

EDEN

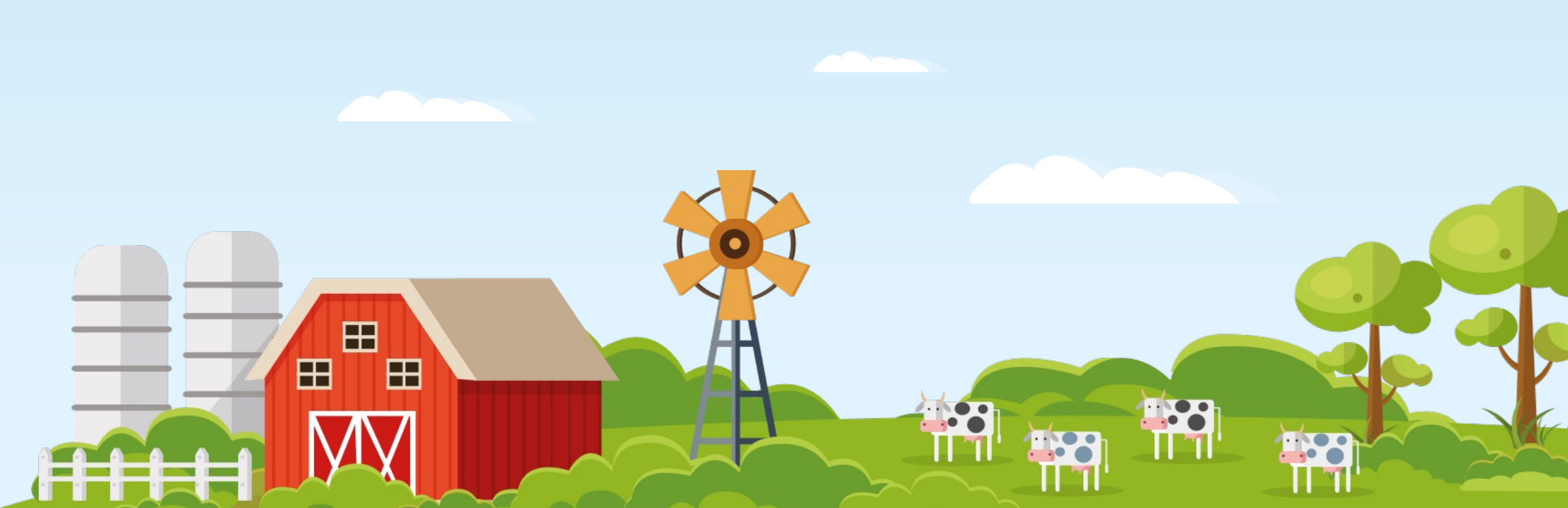
THE NATURAL SOLUTION

Eden Research plc Master Investor Show 2023

Saturday, 15th April 2023



Eden Research plc is an AIM-quoted company focused on sustainable biopesticides and plastic-free encapsulation technology for use in the global crop protection, animal health and consumer products industries.



About us

Eden is the only UK quoted (AIM: EDEN) company focused on biopesticides for sustainable agriculture

- Intellectual property and expertise in plant-derived sustainable chemistry and delivery technologies
- Global regulatory clearances
- Strategic partnerships
- Two registered products commercially available
- Eden’s first product is recognized by its peers as *the* biocontrol standard for the control of botrytis on grapes

Our partners



EASTMAN

Elanco



Key statistics

Consumer products

19
Countries have granted product authorisation

Crop protection

66
Crop use approvals for Eden’s biopesticides

Animal health

£15m+
Invested in IP & registrations

110
Granted and pending patents



Industry applications

We work globally through multi-national and local partnerships to develop and launch solutions for challenges facing three key industries.



Consumer products

- Head-lice treatment
- Deodorants
- Odour neutralisers
- Fragrances

\$50+bn



Crop protection

- Foliar disease & insect control
- Open field & greenhouses
- Soil pests
- Post harvest shelf-life extension
- Seed treatments

\$58bn



Animal health

- Shampoos/Conditioners
- Skin disease control
- Otic flush
- Flea & tick control

\$33bn

Estimated addressable market size



The drive towards sustainable agriculture

Farming practices which maintain yields while increasing benefits for the environment

A reflection of society's increasing concern about the world's approach to food production and healthy eating

Embracing farming practices that mimic natural ecological processes

Pressure on productivity driven by population growth and an increase in food demand exceeding 50% by 2050

