2022-25+) | Mid-term (2025-27+) | Long-term (2027+) | Future

## Near-term (2022-25+): Fuel pellets/Activated Carbon (~$20Bn)

*A drop-in ready, energy dense, fuel alternative*

**Net 0** Carbon footprint

**>7%** Annual growth rate of fuel pellet market

*A carbon negative solution for food and water treatment*

**~500 - 3,000** $m^2/g$ – Ultra high surface area

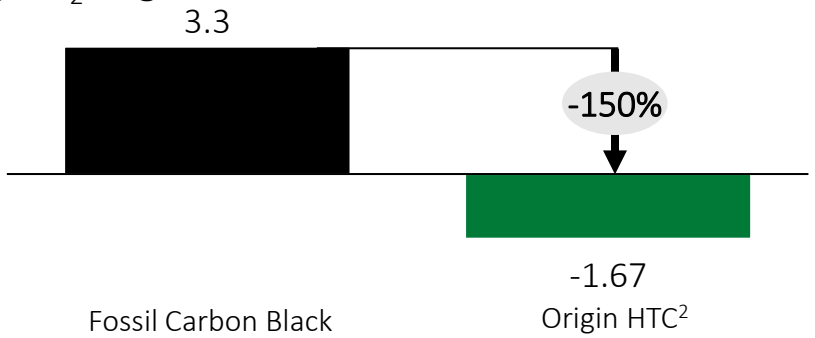
**>8%** Annual growth rate of activated carbon market

## Mid-term (2025-27+): Carbon Black (~$20Bn)

*A carbon negative carbon black replacement for tires, foams, and dyes*

No Detectable Carcinogens[1]

Carbon Black Production Life Cycle Analysis, kg-$CO_2$ / kg-Carbon Black




## Long-term (2027+): Agriculture (~$40Bn)

*A next-generation agriculture additive to improve farming efficiency*

Key Properties

- Porous, High Surface Area
- Available Water Capacity
- High Cation Exchange

Applications

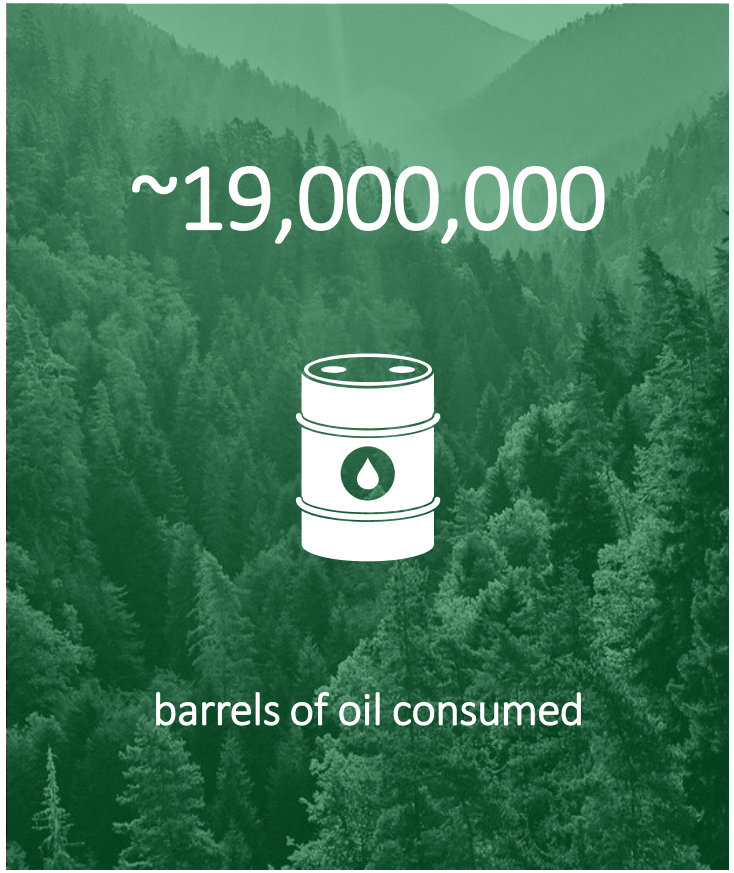
- Biochar, slow-release fertilizer, microbials / biologics, soil amendment

1. Origin carbon black does not contain any PAH, or polyaromatic hydrocarbons, which are carcinogens found in fossil carbon black.
2. Derived from Deloitte ISO compliant LCA report. Deviations from supply chain described in LCA report may affect carbon impacts.
Source: Origin Materials, PBL Netherlands Environmental Assessment Agency.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin's platform technology decarbonization impact

By 2030, Origin's operating plants are expected to annually avoid ~8.3MMT[1] $CO_2$ equivalent to approximately…





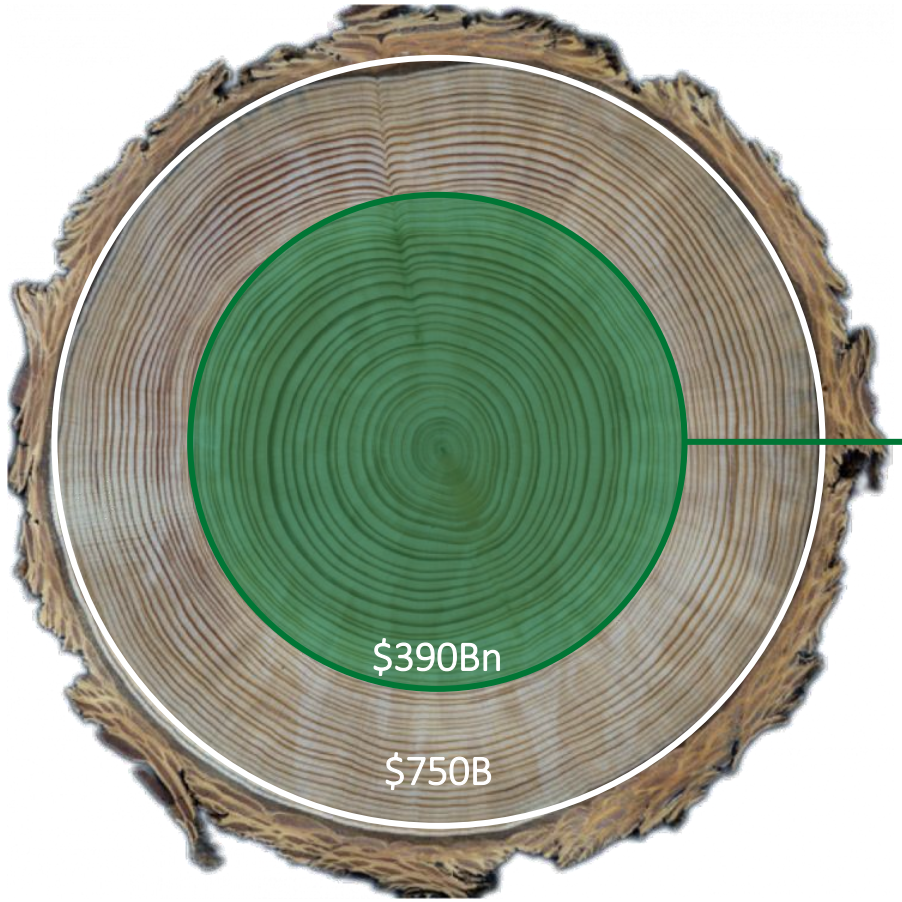

1. Million Metric Tons.
Source: Origin Materials calculations based on 6 commercial scale plants and plant life cycle impact estimates. U.S. Environmental Protection Agency greenhouse gas equivalencies calculation: https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Estimated total addressable market for Origin products is more than $1Trn

Origin addresses a growing market with broad applications

HTC market  CMF market

Cumulative TAM = >$1Trn




| Markets | Market Size $ |
|---|---|
| **PET Fiber** | ~$175Bn |
| Apparel | |
| Carpet | |
| **PET Resin** | ~$145Bn |
| Food and beverage packaging | |
| **Carbon** | ~$70Bn |
| Tires | Activated Carbon |
| Foams | Fuel pellets |

**Near term focus pre-2030**

>$390Bn market


Near-term focus TAM is expected to grow by ~$15Bn annually

Source: Origin Materials management estimates based on 2030 addressable market.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Estimated total addressable market for Origin products is more than $1Trn

Origin addresses a growing market with broad applications

HTC market  CMF market

Cumulative TAM = >$1Trn


| Select Markets | Market Size $ |
|---|---|
| **Paints & Coatings** | ~$30Bn |
| Colorants | |
| **Soil Additives** | ~$40Bn |
| Soil Nutrients | |
| **PEF** | ~$225Bn |
| Apparel | |
| PET Applications | |
| Packaging | |
| **Epoxies** | ~$15Bn |
| Adhesives | |
| Coatings | |
| **Plasticizers** | ~$18Bn |
| PVC Piping | |

**Long term focus post-2030**

>$750Bn market

Source: Origin Materials management estimates based on 2030 addressable market.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin is supported by Global Fortune 500 companies

PackagingNews

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By Waqas Qureshi — 10 September 2018

**PepsiCo joins Danone and Nestlé Waters in bio-based bottles R&D partnership**

PepsiCo has joined the NaturALL Bottle Alliance, which is conducting an R&D partnership to develop 100% bio-based bottles.


PEPSICO

DANONE

NATURALL BOTTLE ALLIANCE

Nestlé

ORIGIN

We believe total estimated plastics demand from these three customers represents…

**4.75Mn**
Tons

**~20**
Commercial facilities required to meet PET demand[1]

1. Illustrative opportunity from fulfilling estimated PET portion of PepsiCo, Danone, and Nestlé Waters combined annual consumption of 4.75 million tons of plastics / year.
Source: Company websites; Origin Materials management estimates.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin has earned prestigious awards and certifications for innovation

Origin Materials Wins EPA Green Chemistry Challenge Award for 2022 in Partnership with University of California, Davis

Origin Materials Earns USDA Certified Biobased Product Label for Carbon Negative Materials, 2021 and 2022

Origin Materials Recognized by Chemical Week for Best Sustainable Product by an Emerging Company 2021

Origin Materials Named to Fast Company's Annual List of the World's Most Innovative Companies for 2022 in Manufacturing



As previously announced.

# AECI SANS Technical Fibers Partnership

"Origin Materials and AECI SANS Technical Fibers to Develop Carbon-Negative Materials for Apparel and Automotive Applications" – April 5, 2021

- AECI SANS Technical Fibers is a leader in engineered thread for high-performance apparel and automotive applications
- Expands existing joint development agreement in order to develop high-performance fibers for diverse thread applications serving the apparel, footwear and automotive industries
- AECI SANS Technical Fibers signed a capacity reservation agreement for carbon-negative PET and next-generation polymers produced using the Origin platform

As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# AECI Much Asphalt Partnership

"Origin Materials and AECI Much Asphalt to Develop Low-Carbon Asphalt" – April 6, 2021

- AECI Much Asphalt is the largest commercial asphalt producer in southern Africa
- Region's leading manufacturer and supplier of hot and cold mix asphalt products, and a manufacturer, supplier and applicator of bituminous road binders, emulsions, primes, pre-coats and modified binders
- The collaboration is expected to create substantial value in the developing African market, where AECI Much Asphalt is currently active



As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Packaging Matters Partnership

"Origin Materials and Packaging Matters Launch Partnership to Develop Advanced Carbon-Negative Packaging Solutions, Building on Existing 10-Year Supply Agreement" – April 12, 2021

- Packaging Matters is a leader in packaging innovation with several Fortune 100 food companies as customers
- Development work to produce advanced packaging materials, including PEF
- Packaging Matters will transition its virgin petroleum-based PET purchases to sustainable carbon-negative PET from Origin Materials.
- As the companies make progress on developing PEF applications, some or potentially all of the supply is expected to transition to PEF
- 40+ years PET experience
- 3 manufacturing facilities in the United States



As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# PrimaLoft Partnership

**"Origin Materials and PrimaLoft Form Strategic Alliance to Develop Carbon-Negative Insulating Fiber for Outdoor Gear, Bedding, and Apparel"** – April 19, 2021

- PrimaLoft is advanced material technology company and a world leader in the development of high-performance insulations and fabrics
- Launched strategic alliance to develop high-performance, carbon-negative insulating fibers for diverse apparel applications, including for leading outdoor, fashion, and lifestyle brands, plus home goods applications such as hypoallergenic insulated bedding
- Signed capacity reservation agreement for carbon-negative PET produced using the Origin Materials technology platform
- Fibers to address demand for sustainable, high-performance materials from over 900 global brand partners
- PrimaLoft iconic brand partners include Patagonia, Stone Island, L.L. Bean, Lululemon, adidas and Nike

As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Solvay Partnership

## Solvay and Origin Materials to Develop Advanced Carbon-Negative Materials for Automotive Industry – April 19, 2021

- Solvay, founded 1863, is a global leader in chemicals and materials with more than 23,000 employees in 64 countries, and net sales of €9 billion in 2020
- Collaboration to develop advanced materials for the automotive industry, including a drop-in ready specialty polyamide, a polymer for internal combustion engine technology as well as e-mobility systems like e-motors and power electronics that can provide resistance to heat, toughness, corrosion, and operate at high voltages
- The companies believe these materials will be critical to decarbonize supply chains in the automotive industry and achieve the zero-carbon car
- "The cooperation with Origin Materials is a new important element in our continuous commitment to sustainability which, together with our customers, is at the heart of our operations and growth strategy," said Mike Finelli, President of Solvay Specialty Polymers. "Today carbon negative-materials can be added to the evolution of our sustainability roadmap, which already includes different actions from the integrated use of renewables to generate electricity in our plants to pursuing more sustainable products with bio-sourced monomers or recycled content."




As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Ford Partnership

## “Origin Materials Launches Net Zero Automotive Program With Ford Motor Company” – June 10, 2021

- Launched Net Zero Automotive Program, a sustainable automotive supply chain initiative focused on industrializing new materials to drive decarbonization in the automotive industry
- Partnership will pursue drop-in applications for carbon negative PET plastic (polyethylene terephthalate) produced from sustainable wood residues with Origin technology
- Ford and Origin will also work together to develop sustainable pigments and fillers for automotive applications throughout the interior and exterior of the vehicle, including bumpers, paint pigment, door panels, tire filler, underbonnet foam sheet, black plastic, head rests, seat cushions, and arm rests



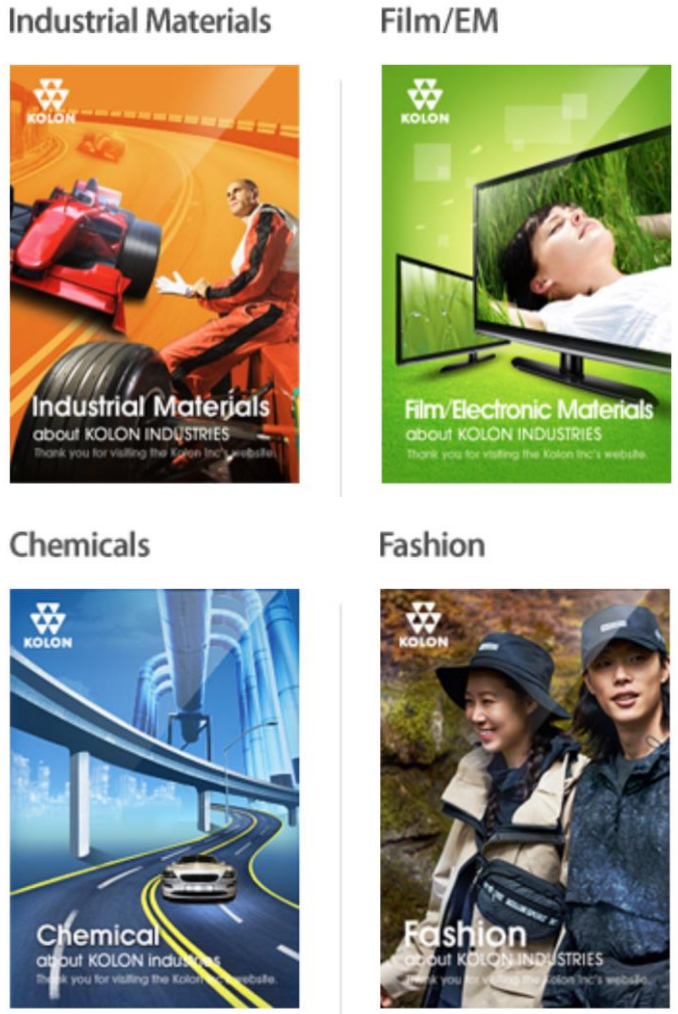
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated June 10, 2021

# Kolon Industries Partnership

KOLON INDUSTRIES

## "Origin Materials and Kolon Form Strategic Partnership to Industrialize Advanced Carbon-Negative Chemicals and Materials" – November 8, 2021

- Kolon Industries, a global leader in chemicals and materials, signed a multi-year capacity reservation agreement to purchase sustainable carbon-negative materials from Origin Materials
- Materials include novel polymers and drop-in solutions for select applications, with an initial focus on automotive applications
- The partnership includes development work aimed at commercializing polyethylene furanoate ("PEF"), a polymer with an attractive combination of performance characteristics for packaging and other applications, including enhanced barrier properties when compared with polyethylene terephthalate ("PET"), degradability, and other qualities.
- Origin Materials' technology platform is expected to produce cost-competitive, sustainable carbon-negative furandicarboxylic acid ("FDCA"), the primary precursor to PEF. Kolon has deep expertise in novel FDCA-based polymers, including PEF.




