



Handpresso: From an Innovative Idea to an Alliance Portfolio

CONDENSED VERSION

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The case is dedicated to Henrik Nielsen, in memory.

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Handpresso had gone from strength to strength since its creation in November 2006. Its pioneering handheld espresso machine had been successfully brought to market, with steady sales year on year. The auto espresso machine that had later been developed had generated much interest, leading to a partnership with a major Italian coffee roaster. This in turn had resulted in agreements with two large auto manufacturers. By the end of 2013 the small French company had even begun negotiations with an electrical goods manufacturer with regards to a potential partnership. As a small player in a huge global market this was probably the best way to grow. However, Handpresso was equally aware that taking this route might have a direct impact on its own branded offerings.

Nielsen Innovation

“Simplicity is the ultimate sophistication.”

Leonardo da Vinci

This was the ethos which the founder of Handpresso, Henrik Nielsen, espoused throughout his life designing innovative products.

Henrik Nielsen

Henrik Nielsen moved to France from his native Denmark in 1990, with his wife Catherine and one-year-old daughter, to take up a position as Project Manager at Moulinex Krups European Research Centre, later moving to the role of Manager of Future Products. Henrik was more than qualified for this position. He held a PhD in Systematic New Product Search from the Technical University of Denmark, a DEA in ‘Conception de Produits Nouveaux’ from the Ecole Nationale Supérieure d’Arts et Métiers in Paris, a DESS in Business Administration (French MBA) from the University of Caen, France, and a BSc in Mechanical Engineering from DIA in Denmark.

During his time at Moulinex Krups, Henrik gained valuable experience working on diverse innovative product design projects, including automatic coffee machines, robotic vacuum cleaners and air purifiers. He moved to Fontainebleau (south of Paris) in 1997 to take up the position of R&D and Product Coordination Manager for Cycleurope, Europe’s leading bicycle company, with brands including Gitane, Bianchi and Peugeot. By 2000, however, Henrik was growing weary of the politics involved in large organisations’ R&D departments and decided to start his own consulting firm: Nielsen Innovation.

Nielsen Innovation was set up as an international innovation management company that specialized in “new-to-the-world” products. It created “innovations for end-users – products and services for real people with high impacts on strategy, marketing, design and technology,”¹ and was typically involved at the early stage of product or service innovation projects (Exhibit 1), as Henrik explained:

“We take part in the team from the very beginning until the feasibility has been proven and the innovation has been implemented and brought to market.”

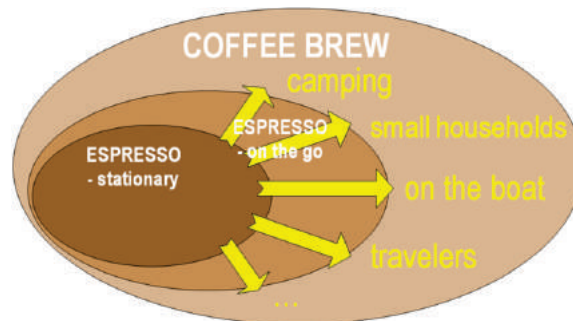
1 www.nielsen-innovation.com

Among the innovative products that Nielsen Innovation had developed were the patented Wi-Flow technology for a vacuum cleaner that increased cleaning efficiency whilst reducing the power required substantially, and Reelight, a battery-free bicycle light that a former colleague from Henrik's consulting days had invented. Wi-Flow was licensed and Reelight was brought to market by its inventor.

Handpresso

In 2005, Henrik announced to the Nielsen Innovation team that the next self-financing product design project he wished to work on was the design of a hand-held espresso machine. It would be a "single serve" device targeted at a new market space: people "on the go" – campers, small households, travellers and such like.

Since Henrik's time at Moulinex/Krups, he had been convinced that there had to be a simpler and easier way of engineering espresso machines (Exhibits 2 and 3), which were complex due to the water heating and pressure required. Henrik was convinced there was a market for a new product.



Trainees within Nielsen Innovation initially worked on the handheld espresso machine project to keep costs low. They were managed by designer Patrick Chateau and engineer David Petitdemaille. There was no formal market or consumer research carried out. Henrik preferred to invest in design and tooling.

After studying the coffee-making process and existing appliances, the team concluded that there were two main requirements for good espresso (apart from the quality of the coffee itself): the correct amount of pressure and the right water temperature (90-92°C). It was decided early on that the machine would not include an internal water-heating device, as it was a complex process, but would rely on preheated water from a kettle or a thermos-flask.

The team knew from competitors and their own research that 16 bars was the optimal pressure requirement. Although most existing coffee-making devices used water pumping, after unsuccessful tests the Nielsen team opted for an air compressor instead. The water pumping mechanism did not maintain the temperature of the water at the 90-95°C required to deliver a perfect cup of espresso. Testing air pressure proved more challenging than anticipated. As there were no compressors on the market that could be adapted to deliver the necessary pressure, they designed one in-house using components manufactured outside which were then assembled in the Nielsen Innovation office. Many different compressors were tried (including one for inflating tyres that happened to be lying around the office at the time).

