



# Investor Presentation

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30 September 2024



# Agenda



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**Company Overview**



02

**Investment Highlights**



03

**Strategy and Sustainable Growth Targets**



04

**Financial Results**



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**Annex**



## Developments in 2024 Q3

The verification and validation process for 823k tons of carbon credits at Balıkesir facility has been completed and its ready for sale.

The electromechanical operations for the production of 40 tons/day of compost have been completed at Bergama Facility and commissioning processes are ongoing.

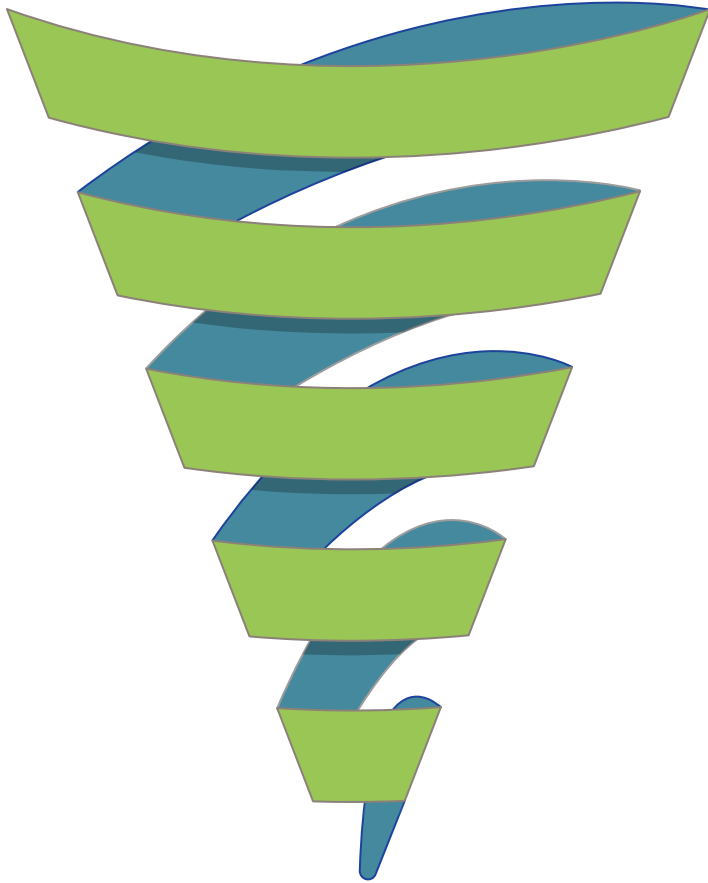
A non-binding Term Sheet has been signed between our company and Freepoint Eco-Systems International Ltd. Negotiations are ongoing.

The MoU and Term Sheet have been signed between Biotrend İleri Dönüşüm, a subsidiary of our company, and Üstay Yapı and Doğ-Yap regarding the Engineering, Procurement and Construction (EPC) for the Upcycling Facility.

120.000 m<sup>2</sup> investment location has been allocated in favour of our subsidiary Biotrend İleri Dönüşüm with the Presidential Decree !

2 non-binding offers were received from different Portfolio management companies to become minority shareholders in Biotrend İleri Dönüşüm through their venture capital funds.

Our subsidiary İzmir Doğu Star Elektrik Üretim A.Ş. has won the tender for the use of the operating area for the annual production of 50.972 thousand tonnes of ATY raw material from industrial wastes belonging to İzmir Metropolitan Municipality, which can be sold to the market or used as raw material by our company. The facility will be suitable for electricity generation from solar energy.





# Company Overview



## Türkiye's Only And Largest Publicly Traded Integrated Waste Management, Energy Generation And Bio-circular Economy Platform

### 2017

- Founded in 2017, Biotrend Çevre ve Enerji Yatırımları A.Ş. ("Biotrend" or the "Company") is Türkiye's only and largest publicly traded integrated waste management, energy generation and bio-circular economy platform.
- Biotrend's main areas of operations are electricity generation, recycled products, RDF, waste disposal, carbon credit trading, greenhouse farming, steam generation, compost, mechanical recycling.

### 9 City, 17 Facility

- The Company currently operates in **5 regions, 9 provinces** with a total of **17 facilities**, including 8 integrated waste management and energy generation facilities, 6 energy generation facilities (2 biomass burning technology), 1 greenhouse and 1 solid fuel preparation and supply and 1 industrial RDF facility.

### 2021

- Biotrend is publicly traded in Borsa Istanbul since April 2021 under the ticker «**BIOEN**».
- Indexes Biotrend included in: BIST STARS / BIST PARTICIPATION ALL SHARES / BIST PARTICIPATION 100 / BIST ALL SHARES-100 / BIST SERVICES / BIST ELECTIRICTY / BIST 500 / BIST ALL SHARES / BIST CORPORATE GOVERNANCE / BIST IZMIR

### 114,2 MWe Installed Capacity

- Biotrend is one of the biggest players in the biomass market in Türkiye with its license and pre-license power and installed capacity. As of 30.09.2024, Biotrend has an installed capacity of **114.2 MWe** and a license capacity of **167.1 MWe**.

