



Hamburg Centre for Healthcare

HAMBURG – CENTRE FOR HEALTHCARE

هامبورغ مركز الإهتمام بالصحة



WORDS OF WELCOME

تحية من هامبورغ



Contents

- 4** Welcome to Hamburg
- 6** Hamburg – Centre for Healthcare
- 8** Hospitals in the metropolis of Hamburg
- 12** Medical specialists in practice
- 14** Specialized devices for specific indications
- 16** Hamburg's medical device industries
- 18** Network of success
- 20** Times of leisure: A day in nature
- 21** A day of rain
- 22** A day by the water
- 23** A day of sports
- 24** Recreation and high quality of life

Hamburg has a vision: „The Metropolis of Hamburg– A Growing City“. This vision is firmly focused on future-proof branches of industry, including aviation, the city's port, nanotechnology, and the area of life sciences. More than 200 businesses have already established themselves in this „cluster“ in Hamburg, and some 70,000 people are employed by the life sciences / health care economy sector. In Hamburg, we boast highly specialized hospitals, centres of research of major and in some cases supra-regional importance, and innovative enterprises.

These are all good reasons for Hamburg to take steps to ensure that its qualities become better known at an international level. The Arab Health 2005 offers the perfect opportunity to do this: close to 30,000 visitors, i.e. around 20 percent more than last year, are expected to come to this medical trade fair – the world's second largest. The number of Hamburg firms which will be on show in Dubai has likewise risen dramatically – from 11 last year to 20 this year.

Hamburg, however, is by no means solely focused on its own city limits: to promote the life sciences sector, we have founded, in cooperation with our neighbouring state of Schleswig-Holstein, a North German life sciences agency called Norgenta. Our close cooperation will also be in clear evidence at the Arab Health: the exhibition stand shared by the North German states of Hamburg, Schleswig-Holstein and Mecklenburg-West Pomerania and the businesses from this region covers a floor area of 500 square metres, and is the largest of the entire fair.

I would like to take this opportunity to wish the exhibitors and visitors to the Arab Health 2005 successful business, interesting contacts and stimulating discussions. Take the time to find out about Hamburg's qualities in the area of health care for yourself, and hopefully you will be persuaded to pay a visit to our city sometime in the near future.



Ole von Beust
President of the Senate and First Mayor
of the Free and Hanseatic City of Hamburg



The health care sector is one of the world's most dynamic growth markets. In Germany, health care has traditionally been viewed more from an existential angle and seen less as a branch of industry. However, people are increasingly recognizing the significance of this industry for growth and employment, and investments and structural reforms are being undertaken in many places with the aim of driving forward the health care sector.

Hamburg offers the perfect conditions for leading the field in the global competition for locations for industry: in Hamburg, scientific research, industrial development and production, and the application of results in medical care, are concentrated in a small area, giving rise to a degree of inter-connection and interaction which is rarely to be found elsewhere. 11 universities and other institutes of higher education, 26 different research institutes, leading manufacturers of medical devices and instruments, globally renowned biotech companies, the pharmaceutical industry and, last but not least, our more than 40 hospitals, are the pillars of Hamburg's health care economy. The synergetic effects which are generated by this density produce world-class international achievements in the areas of medical research, medical technology and methods of medical treatment.

Hamburg has set itself the task of further intensifying and fostering the exchange between centres of learning, research and application, with a view to securing its long-term international competitiveness. This results in an attractive platform both for the upcoming generation of home-grown specialists, and for highly skilled international professionals. Hamburg is proud of its tradition of being a meeting place for the nations, and the cosmopolitan attitude of Hamburg and its citizens is legendary. For centuries, our port has been one of the most important hubs for global trade. Close to 100 of the world's countries are represented by consulates in Hamburg, and there is a network of international associations which are firmly established in the Hanseatic city. Time and time again, this international feel gives our city new impulses from which Hamburg profits as a centre for both industry and health care, and which help secure Hamburg's long-term success.