Meanwhile, the team built prototypes for all the other components that were then assembled with the air compressor, thus creating the first functional prototype. The name ‘Handpresso’ was chosen for the novel hand-held coffee-making device. Henrik explained:

“It was at this point that Patrick suggested using a hand pump. However, our prototype was still based on an electrical component using rechargeable batteries or similar systems. The solution was so simple and the legislation regulations that related to electrical appliances were not applicable.”

What they developed was a machine that used a hand pump mechanism that enabled the crucial 16 bars to be achieved. The first functional prototype included an infusion chamber and a coffee pod space. While building the infusion chamber component, they realized that the water output (volume) needed to be exactly 45ml (the volume of an espresso), taking into consideration the water absorbed by the pod in the process – in this case 10ml. The result was a chamber volume of 55ml.

Possible Partners

“It was at this point that we approached two of the leaders in the espresso market at the time – Nespresso and Sara Lee (Senseo). We took our first large prototype and some high-quality renderings of what the branded product could ultimately look like with a view to obtaining a licensing agreement (Figure 1). We already had filed utility patents on the concept and secured non-disclosure agreements prior to showing our concept.”

The team met with marketing managers, engineers and IP managers from both companies on two occasions. Neither company were interested in purchasing or even licensing Handpresso.



Figure 1. Renderings of the machine presented to Sara Lee and Nespresso

“Neither of the companies gave us concrete reasons why they weren’t interested – they both liked the portability of the product. I can only presume that the concept was too far from their core business focus. Nespresso made some comments about controlling the temperature of the water. The engineers didn’t know how they could guarantee the client would use water at 90°C to ensure a good espresso.

These meetings also confirmed our suspicions that there was no product in the pipeline that mirrored our innovation. It was at this point that I decided that Nielsen Innovation would take the product directly to market.”

After rejections from the two coffee makers, the team also decided to use the “open system” Easy Serving Espresso (ESE) pod for Handpresso, rather than either the Nespresso or Senseo closed system pods.²

Building the Machine

Once the Handpresso team had built a prototype that produced high quality coffee, they showed it to the top management of leading coffee maker Illy. Illy subsequently gave the go-ahead for the use of their ESE pods without any requirement to change the design.

“We were interested in getting their feedback on our product. By this stage any thoughts of licensing had been given up. As Illy had developed the ESE format we thought it would be a good idea to consult them. In fact they helped us optimize the infusion process and also saw the opportunity to use their ESE pods. Illy had never imagined such a small machine and were keen to help us. It was an informal partnership as they wanted as many devices as possible using their pods, and we benefited from their expertise with the smaller details.”

Further work on the Handpresso machine ensued with regard to the weight, colour, developing a valve mechanism and a barometer to indicate when the crucial 16 bars had been reached. Eventually a bespoke, aesthetic mock-up, non-working prototype was developed based on the designer’s vision. It was built and finished to look exactly like the final product (Figure 2).



Figure 2 Mock-up prototype, including the logo

² A closed system is one whereby only Nespresso coffee pods can be used with Nespresso machines. An open system allows the coffee machine to use a number of different pods and is not locked into one particular manufacturer.

It was built to reflect both the overall weight and the distributed weight – to simulate the way it would actually feel when manufactured.

Building a Business

With the product development almost completed, Henrik and the team needed to build a business around the product. He founded the Handpresso company in November 2006, six months before production of the machines and just before they launched the tooling process. By this time, Patrick, the designer, and David, the engineer, were working almost full time on Handpresso. Henrik took on the role of CEO initially but hoped it would be a temporary situation. His experiences with both Wi-Flow and Reelight had provided substantial learning for setting up the Handpresso company:

“For Wi-Flow it was more appropriate to license the technology rather than developing a completely new vacuum cleaner in a market that was already saturated with machines. We weren’t creating a new market but a new technology that would improve an existing product. With Handpresso it was the opposite case. Handpresso was addressing a new marketplace – a single-serve device targeted at people on the go – therefore developing the product ourselves was a better option.”

In April 2007, Henrik convinced a sales and marketing management expert, François-Paul Boutard, of the merits and value of Handpresso. He persuaded him not only to take on the position of CEO but also to become a key investor in the company. For Henrik, having a partner committed to funding part of the venture was preferable to venture capitalists or angel investors, as he explained:

“It’s optimal to get a partner that will ‘invest’ and help run the business, bringing complementary skills to those of the existing team. Bringing in angels or VCs can dilute the company and mean loss of control.”

Sourcing

Finding the right partners to build the Handpresso machines was crucial for the company. They first looked for a suitable European manufacturer to produce Handpresso but discovered that there were no longer any producers capable of building this type of machine.

“We then looked at two other options, one in Turkey and one in China. The quote from the Turkish manufacturer was impressive and we were almost about to sign before we went back to the Chinese producer who offered a deal at half the price for the same quality product.”

Marketing and Distribution

“Huge innovation can compensate for a small communications budget!”

The first product, Handpresso Wild, was launched in January 2008 at the Milan Show, two years after the idea had been hatched. This was followed by shows in Paris, Frankfurt and

Chicago. By 2009, Handpresso was distributed in 25 countries, with 100,000 machines sold worldwide within two years.