# Shareholding Structure



Strong and  
Reliable  
Shareholding  
Structure

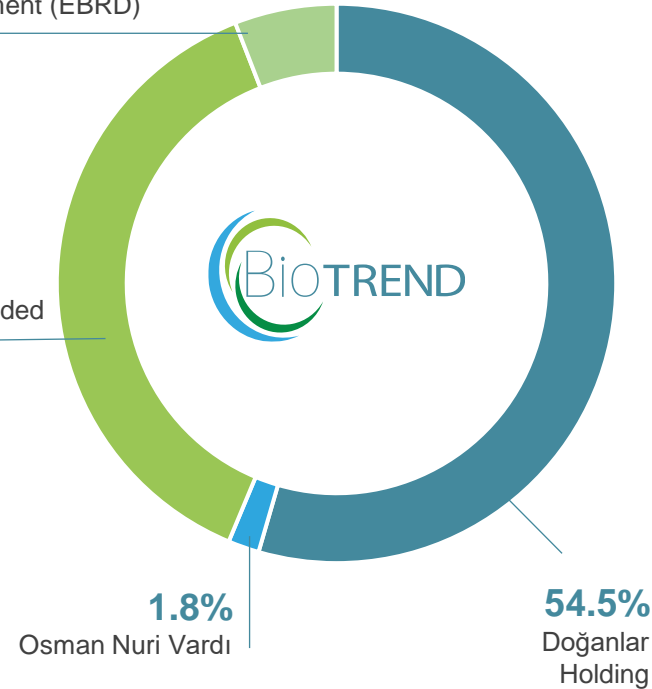
## Biotrend\* Shareholding Structure

5.9%

European Bank For Reconstruction  
& Development (EBRD)

37.73%

Publicly Traded



Source: PDP

\*Biotrend is publicly traded in Istanbul Stock Exchange under the ticker «BIOEN».

## About Doğanlar Holding A.Ş.

Apart from its activities in the field of energy, Doğanlar Holding also has investments in furniture, construction and retail.

### Furniture

DOĞTAŞ®

Kelebek

Kelebek  
MUTFAK - BANYO

lova  
yatak

ruumstore®

BİGA  
HOME

### Construction

DOĞYAP  
KONUT - ENERJİ - ENJEKTE - İNŞAAT

D'AFRIC  
SENEGAL FURNITURE SA.

### Retail

TROYPARK

# 2024/Q3 – Biotrend at a Glance



**17**

Total Facilities

**2.445** thousand tons

Waste (organic waste)  
Disposal

**5.6** Years

Average remaining YEKDEM term

**1.9** million TRY

Revenues

**114.2** MWe

Total Installed Capacity

**10+** Fields

Other existing and planned  
activities other than energy  
production\*

**133** USD/MW &

**138** USD/MW\*\*\*

99.34%\*\* of our facilities in  
production benefit from the old  
YEKDEM

**302** million TRY

EBITDA

**167.1** MWe

Total Licensed Capacity  
(including pre-licensed)

**5** million tons

CO<sub>2</sub> Emission Prevention

**430.38** GWh

Net Electricity Generation

**15.9** Years

Remaining contract periods with  
municipalities

\*Integrated waste management (Sanitary landfill, fuel production, compost production, mechanical separation and material recovery), carbon trading, electricity storage, solar electricity generation, heat sales, greenhouse farming, chemical upcycling, and plastic pollution solutions

\*\*Except Malatya Orduzu Facility

\*\*\*Aydın - Çine biomass use incentive of 138 USD/MW for the first 5 years



# 9 City, 17 Facilities

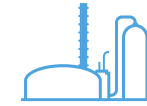


30.09.2024  
Total Installed Capacity



# 114.2 MWe

## 17 Facilities



8

Integrated Waste Management and Energy Generation



6

Energy Generation Facilities (2 biomass burning technology)



1

Solid fuel preparation



1

Greenhouse

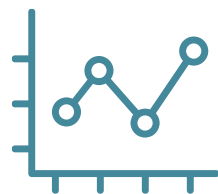


1

Industrial RDF







# Investment Highlights





- 1 Türkiye's Only and Largest Publicly Traded Integrated Waste Management, Energy Generation and Bio-circular Economy Platform
- 2 Integrated Waste Management Benefiting from Revenue Diversification Including a New Plastic Upcycling Facility, Carbon Trading, Recycling and Greenhouse Farming
- 3 Strong Global and Local Will Supporting Domestic & International Growth Expectations & Ease of Access to Financing Resources
- 4 Sustainable and Eco-Friendly Platform Compatible with Global Trends Supporting the Bio-Circular Economy

