

PHILIPS

Fidelio

sense and simplicity

PHILIPS
Fidelio

Obsessed with sound

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Obsessed with sound

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The journey continues

For inquiries, please contact:

Irene Wong
BG Lifestyle Entertainment
Philips Consumer Lifestyle
irene.wong@philips.com

www.philips.com/fidelio

www.facebook.com/philipssound

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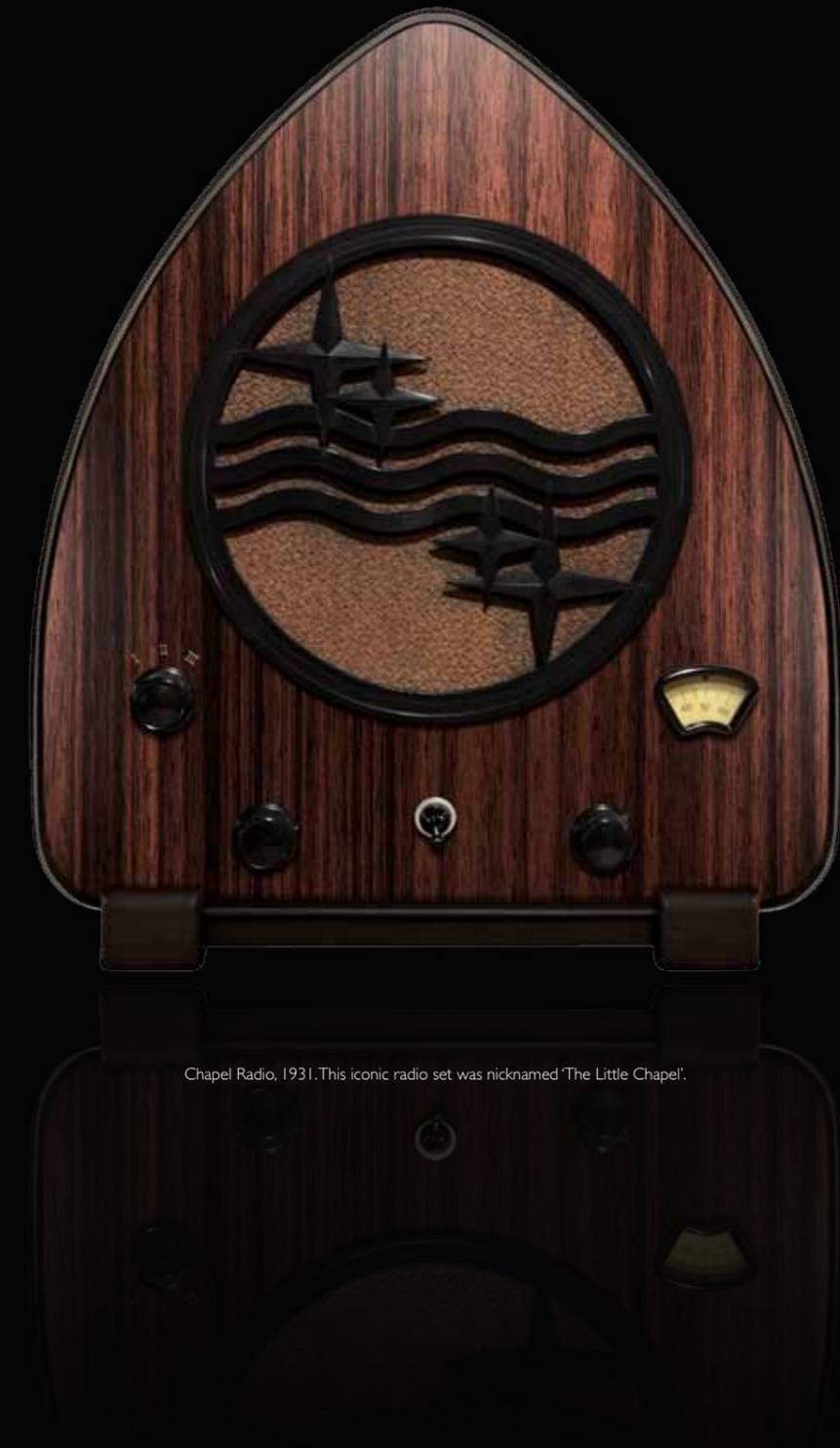
Philips sound heritage

Defining sound since the 1920s

Philips has pioneered advancements in audio for almost a century. Its researchers and engineers have been responsible for bringing to the world numerous innovations that have transformed the way we enjoy sound today. We are the pioneers that introduced the cassette tape and portable cassette players, the compact disc and the first DAB digital radio.

The quest for the most authentic sound reproduction is one which has driven Philips since the early days of radio. It all started in 1923 when Philips produced the Miniwatt radio valve. Not satisfied with the radio valves that were available at the time, Philips produced a smaller and more powerful version that needed far less electrical energy than the previous types. This meant that the headphones which had been used by radio listeners, could now be replaced by a loudspeaker, allowing families to enjoy sound together as a shared experience. This was the first in a long line of innovations which would cement Philips' position as one of the most important players in audio history.

On the packaging of the Miniwatt radio valves was the iconic Philips shield logo with its familiar waves and stars. Reflecting the role of sound within the company, the waves symbolized radio waves and the stars represented the evening sky because at the time, families would gather around the radio set in the evening to listen to news and entertainment.



Chapel Radio, 1931. This iconic radio set was nicknamed 'The Little Chapel'.



Speech by Dutch Queen Wilhelmina and Princess Juliana via a Philips short-wave transmitter; 1927.

The radio goes global

A radio valve featuring five electrodes - the pentode - was the next major development by Philips, introduced in 1927. It was an invention which was to stay at the forefront of electronics for a number of years - this was an electron tube with high output power which could be controlled in such a way as to minimize signal distortion - a step towards the purest sound Philips has always strived for.

In 1927 the Dutch Queen Wilhelmina and Princess Juliana were able to speak to their compatriots in the East and West Indies via a Philips short-wave transmitter which had been set up in a laboratory. The first ever of its kind, it was greeted with national excitement. Encouraged by this, Philips set up a world broadcasting service - the N.V. Philips Omroep Holland-Indie.