Catherine, Henrik's wife, was responsible for marketing and communications. Trendsetting blogs were springing up in the virtual world, including influential independent "coffee-lover" sites that journalists in the industry took notice of. She sent Handpresso Wild machines to these blogs and the response was overwhelming; they loved the product and posted great reviews. These were picked up by the wider media, leading to increased visibility for Handpresso and further sales (Exhibit 4).

Over time, the company won eight prestigious awards for its innovative product. Handpresso was positioned as a premium product with high margins for distributors:

"We give higher margins to our distributors so that they will invest in communications within their own country. The distribution is more expensive for us in comparison to a company such as Moulinex – we need to distribute through an intermediary."

The Next Chapter

Unfortunately, the original investor and CEO of Handpresso left in May 2010, leaving Henrik no choice but to take on the day-to-day operations.

"My goal was to repeat the Reelight 'biz' experience and back out slowly from the day-to-day running of the company. This model appealed to me but the challenge was to find the right people to take over, as well as securing the financing to take it forward."

In April 2011, after a few months at the helm, Henrik was fortunate to find the right person to replace him as CEO: Jérôme Schlegel, a manager with vast experience in international distribution and marketing high-end fashion products. With Jérôme on board, Henrik could return to do what he enjoyed most: "Giving birth to new innovations and businesses".

In addition to running Handpresso, Henrik continued to innovate, looking for the "next big thing". In fact, he was working on two new machines that would herald the next chapter in the Handpresso story. The first was a 'Wild Hybrid' version that could use both ESE and ground espresso coffee – the ultimate in versatility.³ The Handpresso Auto ESE was the second: an espresso machine for the car. It used the same technology as the handheld product but was designed to heat the water by plugging it into a 12v cigarette lighter. The user simply placed the Handpresso Auto into the cup holder, plugged the lead into the socket, added water, inserted a coffee pod, pressed the button and



Handpresso Auto ESE

3 The previous two Wild machines used either ESE or ground coffee. An easy serving espresso (ESE) pod is a flat disc of coffee in filter paper, and is usually foil wrapped. Coffee capsules are made from either plastic or foil, and are about the size and shape of single-serving UHT milk holders. Pods and capsules contain the exact amount of coffee compressed to the correct pressure, whereas ground coffee needs to be prepared before use.

waited for three beeps for the espresso to be ready (Exhibit 5).

By the end of 2011 the two new products had been tested and were due for launch in January 2012. Coffee was now the largest segment in the hot drink sector, with the coffee pod market witnessing steady annual growth (Exhibit 6, 7, 8).

The early Handpresso machines had been targeted at outdoor activities, but Henrik's focus had always been on the espresso itself. From the start he had wanted the product to be presented in a way that would signify high-quality design and innovative engineering. This was reflected in the chic black box the products were presented in. But as Jérôme pointed out, however beautiful the packaging was, it didn't reflect their customers' lifestyles:

“Our customers are people who enjoy the outdoors: trekkers, adventurers, campers, sailors, climbers and the like. These are not really the people that you would associate with black ‘serious’ design. Having said that, they certainly do appreciate good design. And for that reason I wasn’t suggesting a change in the colour of the machine but to rethink the packaging, together with the brand’s corporate identity.

As we were about to launch the new products, Henrik and I decided that it was the ideal moment to introduce the new corporate identity that I had been working on for the packaging and the website. The slick black boxes were replaced with white and yellow ones. Cartoon drawings adorned the containers that represented the outdoors and what we considered reflected our customers’ lifestyles better.”

Sadly, Henrik did not see the launch of the Handpresso Auto ESE and the Wild Hybrid machine. He died suddenly in December 2011, leaving his wife Catherine with the painful decision of whether to continue with the launch. Thanks to great support from the Nielsen Innovation and Handpresso teams and their wholehearted desire to carry on Henrik's innovative work, the launch was delayed for just one month to February 2012.

Growth through Alliances

The auto machine had been tested thoroughly prior to launch by sending it to 30 Handpresso users who gave the team feedback. Improvements were then made accordingly. Catherine explained:

“When we were satisfied with the new auto machine, we published a press release on the website. A month later there was still little reaction. Then there was a US blog that talked about us that was posted in France...by March we had gone from 300 to 12,000 visits. At this stage we only had 200 machines in stock so we didn’t really want to communicate further internationally as we wouldn’t be able to fill the orders.”

However, the team knew that they had to build the business rapidly as they were in the consumer goods market and therefore up against some giant players. Their strategy was to grow through partnering with large companies, believing that this would bring credibility to the product and the innovation.

Coffee Roasters

The obvious place for Handpresso to start was with the major coffee roasters. Back in 2007, Catherine and Henrik had contacted the Italian coffee giants Lavazza and Illy, both of whom had shown interest in the portable machine. As Illy had shown the most interest in the machine and had even helped develop some of the machine's finer details, "that was the first port of call." Illy had also agreed to sell the product in some stores in certain countries and online.