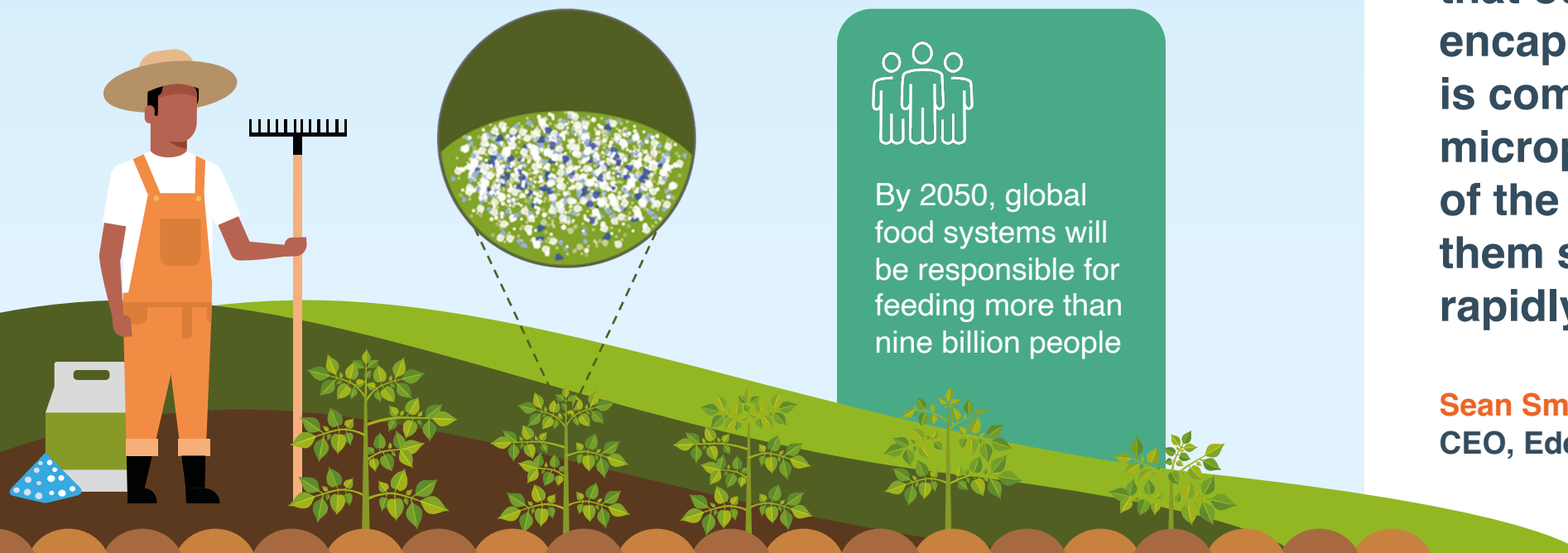


By 2050, global food systems will be responsible for feeding more than nine billion people



Eden formulations are well suited for a wide range of crop protection applications. The fact that our Sustaine[®] encapsulation technology is completely free from microplastics is just one of the elements that makes them stand out in this rapidly evolving market.

Sean Smith
CEO, Eden Research plc



Recent headlines



French watchdog finds traces of banned pesticide in drinking water



Issued on: 06/04/2023 - 18:51



The findings are likely to raise questions about the presence of other undetected chemicals in drinking water © Kenzo Tribouillard, AFP file photo

GOV.UK

Home

Emergency pesticide authorisation approved to protect national sugar beet crop

National sugar beet crop could face serious losses due to risk from aphids – more than 50% of UK sugar comes from domestic production

From: Department for Environment, Food & Rural Affairs and The Rt Hon Mark Spencer MP
Published 23 January 2023

Imperial College London



Changing temperatures increase pesticide risk to bees

by Hayley Dunning
22 March 2023



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Helena Horton
Environment reporter

Wed 2 Nov 2022 06:00 GMT



At least two pesticides in half of bread sold in UK, data shows

Pesticide Action Network calls for urgent action after analysis shows 50% increase in pesticide cocktails



Coalition scrapped pesticide monitoring program that found residues 90 times the limit on strawberries

The pilot program that ran in 2013 was cancelled by then agriculture minister Barnaby Joyce and the results never released

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Significant market potential

Crop protection products **formulated with Sustaine® and Eden's active ingredients** can help address many of these issues:



Consumer concerns over food safety



Increasingly challenging regulatory requirements



Farmers seeking effective alternatives

\$11bn

The global biopesticides market is projected to be worth more than **\$11 billion by 2027**

15% per annum

The biopesticides market is growing at a CAGR of approximately **15% per annum**

\$300m

Increasing time and cost of bringing new agrochemical products to market: **10 to 12 years and around \$300 million**



Product sales growth

Eden product sales 2020 - 2022

Sales of Mevalone made by our distribution partners in the same period reflect a positive overall trend driven by the addition of new territories (e.g. Australia) and label expansions (e.g. Spain).

