

Innovation as a strategic enabler for future growth

Peter Boone (PhD) - Chief Innovation & Quality Officer

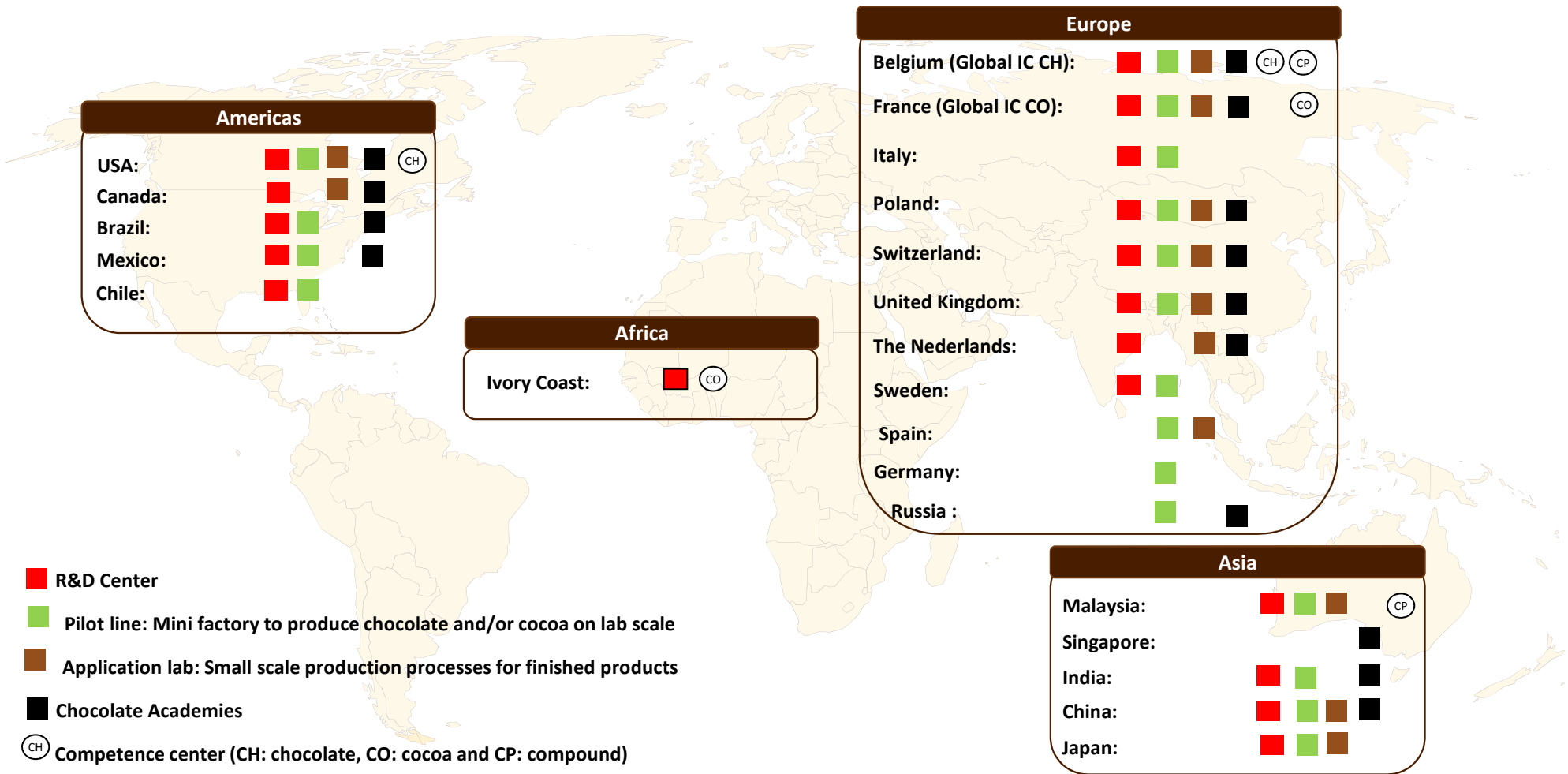


We have a very strong R&D / innovation network which brings together industry-best technology and know-how

- ▶ More than 200 R&D Managers globally
- ▶ Around 1100 development projects successfully completed last fiscal year, including upgrade of current and launch of new solutions
- ▶ 30 partnerships with universities, research institutes, labs and scientists
- ▶ Success rate on record high (59%) in 2013 / 2014
- ▶ >35 patent families and 40 international patents