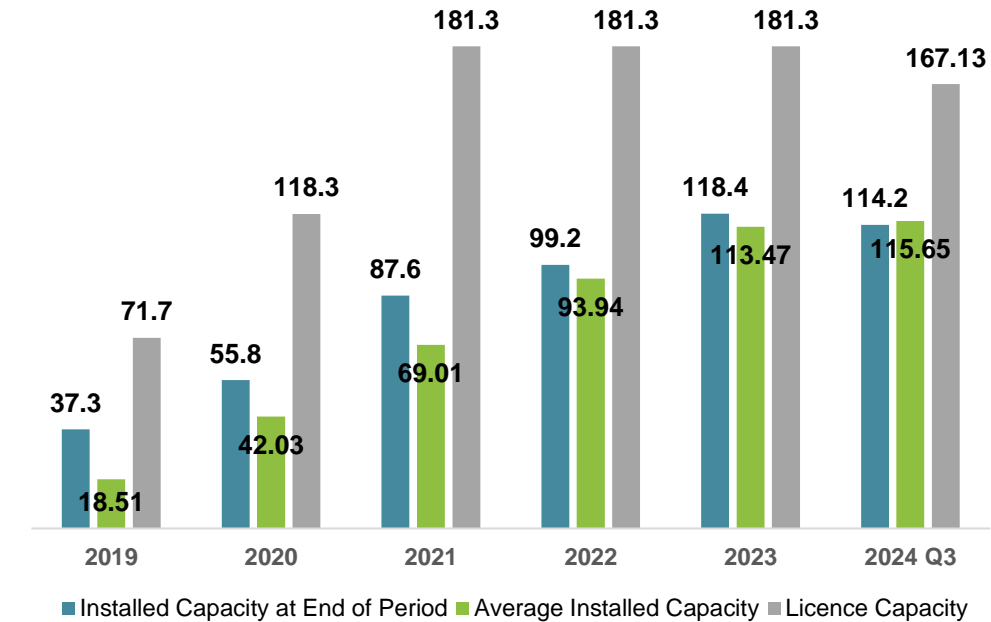


# Türkiye's Only And Largest Publicly Traded Integrated Waste Management, Energy Generation And Bio- Circular Economy Platform

## Key Considerations

- As of 30.09.2024, Turkey's only and largest publicly traded waste management and energy generation player, with 114.2 Mwe total installed capacity, 167.1 MWe total licence capacity, 430.38 GWh of net annual electricity generation and 2.445 thousand tons waste processed,
- 17 facilities in 9 provinces in 5 regions in Turkey, including 8 integrated waste management and energy generation facilities, 6 energy generation facilities (2 biomass burning technology), 1 greenhouse and 1 solid fuel preparation and supply and 1 industrial RDF facilities,
- 714 Employees (as of 30.09.2024)
- Waste supply secured through long-term contracts with municipalities across the country,
- All power plants possess best-in-class engines backed by long term O&M contracts and availability guarantees.

Licence Capacity, End of Period Installed Capacity and Average Installed Capacity (Mwe)



# 2

## Current and Prospective Activities

### Electricity generation

Gas output from wastes buried in landfill or biomethanization tanks in biogas facilities and steam output from burning fuel in biomass facilities are used for electricity generation



### Waste sorting

Recyclable waste (such as glass, plastic, pet bottles, tin, nylon, etc.) is separated from other waste



### RDF

An alternative type of solid waste that is obtained from the combustible components of non-recyclable materials for biomass facilities as green fuel



### Waste disposal

The process of separating, removing, eliminating and recycling the harmful substance in waste



### Carbon credit



### Mechanical Recycling

Creating plastic granules from recycled plastics through mechanical processes



### Battery Recycling



### Municipal Waste Water Treatment Sludge Incineration

### Steam Generation

Biomass facilities will supply steam for the use of Organized Industrial Zones

### Plastic Upcycling

Creating high value polymer oil from waste plastics with using pyrolysis technology.



### Greenhouse farming



### Composting

The process of biodegradation of organic materials under controlled conditions until they turn into humus or humus like stable product which organic then be used as fertilizer



Current Activites

Prospective Activites



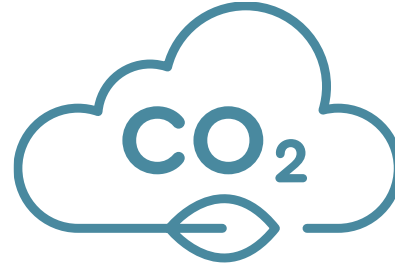
# 2

## Carbon Certification Projects



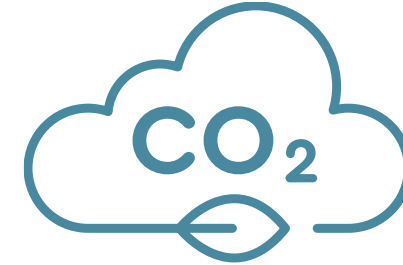
3 different certification programs covering all our operations

**VCS GCC ICR**



2022 – 30.09.2024 total carbon credit revenue

**7.3 Million USD**



Apart from the reserve, certified emissions reduction credit each year

**2-3 Million Tons**

⊗ Due to the absence of favorable market conditions, no carbon credit sales were realized in the third quarter of 2024.



# 2

## Greenhouse Farming



Türkiye's First Modern Glass Greenhouse Project Using Waste Energy from Biogas Plant



Hydroponic Agriculture Technology



Tomato Production Target of ~2.000-2.500 Tons/Year



%100 Export Target



# 2

## Plastic Upcycling - What is Plastic Upcycling?

1	2	3	4	5	6	7
<b>PETE</b>	<b>HDPE</b>	<b>PVC</b>	<b>LDPE</b>	<b>PP</b>	<b>PS</b>	<b>OTHER</b>
polyethylene terephthalate	high-density polyethylene	polyvinyl chloride	low-density polyethylene	polypropylene	polystyrene	other plastics, including acrylic, polycarbonate, polyactic fibers, nylon, fiberglass
soft drink bottles, mineral water, fruit juice containers and cooking oil	milk jugs, cleaning agents, laundry detergents, bleaching agents, shampoo bottles, washing and shower soaps	trays for sweets, fruit, plastic packing (bubble foil) and food foils to wrap the foodstuff	crushed bottles, shopping bags, highly-resistant sacks and most of the wrappings	furniture, consumers, luggage, toys as well as bumpers, lining and external borders of the cars	toys, hard packing, refrigerator trays, cosmetic bags, costume jewellery, audio cassettes, CD cases, vending cups	an example of one type is a polycarbonate used for CD production and baby feeding bottles