Following modest growth in 2021, there has been a significant increase in product sales in 2022 of c. 55%, **far exceeding industry estimates of 12% growth during the same period.**

We expect to see further strong sales growth in 2023 even when only considering the countries in which we currently have approval.

Growth is anticipated at both the producer level (Eden) and distributor level (Sipcam, et. al.).



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Strategy and Investment Case



Innovation capacity

Development of in-house R&D – reduces dependency on 3rd parties, CROs, etc.

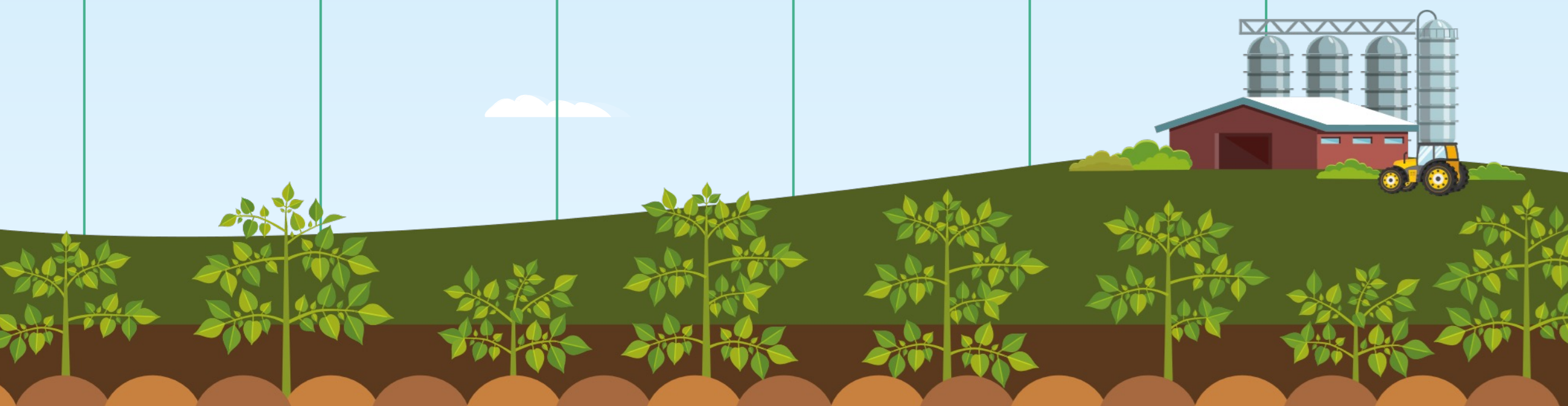
In-house capabilities now include formulation, microbiological screening, plant and seed evaluations and analytical work.

Laboratories are now GLP-ready and operating to this standard adding credibility and opportunities for cost savings and revenue generation.

Costs partially offset by reduced external spend on CROs, significantly reduces development cycle time, enables new IP development.

Eden's product development platform consists of three registered active ingredients and its patented, plastic-free microencapsulation system that forms the basis of its first two commercial products.

The Company's patent portfolio, including new patent filings, is managed by D Young & Co.



Our strategy



Business line diversification

- Pursuit of opportunities in seed treatments
- Development of insecticides
- Ongoing opportunities in consumer products and animal health
- Significant expansion of crops and diseases treated
- Geographic diversification (seasonal and climate variation)



Research, development and operations

- Supply chain optimisation
- Expansion of in-house screening and field trials capability
- Accelerate commercialisation of Sustaine® for conventional actives
- Increasing self-reliance for R&D
- Reduce time to market



Commercial growth

- Regulatory clearance in new countries, crops and diseases
- Accelerate Sustaine® development
- Partnerships for Mevalone® in new territories
- Pursue collaboration with majors and select national partners
- Route to market optimisation