Kolon Industries areas of business[1]

1. Included to indicate Kolon Industries areas of business, but does not imply collaboration or product development activity in every business area

As previously reported in the Q3 2021 Earnings Presentation of Origin Materials, Inc. dated November 11, 2021.

# Mitsui Partnership

## “Origin Materials and Mitsui Form Strategic Partnership to Industrialize Advanced Carbon-Negative Chemicals and Materials”

– January 10, 2022

- Mitsui & Co., Ltd., a global leader in energy, machinery, chemicals, food, textile, logistics, finance, and more, signed a multi-year capacity reservation agreement to purchase sustainable carbon-negative materials from Origin Materials
- This strategic partnership aims to rapidly develop and industrialize new sustainable carbon-negative products for the automotive, chemicals, electronics, packaging, textiles, construction, and personal care industries based on Origin Materials’ patented technology platform
- The partnership will leverage Mitsui’s global supply chain strength, access to Japanese and international markets, and leadership in business innovation
- Mitsui is a global trading and investment company with a diversified business portfolio that spans approximately 63 countries in Asia, Europe, North, Central & South America, the Middle East, Africa and Oceania


Mitsui & Co., Ltd areas of business include mineral & metal resources, energy, machinery & infrastructure, chemicals, iron and steel products, lifestyle, and innovation & corporate development.[1]

1. Included to indicate Mitsui & Co., Ltd. areas of business, but does not imply collaboration or product development activity in every business area.

As previously reported in the Q4 2021 Earnings Presentation of Origin Materials, Inc. dated February 24, 2022.

# Minafin Partnership

- Belgium headquartered Minafin Group is a leading developer and manufacturer of fine chemicals with three main areas of expertise: health chemistry, green chemistry, and challenging chemistry
- Origin + Green Chemistry Division of the Minafin Group collaboration aims to bring cost-competitive biobased products to the market, with applications in the pharmaceutical, agricultural, cosmetics and personal care, and automotive industries
- This partnership demonstrates Origin's expanded product offerings apart from CMF- and HTC-derived materials, for applications in specialty and fine chemicals
- Minafin affiliate Pennakem aims to develop new technologies with Origin to further expand the market for Pennakem's biobased products
- Minafin business unit EcoXtract® is in discussions with Origin to commercialize its revolutionary biobased extraction process using sustainable carbon-negative materials produced by Origin. The EcoXtract® process efficiently extracts useful plant oils for food, cosmetics, and other applications



As previously reported in the Q4 2021 Earnings Presentation of Origin Materials, Inc. dated February 24, 2022.

# LVMH Moët Hennessy Louis Vuitton Partnership (1 of 2)

LVMH

"Origin Materials and LVMH Moët Hennessy Louis Vuitton Form Strategic Partnership to Bring Carbon Negative Materials to Perfumes and Cosmetics Industry"

– April 19, 2022

- Strategic partnership with LVMH Beauty, a division of LVMH, the global leader in luxury products
- LVMH has signed a multi-year capacity reservation agreement to purchase sustainable, carbon-negative polyethylene terephthalate ("PET") for use in packaging for perfumes and cosmetics
- New category expansion and Origin's first partnership with luxury brand
- Family of renowned LVMH Beauty brands includes Parfums Christian Dior, Parfums Givenchy, Guerlain, and others


LVMH Beauty brands shown: Parfums Christian Dior, Parfums Givenchy, Guerlain



As previously reported in the Q1 2022 Earnings Presentation of Origin Materials, Inc. dated May 9, 2022.

# LVMH Moët Hennessy Louis Vuitton Partnership (2 of 2)

LVMH

"At LVMH, with our Life 360 program, we made the decision that our packaging will contain zero plastic from virgin fossil resources in a near future. Origin's bioplastic technologies are playing a crucial role in helping LVMH achieve our sustainability targets without any compromise on quality. LVMH Beauty is happy to collaborate with Origin, supporting innovative technologies."

– Claude Martinez, Executive President & Managing Director LVMH Beauty


LVMH Beauty brands shown: Parfums Christian Dior, Parfums Givenchy, Guerlain



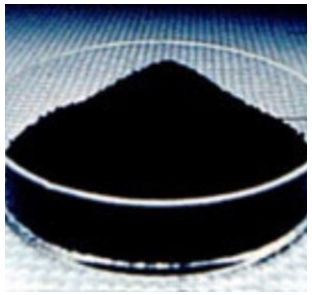
As previously reported in the Q1 2022 Earnings Presentation of Origin Materials, Inc. dated May 9, 2022.

# Mitsubishi Chemical Group Partnership

## “Origin Materials and Mitsubishi Chemical Group Partner to Develop Advanced Carbon-Negative Materials for Tires”

– April 28, 2022

- Strategic partnership with Mitsubishi Chemical Group (“MCG”), Japan’s leading diversified chemicals and advanced materials producer
- MCG will convert HTC produced by Origin into high-performance analogs of specialty carbon black materials
- Represents Origin’s first announced carbon black partnership
- Carbon black applications include paint, printing inks, colored resin, toner, tires, and rubber products





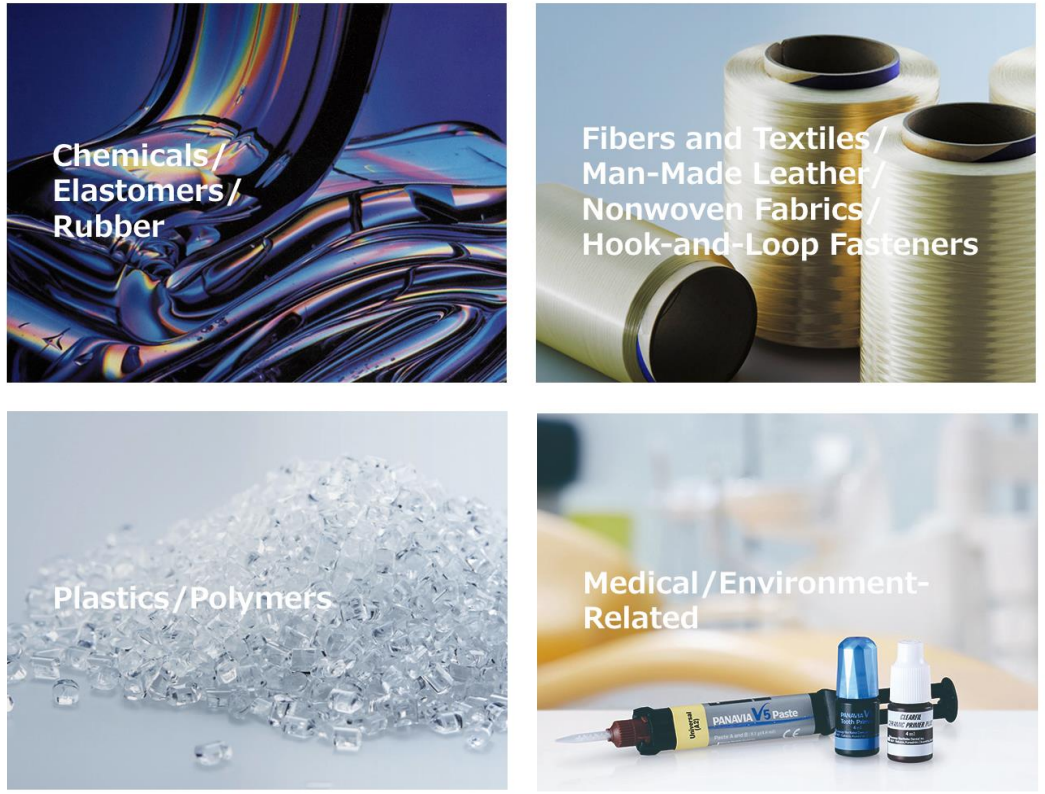
As previously reported in the Q1 2022 Earnings Presentation of Origin Materials, Inc. dated May 9, 2022.

# Kuraray Partnership

## “Origin Materials and Kuraray Announce Carbon Negative Materials Partnership ”

– June 16, 2022

- Kuraray, a global Japanese specialty chemicals company and one of the largest suppliers of industrial polymers and synthetic microfibers, signed a multi-year capacity reservation agreement to purchase sustainable carbon negative materials from Origin
- Strategic partnership to commercialize advanced carbon negative materials for diverse polymer applications
- The sustainable, carbon negative intermediate chemicals produced by Origin can be used in the large-scale synthesis of many polymers, including purified terephthalic acid (“PTA”), PET, and polyamide




Kuraray areas of business. Source: kuraray.com



As previously reported in the Q2 2022 Earnings Presentation of Origin Materials, Inc. dated August 3, 2022.

# Revlon Initiative

REVLON

## “Origin Materials and Revlon Announce Initiative to Develop Next-Generation Sustainable Packaging for Cosmetics”

– July 20, 2022

- Revlon, a leading global authority and beauty trendsetter in the world of color cosmetics and hair care, signed a memorandum of understanding to reserve commercial volumes of Origin PET
- Joint initiative to develop advanced carbon negative materials for next generation cosmetics packaging


Revlon is among the leading global beauty companies, with some of the world’s most iconic and desired brands and product offerings in color cosmetics, skin care, hair color, hair care and fragrances under brands such as Revlon, Revlon Professional, Elizabeth Arden, Almay, Mitchum, CND, American Crew, Creme of Nature, Cutex, Juicy Couture, Elizabeth Taylor, Britney Spears, Curve, John Varvatos, Christina Aguilera and AllSaints. Source: Revlon.com



As previously reported in the Q2 2022 Earnings Presentation of Origin Materials, Inc. dated August 3, 2022.

# Intertex Partnership

## "Origin Materials and Intertex Announce Partnership to Produce 100% Bio-Content Carbon Black for Rubber Compounding"

– July 25, 2022

- Intertex World Resources, a leading value-added distributor of synthetic rubber, signed an offtake agreement to purchase sustainable carbon negative carbon black from Origin
- Origin carbon black, made from Origin's hydrothermal carbon ("HTC"), is a versatile 100% bio-content filler and pigment
- Carbon black can be used in a wide range of applications including belts and hoses, mechanical rubber goods, tires, plastic masterbatch, and toners
- Partnership aims to produce carbon black for tires including N660, N550, and N762 specifications, as well as for belts, hoses, rubber seals, plastic extrusion, and other mechanical rubber goods markets



As previously reported in the Q2 2022 Earnings Presentation of Origin Materials, Inc. dated August 3, 2022.

# ATC Plastics Partnership

ATC PLASTICS

## "Origin Materials and ATC Plastics Announce Partnership to Bring 100% Bio-Content Carbon Black to the Plastics Industry"

– July 27, 2022

- ATC Plastics, a leading global manufacturer of black color concentrates, agreed to purchase sustainable carbon-negative carbon black from Origin Materials
- The global market for carbon black is projected to reach $26 billion by 2025, expanding at 6% CAGR. Plastics is anticipated to be the fastest-growing application for carbon black from 2019 to 2025 resulting from its use in the production of high-performance products
- Application targets include plastic masterbatch for corrugated pipe and plastic manufacturing processes such as blow molding, injection molding, pipe extrusion, compounding, plastic film and sheet, and rotational molding

Source: atcplastics.com

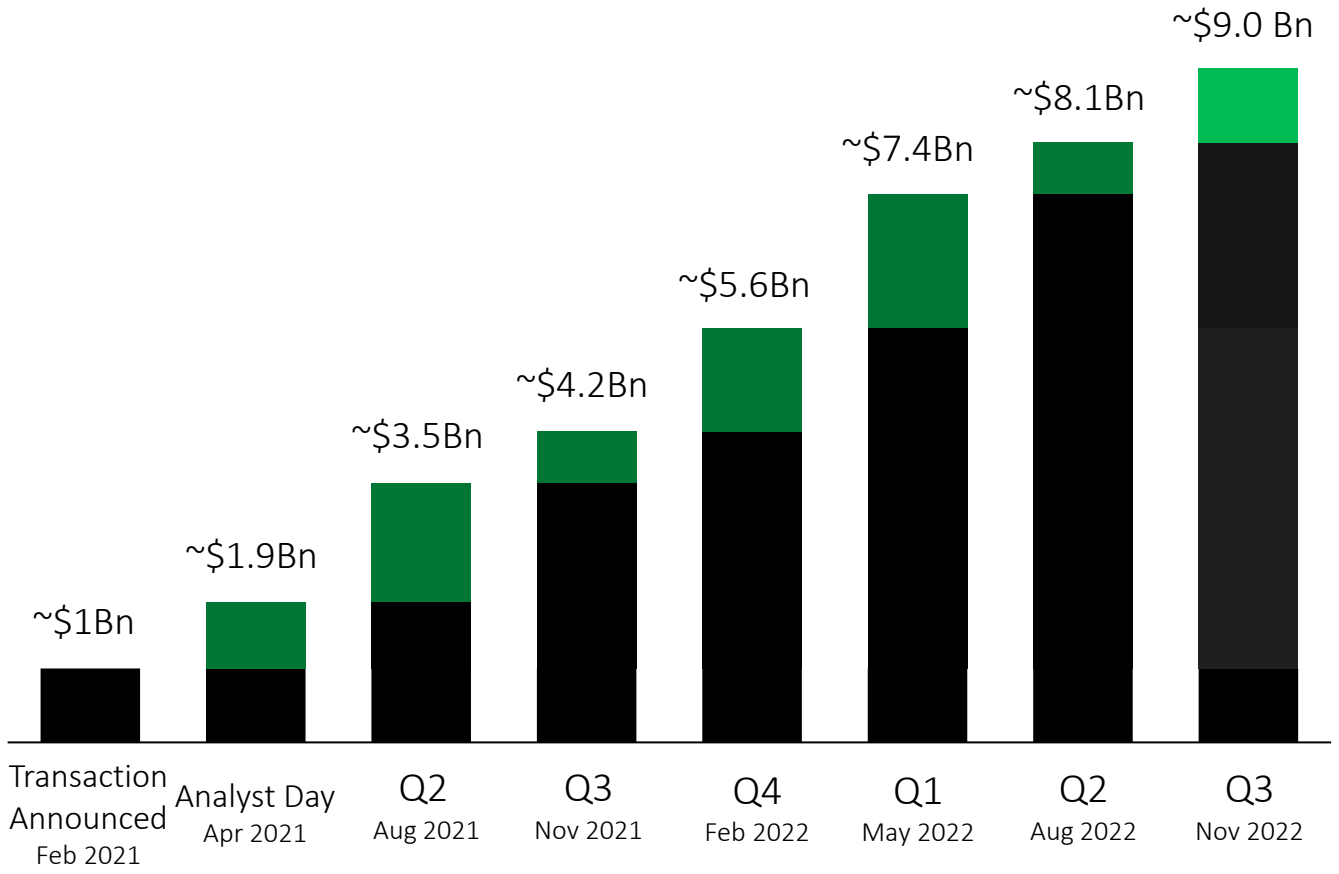


As previously reported in the Q2 2022 Earnings Presentation of Origin Materials, Inc. dated August 3, 2022.