Illy had followed Handpresso's progress and remained in contact over the years. So when the new version for the car was launched, Jerome and Henrik set up a meeting – machine in hand (at this stage it was still only a prototype of the auto model). Back in 2007, Illy had been reluctant to enter a partnership with Handpresso because they were not convinced that it could produce consistently high-quality coffee. However, with the electric-powered automatic machine for the car there was no longer any reason to doubt the quality of the coffee. Indeed they were more than interested in bringing the auto machine to market.

Meanwhile Jérôme and Henrik had also contacted Lavazza, who had also kept in touch with Handpresso since the early days and were equally eager to be involved in launching the machine. Lavazza moved quickly, negotiating a deal on their capsules in return for an initial three-year partnership with Handpresso. Lavazza wanted the designers to develop a machine based on Lavazza's 'A Modo Mio' capsule system (Figure 3). Handpresso's machine until this point had only used pods (open).



It was of utmost importance to sign a first partnership with such a reputable player on the coffee market. Furthermore, the Handpresso team had demonstrated that it was able to develop solutions for any portioned coffee format and reach the quality requirements of the major groups.

Handpresso signed a contract with the coffee roaster in May 2012. It was an exclusive deal to supply Lavazza pod machines for three years on a guaranteed amount of business. Thanks to this collaboration, the R&D team was encouraged to push the technology a step further to meet the company's requirements.

Coffee in Cars

And there was more good news. Lavazza had been approached by an automaker in Turin who intended to include a coffee machine in a new car due to be launched in 2013. The machine would be based on Handpresso's technology, use Lavazza's capsules, and be integrated directly into the new car (not using a plug-in lead as with the other model). "Being the first company to offer an espresso solution in the car enabled us to enter the car market, which has huge potential."

Jérôme took up the story:

“We later found out that this was the Italian auto company Fiat and the machine was for the new 500L Fiat. Lavazza was keen to keep exclusivity on the model that would plug into the new car and would also be installed in some of the luxury Iveco trucks (IVECO was part of the Fiat group). The partnership between Fiat and Lavazza wasn’t surprising as they were both based in the same town in Italy.” (Exhibit 9)

However, the Handpresso team was obliged to keep the news under wraps until the Paris Automobile Show later that year in October. It proved to be a great success as they had their own stand, thus allowing other automobile companies to approach them. Catherine explained:

“It was the first time we were allowed to disclose the fact that we had a connection with Fiat through our exclusive partnership with Lavazza. Fiat insists that it manages all communications for the coffee machine. As a result I cannot publicize the partnership through Handpresso channels but rely on Fiat – a small price to pay for this partnership. The Fiat coffee machine was featured in Fiat’s TV advertisement in Italy for the car.

This was a turning point for the company as we were first endorsed by Lavazza, then Fiat. We are now viewed as a reliable and credible company. Everything else was easier once we had these first partnerships as people are now sure of the quality, plus there has been wide press coverage. All this spills over into our other businesses, in particular the hand-held machines.”

The Motor Show in October 2012 led to contacts with other car manufacturers, among them the auto giant Volkswagen, which selected Handpresso as an official supplier of coffee machines for their vehicles. Initially Volkswagen had requested that Handpresso develop a customised machine, but eventually settled on the Handpresso branded coffee machine with the open pod machine. With these agreements signed, Handpresso had become the main player in the portable espresso market and a pioneer in bringing coffee to automobiles.

Potential Partners?

Handpresso continued to seek further partnerships building on those they had already signed. Other negotiations were underway with a major player in the small appliance market. The company had expressed interest in including the Handpresso ESE pod machine in its own range of products. It could possibly become a second partnership for Handpresso after Lavazza. Jérôme described the outlook:

“Experience has shown us that reaching the signatory stage of a partnership deal can take months. The manufacturer first wants to carry out in-depth market research on Handpresso’s market, clients etc., obviously to ensure that there is a potentially good market for them.

This company has asked us to design a machine that is a hot drinks machine rather than a specifically for espresso – along the lines of Nespresso, Tassimo or Senseo.

In addition to the partnership strategy, we are continuing to build our own distribution stream through small outlets, as we had done for the first manual machine. The DNA of the brand is how it is conceived: fun, outdoors.

There has been much buzz around the machine for the car, which has had a knock-on effect for the manual machine sales. It creates a pull effect on the manual one which remains the core product. We always have these with us when we are at fairs promoting the electrical machines. As a result, sales for the manual machines are also increasing.

We want to focus on the whole concept of our innovative technology – this is what is patented for 15 years. We are still working on the development of the core manual machine. The technology is the innovation that is in the two products.”

By the end of 2012 the Wild Hybrid manual machine accounted for 40% of the total business, with the remainder from the auto product. An adaptor was also available for the auto product which meant use of the machine was not restricted to the car since the lead could be plugged into regular sockets for use at home, on holiday, in a hotel, on a boat – the options were endless, as Jérôme explained:

“We are talking to other big players in the automotive area. Obviously, these partnerships help us to grow and strengthen our brand. Yet Handpresso intends to use them as leverage to broaden the knowledge of its whole concept.

The fact is that, although the espresso machine for the car is the one the big partners are interested in, Handpresso goes beyond that. We are convinced that the Handpresso concept can reach a much more diversified public (as shown in the diagram below): the outdoors, sports people, coffee lovers, the trendy and design freaks, people on the go (among which are car drivers. But there are many other travellers too, and not least eco-friendly consumers. The future challenge for Handpresso will be to keep on promoting this strategy while living together with the big names of the industry.”



