LISTEN
THE WORLD OF WIDEX

THE
POWER
OF THE
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DEAR READERS

Welcome to the second issue of Listen. The aim of this magazine is to offer our many dispensers, partners and customers worldwide an insight into Widex, as well as providing an informative look into our expertise about - as the title suggests - hearing.

The global financial crisis has been on everybody’s lips during the past year – the crisis has created turbulence in society generally and naturally this has also affected the hearing aid industry.

As a family-owned company, Widex enjoys the privilege of being less sensitive than other companies to the fluctuations of the share market and economic downturns. This gives a stability that benefits our employees, customers and partners and means that we are in a position to continue pursuing the strategy that we always have: organic growth through long-term investing in research and development.

This strategy means that yet again we can deliver new products that emphasise Widex’ innovative abilities. In this issue, for example, you can read about our own revolutionary wireless technology and our new hearing aid designed specifically for babies.

The ability of Widex to think and invest in the long-term is also reflected in another historic step for the company, namely the construction of our new headquarters in Alleroed, north of Copenhagen. Our new building is not just modern, stylish and functional, but is also designed with the environment in mind and takes Widex into the future in style.

We hope that you enjoy this glimpse into the world of Widex – and good reading!

Jan Tøpholm
CEO
FROM CHIPMUNK TO FISH

- THE EAR STORY
When we read about Chinese paleontologists digging up a fossilised chipmunk that could “help to explain how human hearing evolved”, it got us thinking. Where had the ear come from – and where was it going?

320 million years ago the earliest forms of life may have breathed through their ears as they crawled out of the primordial soup according to scientists in Sweden.

Fast forward to a 123 million-year-old fossilised mammal recently unearthed in Liaoning Province, China. This fossil could be the link that explains how the three bones of the mammalian middle ear became separated from the jaw hinge to form a complex hearing system.

According to Zhe-Xi Luo, a curator at the Carnegie Museum of Natural History, Pittsburg, “What is most surprising, and thus scientifically interesting, is the animal’s inner ear.”

Once we got our ears, evolution did not stop there. A study by anthropologist John Hawks claims that hearing related genes have evolved over the very recent past – up to only 2-3,000 years ago. These adaptations, he believes, have led to developments in our language and they challenge received wisdom that the way humans now talk developed fully 50,000 years ago.

LOOKING INTO THE CRYSTAL BALL
Evolution continues, but the biggest future changes for our ears may not be genetic but man-made. One of Widex’ ‘innovation gurus’, Morten Nordahn, recently looked into his crystal ball.

“By the year 2020, technology will be much more integrated with the human body. The internet will be ubiquitous, with all devices linked to the web. This means that mobile phones, watches and hearing aids will be able to exchange and process information,” claims Morten Nordahn. “The surface of the hearing aids will be nano-coated, flexible screens that are capable of changing colour based on mood, or to blend in with the surroundings.”

“Oh and by the way, they won’t be called hearing aids anymore but integrated Assistive Communication Systems or iACSs,” he concludes.

FACT OR FICTION?
Sometimes with these forecasts it’s hard to tell science fact from science fiction – especially when they seem to merge together. One such future was reported in a 2009 Wall Street Journal article ‘Can A Tiny Fish Save Your Ears?’ This is eerily reminiscent of sci-fi classic The Hitch Hiker’s Guide to the Galaxy where the Babel Fish is inserted into the ear and “simultaneously translates from one spoken language to another.”

But this is real. An American research team has been looking at zebrafish. They are able to regenerate their damaged hair cells – unlike the hair cells in our ears. These scientists are looking at how to apply that regenerative property to our ears – though they admit any cure is at least 20 years away.

However, you do not have to be a scientist to play the prediction game. Our favourite was made by ‘Ed’ from Oregon and posted on a MySpace forum.

“My highly scientific guess is that humans will have skinny little under-developed legs attached to big fat rears, because they won’t be needed in a far distant Xbox world. Their left ear will be twice the size of their right in order to hold all their communication devices…..”

We hope you’re taking notes Morten.

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Fashion is a powerful tool for social change. A unique partnership between Widex and Portuguese designer Andreia Lobato aims at changing people's perception of hearing aids.
Can hearing aids be a fashion statement? According to Andreia Lobato yes. For her Spring and Summer collection 2010, the young and upcoming fashion designer teamed up with Widex to deliver a spectacular show using Widex hearing aids as fashion accessories.

The show took place in October 2009 in the custom building of the city of Porto in Portugal. High-stepping, long-legged models strolled down the catwalk displaying hearing aids from the Widex Passion440 series.

The aim of the initiative was to break down prejudices about hearing loss and hearing aids. Andreia Lobato explains this “alliance aims to put an end to existing stereotypes about hearing loss, and to show that hearing aids, like glasses, can and should be seen more and more as fashion accessories”.

Passion440 is one of the world’s smallest receiver-in-canal hearing aids, and has an elegant design that matched the glamorous dresses created by Lobato perfectly. This is one of the reasons why the designer chose Widex: “I accepted to participate in this initiative after I got to know the stylish design of Widex hearing aids, which are very discreet and available in multiple colours. This allowed me to combine the colour of the hearing aid with the colour of each dress”.

The event, attended by 400 participants, received substantial media coverage, including being featured on the TV program Praça da Alegria, shown every morning on one of the main Portuguese public channels.

Rita Pereira (above), a popular Portuguese actress, also participated in the show. She wore a limited edition of Passion440 decorated with Swarovski crystals. The actress stressed that “it is a pleasure to help breaking stereotypes and inform people in a good way about the problem of hearing loss, which affects ten percent of the population”.

The Passion440 worn by the models received the Red Dot Design Award 2009 – one of the most prestigious design awards in the world. The award celebrated Passion for an intelligent combination of modern technology and ergonomic design.

www.widex.com/products/passion440

Andreia Lobato and Rita Pereira
Read more
www.andreia-lobato.com
The latest Widex products are the first to feature unique and revolutionary wireless technology. But not just any technology.

Most of us take wireless technology for granted every day when using our mobile phones, computers or even television remote controls. But for hearing aid users, such technology is relatively new.

With the recent successful launch of our new high-end hearing aid, CLEAR440, as well as our assistive listening devices (DEX), Widex has now entered the wireless world in style. Not only can users enjoy instant communication between two hearing aids, but they can also enjoy easy access to television, phones and music, as well as easy, wireless fitting. All thanks to revolutionary new wireless technology, WidexLink.

UNIQUE TECHNOLOGY
The development of WidexLink has been one of the largest development projects in Widex’ history. In creating wireless technology, it was vital to find a solution that was right for both Widex and hearing aid users. According to Mike Rank, a Research and Development manager at Widex, this meant coming up with our own technology, as there were not any available technologies good enough “to be taken down from the shelf. We do things properly and if we cannot find a good solution or something we are happy with, we tend to do it our own way,” he says.

One major problem with existing wireless technologies is that they are not really designed for hearing aid use. Thomas Kyhn, an electro-acoustic engineer in the Audiological Research and Communication team at Widex, says one of the main problems is to do with power supply. “The existing digital wireless technologies have been developed for telephone or data communication. In these applications, you have access to much larger
power sources than you have in a hearing aid. By using the existing wireless technologies you would therefore drain your hearing aid battery in a matter of hours – not days."

Another issue the developers had to consider was the length of delay when transmitting data wirelessly. Basically, if there is too much delay between signals, then the signal may echo or sound distorted. For example, standard Bluetooth technology that most of us know from our mobile phones has, according to Thomas Kyhn, "a transmission delay of 150 ms (milliseconds). This may not sound much but it "creates an unacceptable echo between direct acoustic sound and the transmitted sound."

The challenge then, was to ensure hearing aid users would notice no detectable delay in speech, or in sounds from their assistive listening devices such as when watching television for example. “Special attention and effort was put into developing a wireless system which was so fast that it would not suffer from signal delay which would create distortion or echo effects,” says Thomas Khyn.

**COMPRESSION**

The answer was to develop a new way in which to compress data; that is, make all the information being sent and received take up as little space as possible while still retaining the sound quality. Downloading your entire CD collection onto an iPod is of course a form of compression most of us are familiar with. To do this, what’s known as a digital audio codec is employed. **Codec** is short for encoder/decoder and means that data can be transmitted speedily and using little storage space. Basically, a codec converts an analogue signal (the sound we hear, for example) to a digital signal (a numerical representation of that sound). Another identical codec then converts that back into an analogue signal.

As Thomas Kyhn explains, “The audio codec is where digital information is reduced or compressed to take up as little space as possible and thereby reach its destination as fast as possible. Digital audio data takes up a lot of space and time when you either want to store it - on a CD-ROM for example, or if you want to download audio to your laptop. In hearing aid use we cannot accept to wait a long time for the digital audio to reach the hearing aid, nor can we offer a huge storage medium in such a tiny space,” he says.

Speed and lack of delay then were prerequisites and Widex engineers therefore decided to develop their own new codec rather than use existing or standard hardware. Mike Rank says compression rates like those in digital audio devices such as mp3 players for example, are too slow. “Just taking a standard codec like mp3, if you do that, you get a delay of 40 ms which is way too much. The delay is very long for mp3’s. That’s why we decided to do our own. We wanted to make a codec that, with the hearing aid, had a complete delay of less than 10 ms.”

**ROBUST AND ERROR-FREE**

However, none of this technology would be terribly useful if it was easily prone to interference or drop-outs; indeed, we all know how annoying it is when, for example, our mobile phone suddenly disappears from range. To this end, attention was paid to making WidexLink as robust as possible. According to Thomas Kyhn, interference is avoided by using a system that monitors any errors in the data. “Our codec is designed in a way which is tolerant to data errors and drop-outs. This is interesting when the transmitter and the receiver start to get out of reach, or radio noise from other devices interferes,” he explains.

“If the error rate gets too high, it can jump to a new radio frequency which might have less radio noise interference, or (if this is not helping) it fades out without any clicks, noise bursts or other artefacts known from other digital radio systems.”
This form of error detection also helps when, for example, a hearing aid user who is watching television moves out of range. WidexLink ensures a ‘gradual degradation’ of the signal, a bit like hearing a radio station go slightly off tune.

One of the reasons for error detection, according to Mike Rank, “is that when you go to the limit, for example when the TV-DEX is out of range, you need to be able to detect when you come to that so you can have a graceful degradation. When you get out of range, then it detects it and it fades down nicely.”