# Origin customer demand has increased more than ninefold to $9.0Bn since February 2021 announcement to go public

Total demand is $9.0Bn in either offtake agreements or capacity reservations[1]

## Customer Demand, $Bn cumulative[2]



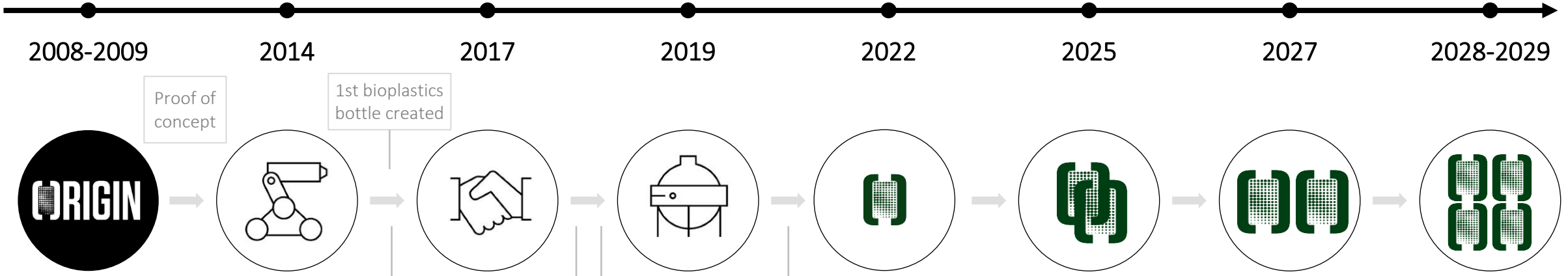

## Select Origin Customers & Partners

Ford, Nestlé, PepsiCo, Mitsubishi Gas Chemical, AECI, Danone, Solvay, Stepan, Primaloft, Packaging Matters, Kolon Industries, Mitsui & Co., LVMH, Minafin Group, Mitsubishi Chemical Group, Kuraray, Revlon, Intertex Resources, ATC Plastics

- Major Asian soft drink company
- Major global retail company
- Major global toy company
- Major U.S. supermarket chain
- Major Japanese chemical company
- Major Asian chemical company

1. Figures assume maximum offtake amounts and exercise of full capacity reservations.
2. In the chart, green color denotes the incremental increase in customer demand for a given quarter.
Source: Origin Materials.
As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Origin is building on a strong foundation toward rapid growth…




## Established

Origin founded by John Bissell and Ryan Smith

## Pilot

Demonstrated technology at pilot scale

## Partnerships

Initial investor commitments

## Construction

Detailed Origin 1 engineering and module fabrication start

## Production

Origin 1 expected to operate by year end 2022

Expect contracted portion of Origin 2 and Origin 3 to be 100% sold out

## Commercial

Launch Origin 2, commercial scale CMF plant

Expect contracted portion of Origin 4 to be 100% sold out

## Expansion

Origin 3 launch

## Growth

Origin 4 & 5 launched

Partnerships / Licenses announced

Nestlé

DANONE

EASTMAN
Eastman Chemical Company

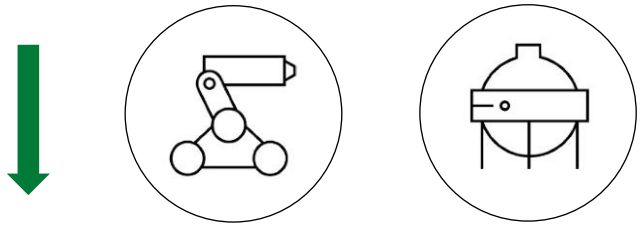
PEPSICO

**…with detailed expansion plans to 2030 and beyond**

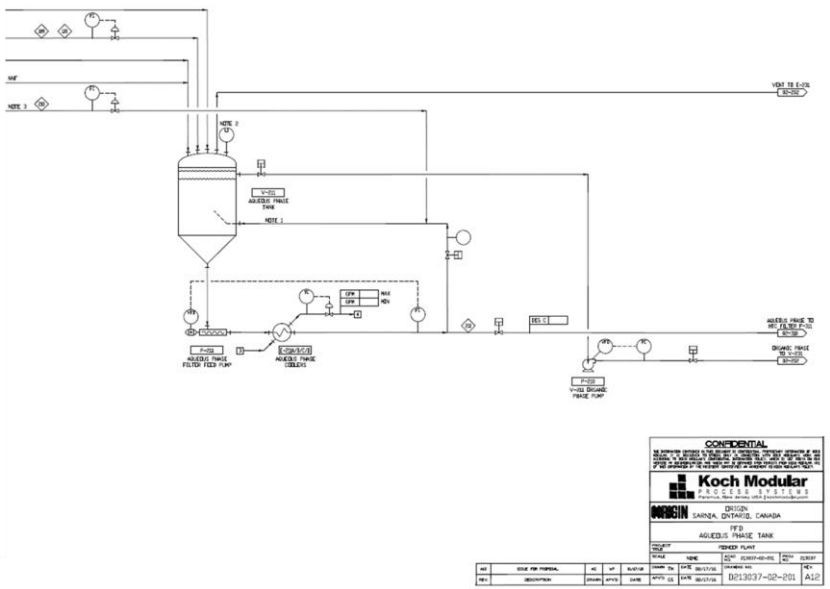
Source: Origin Materials.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Construction – Origin 1 (1 of 15)

## >10 years bench/pilot scale chemistry & engineering



## Origin 1 design




## Origin 1 core technology module fabrication



As previously reported in the Q2 2021 Earnings Presentation of Origin Materials, Inc. dated August 12, 2021.

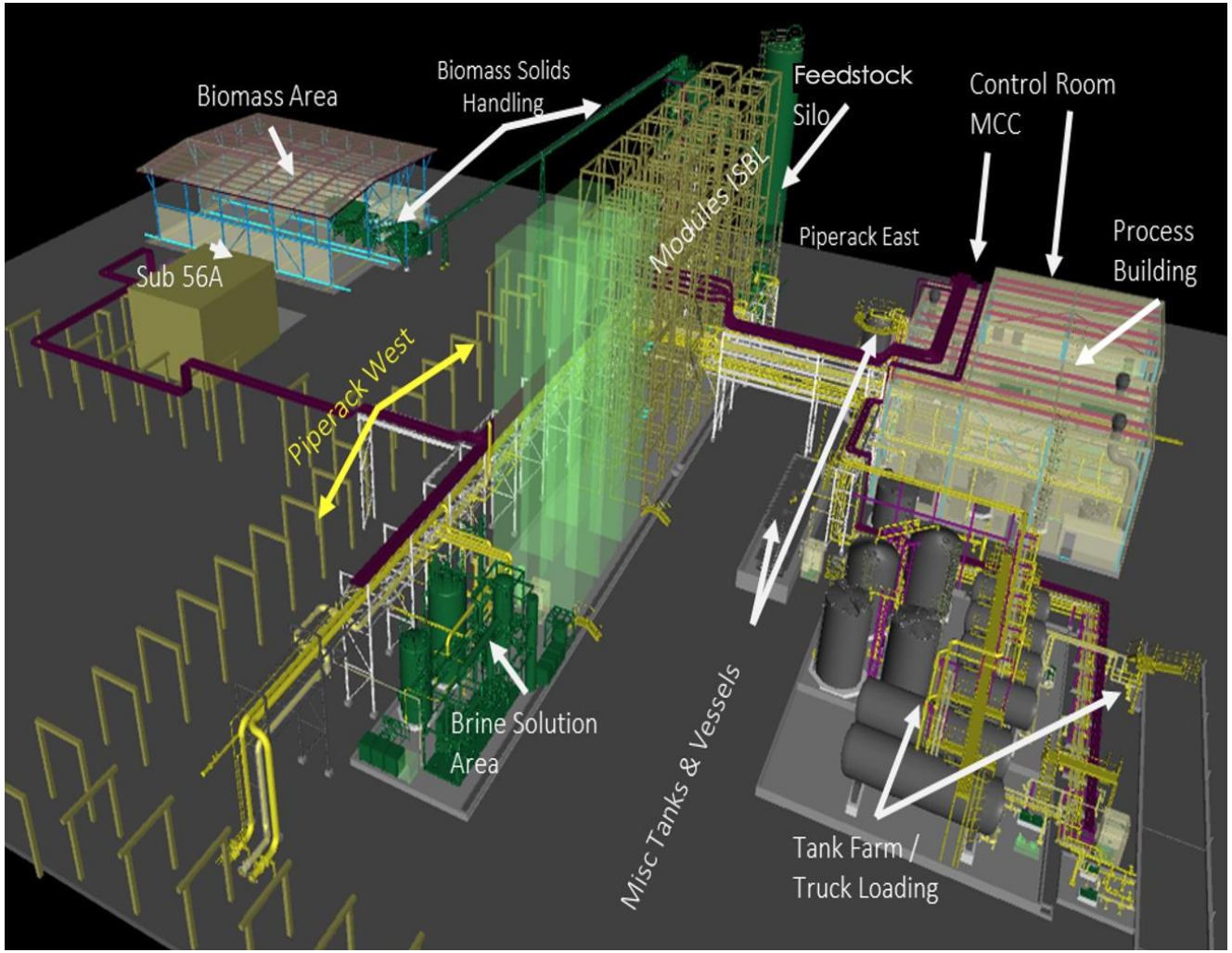
# Construction – Origin 1 (2 of 15)

**Foundations**

**Tanks & other equipment**

**Core technology modules**


**Origin 1 Plant**






As previously reported in the Q2 2021 Earnings Presentation of Origin Materials, Inc. dated August 12, 2021.

# Construction – Origin 1 (3 of 15)

## Module installation milestone achieved ahead of schedule in October 2021

All 17 core process modules installed successfully, 6 months ahead of schedule announced in April 2021.



As previously reported in the Q3 2021 Earnings Presentation of Origin Materials, Inc. dated November 11, 2021.

# Construction – Origin 1 (4 of 15)

The ENCON evaporator module system was placed and bolted three months ahead of the schedule announced in April 2021

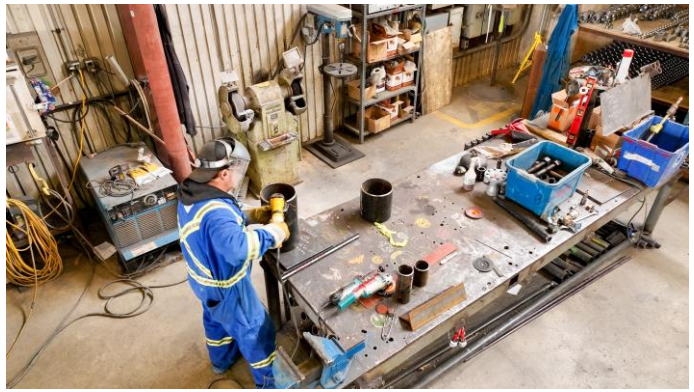
ENCON tanks being offloaded and placed



As previously reported in the Q4 2021 Earnings Presentation of Origin Materials, Inc. dated February 24, 2022.

# Construction – Origin 1 (5 of 15)

Piping and steel fabrication, started nearly 6 months ahead of the schedule announced in April 2021, is on track

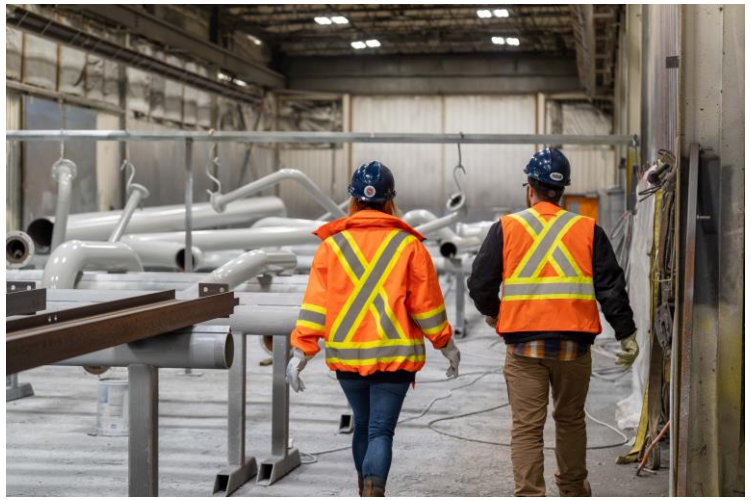
Pipe fabrication prior to painting



As previously reported in the Q1 2022 Earnings Presentation of Origin Materials, Inc. dated May 9, 2022.

# Construction – Origin 1 (6 of 15)

Fabricated pipes are painted before assembly into steel pipe racks



Painted pipe, including 80-foot pieces. Next, the pipes are assembled into pipe rack modules and shipped to the Origin 1 site for installation in the field

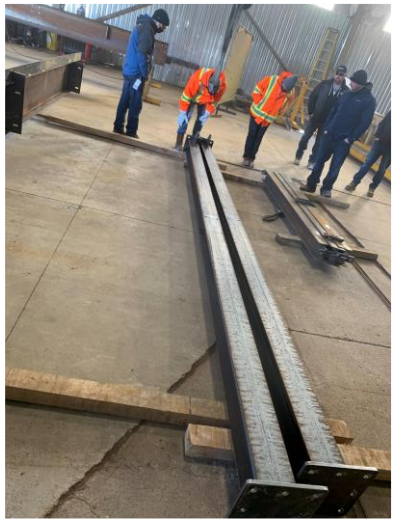


As previously reported in the Q1 2022 Earnings Presentation of Origin Materials, Inc. dated May 9, 2022.

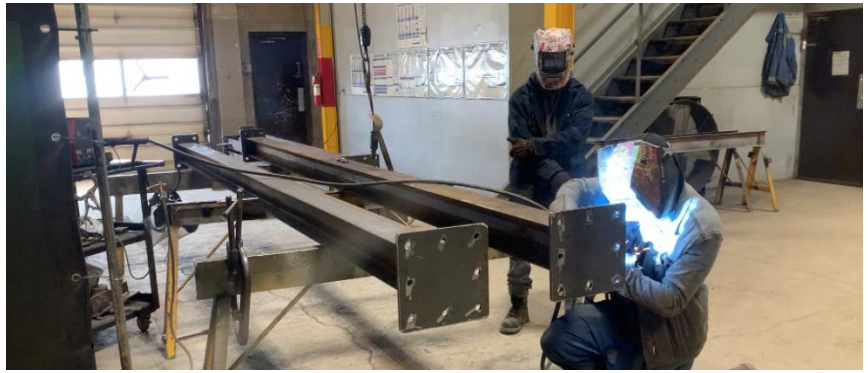
# Construction – Origin 1 (7 of 15)

Steel pipe racks interconnecting the plant's key production modules being assembled and installed in the field

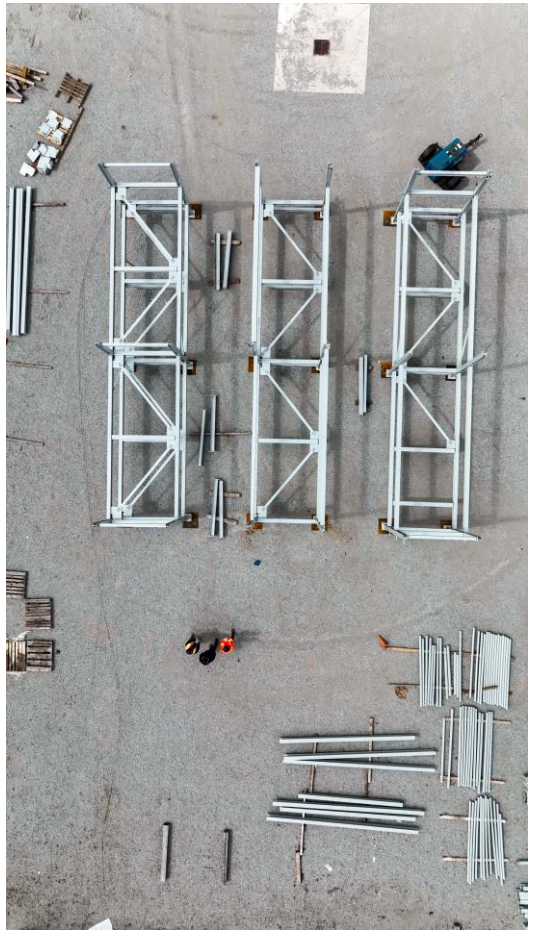
Blast cleaning steel verticals



Finished steel verticals



Pipe rack module verticals in fabrication



Steel pipe rack module assembly

Key production module showing process equipment. The newly fabricated pipe rack modules are designed to interconnect the plant's key production modules



As previously reported in the Q1 2022 Earnings Presentation of Origin Materials, Inc. dated May 9, 2022.

