

soundings

1/05

Volume 8

Live 8

Editorial



Dear Reader,

In this edition of Soundings, join us as we celebrate a company milestone – Sennheiser’s 60th anniversary. Look back on the early days of the company, and review the groundbreaking product innovations that define our history.

2005 also marked a truly epochal event – the biggest live concert in history. On July 2, performing artists, live audiences and an estimated three billion Internet and TV viewers around the globe came together to make a stand against worldwide poverty. Sennheiser, together with its partners and subsidiaries, provided critical support and equipment for the Live 8 concerts in London, Paris, Rome, Philadelphia, Barrie and Berlin.

Soundings also reports on exciting Sennheiser projects around the globe. Take a look behind the scenes of the Eurovision Song Contest in Kiev, and visit the Oscars in Hollywood, the Glastonbury Festival in England, the Yad Vashem Museum in Israel, and Milan’s Triennale. Find out more about the Sennheiser technology that helped make these events and attractions such a success.

I hope you enjoy reading Soundings!

Rolf Meyer
President Marketing and Sales

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Excellent 2004

The Sennheiser Group concluded financial year 2004 with an impressive 10.3% rise in sales to EUR 261.7 million.

"Last year, Sennheiser benefited in particular from the general upturn in the global economy," commented Rolf Meyer, President Marketing and Sales and speaker of the Executive Committee, on the 2004 figures. "We achieved substantial growth rates in all markets. New and innovative products in all business areas further enhanced that positive trend."



© W. E. Schlegel

The Executive Committee and the Chairman of Supervisory Board, (l/r): Stefan Junker, Dr. Heinrich Esser, Prof. Dr. Jörg Sennheiser, Rolf Meyer, Volker Bartels, Peter Tschirner

Earnings increased to EUR 13.6 million, which already takes into account a special effect resulting from a fire at the Tullamore production plant in Ireland. The number of employees rose by 4.4% over the preceding year to an average of 1,648. 59% of the total workforce was employed at the German locations, and 41% at the production plants in Ireland and Albuquerque as well as at the foreign subsidiaries.

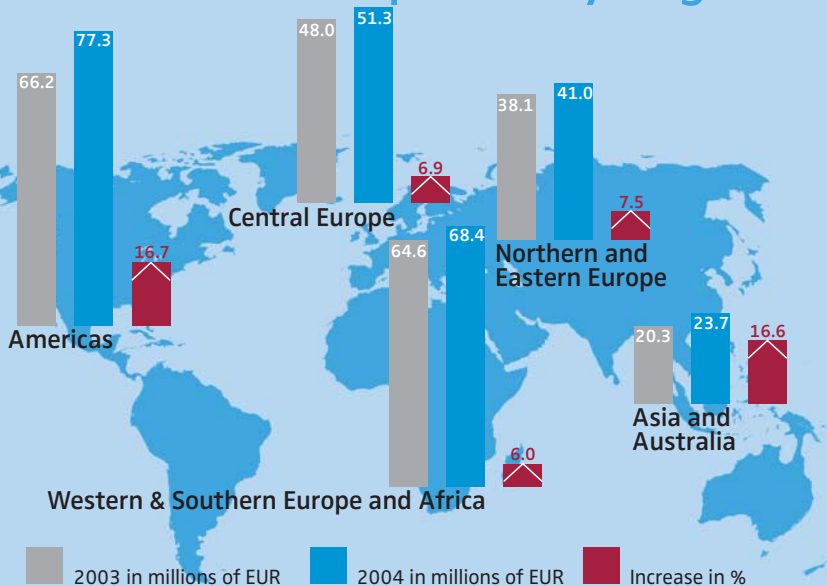
Sennheiser enjoyed strong growth in the sales regions of the Americas and Asia/Australia, at 16.7% and 16.6% respectively. The regions of Northern and Eastern Europe (up 7.5%), Central Europe (up 6.9%) and Western & Southern Europe/Africa (up 6%) also showed positive trends. The American continent remained the highest growth region, with sales of EUR 77.3 million, followed by Western & Southern Europe/Africa (EUR 68.4 million) and Central Europe (EUR 51.3 million). Northern and Eastern Europe generated sales of EUR 41.0 million, while sales in Asia and Australia amounted to EUR 23.7 million.

To counteract the adverse effects of the euro/dollar exchange rate, which has impaired consolidated sales for years, Sennheiser continued its systematic policy of increasing its purchasing and production activities in the US dollar region. The purchasing volume in US dollars rose close to 50%. At the Albuquerque plant in the US state of New Mexico, the course has been set for the expansion of manufacturing activities. "Increasing our manufacturing activities in the US dollar region will make us more independent of the unfavorable euro/dollar exchange rate and allow us to enjoy the cost benefits available to our competitors who produce exclusively in the US dollar region," explained Volker Bartels, President Manufacturing.

The share of new product sales as a percentage of total product sales rose from 27 to 44% in 2004. "Thanks to our consistently high investment in research and development, we were able to introduce even more attractive products to our portfolio last year," said Dr. Heinrich Esser, President Research and Development, commenting on the success in his division.

Prospects for the anniversary year 2005 are also excellent. Rolf Meyer: "The opportunities for healthy growth in the national and international market remain good for 2005; the primary growth regions will be the American and Asian markets."

Turnover Development by Regions



Sennheiser Celebrates

sixty years of Sennheiser

It was sixty years ago that Dr. Fritz Sennheiser, together with seven engineers, set out on the adventure to form a company.

The researchers converted their relocated university institute into what they called the "Labor W" ("Lab W") and began to design measuring instruments. Shortly thereafter they began making microphones and soon enjoyed remarkable success in many fields of audio technology. "Sennheiser electronic" was born, and today the company is a global player with more than 1,600 staff and one of the leading corporations in the recording, transmission and reproduction of sound. Since its beginning, Sennheiser – which remains a family-owned business – has been making a name for itself with high-quality microphones, RF wireless technology and headphones. Thanks to its many innovations, such as the invention of open headphones in the 1960s, infrared transmission technology in the 1970s, pioneering breakthroughs in multi-channel wireless transmission in the 1980s, head-related surround systems in the 1990s and intelligent audio information systems in the new millennium, the company enjoys an outstanding reputation worldwide.

Let Soundings take you on a time journey...



1945

In June 1945 Dr. Fritz Sennheiser founds "Labor W" ("Lab W"). The young company manufactures measuring instruments.



1947

Lab W develops its first microphone, the MD 2.

Amplifiers and microphone transformers are added to the portfolio.

1950



1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960



1953

A classic microphone, the MD 21, sees the light of day.



1957

Lab W exhibits its first wireless microphone, developed in cooperation with German broadcaster NDR.

Its Sixtieth Anniversary



1958 Labor W is renamed "Sennheiser electronic".



Another legendary microphone, the MD 421, is launched.

1960



1961

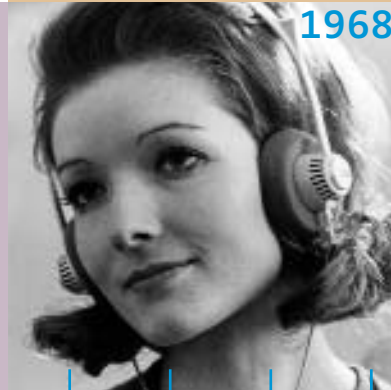
Sennheiser builds its first answering machine for Telefunken and introduces radio frequency condenser microphones.

Launch of the Philharmonic, a high-end stereo system and the first with active loudspeakers.

1965



1968 Sennheiser develops the world's first open headphones, the HD 414.



1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975



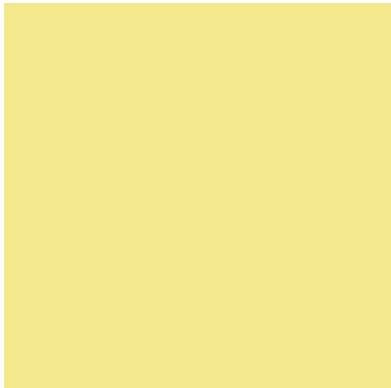
1972

Sennheiser introduces its first pre-polarized condenser microphones.



1975

Sennheiser uses infrared technology for sound transmission.



1978

The first professional multi-channel rack receiver radically improves the reliability of RF transmission.



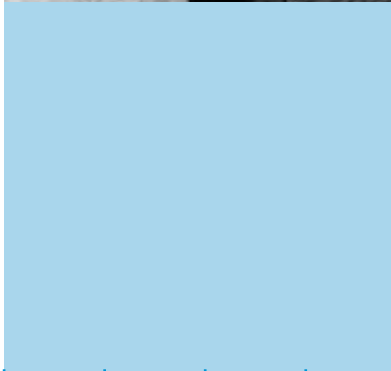
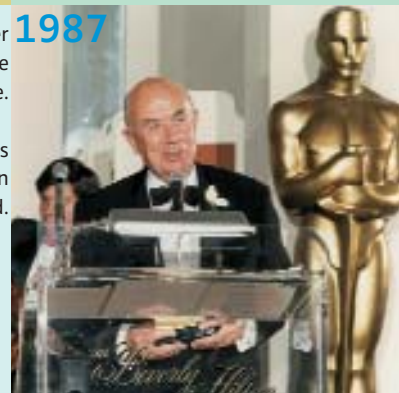
1982

Prof. Dr. Fritz Sennheiser hands over the management to his son, Prof. Dr. Jörg Sennheiser.

At the 59th Oscars, Sennheiser wins an Academy Award for the MKH 816 shotgun microphone.

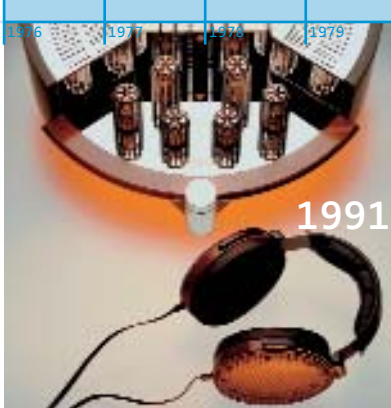
1987

NoiseGard, Sennheiser's active noise compensation system, is developed.