**EASY AND CONVENIENT**

So much for the technology; how does all this translate for hearing aid professionals and users? Well, with the new CLEAR™440 series, the hearing aids communicate with each other instantly and constantly. This means high quality sound can be effortlessly synchronised between them and users can make the most of CLEAR440’s many features from a sophisticated remote control. And because fitting is now completely wireless, hearing aid users can benefit from easier and more convenient fitting.

As for professionals, the introduction of WidexLink meets the long sought-after demand for easier fitting. Thomas Kyhn explains, “Before we started the CLEAR440 project, we interviewed dispensers from all over the world. And they all answered with one: ‘Give us a standard fitting tool!’ The cable and fitting shoe hassle has become a huge problem for hearing aid professionals and they urged us to develop an industry standard wireless fitting tool. Therefore Widex has entered into collaboration with leading hearing aid manufacturers to develop nEARcom based on the well-established NOAHlink.”

**INTUITIVE DESIGN**

With the assistive listening devices, it was decided early on to focus on usability. According to Thomas Kyhn, there was great room for improvement in the design of hearing aid remote controls and accessories such as assistive listening devices. Research showed that this was something both professionals and users alike realised. “Dispensers were increasingly troubled with support for devices with hopeless user interfaces – even product returns. Products that even hearing aid professionals had problems understanding in detail,” explains Thomas Kyhn.

“Widex took a unique approach to this huge problem and developed a range of wireless assistive listening devices with focus on ease of use. Instead of designing multi-feature devices, as we see from other leading manufacturers, we focused on the specific application and designed a solution for each situation.”

The design of each of the three DEX devices – remote, TV and mobile – reflects the attention paid to creating an intuitive user interface familiar from other technologies. “We put a lot of effort into designing ‘recognition’ into the products to maximise the user’s understanding of how to use it,” says Thomas Kyhn.

**INTO THE FUTURE**

While Widex may have taken good time to join the wireless revolution, it has been worth the wait. “WidexLink is ahead of all the existing wireless technologies we see from other leading hearing aid manufacturers,” says Thomas Kyhn. “It will take a long time before our colleagues in the business will catch up. When this is said – we live in a world which constantly evolves, and there will come a time where we need to take new measures to keep up and grab new opportunities.”
HOW DOES WIDEXLINK COMPRESS DATA?
Thomas Kyhn explains:
To reduce the amount of audio data we use knowledge about three important elements:

First, in a sound image there are elements of dominant sounds and sounds which are inaudible to the human ear. Knowing exactly how and when sounds are drowned, or masked, by more dominant sounds gives us important information about how to remove sound elements which cannot be heard anyway due to the presence of other sounds. This seriously reduces the amount of audio data we need to transfer.

Second, knowledge about the characteristic or particular building blocks of sound can help us to map the sound image and reduce information to only send the “coordinates” of the audio landscape.

And thirdly, audio is highly redundant, which means that there are a lot of repeating patterns in audio. Knowledge about these repeating patterns can give us important tools to reduce the amount of data even more. Back to the analogy about cooking a meal: the cookbook says boil eight potatoes – not one potato at time and repeating eight times!

In other words: if you have the same book of recipes at the transmitter as you have at the receiver, you only need to transmit the page numbers to cook two similar meals.
BETTER HEALTH, BETTER HEARING?
Did we hear that right? Red wine, cheese, grapes and berries could help protect us from hearing loss. Anyone for cheese and wine?

It’s been known for a while that there are things you can do to protect your hearing and reduce the degenerative effects that cause hearing impairment. But what’s the latest research telling us?

According to Kathleen Campbell, PhD, director of audiology research at Southern Illinois University School of Medicine, “A diet rich in selenium and vitamins A, C, and E has been shown to protect rats and guinea pigs from hearing loss and to lessen the damage caused by loud noises. Additional animal research is probing the potential of magnesium supplements, resveratrol, (that’s the antioxidants found in grapes, red wine, and berries), and an element of protein found in cheese and yogurt, although it’s too soon to make dietary recommendations for people.”

Campbell has a long background in the profession. She ran audiology services in the Canadian Rockies in the 1970s and auditory electrophysiology at the University of Iowa. Her preliminary research findings suggest that magnesium may help minimise the potential for permanent damage if taken within two hours of a sudden hearing loss from infection or exposure to loud noise.

LOW-FAT DIET
Campbell’s work is the latest addition to the better diet equals better hearing argument. A quarter of a century ago the New York Times was reporting that low fat diets could help stave off age related hearing impairment. Their journalist reported: “Several studies have suggested that by switching to a low-fat diet......hearing loss can be curbed and perhaps even reversed. In a long-term study in Finland, more than 4,000 participants placed on a fat-controlled diet for six years had fewer heart attacks and superior hearing acuity than those who continued to eat a high-fat diet. When the diets of the two groups were reversed, the group now on the high-fat diet experienced hearing losses, while hearing improved in the low-fat diet group.”

OTHER THEORIES
Since this study, others have indicated that either supplements or diets rich in various foods could help us to hang onto our hearing longer. For instance, scientists in Florida found that foods high in antioxidants (prunes and raisins for instance plus vitamin E) could prevent and perhaps treat noise induced hearing loss.

Others have looked at zinc deficiency as a contributory factor to hearing loss. A 2009 study says folate-rich foods could be good for our hearing but contradicts other received wisdoms.

Men over 60 years of age who eat folates (leafy vegetables, asparagus, lettuce, dried or fresh beans and peas, fortified cereals, sunflower seeds and liver) could lessen their risk of hearing loss by up to 20%. But the same study found there were no benefits from antioxidants.

So, as ever, the science is contradictory. The best advice would seem to be to live as healthy a lifestyle as possible, eat a balanced, low-fat diet and not smoke. The jury is still out on the wine and cheese.

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THE SCIENCE OF HEARING AIDS

The European division of Widex’ research laboratory, the Office of Research in Clinical Amplification (ORCA) was officially opened in Stockholm, Sweden, in March 2007. It complements its sister organisation ORCA USA in Chicago.

The director of ORCA Europe is Karolina Smeds, PhD, who describes the organisation’s work and objectives.

Q: What is the role of ORCA Europe?

A: Our mission is to undertake and communicate research projects. These include the development and evaluation of gain prescriptions and hearing aid properties that affect their fitting such as noise reduction and gain acclimatisation.

Our job is to conduct clinical research in areas relevant for hearing aid users. We do basic clinical research that is not necessarily related to Widex products. This research is presented at conferences and published in journals. We also do evaluations of Widex products. These can result in presentations and be published, but they can also be the subject of purely internal reports used in product development.
Q: Why was ORCA Europe set up when ORCA USA was already in existence?

A: The two groups have slightly different focuses. With two group leaders, in different parts of the world, with slightly different backgrounds, it is possible to perform a larger range of studies and to present the results to a bigger audience.

Q: What projects have you been working on?

A: There are a number of projects related to noise reduction algorithms in hearing aids. Initially, we have been working on ways to illustrate how noise reduction algorithms from various hearing aid manufacturers perform in realistic measurement situations. Currently, two students are evaluating objective measures that might be used to quantify the perceptual effect of a noise reduction algorithm. A number of these are implemented and evaluated using hearing-impaired listeners under laboratory conditions. Next year, we will perform an evaluation of noise reduction algorithms used in Widex hearing aids.

Other projects include a combined laboratory and field study where hearing-impaired participants evaluated how much gain they preferred for low-level sounds. We have also documented how much gain various hearing aids are providing for a small number of “typical” audiograms. And we have evaluated a number of Widex hearing aids.

Q: What have been the major benefits derived from this work?

A: ORCA has contributed to Widex’ work in the areas of methodological development, for instance, illustrating how the noise reduction algorithms work and how to evaluate the effects. We have also helped to raise visibility among clinical practitioners and in the scientific community, bridging the gap between academic research and company R&D, and documenting our findings.

The fact that Widex has two ORCA groups, where substantial time can be spent on research and validation, illustrates its ambition to continue in the forefront of technological development. It emphasises that this development should be backed up by research data. For audiologists who are striving towards evidence-based practice, it is crucial that clinical evidence for features and treatments is compiled.

Q: What job were you doing before joining ORCA Europe?

A: I was working as an engineer at the Manilla School for deaf children in Stockholm and lecturing at the Audiology programme at the Karolinska Institute. At the institute I was responsible for technical courses such as physics, signals and systems, psychoacoustics, hearing aid technology and fitting.

Q: What do you like about running ORCA Europe?

A: I really appreciate a post where research is the main activity. When I accepted the position of director, I liked the prospect of creating a good research group and being able to contribute to that group’s profile. Continuing research whilst learning about the hearing aid industry appeals to me.
Listen – The World of Widex Research & Development
Every second year Widex invites audiologists, ENT doctors and other audiological specialists from all over Scandinavia to the Widex Nordic Seminar. In 2009 the seminar took place in Stockholm and was attended by over 110 participants.

A diverse programme featured numerous interesting subjects, including noise reduction strategies and the Widex Audibility Extender (which makes it possible to move high frequencies to a lower frequency region), and the role of music in helping people to relax and concentrate, the basis behind the Zen listening program.

There was also time for more unorthodox subjects, including a quick presentation of some of the innovative solutions that tomorrow’s hearing aids may have to offer. And the Danish artist Per Arnoldi spoke about the importance of being able to hear in order to capture the important moments in life.

The next Widex Nordic Seminar takes place in 2011, which marks its tenth anniversary.
SHAKEN TO THE CORE

The city of L’Aquila in Italy hit the headlines in April 2009 when it was devastated by an earthquake. The city is home to Loreto Fantauzzi and a thriving hearing aid dispensing business.

The beautiful, medieval city of L’Aquila, capital of Abruzzo, nestles below the Apennine Mountains 96 km north-east of Rome. Its picture postcard setting, cluster of terracotta roofed buildings, ancient walls and castle made it a popular tourist destination.

But at 3.32am on 6th April, the city and its 70,000 inhabitants were hit by a massive earthquake measuring 5.8 on the Richter scale. 308 people died and 65,000 were made homeless. Up to 10,000 buildings were either destroyed or damaged.

The worst hit part of the city was the old town that dates back to the 13th century. Not only were homes, churches, civic buildings and museums affected but many businesses too. One of these was the shop of hearing aid dispenser Loreto Fantauzzi.