# Construction – Origin 1 (8 of 15)

HTC building construction started and HTC separation filter press delivered and placed



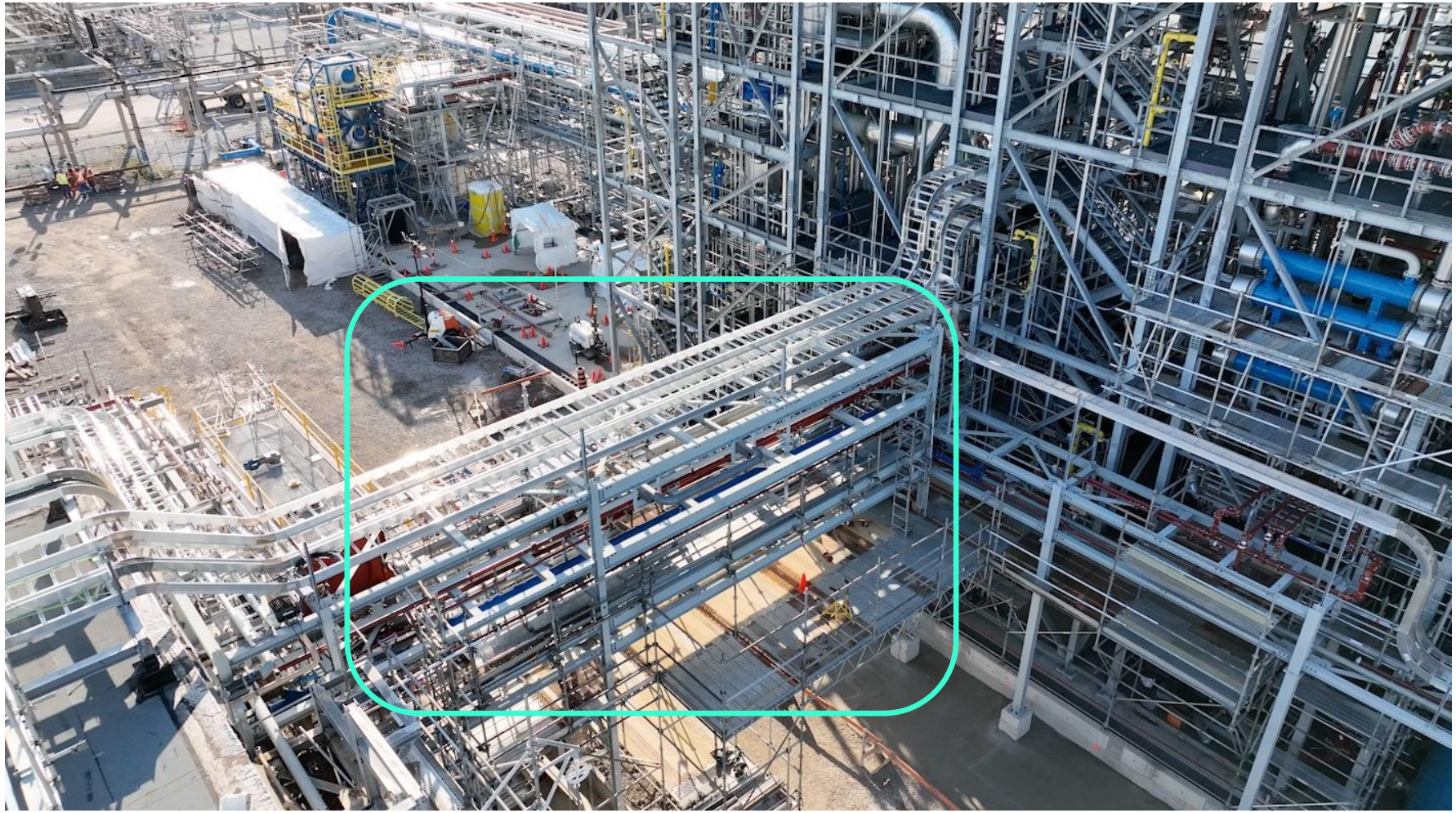
HTC is one of Origin's platform products with a wide range of applications including carbon black. Carbon black is used in belts and hoses, mechanical rubber goods, tires, plastic masterbatch and more. The filter press utilizes the same HTC separation technique employed at Origin's pilot plant in California but is about 100 times the size



As previously reported in the Q2 2022 Earnings Presentation of Origin Materials, Inc. dated August 3, 2022.

# Construction – Origin 1 (9 of 15)

Assembly of pipeline and electrical systems progressing



The main pipe rack connects the key production modules to the HTC building, tank farm, and power distribution building. This pipe rack delivers process chemicals to and from the tank farm and key production modules. In addition, it will supply electrical power from the power distribution building to the key production modules and ENCON evaporator module system.



As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction – Origin 1 (10 of 15)

All major equipment has been delivered including the power distribution building, which contains the motor control center


The power distribution building contains the motor control center



As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction – Origin 1 (11 of 15)

All major equipment has been delivered including the control room, which houses the DCS (“distributed control system”)

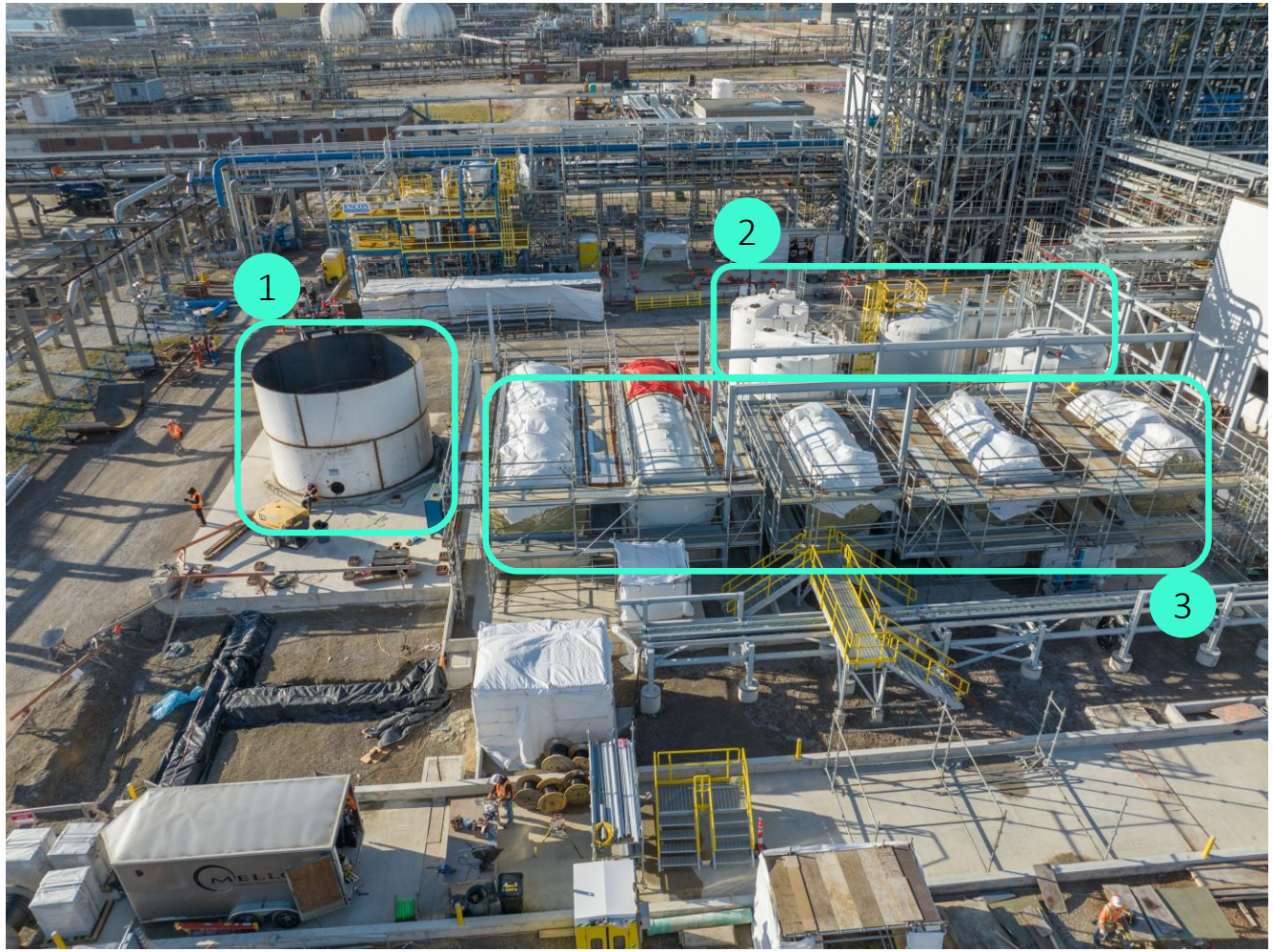
The control room will contain the DCS, the brain of the plant which controls every powered system

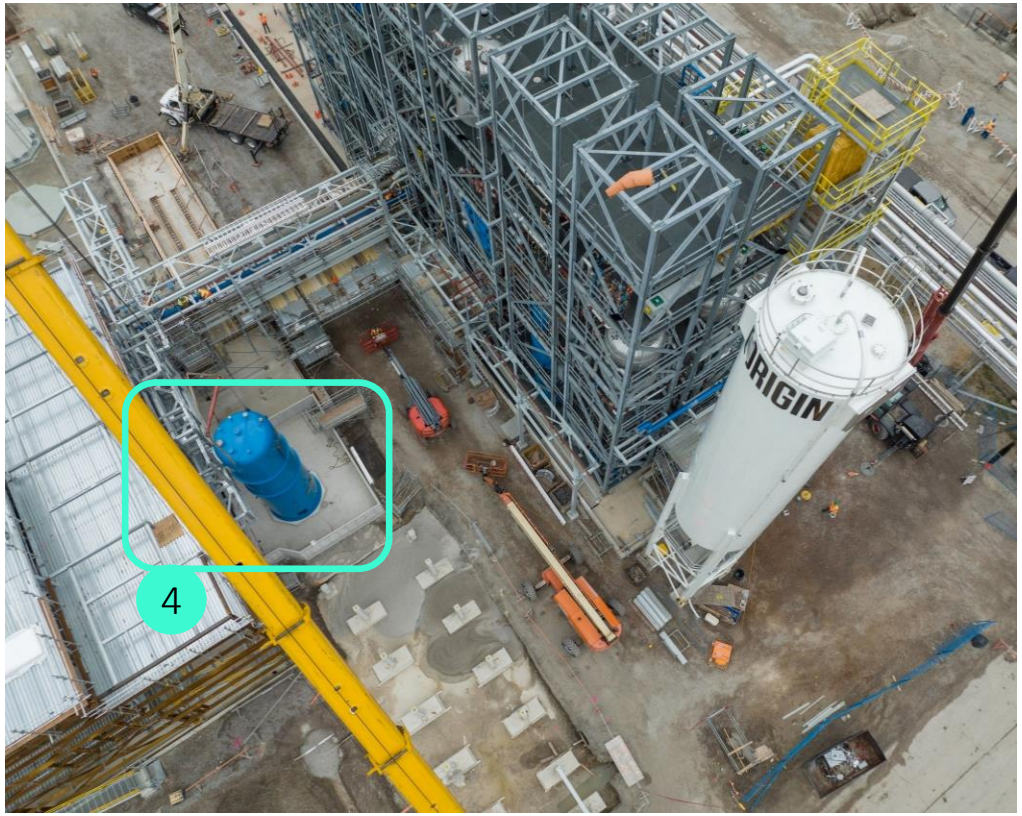


As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction – Origin 1 (12 of 15)

Additional storage tanks have been delivered




1. Storage tank for containing unrefined CMF before its distillation step. Due to its large size, our distillation feed tank was assembled onsite rather than delivered by road. The unpainted areas allow for welding. 2. Brine tanks and HCl tanks. 3. Solvent tanks and storage tanks for finished CMF. 4. Brine recovery tank



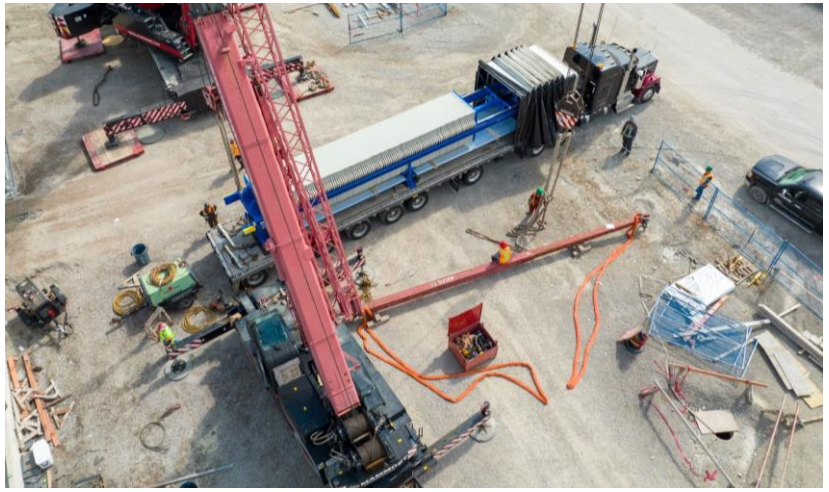
As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction – Origin 1 (13 of 15)

The HTC building has been substantially completed and additional HTC recovery equipment has been delivered


HTC is one of Origin's platform products with a wide range of applications including carbon black. Carbon black is used in belts and hoses, mechanical rubber goods, tires, plastic masterbatch and more. The HTC building contains both filter presses, used to process HTC

The second HTC filter press has been delivered, shown here in protective plastic wrap. The filter press uses the same HTC separation technique employed at Origin's pilot plant in California but is about 100 times the size



Shown at left is the first filter press, delivered during Q2 2022, included to provide a sense of scale for the image above

# Construction – Origin 1 (14 of 15)

Biomass building completed

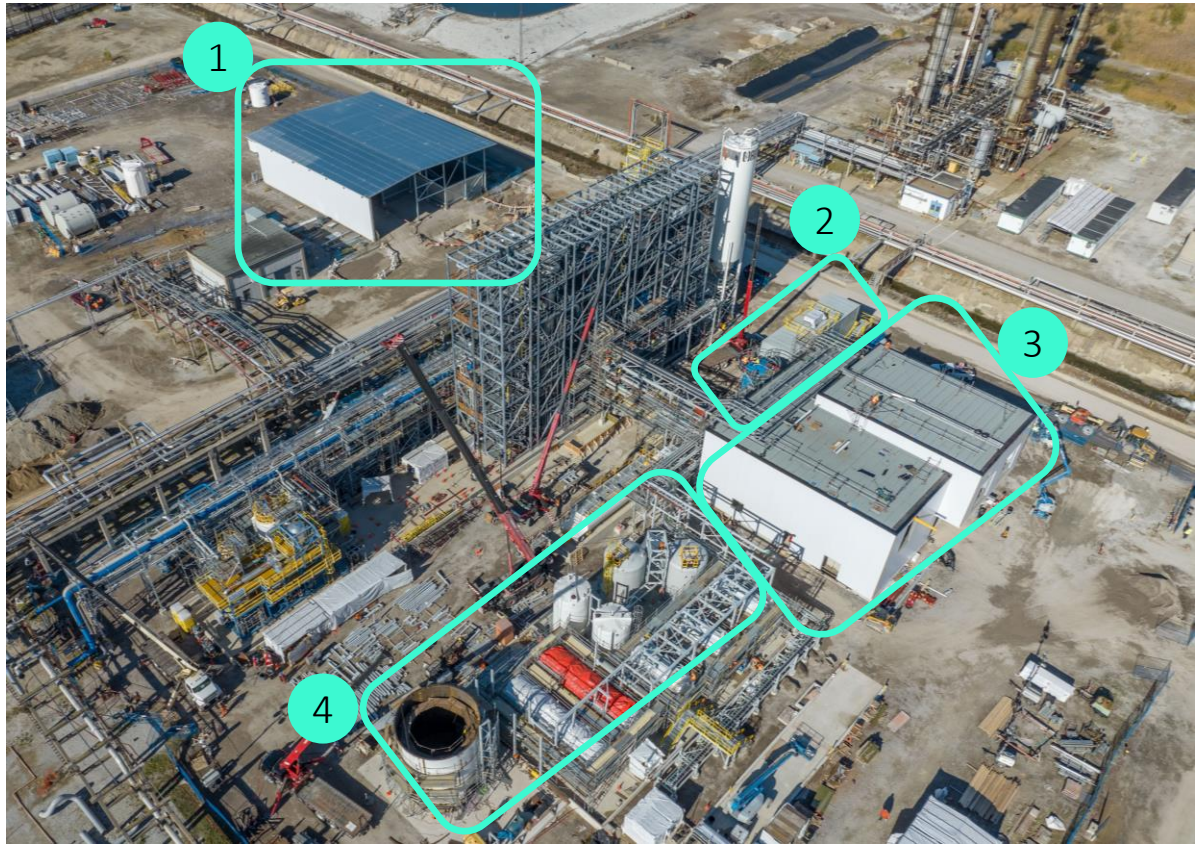
The biomass building will store sustainable wood residues entering the plant prior to processing and conveying to the reactor system

As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction – Origin 1 (15 of 15)

Origin 1 is on track for completion by the end of 2022

**"Before":** Q2 2022 photograph




**"After":** 1. Completed biomass building. 2. Power distribution building, brine recovery tank, and control room (obscured by HTC building). 3. Substantially completed HTC building. 4. Additional tanks including unrefined CMF storage tank (mid fabrication), brine tanks, HCl tanks, solvent tanks, and storage tanks for finished CMF.