We have a strong global presence with research and development capabilities and facilities with 18 Academies, 12 Applications Labs, and 18 Pilot Plants



Innovation / R&D Job within Barry Callebaut splits itself into applied R&D and Innovation

APPLIED R&D

- ▶ Work with our customers on matching existing or developing new “chocolate” solutions
- ▶ Renovate products / services to strengthen its functional properties or reduce cost
- ▶ Technical Advisors support implementation from Customers



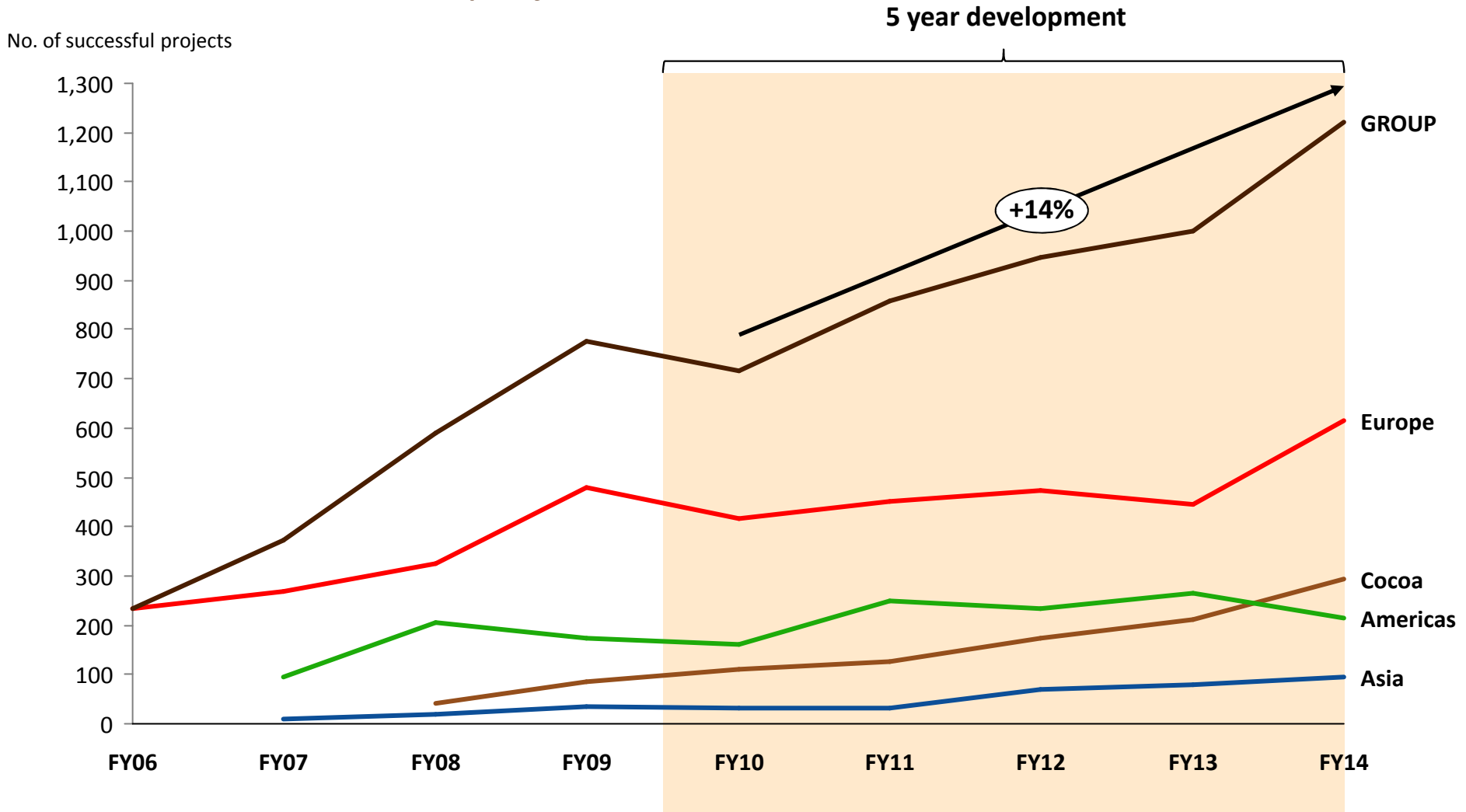
PRO-ACTIVE INNOVATION

- ▶ New product concept development on the basis of new technological capabilities and /or new customer insight
- ▶ Fundamental research in selective areas to secure industry-best know-how into the future
- ▶ Partnerships with leading universities and knowledge institutes