ABOUT L’AQUILA

- L’Aquila was founded in the 13th century
- Made capital of the province of Abruzzo in the 19th century
- The city has a history of earthquakes: 1315, 1349, 1452, 1501, 1646, 1703 and 1706.
- Its location on the bed of an ancient lake means it is particularly susceptible to seismic activity.
- Home of one of Italy’s most famous sports teams: L’Aquila Rugby
“My hearing aid business had been operating for 15 years. I had four employees and over 1,000 customers,” says Loreto over a crackling phone line from his temporary practice. “L’Aquila was a bustling city of squares, fountains and Baroque churches. We enjoyed a wonderful social and cultural life.”

“The night of the earthquake was literally a nightmare – and we very quickly realised things would never be the same again,” Loreto adds. “There was total devastation. The jewel of our city, the old medieval part was destroyed. And that was where my lovely hearing aid shop was located!”

Most buildings in L’Aquila were badly damaged. Almost all the population had to be housed in either temporary tented camps, in the homes of friends and family, or in hotels along the coast.

If this was not bad enough, there were other disastrous consequences. “All economic activity stopped,” Loreto continues. “Hospitals, courts, businesses all were closed – including my business. My shop was severely damaged. Unusable. “Despite this, within a week Loreto was in his car visiting his very dispersed clientele.

LAURA GIANNETTI is the General Manager of Widex Italia. She describes what they did after hearing about the L’Aquila quake: “We were very shocked – and we were very worried about Loreto and his family. Our field manager immediately got on the phone to find out if they were OK – and luckily they were all unharmed.”

“But though he and his family were safe, it soon became clear that his business had been terribly affected. It was obvious he was not going to be able to operate from his business premises for some time to come.”

Loreto had been a customer of Widex Italia for a number of years. “Our business model mirrors that of Widex in Denmark,” states Laura. “We are only interested in long-term business relationships developed with trust, understanding and mutual respect. We had that kind of relationship with Loreto – which is why we were keen to show him tangible assistance to help to get his business operating as quickly as possible.”

“We provided finance for a camper van,” adds Laura, “which seemed the quickest way to get the business re-started. It was the obvious and most helpful thing to do. Not only could Loreto visit his now far flung customers, but it was good for marketing the business and providing a visible place in town for other customers to visit.”

Laura believes that this initiative reflects core Widex values. “The goals for Widex Italia are the same as the wider Widex group ethos – investing in and working with selected dispensers over the long term. We expect to be working with Loreto for many years after the estimated ten year rebuilding programme for L’Aquila.”
The team from Widex Italia were in contact immediately to find out if Loreto and his family were safe. Once that was established, the conversation turned to how to get the business up and running again.

It was decided that Widex would provide funding for the purchase of a camper van from which Loreto could service and fit hearing aids. “The shopping centre on the outskirts of the city was not badly damaged and soon became the new economic heart of L’Aquila. We parked the Widex camper van here – giving us visibility and a presence alongside other businesses operating out of caravans and containers. I also used it to visit my dispersed clients in the coastal hotels for instance.”

There have been devastating effects on Loreto’s typically elderly customers. “Everyone, young and old, was badly affected at the time of the quake, and the elderly have suffered more, being less able to deal with such dramatic change. Many are still traumatised now.”

Many of Loreto’s customers have been pleased by his efforts. “There have been lots of expressions of gratitude that have been much appreciated,” explains Loreto.

He is now looking to the future and rebuilding his life and business. The practice has set up shop in a temporary medical centre in the shopping mall alongside other health professionals. He feels positive about the future. “Hopefully, in the long run the city will return to normal – in many ways a lot like it was before. And all economic activity will return.”

Loreto Fantauzzi and his mobile clinic.

WIDEX ITALIA SUPPORTS SAVE THE CHILDREN

Leading charity Save the Children has launched a support programme for the younger victims of the L’Aquila earthquake.

It involves setting up a local organisation in Abruzzo that will provide educational and support services for young people and their parents. On the occasion of the Italian Audiology National Congress (ANAP) Widex Italia made a donation, which allowed Save the Children to begin the project two months ahead of schedule.
COUNTRY PROFILE: BELGIUM

Catherine Veranneman, together with her sister Nathalie, is the third generation in Veranneman Co. The business was set up by her grandfather, Gaston, in 1956 with Erik Westermann of Widex. The company distributes Widex products in Belgium and employs 80 people.

Q: What is your role at the company?
A: I am the sales manager responsible for our dispensers and the marketing contact for our shops in the French part of Belgium. I’m also involved in the hearing aid fittings and in managing relationships with the medical profession.

Q: How long have you worked in the business?
A: 22 years

Q: What attracted you to the world of hearing aids?
A: Firstly, it was the clinical element – I completed a two-year audiology qualification. Secondly, the fitting side of our business showed me how hearing aids could help people in their daily lives. Lastly I was also interested in how technology changed the way hearing aids are fitted.

Q: Can you describe the business partnership between Widex and Veranneman Co?
A: It is a very close partnership between two family businesses based on trust and ongoing contact.

Q: How have sales grown over the last 10 years?
A: Our sales growth was very high when the world’s first digital hearing aid, Senso, came on the market in 1996, and the company grew steadily until 2007. Since then we have experienced a more stable market.

Q: What are the biggest challenges facing your company at the moment?
A: One of the biggest is to maintain and grow our position amongst ENT professionals, dispensers and users. The world is changing and hearing impaired people are much more open-minded and knowledgeable about hearing aids, the technology and products available. The competition is coming from international retailers that invest large sums of money in marketing, new shops and sometimes go to market with lower prices.

Q: What is it about Widex and its products that keep your dispensers working with you?
A: It is several things. Widex is a well-known brand and their products are straightforward to fit. The quality of Widex hearing aids means few returns and minimal time wasted for both the dispensers and users. On top of that it is also the reputation of Veranneman Co and the technical support and services we provide to dispensers.

For further information about the company visit: www.veranneman-audio.be

BELGIUM AT A GLANCE

| Full name: | Kingdom of Belgium |
| Population: | 10.6 million (UN, 2009) |
| Capital: | Brussels |
| Area: | 30,528 sq km (11,787 sq miles) |
| Major languages: | Dutch (local variant called Flemish), French, German |
| Head of State: | HM King Albert 2nd |
| Government: | Parliamentary democracy |
| Total number of hearing aids sold per year: | 55,000 |
The Power of the Chip

Chances are you are using something with a chip in it right now.

The microchip, or the integrated circuit, is the nervous system that controls just about every electronic device in the world. It is central to computers, mobile phones, satellites, home electronics, aircraft, microwave ovens, washing machines, iPods, cars, the internet and, of course, hearing aids.

The microchip owes its existence thanks to the diligent efforts of two electrical engineers. As chance would have it, both were working on solving the same problem at roughly the same time in the late fifties, that is – how to make more out of less. Before the invention of the chip, electronic devices such as computers and radios used vacuum tubes, or valves, which were cumbersome, heavy and generated a large amount of heat while consuming a lot of power. For example, in the forties, typical computers used over 10,000 vacuum tubes and occupied around 100 square metres of space!

With the introduction of the transistor in 1947, it was suddenly possible to make more complex and faster electronic circuits, resulting in smaller, more efficient devices. However, initially transistors were made as individual components and connected to other electronic components (see below) to make a circuit, and eventually this caused problems as there were simply too many components. In order to make circuits even faster, the transistors had to be packed closer and closer together.

Enter two engineers: Jack Kilby and Robert Noyce. Their solution to the physical limitations of transistors was to pack not just the transistors but all the other electrical components such as resistors, capacitors and diodes, onto a single piece of semiconductor material, or chip, all made from the same material (such as silicon). This meant that everything could be interconnected to form a complete circuit.

Size of a Fingernail

As Research and Development engineer, Thomas Troelsen, explains, today’s chips consist of millions of interconnected transistors all packed into a few square millimetres. “When we talk about a chip, it is really a slice of silicon, a very common chemical element, the size of a fingernail,” he says. “Fingernails
vary in size as do chips. On this slice of silicon is built a network of transistors, and sometimes other electronic components, that form an integrated circuit.”

For the hearing aid industry, the chip has been nothing short of revolutionary. Not only has it meant a significant reduction in the size of hearing aids but, according to Dr. Bob Morley, Associate Professor of Electrical and Systems Engineering at Washington University in St. Louis, USA, the chip has also radically improved sound processing and allowed for the incorporation of a vast array of features. “As transistors got smaller and we could put more on a chip with the same battery drain, we were able to add sophisticated active feedback suppression and noise reduction algorithms.”

**ANALOGUE AND DIGITAL**

To better understand the ways in which chips function in a hearing aid, it’s important to make a distinction between analogue and digital reproduction. Thomas Troelsen explains, “The world as we experience it is analogue. We see a continuous spectrum of colours and shades; we hear all levels of sound etc. It is possible to make electronic circuitry that represents signals this way. Due to the nature of electronics though, some noise is added during processing, and this sets a limit to the complexity of signal processing that can be done with analogue electronics.”

This is where digital sound processing, or DSP, comes in. “The alternative,” says Thomas Troelsen, “is to use digital electronics, basically a numeric representation of data. A conversion is made from analogue to digital form - and from digital to analogue - in order to perform the signal processing using digital technology or DSP”.

**DIGITAL REVOLUTION**

Before digital technology fully evolved, Widex hearing aids featured mostly analogue chips. The first to use a custom made chip designed by Widex was the Quattro in 1988, which made quite an impact at the time as it was the first to introduce user programmable settings and a remote control. The next generation, Logo, was a successful mid-range series that also used a custom analogue chip. Both these were hybrid hearing aids, that is, the control and programming of analogue components could be done digitally.

The true digital revolution arrived with the launch of the Senso series in 1995. According to Thomas Troelsen, the Senso took hearing aids to a completely new level. “Where Logo did everything that was realistic using analogue technology, the Senso introduced functionality that could not have been made using analogue technology,” he says. “There were a couple of years where Widex was virtually alone in the high-end market because of the Senso.”

Now of course, all manufacturers utilise digital chip technology to varying degrees. However, according to Thomas Troelsen, not all chips are equal. “It’s a bit like cars, - they all have engines, transmissions, steering wheels, lights etc. - yet, they are not the same,” he says. The latest wireless hearing aid from Widex, CLEAR440, has no fewer than four chips. These handle everything from analogue to digital conversion, processing, radio – or the wireless link, fitting data, voice messages and so on.