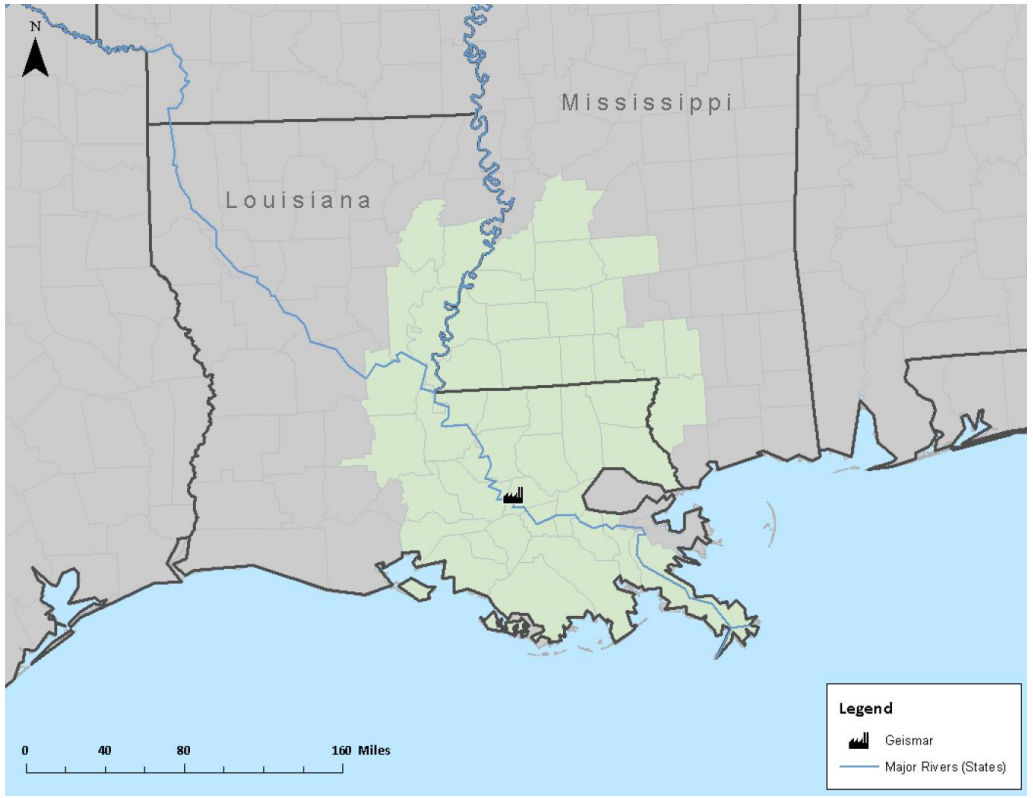
As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction – Origin 2 (1 of 3)

**"Origin Materials Announces Geismar, Louisiana as Location for Second Manufacturing Plant, Origin 2"** – February 16, 2022

- The company has selected a site in Geismar, Louisiana, for the construction of its first world-scale manufacturing facility, Origin 2, subject to finalization of economic incentives from the State of Louisiana
- The plant is expected to convert an estimated 1 million dry metric tons of sustainable wood residues each year into carbon-negative materials used to make PET and HTC for a wide variety of end markets
- The site offers access to plentiful sustainable wood residues, including "residuals" or waste wood from local large-scale pulp mills. The Geismar wood basin is estimated to consist of approximately 650 million green short tons[1] of inventory[2]
- Pending state and local incentives are estimated to be worth more than $100 million, and the State of Louisiana has preliminarily awarded Origin a Private Activity Bond volume cap allocation in the amount of $400 million
- Construction expected to start by mid-2023 and the plant is expected to be operational mid-2025

*(Continued on next page)*




The Geismar wood basin, shown in green, offers plentiful sustainable wood residues, including "residuals" or waste wood from local large-scale pulp mills[1]

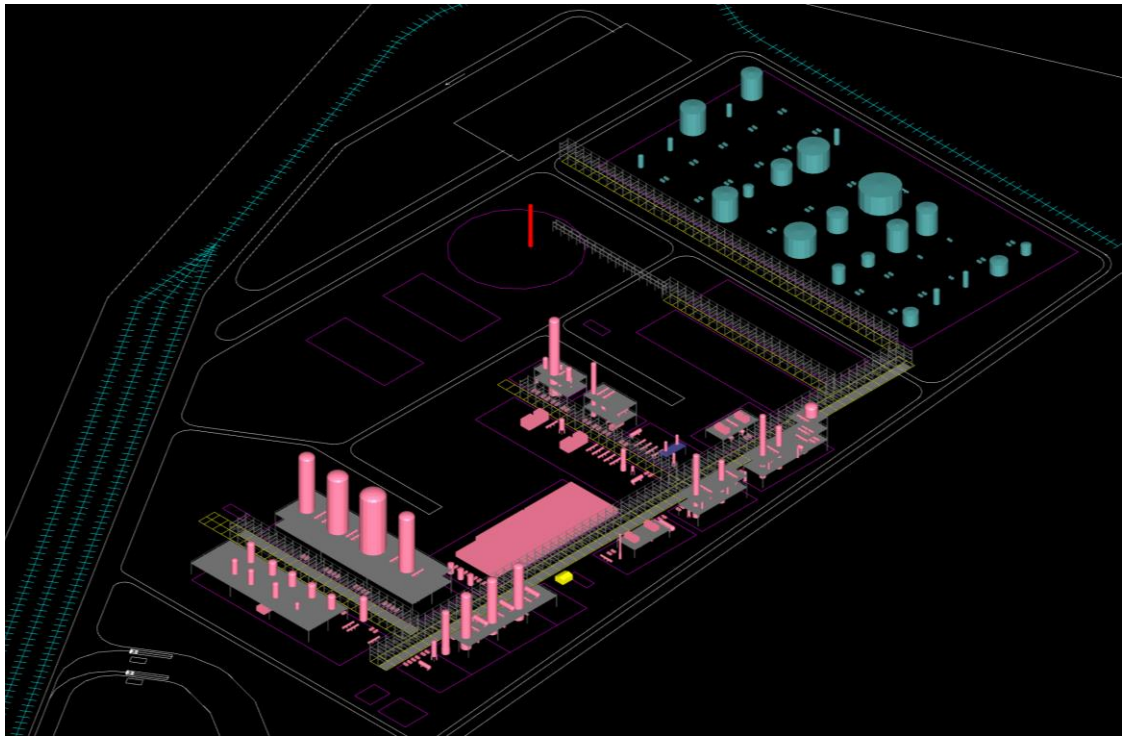
1. 2,000 pounds, inclusive of moisture content.
2. Fisher International.

As previously reported in the Q4 2021 Earnings Presentation of Origin Materials, Inc. dated February 24, 2022.

# Construction – Origin 2 (2 of 3)

"Origin Materials Announces Geismar, Louisiana as Location for Second Manufacturing Plant, Origin 2" – February 16, 2022

- The local industrial cluster offers access to reliable utilities, including hydrogen pipelines, ethylene pipelines, valuable inorganic species, water, and wastewater treatment
- Opportunities to place Origin products in the local industrial ecosystem and to participate as a customer in that ecosystem as well
- The site offers exceptional logistics via rail and water, located along the Mississippi River with easy barge access to the Gulf Coast, which is valuable for the distribution of chemical intermediates
- The site is nearby other chemical company potential partners, with approximately 15 chemical companies and refineries in the nearby Geismar area
- Baton Rouge and New Orleans have extremely skilled labor pools across refining, pulp and paper, forestry and agronomy, feedstock logistics, and chemicals
- The 150-acre facility would create an estimated 500 construction jobs, 200 local full-time positions, and between 500 and 1,000 indirect local jobs



Preliminary rendering of Origin 2 at Geismar site



As previously reported in the Q4 2021 Earnings Presentation of Origin Materials, Inc. dated February 24, 2022.

# Construction – Origin 2 (3 of 3)

Origin has selected Hunt, Guillot & Associates as its owner's engineer for Origin 2

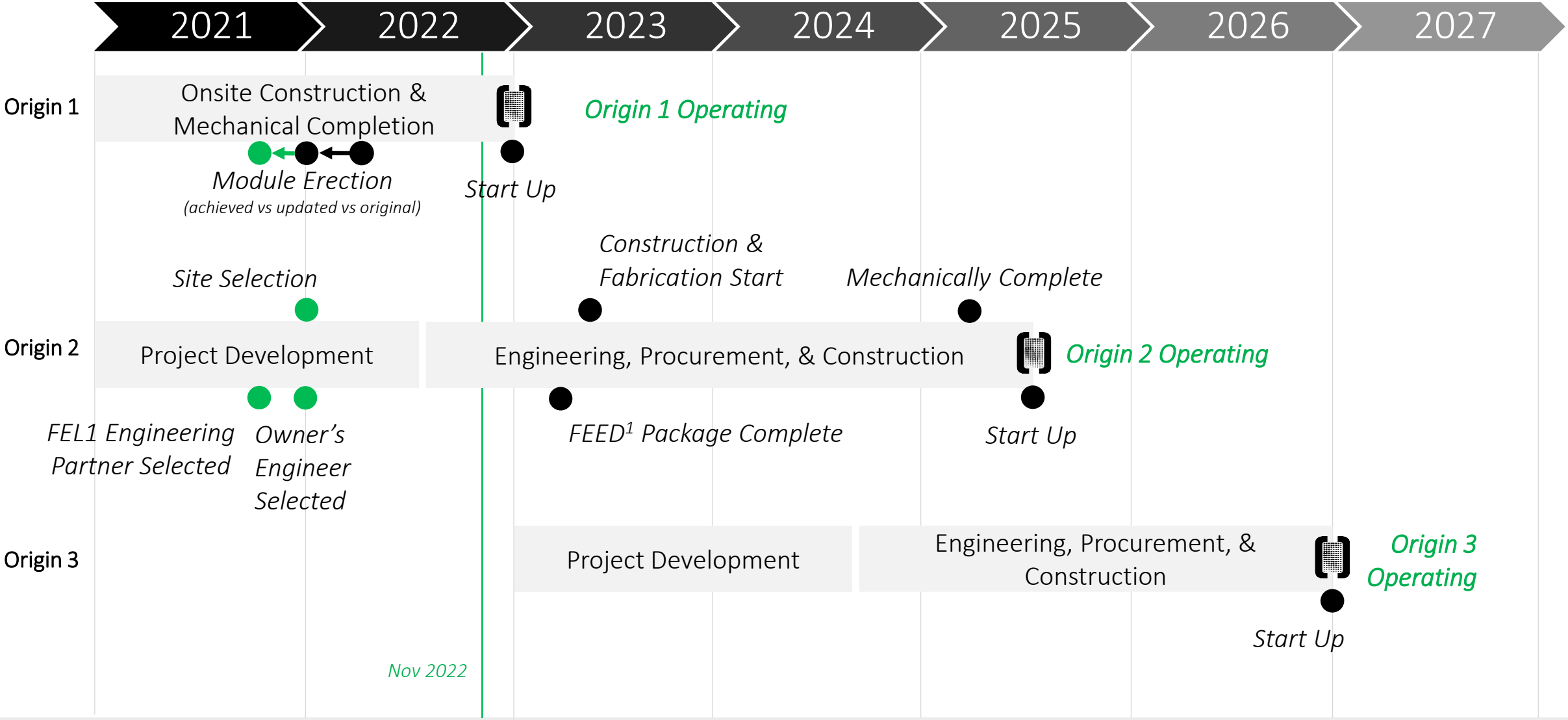
- The owner's engineer will provide full-service engineering to support and augment Origin in all phases of the project, from early design to construction, logistics, planning, detailed scheduling, cost forecasts, progress tracking and reporting, and work stream integration
- As a multi-disciplined project management and engineering services company, HGA has provided professional services to an extensive portfolio of customers throughout numerous industries for 25 years. HGA has ten locations throughout Louisiana, Texas, Arkansas, and Alabama and has provided full-service offerings in over 30 states, Puerto Rico, Canada, China, and Mexico
- HGA is located close to many tier 1 engineering companies, the Origin 2 site in Geismar, Louisiana, and much of the Origin design team
- HGA owner's engineer experts have conducted multiple billion-dollar projects
- HGA has extensive wood handling and forest products experience

HGA projects



As previously reported in the Q4 2021 Earnings Presentation of Origin Materials, Inc. dated February 24, 2022.

# Construction schedule – Origin 1, Origin 2, and Origin 3




1. Front-end engineering design.

As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Construction schedule – Origin 1

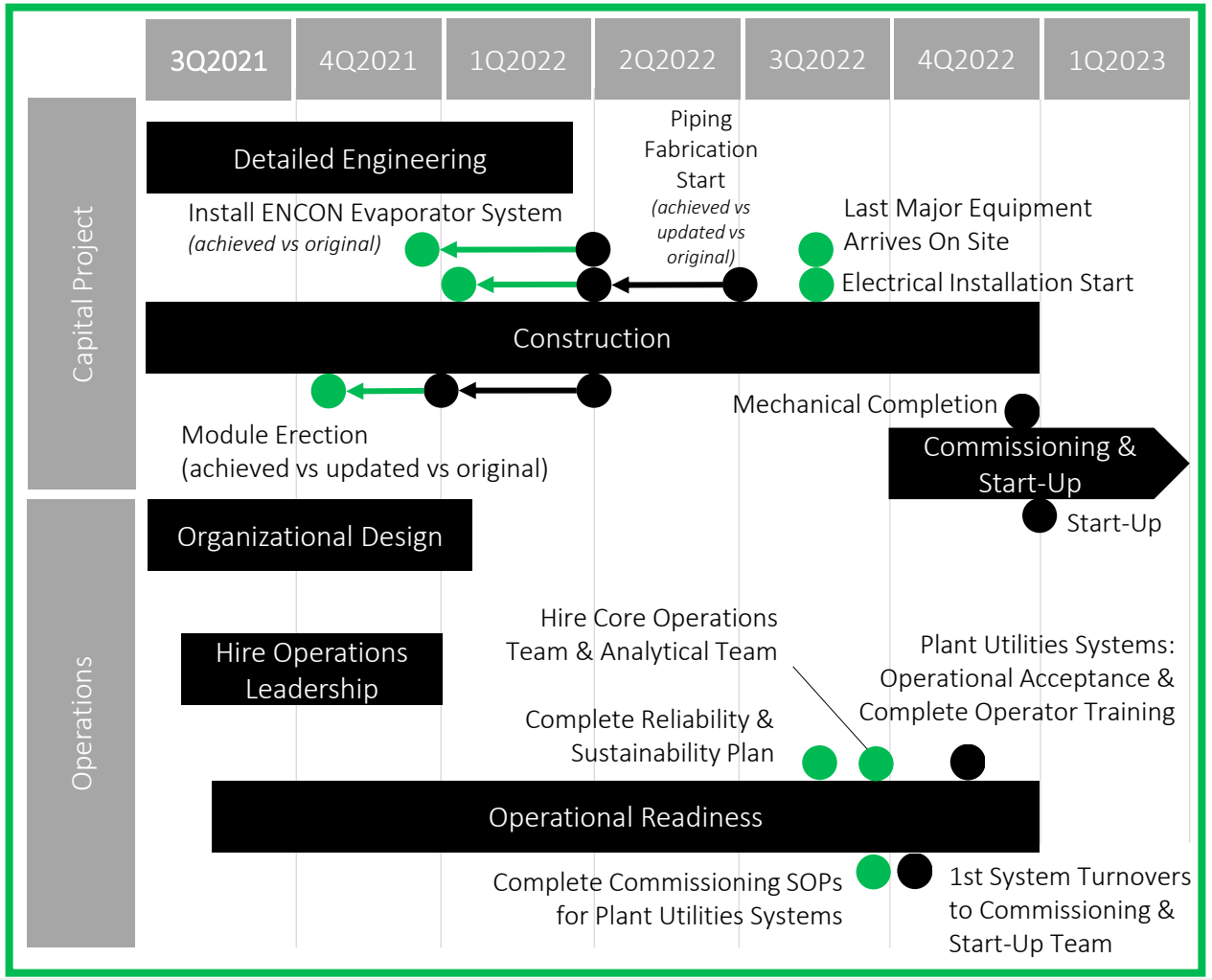
**Origin 1 – plant purpose**

Produce CMF and HTC at commercial volumes

Produce CMF and HTC and other intermediates in volumes that allow customers to qualify products and applications other than PET