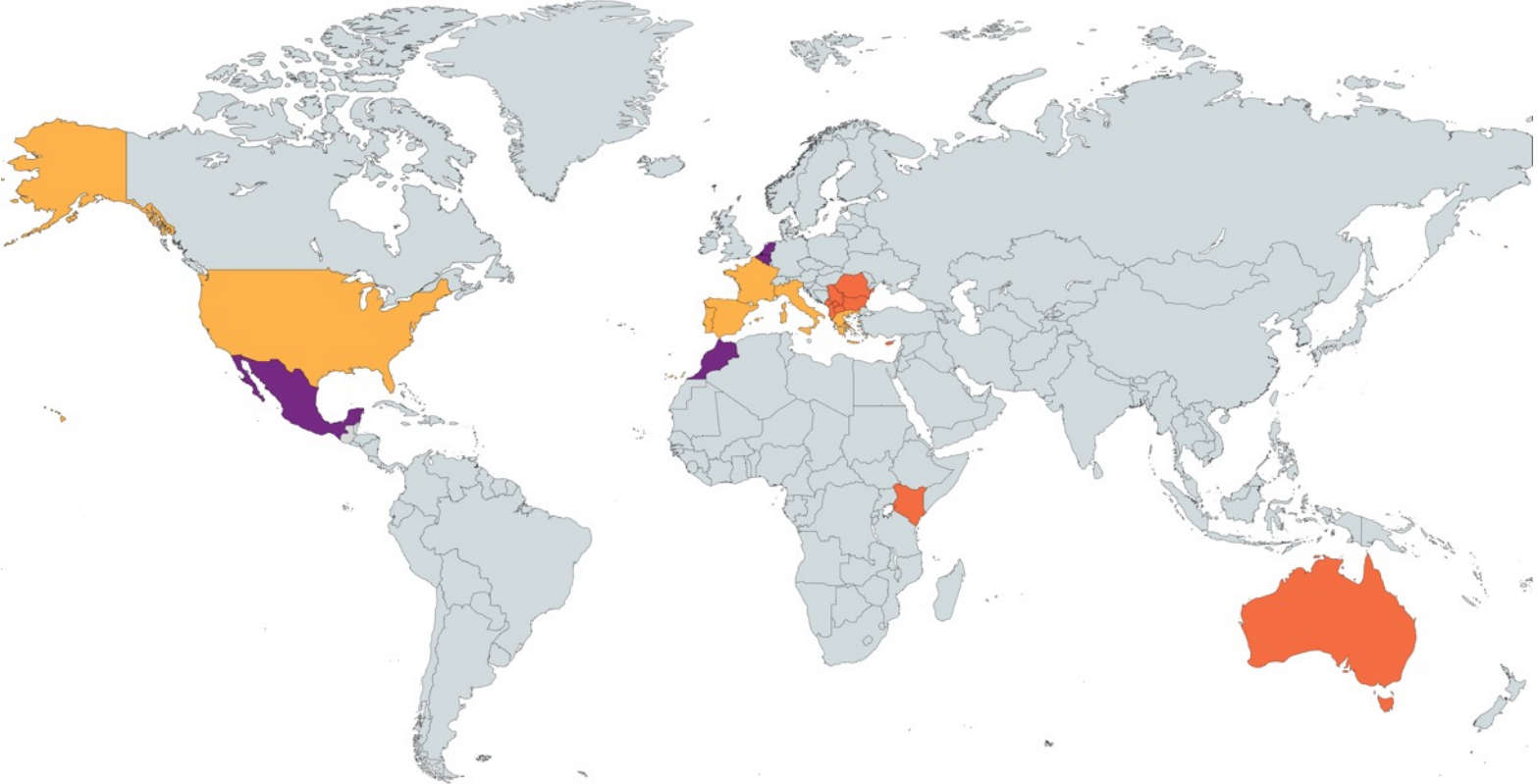


Strengthening and growing the team

- Added capacity in R&D, including microbiology, plant biology, agronomy, and analytical chemistry
- Robust approach to data quality
- Expand commercial team
- Addition of in-house regulatory expertise – accelerating time to market and reducing regulatory costs




Commercial footprint



Commercial Approval

-   MEVALONE
-   CEDROZ[™]
post-planting nematicide
-   MEVALONE &  CEDROZ[™]
post-planting nematicide

Our presence in Europe grew in 2021-22 through new authorisations for both Cedroz[™] and Mevalone[®], and we anticipate further approvals in Europe and further abroad in 2023.