**Real size:** Chips have millions of transistors packed into only a few square millimetres.
During the design of DSP chips, programming code is written that describes the structure of the chip. This code can also be used to make a prototype of the finished chip, ostensibly to determine if the chip actually works as intended. For the CLEAR440 series, the design process was more complicated, and several combined prototypes were made in order to get the desired performance.

Eventually, the code is used to create masks that describe the make-up of the chip. UV light is shone onto the masks and gradually a pattern (or circuit) is formed. This process is then repeated. As Thomas Troelsen explains, it is vital to get things right from the beginning. “Since this is a very time consuming and expensive process we have to make sure that everything is correct. This verification is probably the most challenging part of the design process,” he says.

**MORE OUT OF LESS**

Without doubt, chips have radically altered the industry. “It is fair to say that both the chips in general and digital chips specifically revolutionised the hearing aid industry,” says Thomas Troelsen. “Without analogue chips, development would have stopped at the 1985 level, without digital chips it would have stopped at the 1995 level. The limit to what we can put into a hearing aid is being continually raised by the technological development in the semiconductor industry, that is, the chip manufacturers.”

And this incredible technology, started by two ambitious engineers over sixty years ago, has ultimately led to enormous benefits for hearing aid users – not just in terms of technology, but also design. “The chip has allowed for more functionality in using less power and less space. This has also impacted the design of hearing aids. Because chips take up less space and less power, the housing can be smaller and the battery can be smaller. This calls for more attractive designs,” says Thomas Troelsen.

Bob Morley agrees that digital technology has resulted in the development of hearing aids that not only have superior sound quality and better speech intelligibility but are more comfortable to wear. It is also important to remember that the technology has had a significant impact on audiology as a whole. For professionals, chip technology has “required more training to fit sophisticated devices,” he says. But “the audiologist has many more features to put to use to help hearing aid users now.” And these users can enjoy such benefits as “accuracy and stability of fit, comfort due to the limiting of maximum power output and feedback squeal, as well as noise reduction and directional microphones for better intelligibility.”

One thing is certain; without the humble microchip, the world - and not least the hearing aid – would be vastly different.
HELPING MARGINALISED CHILDREN IN BRAZIL

Street children are a major social problem in Brazil and this is also the case in the state of São Paulo, in the eastern part of Brazil.

As the economy grows, an increasing part of the population in São Paulo is moving to the cities in search of a better life. But life in the cities can be tough, especially because social networks are not as strong as they are in the country. So, as society is urbanised, an increasing number of people are marginalised.

This adverse effect is particularly noticeable among children and teenagers, many of whom have to live on the street. These are the children that the organisation Casas do Amparo Fraterno Jesus de Nazaré is trying to help. This NGO, which depends on private donations, has established two homes for marginalised children and young people, between 3 and 18 years of age. The objective is to not only give the children a place to stay, but also to secure their schooling and to provide for them until they can return to their families or otherwise make it on their own.

Widex Brazil frequently supports charity initiatives, and in 2009 decided to organise a food collection for the benefit of Casa do Amparo.

"We chose to support Casa do Amparo because we know them and know that they make a serious effort to help marginalised children" says Marcelo Vasconcellos, CEO of Widex Brazil.

The collection took place in connection with a Widex seminar, in which more than 350 audiologists and ENT doctors participated. Thanks to their contribution, 372 kilograms of long-life food were provided for the approximately 20 children who are currently staying in the two homes of Casas do Amparo.
THE ADVENTURES
OF A BUSINESSMAN

A PORTRAIT OF ERIK WESTERMANN
With more than 60 year’s experience in the hearing aid business, Erik Westermann is one of the industry’s most experienced figures. LISTEN spoke to the man who founded Widex in 1956 (together with Christian Tøpholm) and who has dedicated his life to building up one of the world’s leading hearing aid manufacturers.

Erik Westermann is what you could call a gifted storyteller. The captivating 87-year-old businessman radiates energy, and when you meet him you immediately realise that you are dealing with someone out of the ordinary.

CHILDOOD
The story begins in 1923 when Erik Westermann was born on his mother’s birthday - less than a year after his brother Per.

Erik Westermann’s father was severely hearing impaired as a result of childhood measles. As a result, he grew up with an understanding of the potential psychological consequences associated with hearing loss. “My father was a kind man with moral integrity, but he was also strongly affected by his handicap. I learned what it means to be hearing impaired – something that benefitted me later in life”.

His father’s career prospects as a bank employee were limited by his hearing loss, and Erik Westermann grew up in relatively modest circumstances. The family lodged with his grandfather – a wealthy, eccentric and world-famous agriculture professor – in Valby, a suburb of Copenhagen.

The home housed many strong and colourful personalities, including Erik’s Uncle, Carl Westermann, who served as captain of the artillery ship ‘Niels Juel’ during World War II. When the German occupying power decided to disarm the Danish military forces in August 1943, Carl chose – after battling German fighter planes - to run the ship aground and destroy everything usable. Only intervention from the Danish king prevented his execution, and the incident became a symbol of the confrontation between the Germans and the Danes.

Another charismatic family member was the publisher Uncle Poul Westermann, who was Erik Westermann’s mentor and ideal. Somewhat of an enfant terrible, he found his calling after a turbulent youth as a carpet dealer travelling all over Africa, Asia and the Middle East. Poul Westermann was a man of the world and his accounts of his many journeys made a deep impression on young Erik; for example, when sailing on a sheep barge on the Tigris one night, he became engrossed in a full night’s conversation with a “big, stout monk”, later better known as Pope John XXIII.

Such heroic figures and stories inspired Erik Westermann and were fundamental in forming his own spirit of enterprise and love of adventure.

In September 1945, the Danish survivors from the Neuengamme sub-camp held a victory party in Odd Fellow Palace in Copenhagen. Erik Westermann can be seen in the foreground facing his fiancée Gerda.
THE WAR

On a winter evening in 1944 an event occurred that forever changed the life of Erik Westermann, who was now 21 years old. The Second World War was raging, Denmark occupied and Erik Westermann had joined a patrol to fight the Germans. But on the evening of December 5, Gestapo soldiers with machine guns kicked in the door of the group’s hideout. Erik Westermann and his group were taken prisoners; after interrogation they were transported in crammed cattle wagons to the Neuengamme concentration camp south of Hamburg.

A month later they were sent to a sub-camp on the Dutch-German border. On the journey there the train was caught in one of the allied forces’ bombardments in Bremen. When the bombardment stopped after six hours and the dust settled, Erik Westermann peered through the cracks of the locked wagon to see the city was devastated. An adjacent locomotive was upright. “It was a miracle that we survived,” he says and falls silent.

In the sub-camp, Erik Westermann experienced monstrosities only heard of in history books. Now, more than 65 years later, he is still deeply moved by these memories. He can also remember vividly his encounter with the Swedish count Folke Bernadotte, who helped thousands of Scandinavian prisoners, including Erik Westermann himself, to safety. “Bernadotte came out with the German head of the camp. 6000 prisoners began to hum the Swedish national anthem like a roar in the moonlight. That’s something I will never forget”.

Erik Westermann has always been an excellent shooter – a talent he developed in his time as a Lieutenant in the Reserves. Today he is a keen hunter.
Despite the surreal background of Franco’s regime, Erik Westermann had many happy experiences in Spain, where he went by the nickname of ‘El Rubio’ - the ‘fair-haired’. But eventually he returned to Denmark to marry his fiancée, Gerda, whom he had known from childhood and fell in love with after the war.

One day in 1949 Erik Westermann came across a job advert from the hearing aid company Oticon (then known as the American Danish Oticon Corporation) who were looking for someone to build up the company’s international sales network. Erik Westermann had heard of Oticon through his brother Per, who as a graphic designer had developed the company’s logo and advertising material. Erik Westermann was one of only two candidates out of seventy who were employed for a trial period to compete for the position. He got the job.

At Oticon, Erik Westermann met the talented electronics engineer Christian Tøpholm, then busy building up Oticon’s R&D capacity. Describing the first meeting between them he says, “It was pretty formal. Christian Tøpholm was a dedicated engineer, and technical matters weren’t exactly my strong point. From the look on his face I could see that he was thinking, ‘Oh no, not one of those’.”

However, the two of them soon worked closely together, quickly becoming the company’s dream team. When Erik Westermann was first employed, Oticon was only represented in Scandinavia. In just a few years though, he created a network of no less than 42 distributors around the world. During this time Christian Tøpholm built the first European transistor amplified hearing aid.

A BUSINESS ADVENTURE

However Erik Westermann and Christian Tøpholm were increasingly dissatisfied with their employer, William Demant. They felt that they didn’t get enough credit for their contribution, and one day in November 1955 they quit their jobs. That
same evening they met in Christian Tøpholm’s house and over a bottle of Martini the idea of Widex began to take shape.

“I was good at languages and writing,” says Erik Westermann, “and my brother made our advertising material. Christian Tøpholm was a uniquely gifted, innovative engineer. And his father was a very skilled toolmaker. Together we had it all, and above all, we had fun”.

So, what was to become one of Denmark’s business adventures began in Christian Tøpholm’s basement. While Christian Tøpholm threw himself into developing the first Widex hearing aid, Erik Westermann gradually created an international network of distributors – first in England, Germany, France and Belgium and later in the USA, Japan and Australia. Here he sowed the seeds that quickly started to grow into thriving businesses.

SUCCESS FACTORS
Today, 54 years later, Widex employs 2400 people worldwide, exports 97% of its products and has distributors in over 100 countries.

The success of Widex can be attributed to the strong tradition of engineering established by Christian Tøpholm and continued by his son Jan, present CEO of Widex. But Erik Westermann’s business flair and extraordinary ability to establish contacts and spot talent were also essential. “I have put my soul into spotting the right people. And I have never been disappointed in the partners I have chosen”, he says.

When asked how he spots talent, Erik Westermann emphasises two factors: personality and family. And when he says family, he means both in the literal and broader sense of the word; indeed the notion of the ‘Widex family’ is still a fundamental value for the company and its partners today. Many of the businesses Erik Westermann has helped create are now run by
second and third generation family members – as for example Veranneman in Belgium, Steiner in Israel and Meltsner and Spar in the USA.