1989

WM1, the world's first wireless mixer, is launched.



1991

Berlin-based studio microphone specialist Georg Neumann GmbH becomes part of the Sennheiser Group.

Sennheiser introduces the electrostatic Orpheus, the world's best headphones.



1993

Launch of the SKM 5000, now a wireless classic.

1986 | 1987 | 1988 | 1989 | 1990 | 1991



1996 Sennheiser is presented with the Emmy Award for groundbreaking developments in RF wireless technology.

The *evolution* microphone series revolutionizes the MI market; this success is crowned in 1999 with the arrival of *evolution wireless*.



1998

Georg Neumann GmbH is awarded the Technical Grammy.

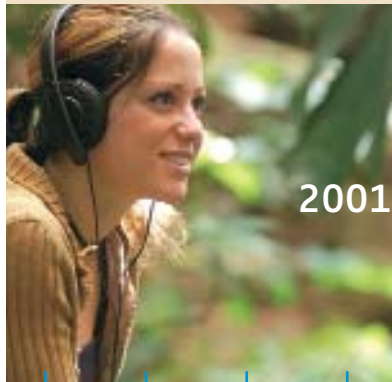
Sennheiser's optical microphone wins a German Industry Innovation Award.

1999



2000

Sennheiser is EXPO 2000's product partner for professional sound.



2001 First installation of the innovative visitor information system GuidePort.

The AES bestows its Gold Medal Award on Fritz Sennheiser.

Launch of the Sennheiser/Neumann wireless microphone SKM 5000 N/KK 105 S.

2002



1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006



2003 Founding of the joint venture Sennheiser Communications, Denmark.



2005

Loudspeaker specialist KLEIN + HUMMEL becomes part of the Sennheiser Group.

A Donation for Tsunami Victims



Delight at the third largest individual donation so far (from left to right): Peter Tschirner, Rolf Meyer, Albrecht von Blücher, president of the Hanover Ballhof Rotary Club, and Walter-Karl Fink, honorary member of Sennheiser's Supervisory Board

Albrecht von Blücher, president of the Hanover Ballhof Rotary Club, accepted a check for 80,000 euros from Rolf Meyer, speaker of the Sennheiser Executive Committee. The donation collected by the company and its employees will go to help the "Schools Re-awaken" project run by the Sri Lanka Rotary Club, the aim of which is to fund the reconstruction of destroyed schools on Sri Lanka. "The donation will be used directly by the 'Mawella Sri Sumangala Vidyalaya' school in Hambantota near Galle in the south of the island," said Peter Tschirner, Vice-President Human Resources. "The tsunami totally destroyed this school; a new school will now be built to replace it in the interior of the country." Rotary Sri Lanka intends to rebuild all the schools participating in the project as model schools. This will mean providing them with well-equipped classrooms, power and drinking water, canteens, physics and chemistry labs, assembly halls, staff rooms, school libraries, computer rooms and playgrounds for the younger children. Dion Schoorman, a Rotarian for 20 years, is directly involved in the reconstruction project as an Apex Committee member of Rotary Sri Lanka. He gave Soundings an interview.

Soundings: How many schools are currently benefiting from your Schools Re-awaken program?

Dion Schoorman: A total number of 180 Schools were affected by the tsunami, either totally destroyed or partially damaged. Rotary has been allocated 25 of the schools – other NGOs like UNICEF, JICA or OXFAM have been allocated the balance. Rotary has the highest number of schools allocated to any single group.

Soundings: Are there similar Rotary campaigns in other countries affected by the tsunami?

Schoorman: Yes. India is doing a similar program – they actually got the idea from us.

Soundings: Why have Rotary chosen schools as their field of activity?

Schoorman: Children and their welfare have always been at the heart of Rotary. Our Polioplus project to eradicate Polio from the world is well known globally as one of the most successful projects.

Soundings: Where and to what extent have you already been able to help?

Schoorman: Work has already begun in about 80% of the schools and the principal, staff, students and their parents have participated in ground breaking ceremonies for their new school. There is an air of eager anticipation all around the area!

Soundings: What is the scale of the destruction?

Schoorman: I have visited almost all the schools allocated to us

– some of them several times over – and the scale of the devastation is still difficult to comprehend. I have seen huge buildings with old Dutch columns crushed to bits by the waves in many towns in the South. The schools which consist mainly of single brick walls hardly stood any chance. Whenever I give presentations to foreign audiences, many of them break down at the sight of the devastated schools!

Soundings: How are the students coping with this trauma?

Schoorman: Sri Lankans have been particularly resilient and have always bounced back from some of the worst tragedies. A decade ago, regular terrorist bomb blasts were an almost daily hazard and many Sri Lankans paid the ultimate price. But the country soldiered on. The children are as innocent as all children around the world. Their faces are always smiling... they still have that great childhood ability to somehow find pleasure in some of the little things in life. The tsunami was easily the most devastating natural tragedy in living memory just by the sheer breadth of the destruction it caused across as many as 13 countries. It affected everybody, the rich, the poor, every race and every creed. Everyone in this world who has the ability to help has now got an opportunity to do so. They owe it to themselves to do so. They owe it to the generations who will follow and want to know what their parents did to help alleviate the suffering of the tsunami victims.

[\[www.rotary-srilanka.org\]](http://www.rotary-srilanka.org)



Dion Schoorman, Member of the Apex Committee of Rotary Sri Lanka

KLEIN + HUMMEL



Achim Gleißner, President of K+H Vertriebs- und Entwicklungsgesellschaft

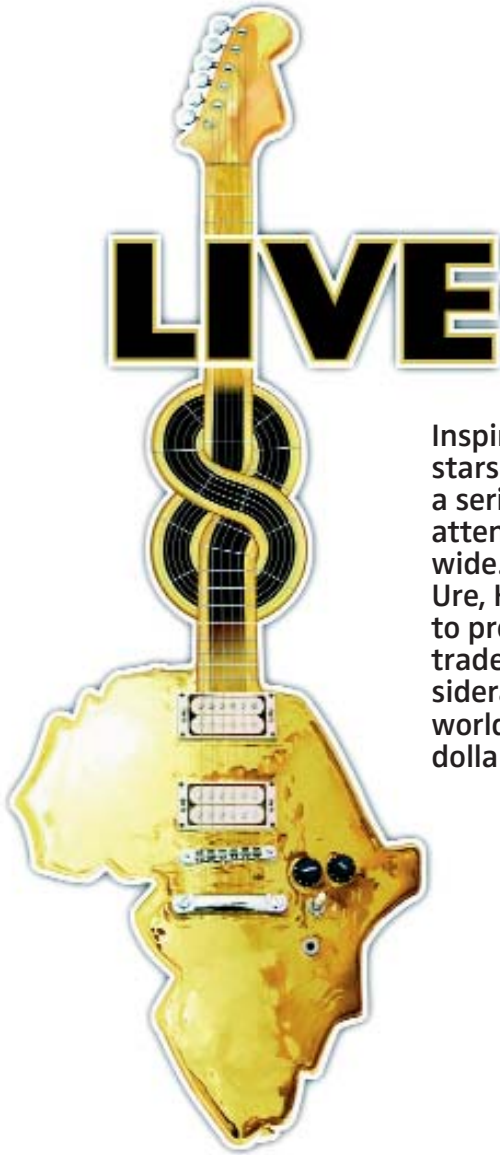
Yet another “gem” in the electro-acoustics business has become part of the Sennheiser Group:

on March 1, 2005 Sennheiser took over the Marketing and Development divisions of KLEIN + HUMMEL GmbH, located in Ostfildern, Germany, thereby acquiring its worldwide distribution, trademark and product rights. This move is represented by a newly founded company, “K+H Vertriebs- und Entwicklungsgesellschaft” (K+H Marketing and Development).

KLEIN + HUMMEL can also look back on a successful 60-year history – one of the many parallels with Sennheiser. Way back in 1935, at the tender age of 18, budding engineer and future company co-founder Walter Hummel philosophized: “Reproduction must be so good that – especially in terms of tonal colors – it matches the original performance. That’s why we speak of high-fidelity reproduction.” A vision – and the business idea for the future company – were born. After the end of World War II, Hummel joined forces with entrepreneur Horst Klein to establish their own firm. They repaired radio receivers and later designed and built their own measuring instruments and amplifiers.

The company has earned an excellent reputation for their studio monitors, electro-acoustic equipment and PA systems, making it the perfect addition to the Sennheiser family. The new subsidiary has already successfully participated in the AES Show in Barcelona and Infocomm in Las Vegas. In fall 2005, K+H Vertriebs- und Entwicklungsgesellschaft will move to new premises in Wedemark, near the Sennheiser headquarters. KLEIN + HUMMEL products will be distributed via Sennheiser’s global network of subsidiaries and sales partners.

Achim Gleißner, President of K+H Vertriebs- und Entwicklungsgesellschaft: “Integration within the Sennheiser Group gives us the opportunity to position ourselves as a full-line supplier in the electro-acoustics sector. We will intensify our operations still further with regard to developing and marketing coordinated systems.”



Inspired by an appeal from “Saint Bob” (Sir Bob Geldof), stars and the public alike from around the world joined in a series of superlative concerts known as Live 8, to gain the attention of the G8 summit and to combat poverty worldwide. Organizers Sir Bob Geldof, Live Aid co-founder Midge Ure, Harvey Goldsmith and Richard Curtis worked tirelessly to promote the causes of debt relief, improved aid, and fair trade. The “Make Poverty History” movement scored a considerable success, with the G8 canceling the debt for the world’s 18 poorest countries and doubling aid to 50 billion dollars over the next five years.