Our US EPA approval for the sale of Mevalone[®] and Cedroz[™] was granted in September 2022.



We have commercial partners in place across six continents to support future expansion.

Mevalone[®] Regulatory Progress 2019 - 2021



Since
2019

5x

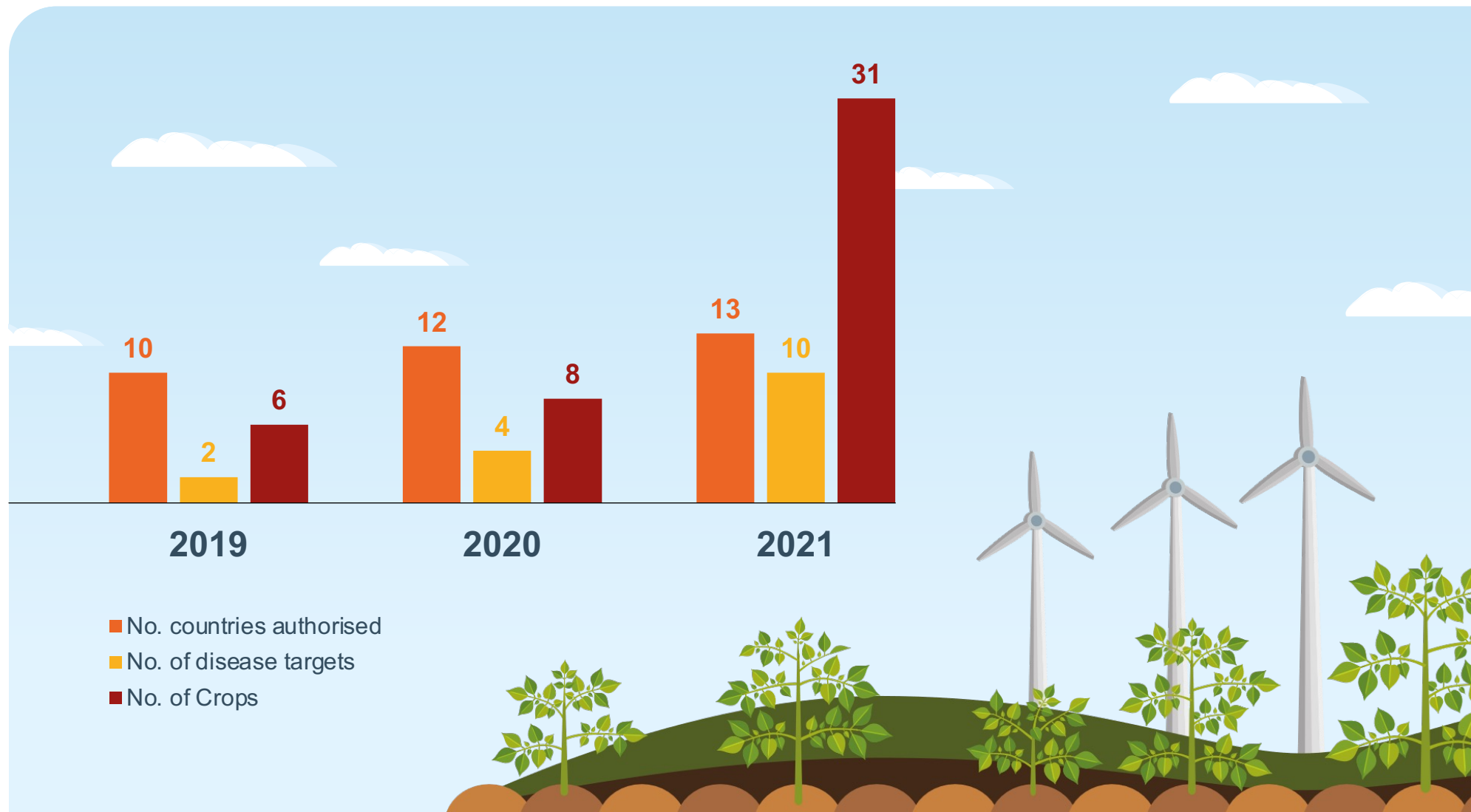
Increase in
disease targets

5x

Increase in crop
authorisations

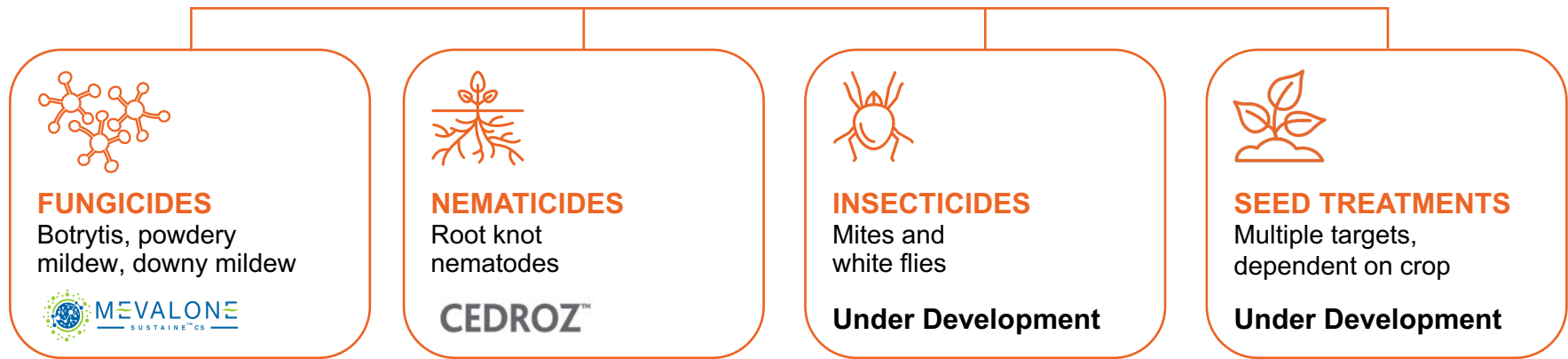
30%

Increase in country
authorisations



Our product focus

Our focus is on developing products based on sustainable chemistries to protect crops from pests and disease, with equal or better performance when compared with conventional pesticides.



Active ingredients

Our products give growers reduced risk, increased flexibility and security.