Another success factor is the focus on training that Erik Westermann was one of the first in the business to introduce in the fifties. When he started doing business with the English distributor PC Werth, he quickly realised that businessmen who sell hearing aids to users must be properly trained. “When we started, the dispensers had no training. They sold all kinds of junk and were totally under the thumb of the manufacturers. To strengthen our sales we offered our dispensers training, which marked a revolution in the industry”.

Erik Westermann quickly introduced the same strategy in other countries, In Spain for example, he created a network of trained hearing aid dispensers together with Juan Martinez, founder of Widex Audífonos. His approach contributed to the professionalisation of the industry and went some way in supporting technological advances in subsequent decades.

A NEW GENERATION
In the seventies, Christian Tøpholm and Erik Westermann decided that the time had come for the new generation to gradually take over. Even as a child, Jan Tøpholm spent a lot time at Widex and after graduating in engineering he joined the company in 1972. Erik Westermann had three sons; Peter, Søren and Anders. Peter chose to become a microbiologist and went his own way. Søren, M.Sc., specialised in electronics and acoustics, and Anders, with a degree in business economics, both joined their father’s business.

In the nineties, this formidable team worked together to lead Widex and the hearing aid industry into the digital era, introducing the world’s first fully digital in-the-ear hearing aid, Widex Senso.

Erik Westermann retired from the day-to-day management of Widex in 1993, confident of his sons’ abilities to manage the company. Today, Søren is responsible for audiological research, patents and IT, while Anders assumes responsibility for financial matters.

LOOKING BACK
Erik Westermann has only a few regrets and sorrows, but one stands out. The death of Christian Tøpholm in a tragic traffic accident in 1985 shocked the Tøpholm family and Widex. Thinking of this Erik Westermann becomes quiet and reflective. Perhaps the only positive thing was the assurance though that Christian Tøpholm’s son, Jan, was fully qualified to follow in his father’s footsteps.

Today Erik Westermann enjoys his well-earned retirement, dedicating time to one of his passions, golf. Nevertheless, the love of adventure is intact and he has taken up hunting, a passion that he pursues with the same enthusiasm and fearlessness as the 17-year-old boy who was involved in the Danish Resistance in the forties.

Looking back on a long life of work for Widex, Erik Westermann says, “The world doesn’t owe me anything. I have a fantastic family. And I have so many friends that I could pack a suitcase and spend the rest of my life travelling around the world to visit them. They would welcome me with open arms”.

And no one could ever doubt that.
WIDEX WINS DANISH ENTREPRENEUR OF THE YEAR 2009 PRIZE

Last year Widex won Ernst & Young’s prestigious Danish Entrepreneur of the Year prize.

Now entering its 23rd year, Ernst & Young Entrepreneur of the Year is one of the world’s most prestigious business awards. The prize celebrates leading successful, growing and dynamic businesses in fifty different countries.

Tribute was paid to Widex not only because of its successful financial results in a time of financial and economic crisis, but also because of the company’s approach to core values such as management, employee relations and a willingness to assume an active role as a socially responsible company.

Christian Frigast, chairman of the jury, and managing director of the Danish capital fund Acxel, said that the jury placed great importance on the positive impression given by the company both externally and among stakeholders.

“The winner of the Entrepreneur of the Year 2009 award satisfies all criteria to the full,” he said. “The company has created growth through its technology and innovative work. Despite this growth, entrepreneurship continues to be acknowledged as a catalyst. It’s a company that focuses on technology, development and skilled marketing. The company has achieved a position as one of the world’s best and largest suppliers in its field. Its history is incredibly fascinating, and its future prospects and strategies indicate that this will continue – crisis or not. The winner this year is a business which, with its global outlook, helps create growth not just for itself ... but for all Danes”.

In addition to the award, Widex also won the ‘Globalization’ category as the most successful Danish growth business abroad. And as Danish national winner, Widex will be participating in Ernst & Young’s World Entrepreneur of the Year in 2010.
Listen – The World of Widex
WIDEX BABY440
– THE BEST START IN LIFE

Widex has launched a hearing aid designed and manufactured especially for babies – WIDEX BABY440. This cements the company’s position at the cutting edge of audiology technology.
As universal newborn hearing screening has been implemented around the world, we have never been better placed to make early diagnosis of infant hearing impairment. This screening indicates that there are 50,000 infants born each year with this impairment. In the US alone, 33 babies are born every day with a permanent hearing loss.

**SCIENTIFIC SUPPORT**

However, early detection of hearing loss is only part of the solution. There has also been a large amount of scientific work on the negative effects on the development of a baby’s speech and language caused by hearing impairment. Studies have also focussed on the fact that common hearing aids do not amplify sounds in the required higher bandwidths needed by infants.

**MICRO SIZE HEARING AID**

WIDEX BABY440 provides the solution. Not only is it one of the smallest hearing aids in the world, it also captures the required higher frequency sounds with an extended bandwidth of 10kHz plus – beating any other instrument on the market. This is vital for a baby-focused product. Various research studies have identified extended bandwidth as helping children’s speech and language development.

**TWO YEAR TEST**

The development and testing of WIDEX BABY440 has taken several years. 50 babies from Denmark, Sweden and the USA, ranging in ages from a few months to four years have tested the hearing aid. This level of testing was required to overcome the specific challenges faced in developing such a product. The tests were used to evaluate whether the hearing aid was as comfortable as possible, stayed in place and was easy to fit. However, the sound performance was tested on adults to get the immediate feedback that is not possible from such young children.

**SMALL IS BEAUTIFUL**

WIDEX BABY440 is packed with radical innovations that have overcome many of the design challenges. These include a miniature housing suitable for a baby’s tiny ears and soft eartips and anchors. A baby’s ear canal and outer ear are very delicate so some of the components of the instrument have been manufactured in soft, flexible materials.

Securing the hearing aid was also a difficult problem to solve. But this has been successfully overcome – to such an extent that when one of the trial infants threw herself off her mother’s lap and ended completely upside down the WIDEX BABY440 remained securely in place. “That was a great day,” says Project Manager, Lars Baekgaard.

**GROWING WITH BABY**

There is no need for a new earmould impression every few months as the baby and its ears grow. The ear-tip, the part of the hearing aid that goes into the ear, can be changed so that the baby can continue using the same hearing aid.

In addition, the innovative SecureFix ensures that the hearing aid and its component parts sit securely. There are also functions that allow parents to monitor the hearing aid and its use. It comes with a remote control and has a unique LED for easy observation that the aid is operating.
EASY FIT
So how easy is WIDEX BABY440 to fit? “We have made every effort to make it as easy as possible,” says Lars Baekgaard. “I would rate it as easy to handle as any other hearing aid. Plus we have developed a brand new fitting flow called ChildFit. This gives both precision and flexibility in fitting to allow for a baby’s short attention span.”

Lars Baekgaard and the team believe they have achieved a small revolution in hearing aid development. “Our mission is to give people with hearing loss the same opportunities for communication as those with normal hearing. This also goes for the very youngest.”

SOME WIDEX MILESTONES
1956
Widex 561:
Widex’ first hearing aid - an elegant pocket model!

1988
Quattro Q8:
first digitally programmable hearing aid with remote control.

1995
Senso series:
world’s first fully digital in-the-ear hearing aid - a revolution.

2005
Inteo:
world’s first hearing aid giving a tailor-made sound experience.

2007
Passion:
world’s smallest RIC hearing aid - only 22 mm diameter.

2009
CLEAR440:
Widex’ first completely wireless hearing aid.

2010
WIDEX BABY440:
A RITE hearing aid designed specifically for babies.

SOURCES


To truly appreciate how Widex has achieved its enviable reputation for reliability you have to look at the procedures and processes the business has put in place. And you have to understand the term: Quality Assurance.

Brian Geppert, V.P. of Quality Assurance describes it as: “Ensuring that the systems and the philosophy are in place to minimise the risk of mistakes occurring. However, some things cannot be controlled by systems alone and require testing or inspection – and that’s called Quality Control.”

THE ORIGINS
The theory and practice of Quality Assurance and Quality Control were first promoted by a group of American ‘quality gurus’ who worked with Japanese industry after the 2nd World War to put it back on its feet. Chief among them was Dr. W. Edward Deming – the ‘man who discovered quality’.

These early exponents of Quality Assurance are credited with being “effectively responsible for the miraculous turn-around of Japanese industry after 1945, and for putting Japan on the road to quality leadership,” according to Professor Tony Bendell in his book “The Quality Gurus” written for the UK government’s Department for Trade and Industry in the 1990s.

These ideas and procedures were then copied and developed in the West and came out of the necessity to adapt to survive in increasingly competitive markets. They involved the development of both a philosophy and the tools to implement the quality agenda.

STAFF THE MOST IMPORTANT ASSET
It is these ideas and principles that form the basis of the Widex Quality Assurance (QA) process. As Brian Geppert explains these procedures involve more than just the 20-strong QA department. It is embedded in the psyche of everyone who works in the company. “In a business like Widex you need to apply the right quality assurance activities and you need engaged, enthusiastic and motivated employees in all parts of the manufacturing process. If you do not have committed employees, you do not have anyone to alert you when things are running off track.”

And how does a business keep the staff motivated and engaged and able to deliver the most reliable and effective products? “We have written quality objectives and policies and we continuously encourage personnel to speak up if something is not right or seems odd. The staff are our most important asset and we try to make them feel appreciated in all aspect of their work,” adds Brian Geppert.

CONTROLLING QUALITY
The Widex Quality Manual outlines a myriad of quality goals and objectives including Goal Number One: “we must supply a product that at least meets the expectations of our distributors and audiologists.” Whilst the most important objective for Widex is for everyone in the business to “understand that the quality of the product we supply has a decisive influence upon the quality of life of our end-users.”

The day-to-day QA process at Widex controls and maintains training and qualifications of personnel and controls product design, documentation, and purchasing. It also encompasses product identification, traceability and validation and even the administration of customer complaints.

All this is achieved through internal audit, risk assessments and something called CAPA – corrective and preventive actions. Brian Geppert says: “We put a lot of efforts in CAPA
processes and therefore learn from our mistakes. And by applying simple and repeatable procedures we try to minimise the risk of errors occurring.”