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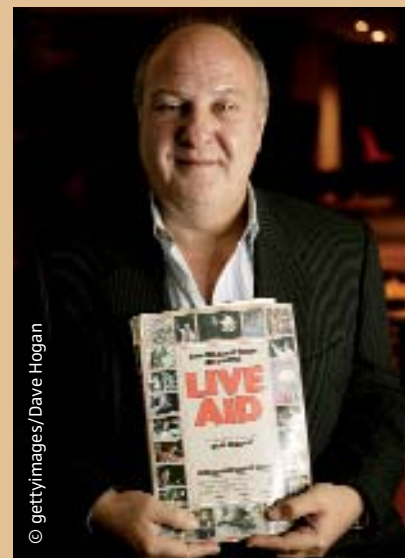
© gettyimages/Dave M. Bennett

Sir Bob Geldof (l.), Sir Paul McCartney and Mariah Carey

(l/r)
 The Live 8 concert
 in London's Hyde Park
 On stage in London: Madonna
 and Ethiopian Birhan Woldu
 Faithless in Berlin
 Harvey Goldsmith,
 Promoter of Live 8



© ralph@larmann.com



© gettyimages/Dave Hogan

Hundreds of thousands of people attended the concerts, with billions more tuning in via the Internet and on TV. The official microphone sponsor of the Live 8 events was audio specialist Sennheiser, who provided not only the equipment – wired microphones, wireless microphone systems and monitoring systems – but also on-site technical support in London, Paris, Rome, Philadelphia, Barrie (near Toronto) and Berlin.

“The Sennheiser teams around the world put over 1,500 hours of time into on-site frequency planning and concert support,” said Rolf Meyer, speaker of the Sennheiser Executive Committee. “More than 300 wireless systems and 1,000 wired microphones were required. Our network of subsidiaries and sales partners did a fantastic job.”

Sennheiser’s Worldwide Relationship Manager, Paul Hugo, explained how Sennheiser got involved. “We learned that some sort of ‘Live Aid – 2’ event was in the works from rumors our UK office heard back in February 2005. We were already working with Britannia Row when the rumors extended to a US event. We called Clair Brothers to offer our help with both equipment and frequency coordination for RF production at the US event, and they accepted. When the event became public in early June, we decided to coordinate our global support of all (then five) events directly with event organizers. After some conversations with Harvey Goldsmith, the promoter of Live 8, an agreement was made for Sennheiser to become an official sponsor of all Live 8 concerts. This sponsorship was a great honor for us.”

Bryan Adams in Barrie



© gettyimages/Donald Weber

Shakira in Paris (top), Destiny’s Child in Philadelphia (center), Annie Lennox in London (bottom)



© gettyimages/Eric Bouvet



© gettyimages/William Thomas Cain



© gettyimages/MJ Kim

Staff from Sennheiser UK, Sennheiser USA, Sennheiser Canada, Sennheiser France, Sennheiser's Italian partner Exhibo and the company's German headquarters went to work with a vengeance, preparing frequency plans, selecting the necessary microphones and monitor systems, undertaking on-site frequency coordination and assisting the rental companies in setting up the systems.

Two million people had wanted to see the **London** concert alone, but the capacity was limited to 200,000 due to safety reasons. Those who did manage to secure tickets were more than amply rewarded for their trouble: Paul McCartney and Bono, Madonna, Keane, Pink Floyd (specially reunited for the occasion), Annie Lennox, Scissor Sisters, Mariah Carey and many other artists joined Bob Geldof in calling for decisive action. Sennheiser UK used more than 500 Sennheiser evolution 900 Series wired microphones and over 100 channels of wireless mics. Among the most impressive technical feats was a specially developed antenna system for wireless monitoring. In **Philadelphia** the organizers had created the largest open-air venue of all the Live 8 concerts in front of the Museum of Art, enabling more than half a million people to experience the event live. The spectacular on Independence Day weekend was hosted by Will Smith, Natalie Portman, Jennifer Connelly and Dhani Jones. Top-class entertainment was provided by the Kaiser Chiefs, Destiny's Child, Rob Thomas, Alicia Keys, Josh Groban, the Dave Matthews Band, Sarah McLachlan and others. The majority of artists used Sennheiser and Neumann microphones. In **Berlin**, the "Street of June 17" was transformed into a mass of humanity stretching for 1 km – some 200,000 people saw acts including Herbert Gröne-

meyer, Toten Hosen, Faithless, Brian Wilson, a-ha, Söhne Mannheims, BAP, Chris de Burgh and many more. Of the 22 artists and bands, 17 used Sennheiser microphones. Wireless applications were not limited to the stage but also used in front of it. The technical highlight in Berlin was the eleven delay towers, that provided the entire audience area with a rich, full sound. These were linked to the FOH desk using 11 evolution wireless rack-mount receivers and a wireless evolution IEM transmitter at the FOH position. Park Place in **Barrie** near Toronto had space for 35,000 concertgoers. Bryan Adams, Tom Cochrane, Deep Purple, Simple Plan and Neil Young were among the star line-up in Canada. Here, too, most of the performers used Sennheiser and Neumann mics. In **Rome** the Circus Maximus was filled with 200,000 music fans. Thirty-two bands and solo artists wowed the crowd, including Faith Hill, Duran Duran, Nek, Elisa, Tim McGraw and Laura Pausini. Of these, 26 acts sang with Sennheiser microphones, most of them using the wireless SKM 5000 N. The **Palace of Versailles** offered a truly majestic backdrop for the French Live 8 concert. Again, the majority of vocalists performed using Sennheiser mics, with acts and artists including Shakira, Dido, The Cure, Andrea Bocelli, David Hallyday and Youssou N'Dour. Sennheiser France not only provided the equipment and on-site support, but also a tour bus, which went over well with the sound engineers who used it as a place to trade road stories.

Paul Hugo: "After the long day had ended around the world and we had almost recovered from all the preparation and execution, we received a complimentary email from Harvey Goldsmith, promoter of Live 8: 'You are one of the unsung heroes. Many thanks for all your help. You have helped make history.' And that is just the way it felt, historic."

[\[www.live8live.com\]](http://www.live8live.com)

Paul Hugo, Sennheiser's Worldwide Relationship Manager



Setting up the monitor desk at the Berlin concert



Where Wishes Come True

The “Vehicle Customizing Service Center”(SCS) is a special department at Volkswagen Commercial Vehicles, which has some truly unusual customers. This “company within a company” implements those individual touches that you won’t find in a catalog or on any list of special features or accessories. Whether it’s police cars, fire trucks, delivery vehicles for the postal or railroad service or for the baker next door, about 10,000 vans a year are tailor-made for special purposes at SCS. Fleet customers in the public-authority and commercial sectors still account for most of the clientele, but there are also luxury vehicles such as the T5 Multivan Business that appeal to the well-heeled businessman. Suggestions for customization come either from the creative minds within the SCS or are provided by the customers themselves. The company’s design department considers whether the various requests are practicable, and then some 100 employees get to work on implementing all the unconventional ideas. The T5 Business combines the luxury features of top-of-the-range automobiles with the equipment found in a state-of-the-art office: phone, fax, e-mail, Internet und DVD multimedia facilities. Sennheiser is among the suppliers that contribute to the vehicle’s optional high-end multimedia system (consisting of a roof-mounted 15” monitor, a TV and a DVD player): each T5 contains four “PXC 250 Business” units providing active NoiseGard noise compensation. **Soundings spoke with Kurt Klenke, head of the SCS department.**

Soundings: Mr Klenke, when people think of commercial vehicles they don’t necessarily have in mind luxury vehicles like the T5 Business. When did your department start custom-building vehicles of this type?

Kurt Klenke: Actually, it all started with the T3 Karat. Maybe a few of your readers still remember it; the whole thing had the feel of what we call a “conference vehicle”, with seats at the back, individual swivel seats in the front, a table in the middle, all mechanical of course, but aimed solely at businesspeople of that period. When the various variants of the successor model T4 arrived on the scene, customers also asked for a follow-up to the T3 Karat. Since we’re used to providing customers with individualized vehicles and special features, we decided to go for it. We looked into the feasibility of a follow-up model, got to work building it, and in 1996, we unveiled the T4 Karat, which was later renamed

the Business. In this manifestation, the vehicle was more like a so-called “conference vehicle”, with fold-out screen, exclusive accessories... In its day the T4 Business was already a small sensation. We built just under 1,000 of them.

Soundings: So the T5 Multivan Business was your baby from the very beginning.

Kurt Klenke: Yes, we were there right from the start. The T5 is the base vehicle, the perfect automobile for demonstrating luxury and state-of-the-art technology. Customers have become more exacting and we’ve lived up to their expectations by reconstructing the T5. We offer luxury, we make driving a pleasure, and allow you to work on the road comfortably. In 2002 we presented a demonstration model in Geneva, and then built the first prototypes. The series is now in production.





Interview: Kurt Klenke (left), head of the Vehicle Customizing Service Center, talking with Siegfried Pautsch of Sennheiser Sales and Service



The T5 Business on the SCS shop floor



Marcus Hoffmann (left) and Kurt Klenke, head of the Vehicle Customizing Service Center at Volkswagen Commercial Vehicles



Soundings: Sennheiser technology, in the form of the HDC 451 with NoiseGard active noise compensation, formed part of the T4 Business; now, in the follow-up T5 model, the PXC 250 Business is being used. Why did you opt for Sennheiser?

Kurt Klenke: It was important for us to get an exclusive, big-name supplier willing to get involved in this experiment. One additional aspect which helped clinch it for us was our geographical proximity to Sennheiser. We didn't want to look for suppliers in Asia; we wanted something home-grown, so to speak. And, in terms of technology, we believe you don't get any better than Sennheiser – so we made a really good choice.

Soundings: Taxis, municipal vehicles, workshop vehicles and family cars with extra features and accessories – it seems there really isn't anything that SCS can't do. Or is there?