Product characteristics

Enabling sustained delivery, increasing residual efficacy and reducing use rates

Tackling resistance build-up

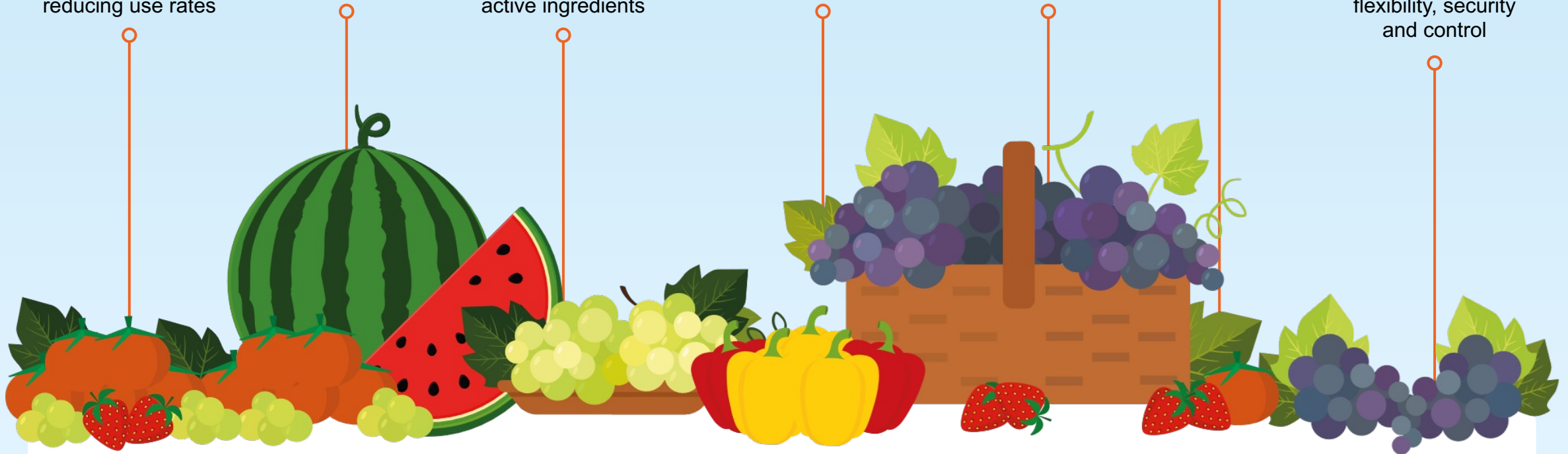
Solvent-free, stable formulations with high loadings of active ingredients

Protecting plants from potentially damaging chemicals

Polymer-free formulation technology

'Residue free'

Low or no pre-harvest intervals giving growers flexibility, security and control



Positive outlook for organic growth



How organic growth will be achieved

The team at Eden now has the necessary capabilities to formulate, develop, test (up to pot plant level) and register products that it has created.