Exhibit 1

About Nielsen Innovation (www.nielsen-innovation.com)

Innovation is a multidisciplinary process

It involves aspects from many areas in the company, throughout the life of the project. Nielsen Innovation intervenes in the early stages of the innovation process, when the strategic issues are defined as well as in the "hands-on" activities related to the concrete product development process.

Constant focus on value creation

We manage the process and make sure that all activities are carried out at world-class level. We keep a constant focus on value creation throughout the process. This means that we constantly evaluate the perceived and the real value for the customer of our technological solutions and optimize the cost and investment related to the new products and services.

Four well-defined project stages

We typically carry out our projects in the following stages

- 1 Concept stage:* Creation and selection of high-value adding concepts.
- 2 Feasibility stage:* Testing that the proposed concepts are viable from a technical, consumer, market, industrial and industrial property point of view.
- 3 Development stage:* Design and testing of the product in all details.
- 4 Industrialisation:* Development of tools and running in of the production process.

Our relationship with clients and partners

We believe in open and direct communication between the people concerned

We do not believe that traditional organizational structures are ideal for handling innovation ...we believe in strong project organizations

We believe in the contribution of a few key persons ...only few people can see the benefit of an innovation in its early stages. We shall listen to the other people but not let them kill the embryonic ideas.

We do not believe in "hollow" creativity sessions without constraints and insight

We believe the use of tools, methods and a systematic approach can help to reduce risk and improve the innovation level!and understand what happened...

We don't believe in formal committees to drive innovation and change

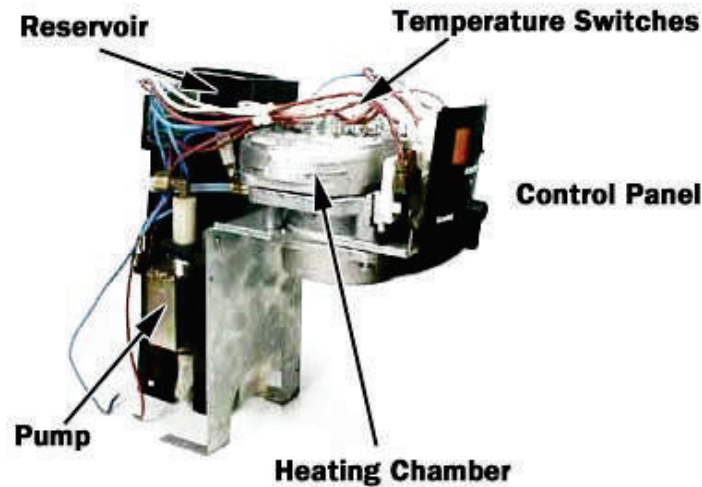
We prefer long term relations with our partners to short term profit

We like to have fun and work with enthusiastic people

The purpose of innovation is to do better - not just to be different *We want to do innovations that really matter*

Exhibit 2

How an Espresso Machine Works

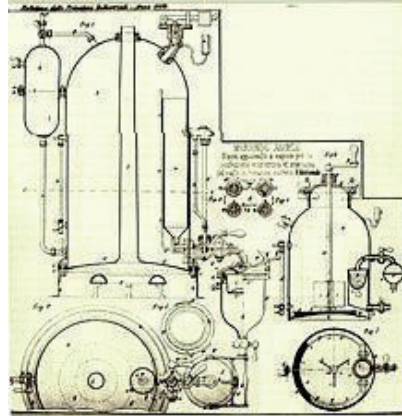


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The reservoir holds the cold [water](#) used in the espresso machine. It is not pressure-tight or heated, and it is removable. The pump draws water out of the reservoir and pumps it into the heating chamber at high pressure. The heating chamber is a sturdy, stainless-steel structure with a heating element built into a groove in the bottom. The resistive heating element is simply a coiled wire, very similar to the filament of a [light bulb](#) or the element in an electric [toaster](#), which gets hot when you run electricity through it. In a resistive element like this, the coil is embedded in plaster to make it more rugged. The heating chamber also contains a one-way valve that lets water into the chamber from the pump, but not back into the pump from the chamber. The porta-filter is the removable part of the machine that holds the ground coffee. Inside the basket is a small removable screen into which the ground coffee is packed. On the bottom of the basket are two spouts where the espresso comes out. The steam wand is used to heat and froth milk for use in various espresso drinks. This wand is connected to the heating vessel. When the user puts the valve in the steam position, steam from the heating vessel is released out of the wand and into the milk. The control panel in this machine contains the on/off switch, two indicator lights and a control valve. One of the lights indicates that the machine is on, and the other indicates if the heating chamber is up to the proper temperature. The valve is used to start the flow of water through the coffee in the porta-filter or to start the flow of steam from the steam wand. It also engages one of two micro-switches that control the pump and heating element.