To demonstrate the sensation of radio sound on a large scale, Philips set up amplifiers with a large number of loudspeakers at public events. What became known as the 'Voice of the Giant' caused a tremendous stir.

Philips continued to enrich the everyday lives of people when it developed and brought to market a small domestic radio set in 1928. This was released at the same time as the most powerful transmitter in the world, also built by Philips. These radio sets would soon be found in homes all around the world, as Philips brought quality sound to the masses. The one millionth Philips radio set was produced in 1932 and the hundred millionth radio valve, produced in 1933, meant Philips was now Europe's biggest manufacturer of radio valves, and the world leader in radio sets.

A legend of the recording industry

Philips has a strong heritage in recording which began with the acquisition of Nederlandsche Decca Distributie (NDD), the exclusive Dutch distributor of Decca Records in 1942. Whilst Philips had produced gramophones for some time, the management wanted to ensure that the company also had an interest in recording and record manufacture and so in 1950 Philips Phonografische Industrie (PPI) was formed.

PPI played an important role in introducing the long-playing vinyl (LP) record to Europe and it had a worldwide distribution deal with Mercury Records. With the goal of becoming the largest record company in Europe, PPI focused on alliances, and in 1962 merged with Deutsche Grammophon Gesellschaft (DGG), famed for its classical repertoire and owner of Polydor Records.

By 1972, the merged company GPG would reinvent itself as PolyGram and Polydor Records in the US, acquiring a range of famous American and British labels such as MGM Records, Verve, Casablanca, Pickwick and Decca. The height of Polygram's success was during the disco craze of the 1970s, thanks to multi-million selling LPs and 45s from artists such as The Bee Gees, Donna Summer, The Village People, Kool & the Gang and soundtracks for blockbuster films Grease and Saturday Night Fever.

For a short while it was the world's biggest record company bolstered by acquisitions of other famous labels such as Motown, Def Jam and Polar, which held rights to the ABBA catalogue. Sadly, the company's fortunes dwindled and it was sold to Seagram in 1998 to become Universal Music. It survives to this day thanks to the reissue of music under the Polydor Records label.



Philips Phonografische Industrie (PPI) and gramophone records, 1950s.



Record stores in 1960s

The birth of portable audio

It was not just sound quality that Philips focused on. It released a long line of product innovations which were ground-breaking for their time, integrating the premium sound quality which had become synonymous with the Philips name.

Following World War II, Philips manufactured tape recorders for magnetic sound and playback. However, these products did have a major shortcoming: the loose reels meant that threading the tape was a fiddly task and this restricted their use to professional applications.

Philips began the development of a compact battery recorder with a cassette system in 1961, and two years later the world's first compact cassette recorder was presented at the International Radio Exhibition, Berlin.

This ground-breaking product had both tape reels in a single plastic casing to overcome the problem of loose reels and was conveniently small in size. It was originally conceived for dictation rather than music but as record companies recognized its potential, Philips decided to license the cassette format for free, thus establishing Philips as the founder of portable audio and a new format that would become a world standard for many years, ushering in a new era for music enjoyment. In 1966, the first albums on cassette were released under the Philips-owned Mercury label. Further innovations followed with the introduction of the portable cassette radio in 1966, the first car radio with built-in cassette player in 1967, and Hi-Fi stereo cassette recorders in 1973.

Thanks to its compact size and capacity for two-hour listening, by the 1970s the compact cassette had become one of the most popular formats for pre-recorded music alongside the LP and years later the CD.



The world's first compact cassette recorder, 1963.

The CD revolution

Just as the popularity of the compact cassette was at its peak, Philips was preparing to unveil yet another ground-breaking innovation in audio. From 1974, a team of researchers at Philips' labs in Eindhoven, The Netherlands started work on a project to develop a 20cm optical audio disc with sound quality superior to that of the large and vulnerable vinyl record. What they ultimately revealed to the world in 1979 was a smaller 11.5cm optical audio disc they named the 'compact disc' in line with the Philips compact cassette. Aware that international standardization was key to the success of this product, later that year Philips joined forces with Sony and the two companies collaborated on establishing the global Red Book standard for digital audio discs.

Philips' researchers had succeeded in their objective: the music reproduction was of an unprecedented quality; without interference

and noise, insensitive to light fingerprints, dust and scratches. The first album to be manufactured in the new CD format was *The Visitors*, ABBA's eighth and final studio album in 1981.

By 1983, what is considered the 'Big Bang' of the digital audio revolution took place as CD players and discs were widely released in the United States and other markets. Many of the early adopters of the new technology were classical music enthusiasts which benefitted Philips due to Polygram's strength in the classical genre. As prices for CDs came down and they became more affordable, the CD would revolutionize the record industry and the way the world listened to music at home thanks to improved sound quality, durable materials and the ability to skip whole tracks in an instant. All these improvements helped Philips firmly establish its reputation as an undisputed global leader in audio.



CD-100 - The world's first CD player, 1983 (Invented by Philips in cooperation with Sony).



Streamium MC-i250 - The world's first wireless broadband internet micro Hi-Fi system, 2003.

Pioneering connected audio

Hot on the heels of the compact disc came the FW-i1000 - the world's first integrated audio device connecting to more than a thousand internet radio stations. This was shortly followed in 2003 by Philips Streamium MC-i250 - the world's first wireless broadband internet micro Hi-Fi system. Designed for the emerging 'connected home', this wireless product was a pioneer in connected entertainment and the forerunner of wireless speakers we enjoy today. It was the first audio product to offer access to multiple online music services and streaming of digital music from multiple devices on a home network.

The MC-i250 was followed by a number of products marketed under the 'Streamium' name with the slogan 'Don't dream it, stream it!'. These provided traditional home entertainment combined with access to audio and video content from a PC, media server or thousands of on-demand online entertainment services.