Kurt Klenke: We don't alter the bodywork, and we don't open it up either. Our job is to accessorize. And, when it comes to that, we're pretty flexible – enabling us to fulfill customer's wishes more extravagantly. We also see ourselves as, in part, a facility that helps boost Volkswagen's sales. Sure, we have to be profitable and that matters, but what also counts is that customers choose VW. That's generally the case for public-authority vehicles, with our big customers, our fleet customers and, of course, with our individual customers – people who have a small or medium-sized enterprise, need a vehicle and want something they can't get from a dealer. That's where we come in. It could well be that the customer will say to the dealer, "Well, if you can't supply it, I'll go to a different manufacturer" – and we do a good job of preventing that. [\[www.vw-nutzfahrzeuge.de\]](http://www.vw-nutzfahrzeuge.de)



The Palace of Arts in Budapest

At Pest's Lágymányosi Bridge, one of the most impressive cultural centers in Europe has been created: the Palace of Arts. Covering almost 20,000 square meters, it houses the Ludwig Museum, National Concert Hall and Festival Theater under the same roof. Arts critics, architects and sound designers around the world have been excited about it, and especially about the heart of the building, the concert hall. "The acoustics are better than in most of the halls in Paris or London," raved renowned music critic Norman Lebrecht recently in the British Evening Standard newspaper.

ARTEC was responsible for planning the acoustics. This American consultancy has already brought to life prestigious projects such as the opera houses in Birmingham, São Paulo, Philadelphia, Lucerne and Singapore. Technology and equipment accounted for over 60% of the budget of over € 130 million. Optimal acoustics are guaranteed thanks to the auditorium's computer-controlled, flexible ceiling and 58 adjustable acoustic chambers on the podium and the side walls.

When it came to miking the venue, architects Zoboki, Demeter and Co. enlisted the services of Sennheiser partner BaSys. The National Concert Hall was fitted with 24 channels of the 3000 series, 28 channels of the "evolution wireless" series and 18 wired Neumann mics. In its conference area, the Palace of Arts uses one hundred SDC 3000 conference terminals, one hundred HDI 1029-8 stethoset IR receivers, fifty EKI 1029 IR receivers as well as SZI 1029 high-power infrared radiators with SI 29-5 modulators.



© Palace of Arts (4)

Reminiscent of a huge nave: the National Concert Hall

BaSys sets new standards in equipping the museum area as well: in the Ludwig Museum, two hundred GuidePort receivers and six double-cell transmitters guide visitors through exhibitions of contemporary art – the first GuidePort installation in Hungary. Imre Selmeczi, sales director at BaSys, reports: “GuidePort is, so to speak, equipped for everything. It is so flexible in application that it can be used as both a museum guide and translation system, for example in the concert hall or in the Festival Theater.”

Since its opening during the Budapest Spring Festival, internationally renowned artists such as the Chicago Symphony Orchestra and pop singer Alanis Morissette have performed at the Palace of Arts. [\[www.muveszetekpalotaja.hu\]](http://www.muveszetekpalotaja.hu)



The Palace of Arts on the banks of the river Danube

The Festival Theater is ready to host plays, concerts and ballets





The Andy Warhol exhibition of Milan's Triennale benefited from GuidePort



Visitors were well informed and entertained by their personal museum "guide"

The Milan Triennale:

At the end of October the Milan Triennale intends to open its gates even wider when both its library and its archive are to be made accessible to the public. This will be yet another step in its drive to make itself more visitor-orientated. Sennheiser's GuidePort system, used as a virtual guide during the Andy Warhol exhibition, helped visitors enhance their active appreciation of the Triennale (see box on the right).

With its numerous exhibitions, conferences and seminars, the Triennale is one of the leading international platforms for architecture, design, art, fashion and the audiovisual media. It was founded as long ago as 1923, in the form of the Biennial of the Decorative Arts. Soundings spoke to Professor Davide Rampello, president of the Milan Triennale, about its present strategy and future direction.

Soundings: Mr. Rampello, the Triennale has been one of Italy's cultural crowning glories for decades now. To what extent does it also make a politico-cultural contribution?

Prof. Davide Rampello: We see ourselves as an autonomous and independent institution whose aim is to bring different worlds together – for example, to act as an interface between the realm of production and consumption and the realm of research and knowledge. These different worlds need to network with each other and to speak a common language. In this way – and only in this way – culture will be promoted, too. In this respect the Triennale makes a wide-ranging contribution, taking in areas that go far beyond the applied and visual arts – namely, architecture, design, urban planning and fashion.

Soundings: And which cultural developments need fostering in particular at present?

Rampello: Well, all the areas I just mentioned. But, in my view, what really matters is not so much "what" but "how". In the past our focus was very much on exhibitions. Today we are far more visitor-oriented: the visiting

The New Yad Vashem Museum

More than 40 heads of state and ministers were present in March 2005 for the official opening of the new Yad Vashem Museum in Jerusalem. Ten years in the making, the museum, which is mainly underground, portrays the persecution of the Jews during the Nazi era in a deeply affecting and personal way. The scale of the genocide is highlighted by exhibits which recount the fate of many individuals. Film footage prior to the persecution, personal effects and the stories of survivors reveal the people behind the tragedy.

Kilim, Sennheiser's partner in Israel, was responsible for the technical equipment required for the various events (including a conference) held between March 15 and 17. For the international TV networks, some of which did live broadcasts, Kilim made excellent sound and light technology available. Speakers and presenters alike used ME 36 microphones on MZH 3040 goosenecks. evolution e 935 microphones were provided for the vocal performances. The conference made use of an iCL conference system with 50 microphone units. The message: presenting a unified front against violence worldwide, and pledging to prevent future genocides.

[\[www.yadvashem.org\]](http://www.yadvashem.org)



Enhancing the Appreciation of Culture

public want to be fully involved, they're looking for interaction and they want to discuss issues with leading personalities. Which is why we're putting on more and more seminars, conferences, workshops and large-scale events. The aim is for the Triennale to encourage thinking and creativity – and to be the source of ideas itself.

Soundings: *At the Triennale you make use of Sennheiser's GuidePort und Tourguide systems. Was this part of a deliberate strategy to go more interactive?*

Rampello: Yes, it certainly was! We have a great need to communicate what we have on display here as effectively as possible. Systems such as GuidePort are tremendously helpful in this respect. They help us do more than merely convey information; they enrich the exhibits through music and dialog. They give the whole environment a certain element of drama. In this way we can also get through to visitors on the emotional level. This turns information into edutainment, and culture into an unforgettable experience.

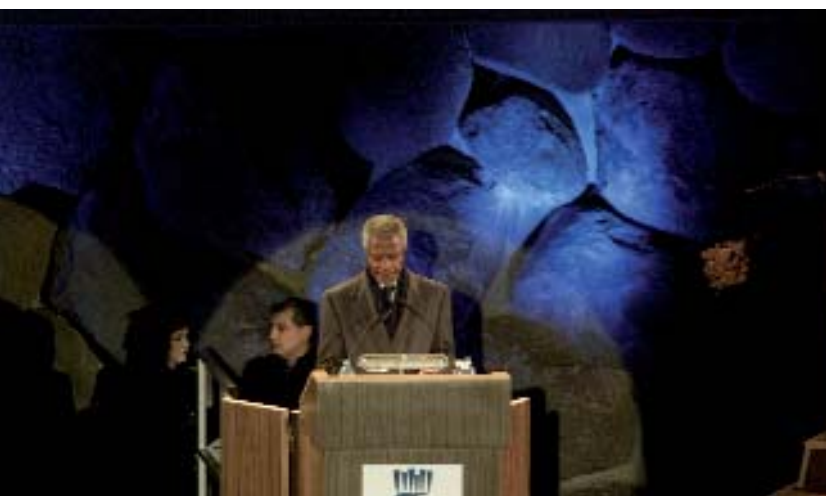
Soundings: *Is the success of your new approach also being reflected in the number of visitors to the Triennale?*

Rampello: Yes, it is; our visitor numbers are rising consistently, as people are realizing that the Triennale has been given a new lease of life. If all goes well, we will be opening the Triennale's library and archive at the end of October. They've been in existence for a long time, but they haven't been accessible to the public before. In connection with this, we're restoring an area of around 2,000 square meters, which will provide a view over the park. There will also be a wonderful open-air café in front of the archways. But our future plans for the Triennale by no means end there – we also want to create a Museum of Design.

[\[www.triennale.it\]](http://www.triennale.it)

GuidePort at the Milan Triennale

The Andy Warhol exhibition at the Milan Triennale served up a veritable feast of colors, shapes, stars and myths. What made it so special? Well, not only was it one of the most comprehensive Warhol exhibitions of all time, but it also had a quite remarkable guide: GuidePort from Sennheiser. This personal audio system for exhibitions and leisure parks uses radio signals to provide visitors with automated information on a wide range of exhibits, while allowing each person to customize his or her own route. In Milan, visitors received a GuidePort set at the entrance, consisting of lightweight GP 03 stereo headphones and a GP EK 3000 receiver. As each individual moved between the 24 "transmission zones" within the exhibition, the Guide instantly activated and provided them with a wealth of fascinating facts about the pop-art icon. Music was played, transporting the visitor back to various creative periods in Warhol's career and helping bring the whole experience to life. For added interest and authenticity, four human narrators were also used – among them Daniela Morera, former Warhol model and curator of the exhibition. Sennheiser's Italian partner Exhibo was responsible for getting the technology up and running and for ensuring a smooth technical background.



United Nations General Secretary Kofi Annan at the museum's opening

Yad Vashem ("A memorial and a name")

Established by resolution of the Israeli parliament, the Knesset, in 1953, the Yad Vashem keeps alive the memory of the horrific genocide that occurred. The memorial and the affiliated International Institute for Holocaust Research possess, in the form of the Yad Vashem Archive, the world's largest collection relating to the Holocaust. The new Yad Vashem Museum, designed by architect Moshe Safdie, covers an area of 4,200 square meters, making it four times as large as its predecessor, which remains in use as a storeroom and library.