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Exhibit 3*History of the Espresso Machine*

First patent (vol. 33 n. 256, 1884) for the Espresso Machine, by Mr Angelo Moriondo

The first machine for making espresso coffee was built and patented by Mr [Angelo Moriondo](#) of [Turin, Italy](#), who demonstrated a working example at the Turin General Exposition of 1884. Seventeen years later, in 1901, the machine was improved by the Milanese Luigi Bezzera, who patented his improvements. Luigi Bezzera was not an engineer, but just a mechanic. He did not invent the espresso coffee machine, but he did come up with a number of improvements to the already existing machine. He patented a number of these, the first of which was applied for on the 19th of December 1901. In 1905 the patent was bought by Desiderio Pavoni who founded the “La Pavoni” company and began to produce the machine industrially (one a day) in a small workshop in Via Parini in [Milan](#).

Drive mechanism

Since their invention in 1901, multiple machine designs have been created to produce espresso. Several machines share some common elements. Varying the fineness of the grind, the amount of pressure used to tamp the grinds, or the pressure itself can be used to vary the taste of the espresso. Some baristas pull espresso shots directly into a pre-heated [demitasse](#) cup or shot glass, to maintain a higher temperature of the espresso.

An espresso machine may also have a steam wand which is used to steam and froth liquids, to include milk, for beverages such as the [cappuccino](#) and [latte](#).

Steam-driven

A steam-driven unit operates by forcing water through the coffee by using steam or steam pressure. The first espresso machines were steam types, produced when a common boiler was piped to four group heads so that multiple types of coffee could be made at the same time. The design is still used today in low-cost consumer machines, as it does not need to contain moving parts. Many low-cost steam-driven units are sold in combination with a drip-coffee machine.

Piston-driven

The piston, or lever, driven machine was developed in Italy in 1945 by Achille Gaggia, founder of espresso machine manufacturer [Gaggia](#). The design generically uses a lever, pumped by the operator, to pressurize hot water and send it through the coffee grinds. The act of producing a shot of espresso is colloquially termed pulling a shot, because these lever-style espresso machines required pulling a long handle to produce a shot.

There are two types of lever machines; manual piston and spring piston design. With the manual piston, the operator directly pushes the water through the grounds. In the spring piston design, the operator works to tension a spring, which then delivers the pressure for the espresso (usually 8 to 10 bar).

Pump-driven

A refinement of the piston machine is the pump-driven machine, which was introduced in the [Faema E61](#) in 1961, and has become the most popular design in commercial [espresso bars](#). Instead of using manual force, a motor-driven pump provides the force necessary for espresso brewing. Commercial or some high-end home machines are often attached directly to the plumbing of the site; lower-end home machines have built-in water reservoirs.

Four variants exist in home machines, depending on how brew water and steam are boiled; in discussion these are generally known by acronyms.

- **Single Boiler (SB)**
These machines can brew only, and not steam, requiring only a single boiler. They are relatively uncommon, with steam wands being a simple and valued addition.
- **Single Boiler, Dual Use (SB/DU)**
Some home pump espresso machines use a single chamber both to heat water to brewing temperature and to boil water for steaming milk. Since the temperature for brewing is less than the temperature for creating steam the machine requires time to make the transition from one mode to the other.
- **Heat Exchanger (HX)**
Some machines use a single boiler kept at steaming temperature, but water for brewing is passed through a heat exchanger, taking some heat from the steam without rising to the same temperature. This is found in many mid-range machines. There is some controversy as to the temperature stability of the brewing water, since it is indirectly converted from steaming temperature to brewing temperature, rather than kept at a brewing temperature.

Air-Pump-driven

In recent years air-pump driven espresso machines have emerged. These machines use compressed air to force the hot water through the coffee grounds. The hot water is typically added from a kettle or a thermos flask. The compressed air comes from either a hand-pump, N2O or CO2 cartridges or an electric compressor. One of the advantages of the air-pump driven machines is that they are much smaller and lighter than electric machines. They are often handheld and portable.

Source: Wikipedia 2011

Exhibit 4 Product Range

Design of a whole range of accessories reinforcing the concept

Accessories have been created to assist the user in the new uses generated by the espresso in the open air. They are actually aimed at making the new concept of nomadic espresso even more understandable. As for the Handpresso Wild itself, the design is still emphasizing both the luxury and the practicality of these stylish and yet robust outdoor items.



First of all, the outdoor set, a stylish bag containing it all: the Handpresso WILD E.S.E, 4 unbreakable cups, and a 300ml thermo-insulated flask (to have hot water always close to hand).

The carrying case protecting your Handpresso Wild also contributes to ensure a successful experience wherever you go, as well as the Domepod® case - to fill 3 Domepod beforehand with the espresso coffee you like and bring them with you in the case wherever you go!

As for the intense portafilter to enjoy a ristretto (a very “short” shot of espresso coffee), it enables you to slow down the infusion while increasing the extraction of the aromas!

Graphics connecting two worlds

Handpresso bridges the gap between 2 worlds: the high end premium quality espresso world, with well-defined codes, and the mobility world having no clear codes, in which the products themselves have to convey this idea. Thus, the formal and graphic language of Handpresso’s products is based on simple and classical volumes relating to the rather traditional coffee world. The use of the black colour with its aspect and finish helps convey this impression as well as the brand image.