**Mechanical Recycling**

**Chemical Recycling**

**Landfill or RDF**

Today → **Market**  
 Tomorrow → **Recycle**

Today → **RDF**  
 Tomorrow → **Upcycle**

Today → **Landfill**  
 Tomorrow → **RDF**

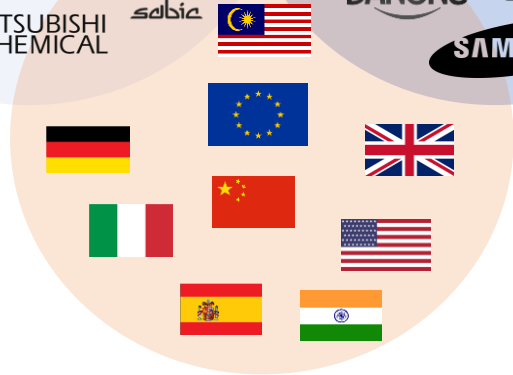


# 2

## The Demand For Sustainability Of Plastics Is Accelerating

### Consumer Packaged Goods companies

### Petrochemicals



### Policy Makers

FMCG Companies are increasingly committed to use recycled plastic in their packaging due to environmental concerns, regulatory pressures and changing consumer expectations. Imposing on the usage of recycled plastic in their packages.



Specially Food, Cosmetic and pharmaceutical industry prefer chemical recycling due to their strict regulatory standards for recycled material direct contact.



Some FMCG Companies as well as petrochemical companies are develop their technology, investing upcycling project or supporting advanced recycling methods like chemical recycling. Unlike mechanical recycling, chemical recycling can break down plastic waste into its molecular components creating purer form of recycled plastic. That is comparable to virgin plastic.





# 2

## Plastic Upcycling - Aliaga Project

### TRANSACTION OVERVIEW – PROJECT OVERVIEW

#### PLANT LOCATION / FEED STOCK

- 60 kmta plant based on a proven, sustainable and profitable **advanced recycling technology** acquired and improved by **Honeywell UOP**
- Located in **Aliaga/Izmir**, which is close to **international ports** and to the **largest petrochemical facilities** in Türkiye.
- Close location of Biotrend's Western Region Facilities
- Production of ~ **55 ktpa of Recycled Polymer Feedstock (RPF)**
- Sufficient Capacity to Meet All Feedstock Needs: **118k tonnes**

#### INCENTIVE

##### TL 9.2 bn Super State Incentive

- Land allocation
- Corporate tax exemptions
- VAT exemptions
- Custom tax exemptions
- Personnel tax exemptions
- Personnel support

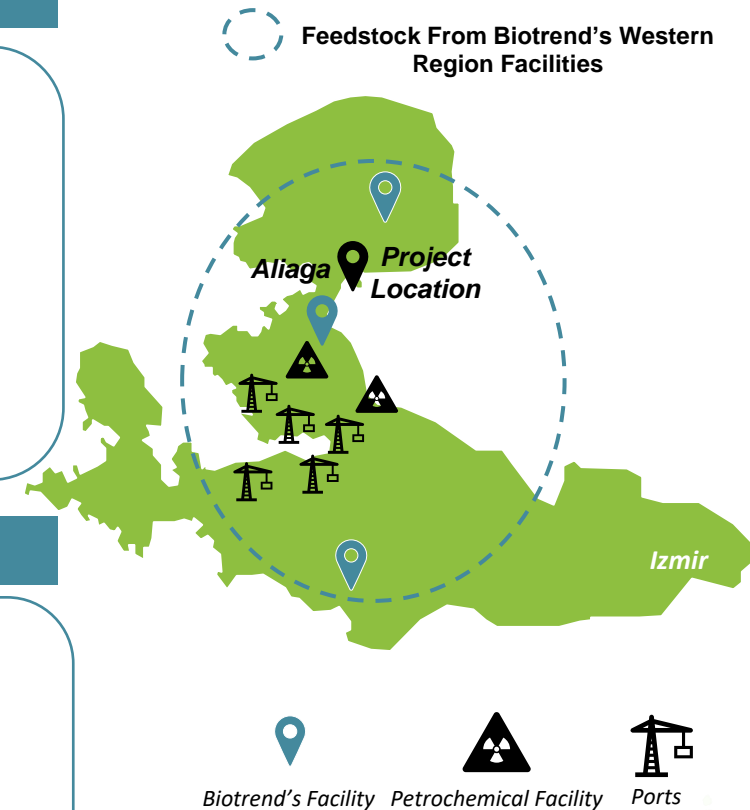
#### SOUND CONTRACTED STRUCTURE

**Honeywell**

- Sustainable technology acquired and improved by **Honeywell**
- Modular Equipment and Technology Provider Backed by Strong Warranty Contracts
- **Lumpsum Turnkey EPC**: Üstay Construction (60%) and Doğ-yap Construction (40%)
- Conceptual & Detailed Engineering by **IDOM** from Spain