Eurovision Song Contest

Sennheiser produced excellent sound for the 20th time

“My Number One” is a song title that almost anticipated the result of the contest. The favorite for the 50th Eurovision Song Contest was Greek singer Helena Paparizou who lived up to her reputation and took first place at the anniversary final in Kiev on May 21, 2005. The final was not without excitement, however. Until halfway through the voting, no country had taken a clear lead. Then Greece was awarded a surprising 12 points by Turkey, and top marks from other countries followed. Helena Paparizou finally won with 230 points and took the contest to Athens. A beaming Helena, who lives in Sweden, was awarded the winner’s trophy by Ukrainian president Viktor Yushchenko. In second place with 192 points was Chiara from Malta, who won the hearts of the audience with her ballad “Angel”. Third place (185 points) went to Luminita Anghel & Sistem from Romania with “Let Me Try”.





Winner of the 50th Eurovision Song Contest: Helena Paparizou

A live audience of approximately 7,000 people in Kiev watched the presenters Ruslana (winner of the contest in 2004), DJ Pasha and Vladimir und Vitali Klitschko greet the television audience of more than 100 million viewers. At the Palats Sportu, Kiev's major sports venue, the host TV station NTU (National Television of Ukraine) assembled an array of lighting and audio equipment that was unprecedented in the history of the contest. Six generators took care of the show's huge power requirements, with the lighting systems alone using more than a million watts. On the stage, moving elements and countless lighting effects and projection screens were used to give each performance its own unique atmosphere that harmonized with the song. The wireless microphone and monitoring systems were once more in reliable hands. It was not only a special anniversary for the contest in Kiev, but also for Sennheiser, which was celebrating its 20th appearance at the Eurovision Song Contest.



The popularity of the Eurovision Song Contest continues to grow, and that means more work for the sound engineers, because the sound must be perfected long before the event itself. "Doc Wireless", also known as Klaus Willemsen, Sennheiser's wireless specialist, explained: "In the past, they only sold tickets for the dress rehearsals. But in Kiev, most of the ordinary rehearsals were sold out as well. That gave a lot of Ukrainians the chance to experience the excitement of the contest first hand. But for us it meant that, from May 12 onwards, we had to stage a full-scale concert every day – from morning till night."

At the big evening shows on May 19 and 21, the engineers faced an even greater challenge: "Some countries had several TV stations broadcasting the events. And unfortunately there were a few black sheep that didn't stick to the rules, in other words they didn't keep to the frequencies assigned to them and used ones that were reserved for the artists' microphones and monitoring systems. That meant that we had to track down the culprits as quickly as possible and switch off the interference. At the same time, we had to ensure that the usual channels for the security staff were kept free," said Willemsen.

54 microphone channels and 16 wireless monitoring channels were available for the artists. Because of the gigantic PA system at the Palats Sportu, only hand-held (SKM 5000 N) and headset microphones (HSP 4) were used, as clip-on microphones would have picked up too much extraneous noise. In addition, Sennheiser equipment was also used to produce excellent sound quality in the press boxes, as well as in the "green room", where the artists feverishly awaited the results of the voting.

[\[www.eurovision.tv\]](http://www.eurovision.tv)

Glastonbury 2005



“If you haven’t done Glastonbury in the mud, then you haven’t done Glastonbury at all!” says festival organizer Michael Eavis. That remark became the unofficial motto at this year’s Glastonbury Festival in England. With headliners such as Coldplay, The White Stripes and Brian Wilson, Eavis invited the cream of the rock and pop scene to his Somerset farm to play one of the world’s most celebrated music festivals.

This year’s event began not with basses and light shows, but with thunder and lightning and the worst storm in the festival’s history. The appalling weather left its mark: not only did lightning strike the site several times, but heavy rain caused streams to burst their banks, flooding some areas to a depth of several inches.

Once again, Sennheiser UK sent a team, whose job it was to ensure optimum sound on the renowned John Peel Stage. “These were the most difficult weather conditions I’ve ever seen at a festival – and this was my sixth Glastonbury!”, commented Mark Saunders, Artist Relations Manager at Sennheiser UK.



The festival site after the torrential thunderstorms

With over 120,000 visitors Glastonbury is one of the largest performing arts festivals in the world

© Christian Frenz

Throughout the entire weekend, the John Peel Stage served as Sennheiser UK's festival headquarters – it was from here that Mark Saunders and his team provided technical support to big-name acts such as Keane and The White Stripes. Keane's monitor engineer Alistair Arting-stall was enthused about working with Sennheiser: "Mark and the team are great. If we need any extra stuff or in the unlikely event that anything goes wrong, they're on hand to fill in the gaps." Sennheiser UK came up with something rather special for endorsees The White Stripes: a customized version of the e 935 vocal mic with a red grille, to go with the band's stage outfit.

Sennheiser UK not only gave technical support to the top bands, but also provided a leg-up to unsigned acts: for the fifth time, it had held its own talent contest to decide who would open the bill on the John Peel Stage. This year, it was newcomers "Boa" who won a prestigious Glastonbury appearance. Mark Saunders on Sennheiser's commitment to new names: "We're working on a stage where there are unsigned bands and that's really important because today's Boa will be tomorrow's Coldplay."

[\[www.glastonburyfestivals.co.uk\]](http://www.glastonburyfestivals.co.uk)



"Boa", winners of Sennheiser UK's Unsigned Artist Contest

As sponsor, Sennheiser UK provided microphones for the John Peel Stage. Vocal mics used were the e 935, e 840, e 865 and e 845, with the e 914, e 904, e 905, e 606, e 906, e 901 and e 902 used for the instruments. The SKM 935 radio microphone with EM 550 receivers was also utilized.

John Peel

The late British radio DJ John Peel is a broadcasting legend around the world. Peel hosted his own BBC radio show for almost 40 years, making him the Corporation's longest-serving presenter. Peel was famous for having a feel for new, sometimes rather weird music – and, with his show, he helped renowned artists such as David Bowie, The Sex Pistols, The Smiths and The White Stripes make it big. Peel died of a heart attack on October 26, 2004 at the age of 65. In his honor, the Glastonbury Festival organizers renamed the New Bands Tent as the John Peel Stage.



On-Stage and Behind the Scenes: Sennheiser at the 2005 Oscars

When the Oscars ceremony was staged in Hollywood for the 77th time this February, Sennheiser's technology and expertise were in demand both on-stage and behind the scenes.

Host for the evening at the Kodak Theatre in Hollywood was actor Chris Rock who, with his SKM 5000, presented the stars of the 2004 film year. To add to the excitement of the Oscars still further, show producer Gil Cates thought up something extra special: some of the awards were presented on podiums in the auditorium rather than on the main stage. To ensure perfect sound, those presenting the awards on the podiums were given SK 5012 bodypack transmitters. David Bellamy of Soundtronics Wireless coordinated the frequencies on Oscar night: "All the ladies were wearing the 5012s, because they are very touchy about their gowns," he says. The ultra small SK 5012 can be comfortably worn without disturbing the elegant lines of the finest haute couture. "Plus," he notes, "they are film people, so they are not used to wearing microphones."

Soundtronics Wireless fitted out the Kodak Theatre with two Soundtronics antenna systems. Bellamy and his team opted for the SAS 432 and AB 400 amplifiers from Sennheiser. "The way I do the Kodak generally is hang my antennas upstage, from the catwalk, about 35 feet off the floor, looking down at the stage. This time, I had a duplicate antenna system out in the house, because of the presenters, the lavs and the podiums that were out in the house. That gold 'curtain' behind Chris Rock was a solid wall of steel pipe painted gold. As it turned out,

At the recent 77th Academy Awards Show, host Chris Rock used a Sennheiser SKM 5000 wireless system throughout the three-hour special



© gettyimages/Kevin Winter

when they closed that steel 'curtain', the antennas in the house were getting a reflection off of that. It was like a parabolic reflector – it worked really well! I spent the overwhelming majority of the show on the antennas in the house."

In addition to host Chris Rock and the other presenters on the podiums, Beyoncé too went for Sennheiser, using the SKM 5000 N microphone on three separate appearances. She sang songs from the Oscar-nominated film soundtracks to "The Polar Express", "Les Choristes" and "The Phantom of the Opera".

Backstage, too, Sennheiser ensured the right microphones were in place. The Academy of Motion Picture Arts and Sciences, responsible for putting on the Oscars ceremony, entrusted award-winning Offenhauser/Mekeel Architects and audio specialists Menlo Scientific Acoustics with the conversion of their conference room in Hollywood. With a 12-meter-long, customized conference table and a Sennheiser conference system, the facility was modified to suit the Academy's needs. Neil Shaw, Menlo principal, on the project: "One of our stated goals was to create a sound reinforcement system that had a natural sound while providing clear audio reinforcement. We wanted people around the table to be able to hear the sound from any point in the room in a natural manner, as if they were sitting right next to the person speaking, rather than at the other end of the table." This natural sound was provided by ME 34 and ME 36 condenser microphones. Ric Robertson, the Academy's executive administrator, is also impressed by the installation: "It sounds great. It looks great. And it works great. The system is so simple to use, most of the time we don't even realize it's on. You can hold a normal conversation among forty-plus people as if each of them is sitting right next to you."

[\[www.oscars.org\]](http://www.oscars.org)

The installation in the Academy's boardroom: twenty-two ME 34 condenser microphones on MZH 3042 goosenecks and two ME 36 mics with MZH 3015 goosenecks



© AMPAS

Sound Partners

SEC sponsors equipment for the Experience Music Project

When the gates of the unique Experience Music Project opened for the first time in 2000, music fans were thrilled to discover a completely new type of museum. Visitors no longer found the usual collection of endless exhibits under glass but a fascinating display with a heavy emphasis on interactivity, allowing them to experience the history of popular music from its roots right up to its influence on today's music trends – and to do so with all their senses. They can hear musicians telling their stories, discover unique exhibits, try out different instruments and make music of their own.

For such a museum, of course, perfect audio technology is a must. The EMP team was all the more delighted, therefore, to have found a highly renowned sponsor: Sennheiser Electronic Corporation, Sennheiser's US-American subsidiary. "As a non-profit organization we're always looking for support of this kind," said Steven Sather, director of sponsorship. "Every dollar we save through donations like this means we're able to put more money back into educational programs and other needs of the museum." EMP's technology manager Brad Purkey is also very pleased. For him, the sponsorship agreement could not have come at a better time. "Some of the headphones we had were no longer living up to expectations and just were not up to snuff," said Purkey. "By going with Sennheiser headphones we now have very robust equipment that we're confident will last a long time and will only enhance the visitor's experience."