Senator Gunnar Uldall
President of the State Ministry for Economic and Labour Affairs
of the Free and Hanseatic City of Hamburg



Within the world of German medicine, Hamburg occupies a leading position as a centre for health care. This is true of patient care, medical products, medical technology, consultancy and services, and indeed the entire spectrum of life sciences, including the wellness sector. The Senate of the Free and Hanseatic City of Hamburg has set itself the task of creating the optimum framework conditions for hospitals and other medical institutions, for manufacturers of medical technology, and for research centres. Hamburg intends to build upon its status as a centre for health care and become even more attractive.

Hamburg would like to give the countries of the Arab world, more and more of which are striking up good relations with Hamburg, better access to the health care services on offer in our city: this will be achieved by getting to know each other better, making new and intensifying existing contacts, and working even more closely together. This applies not only to patients who come to Hamburg's hospitals for treatment, but also to hospitals and patients in Arab countries wishing to take advantage of the skills and expertise of Hamburg's doctors, consultants and manufacturers. And last but not least, this applies to special Hamburg hospitals which welcome doctors and medical personnel seeking to acquire professional qualifications.

This brochure is intended to provide visitors to the ARAB HEALTH 2005 with an additional source of reference, containing detailed information about the services and possibilities currently on offer from Hamburg as a centre for health care. Incidentally, the brochure also includes information about hotels, shopping in Hamburg, and the city's unequalled range of cultural and recreational activities.

The Hamburg Senate and the exhibitors and sponsors of the ARAB HEALTH 2005 wish you the very best of health wherever you may be! Hamburg's contribution to maintaining this level of health could not be of higher quality, and is at your disposal in a range of forms, as are the services and possibilities on offer in our neighbouring regions.

Senator Jörg Dräger, Ph.D.
President of the State Ministry for Science and Health
of the Free and Hanseatic City of Hamburg



WELCOME TO HAMBURG

أهلا و سهلا بكم في هامبورغ

We would like to give you a warm welcome to the Free and Hanseatic City of Hamburg, one of Europe's most beautiful cities! With its port of international renown, its „gateway to the world“, Hamburg has always been a meeting point for people from all over the globe. A centuries-old tradition of trade has given this cosmopolitan city on the Elbe river its unmistakable international flair, which these days attracts more than 70 million visitors every year. They come to Hamburg to stroll and shop, or simply to finally see the city for themselves.

Hamburg – a city by the water

Water is Hamburg's special appeal. The Elbe river is the main economic artery, and it is the port in the heart of the city which gives Hamburg its unique maritime charm. The Alster, a lake in the centre of the city surrounded by parks and elegant townhouses, provides the people of Hamburg and their guests with space to walk, jog, cycle, sail and row, or simply relax on the grass by the side of the lake. Hamburg's citizens also love their parks, like the „Planten un Blomen“ park with its famous Japanese garden and water features in summer, or the Jenischpark offering a fantastic view of the port and Elbe river.

Hamburg – a cultural experience

Hamburg's cultural life offers variety on a world class scale, from John Neumeier's ballet, three state theatres and three dozen privately run theatres, to the Hamburg State Opera, which is over three hundred years old and one of the world's leading opera houses. Three well-known orchestras, all at home in Hamburg, provide top-class classical concerts, while famous orchestras and international stars from the world of rock and pop perform in the Musikhalle and Color Line Arena. Hamburg has also made

a name for itself as a leading European venue for musicals, coming second only to London: whether you want to see „The Lion King“, „Mamma Mia“ or „Dance of the Vampires“ – four major musical theatres offer fast-paced entertainment, perfect choreography and moving stories. Hamburg boasts around 80 museums and collections, as well as some 160 art galleries – many of which, like the Hamburg Kunsthalle and the newly built Bucerius Art Forum, enjoy international renown.