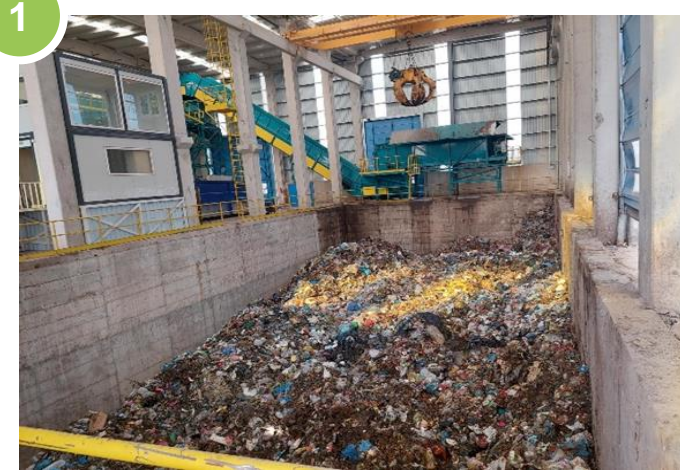
#### FINANCIALS

- **Total Investment Cost: ~\$300m**
- **Yearly Revenue secured in hard currency: ~\$80m**
- **EBITDA margin: ~%60 (\$50m)**



# 2 Plastic Upcycling – Operational Steps

## Mixed Municipal Waste



## Bailing



Sorting



1 Plastic materials are separated from mixed municipal waste coming to our facilities.



2 Sorted plastic raw materials (LDPE, PP and PS) are prepared for the Upcycling Project.



3 Plastics are obtained as granules after washing, drying and densification (pre-treatment) processes respectively.



4 The granules then enter the pyrolysis unit where they are melted in the absence of oxygen to produce pyrolysis oil\*.

\*Pyrolysis oil (end product) is substitute product of «Naphtha»



Pyrolysis Oil



Granules

Current Investments

New Investments



Strong Global and Local Will Supporting Domestic & International Growth Expectations & Ease of Access to Financing Sources



Renewable Energy

Carbon Emissions

Circular Economy

Sustainable Agriculture

Green Transportation

Energy Efficiency

EU Directives

Green Consensus

Zero Waste Project

Carbon Border Adjustment Mechanism

Green Financing Sources



# Sustainable and Eco-Friendly Platform Compatible with Global Trends Supporting the Bio-Circular Economy



- In 2021, Biotrend became the signatory of the UN Global Compact
- In 2023 became the signatory of the UN Women
- Carbon Certification Projects & Sustainability Projects
- Plastic Upcycling
- Continuous effort to improve environmental and social indicators
- Establishment of the Sustainability Office, creation of the Sustainability Committee and Participation in the Borsa Istanbul Sustainability Index
- Social Impact Projects
- Violence Against Women Awareness Training Project, Tree of Life Library Project, Bookshelf Project for Village Schools and Camellia Project
- Happy Place to Work Award
- Women-friendly Brands Awareness Award
- Publicly listed since April 2021
- Establishment of Audit Committee, Early Detection of Risk Committee, Corporate Governance Committee, Sustainability Committee
- EBRD shareholding of 5.91%
- Gender diversity in BoD (1/3 women)