1931

'Chapel Radio'
Radio Receiver



1955

Philetta Radio



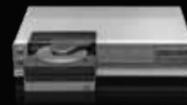
1963

Compact
Cassette Recorder



1983

World's First
CD Player



1992

Digital Compact
Cassette Recorder



2000

Super Audio CD Player



2003

Streamium Wireless Broadband
Internet Micro Hi-Fi System



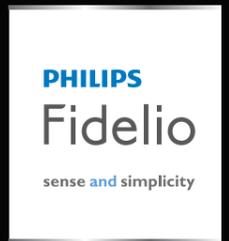
2010

Fidelio Primo
Docking Speaker



2012

Philips Fidelio



Fidelio heralds a new era

Building on its credentials in audio, Philips continues to innovate with the launch of Fidelio - a range designed to appeal to the most discerning music lovers. It is based on an understanding that if you truly love sound, every detail matters: whether it's your favorite song or a movie soundtrack, you want to experience sound and all its nuances exactly as the artist intended.

As connected living and changing lifestyles transform the way we enjoy content, Fidelio heralds a new era for Philips. Featuring docking speakers, wireless Hi-Fi, headphones, and home cinema sound, it offers a comprehensive range of premium products, all characterized by unparalleled sound quality, craftsmanship and leading-edge connected functionality.

The creation of the Fidelio range is the next chapter in Philips' illustrious sound journey. By incorporating the best possible components with innovative acoustic design and advanced sound technology, Fidelio is testament to Philips' continued obsession with sound.



Golden Ears

At the heart of Philips' audio division lies a team of expert engineers and technicians who share a common desire: to create products capable of exceeding anticipated sound quality. Collaborative and committed, this team influences Philips sound signature. Despite being surrounded by the very latest monitoring and testing equipment in their innovation labs, one group of technicians choose the human ear to help refine each product, resulting in the superior sound clarity and warmth you expect from a Philips product. Years of experience have earned this respected panel the name 'Golden Ears'.

Today, thirty Golden Ears specialists, trained to detect the smallest nuances in sound, are located at four audio innovation sites worldwide. All products go through a sound quality engineering process. It begins with the Golden Ears panel defining a listening standard, to ensure the product outperforms others available in a similar price range. Many blind listening tests and measurements are conducted in order to define the target sound.

A functional prototype is then developed using the intended key components and architecture of the final product. It is at this stage that components and design features are optimized and finalized in order to best match the product with a purchaser's budget. Prior to launch, all products must pass the final Golden Ears blind preference test against competitor products: only then it is ready to entertain our customers.

Our Golden Ears have one clear focus: to ensure our customers will love Philips sound.



Philips competencies

Fidelio sound

Thanks to the tireless endeavors of its acoustic engineers, Philips has maintained its position as a leading innovator in audio for almost a century. It is their creativity and inquisitiveness to think beyond the boundaries of current technologies which drives their ideas for new products. Extensive research into emerging technologies, competitor activity, blue sky thinking from universities and innovation networks ensures they keep one step ahead of the game.

Fundamental to the success of the product development process is the ability to tune into the needs and aspirations of the end user. Understanding the consumer is the cornerstone of Philips' sound engineering philosophy. Married with expert knowledge of sound, the engineers strive for solutions which will improve the everyday lives of sound aspirers and create products which deliver sound just as it is meant to be heard.

However, finding the right product proposition goes beyond an appreciation of consumers alone. The engineers work closely with the marketers and product designers. They consider factors such as potential markets, technological feasibility and sales channels to ensure that concepts reflect Philips' values and sound philosophy of best in class sound, design and connectivity before an idea can be fully developed.

An interview with Bram Vandenhoven, Philips Innovation Architect, on how Philips comes up with new products

"Inspiration for new audio products can be triggered by almost anything, from everyday life to consumer reviews. We dedicate time to research, attending conferences and exhibitions to inspire our thinking and work closely with other Philips teams to identify product innovation insights.

Once we have a concept in mind, we test it as early as possible, anticipating and considering features product users would like. In parallel we also look at the technology within the product to see if it is feasible. All of this happens without losing focus of Philips' values, ensuring we nurture creativity from the entire team.

We have an innovation framework in place to help stimulate ideas. The most important thing to value is time. Philips understands that it takes time to come up with amazing new ideas."



Design and acoustic engineering

At Philips, acoustic design and product design are inextricably linked. Both groups collaborate symbiotically throughout the product development process from concept to manufacture. Before a sound device is ready for production, it is continuously refined in design and acoustics and passes through countless prototyping tests.

In order to maintain the highest quality standards, every project starts by defining the target sound performance, and a related technical 'sound concept'; this will serve as a basis for the designers and the whole technical team to create the final product.

The collaboration between product design and acoustics is crucial to ensure the optimal balance of form and sound performance is achieved so the consumer will get nothing but the best audio experience in its class. The teams are completely interdependent in defining new sound and design concepts, working together to create the best listening and aesthetic experience.

Fidelio SoundSphere

A holistic approach to audio innovation

Philips Fidelio SoundSphere is the result of our sound engineers' desire to create a system with a wide sweet spot so multiple people can enjoy a premium sound experience without the need for specific speaker configurations or room layout changes.

Philips' iLab trend researchers identified an increasing desire for more integrated and design-led technology within the home: compact, clutter-free audio systems with minimal units. Buyers are also more conscious of how the color, shape and finish of a product will complement their interior decor.

Philips audio engineers and designers explored concepts to satisfy these needs, while simultaneously offering a high-end sound via a wider sweet spot. Their solution was the Philips Fidelio SoundSphere: a pioneering combination of acoustic engineering and design featuring unique free-floating tweeters positioned above the cabinet, allowing sound to radiate in all directions and removing the need for a complex speaker set-up.



Philips experts

Sound and acoustics innovation engineers



Benoît Burette

The scientific side of sound and music has always been the most attractive to me. I've never been a musician: my career began as a sound engineer's assistant, aged nineteen.

The practical experience I gained in a recording studio spurred me to undertake a further degree in scientific computing followed by another degree in acoustics, which brought me to Philips.

I particularly enjoy collaborating with other 'Golden Ear' acoustic engineers at Philips. We collaborate regularly on ideas. Our passion for sound unites us and there's a real spirit for sharing our obsession. For example, when developing SoundSphere we experimented with ways of making it more compact, changing tweeter positions and monitoring the effect. We toyed and toyed until we were happy with the product you can buy today. This typifies our approach to innovation: discovery, building great things from unlikely sources and the persistence to make it work.

