

6. Dingens Barometers

////////////////////////////////////

No longer
under the
Weather after
Mercury



When Dingens Barometers heard in 2007 that Europe was henceforth banning mercury from barometers the company's economic barometer read storm. "With the European ban we saw 80% of our turnover scrapped", says Paul Dingens. But Dingens persevered despite the message of doom and kept looking for a new strategy and a new product. "We found an extremely accurate and ecological alternative: the mercury-free barometer." How necessity can lead to innovation.

It was a simple flourish of the pen that sealed the ban on the use of mercury in barometers and the fact that it also entailed the death sentence for a family company that for over 40 years had distributed accurate, authentic mercury barometers didn't seem to matter. "The European ban was rather obscure in the sense that barometers had been included in the mercury regulations whilst much smaller quantities are used than by the other mercury products and what's more in our sector it always concerns recovered mercury", Paul Dingens once again formulates his displeasure from then.

The bitterness about the entire regulation remains even today. "We went to the European Commission, used every possible channel to make it clear that we work in a far more environmental-friendly way than the impression that was being given. You have to know that the European barometer producers all together were using no more than 200 kilograms of mercury a year. That's negligible compared to the amount used in low-energy light bulbs. Whilst they are promoted as being ecological." Despite the protest at the double standards, the ban still went ahead. It was over. No more mercury in barometers.

The ensuing economic death-struggle not only meant that Paul Dingens had to seriously trim down his company, he also had to come up with an entirely new strategy. "At the time we already had a range of digital measuring equipment, but we didn't produce those ourselves and you can't survive with just that. What's more,



↑
Innovacelli Barometer
© Dingens Barometers

I'm very sceptical about digital equipment because the accuracy always declines. Depending on the quality of the products you have a long lifecycle but such measuring equipment never lasts forever. Believe me." Surrounded by hundreds of barometers that are decades and centuries old, that doesn't sound like an empty message. On the contrary, Dingens feels it is important to be honest about the product, production and value.

Giving up 1,5 million Euros' worth of stock from one day to the next and that in a world not far from a financial heart attack, it's no easy matter. The crisis hit mercilessly and it was one thing to find new capital to survive, but strategic reorientation was quite another. What should Dingens focus on? "I did not know myself at that point. It was an enormous sock on the jaw and I immediately turned to both the employers' organisations Voka and VKW Limburg that put me in touch with the Innovation Centre Limburg. In turn they put me in touch with the university of Hasselt and that's how we arrived at a new barometer system that is at least as accurate as mercury barometers: a combination of a membrane and aneroid cells", according to Paul Dingens.

How necessity can lead to innovation.

////////////////////////////////////

The technical development is based on aneroid cells that were already in use in the aviation industry and these were based on the same principle as mercury. Mercury only ensures that the pressure is constant in the calibrated scale so that only changes in air pressure in combination with gravity have an effect on it. You can deduce the changing type of weather from this. "Without mercury we now have an ecological product in which a membrane ensures there is constant pressure. Actually it is a very simple principle which is just as accurate as the barometers that have existed for centuries." The innovation had another advantage: it is a lot easier to calibrate them.



↑
Innovacelli Barometer
© Dingens Barometers

“We often have to adjust mercury barometers and people cannot do that themselves, but with the new membrane barometer all you have to do is turn a screw.”

Now that there is an ecological equivalent on the market, it will be a special point to make the product sexy again with an eye to design.

////////////////////////////////////

A surprising advantage which means that transport is a lot easier, which in view of the global market is an unparalleled trump card. Whether the Belgian innovation with this mercury-free barometer can be added to a rich history with our Christiaan Huygens who improved the so-called Torricelli barometer? Certainly. After all, Dingens Barometers is setting a new standard without mercury. Not that Paul Dingens will promote his company as a new historical originator, but the necessity of dropping mercury from one day to the next did cause a significant acceleration in the methodology to measure air pressure.

He feels it is more difficult – in light of four centuries of mercury barometers – to make it clear that mercury-free barometers determine the air pressure in the same correct way. “Digital and mechanical replacements are not the same level of quality as the devices we are now developing. Getting that message across is a major challenge”, he says. At the Shanghai World Expo Paul Dingens was given a platform to explain the Innovacelli story and the famous polar explorer Dixie Dansercoer takes Dingens measuring equipment along on expeditions because of their scientific accuracy.

The barometer market remains plagued, because apart from great demand from Asia, you can wonder if many barometers are still sold at all. “Naturally less are sold on the private market than was the case before. For a long time a barometer was a traditional gift for a wedding or anniversary and entire generations still have a barometer



↑
Innovacelli Barometer
© Dingens Barometers

in their home today, but the new generation is not buying barometers anymore.” Now that there is an ecological equivalent on the market, it will be a special point to make the product sexy again with an eye to design. “In the meantime we have collaborated with designer Frans Van Praet who has designed a barometer in the shape of a boomerang. That’s extremely unusual in our sector. What’s more, ground rubber bands were chosen for the finish to emphasise the ecological message even further.”

In any case it is Paul Dingens’ desire to launch even more innovative design in combination with the innovative mercury-free technology and thus move to selling 300 or even as many as 500 barometers per year. “That’s still a long way away from the 5000 barometers that used to fly out the door in the past, but I still believe in our product, in this company, in the ecological alternative. There are still quite a few opportunities ahead of us and I have to say that there was a time I was far more pessimistic than now.” Or in other words: he is no longer under the weather after mercury.

•
Christophe De Schauvre for REcentre
Interviewee / Paul Dingens, Managing director

Dingens Barometers &
Clocks
Genebroekstraat 94
3581 Beverlo
Belgium

www.barometers.com

Sector • Production of
measurement instruments

Year of foundation • 1965

Number of employees • 5

Turnover • N/A