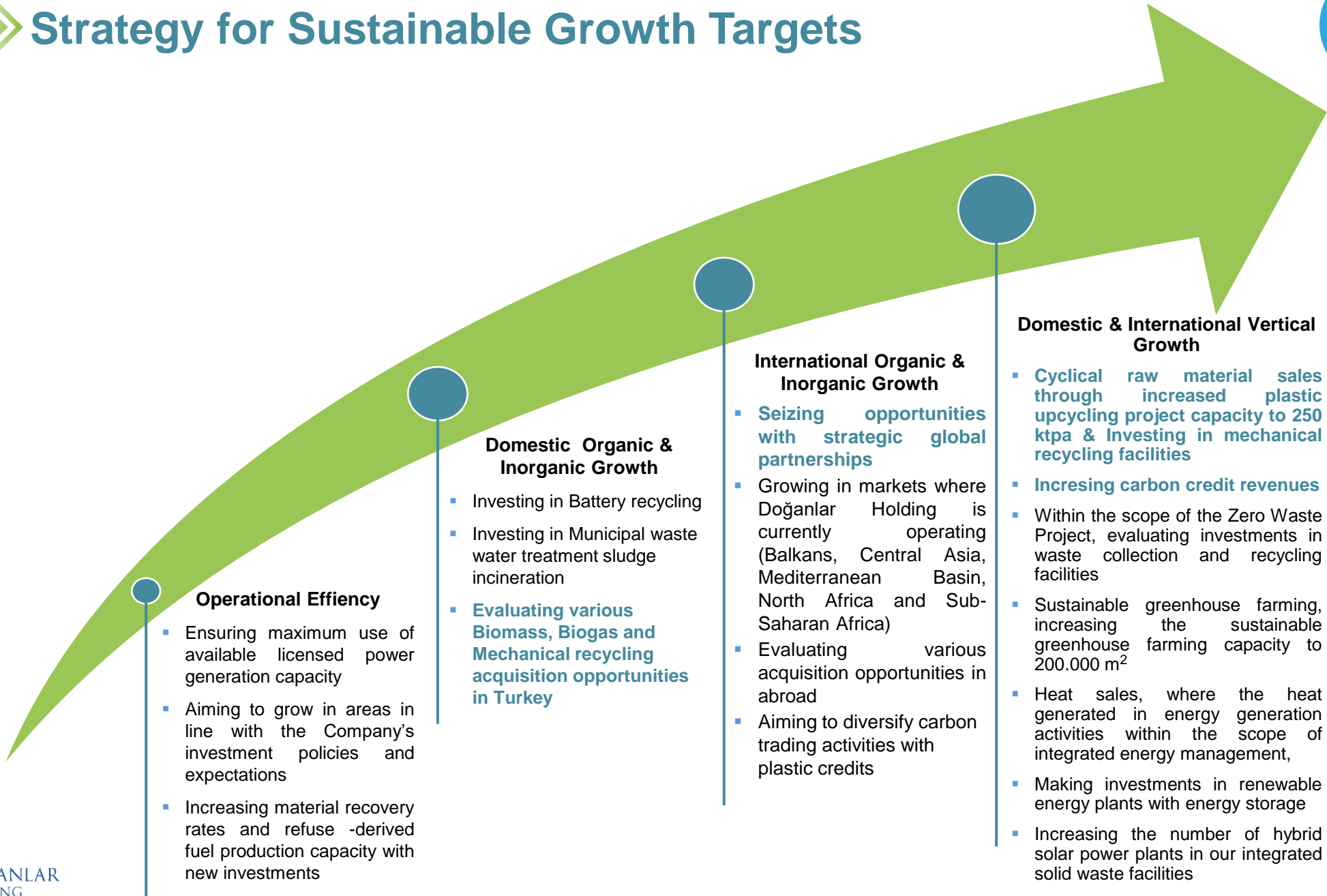




# Strategy and Sustainable Growth Targets



# Strategy for Sustainable Growth Targets

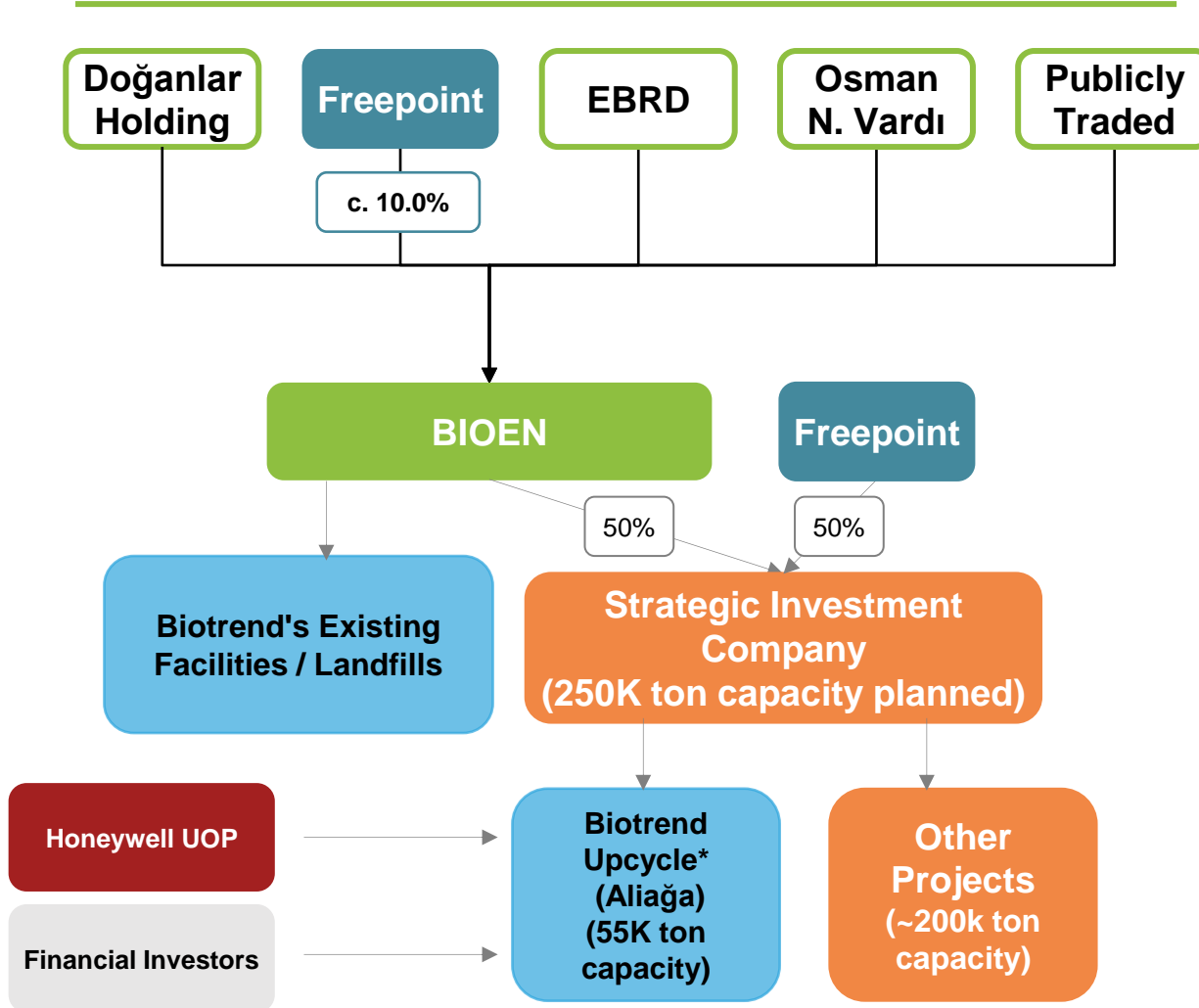


# 2

## Upcycle – Freepoint Eco-Systems Partnership



### Envisaged Structure



According to the non-binding Term Sheet, the collaboration between the companies is to develop upcycling projects in regions such as Turkey, the Balkans and Central Asia.