**THE FUTURE**

Brian Geppert states that Widex has seen continuous improvement in its QA over the 50 plus years since the company was founded. But how does he see QA developing in the 21st century? “In the coming years we will focus even more on quality in the early stages - designing quality into the product during the development phase and in general considering quality in every aspect of our daily lives. That is to say - get it right the first time. In addition to that, we will place even more emphasis on close co-operation with our customers and distributors.”
GREEN IS NOT JUST A COLOUR

36,600 square metres of office space, 20,000 solar cells, 4000 lights, 3,800 windows, 600 km of cabling, 1,100 doors and 120 metres in diameter – the new Widex headquarters is not just big but designed to be functional and energy-efficient.
Over 600 Widex employees moved into a new, prestigious headquarters in February 2010 - a building that is functional and designed to totally avoid the use of fossil fuels. With a revolutionary heating system, and a planned windmill on site among numerous green features, the new headquarters bring Widex into the future in style.

GROUNDBREAKING TECHNOLOGY
At the heart of the new building lies an innovative heating system, the first of its kind in Scandinavia. Known as Aquifer Thermal Energy Storage (ATES), this geothermal system stores excess heat from the building in a reservoir in the groundwater table (aquifer), and uses this in winter to heat the building.

Stig Niemi Sørensen, whose company EnOpSol has been instrumental in developing ATES systems throughout Denmark - including the Widex building - explains how the system works.

“In winter, warm groundwater - stored in the summer time between 50 and 100 metres below ground level in a natural limestone aquifer - is pumped up to the building,” he says. “As the groundwater flows into the building it passes through heat exchangers. In the heat exchangers, the heat from the water heats up a different volume of water that circulates through one or two heat pumps. The heat pumps heat up the building. The resulting cold groundwater is returned to the limestone..."
When the cold water is pumped up through the heat exchanger, it is used to cool the building, while it is pumped down through the exchanger in summer to heat the building.

The ATES system is much more effective than traditional heating systems and reduces CO₂ emissions by seventy percent, the equivalent of 700 tonnes CO₂ a year or the emissions from 250 gas-heated houses.

This makes the Widex headquarters unique. “The system can deliver the total demand for heating and cooling the building and is the first of its kind in Denmark,” says Stig Niemi Sørensen.

**ENERGY-EFFICIENT**

But this isn’t the only aspect of the building that takes into account the environment. A collection of some 20,000 solar cells placed on the building’s façade helps in meeting its energy demands and create a unique and attractive mosaic pattern. Rainwater is also collected for use in waste disposal while surplus water from surrounding roads and ditches is led into a stream from where it seeps back onto the groundwater reservoir.

In addition, an intelligent central control system monitors various components of the building such as electricity consumption, heating ventilation, lighting etc.

Yet another climate-friendly initiative is a proposed windmill on site. The windmill can actually provide more energy than Widex requires, so not only will it make the company CO₂ neutral, it will also put extra energy back into the power grid and provide excess power to the local community.
MOVING INTO THE FUTURE
According to Widex CEO, Jan Tøpholm, the design of the new headquarters is not just functional but more importantly, responsible. “We have designed a building for the future. We built it so that Widex has the best possible framework in which to develop, and I am convinced that with this building we’ll strengthen our position in the market in the future”, he says.

“We have also designed a building for the future in another way. We have a financial crisis but we also have a climate and energy crisis. And as a high-tech company, we have an obligation to ensure our building takes into account limited environmental resources as well, particularly our over reliance on fossil fuels.”

Focus on the environment is something that both architects and developers are increasingly concerned with. According to the architect of the building, Lars Rath, consideration for the environment and climate is now something that is commonplace throughout both the architectural profession and the building industry as a whole. “Today, there is no architecture practice that doesn’t set focus on the environment, climate and sustainability,” he says. “They are all clear about it being the only right way to go.”

This is a sentiment most likely shared not just by the entire Widex workforce but also by all those who experience the building at first hand. As Jan Tøpholm says, “We hope the building will become a landmark.”

HOW ‘ATES’ WORKS
Holes are drilled down to the groundwater table to create ten wells – five cold water wells and five warm water wells. In the summer water is drawn from the cold water wells (in blue) and passed through a heat exchanger to provide cooling for the whole building.

The water, which has absorbed heat from inside the building and thus risen in temperature, is sent to the warm water well (in red) where it is stored. In the winter the process is reversed. Warm water is drawn from the warm water wells to heat the building and the water that cools down is returned to the cold water wells for storage and use in the summer.

www.widexbyggeri.dk
PUMP DOWN THE VOLUME
According to experts, we can expect a significant increase in the number of people affected by hearing loss due to prolonged exposure to MP3 players.

Turn it down! That’s the best advice experts can give to those of us who listen to music regularly with portable music players. And with the increasing popularity of all-in-one devices such as the iPhone, access to music on the go has never been easier.

REPORT
A recent scientific study for the European Union concluded that prolonged exposure to loud sounds from personal music players may lead to temporary or permanent hearing loss. The study warned that young people are not aware of the risks until it is too late and that some players have a maximum volume that is equivalent to an airplane taking off nearby. It was recommended to listen to music at levels of 80 dB (roughly equivalent to someone shouting) or less to be considered safe, no matter for how long.

HIGHER VOLUME, LESS DISTORTION
So what makes the problem so pronounced with MP3 players? After all, personal music players such as the Walkman have been around for almost thirty years. According to chief physician Ture Andersen, personal music players are a greater risk because they make it possible to reproduce high sound levels without distortion and any significant loss of quality. “MP3’s can play music at a higher level than the old Walkmans and with lower distortion,” he says. “The user therefore does not turn it down because of distorted reproduction.” Not only is the use of these players much more widespread, but people often hear them in situations with a lot of background noise such as traffic. “The use of MP3’s in traffic noise demands a very high playing level,” says Ture Andersen. “If there is a lot of traffic – you need to hear music even if you are cycling one metre from a thirty tonne truck that’s speeding up.”
REAL RISK
While little research has been conducted on the effect of personal music players and hearing loss, there is potentially a real risk. In Denmark, Ture Andersen and a team at the Teknisk Audiologisk Laboratorium (TAL) in Odense tested the outputs of personal music players. “We measured the maximum output from an MP3 player that was connected to an artificial ear and with the volume turned up to maximum,” he explains. “Depending on the type of music, we measured an average output (sound) level of 114dB and peak values of up to 125dB. If the output limit on the MP3 player is removed – and a program to do this can be downloaded - the peak values are up to 140dB!”

“From these measurements, and others from other laboratories, I would conclude that MP3’s constitute a potential risk to hearing. The risk depends naturally on how long you are listening and how high the volume is turned up.”

The question of how long of course, is difficult to measure and as Ture Andersen explains, it also depends on the individual. “It is the collected sound energy that goes into the ear that is the best measure of the sounds’ damaging effect. We also need to know both the exposition time, (that is, how long they are using it) and sound pressure. None of these are known and will of course vary from user to user. Currently, I mean that we cannot therefore say anything more concrete than MP3 use constitutes a potential risk to hearing.”

INDIFFERENT
It would appear that among many users of personal music players there is a genuine misunderstanding of the risk involved. Hearing loss is something that occurs over time so most people don’t notice the damage they are doing. And many people, particular young people, are indifferent to the dangers. “They feel invulnerable,” says Ture Anderesen, “and are not motivated to take preventive or prophylactic action. And hearing loss is something old people have so it doesn’t concern them.”

CAMPAIGN
Alerting people to the risk involved is something Widex Canada has been doing for the last year. Their ‘Hearing is Precious’ campaign aims to teach young people about the prevention of noise-induced hearing loss and tinnitus. According to Deborah Ranson, an audiologist working on the campaign, education is the key. “We teach them how to protect themselves and make wise choices for healthy listening habits which will help them avoid unnecessary hearing loss,” she says. “Education is always a good thing. And if no one is talking with them about this [hearing loss] candidly, they cannot make an informed decision as to how to handle themselves when it comes to noise exposure.”

As part of the campaign, kids have the opportunity to measure the loudness of their personal music players and this has been a great success.

“The response has been terrific,” says Deborah Ranson, “with many teens showing concern for their hearing health once they realize how loud they are setting the volume level on their personal stereos. Many have offered to set the output limiter in order to avoid potential damage. It gets them talking amongst themselves, which is very powerful as peer-to-peer interaction is a great way to reinforce for one another the importance of turning down the volume.”

So why is it important for companies like Widex to alert young people to the dangers of excessive noise? According to Deborah Ranson, “it is a little bit like the dentists who promote good dental hygiene. Part of being a responsible corporation can include education of the public about the importance of good hearing. We have wonderful hearing aids to help those with hearing loss. But we also know the importance of good hearing and we can help to educate kids and teens about how to preserve their hearing.” Widex in Canada are now hoping to extend the campaign to adults.
PUMP DOWN THE VOLUME
Recently the European Commission announced that they wanted manufacturers to limit the volume output of personal music players, and mobile phones, to a ‘safe’ sound level by default, and to warn users if they turn up the volume too loud.

Some manufacturers, such as Apple, have already complied and all iPods sold in Europe are now limited to an output of 100dB. It should be noted though, these proposals concern the default settings of players; if users want to override the default settings, they can. As Ture Andersen points out, “If the output limit on the MP3 player is removed - and programs to do this can be downloaded! - the peak values are up to 140dB.”

So what does he recommend? “Simply saying “don’t turn it up too much is badly worded advice because what is too much?” Ture Andersen concedes. “But I can’t give any other advice. Enjoy the music but don’t turn it up too much.”

Even everyday sounds can be very noisy: examples of noise levels measured in decibels (dB).

c.europa.eu/health
www.widexconnect.ca
**EXTENDABLE EARS**

- **MAKING THE INAUDIBLE AUDIBLE AGAIN**

For people with high frequency hearing loss, the unique Audibility Extender can help make inaudible sounds audible again.

Being able to hear high frequency sounds is not just important in terms of understanding speech but also in appreciating such things as music and the sounds of nature. Indeed, people with severe to profound hearing loss often miss high frequency sounds even when wearing hearing aids and often talk of hearing but not understanding.

**BREAKTHROUGH TECHNOLOGY**

Making high frequency sounds audible again has been the subject of research for over thirty years. While differing techniques have been proposed, the challenge has been to move these inaudible sounds into lower frequencies while making them sound as audible as possible.

