Cocoa Sustainability: Role for digital in improving farming productivity

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Mondelez
COCOA SUSTAINABILITY

ROLE FOR DIGITAL IN IMPROVING FARMING PRODUCTIVITY

MIKE GEARY, DIRECTOR COCOA R&D, MONDELEZ
JULY 2023
LITTLE BIT ABOUT MONDELEZ ... WE ARE A GLOBAL SNACKING LEADER!

BISCUITS & BAKED SNACKS

2022 NET REVENUES: $15.6 BILLION

#1 in Biscuits
#3 in Cakes & Pastries
#3 in Snack Bars

CHOCOLATE

2022 NET REVENUES: $9.5 BILLION

#2 in Chocolate

Source: Euromonitor, Total Global Categories
**A TASTE OF WHO WE ARE**

**MDLZ**

At Mondelez International, Inc. (Nasdaq: MDLZ), we make it our mission to evolve the role snacking plays in consumers’ lives by delivering the right snack, for the right moment, made the right way.

- **91k**
  - We have approximately 91,000 diverse and talented employees around the world

- **150+**
  - Our snacks are enjoyed in more than 150 countries*

- **$31.5B**
  - 2022 net revenues of approximately $31.5 billion

- **40%**
  - ~40% of 2022 net revenues from emerging markets

- **$50M**
  - $50+ million charitable contributions in local communities in 2022**

**% of 2022 Net Revenues by Category**

- Chocolate: 30%
- Biscuits & Baked Snacks: 50%
- Gum & Candy: 11%
- Other: 9%

**% of 2022 Net Revenues by Geography**

- North America: 31%
- Europe: 36%
- Asia, Middle East & Africa: 21%
- Latin America: 12%

**Awards**

- **Fortune**
  - World's Most Admired Companies
  - America’s Most Innovative Companies

- **Barron’s**
  - Most Sustainable U.S. Companies

- **Dow Jones Sustainability Index**

- **S&P**
  - Dow Jones Sustainability Index
  - ESG Industry Top Rated

- **Morningstar Sustainalytics**
  - Most Trustworthy Companies

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*2022 category position. Source: Euromonitor
**Includes both cash and product donations
**POWERFUL PORTFOLIO OF ICONIC AND INSPIRING BRANDS**

**WE OFFER A BROAD RANGE OF DELICIOUS, HIGH-QUALITY SNACKS FOR CONSUMERS WHO SEEK BOTH NUTRITION AND INDULGENCE**

**MOST LOVED SNACKING BRANDS**

**ICONIC**

>$1B BRANDS*

- OREO
- Milka
- Dairy Milk
- belVita
- Philadelphia
- CLIF
- Toblerone

**LEADING “TASTE OF NATION” LOCAL JEWELS**

- CÔTE D’OR
- KINH DO
- Alpen Gold
- GOURMET FOOD
- LACTA
- 7 DAYS
- TATE’S BAKE SHOP
- Marabou
- Club Social
- Enjoy Life
- GRENADE
- HU
- Ricolino

*Nielsen Value Sales 2022
SCALE SUSTAINABLE SNACKING

LEAD WHERE WE MATTER MOST

DRIVE CHANGE WHERE THE WORLD NEEDS IT MOST

INGREDIENTS

SOCIAL

CLIMATE

PACKAGING

COCOA & WHEAT

HUMAN RIGHTS

CO₂ EMISSIONS

WASTE

human rights

co2 emissions

waste
1. Preliminary estimated 2022 results (subject to change); final 2022 results will be published in Snacking Made Right report in Q2
2. Mass balance sourcing method
3. Roundtable on Sustainable Palm Oil
4. As part of joining SBTi Business Ambition for 1.5°C, we are currently updating our Scope 3 footprint to capture and reflect the impact of our ongoing mitigation strategies
5. Indicator covers Nov '21 to Oct '22 period
SCALE SUSTAINABLE SNACKING

COCOA IS THE ESSENCE OF OUR CHOCOLATE LOVED BY MILLIONS OF PEOPLE AROUND THE WORLD.

COCOA IS LIFE FOR US, THE FARMERS WHO GROW IT, AND THEIR COMMUNITIES.

OUR COCOA LIFE PROGRAM HOLISTICALLY TACKLES THE COMPLEX CHALLENGES COCOA FARMERS AND THEIR COMMUNITIES FACE, INCLUDING CLIMATE CHANGE, DEFORESTATION, GENDER INEQUALITY, POVERTY AND CHILD LABOR.

COCOA LIFE IS DEDICATED TO MAKING AN IMPACT ACROSS THE COCOA SUPPLY CHAIN, NOT JUST IN FARMING COMMUNITIES, BUT IN THE CHOCOLATE WE ALL ENJOY.

$1B
$1 billion investment by 2030

100%
Goal of sourcing 100% cocoa volume for our chocolate brands through Cocoa Life by 2025

Holistic approach leveraging external advisors and partners with KPIs measured through third party verification
MONDELEZ BASED IN 7 COCOA COUNTRIES, 3 IN AFRICA

COCOA LIFE COUNTRIES
Cocoa Life runs across seven cocoa-growing countries:
Ghana, Côte d’Ivoire, Indonesia, Dominican Republic, India, Brazil, and Nigeria.
COCOA FARMING FACES MANY COMPLEX CHALLENGES

SUSTAINABLE AGRICULTURE - PEOPLE, PROFIT, PLANET
2022-MDLZ-SNACKING-MADE-RIGHT-ESG-REPORT.PDF (MONDELEZINTERNATIONAL.COM)

PEOPLE
LOW FARMER INCOMES
Poverty limits adoption of new technologies.

PROFIT
LOW CROP YIELDS
Other crops have at least doubled yields since 1960s, cocoa yields have barely moved.

PLANET
ENVIRONMENTAL
Deforestation & soil degradation.

Vicious cycle of soil degradation, low yields & further extensification/deforestation.
MONDELEZ R&D PROGRAM TO DELIVER SUSTAINABLE COCOA FARMING

BREEDING & AGRONOMY

HIGHER YIELDS, LOW CARBON, RESILIENCE

BREEDING SUPERIOR CLONES

- Improved planting material (yield, resilience, quality)
- Increased genetic diversity

PRECISION AGRONOMY WITH EXISTING & NEW GENETICS

- Improved fertiliser/irrigation/shade/soil management
- Alternatives to pesticides (biopesticides + early warning)
- Enhanced pollinators on-farm
- C-sequestration (agroforestry)

PATHWAYS TO SUSTAINABILITY

HIGH-TECH & MODERNIZED SMALLHOLDER FARM MODELS

Increase yields to improve farm income and reduce risks of further land use change & loss natural ecosystems.

Increased input efficiencies to reduce waste, costs and GHG emissions.

Cocoa agroforestry to enhance resilience, diversify farm income and sequester carbon.
Affordable tools to monitor and control will be key to scaling precision farming.

**Precision Farming**

- **Yield Quantity & Quality**
  - Traceability; forecasting;
  - Data to inform Continuous Improvement

- **Pest and Disease**
  - Early Warning for Preventative measures;
  - Reduced chemical use
  - Reduce impact of outbreak

- **Nutritional Deficiencies**
  - Targeted nutrient application;
  - Resource use efficiency;

- **Water Deficiencies**
  - Targeted water management
  - Drainage? Irrigation?
  - Mulching?
  - Minimise losses IN El Nino and La Nina years

- **Tree Mortality**
  - Shade, Cocoa, other

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*Mondelez International*  
*Snacking Made Right*