In my role you need to understand what people desire from sound. You need a good technology background in order to translate sound needs into a great product that will excite them - it's not about being obsessed with the technology, it's about being obsessed with sound, and those subtle details that make the difference.



Loïc Tanghe

Every day I am inspired by the prospect of creating something that can change the way people enjoy music.

As a child I was eager to understand how things worked and I have always been passionate about music, both listening and playing. Sound engineering offered me the perfect mix for a career.

At Philips I run the headphones pre-development program. This involves developing new products and product ideas. I work in close collaboration with the engineering, design and marketing teams, especially on Fidelio products where we fuse science and craftsmanship. We all share a common goal: to ensure people have a better listening experience in their everyday life.

The desire to be innovative is widespread at Philips. Previously I worked on HPI000 Hi-Fi headphones, where we experimented with transducing technologies. This allowed us to better understand the membrane motion of a speaker, providing new ways of measuring and understanding speakers. The product we went to market with was well received by customers and professional reviewers - particularly in relation to sound quality, regardless of price.

To work for Philips sound you have to be dedicated. Of course understanding the technology is a prerequisite, but most of us believe we must experiment with ideas and have our customers in mind.



Thomas Peeters

As long as I can remember I've been passionate about music and sound. At home, music was always a part of my environment due to my father's huge interest in Hi-Fi - I got to appreciate what great sound is all about from a young age.

At six years old I started playing guitar, and since then I have continued to make music in a variety of ways; experimenting with sound as I grew older and crafting my sound. I was especially interested in the engineering which goes into making electronic music. This got me more and more interested in understanding the acoustics and the science of sound.

During my academic career and after, I spent time in research, both for Philips and the European Space Agency. The work for ESA involved analyzing heart, blood pressure and breathing signals using tools which I learned whilst studying audio signal processing. These attributes have enabled me to really apply my knowledge within Philips. I feel like I'm in my element.

For decades people have taken their music with them on the go. In terms of sound, compromises are still made so you don't get the same experience from your portable music player with headphones as from a big, high quality sound system. For me, in the ideal world you would be able to enjoy and share your music in perfect sound quality no matter what the circumstances. Once the reproduction system becomes perfectly transparent, it will be all about the music again. Besides that, wires in any shape or form will become a thing of the past and your sound system will blend into the environment.



Gerrit De Poortere

Sound is always evolving - it's so dynamic that everything is changing all the time in terms of technical challenges.

My move into sound was 100% fuelled by passion. As a young boy I was intrigued by electronics and by the time I was fifteen I had already built my first do-it-yourself amplifier with large box speakers.

I have two roles at Philips. I offer technical coaching and oversee home cinema sound innovation projects. I am also the spokesperson for home cinema sound in Louvain. The teams I work in have been an important factor in keeping my obsession with sound alive. We feed off each other's creativity and share knowledge - this for me, is what it's all about.

A big achievement for Philips was the advent of digital audio - starting with the CD. Digital changed the world of sound for everyone of us. We could do things with sound that we couldn't before, like digital sound compression. I worked for instance on Double Bass, a sound technology that brings more immersion to a home theater. This typifies the inspiring opportunities Philips presents its engineers with.

In this job, you have to be interested in sound and have ideas. If you want to grow old with sound, you have to love it. It's not just a career. It's a passion.

Design consultants



Bazil Tung

I've always been very hands-on since I was young, and I get immense gratification out of making things with my hands. Whether it is making objects or making music, there is always a natural urge to create. Over the years, this love of making grew into an appreciation in well designed objects and admiration for well produced sound. Soon, passion turned into an obsession, and it became clear that audio design was the best possible outlet for both of these passions to live out.

The great thing about my role being an audio designer at Philips, is that I get to be very hands-on in the entire development process from start to the finish – defining and drawing out product concepts, prototyping acoustic and wearing comfort ideas, and following through to manufacturing executions before the piece is finally completed and arrived on the shop shelves.

And every day can be quite different. We can be throwing innovative product ideas around the room one day, making decisions on colors and finishing with the trends team the next, and in between we challenge our acoustic experts and suppliers on how to achieve the perfect sound and bring all of our ideas to reality – what is typical about design at Philips is that there is never a typical day, there is never a dull moment.

To work in audio design at Philips, you have to be equally passionate about making great designs and great sound, be engaged in what you create and genuinely care about reaching people. I think only this kind of obsession inspires creativity, and in turn making truly great and meaningful audio products.



Charlie Bolton

I've been a product designer for over ten years, seven of those years at Philips. I have designed many products for Philips: headphones, TVs and speakers. I moved to the Hong Kong Design Studio in 2007 where I am the lead designer for the Fidelio speaker range. This has been one of the highlights of my career so far - I worked on the original Fidelio speaker family, and I have seen it grow to the point where we are now market leaders in this category.

My role as Senior Design Consultant has a wide variety of responsibilities. The most enjoyable part is the actual designing; the early stage in the project where you have to think of new ideas and create new concepts. However, that is just one part of my job. As important as coming up with the design is making sure it gets to market. Therefore co-designing with acoustic and mechanical engineers is essential in achieving a winning proposition.

In the design studio I am surrounded by inspiring material. Our visual trends team has a complete library of every imaginable material. As well as this, my design colleagues always have their latest ideas and projects on display, so just working around the studio you can get inspired by other peoples work. For the Fidelio docking range we have started looking at using natural materials that enhance acoustic performance. For the first time we used real wood housings instead of plastic.



Michael Paterson

During the past five years I have been involved in the industrial design of many audio products from 5.1 home cinema, to SoundBars and more recently the Shoqbox portable wireless speaker range.

What I love about designing audio products is the challenge. The key to the process is balancing the technical aspects of acoustics and the creative nature of design. To produce a distinctive and desirable product that works beautifully and does not compromise on performance. Understanding how to balance these is the key to creating relevant design and excellent audio products.

The reward of being a designer is that you are able to reach and influence many people through your creative work. To be at the core of bringing products to life, that people use and enjoy every day. Seeing the products I've designed in store or seeing someone use it and hearing what they think still excites me. For me this validates what I do.