The EMP in Seattle: the unusual building by star architect Frank O. Gehry invites visitors to discover music in a new way

In addition to headphones like the professional model HD 280, which are deployed in the music kiosks and for the interactive exhibits, Sennheiser Electronic Corporation also donated microphones and wireless systems as part of their sponsorship agreement. The systems from the evolution wireless G2 500 series are used for live performances and discussions. Brad Purkey particularly values the sturdiness and durability of the products, which is understandable considering that half a million visitors a year pass through the museum. "With any equipment we use in the museum we have to look at issues like life-cycle and how much abuse it will take. With a lot of young kids coming through here it has to be robust and sturdy."

"We are thrilled to be part of expanding the capabilities of such a unique museum," said Stefanie Reichert, Vice-President Marketing at Sennheiser Electronic Corporation. "EMP shows the power and creativity of music. We are very pleased that our products will help hundreds of thousands of visitors to experience and enjoy music so intensely."

[\[www.emplive.org\]](http://www.emplive.org)

Academy of Motion Picture Arts and Sciences

"I'd like to thank the Academy..." – anyone who's ever watched an Oscars broadcast has heard the phrase as part of virtually every winner's acceptance speech. This is a reference to the Academy of Motion Picture Arts and Sciences, an honorary organization set up in 1927. Alongside its most important activity – the annual Oscars presentation – its agenda ranges from awarding of grants, the promotion of collaboration within the film industry, research in film technology and equipment, to educational work. With more than 6000 members, the Academy represents the viewpoint of motion picture professionals throughout the world.



Sennheiser at the 2005 Asian-African Summit

In 1945, and for the very first time, delegations from 29 Asian and African states came together in the Indonesian city of Bandung to discuss diplomatic relations and the two continents' shared interests. On the agenda were not only economic and cultural issues, but also the need to safeguard human rights and preserve a lasting peace. The spirit and the aims of the conference later went down in history as "the Bandung Spirit". Under the banner of "Reinvigorating the Bandung Spirit", the Asian-African Summit took place in Jakarta this April. The 106 participating Asian and African countries renewed their partnership and developed strategies for creating peace, prosperity and progress on both continents. The three-day convention relied on Sennheiser technology. Seven hundred and fifty HDI 1029 stethoset multi-channel receivers were used, along with twenty SDC 8000 ID interpreting consoles. A hundred and twenty SDC 3000 DC conference terminals relayed the sound through built-in loudspeakers, ensuring that the oral contributions and presentations came across loud and clear – with optimal fidelity and volume – throughout the conference hall.

[\[www.asianaficansummit2005.org\]](http://www.asianaficansummit2005.org)



Crossmountain Nights



On learning that 2005/2006 has been designated the "Year of Germany" in Japan, your thoughts may initially turn to the likes of Goethe, Schiller and Beethoven. However, there are also more recent cultural exports...

As part of Japan's "Year of Germany", Sennheiser and its Japanese partner General Traders sponsored the DJ club tour "Crossmountain Nights" in January and then again in May. This event has, among devotees of Japan's flourishing techno and house scene, attained absolute cult status. The first event was held at the venue regarded as the home of the Crossmountain Nights – Tokyo's second-largest disco, WOMB. DJs Dr. Shingo, Beroshima and Thorsten Feld manned the decks, ably assisted by Sennheiser's HD 25 headphones. One flight up was the Sennheiser Lounge, which General Traders created by transforming the entire first floor into a perfect chill-out zone. The entire event was such a great success that Sennheiser and General Traders have pledged their support for all the future Crossmountain Nights. The concept of the Sennheiser Lounge is to become an integral part of the club scene in Tokyo and Osaka.

[\[www.crossmountain.net\]](http://www.crossmountain.net)

Crossmountain Nights' DJs relied on the HD 25

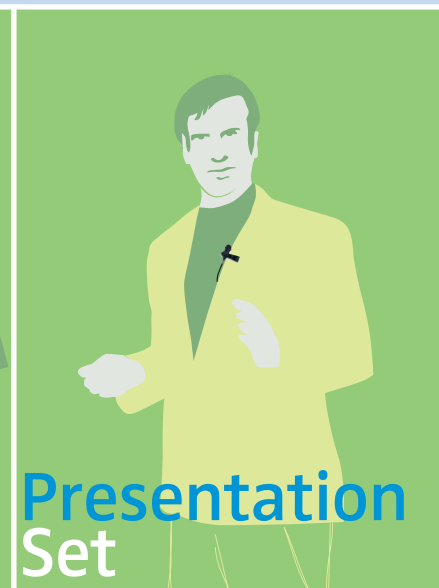
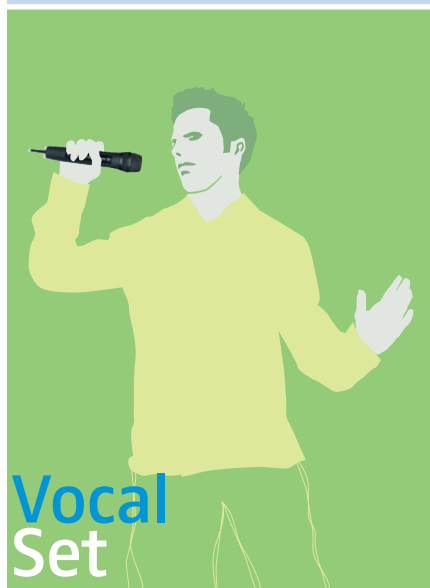
High-Quality, Entry-Level Wireless Systems

freePORT™

Perfect sound through RF wireless technology used to be a privilege reserved for the pros. Now the FreePORT system provides the right sound anytime, anywhere: for a garage band gig, a small-scale theater production, a company presentation...

The three system options, "Vocal", "Instrument", and "Presentation" offer users outstanding workmanship at a very competitive price. All models boast features that ensure maximum reliability of transmission and great flexibility: a Diversity receiver housed in a robust metal casing, an adjustable squelch giving protection against interference, and four switchable frequencies that can be operated at the same time. The system is exempt from licensing and fees in many European countries. The sets also have terrific staying power: with a 9-volt battery they – and you – can keep going for more than ten hours.

The "Vocal" set comprises a handheld transmitter with dynamic capsule and a receiver. The "Instrument" set consists of a bodypack transmitter with jack cable and receiver, and is ideal for electric guitars and all other instruments with a jack output. The "Presentation" set includes a bodypack transmitter, a clip-on mic with omni-directional pick-up pattern, and a receiver.



The PXC Family

Following the resounding success of the PXC 250 NoiseGard headphones, the new models PXC 150 NoiseGard and PXC 300 NoiseGard Advance now make up a complete PXC family. Whether you are on a plane, a train or a bus, the PXCs guarantee relaxed traveling and listening pleasure even in noisy environments. While the NoiseGard active noise cancellation system filters out low-frequency noise (attenuation by up to 15 dB), the closed ear cups protect against higher-frequency noise components. With the launch of the PXC 300 NoiseGard Advance, Sennheiser has succeeded in further improving their active noise cancellation system. It is now much less susceptible to interference from such sources as mobile phones.

As befits genuine traveling headphones, the two new models are also very easy to store and transport. The PXC 150, the entry-level model in the PXC series, has foldable ear cups, allowing the headphones to be folded flat for easy storage in a pocket or suitcase. Like the PXC 250, the new PXC 300 can be completely folded together and stored in a handy transport case. All headphones offer transparent, low-distortion audio reproduction with powerful bass, ensuring perfect entertainment when you are on the move, no matter whether you are using a portable player or the adapter (included) for in-flight entertainment systems.



The Ultimate Upgrade: White Sennheiser Streetwear Headphones

The functional, multi-award-winning design of the PX product family has made design history. With its new models – “PX 100 White”, “PX 200 White” and “PXC 250 White” – Sennheiser is once again setting the trends in style: a trendy white finish and convenient transport cases turn them into classy accessories and perfect upgrades for MP3 players and the like. The new “PX White” series will also impress you with its natural tonal quality: neodymium magnets, duofol diaphragms and TWIN damping systems make for a rich, expressive sound.

Neck-Worn Headphones in a New Design

Listening to music is not only fun, it can also improve your looks! In launching the PMX 100 and PMX 200, Sennheiser has introduced two new headphones with eye-catching design and excellent sound quality – no well-dressed music fan can afford to be without them!

The PMX 100 has a striking carbon look and the PMX 200 will turn heads with its stylish aqua blue finish. A lightweight, metal-reinforced neckband ensures a perfect fit, the wide ear cups make for comfortable listening and its feather-light design (weight: only 60 g) guarantees wearing comfort the whole day long. The technical features: Duofol diaphragms, TWIN damping systems, neodymium magnets and a maximum sound pressure level of 114 and



115 dB provide a rich and expressive sound. Whereas the PMX 100 shines with its natural, transparent sound reproduction, the closed-design 200 delivers a markedly enhanced bass performance and good protection from outside noises.

The PMX 100 and PMX 200 headphones are the perfect complement to your MP3, CD, MD or DVD player or your mobile games console – making them the ideal companion for all fashion-conscious music fans when out and about.



New HD Headphones Professional Sound for Everyone

Discover whole new worlds of sound with the latest HD headphones. Professional sound for your MP3 player, for gaming or for DJing – at affordable prices and in cool designs.

Once a DJ has found their own personal favorite headphones, they will never again hit the decks without them. As a constant companion at parties, such headphones have to be extremely tough. With the HD 205, Sennheiser has created the perfect set for those on the move. They give high-power output, depth in the bass region, excellent passive sound damping and stay in place perfectly, so that sound reaches the ear optimally despite high-volume ambient noise. The rotatable ear cups facilitate the important job of pre-listening to the beat. With its lightweight yet robust design, these 'phones can withstand the stresses and strains of a long party night. The HD 205 has a 3.5 mm jack connector and a gold-plated 1/4" screw-on adapter, as well as a single-sided cable. A protective pouch for transport and storage is included.