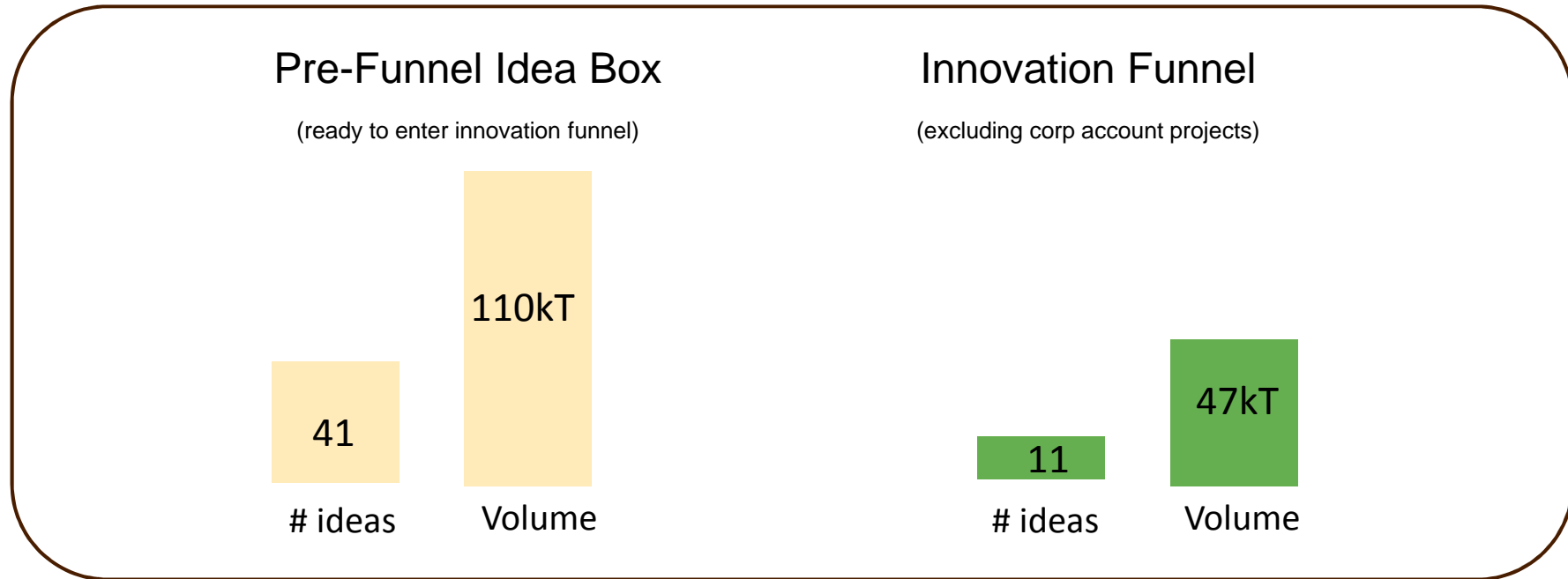


Innovation @ the Barry Callebaut Group

On Customer driven innovation work, we steadily keep increasing the number of successful projects...



Our pro-active innovation pipeline is full of new ideas to develop the market further. We focus more and more on the big ones



Innovation Funnel

- Number of active projects is kept limited (#11). Focus on Bigger, Bolder, Better
- Additional joint innovation projects with corporate accounts (MDLZ, Hershey, Unilever)

Market Development only happens when our customers buy into the benefits and added value we have to offer

EASE	PERMISABILITY	IDENTITY	EXCITE	FINISH
				
<i>Benefits are around workability in application and/or industrial set-up.</i>	<i>Benefits are around health, better-for-you and/or sustainability.</i>	<i>Benefits are around unique, defensible consumer valued sensory properties.</i>	<i>Benefits are "stories" which can be told on origin or composition of the ingredients.</i>	<i>Benefits are around fillings, toppings, and inclusions making up a perfect finish.</i>

Innovation @ the Barry Callebaut Group

Our development work with our customers is based on three pillars, all unique to Barry Callebaut



Base research & Idea Generation



Co-Creation with our Customers



Trends & Market Insight



Our fundamental research areas

D
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Structure, Texture & Sensory

Chocolate and cocoa indulgences

By offering a portfolio of indulgent products with specific attributes, Barry Callebaut answers the needs of its customers for product differentiation and prolonged shelf life.