What has most affected the design of audio products in recent years is that people want their audio products to sound better and better; the expectation of sound quality continually increases. When you go to the movies, it's because you want to get swept away for a moment. You want to get totally lost in what's happening on-screen - and around you. Sound plays a massive part in that experience. Our job is to perfectly recreate that authentic movie experience in your home and ensure that our design is the visual synthesis of that authentic experience. It has to work beautifully and the look and feel must testify to the excellent acoustic capabilities of the product.



Wai Chung

Philips was my first employer and I'm still here now, so essentially this is my first job! I have been in design for sixteen years and I've been involved in audio since 2002. This started with headphones, then I moved into personal audio, and now my role is Senior Design Consultant in the home audio team working with a group of designers on products such as Hi-Fis, clocks and boom-boxes.

In basic terms I am product designer - one that helps with the whole process of product development from concept to final design. This starts with the initial sketch workshops, the discussions with the engineers regarding technical restraints, finalizing the design, the production of the first molded parts, down to the trial runs until the product is realized.

It is an exciting time for us developing the Fidelio range. We have a clear vision of what we want to achieve and by working with the acoustic engineers from the early stages, we are very proud to be able to craft a selection of premium products that have great sound, are well integrated and have really well considered features. It is a very inspiring range in terms of design.



Philips Fidelio

A new milestone in Philips sound history

At Philips, we understand that if you truly love sound, every detail matters. Whether it's your favorite song or a movie soundtrack, you want to experience sound and all its nuances exactly as the artist intended. This is why our engineers have gone to great lengths to ensure that Fidelio products reproduce every sound as it was first heard during the recording. Fidelio products faithfully reveal all the rich details of the original recording, so that every instrument, chord and note will resonate pristinely.

Building upon Philips' long heritage as a pioneer in audio technology and its ongoing investment in sound innovation, the Fidelio range has been developed to continue the focus on authentic sound credentials and premium performance. It features a selection of leading-edge, connected audio products designed to enable consumers to experience high-end sound which is true and authentic. Above all Fidelio stands for best-in-class sound quality, distinctive, contemporary design, and pleasurable ease of use.

It's an obsession, and one that we're proud of.

Philips Fidelio headphones

The headphone market has seen rapid developments in recent years, including the increasing popularity of products in higher-end segments, plus the raised expectations of consumers who are not only now demanding a truly excellent listening experience everywhere: 'on-the-go' and at home - but also looking for well-designed products that they are proud to own. Headphones which deliver great sound have become a crucial companion to our everyday lives and allow us to immerse ourselves in the listening experience and also make a personal style statement.

In designing the Philips Fidelio headphone range, Philips drew upon insights into the latest trends and extensive experience in designing and creating superior headphones to ensure that the first model to carry the Fidelio brand name would set a new benchmark not only for sound quality but also in its design and build quality. The Philips Fidelio headphones range offers the perfect balance between design and performance. The headphones feature a premium yet progressive design to appeal to the increasingly style conscious modern day listener.

As with the development of all Philips Fidelio products, the design team worked closely with Philips' audio engineers to ensure the product beats the toughest tests, and delivers superb sound that appeals to discerning listeners. Through extensive and cumulative knowledge of headphone craftsmanship, Philips designers and audio engineers aimed to ensure that the listening experience is never compromised. This included professional driver acoustic tuning and development, ergonomic and comfort studies, durability and build quality tests which are all equally important for Philips in audio design. The choice of materials and every component is made with one consideration in mind - reproducing crystal clear sound.

The first results are the LI and MI Fidelio headphones - setting new standards for high-end headphones and bringing listening pleasure to the next level.





Philips Fidelio L1 headphones

The exquisitely hand-crafted L1 headphones define a new standard in sound and comfort. Each pair is expertly engineered to deliver sound as faithful to the original as possible.

Fifty years of headphone acoustics expertise can be experienced with the new Philips Fidelio L1. Luxurious components are teamed with innovative technologies to define a new standard for headphones.

The extensive use of metals and specially designed fabrics combine to create the most authentic listening experience. The Philips Fidelio L1 features machined aluminum ear shells for rigidity and also for the metal's damping properties, helping avoid unwanted vibration and resonance.

The Philips designed 40mm diameter neodymium drivers feature a central vent to faithfully reproduce lower frequencies and respect music dynamics. Each driver is handpicked, tested and paired to create the best stereo experience attuned to modern recording styles. A radial pattern in the diaphragm prevents break-up to give a transparent, uncolored mid-range and treble for breath-taking spatialization. Each driver is pre-tilted to match the ear's natural angle, helping direct sound into the ear canal for more realistic sound and enhanced comfort.

The Philips Fidelio L1 design incorporates an intelligent back design that exhibits the natural sound of a fully open acoustic architecture and the noise isolation and privacy of a closed back system. This semi-open design allows a specified amount of air to enter the headphone cup, whilst a finely woven acoustically resistive fabric controls sound leakage and ingress of ambient noise. The effect is powerful and dynamic bass without compromised sound clarity.

In addition to exceptional sound quality, the Philips Fidelio L1 also sets new standards for comfort, luxury and durability. Ear pads feature deluxe memory foam cushions, providing superior comfort by molding to an ear's shape, forming a perfect seal. Hard-wearing fine leather on the headband gives a luxury finish and as you would expect from such a high-quality, hand-crafted design, each Philips Fidelio L1 has its serial number engraved on the ear shell.



Philips Fidelio M1 headphones

Philips extends the Fidelio range with the introduction of the M1 headphones, a light yet sturdy design offering the perfect combination of superior sound and comfort for anyone serious about enjoying music on the move.

Philips Fidelio M1 is designed specifically for music lovers who want to maximize their enjoyment without compromising quality whilst away from their home.

The unique design couples Philips' class-leading headphone technology with a robust design, engineered for superior noise isolation and comfort, allowing the user to focus on their music for longer.

Uninterrupted music flows from 40mm high magnetic intensity neodymium drivers that feature a lightweight aluminum voice coil providing a large dynamic range, allowing you to hear every detail as the artist intended. Each pair of drivers is tested and balanced to give the best sound experience.