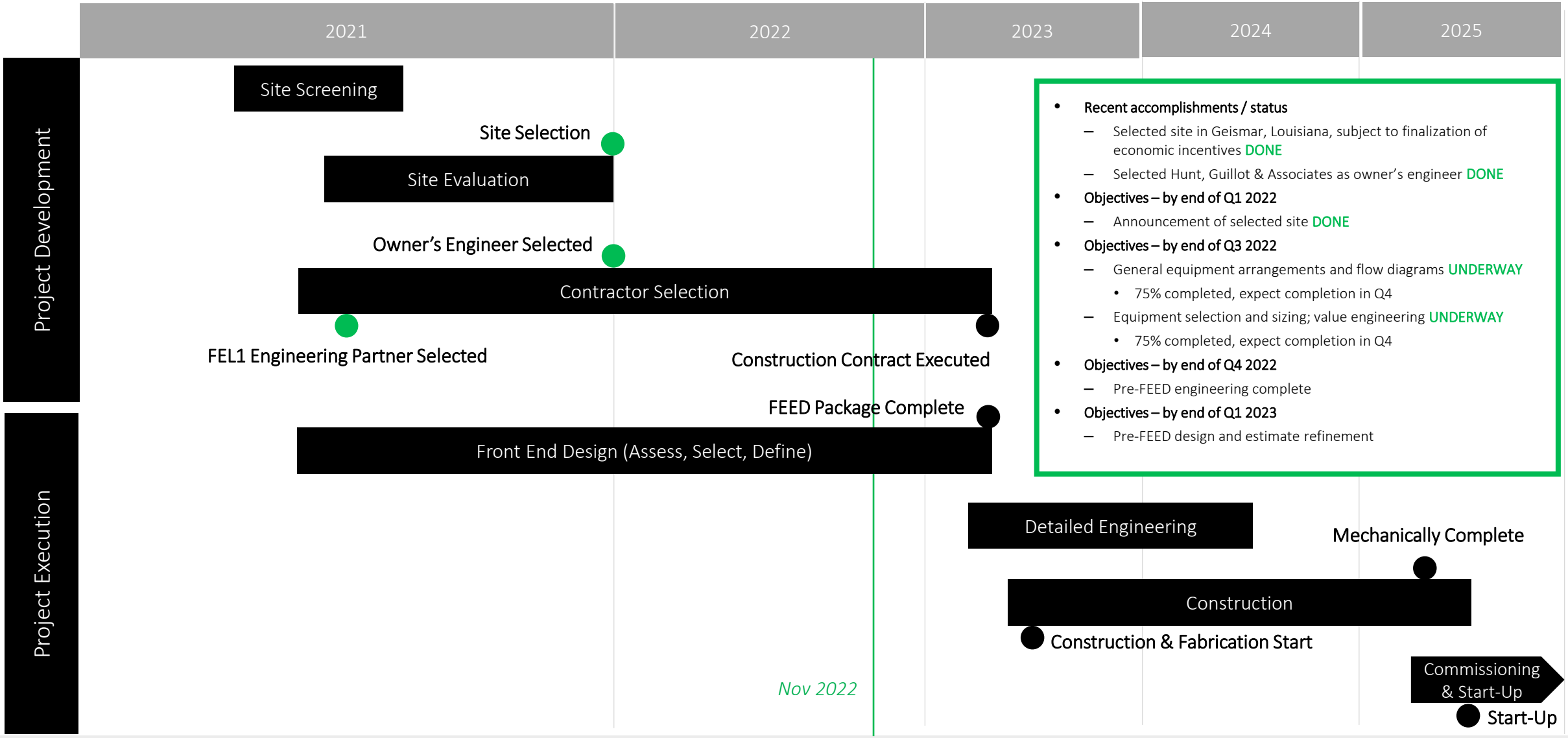
- **Objectives – by end of Q2 2022**
  - 1st round of operations hiring DONE
  - Piping modules delivered and installed DONE
  - Storage tanks for solvent received onsite DONE
  - HTC building construction start DONE
  - Filter press received and installed DONE
- **Objectives – Q3 2022**
  - Electrical installation start DONE
  - Last major equipment arrives on site DONE
  - Complete reliability and sustainability plan DONE
  - Hire core operations team & core analytical team DONE
  - Complete commissioning SOPs for plant utilities systems DONE
- **Objectives – Q4 2022**
  - 1st system turnovers to commissioning and start-up team
  - Complete operator training for plant utilities systems
  - Complete operational acceptance of plant utilities systems
  - Complete commissioning SOPs for plant process systems
  - Complete operator training for plant process systems
  - Complete operational acceptance for plant process systems
  - Mechanical completion

Origin 1 Timeline (Detail View)




As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

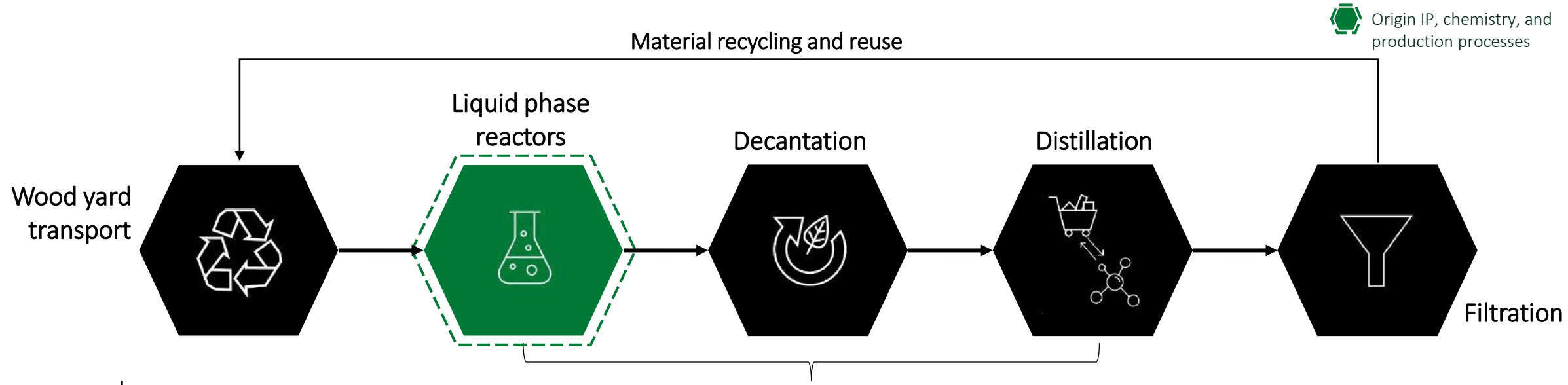
# Construction schedule – Origin 2






As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Origin is delivering transformational chemistry through mature, industry-standard equipment, materials, and technical processes




Used in existing industry

**~100%**
of **pulp** facilities

**Majority**
of **oil and chemical** company processes

**Ubiquitous**
in **oil and chemical** company processes

**23** Patent families protect unique CMF and HTC production processes[1]

**Zero** untested mechanical processes required for operations / scale-up[2]

1. As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.
2. Origin does not rely on any novel mechanical processes in its plants. All of Origin's mechanical processes are standard mechanical processes utilized in the chemicals and refining industry.
Source: Origin Materials.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021, except where otherwise noted.

# Origin's technology uses conventional chemical processing, which is inherently well suited to scale-up

Moreover, Origin technology offers additional technical and economic advantages for process scale-up

## Origin technology scale-up advantages

**Proven approach for scaling up bio-processes**
Conventional chemical bio-processes that have scaled up include bio-diesel, Kraft process, PLA, ethanol to ethylene, and renewable diesel

**Conventional equipment**
Standard equipment used in the chemical industry for centuries makes scale-up more straightforward than processes requiring new mechanical designs

**Extensively tested at pilot scale**
Origin's process has been extensively run and stress tested at pilot scale for over 10 years

**Powerful demand pull**
Carbon efficiency and the low cost & volatility of feedstock drive demand for Origin's products

## Technology comparison

| | Origin<br>conventional chemo-catalytic chemical process | Fermentation Process | Thermochemical Process<br>(e.g. gasification / pyrolysis) |
|---|---|---|---|
| carbon efficiency<br>(product yield[1]) | high ✓<br>(removes oxygen via $H_2O$) | low<br>(removes oxygen via $CO_2$) | low<br>(removes oxygen via $CO_2$) |
| feedstock variation | robust ✓<br>(a vast number of compositions can be used) | moderate ✓<br>(causes stress and inhibition) | fragile<br>(salt accumulation and process inhibition) |
| equipment | conventional ✓ | conventional ✓ | novel |
| temperature | moderate ✓ | moderate ✓ | high |

1. Yield of carbon in product as a fraction of carbon input
As previously reported in the Q2 2021 Earnings Presentation of Origin Materials, Inc. dated August 12, 2021.

# Origin has meaningful advantages over bioplastics companies

Origin advantaged category vs. non-fossil competitors

| | ORIGIN | Company A PHA | Company B PEF / FDCA | Company C PLA | Fossil |
|---|---|---|---|---|---|
| TAM $ Bn | $1,000 | $0.1 - $0.5 | $250 | $1.5 - $5.0 | $1,960 |
| Carbon footprint[1], indexed to fossil | <0 | ~0.7 | 0.3 | 0.3 | 1.0 |
| Illustrative feedstock cost, $/lb | $0.03 Timber | $0.36 Vegetable Oil | $0.36 Fructose | $0.15 Glucose | $0.18 Oil |
| Process reliability | Chemical | Fermentation | Chemical | Fermentation | Chemical |
| Market maturity | Established | *Nascent* | *Nascent* | *Nascent* | Established |
| Recyclability | Strong existing infrastructure[2] | *No existing infrastructure* | *Limited Infrastructure* | *Extremely limited infrastructure* | Strong existing infrastructure |
| Degradability | Non-degradable PET; Industrial composting PEF[3] | Natural composting | Industrial composting[3] | Industrial composting | Non-degradable |


1. For end product; carbon footprint based on publicly available feedstock footprint for analogous biofuels process (CORSIA, REDII). 2. Refers only to PET. 3. Further study needed to determine if industrial composting reproduces results observed in degradation studies.
Source: Company websites, filings and press releases; Market and technical research reports; Origin Materials management team.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin brings an unrivaled set of industry veterans, leaders, and visionaries

**John Bissell**
Co-Founder & Co-CEO

- Founded Origin Materials in 2008
- Featured on Forbes 30 under 30

**Rich Riley**
Co-CEO

- Former CEO Shazam and senior executive at Yahoo!
- 20+ years managing rapid-growth organizations

**Nate Whaley**
CFO

- 20 years C-Suite experience scaling complex high growth business across industries

**Stephen Galowitz**
CCO

- Co-founder / Chief Development Officer of renewables company
- 15 years experience in renewables space

**Ryan Smith**
Co-Founder & CTO

- Founded Origin Materials in 2008
- Process Engineer at NEC Electronics

**Josh Lee**
General Counsel

- Attorney at Irell & Manella, LLP
- Sr. Analyst at Strumwasser & Woocher, LLP

**Roman Wolff**
VP of Engineering

- Engineering leader at TETRA Technologies
- 30 years of experience in engineering on more than 20 projects

**Mako Masuno, PhD**
Chief Scientist

- Pathway Development & Optimization Expert
- Organic Chemistry Professor

**Tanja Gruber, PhD**
VP of R&D

- R&D leader at Dupont and IFF
- 20 years experience in academia and biochemical industry

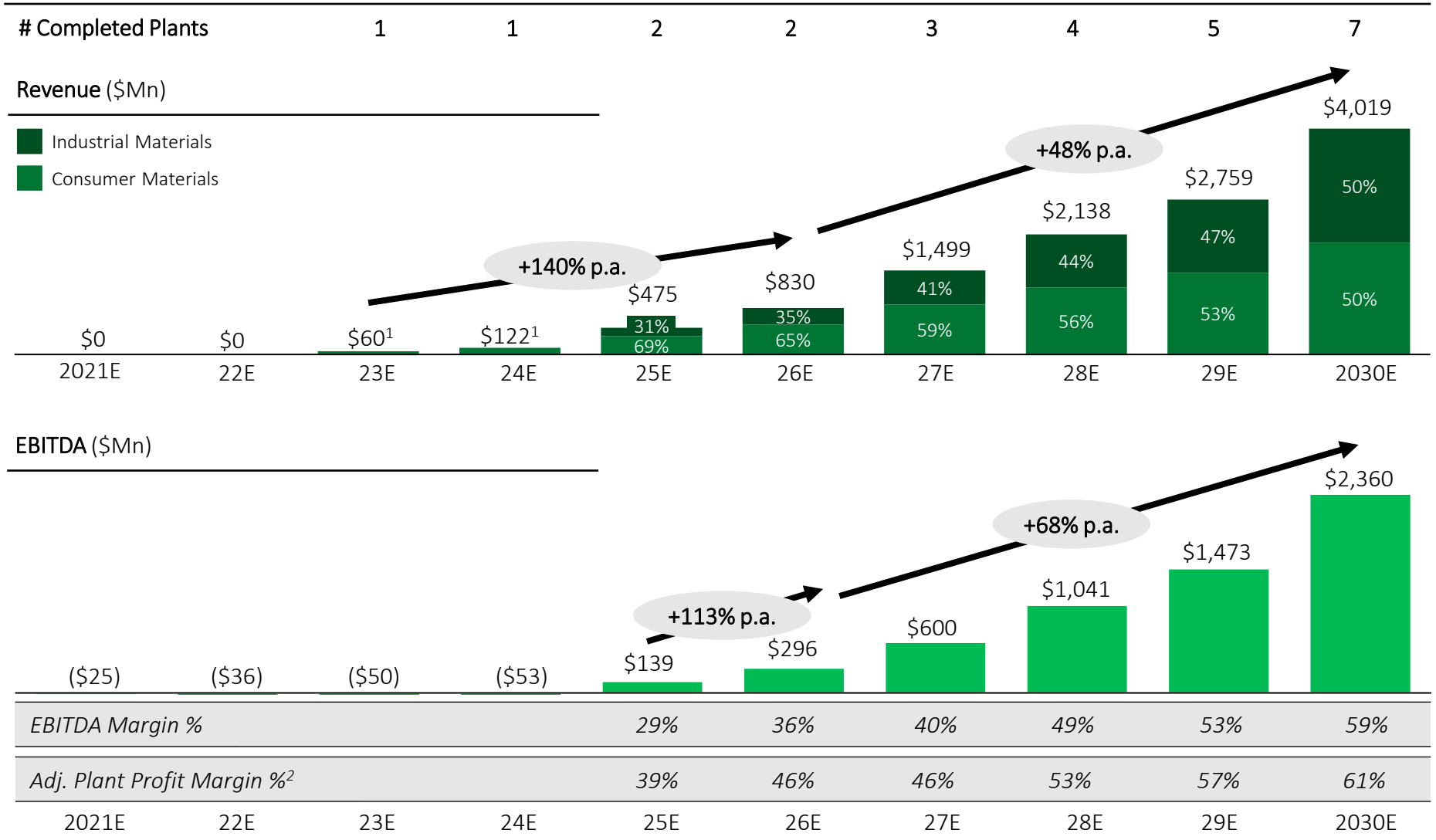
**Chris Williams-Campbell**
VP of HR

- 15 years experience in biotech, pharmaceutical, and medical device industries

As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021, with the addition of Tanja Gruber, PhD, and Chris Williams-Campbell as previously reported in the Q1 2022 Earnings Call of Origin Materials, Inc. dated May 9, 2022.