Most of Handpresso’s graphic communications tools are taken care of by Nielsen Innovation’s design team, be they the logo, the website, brochures, leaflets, posters, business cards or newsletters... Their work also includes the booths at the fairs where Handpresso exhibits, and the supervision of Handpresso’s distributors’ communications abroad. In this way they make sure that Handpresso’s corporate identity is conveyed to customers in everything they see.

Exhibit 5
The Handpresso Auto launch

→ handpresso auto

the
**espresso
machine**
for the **car**

- Coffee: E.S.E. and compatible pods
- Material: ABS
- Color: black
- Weight: 880 g (1.94 lbs)
- Pressure: 16 bar
- Cycle: 2 minutes
- Water reservoir capacity: 1.79 fl.oz (53 ml)
- Voltage: 12 V DC
- Power: 140 Watt
- Certification: CE [E24]

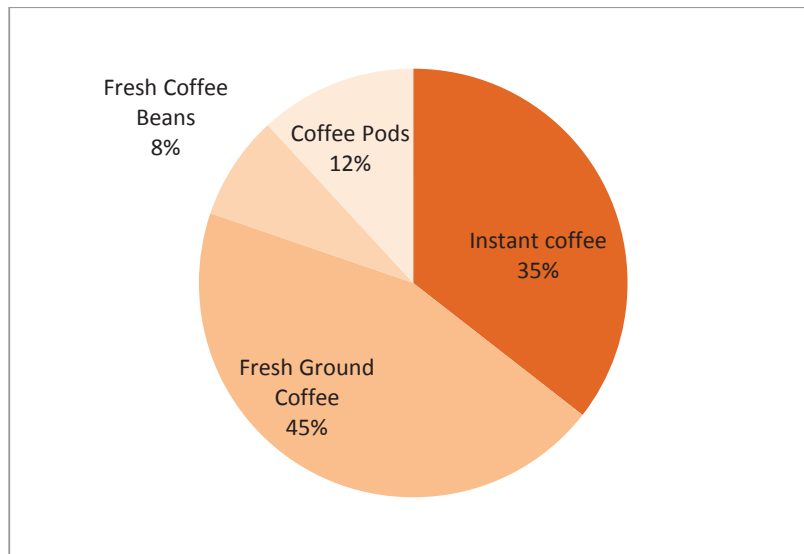
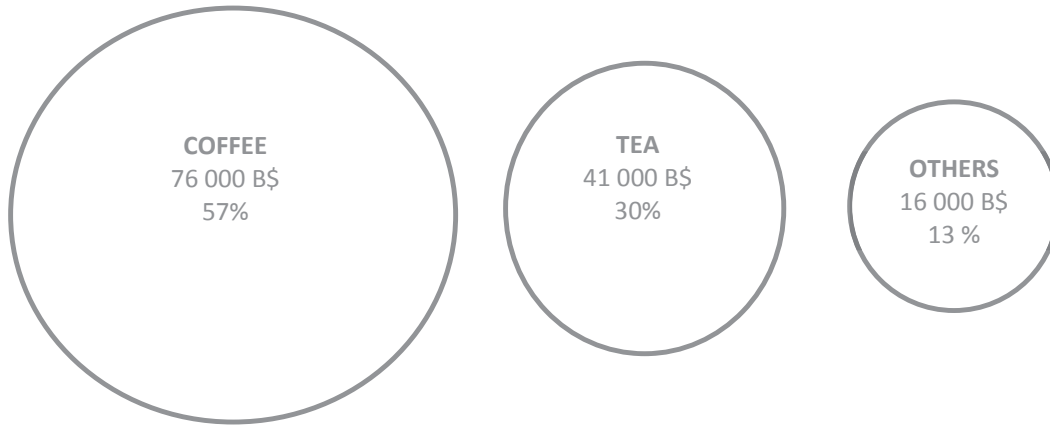
16 BAR