Label extensions and country approvals of Mevalone and Cedroz continue to increase, which directly increases the Company's addressable market.

Numerous applications for regulatory approval of Mevalone and Cedroz are pending around the world in key markets:

- UK, Germany, Poland, New Zealand, Morocco, Tunisia, etc.



The pipeline of products that Eden is developing covers the following addressable markets/applications:

- Seed treatment
- Insecticide
- Downy mildew
- Cannabis
- Potato Cyst Nematodes
- Potato Blight

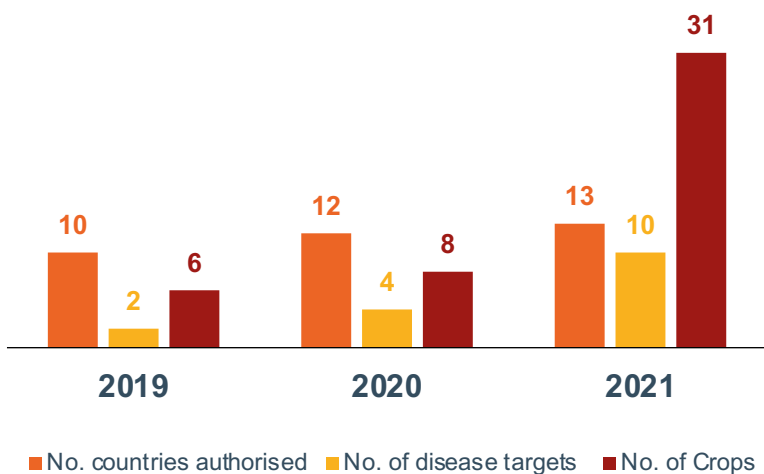
Projects with multiple partners are well underway using Eden's Sustaine encapsulation technology with third party active ingredients, tackling the ever-increasing issue of intentionally-added microplastics.

Mevalone[®] Biofungicide

Background

Mevalone is a foliar biofungicide which was developed initially to target botrytis on grapes.

Since its launch in the EU in 2016, the label for Mevalone has been significantly expanded, as shown in the table below:



Current status

Approved in Southern EU on a wide range of targets and crops

Approved in Kenya and Australia

Approval in the US received in September 2022

Approval in New Zealand expected in 2023

Approval in Central EU expected in 2023 – SumiAgro appointed

Approval in the UK expected in 2023 – Distributor appointment pending

Submissions pending for approval in various other key markets around the world, including **Brazil, South Africa, Chile, Argentina**

Opportunity

	Current			Future		Total
	S.EU	ROW	US	C.EU	ROW	
Addressable market €m	101	10	94	106	271	582
Potential Eden sales €m*	3.0	0.3	2.8	3.2	5.4	14.7

*Based on peak sales and a full label of all key target diseases and crops

Cedroz™ Bio-nematicide

Background

Cedroz is a **bio-nematicide targeting root-knot nematodes** in high value crops.

A development and **commercialisation agreement was signed with Eastman Chemical** in December 2016.

The **agreement covers 29 countries** on providing Eastman with the exclusive distribution rights.

Sales of the product began in the EU in 2020.

Approval has also been granted in the US on all nematode species.

Current status

Approved in Southern and Central EU on a wide range of high-value crops

Approval in the US received in September 2022

Sales growth has been slower than expected for various reasons

Submissions made for approval in various additional key markets around the world

Opportunity

	Current			Future		Total
	EU	ROW	US	ROW		
Addressable market €m	113	8	189	301	611	
Potential Eden sales €m*	2.3	0.2	5.7	6.0	14.2	

*Based on peak sales and a full label of all key target diseases and crops

Downy mildew

Filling a gap in the market

Background

Due to the recent restriction of a number of key downy mildew products, there is a **strong need for replacement products.**

Eden has **already tested Mevalone against downy mildew in the past with encouraging results.**

Now that key competitor products are being removed from the market, the **opportunity to sell Mevalone as part of an integrated pest management programme has arisen.**

The key market, in the first instance, is France.