# Appendix A: Previously Disclosed Financial Details (Analyst Day 4/19/21, 8-K, 10-Q, 10-K Filings)

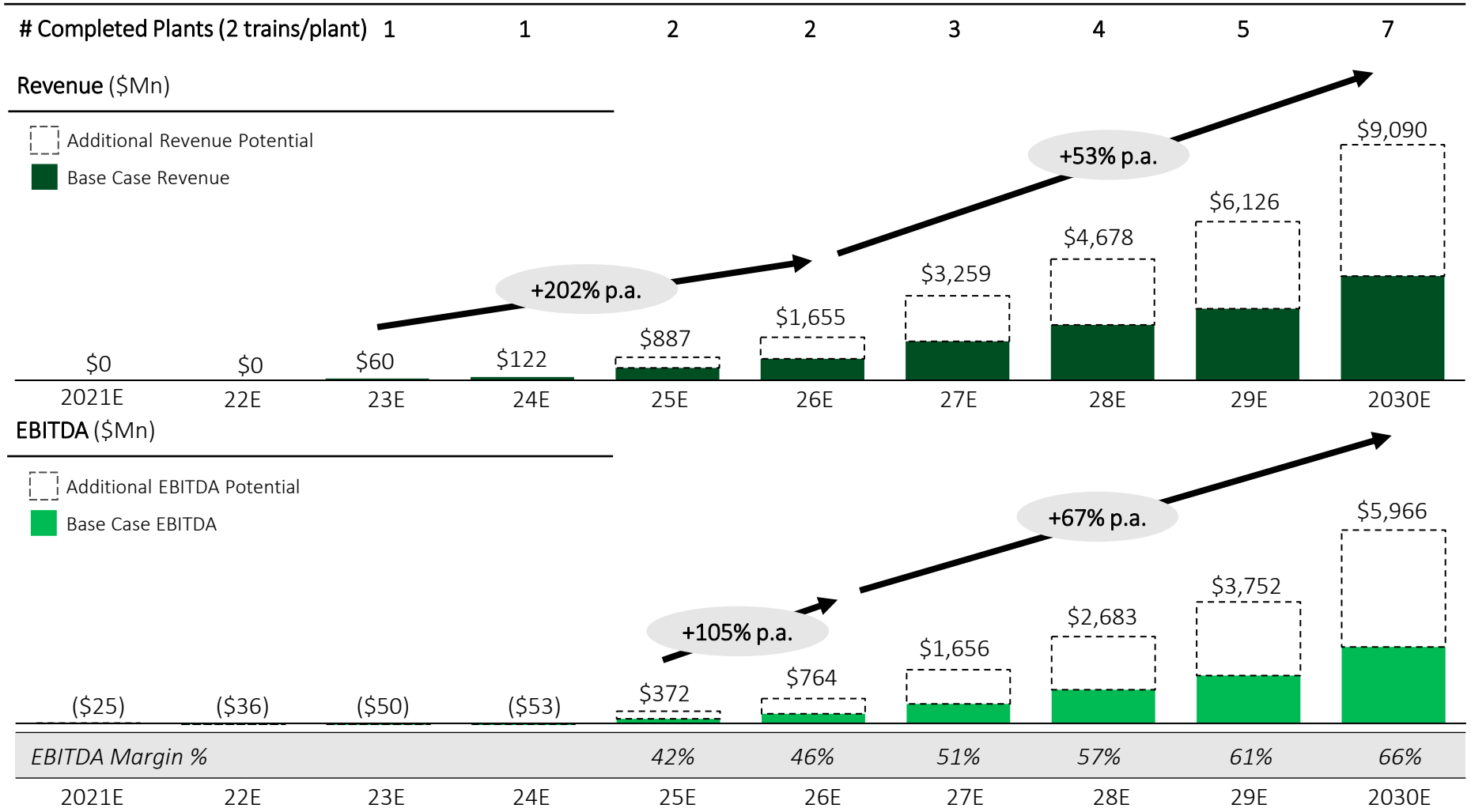
# Origin expects to deliver a superior financial profile for years to come




- Revenue and materials volume forecast / growth based on satisfying existing customer off-take contracts and expected future demand
- Pricing assumptions are based on negotiated contract pricing with existing customers
- Feedstock cost assumptions reflect historically low volatility of pine pulpwood prices
- Cost assumptions also include additional required overhead during scaling
- EBITDA margins and associated growth are expected to improve throughout the forecast period as a result of increasing economies of scale from additional plants coming online
- Includes R&D expenditures to maintain Origin as the global leader in low or negative carbon material technologies

Source: Origin Materials management estimates. 1. 100% of revenue allocated to consumer materials. 2. A non-GAAP measure defined as Revenue less all plant direct cash costs (excluding depreciation, amortization, interest and taxes) divided by revenue.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin could see significant additional revenue potential




- Assumes Origin is able to secure moderately higher prices in new customer contracts as a result of strong demand and carbon negative materials scarcity
- Concurrently, assumes Origin adds capacity at a faster rate than base business plan[1], adding two trains per new plant, effectively doubling capacity of each
- Feedstock prices assumed unchanged as primary feedstock supply (forest / wood processing residues) is ample and well above Origin's needs

1. Subject to capital availability.
Source: Origin Materials management estimates.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Long-term target operating model

| | Origin Plant 1 | Origin Plant 2 | Origin Plant 3-7 Average |
|---|---|---|---|
| Illustrative Run-Rate Economics | | | |
| Mn lb. biomass input | 49 | 2,205 | 2,205 |
| Mn lb. products sold | 146 | 2,412 | 1,313 |
| CapEx ($Mn) | $70[1] | $1,072 | $811 |
| ROIC (Adj. plant margin/CapEx) | NM | 35.9% | 51.1% |

| | $Mn | $/lb. product | $Mn | $/lb. product | $Mn | $/lb. product |
|---|---|---|---|---|---|---|
| **Revenue** | **$122** | **$0.84** | **$708** | **$0.29** | **$637** | **$0.49** |
| Consumer materials | $122 | | $414 | | $291 | |
| Industrial materials | | | $294 | | $346 | |
| Biomass feedstock | ($7) | ($0.05) | ($56) | ($0.02) | ($56) | ($0.04) |
| Other feedstock & variable costs | ($7) | ($0.05) | ($93) | ($0.04) | ($108) | ($0.08) |
| Tolling & downstream processing | ($106) | ($0.73) | ($154) | ($0.06) | ($39) | ($0.03) |
| **Adj. Contribution[2]** | **$2** | **$0.01** | **$405** | **$0.17** | **$435** | **$0.33** |
| Plant labor + other fixed costs | ($6) | ($0.04) | ($20) | ($0.01) | ($20) | ($0.02) |
| **Adj. Plant Profit** | **($4)** | **($0.03)** | **$385** | **$0.16** | **$415** | **$0.32** |
| **Primary Products** | PET/F, CMF, higher value application development samples | | PET, HTC fuel | | PET, PET/F, PEF[3], CMF, FDCA[4], carbon black, activated carbon, HTC fuel | |

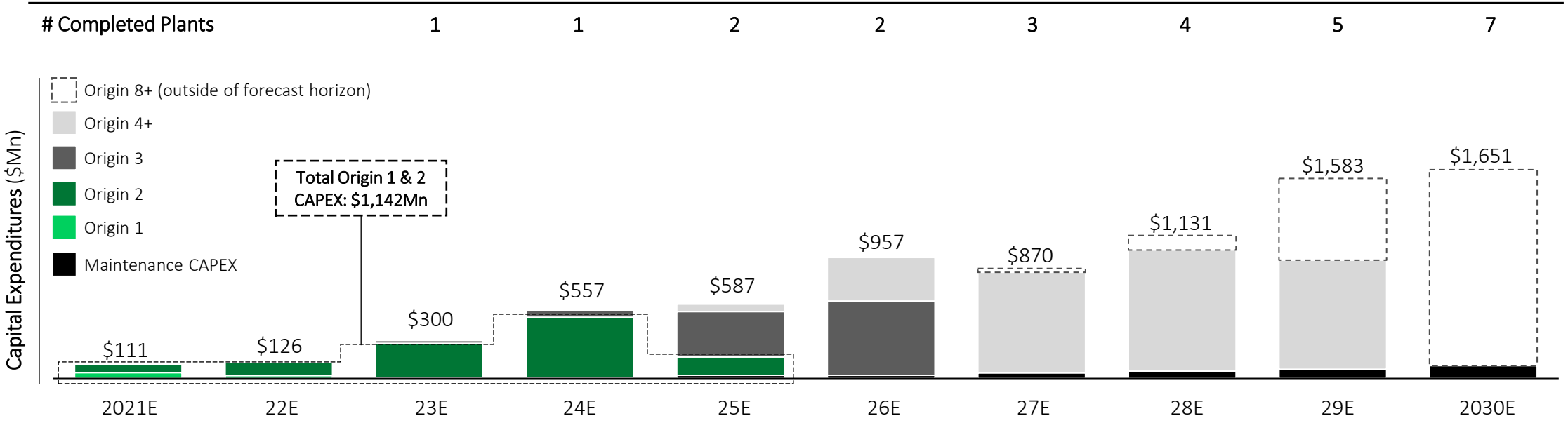
1. Denotes incremental capex to be spent in 2021-2022.
2. Reflected as adjusted gross profit in the base case projections included in the registration statement on Form S-4 as filed with the SEC by Artius Acquisition Inc. ("Artius") on March 9, 2021, as amended.
3. Polyethylene furanoate. 4. Furandicarboxylic acid. Source: Origin Materials management estimates.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Anticipated fully funding of Origin 1 and Origin 2 from cash on hand and traditional project financing sources

| Cash Flow Sources & Uses from 2021E to Origin 2 Revenue in 2025E ($Mn) | |
|---|---|
| | June 2021 Forecast |
| Gross Proceeds | $529 |
| Plus: Existing cash balance | 3 |
| Less: Transaction fees and expenses (net of prepaid out of existing cash balance)[1] | (61) |
| **Net Cash Balance[2]** | **$471** |
| Add: Project Financing[4] | $804 |
| Add: Local, State, and Federal Government Incentives / Support[4] | 185 |
| Less: Origin 1 Growth CAPEX[5] | (70) |
| Less: Origin 2 Growth CAPEX[5] | (1,072) |
| Less: Cash Flow from Operations '21 – '25[3] | (218) |
| **Remaining Cash to Fund Origin 3 and Beyond[6]** | **$100** |

1. Transaction expenses figure excludes $3Mn prepaid out of existing cash balance; total transaction expenses including prepaid is $65Mn. 2. Assumes none of the Artius warrants to acquire 35.5Mn shares are exercised. 3. Cash flow from operations calculated as EBITDA + Working Capital + Maintenance CAPEX from 2021 until reaching Origin 2 revenue in 2025. 4. Project financing and government incentives / support have not yet been secured. 5. Origin has confirmed its estimates for construction cost after considering the latest input from various suppliers, construction companies and consultants specializing in chemical plant constructions. Origin has built into its capital budget for Origin 1 and Origin 2 contingencies as a reserve for any unexpected construction "overrun" that are appropriate at this stage of planning. 6. Defined as net proceeds less annual cash flow from operations less equity financed growth CAPEX for Origin 1 and 2.
Source: Origin Materials management estimates. As previously reported on Origin's Form 8-K filed on August 12, 2021.

# Anticipated fully funded growth plan to profitability




- Current transaction and anticipated financing and grants are expected to be sufficient to fully finance the construction of Origin 1 and Origin 2 and achieve EBITDA profitability
- CapEx based on estimates from world-leading EPC companies that Origin will partner with to deliver holistic capital project solutions
- Capacity scaling based on current customer contract commitments / orders and anticipation of demand from global industrial complex rushing to secure “drop in” decarbonized materials to meet their carbon commitments

Source: Origin Materials management estimates.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Share count as of 9/30/2022

| Class | Outstanding Shares of Common Stock |
|---|---|
| **Total Shares Outstanding[1]** | **138,203,935** |
| Shares subject to forfeiture[1] | 4,500,000 |
| **Total Shares Outstanding, including Shares subject to forfeiture[1]** | **142,703,935** |
| | Shares Reserved for Future Issuance Pursuant to Potential Earnouts, Outstanding Warrants, and Options |
| Public Warrants[2] | 24,149,960 |
| Private Warrants[2] | 11,326,667 |
| Legacy Origin Earnout Shares[3] | 25,000,000 |
| Options and RSUs[4, 5] | 15,614,380 |
| **Total Shares [5]** | **218,794,942** |

1. 4.5 million shares held by a certain stockholder subject to forfeiture in three equal installments unless our Common Stock reaches certain trading price thresholds within certain specified time periods (10 consecutive trading day closing volume weighted average price targets of $15, $20, and $25 within 3, 4 and 5 years after the closing of the business combination between Artius and legacy Origin (the "Business Combination"), respectively) 2. Warrant exercise price = $11.50 per share. 3. 25,000,000 Earnout Shares are subject to issuance in three equal installments if our Common Stock reaches certain trading price thresholds within certain specified time periods (10 consecutive trading day closing volume weighted average price targets of $15, $20, and $25 within 3, 4 and 5 years after the closing of the Business Combination, respectively). 4. Includes 5,132,046 options with a weighted average strike price of $0.17/share and 1,481,531 performance-based options at $0.14/share (423,294, 634,942, and 423,295 performance-based options vest if our Common Stock reaches volume weighted average price thresholds of $15, $25, and $50 per share respectively for 10 consecutive trading days), 1,169,303 Restricted Stock Units, and 2,610,500 Performance Stock Units under which the maximum award can be up to 7,831,500 shares. 5. Excludes shares available for future issuance pursuant to our equity incentive plan and employee stock purchase plan.



As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Reconciliation of GAAP and Non-GAAP results

We believe that the presentation of Adjusted Earnings before Interest, Taxes, Depreciation, and Amortization (Adjusted EBITDA) is appropriate to provide additional information to investors about our operating profitability adjusted for certain non-cash items, non-routine items that we do not expect to continue at the same level in the future, as well as other items that are not core to our operations. Further, we believe Adjusted EBITDA provides a meaningful measure of operating profitability because we use it for evaluating our business performance, making budgeting decisions, and comparing our performance against that of other peer companies using similar measures.

We define Adjusted EBITDA as net income or loss adjusted for (i) stock-based compensation expense, (ii) depreciation and amortization, (iii) interest income, (iv) interest expense, net of capitalized interest, (v) change in fair value of derivative liabilities, (vi) change in fair value of warrants liability, (vii) change in fair value of earnout liability, (viii) professional fees related to completed mergers, and (ix) other income, net.

| | Three months ended September 30, | | Nine months ended September 30, | |
|---|---|---|---|---|
| (in thousands) | 2022 | 2021 | 2022 | 2021 |
| Net income | $ 8,299 | $ 27,893 | $ 62,576 | $ 36,853 |
| Stock based compensation | 1,146 | 636 | 3,719 | 4,808 |
| Depreciation and amortization | 180 | 126 | 488 | 363 |
| Interest income | (2,309) | — | (6,077) | — |
| Interest expense, net of capitalized interest | — | — | — | 2,839 |
| Change in fair value of derivative liabilities | (1,129) | — | (1,725) | 1,426 |
| Change in fair value of warrants liability | 1,419 | (13,481) | (15,610) | 7,363 |
| Change in fair value of earnout liability | (15,147) | (21,511) | (63,561) | (67,008) |
| Professional fees related to completed mergers | — | 640 | — | 640 |
| Other income, net | (879) | (27) | (1,577) | (651) |
| Adjusted EBITDA | $ (8,420) | $ (5,724) | $ (21,767) | $ (13,367) |

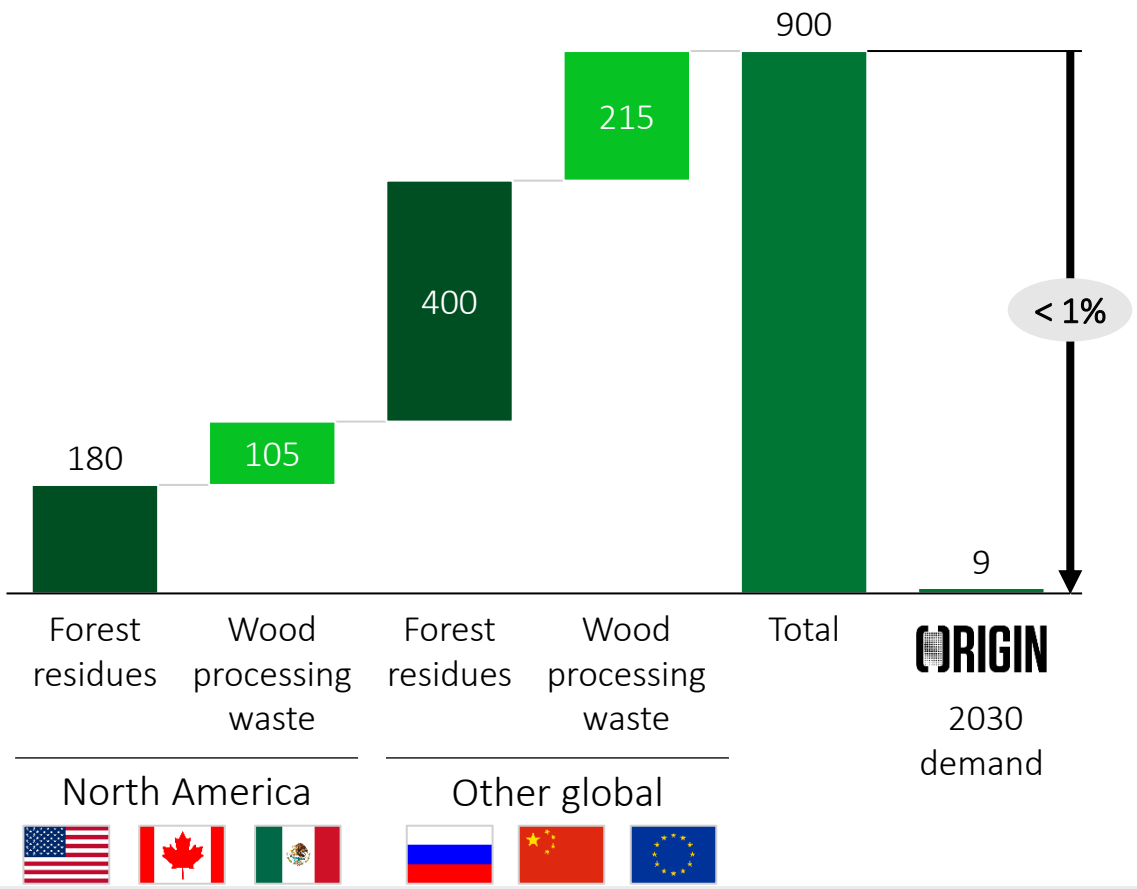
As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Appendix B: Other Previously Disclosed Materials