With the launch of Inteo in 2005, Widex introduced the Audibility Extender, which makes use of what is known as linear frequency transposition. As clinical audiologist Jenny Smith explains, this technology “picks up high frequency sounds and shifts them to a lower frequency region where it may be easier to hear them.” The Audibility Extender is specifically designed “to help people with high frequency hearing loss hear high frequency sounds again. These sounds are very important for hearing the soft high consonants like /s/ and /t/, women’s and children’s voices and environmental sounds,” she says.

**BENEFITS FOR CHILDREN**

While the Audibility Extender is beneficial for adults in helping speech perception, it is also proving to be extremely helpful in children’s language comprehension and development. Recent research by Jenny Smith on a group of school-age children concluded that the Audibility Extender provided significant benefits.

“I was able to measure statistically significant improvements in formal measures of both speech perception and speech articulation for the group of children overall,” she says. “But for me the exciting and rewarding outcomes of this study were the marked improvements in speech intelligibility, natural voice quality, own voice perception and especially confidence, demeanour and self-assurance that I saw in the individual children.”

So the Audibility Extender is not just simply about making inaudible sounds audible again, it can restore confidence too.

**EXTENDABLE EARS**

One person who can attest to that is Audrey Falconer, who lives in Melbourne in Australia, and has had a hearing loss since birth. After several years using different hearing aids, she now uses the popular Widex mind440 behind-the-ear model. Generally, says Audrey, they are a vast improvement. “I have better comprehension of what people around me are saying. And I follow better in meetings at work.”
Audrey is emphatic about the benefits of mind440’s Audibility Extender feature. “It reminds me of ‘Extendable Ears’ in Harry Potter. These are described as a length of string, with an ear on one end. You stick the string in your ear and the other end secretly in the room you want to listen to without being caught,” she says.

One pleasing aspect of the Audibility Extender for Audrey is the way it copes with speech. “Other people at work have remarked on how I ask less for repeats! My husband says I understand things better. And I am now more willing to go to things I would previously avoid, such as a 25 year school reunion dinner which I wouldn’t have attended before.”

Other sounds have become audible as well, and when she first used it “there were all sorts of sounds that suddenly appeared. Definitely hearing the birds singing in the morning – this is not something I tended to notice before. And when you push the button in the lift at work it beeps! Never knew that! Also lots of other beeps and similar noises became audible.” Sometimes though, the Audibility Extender is perhaps too effective. “I hate digital cameras that beep,” she says. “No need for such an annoying noise!”

Audrey uses the Audibility Extender all the time and mostly in combination with the hearing aid’s other features – sometimes even those she is not particularly keen on. For instance, the directional microphone, which she dislikes because it shuts off outside sounds, can help in certain situations – particularly where there is a large crowd. “I went to a dinner on a boat in May this year,” she explains. “58 people, from all over the world, the majority from USA, different ages, sexes, accents. There were 6 long tables set out in two rows. I sat at the end of one table, right in the middle of the boat, and turned on the directional microphone. I managed to do fairly well at following the conversation at my half of the table. Not something I would have done before!”

For some users, adjusting to the Audibility Extender can take some time. “There has been a lot of discussion about the need to get used to Audibility Extender,” says Jenny Smith. “My personal experience is that the settings need to be customised to the individual, but once this process is complete the person will adjust very quickly.” Audrey Falconer agrees. “Initially the Audibility Extender was not quite set right and I would hear a double tone, but this was adjusted out easily,” she says.
NEW HEADQUARTERS IN RUSSIA

In May 2009, Widex Russia opened the door to its new headquarters near the Red Square in Moscow. This reinforces the success of Widex in the Russian market and means it will be able to offer Russian hearing aid dispensers optimum service.

When Widex founded a Russian subsidiary in 2005, the ambition was to reach all corners of the country and provide service for all hearing aid clinics from Kaliningrad to Vladivostok.

In a country of 17 million km², stretching over 11 time zones on two continents, and with a mix of different cultures dispersed over modern cities and rural communities, this is not an easy task.

However, the opening of the new headquarters after just four years, and the increasing demand for Widex hearing aids, means that it is moving in the right direction.

According to Palle Rud Pedersen, Sales Director at Widex, the reason for this success is that Russian consumers have become much more quality conscious – also with regard to hearing aids. “Within the last couple of years the focus on audiology has grown significantly in Russia, and the demand for quality hearing aids has gone up”, he says.

The new headquarters has room for top modern training and laboratory facilities. Among these is a laboratory, where custom in-the-ear hearing aids and moulds are manufactured by means of the Widex patented CAMISHA (Computer Aided Manufacturing of Individual Shells for Hearing Aids), which includes advanced computer modelling and laser technology. The new headquarters also accommodates a variety of training activities for audiologists.

And it is precisely this training, as well as thorough attention to detail, that is central to Widex’ success in the Russian market according to Palle Rud Pedersen. “Russia is one of the main languages in Widex, and we translate most of our communication material, such as user instructions, into Russian. It is important that both hearing aid dispensers and users have access to the necessary information”, he points out.

But what then, is the plan for the future? According to Palle Rud Pedersen, one of the challenges ahead is to create a higher degree of acceptance of hearing aids. “We estimate that approximately 10% of the Russian population has hearing loss, but only 0.2% use hearing aids. This means that there are many people with hearing loss that do not do anything about it. We would like to change that”, he says.

Widex Russia is headed by Andrey Daynyak and has a staff of 16.
The Zen harmonic sound programme from Widex helps hearing aid users relax.

It is not only Shakespeare who knew of the mood enhancing and changing properties of music. Recent research has backed up what people have known since classical times – music relaxes us – and that’s where Zen comes in.

**MUSIC AS STRESS RELEASE**

Deep down we all know that certain music can de-stress, invigorate, make us happy or bring on the tears. So the results of a survey published in the New York Times in 2000 that answered the question ‘Which activities are preferred for stress release?’ were not surprising.

Most people (64%) preferred to listen to music. Other ranked activities included watching TV (62%), taking a shower or bath (58%), spending time with friends (34%), lovemaking (11%), doing yoga or meditation (8%) and, a bit more surprisingly, consulting a psychologist, counsellor or doctor (3%) – but presumably excluding the bit where you pay the bill!

Many scientific studies have confirmed this - such as recorded stress reductions in Danish hospitals where music was played. Scientists have even been able to create music that helps monkeys to chill out as part of research into how music evolved. It is the relaxing properties of music, or fractal tones to use the jargon, that Widex has harnessed in Zen.

One of the world’s foremost experts in this field, Professor Robert Sweetow, University of California, San Francisco explains how this all works.

“The use of music for setting and altering moods, arousing, and relaxing, is certainly not new. Music is commonly put to use in homes, work environments, celebrations, advertisements, romances, movies, locker rooms, shopping malls, and hospitals. Therefore, music has been actively, and increasingly, employed as a therapeutic treatment for a number of physical and psychological ailments.”
THE "MOZART EFFECT"
Music helps with concentration and other cognitive processes too. The famous ‘Mozart Effect’ reported on just this process. 36 college students, divided into three groups, spent 10 minutes in one of three conditions: listening to Mozart’s sonata for two pianos in D Major, listening to a tape of relaxation instructions or in silence – all whilst carrying out a series of spatial-temporal reasoning tests. The Mozart group achieved significantly higher scores than the rest.

“Advances in neuroscience and neural imaging have provided a greater understanding of the effects of musical stimuli on the brain and human behaviour including stress,” says Sweetow. “Knowledge about the site of stimulation, neural interactions, and transfer of neural transmitters help explain the behavioural consequences, both positive and negative, of exposure to music. Studies have reported that listening to music can result in physiological changes correlated with relaxation and stress relief.”

Sweetow continues: “Music is believed to be helpful in reducing stress because of the wide range of neural structures that are activated including the cerebellum, frontal lobe, limbic system, and auditory cortex.”

BACH OR THE EAGLES
But do we all relax listening to the same music? Sweetow explains: “Listening to certain types of musical stimuli induces relaxation and heightened concentration in some individuals, but not in others. Patterns of musical elements, such as slower tempo, lower pitch, degree of repetition, and lack of emotional content have been established as having a calming, rather than alerting effect.”

Sweetow sums up: “Active listening tends to arouse, passive listening tends to soothe. Active listening tends to distract, passive listening may allow for increased relaxation and cognitive function.”

What does the professor put on the hi-fi to relax him? “My favourite music for relaxing is either classical music such as Johann Sebastian Bach or The Eagles. For me it is definitely the tempo.”

ZEN
Zen is a revolutionary tone and music program that plays random harmonic tones to help users relax. Users can choose between a range of different musical tones (called Zen Styles) in major and minor keys, and volume, tempo and pitch can be adjusted to suit.

To ensure that the tones are always audible, the Zen program takes both the user’s individual hearing loss and background noise into consideration.

MUSIC TO THE EARS
Caroline is a London-based Teacher of the Deaf and has lived with a hearing impairment all her life. She is also an experienced hearing aid wearer, so well placed to compare and contrast its performance.

After initially thinking that the Zen program would be “faddy and silly” her experience of it has dramatically changed her view.

“I admit that I wanted not to want ‘mind’, but now I find the Zen program absolutely invaluable – especially on my way into work. I’m majorly into my Nintendo DS, so I use Zen on the bus to drown out the chatter and noise around me. It means I can concentrate on my game better! Other times, I use Zen to help me to relax when I’m on the train home, when I’m tired and I just need ‘me’ time.”

Caroline concludes: “The Zen feature was an unexpected bonus that has really made all the difference – it’s amazing what these little things can do for you. All you need is to be a little open-minded!”
MADE IN JAPAN

Widex Japan has launched its own innovative and successful training programme.

Kazumi Shirako, or Mimi to her friends, is passionate about training and improving the skill set of Widex hearing aid dispensers in Japan, where she has been running training programmes for ten years.

Mimi loves her work. This affinity with audiology training started in the USA some years back when she was given the opportunity to take a basic course for a dispensing licence. “At that time,” says Mimi, “I recognised that this American training program was well-organised and practical. This inspired my interest in working in a training capacity in Japan.” To this end Mimi continued her studies completing a Master’s Degree in Clinical Audiology from the University of Melbourne.

Mimi believes that formal audiology training for the hearing aid industry in Japan needs improving. “There is no academic course for audiology exclusively in our universities,” she says. “As a result, there is no national licence for audiology in Japan. An industry certified diploma is the highest goal that sales people can achieve, which is not sufficient to reach the equivalent of an international standard in audiology.”