Coupled with this is the closed-back design with a bass-reflex acoustic architecture which delivers excellent noise isolation whilst delivering a controlled and dynamic bass: you can hear every beat and every instrument with perfect clarity through the rush hour hum. A double-layered ear shell minimizes resonance and vibration, the result being an authentic sound featuring naturally detailed voices.

The Philips Fidelio M1's acoustically sealed construction features deluxe memory foam earpads, designed to disperse pressure and heat, to avoid having to remove them whilst on the move. You also have the option of a headset version allowing you to manage your calls and music. There has never been such a high quality, robustly designed way to enjoy your music on the move.





Philips Fidelio docking speakers

With millions of portable music players, smartphones and tablets sold worldwide, the market is dominated by two key players, Apple and Android. Over 84% of smartphone owners regularly use their device to listen to music on the go (Sensorium research, March 2011). When they get home, the enjoyment of this listening experience is interrupted and put on hold until their next outing.

A large majority of these music lovers prefer to continue listening to their personal collection of songs, but without having to deal with wires or controls, and without having to compromise on sound quality. In response to this need, Philips has become the

leading manufacturer for producing docking speakers that offer the perfect solution as seen in the Fidelio range.

Exquisitely crafted, the Fidelio docking speakers unleash music with unadulterated gusto. Built to the standards of high-quality acoustic equipment, the range features custom made docking speakers designed for Apple products, as well as a range of carefully crafted Android docking speakers to ensure everybody can enjoy the same simple, plug and play - functionality which is so important to all docking speaker users.

Philips Fidelio SoundSphere docking speakers

Philips Fidelio SoundSphere docking speakers provide both high fidelity sound and hassle-free access to all your music from iTunes¹. They exemplify perfection through uncompromised excellence in acoustic engineering and exceptional craftsmanship. The stunning sound quality of the Philips Fidelio SoundSphere docking speaker lies within its unique design, through the patented positioning of the tweeters and the woofer. The inner quality of selected components and materials, as well as the care taken in tuning the loudspeakers in extreme acoustic environments, guarantees a sound that is detailed and dynamic in all circumstances.

Philips Fidelio SoundSphere docking speaker utilizes Airplay to seamlessly play music over a home Wi-Fi network from iTunes on Mac and PC, iPhone, iPad and iPod touch. With AirPlay, you can enjoy all your music via the high fidelity speakers of the Philips Fidelio SoundSphere without plugging in cables or even docking your device.



SoundSphere technology

The focus of Philips Fidelio docking products has also been sound quality, pure and simple. By combining SoundSphere technology with Apple's Airplay system the SoundSphere offers a true audiophile performance to deliver a unique Hi-Fi experience. The performance of the SoundSphere speakers is the result of a seven year research program by Philips audio experts, excellent acoustic engineering and exceptional craftsmanship. Its striking appearance is for a reason:

“Fidelio SoundSphere speakers feature unique tweeters. Released from the traditional speaker boxes, the tweeters are free to deliver sound in all directions. The outcome is a very natural sound, with deeper and wider sound stage.” Benoît Burette, Sound & Acoustics Innovation Engineer

Each Philips Fidelio SoundSphere speaker features the high-frequency transducer - the tweeter, positioned outside the speaker box. Suspended above, the tweeter's acoustic radiation is not impeded by any physical structures so the ideal listening sweet-spot area is larger. The positioning of this is linked to the acoustic principle that if a driver is mounted into a large (and usually flat) front baffle, its directivity increases. Conversely, if the tweeter's faceplate dimensions are minimized, the differences perceived in sound when the listener moves are smaller. This architecture transforms the tweeter, up to high frequencies, into a point source that emits spherical sound waves - one of the holy grails of acoustics.

Cradling the tweeter below is the low-frequency transducer, or the woofer, which is positioned and angled in a patented way. Together with rigorous passive crossover engineering, this minimizes interference between the transducers and ensures the output of a particularly natural sound. The wider sound dispersion creates an impression that the instruments are in the room and over a very large listening area.

One challenge was defining the best position for the tweeter in combination with the woofer - avoiding early reflections on the tweeter cabinet. The solution was to make the tweeter cabinet and arm as thin as possible to make it acoustically transparent to the woofer's sound waves. The combination of the transducers positioning, crossover design, and structure allows for very balanced and detailed sound throughout the listening room. A patent application has been filed to protect this unique combination of technology and design.



¹ iTunes, iPod, iPhone, iPad, AirPlay are trademarks of Apple Inc.

Philips Fidelio Primo docking speaker

Designed for audiophile quality, the Fidelio Primo docking speaker for 2012 offers wireless connectivity, AirPlay, and enhanced bass performance with even more clarity than its earlier generations. Enabling consumers to play music from their iPad, iPhone, or iPod with optimum precision, its crossover design lets you hear the detail of every note - natural and complete.

With a distinctive, contemporary design, the clean lines and sensuality of the curved wooden back not only look stylish, but create a more effective structure for acoustics, using SoundCurve technology.

The bass port has been redesigned to reduce turbulence noise and provide a pure and clean bass. Premium audio technologies including active crossover and PureDigital engineering have been employed for clearer voice presence and vocals, enhanced sound balance, and defined instrument separation.

This top-of-the-range speaker epitomizes craftsmanship in terms of acoustics and design - handcrafted from natural materials with its iconic wooden back to give a sleek, premium look that will make a statement even in the most stylish home.



SoundCurve technology

Elegance meets superb sound quality with the Philips Fidelio Primo docking speaker. It is designed with a curved back which naturally reduces internal resonance, as opposed to conventional parallelepiped box-shaped speaker design which is prone to internal 'standing wave' build-up - a strong energy build-up at a particular frequency. The curvature also increases the stiffness of the speaker cabinet, further reducing internal structural mechanical resonance and coloration, which results in higher precision and natural sound both in midrange and bass reproduction.