Authenticity & Permissibility

Health and well-being

Motivated by the rising awareness of the impact of nutrition, consumers are scrutinizing foods and food production more than ever. Barry Callebaut addresses these concerns while maintaining an authentic chocolate experience – without compromising on taste.



Cocoa Science

Looking inside the bean

By deciphering the potential of each bean Barry Callebaut is able to develop chocolate and cocoa products with specific properties with regards to taste, appearance or processing.



New Process Technology

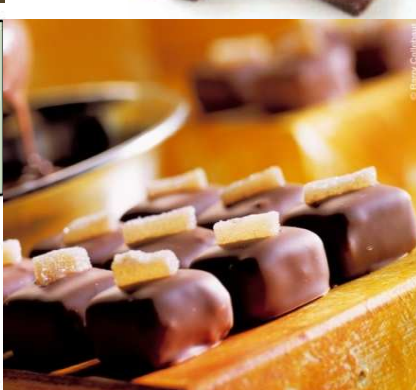
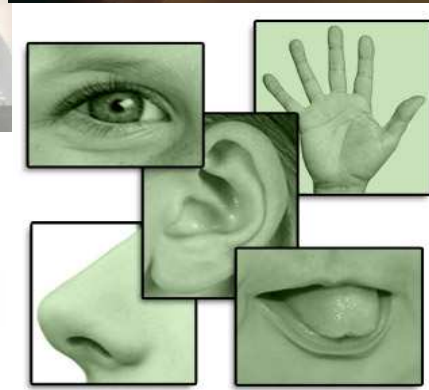
Improving and creating

Throughout the value chain, Barry Callebaut is finding ways to improve existing processes, while also creating new technologies to produce chocolate, cocoa and related products.





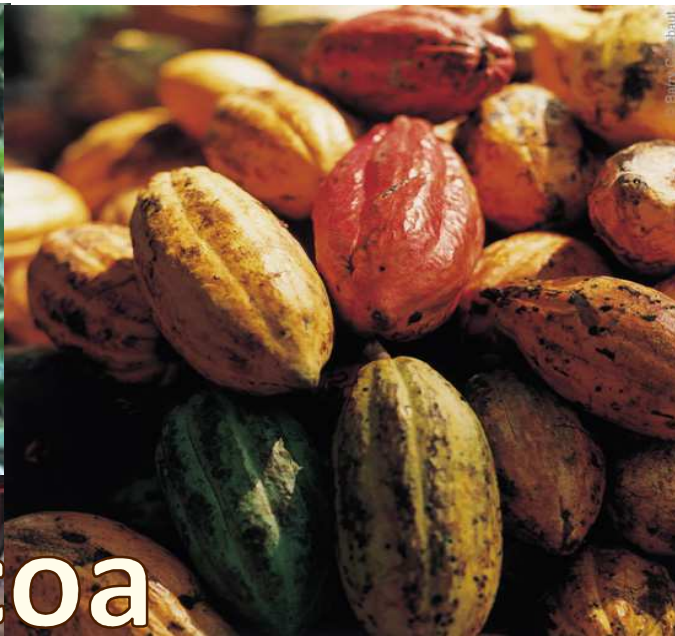
Structure, texture & sensory





Authenticity & Permissibility





Cocoa Science





Co-Creation with our Customers

Chocolate Academies are state-of-the-art training centers which take chocolate professionals on a journey *from bean to chocolate*.

Together with our Chefs, we train, inspire, and brainstorm together on end product level

Activities:

- Product Training
- New Idea Generation with Key Customers
- “Golden Reference” development before upscaling in Application Lab
- Ingredient variation for product upgrade or cost rationalisation





Co-Creation with our Customers



Our Application Centers are the locations across our network where we go to train, inspire, and brainstorm about the up-scaling of new product ideas.