A Strategic Investment Company will be established by our Company and Freepoint in a 50%-50% partnership structure. The above mentioned investments will be made through this company.

Freepoint will acquire a share in our company through a capital increase. (~10%)

The income from the capital increase will be injected into the Strategic Investment Company to develop upcycling projects.

With the new investments, the total production capacity is targeted to reach 250 thousand tons per year.

A non-binding Memorandum of Understanding was signed between Ziraat Portföy and Deniz Portföy and Biotrend Upcycle, each with 4-5% minority shareholding.





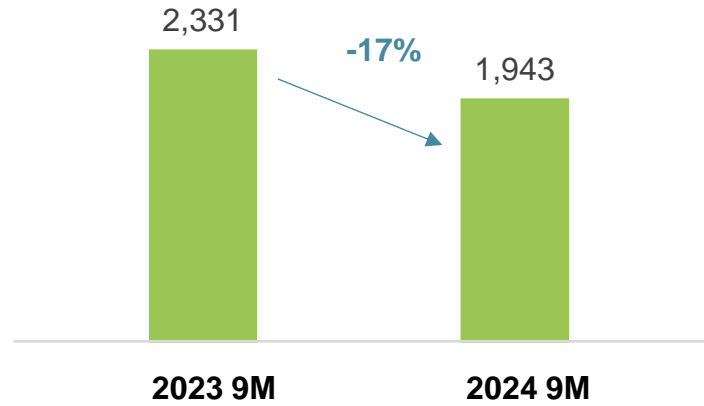
# Financial Results



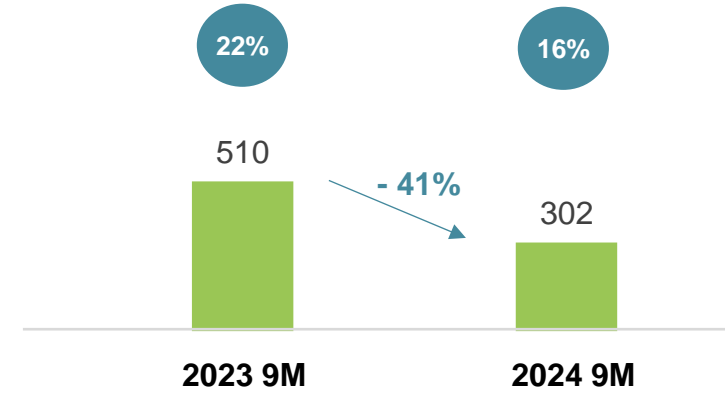


# Revenues & EBITDA

## Revenues (TRY Million) Including IAS-29 Inflation Adjustments



## EBITDA (TRY Million) Including IAS-29 Inflation Adjustments

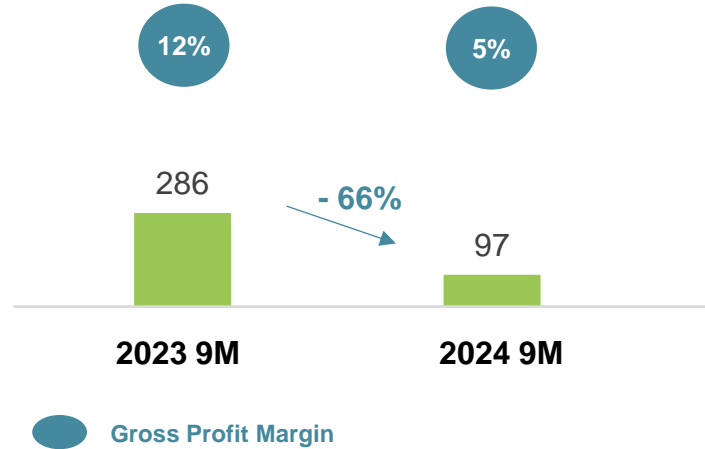


● EBITDA Margin

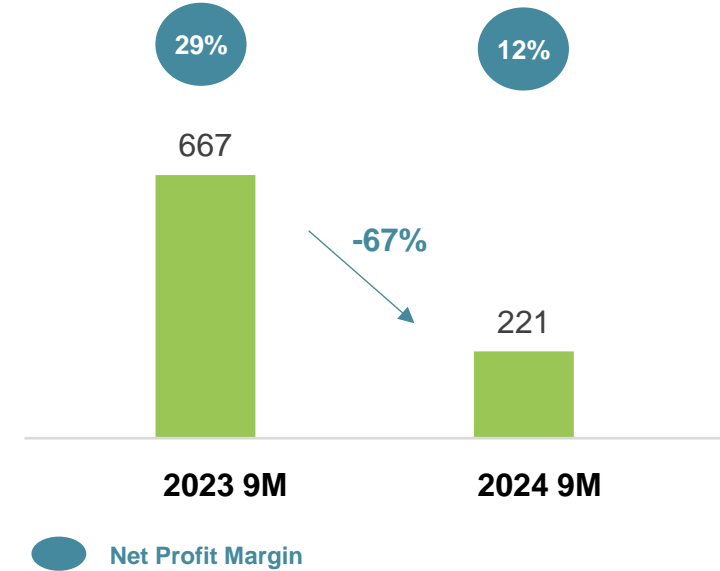


# Gross Profit & Net Profit

## Gross Profit (TRY Million) Including IAS-29 Inflation Adjustments



## Net Profit (TRY Million) Including IAS-29 Inflation Adjustments



## Net Financial Debt

Net Financial Indebtedness (TRY million)	31.12.2023	30.09.2024
Short-Term Indebtedness	379	1.430
Short-Term Portion of Long-Term Bank Loans	852	526
Leasing Debts	18	36
<b>Short-Term Financial Indebtedness</b>	<b>1.249</b>	<b>1.992</b>
Long-Term Indebtedness	2.925	1.932
Leasing Debts	67	50
<b>Long-Term Financial Indebtedness</b>	<b>2.992</b>	<b>1.982</b>
<b>Total Financial Indebtedness</b>	<b>4.241</b>	<b>3.974</b>
<b>Cash and Cash Equivalents</b>	<b>200</b>	<b>160</b>
<b>Net Financial Debt</b>	<b>4.041</b>	<b>3.814</b>



## Annex



## Balance Sheet

TRY Million	31.12.2023	30.09.2024
Cash and Cash Equivalents	200	160
Trade Receivables	339	201
Stocks	442	366
Prepaid expenses	332	251
Others	244	139
<b>CURRENT ASSETS</b>	<b>1.557</b>	<b>1.117</b>
Investments Accounted for Using Equity Method	382	362
Tangible Assets	6.283	6.014
Right-of-Use Assets	159	202
Intangible Assets	308	286
<b>FIXED ASSETS</b>	<b>7.502</b>	<b>7.255</b>
<b>TOTAL ASSETS</b>	<b>9.059</b>	<b>8.372</b>
Short -Term Borrowings	379	1.430
Short -Term Portions of Long -Term Borrowings	869	563
Trade Payables	773	196
<b>SHORT -TERM LIABILITIES</b>	<b>2.180</b>	<b>2.457</b>
Long -Term Borrowings	2.992	1.981
Others	15	22
<b>LONG -TERM LIABILITIES</b>	<b>3.007</b>	<b>2.003</b>
<b>EQUITY</b>	<b>3.873</b>	<b>3.912</b>
<b>TOTAL LIABILITIES&amp;EQUITY</b>	<b>9.060</b>	<b>8.372</b>

# Income Statement

TRY MILLION	30.09.2023	30.09.2024