The listener will recognize the difference in sound quality between the SoundCurve and conventional box-shaped speakers in the midrange (frequency spectrum for voice, guitars and violins). Less resonance brings more precision, therefore improving instrument separation and reducing coloration. Every Fidelio product is a combination of authentic sound, iconic design and simplicity of user experience. The curved back cabinet is a perfect blend of authentic sound and iconic design.

"The Fidelio Primo exudes user-friendliness and elegance, crafted to reflect the beauty of objects in the modern home. Superb looks and sensational acoustics cross paths in this docking speaker."

Benoît Burette, Sound & Acoustics Innovation Engineer

A speaker driver has a front wave, the one you want to hear, and a back wave which is best kept inside the box - it cancels out the front wave and reduces bass level dramatically. When two walls of the box are parallel, the back wave will bounce back and forth between them, creating a standing wave. This resonance at a single frequency is more audible and the sound is said to be 'colored'. Curved walls will make these reflections occur in a more diffused way inside the box, so that the back wave will die away without creating a strong standing wave. Sound remains natural and clear, unaffected by this typical 'shoebox' sound you may get with square boxes designs.



Philips Fidelio wireless Hi-Fi

The connected audio market is growing at a rapid rate, as more people use their smartphones and tablets as a tool to store all their content, and especially their music. The smartphone is where we experience most of our music - over 80% of smartphone and tablet owners use these devices to store their favorite tracks¹.

Philips has been a leader in the wireless Hi-Fi market since the release of the ground-breaking Streamium Hi-Fi in 2003 - the first Hi-Fi product to connect to a home network and enable playback of music directly from a computer or the world wide web. The Streamium range was a pioneering product in connected entertainment but since then, technology has evolved and the introduction of the smartphone and tablet has significantly changed the way we enjoy music, both on the go and at home.

There has also been a huge growth in online services providing access to music and content. In just a few years the way we listen to music has transformed - a large music collection is no longer necessary - we can access virtually any music we want via the internet, and we expect to be able to manage our entertainment using our smartphones or tablets. This has had a significant impact on our expectations from audio products.

1. Based on Npolls survey, January 2011. N=210 in Europe + US.



Philips Fidelio wireless Hi-Fi range

Philips Fidelio Wireless Hi-Fi range is designed for the connected audiophile and combines advanced acoustic engineering with cutting-edge wireless technology. Fully compatible with all Apple and Android devices, it's easy to access all your digital music directly from a smartphone, tablet or computer, to enjoy online music services; or listen to more than 30,000 or internet radio stations available via the Fidelio Wireless Hi-Fi range. A remote is not needed as Philips AirStudio app allows you to play and control content from all your music libraries wirelessly using your smartphone or tablet.

The Philips Fidelio Wireless Hi-Fi is available in three sizes: the dual A9 speakers for the most discerning sound purist; the all-in-one A5 for large rooms; and the compact yet powerful A3 speaker; ideal for secondary rooms.

The range has been carefully crafted with innovative acoustic design for high fidelity sound and features Class-D digital amplifiers, gold plated connectors and lossless audio codec support providing a completely immersive listening experience to ensure you hear every detail in pristine quality.

The top-of-the-range A9 model also boasts dual speaker boxes with 100W audiophile grade Hi-Fi transducers: dome tweeters and low distortion woofers for the ultimate high-end sound.

To create a wide stereo sound effect, the Fidelio Wireless Hi-Fi incorporates angled technology. Each unit is designed with angled speakers to maximize the listening sound stage. Dedicated side firing drivers and tweeters create a more precise separation, and a split acoustic chamber further enhances the stereo sound impression. Thanks to this Philips technology, the speakers are able to reproduce true Hi-Fi quality sound. The speakers can be expanded over time throughout your home and controlled directly from your handheld device. If you want to keep your existing speakers or Hi-Fi, the Fidelio Wireless Hi-Fi receiver A2 will upgrade your speakers, or the Fidelio Wireless Hi-Fi link A1 will transform your Hi-Fi into a wireless music portal, bringing a host of features and connectivity to your existing kit.

"The Fidelio Wireless Hi-Fi speaker range feature Philips high-end drivers and cutting-edge digital amplifiers. The idea behind the design is to improve the speakers' versatility both in terms of positioning in your room, and listening area."

Benoît Burette, Sound & Acoustics Innovation Engineer





Philips Fidelio home cinema sound

The Philips Fidelio home theater range is designed to bring movies to life in your living room by surrounding you with crystal clear sound from every angle. The range boasts premium Fidelio design credentials and combines integrated connectivity features and advanced technologies for best-in-class sound quality to produce an immersive home entertainment experience.

The powerful Immersive Sound 5.1 model conforms to the traditional configuration for home theater: two speakers to the rear of the room, three speakers at the front and a subwoofer. Featuring 360Sound technology with both front and side speaker drivers in each unit, they project sound evenly around the room to

create a wide sweet spot so wherever you sit, you can enjoy a truly cinematic experience. Enhanced voice clarity is provided by extra tweeters to ensure that no matter how powerful the surround sound, voice detail is not lost.

For those looking for home theater surround sound with less speakers, Philips has created the Fidelio SoundHub 2.1 and Fidelio SoundBar. Both systems feature innovative design and acoustics technology which Philips designers and audio engineers developed in response to increasing demand for discreet entertainment solutions to suit compact, modern living spaces and reflect the trend for minimalist interior decor.

Philips Fidelio SoundHub 2.1 home cinema speakers

The SoundHub is a category designed for an increasing group of consumers who want the full home cinema experience plus a powerful system for listening to music without their living rooms becoming dominated by numerous speakers and cables. The Philips Fidelio SoundHub 2.1 speakers with amplifier and 360Sound let you enjoy movies and your favorite music all in one system offering best-in-class sound quality and the latest integrated connectivity features.

Each speaker box has three premium drivers: one front firing driver and two side firing drivers which with the help of Digital Signal Processing, project an embracing sound from all angles, making you feel you're right at the heart of the action. Together with a powerful active subwoofer, Dolby Digital and DTS Digital Surround, SoundHub speakers will fill your room with amazingly immersive surround sound.

The system features Music iLink which gives you the convenience of playing music directly from your MP3 player by simply connecting to the Music iLink jack.