12 VDC

Recommended public price
149€

handpresso
precision quality espresso anywhere

Exhibit 6
The Hot Drink and Coffee Markets, 2012



Market Trend Forecast 2007-2012 (growth value) per Year

- Total Coffee Market + 4%
- Fresh Coffee Market + 4%
- Coffee pods + 12%

Exhibit 7
Growth of the Coffee Pod Market 2012

Value Sales in Billion US\$

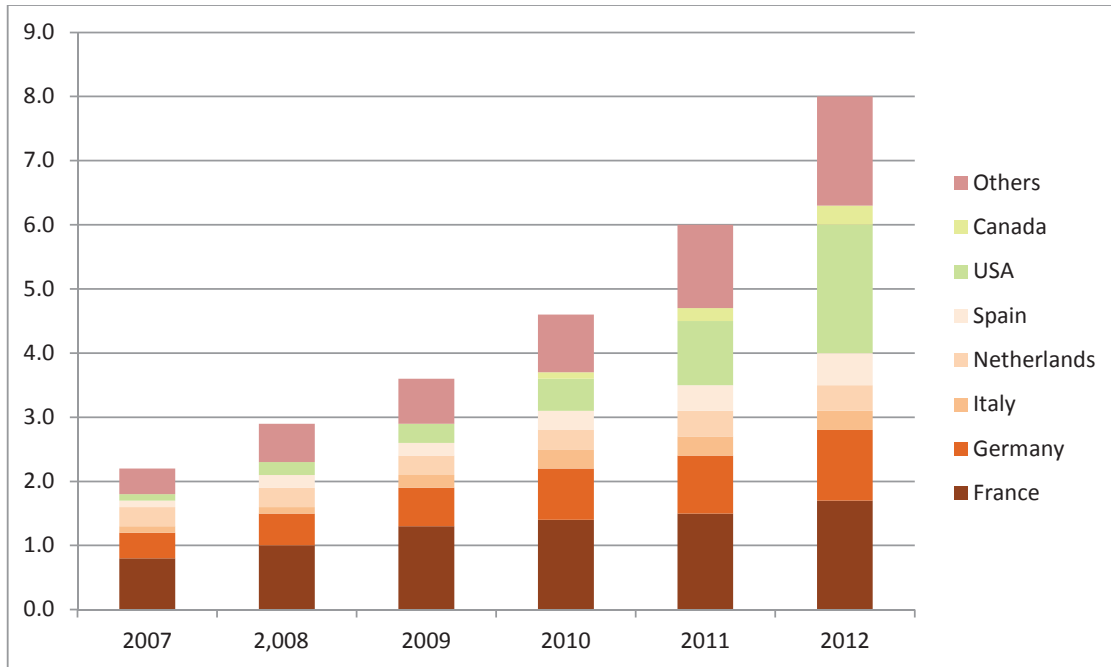
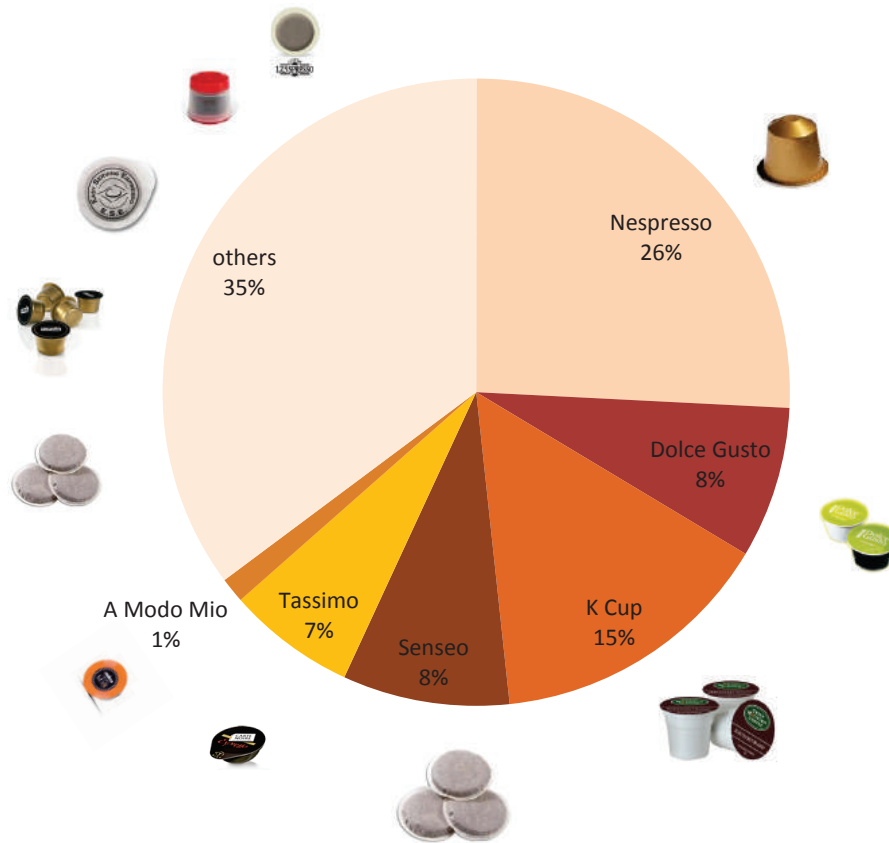


Exhibit 8
Global Market Share of Portioned Coffee Players



Source: Euromonitor

Exhibit 9

The Auto Collection Including Lavazza and Iveco Machines



Source: Handpresso 2013

Appendix
Timeline Handpresso

February 2005	Nielsen Innovation starts working on handheld espresso makers
2006	First handpump prototype
November 2006	Handpresso SARL founded
April 2007	François-Paul Boutard invests and becomes CEO of Handpresso
November 2007	Production launch in China
Spring 2008	Market introduction
End 2008	Distribution to 10 countries
July 2009	Integration of distribution in France
End 2009	Distribution to 25 countries
May 2010	CEO François-Paul Boutard leaves as CEO; Henrik has to take on the role
April 2011	Jérôme Schlegel takes over as CEO
February 2012	Auto and Wild Hybrid are launched
March 2012	Blog in the US is posted in France: sales visits on website increase from 300-12,000
May 2012	Exclusive deal signed with Lavazza for three years
October 2012	Fiat show 500L with integrated machine; Handpresso has a stand at the Paris auto show