The lack of formal training results in two challenges. “First, insufficiently trained staff may be unable to provide accurate assessments and appropriate professional service standards for both hearing tests and fittings. Second, there needs to be more focus on the role of caring for hearing impaired people.”

She also believes that such audiological skills will help dispensers earn the trust of their customers and increase levels of customer satisfaction.

Therefore Widex Academy provides its own training programmes for hearing aid dispensers. The courses that Mimi runs focus on two objectives. “We aim to improve audiological and fitting skills as well as communication and counselling skills.”

The training programme is divided into three sections. An entry-level course for those just starting in the industry teaches basic skills for fitting and sales. A general course covers effective fitting and counselling. Finally, there is a ‘hands-on’ course that updates practical hearing tests and shell modification applications.

“Training takes place in the dispensing outlets. I prefer working with small groups as I can better assess an individual’s progress and level of understanding.”

Hundreds of dispensers have undertaken her courses over the years, and in the future the programme will develop and change. “I would like to adjust the training so it becomes standardised to maintain quality levels in hearing aid fittings.” Mimi adds, “In the long-term future I want to open it up to those who are interested in working with hearing aids - a type of pre-occupational course.”
She concludes, “Providing consistent training is extremely beneficial in growing the business because improving fitting and sales skills will increase customer satisfaction. Higher quality professional services will differentiate Widex from competitors and will create improved communications with medical professionals.”
CAN YOU HEAR IT?

www.hear-it.org is the biggest online source of information on everything to do with hearing impairment in the world. In 2010 it celebrates its tenth birthday.

Hear-it.org was founded in 2000 and is a not-for-profit organisation set up under the patronage of His Majesty King Albert II. Based in Brussels the website is published in English, German, Spanish and French.

Its stated aim is “...to increase public awareness of hearing impairment”. Søren Petersen, Editor-in-Chief explains: “Our job is to collect, process and circulate all and any up-to-date information relating to hearing impairment and the human and socio-economic consequences of hearing impairment. We publish the most relevant information as well as cooperate with national organisations and continue a dialogue with public authorities and others regarding issues to do with hearing impairments.”

In ten years the number of visitors to the site has grown spectacularly. In 2008 more than 2.7 million people visited the different language websites. Between 200,000 and 300,000 people from all over the world log on each month.

And what do all these people do on hear-it.org? “Lots of people stay for a long time when they visit the websites,” says Søren Petersen. “Many read about 20 pages and stay on the website for half an hour plus. The longest visits last more than an hour and these visitors read 40 – 50 pages each.”

There is also an online hearing test that is used by 6,000 people per month.

With one in six of the world’s population suffering some level of hearing loss, according to hear-it.org, there is obviously a great need for information on the subject. That equates to about 71 million people in Europe and 40 million in North America alone.

To deal with the need for information hear-it.org employs a team of journalists with specialised hearing and hearing loss expertise. They review scientific material and write the published articles supported by audiologists and scientists.

Subjects covered range from feature articles on Young People Show Hearing Awareness and Protect Your Hearing in the Subway to the personal stories of the hearing impaired from around the world.

In addition to the news and features published on the site, hear-it.org also produces a quarterly newsletter and regular email updates. Currently there are 7,000 subscribers.

As well as being popular with the general public, the website is also used by the media as a source of information. The site has a frequently visited press centre that forms the source of a large number of articles on hearing around the world.

So where does Petersen see hear-it.org going from here? “We will endeavor to continue our tradition of initiating scientific research on the personal, social and economic consequences of hearing loss. And we aim to make our voice heard more in the corridors of power.”

HEAR-IT FACTS

• 2.7 million visit the website each year
• One in six adults suffer from hearing loss
• There will be 700 million hearing impaired people by 2015
• 72,000 people take the online hearing test each year

A simple test that takes just a few minutes. Numbers are read out with varying background noise. Answers are analysed in seconds to give a ‘hearing score’ and whether a hearing aid is needed.
Anyone who has read Asterix comic books knows that people in Northern France refuse to be dictated to. This is also true of l’École d’audioprothèse Joseph E. Bertin, an institute at the university of Rennes, where they have chosen a different approach for training audiologists. While subjects such as audiology, acoustics and knowledge about hearing aids are of course part of the curriculum – the main focus is on teaching the students how to use their ears better.

The institute was only established in 1996; nevertheless it has already managed to gain a reputation as one of the country’s most coveted educational institutions for audiologists.

But what then, is the recipe for the magic potion that in a few years has made the institute so popular? According to pedagogical consultant Stéphane Laurent, one of the ingredients is the strong focus that the institute puts on the relationship between sound and the individual. “Sound is the ‘element’ of audiology. It is important to us that the students have a fundamental understanding of how sound affects human beings”, he stresses.

The institute therefore offers separate classes in sound during which the students learn to listen for example by exploring different sound environments – an exercise that helps to sharpen their sense of what it means to have hearing loss.

The idea is not just to give the students a better basis for understanding acoustics and signal processing, but also to enhance their sensitivity to sound and understanding of sound impressions, allowing them to better help and counsel people with hearing loss.

This aspect is highly appreciated by Florie Moisdon, who studies at the institute. “Being unable to hear the most familiar sounds – and here I am not talking about the problem of communicating – or perceiving certain sounds as overwhelming, can have big consequences for the hearing impaired individuals. At the institute we learn to empathise with this situation”, she says.

The institute considers it very important to sharpen the students’ critical sense – also on a technical level. Today’s hearing aid market is characterised by a wide selection of hi-tech instruments, and determining how the instruments differ may be difficult and time-consuming for even the most experienced audiologists.

Therefore the institute now offers a course that aims to teach students to develop test protocols and evaluate on their own what different hearing aids have to offer and how they may benefit the user.

Moreover the institute offers classes in communication as well as humanities and social sciences: “The students can learn a lot from these courses on a personal level. The courses help us to think about the meaning of our profession and its importance to society”, Florie Moisdon says.
There is no doubt that the special mix of traditional and more unconventional subjects offered at the institute works. As Florie Moisdon puts it, “The school provides us with the technical and theoretical foundation that we need to carry out our profession. But it also gives each of us something extra by attaching weight to the human approach to the profession.”

Read more
www.fougeres.cci.fr/ecoleaudioprothese

WIDEX PARTNERSHIP

In 2009 Widex France established a technical partnership with the Joseph E. Bertin Institute. In support of the Institute Widex has donated some accessories such as a ‘Kemar mannequin’, which is an advanced model used for audiological tests.

“Widex places great emphasis upon scientific cooperation and research partnerships”, explains Søren Svendsen, General Manager of Widex France. “The French audiologists constitute a strong profession, where the cornerstone is laid during three years of intensive studies. At Widex, we have employed two audiologists and a technical director, who also contribute to the training of future and existing audiologists in France”. 
WIDEX ESTABLISHES NEW SUBSIDIARIES

In 2009, Widex established several new subsidiaries in South Africa, South Korea, Ireland, Sweden and Denmark. The goal of the new companies is to strengthen customer service and accommodate local needs in these countries.

In Asia’s fourth biggest economy, South Korea, the hearing aid market is in rapid development, which has entailed an increased need for better customer service and audiological training. In Sweden, the market has also changed considerably since the recent reforms and the decentralisation of hearing care services.

Widex has chosen to invest directly through the establishment of new subsidiaries in these countries in order to strengthen the companies’ services to hearing care specialists and users.

“Hearing aids are not standard consumer products,” emphasises Mike Dittmann, Vice President for Sales at Widex A/S. “To dispense hearing aids demands that you provide a high level of service in terms of audiological training, fitting and fine-tuning, as well as a quick turn-around time for any repairs and product adjustments. The decision to establish the new subsidiaries stems from our wish to deliver more optimal support to our dispensers, so they can give the best service to hearing aid users,” he says.

Delivering the best service is also the aim of Widex’ new subsidiary in Ireland - a market that has traditionally been supported by the UK. With Widex Ireland, Irish customers are ensured faster and more targeted service.

And in Denmark Widex has chosen to strengthen their local customer support with the establishment of a separate Danish subsidiary, catering for Danish public clinics and private dispensers.

RENEWAL AND CONTINUITY

At the same time as creating renewal, Widex has also placed great importance on ensuring continuity in relation to our local partners.

"For the new subsidiaries we have chosen managers who combine experience and solid market knowledge with new visions," says Mike Dittmann.

The South African and Korean subsidiaries are run by two dynamic CEO’s with vast experience in the industry, namely Preakant Nagin and Jayson Jeon respectively. In Sweden, Martin Gyllander leads the company while Widex Ireland and Widex Denmark are lead by Morten Sandahl Sørensen and Michael Westermann – both experienced Widex export managers.
CAMPAIGN TO HELP THE ELDERLY IN HONG KONG

Widex Hong Kong is sponsoring a campaign aimed at helping elderly hearing impaired people with financial difficulties.

In Hong Kong, there are no government subsidies for acquiring hearing aids, and insurance is not popular among the elderly. Many do not have a regular income after retirement - yet they may not be eligible for social security and have to rely solely on their children's support.

To help them, Widex Hong Kong decided to launch the “Define Hearing for the Aged” hearing aid donation campaign in cooperation with the Hong Kong Society for the Aged (SAGE) and the Hear Talk Foundation (HTF). Through this campaign, Widex is donating five hundred fully digital hearing aids and will provide both diagnostic audiological tests and post-fitting services, including unlimited lifetime adjustments.

The campaign started in June 2009 and will run until September 2010.

2009 WIDEX SPORTSMAN AND SPORTSWOMAN OF THE YEAR

Terence Parkin of South Africa and Aksana Petrushenka of Belarus were selected as the 2009 WIDEX Sportsman and Sportswoman of the Year by the International Committee of Sports for the Deaf (CISS).

Both nominees won several medals in the Summer Deaflympics 2009 in Taipei. Thirty-year old Terence Parkin won no less than 7 gold medals in the swimming events and a bronze medal in the cycling event. Twenty-six-year old Aksana Petrushenka’s accomplishments included four gold, one silver, and one bronze medal in swimming.

Widex has supported the CISS and deaf sports since 1997 when the Olympics for the deaf and hard of hearing, Deaflympics, was held in Copenhagen.
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