The system's high-quality aluminum finishing gives a sophisticated look and its compact design means you can enjoy a cinematic listening experience without bulky speakers cluttering your home.



360Sound technology

The joy of going to the cinema is losing yourself in the moment and becoming completely immersed in the movie. Philips wanted to recreate this kind of cinematic audio experience, where you are lost in the story, surrounded by speakers, but unable to locate where the sound is coming from. Philips 360Sound brings this same effect to you, but in your living room and from a 5.1 home cinema system.

Vastly different from a conventional 5.1 home theater system, 360Sound is uniquely designed with three drivers in each satellite speaker - a front one, and two side firing ones which are angled to project immersive sound around you. In addition to the principle of acoustic dipoles, Philips uses a proprietary algorithm to further enhance the embracing sound effect. Built with premium acoustic components like soft dome tweeters, Neodymium magnets and Class D digital amplifiers, 360Sound delivers exceptional sound from all angles.

When developing 360Sound, the biggest challenge for the audio engineers was finding the right balance between the sound produced by the direct speakers and the side speakers. They were looking for an embracing sound experience that remains natural and provides effortless listening. Following Philips' rigorous development and testing process, Philips fine-tuned 360Sound with the expertise of the Golden Ears listening panel, as well as in tests with audiophile consumers.

"For a good cinematic experience, the viewer should be involved in the story of the movie. That means that he or she has to be able to follow the dialogue and at the same time be embraced by the action. The immersive 360Sound is carefully tuned to provide just this balance." Gerrit De Poortere, Sound & Acoustics Innovation Engineer

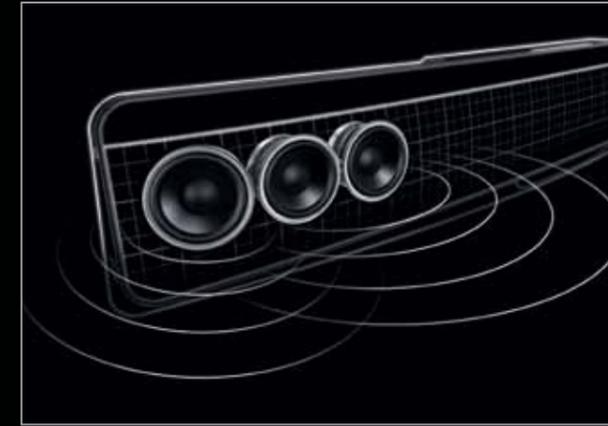


Philips Fidelio SoundBar home theater

Philips Fidelio SoundBar home theater with Ambisound is designed for modern living - a super slim single unit providing all your entertainment at the touch of a button. It features Full HD 3D Blu-ray and supports a host of integrated connectivity features. Perfect for those with a large library of movies on hard disks, PCs, tablets or smartphones, the new 2012 SoundBar model has streaming functionality for playback of any content stored on an Android tablet, Android smartphone, Apple devices or PC with Philips' SimplyShare app (within MyRemote App), plus built-in Wi-Fi functionality so it can be enjoyed on the big screen of your TV.

The Fidelio SoundBar delivers uncompromised surround sound thanks to Philips' unique, proprietary Ambisound technology. Precisely angled drivers positioned within the SoundBar and the subtle tuning of the array processing create life-like rear sound effects in any room shape, even in open plan homes, and a wide sweet spot is assured irrespective of where you are sat. Ambisound differs from other SoundBars due to the six dedicated amplification channels with Class D amplifiers across the 5.1 channels.

The SoundBar's super slim design makes it ideal for wall-mounting or positioning beneath a flat-screen TV. Distinctive design cues with high quality aluminum give the SoundBar a contemporary, premium finish well suited to the most style-conscious, connected home.



Ambisound technology

Through a deep understanding of psychoacoustic phenomena - how you hear, sense and experience sound - Philips has carefully engineered the design and audio processing technology, Ambisound, to create a Philips SoundBar product, this provides an embracing cinematic experience from only one speaker product.

To make the SoundBar impressive both sonically and aesthetically, Philips gave it six amplifiers and speaker drivers. Creating the effect of impressive sound was one thing; the art was in controlling it. The cumulative effects of this combination of technology is that no matter where you sit in your room - or no matter the shape of your room - sound is driven around you for a truly immersive cinematic experience. In short, you don't have to sit right in front; the sound remains wide and natural wherever you sit.

With the patented arrangement of these six drivers, Philips designed the form of the bar with a long curve driven by the technology inside it - an extremely unique and beautiful design for a SoundBar. A key influence on the design was the continually diminishing size of TV's - as they become thinner and thinner, products such as this are more frequently wall-mounted.

It was therefore necessary to make the SoundBar thinner to match thin TV's. Philips therefore used several optical effects and 3D design elements to create a visual effect so that when you see it in reality, the 2012 Philips SoundBar looks thin but still delivers the same great sound that won the Ambisound SoundBar many awards in prestigious magazines over the years.

“Ambisound technology has set the level for a very natural yet wide and immersive sound from a single product below your TV for years - and we keep on improving it with each new release.”

Gerrit De Poortere, Sound & Acoustics Innovation Engineer

The journey continues

Philips continues to set new standards for audio innovation with the Fidelio range. Our focus remains delivering the very best in sound performance, purposeful and distinctive design, and a simple, intuitive user experience. These values underpin everything we do and we are proud that they are anchored in our teams of expert sound engineers and designers, and in the products they create.

The Philips Fidelio range offers audio fans a range of options for enjoying their sound as the artist intended. Headphones, wireless and wired audio, home cinema sound, and portable speakers all deliver that 'live' listening experience as if you were there, whether you are at home or on the move.

Inspired by the way people around the world create, store and enjoy music and videos, we continue the tradition of creating break-through products, which help enhance and enrich peoples' lives. We are committed to developing new technologies and exploring new materials and designs, to further improve sound quality and provide enhanced yet simpler ways to experience content, as the Fidelio wireless range proves. We will continue to work closely with music and video content creators, to ensure our products reproduce their recordings in the most authentic way possible.

As we continue on our sound journey, you will continue to enjoy uncompromised experiences. After all, we are and will always be obsessed with sound.