The HD 415 and HD 435 models offer not only excellent sound but also a captivatingly cool design. Their improved wearing comfort allows hours of unbroken listening pleasure, and their robust design makes them the ideal companion for a mobile lifestyle. The HD 415 has a cable rewind feature for individually adjusting the cord length, a 3.5 mm jack connector, a gold-plated 1/4" screw-on adapter and a single-sided cable. The HD 435 model comes with volume control, a detachable, single-sided cable and a comfortable carrying bag.

New Aviation Headsets

Eight new Sennheiser headsets guarantee superb speech intelligibility and much improved audio reproduction in noisy cockpits. A new filter technology ensures that the new models not only offer clearer audio reproduction in the 1–5 kHz frequency range, which is particularly relevant for communication, they also provide outstanding sound quality for music. "We have responded to the needs of non-commercial pilots who like to listen to music during long flights," said Jörg Buchberger, Product Manager Aviation and Automotive. "What is more, the NoiseGard™ active noise cancellation system and the passive attenuation of the headsets reduce background noise by up to 40 dB." For propeller and turbo-prop aircraft, the HMEC 350, HMEC 352, HMEC 355 (-C) and HMEC 356 headsets as well as the top-of-the-range HMEC 450 model are available, while the HMEC 372 and HMDC 372 are the ideal choice for helicopters.

To guarantee optimum speech transmission, all headsets are equipped with a noise-compensating condenser microphone (HMDC 372: dynamic microphone), which can be worn on either side of the head. Alongside the dark blue headsets of the 350 series and the two 372 models, also in dark blue, the top-of-the-range HMEC 450 is particularly attractive with its silver finish. Extra soft ear pads provide even more wearing comfort and the headband is even more generously padded. The headset comes with a ten-year guarantee, while the 300 series models are guaranteed for five years. All headsets – with the exception of the HMDC 372 with a dynamic microphone – comply with JTSO C57a/C58a.

Connector versions:

- HMEC 350** Headphones: 1/4" stereo jack plug, microphone: PJ-068, NoiseGard: XLR-3
- HMEC 352** Headphones: 1/4" stereo jack plug, microphone and NoiseGard: PJ-068
- HMEC 355** Headphones, microphone and NoiseGard: XLR-5

- HMEC 355-C** Headphones and microphone: XLR-5, NoiseGard: XLR-3
- HMEC 356** Headphones, microphone and NoiseGard: Redel
- HMEC 372/HMDC 372** Headphones, microphone and NoiseGard: U-174/U
- HMEC 450** Headphones: 1/4" stereo jack plug, microphone: PJ-068, NoiseGard: XLR-3



HMEC 450

Keane

Keane's success in short: Top positions for their debut album "Hopes and Fears", winning best Breakthrough Act and Best British Album at the Brit Awards, Best Live Newcomer at the UK Festival Awards, Songwriters of the Year at the Ivor Novello Awards, participating in the London Live 8 gig. It's been a pretty busy year for Keane's Tim Rice-Oxley (piano/songwriting) and Richard Hughes (drums).



© gettyimages/Digital Pyrotechnics

Soundings: If you'd have to sum up what your current album "Hopes and Fears" is all about, what would you say?

Tim Rice-Oxley: I think the underlying principle of the album is about communication and being honest. We've tried not to make it one of these gloomy indie albums which are very ponderous and shoe gazing. Even the songs that are sad, which are quite a lot of them, we've tried to be uplifting and get a positive feeling going. I hope that people feel that they are entering a world that's a sort of an adventure of emotions, that they feel sympathy in the songs and feelings that they recognize. Soundwise, we really set out not to make the album into a big production and to overcomplicate everything. We tried to capture the sound that we get live. It's just us on stage, it's the drums and the piano banging away and Tom's voice is so big. The tunes are quite big as well. We didn't find that we needed to fill up the space with clever tricks.

Soundings: I heard that "Somewhere only we know" was inspired by your hometown, Battle...?

Rice-Oxley: Yeah, it kind of is in a way, but it's not so much about a physical place. I was hoping that for everyone who hears it, they'll think of a different place, a person, a time in their lives, an experience or feeling. It's just about when you wish things were different from what they are, about taking comfort in something else I suppose, something that's in your head. Or maybe going to a particular place, sitting under a tree or going for a walk – somewhere that really means something to you.

Soundings: So apart from that, what inspires you to write the lyrics? Actually, who is writing the lyrics, is that you?

Rice-Oxley: Yeah, that's me I'm afraid. Well, like I say, we are very much about being honest. We're all quite emotional people and I guess everyone is. Whether they show it or not. Everyone has feelings and passions, ups and downs. I think basically all the songs we write are about trying to say something that we really feel. They are not kind of artificial, clever stories...

Soundings: Most of your songs are quite open for people to relate to, aren't they...

Rice-Oxley: Yeah, they are like conversations. My ultimate dream would be to feel that we were saying something through our music and that people have this feeling of identifying with it and wanting to respond to it. The great thing about doing gigs is that sometimes there is this great sense of unity, of everyone in the room saying "Yeah, we all feel that!"

Soundings: You've been categorized for being an indie band, but you don't have any guitars...

Rice-Oxley: It's a funny business. Most bands these days do have guitars unless they are like a real pop act like Kylie. We still do think of ourselves as being very much



Richard Hughes, Tom Chaplin and Tim Rice-Oxley (l/r)
on tour with "Hopes and Fears"

from that indie tradition. All the bands that we've grown up listening to are guitar bands. The only reason we don't have a guitar is that none of us plays the guitar very well. I play the piano and that's what I'm reasonably good at and that's what I enjoy doing. We just substitute the piano for the guitar. As far as we are concerned we are just like any other band apart from that tiny little aspect (*laughs*).

Richard Hughes: The piano is a wonderfully dynamic instrument and the way Tim plays it is almost a guitar style of playing. I think Tim's piano playing is probably more influenced by Johnny Marr than by Ben Folds. It's strange that in the world of rock'n'roll where there are supposed to be no rules everyone thinks that there is a rule that everyone has to have a guitar! The whole point of it is that there are no rules.

Soundings: *Do you reckon you will follow that path or try something completely different?*

Hughes: We'll definitely be experimenting on the next album, there's so much you can do with pianos and keyboards that hasn't been done, which I think is something you can't really say about the guitar. I think that 99% of the sounds that a guitar will ever make have been made now.

Soundings: *So who influences you?*

Rice-Oxley: I guess we've picked up a lot of different influences along the way. We've been friends for a long time, we've been playing for a long time. You go through these phases of liking bands. I remember getting into the Pet Shop Boys, which was the first band I really got into. And then The Beatles and U2. I like lots of really songwriting people like Paul Simon and Carole King, Nick Drake. And as Richard mentioned earlier, The Smiths are a band we really love.

Soundings: *What do you hope will the future hold for Keane?*

Hughes: We'd like to make a record that people cherish and keep in their record collection for a long time. That's the ultimate aim, to make a record that people really connect with and love. You have to believe that what you are doing can still be very important and can change peoples day to day lives or the way they see the world. It's a big thing trying to achieve, but you got to aim high.

[\[www.keanemusic.com\]](http://www.keanemusic.com)

As Sennheiser endorses Keane rely on e 935 vocal microphones, e 604, e 614 and e 609 instrument mics and ew 300 G2 personal monitoring systems.

Here to Stay!

2003 was a good year for the German indie pop scene. While politicians discussed setting a proportion of airtime solely for German-language pop music, and TV talent shows kept mass-producing one-hit wonders, the German underground scene kept on creating catchy tunes and intelligent German lyrics. Well established acts such as Blumfeld, Die Sterne and Tocotronic were joined by newcomers Wir sind Helden ("We Are Heroes"), who quickly headed for the top of the charts.

With their debut single "Guten Tag", front woman Judith Holofernes and her band enjoyed their first commercial success – without the financial clout of a major label behind them. They initially released the song themselves, which was accompanied by a witty animated music video. MTV was enthusiastic and the response from the press was truly rapturous: "Wir sind Helden" stormed the charts with their rock-tinged indie pop, drawing from the influential "Neue Deutsche Welle" sound of the early 1980s and their witty German lyrics. Here was a band that appealed to the whole spectrum of music fans, from mainstream to independent. With sell-out tours the "Helden" quickly outgrew their "indie cult band" status and became the media darlings of 2003. Awards followed, including three German Echo Awards: German Breakthrough Act, Breakthrough Act on German Radio, Best Breakthrough Video.

The debut album "Die Reklamation" ("The Complaint") has sold more than 500,000 copies to date and its follow-up has created enormous pressure for a

young band. Here's guitarist and keyboard player Jean-Michel Tourette on the pressure of expectation and the new record: "Musically we were a lot more confident. We were totally in tune with each other about what we wanted to do. Of course we felt the pressure, a kind of "second-record-syndrome", when we thought about it. But we felt that all we had to do is keep following the musical path that we've marked out for us."

The long-awaited follow-up album, "Von hier an blind" ("Blindfolded") was released in spring 2005. While most of the lyrics on their debut album were tackling social issues, the new work deals far more with the realm of emotions. Also for the first time, the other band members contributed songs to the album. Holofernes says: "To be honest, I've had more fun with the songwriting than ever before! While I wrote the lyrics, the others provided me with their fab tunes. The whole creative process became quite playful. I just got carried away, from song to song." As one of the band's singles states, the underlying principle of the album and their success seems to be that the band is "Here to Stay". The second album entered the charts, while Wir sind Helden played another sell-out German tour and made numerous acclaimed festival appearances.

[\[www.wirsindhelden.com\]](http://www.wirsindhelden.com)

„Wir sind Helden“ vocalist Judith Holofernes

On their current tour Wir sind Helden used the e 935 for the lead and backing vocals, and the e 602, e 604, MKH 40, e 609, and the MKH 416 for instruments. For monitoring purposes, Wir sind Helden opted for ew 300 IEM systems.