# Origin is not feedstock limited

## Primary feedstock (forest / wood processing residues)

Million tons annual availability




## Additional feedstock optionality


**>2X** *Additional feedstock supply available above forest / wood processing residues alone*

Source: FAOstat; USDA, BEIS 2017; ICCT 2016; Wan Nur Aifa Wan Azahar et al.; Getting to Neutral (LLNL).
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin will look to value chain participants to complement its strengths

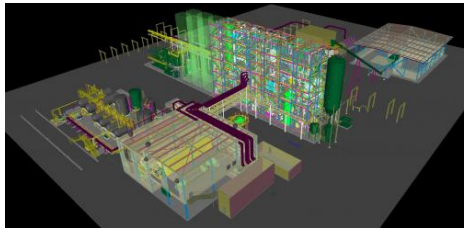
*Origin's strengths*

Feedstock (Biomass) → **Origin** (CMF / HTC) | **Monomers** (PX) | **Plastics** (PET / PEF) | **Additives** | **Product** (Bottles, Fibers) | **Customer**

## "Our proprietary bread and butter"

- Proprietary technology in a league of its own

Picture: Origin 1



## "Putting it all together"

- We will leverage an already-existing industrial base of monomer, polymer, additive, and packaging / extrusion technology
  - Beyond Origin 2 (monomers), we will license or sell that technology to a value chain participant

Illustrative potential value chain participants[1]:

alfa · INDORAMA · ExxonMobil Chemical · TOTAL · EASTMAN · 遠東集團 FAR EASTERN GROUP · INEOS · FLINT HILLS resources · Berry · amcor

## "Clear market pull"

- Years of experience working with the end consumer to address sustainability goals

PEPSICO · DANONE · NATURALL BOTTLE ALLIANCE · Nestlé · ORIGIN

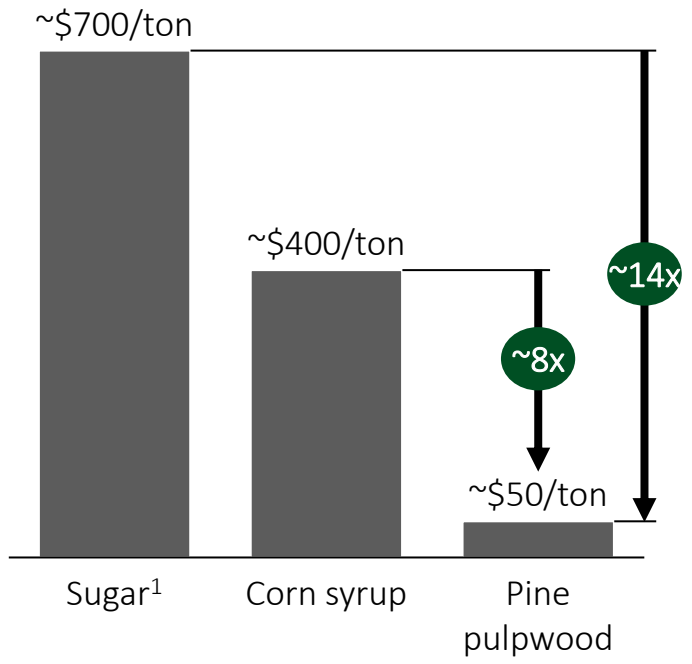
**Origin is in discussions with multiple partners and is ready to scale its strategy through its next phase of growth**

1. Origin Materials may or may not be in discussions with these parties.
Source: Origin Materials.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin's use of timber and forest residues as feedstock is a potential game changer

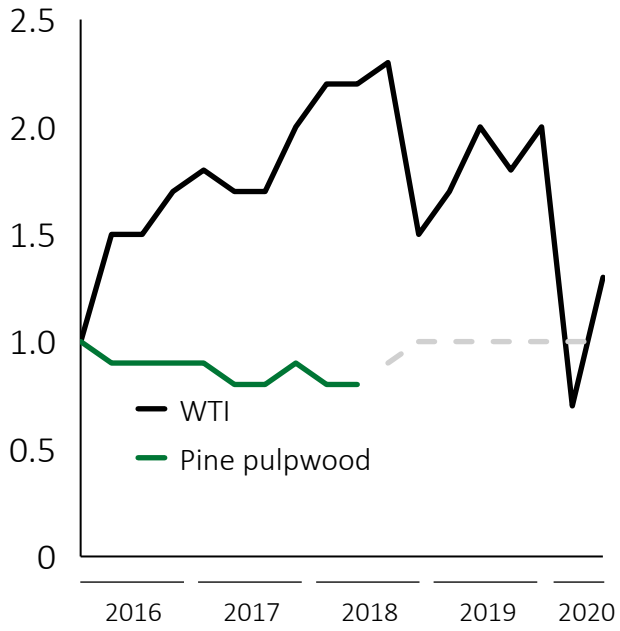
8x-14x cheaper than competing renewable feedstocks

Feedstock price




Decoupled from supply volatility of the oil markets

Indexed price (1 = Q1 2016 value)




Leverages waste, cleans forests, and lets food be food

Utilize waste

Improve forest management

Let food be food

1. Representative chemically relevant sugars such as glucose and high fructose corn syrup.
Source: North Carolina State University; Economic Research Service, USDA; Macrotrends; and Origin Materials estimates.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin is pursuing a capital efficient strategy to optimize CAPEX

Origin is keenly aware that **capital efficiency** will be the major driver of its **long term profitability**.

For this reason, Origin is pursuing a pulp mill **"brownfield" CAPEX strategy** to **save ~$100Mn** on its total commercial plant CAPEX

Wood chip waste streams

Pulp mill scale

## Origin's strategy:

**#1**

Identify & purchase mill

Work with partners to identify suitable aging / defunct pulp mill

**>40**

*Potential brownfield sites (e.g., closed pulp mills) in the US & Canada built in the last 50 years*

**#2**

Convert equipment

Leverage key components needed for its wood handling process (e.g., utilities, boiler, wood yard)

**>$100Mn**

*Total useable value of converted equipment, even after considering expected upgrade costs*

**#3**

Integrate & operate

Integrate refurbished components into the rest of its necessary equipment / plant infrastructure

**Up to 15%**

*Net savings on total plant CAPEX, or ~$100Mn co-location benefit*

Pulp mill "brownfield" strategy offers additional benefits, including the existing forest supply chain ecosystem and local gov't incentives

Source: Origin Materials.
As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.

# Origin has added extensive technical, operational, and commercial leadership since February 2021 announcement to go public (1 of 5)

## Matt Perkins

Engineering Director, Projects

- 23+ years with Fortune 500 Owner/Operator and Engineering, Procurement, and Construction ("EPC") companies, including Sasol, Fluor Corporation, and Dow Chemical Company
- Experienced in the design, procurement and construction of industrial assets, including petro-chemical technologies

## Zan Liu, PhD

Technical Manager

- 15+ years of experience in basic/applied research, process development, pilot unit design and operation, and process/reactor scale-up
- At Lummus Technology, inventor of award-winning technology C5 CDAlky (2019 Hydrocarbon Processing Award)

## Bill Williams, PhD

Director of Process Development – Carbon Black

- Process development leader with expertise in reaction engineering and catalysis
- Formerly at Dupont, Birla Carbon, Cabot Corporation, Praxair

## Bill Gong, PhD

Senior Scientist

- 25+ year career as a research scientist at Amoco Chemicals/BP
- Expertise in oxidation catalysis in PTA and diesel fuels

## James Lattner, PhD

Technical Fellow

- Retired as Chief Engineer at ExxonMobil Chemical after 40+ years
- 3+ years consulting and teaching Chemical Engineering classes at the University of Houston

## Chris Stark

Commercial Director

- Served 20 years in the Marine Corps at the Department of Defense leading cross functional teams, working with and through international partners to complete projects

## Jay Hanan, PhD

Technical Director

- 300+ science and engineering publications and almost 300 patents
- Inducted into the National Academy of Inventors
- Former Chief Scientist, Niagara Bottling; formerly with NASA Jet Propulsion Laboratory

## Ron Moffitt, PhD

Polymer Principal Scientist

- Registered professional engineer with 38+ years of experience in polymer research, development, processing, and manufacturing of fibers, films, and containers
- Formerly at The Coca-Cola Company, Sealed Air Corporation

As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Origin has added extensive technical, operational, and commercial leadership since February 2021 announcement to go public (2 of 5)

## Benson Ledbetter

Process Design Manager

- 19 years in engineering and construction industry spanning all EPC project phases in regions ranging from Mumbai, India to Texas and Oklahoma
- Formerly at Burns & McDonnell, WorleyParsons

## Robert (Bob) Nissen

Project Director

- 30 years of diversified project management experience in the refining, chemical, fertilizers, liquified natural gas storage, and mining and minerals industries
- Formerly at Jacobs Solutions, BP Amoco

## David Ballow

Process Technology Director

- Experience leading teams on capital projects of many sizes and stages of development including international and domestic projects
- Formerly at WorleyParsons, Process Technology Manager at Burns & McDonnell

## Mark DiGiambattista

Product Stewardship and Regulatory Manager

- 15+ years of regulatory and product stewardship experience in medium to large publicly listed companies
- Former Regional Product Stewardship Manager at Hexcel Corporation; formerly at Terex Corporation, Occidental Petroleum Corporation

## Wayne Schammel, PhD

Senior Scientist

- 43 years in Industrial R&D, 33 in large petrochemical companies, 10 in startups
- 50 US patents
- Formerly at Amoco Chemicals, BP Petrochemicals, Siluria Technologies

## Victor Adamian, PhD

Oxidation Technical Director

- 25+ years of academic and industrial experience in chemistry and catalysis, including 23 years with BP Petrochemicals
- Early proponent of sustainability activities at BP Petrochemicals

## Anna Richer

Engineering Manager

- 14+ years of chemical industry experience in various engineering and project execution roles
- Experienced leader across operations, logistics, maintenance, and project execution functions
- Formerly at Dow Chemical Company, Corteva Agriscience

## Ryan Donahe

Senior Process Engineer

- 16 years experience specializing in retrofit and revamp projects
- Prior experience includes Eastman Chemical Texas City and WorleyParsons

As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Origin has added extensive technical, operational, and commercial leadership since February 2021 announcement to go public (3 of 5)

## Bamidele Ali

Director of Product Development

- Has run several successful businesses within Fortune 100 companies
- Prior experience includes GE Healthcare, XG Sciences, DSM Functional Materials and Danaher Corporation

GE Healthcare

## Colin Schumaker

Technology Economic Modeling Director

- Experience working for ExxonMobil Chemicals as a Process Engineer, Business Analyst and Olefins Coordination Supervisor

ExxonMobil

## Bryan Soukup

Policy and Legislative Affairs Director

- Served as VP of Government and Public Affairs for the American Society of Interior Designers
- Led the resilience and sustainability public policy portfolio for the International Code Council

AMERICAN SOCIETY OF INTERIOR DESIGNERS

ICC INTERNATIONAL CODE COUNCIL

## Karl Stuen, PhD

Materials Engineering Manager

- 16+ years developing products and technologies in the fields of microelectronics (Micron Technology), adhesives and coatings (Brady Corporation and NuLabel Technologies), and industrial sensors (Sensata Technologies)

BRADY

Sensata Technologies

Micron

## Sara Craven

Site and Plant Director, Origin 1

- Operations and continuous improvement leader, with 20 years of professional process engineering and management experience in the petrochemical, industrial gases and fertilizer industries
- Formerly at CF Industries, WorleyParsons

Worley energy | chemicals | resources

CF

## Tokunbo Balogun

Environmental Health and Safety Manager

- Seasoned health, safety, and environment professional with in-depth knowledge of workplace hazards and environmental aspect identification & management
- Formerly at Shell plc and Qatar Energy

قطر للطاقة QatarEnergy

## Sam Najjar, PhD

Sr. Application Technology Manager

- 20+ years industrial experience including in the electronics and the beverage PET bottling industry in product development management, business development management, and innovation program management
- Formerly at Arlon Electronic Materials, Rogers Corporation

ARLON ELECTRONIC MATERIALS

## Tom Degnan

Director Global Supply Chain, Logistics & Trade Compliance

- Extensive career in global supply chain, logistics, distribution, and trade compliance with start-up to Fortune 250 companies to a successful consulting practice
- Formerly at Elevance Renewable Sciences, Milacron

Elevance RENEWABLE SCIENCES

MILACRON



As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Origin has added extensive technical, operational, and commercial leadership since February 2021 announcement to go public (4 of 5)

## Norm Lisson

Polyester Manufacturing Technical Director

- 25 years in the polyester supply chain
- Deep understanding of virgin and recycle PET producer challenges from tenures with Celanese Corporation and DAK Americas
- Formerly at The Coca-Cola Company, Mars

## Rob Strain

Commercial Director

- Over 30 years at Koch Industries, including Flint Hills Resources
- Extensive experience executing growth capital plans and business deals resulting over $2 billion dollars of high return investments
- VP, Business Development at Gevo

## Chad Huovie

Technical Director

- 25+ years refining and downstream business and project development experience
- Holds seven U.S. patents
- Formerly at ExxonMobil Corporation, Honeywell UOP

## Paul Bryan, PhD

Technical Director

- R&D leader with expertise in separations technology, biomass conversion, thermodynamics, and process R&D and commercialization
- 20 years industry experience
- Formerly at Chevron Corporation, Union Carbide Corporation, United States Department of Energy

## Andrew Palermo, PhD

Chemical Process Development Engineer

- Experience as Senior Research Engineer at ExxonMobil Chemicals
- At ExxonMobil, received Global Technology Award and named Innovator of the Year

## Himanshu Patel, PhD

Dir. of Product Development – Carbon Products

- 10+ years Birla Carbon, global growth and technical business development leader
- Expertise in polyester reaction engineering and rubber compounds
- Formerly at Continental AG

## Darryl Huntley

Director of Business Development – HTC

- Sales and marketing leader with expertise in polyethylene, polypropylene resins, engineered compounds for injection molding, blow molding and sheet applications
- Formerly at Continental Carbon Company, Formosa Plastics Corporation

## Alpen Shah

Engineering Project Manager

- Professional Engineer with 25+ years in engineering & project leadership roles in manufacturing organizations in Canada and abroad
- Formerly at Shell plc, Imperial Oil, WorleyParsons

As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Origin has added extensive technical, operational, and commercial leadership since February 2021 announcement to go public (5 of 5)

## Gaurav Agrawal, PhD

Chemical Process Development Engineer

- 10+ years of experience in separation technologies, process development and scale-up
- At ExxonMobil Corporation, received a Global Research Award, Global Technology Award and commercialized two technologies

## Junnan Shangguan, PhD

Research Scientist

- Chemical engineering PhD with extensive research experience in reaction kinetics, thermodynamic, and heterogeneous catalysis
- Postdoctoral researcher at UC Berkeley

## Henry Bryndza, PhD

Consultant

- 39+ years at DuPont, most recently as Global R&D Director
- Significant experience building value through technology-enabled, sustainable growth across chemistry, materials science, and biotechnology domains



As previously reported in the Q3 2022 Earnings Presentation of Origin Materials, Inc. dated November 3, 2022.

# Glossary

| Abbreviation | Explanation |
|---|---|
| Carbon negative | Carbon negative activities or products go beyond achieving reduced carbon impact, or net zero carbon impact, to actually remove additional carbon dioxide from the atmosphere |
| CMF | 5-Chloromethylfurfural, organic compound obtained from dehydration derivatives |
| FDCA | 2,5-Furandicarboxylic Acid, organic compound that is a renewable resource because it can be produced from carbohydrates |
| HTC | Hydrothermal Carbon, structured compounds that have been converted from organic compounds |
| PET | Polyethylene Terephthalate, most common thermoplastic polyester used for packaging foods and beverages |
| PEF | Polyethylene Furanoate, bio-based thermoplastic polyester also primarily used for packaging |
| pX | Paraxylene, an important chemical feedstock used in the large scale synthesis of various polymers |



As previously reported on a Rule 425 filing of Artius Acquisition, Inc. dated April 19, 2021.


ORIGIN
The world’s leading carbon negative materials company