Revenue	2.331	1.943
Cost of Sales	-2.045	-1.846
<b>Gross Profit</b>	<b>286</b>	<b>97</b>
General Administrative Expenses	-248	-380
Marketing Expenses	-2	-5
Other Operating Income	472	126
Other Operating Expenses	-128	-102
<b>Operating Profit / (Loss)</b>	<b>380</b>	<b>-264</b>
Income from Investment Activities	-9	236
Share of Investments' Profit (Loss)	11	-20
Financial Income	172	43
Financial Expenses	-728	-750
<b>Profit / (Loss) Before Tax</b>	<b>1.147</b>	<b>277</b>
Tax Income / (Expense)	-481	-57
<b>Net Profit / (Loss) for the Period</b>	<b>667</b>	<b>221</b>
Net Profit/(Loss) of the Parent Shares for the Period	679	225
<b>EBITDA</b>	<b>510</b>	<b>302</b>



AYDIN-ÇINE  
BIOMASS  
ELECTRICITY  
GENERATION  
FACILITY



BERGAMA  
LANDFILL GAS  
ELECTRICITY  
GENERATION  
FACILITY



SIVAS  
GREENHOUSE  
FARMING

# Awards



Bronze Award in the Sustainable Energy category at the EBRD Sustainability Awards 2022



6th Türkiye Energy and Climate Forum - Our Energy Our Future Awards



"Renewable Energy Brand of the Year" award at the Türkiye Innovation and Success Awards



Energy and Natural Resources Summit Our Energy is Our Future Award



Women-Friendly Brands 2022 Awareness Award



2021 Sustainable Production and Consumption Association Carbon Hero Award



Quality of Magazine Best Biomass Energy Award



International Environmental Communication Summit Best Public Relations Award





# Disclaimer



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*Freepoint's investment is subject to certain conditions, including, satisfaction with due diligence, incorporation of the strategic investment company, receipt or clearance of all required regulatory and corporate consents and approvals, absence of any material adverse change and/or event of default, execution of definitive agreements, Freepoint reaching positive financial investment decision (which requires, inter alia, satisfaction with proposed budget, proposed investment amount, and overall business plan, executed long-term offtake arrangement, long-term supply of requisite volumes of feedstock pursuant to a waste plastic supply agreement between the Company and the strategic investment company, satisfaction with final engineering package, satisfaction with engineering, procurement and construction arrangements, satisfaction with commitment for non-recourse debt financing, receipt of all required investment approvals, etc.)*



# Biotrend Investor Relations

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Şeyma İneyet Uygur

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Thank you!

