

# A conche with a conscience?

*How technology improvements contribute to various aspects, from the most delicate chocolate products to reduced energy consumption*

*Jörn Wagenbach, Head Corporate Communications & CSR, and Alessia Baccalà, intern at Barry Callebaut's communication department, spoke with Dirk Poelman, Chief Operations Officer.*

**At Barry Callebaut you have a dedicated team focusing on new ways of making your products. Could you tell us how this team is structured and where the main focus lies?**

Our process and technology development team consists of 15 people. Seven of them are working in the regions to support production and to implement best practices in their respective region. The other eight work in our centers of excellence for cocoa in Louviers/France and for chocolate in Wieze/Belgium. Main focus, of course, is to develop new ways of making our products.

Our target is to increase the output of existing machines and lines. By doing so, we can reduce both the investment costs and the operational costs

per tonne for existing and new plants. The team works very closely with our engineering specialists.

There is also a special focus on reducing energy consumption per tonne, in line with our Corporate Social Responsibility objectives.

**Less energy consumption means reducing your CO<sub>2</sub> footprint. Can you provide some specific examples?**

Actually there are plenty of them. Take the installation of new bean breakers, for instance. They can reduce energy consumption during the roasting process by 20 to 25% per tonne by eliminating the micronizer, the preheater for the beans. This also means less equipment and less maintenance.

Another example is high-speed chocolate refiners. While conching affects the characteristic taste, smell and texture of the chocolate, refining reduces the size of the different components of the chocolate. By ad-

*Reduction of energy consumption by*

# 35%

justing our refiners, we can speed up the refining process and, consequently, increase the output per machine by more than 30% while maintaining the same particle size. This new way of working has a positive impact on energy consumption per tonne during the refining process, which is obviously reduced.

**You mentioned conching – any new technical developments there?**

I am glad you asked – actually we have developed a continuous conching process that gives us a great advantage: We can triple the output of the conche and still achieve the same product quality. Improvements to the traditional conching process have been tested

and implemented at different sites. Progress was mainly made in two areas: reduction of energy consumption by 35% per tonne and improved conching efficiency because of better air flows in the conche, resulting in shorter conching times and improved cocoa butter yield. This technology is based on standard conches that were reengineered in-house. Further developments are under way to make this continuous conche even more efficient. But what is true for any chocolate maker is also true for us: When it comes to the details of the conching process and, especially, breakthroughs on the innovation front, we all become very secretive ... •

*With about 40 production facilities around the world processing cocoa and producing chocolate, meeting the demands from Food Manufacturers to Artisans customers alike, continual process and technology development improvements are of crucial importance for Barry Callebaut.*