Current status

Second year regulatory field trials are complete with good results received.

There are currently **three potential partners for the product**, two of whom are existing distributors, who have already expressed a strong interest in this opportunity.

Regulatory submissions are planned for Q1 2023 in the EU.

Opportunity

	Future				Total
	France	S.EU (exc. France)	US	ROW	
Addressable market €m	272	592	144	1,392	2,400
Potential Eden sales €m*	8.2	11.8	4.3	13.9	38.2

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Organic Growth: New Products



Seed Treatments

What are Seed Treatments?

Physical, biological or chemical agents applied to seeds to provide protection and help improve overall crop performance

Multiple functions: supporting greater uniformity of seed germination, plant height, vigour and biomass by protecting against pathogens and pests and/or can act as a source of crop nutrition or growth regulation.

Treatments are typically applied either as a solid/dust or as a liquid.

Colourants are used in seed treatments to give a clear indication that a seed has been treated and to confirm uniformity of the coating.

Major Players



Crop Science



Key information

SEED DRESSING



Application of low volumes of product to the seed surface.

Typically increases seed weight by <1%

SEED COATING



Produces a continuous, thin film over the whole seed surface.

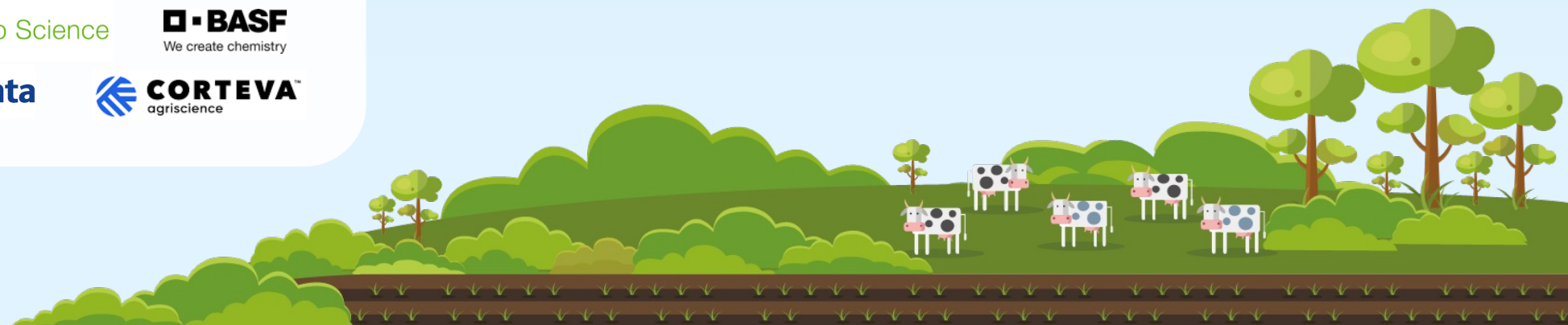
Can increase seed weight by up to 5%

SEED PELLETTING



Thick covering of the seed whereby all seeds become uniform.

Can increase seed weight by up to 5000%



Insecticide

Significant opportunities for effective, new products

Background

Due to a ban on numerous insecticides, such as neonicotinoids, there is a **large opportunity for effective, new products**.

Eden has developed **new formulations for use as an insecticide against at least four key target pests**, including spider mites, whitefly, aphids and thrips.

Formulation stability issues led to a change in formulation in 2020.

Two lead formulations were created, both of which have shown good efficacy in field trials.

Field trials of the current formulations have taken place in 2021 and 2022.

Current status

Initial **data received from the field trials undertaken in 2022 shows good efficacy**, consistent with that in 2021

Following successful trials, Eden has provided samples of the final formulation to a list of potential distribution partners

It is expected that **announcements on the appointment of distribution partners will be made in due course**

Regulatory submissions are planned for 2023 in both the US and EU

Subject to regulatory authorization, first sales of product are estimated to be 2024/5 in the US and 2025/6 in the EU

Opportunity

	Future			Total
	EU, UK	US	ROW	
Addressable market €m	338	237	1,320	1,895
Potential Eden sales €m*	6.2	6.8	17.4	30.4

*Based on peak sales and a full label of all key target diseases and crops

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Thank you