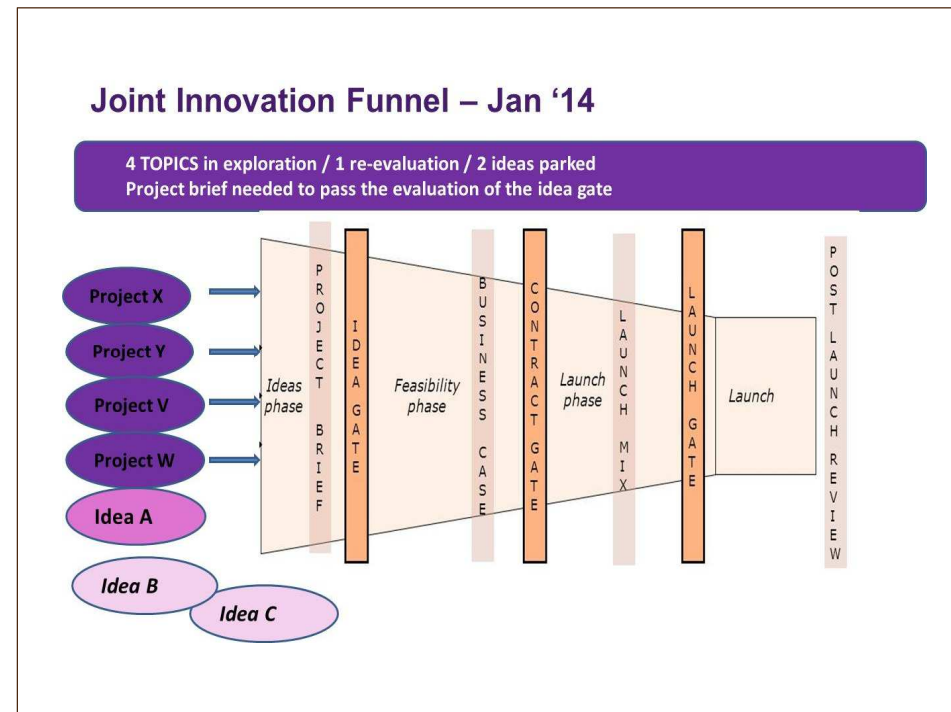
Our Technical Advisors host our (semi) industrial customers in these Application Centers. Our technical advisors are versatile to work across our product portfolio for the application of the customer. By handing over new ideas, tips, and tricks we strengthen the cooperation between BC and our customer.





Co-Creation with our Customers

- With strategic partners, we develop joint innovation funnels
- Implement disciplined process: resourcing projects, organize regular technical meetings, and direct “gatekeeping process” for all projects against the funnel
- Joint ownership of innovation work is fundamental to the relationship





Trends & Market Insight

We capture for our customers the trends which we identify around the world as a base for our discussions on new product solutions.

Pleasure is everything



Buy responsible



Show me it's real





Trends & Market Insight

Different platforms are shared around drivers of the buying process by consumers around the world.

'Pure' is the New Natural

Raw **Unprocessed**
No artificial ingredients

Purity **Real** **No E-numbers** **Pure & Simple**
Goodness from nature

Green is a given

Reduce **ReUse** **Sustainable**
Biodegradable

Environmentally friendly **Certified**
Compostable **Lower energy consumption**

Location, Location, Location

Origin **Certification**
Sourced

Region **Authenticity**
Small batches

Locally grown & produced

Premium Stands Out

Pleasure **Taste**

Guilt free **Luxury** **Bonus**
Offer

Treat **Indulgence**
Take a moment

Seniors draw attention

Active **Aging well**
Nutritionally balanced

Easy to open **Easy to Digest**
Treat Easy to read label

Reduced acid **Improved health**

Forty is the new twenty

Nutrition **Balance**
Stress Free

Vitality **Anti-aging**
For a long life Guilt Free

Energy

Grounded in science

Studies **Evidence**
Approved Ground breaking research

Technological advances **Product trials**
Recommended **Scientifically proven**

Regulators force a rethink

Daily amounts **Government**
Recommendations

Reduced **Regulations**
Daily amounts Reformulation

Boom for protein

Peas **Vegetarian**
Natural source of protein

Lentils **Meatless** **Pure Protein**
Beans **High Quality Protein**

Summary

- ▶ Global R&D / innovation at the core of the Group's strategy
 - ▶ Strong R&D network with global reach with center of excellence for chocolate in Wieze
 - ▶ Taking responsibility to lead the market development as global leader in cocoa and chocolate
 - ▶ Strong track record in both customer driven and pro-active innovation
 - ▶ At the forefront of new trends and market developments.
 - ▶ Organised to sustain the strong innovation performance into the future
- ▶ Innovation a strategic enabler for future growth



Base research & Idea Generation



Co-Creation with our Customers



Trends & Market Insight