Discography

Albums: Die Reklamation ("The Complaint") (2003), Von hier an blind ("Blindfolded") (2005)
Singles: Guten Tag ("Hello") (2003), Wir müssen nur wollen ("It's Only a Question of Wanting") (2003), Aurélie (2003), Denkmal ("Memorial") (2004), Gekommen um zu bleiben ("Here to Stay") (2005), Nur ein Wort ("Just a Word") (2005)



Elisa: "Music for the Soul"

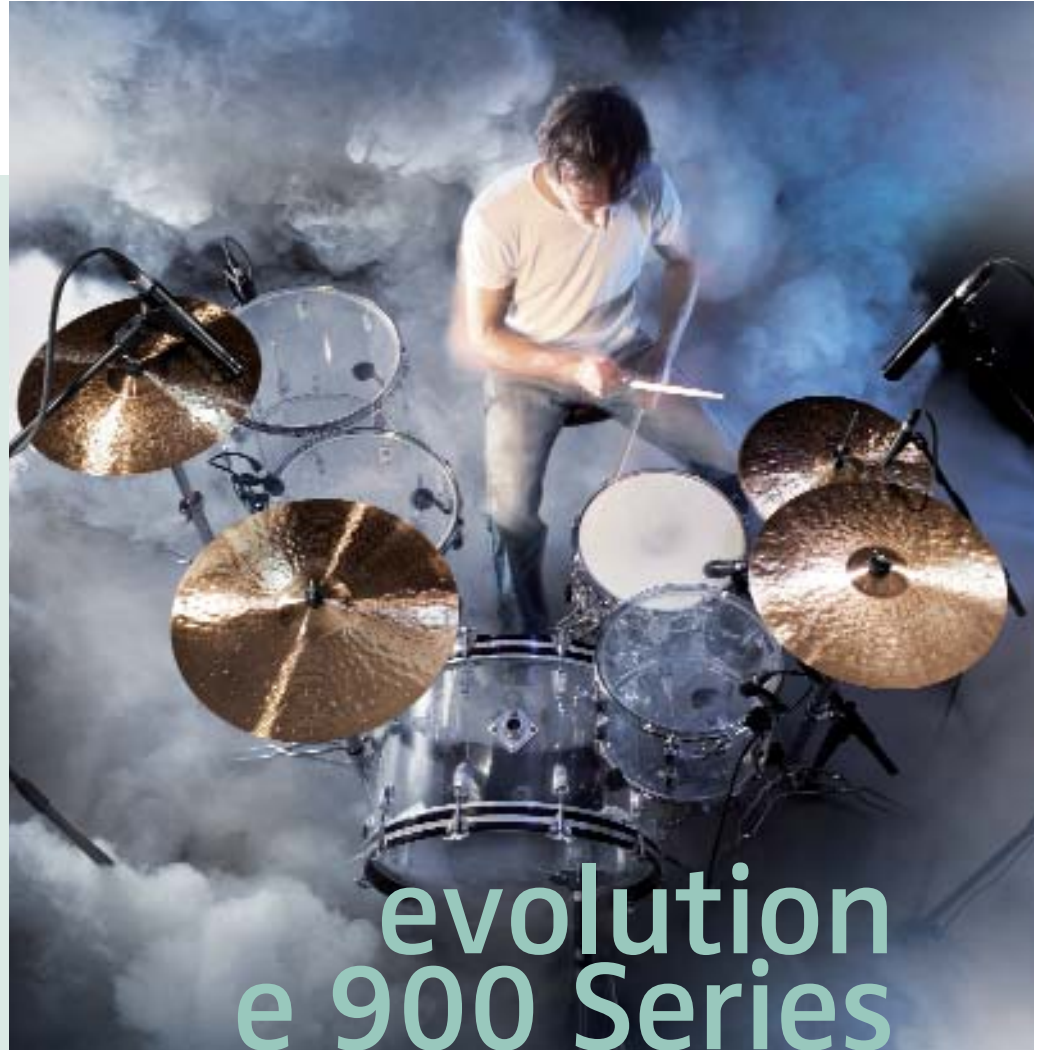
Her music has already earned her multiple platinum discs and in her home country of Italy the 24-year-old singer has long been a superstar. Now, Elisa is on tour with "Pearl Days", her latest album. The varied compilation is an accomplished mix of new and well-known songs, each uniquely beautiful, just like a pearl. It's no surprise then that Pearl Days spent 10 weeks in the top 10 and another 15 in the top 20.

The talented singer has also become well-known in other European countries. "Anyone who has experienced her music will never forget it," wrote one German fan on the Internet. And another said, "Elisa makes music for the soul". This is an apt description of her sophisticated pop music, which really gets under your skin. Poetic lyrics about love, relationships, hope, sadness and friendship are characteristic of Pearl Days. Elisa writes most of her lyrics herself and sings only in English, which is unusual for an Italian artist.

Elisa combines her expressive lyrics with a breathtakingly powerful voice and great versatility. Sometimes she sounds fragile and melancholy and at other times she has a dynamic, hard-rock style. It's this style that made her the winner at the summer festival in San Remo in 2002. Her appearances on Eros Ramazzotti's world tour gained her even greater recognition. And now the singer from Friuli is filling stadiums instead of theaters on her current tour, which lasts until October.

To produce the best sound, you need the best equipment. Elisa herself uses the evolution wireless SKM 935 G2, because it gives her voice enough space even in difficult acoustic conditions. Her backing singers use the wired evolution e 935. All of the monitoring systems come from the evolution wireless range. The band chose instrument microphones from the evolution 900 range because they produce natural, full sound from drums, bass or lead guitar. After all, it's important that the "music for the soul" reaches the ears of the listeners.

[\[www.elisaweb.net\]](http://www.elisaweb.net)



Tips for Miking Instruments (II)

e 901





The frequency response of the e 901 ("half" cardioid pick-up pattern) is tailored especially for miking kick drums. The condenser boundary microphone is extremely rugged and has a dry and clearly defined low-bass response.

Kick Drum

Positioning the microphone

Resulting sound

Commentary

	<p>Much resonance, much attack.</p> <p>Less attack: Turn the microphone away from where the beater strikes.</p>	<p>Position the microphone at the bottom of the kick drum, approx. 10–20 cm from the batter head.</p>
	<p>The 901 is used for picking up the attack, the 902 for picking up the fundamental.</p>	<p>Combined with an e 902 positioned at the resonant head. The lower microphone must be phase-reversed to avoid phase cancellation effects due to the second microphone being on the other side of the drumskin.</p>

In order to prevent interference due to crosstalk between adjacent sound sources, try to position the microphone in such a way that the interfering sound source is located in the angle area of the highest cancellation of the microphone (approx. 180°).

e 908



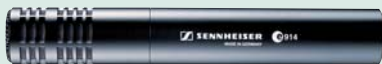
The four versions of this exceptionally vivid, cardioid condenser microphone guarantee optimum miking solutions. The e 908 D has been specially developed for drums and percussion. The e 908 B is designed for wind instruments, but its instrument clamp also makes it particularly suitable for drums with suspension systems or congas. The e 908 B ew has been specially designed for the wireless miking of saxophones, and is used in combination with an evolution wireless bodypack transmitter. The same applies to the e 908 T ew, which is the ideal solution for miking trumpets, flugelhorns and trombones.

Wind Instruments and Drums/Percussion

Positioning the microphone	Resulting sound	Commentary
	Reduced ambient noise	Use the MZH 908 B clamp to attach the microphone to the bell of the instrument. To reduce ambient noise (at the expense of the true "saxophone sound") direct the microphone into the bell (as illustrated).
	Clear, powerful sound	
	Balanced, natural sound	For a saxophone, the microphone should normally be directed partly towards the bell and partly towards the body of the instrument.
	More fundamental, little overtones	Position on the drum: 3–5 cm above the drumskin, directed towards the center of the drumskin, the fundamental to overtones ratio can be adjusted by changing the angle of the microphone. The most balanced results are obtained at an angle of 30–60°.
	Less fundamental, many overtones	
	Pronounced proximity effect	

In order to prevent interference due to crosstalk between adjacent sound sources, try to position the microphone in such a way that the interfering sound source is located in the angle area of the highest cancellation of the microphone (approx. 180°).

e 914



This compact condenser microphone is the optimum choice for demanding applications that require a wide frequency response, a fast transient response and a high sound pressure level. The cardioid microphone with its outstandingly vivid and clear sound is designed primarily for miking cymbals and hi-hat and for use as an overhead microphone for drum sets, but it is just as ideally suited for percussion, woodwind and string instruments as well as for high-quality home recording. The e 914 has a three-position sensitivity switch and a bass filter switch.

Drumkit

Positioning the microphone	Resulting sound	Commentary
	Natural, clear sound	Positioning the microphone a few centimeters above the outer edge of the hi-hat aiming down gives a natural, clear sound. If necessary, remove unwanted low frequency signal portions by high pass filtering. Attention: When closing the hi-hat, a strong air current is created on the edge. If the microphone is positioned too close to the edge, interfering noise due to the air current can occur.
	Clear stereo reproduction	Good starting position for live miking applications. If the overhead microphones are only used for picking up the cymbals, unwanted signal portions can be attenuated by high pass filtering.

In order to prevent interference due to crosstalk between adjacent sound sources, try to position the microphone in such a way that the interfering sound source is located in the angle area of the highest cancellation of the microphone (approx. 180°).

A Passion for Sound

Have you ever wondered what separates the good from the excellent? At Sennheiser we believe the answer is passion. And maybe this passion is the reason why you experience really great sound whenever there is a Sennheiser product involved. You may be enjoying an electrifying live performance by your favorite band, the transparent sound of your wireless headphones, or the authentic atmosphere from a TV broadcast powered by Sennheiser. People who are passionate about sound, like musicians and sound engineers, rely on Sennheiser microphones and headphones for business, entertainment, health, faith, and industrial applications. Are you passionate? Join us at www.sennheiser.com



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