Shopping in Hamburg – a day to remember

Thanks to its historic trading links, Hamburg has become a Mecca for „shopaholics“ from all over the world. The city centre is dotted with all manner of shopping arcades, housing an irresistible mix of exclusive boutiques, antique shops, jewellers, furniture stores and delicatessens.

Above all when it comes to fashion, Hamburg is in good company with Paris, London and Milan: all around the centre you will find the boutiques and emporia of the international designers, as well as the world's leading prêt-à-porter brands.



Fine cuisine and international dining

The best advertisement for any big city is its wide-ranging and excellent cuisine. The „gateway to the world“ is by nature a meeting place for top-class international gastronomy, and Hamburg is regarded as the most important stronghold of haute-cuisine in Germany. The city offers a full spectrum of international wining and dining: in all, visitors can choose from more than 4,000 restaurants and over 80 different nationalities. In its high-class restaurants, chefs of international repute delight their guests with their creative cuisine, and Hamburg enjoys a reputation as the most important gourmet city in Europe after Paris. At the same time, the city values its traditional eateries, and typical regional dishes can be enjoyed in the high-quality and venerable harbour restaurants and the old ferryman’s houses.

Sporting ambitions

Sport is an extremely popular pastime in Hamburg, especially hockey, polo and golf. Numerous golf courses can be found in spacious and beautifully situated clubs in and around the city, where international pros enjoy the special atmosphere just as much as celebrities and leading figures from the fields of politics,

economics and culture. Equestrian sport is likewise an important feature of Hamburg life. With up to 110 race fixtures offering attractive prizes held every year at the Hamburg Volkspark trotting course alone, the highpoint of the season is the „Hamburg Grand Prix“, which brings together prominent drivers and their elegant horses. In the Horn district of Hamburg, the annual derby meeting is the absolute highlight of gallop racing in Germany, and in Hamburg’s smart Flottbek district, the city’s high society come together in the summer months to attend the international „Jumping and Dressage Derby“.



Or visit Hamburg at www.hamburg.de



HAMBURG – CENTRE FOR HEALTHCARE

هامبورغ مركز الإهتمام بالصحة

People from all over the world come to Hamburg, the „green“ city on the Alster lake and Elbe river, in search of advice and help, diagnosis and treatment – in short, to find a cure for whatever ails them. The Hamburg Senate continually invests in the medical sector to ensure that it can continue to stand up to international competition and thus make Hamburg an attractive place for even more people from around the world to come and recuperate or recover to full health. Health care in Hamburg is one of the city's biggest growth industries, and serves as an engine for research and development, while at the same time employing a large number of people in the greater Hamburg area. With its dense network of health care service providers, Hamburg leads the field in terms of performance, quality and costs, and need not fear comparison with other European centres of health care.

Setting the standard for world-class medicine

Hamburg as a centre for healthcare offers people from Germany and abroad the best possible medical care, helping sick people to recover quickly and in as pleasant an environment as possible.

Hamburg, one of the major cities of Northern Germany and Europe, demands the highest possible quality of its medical services. This includes providing outstanding doctor and nursing care, with human commitment and the best service, as well as applying the very latest standards in pharmaceutical and medical technology, and utilizing the results of cutting edge medical research and development. Following treatment in the in- and outpatient centres of the city, patients und their families and friends can enjoy all the excellent opportunities Hamburg has to offer in the way of recovery, relaxation and entertainment.





High level specialist medical expertise

Hamburg's more than 40 hospitals, under public private management, serve as the foundation for the city as a healthcare metropolis and treat almost 400,000 inpatients alone every year. At the same time, a broad range of outpatient treatment is available, with virtually the entire spectrum of medical services at the highest level on offer in Hamburg's hospitals.

Roughly a quarter of the patients treated in Hamburg's hospitals come to the healthcare metropolis from all over Northern Germany and far beyond to take advantage of the services offered by the highly specialized departments available here. The Hamburg hospitals represent one of the city's largest employers, with six hospitals among the 50 largest businesses in Hamburg. A growing life sciences sector unites the competencies of the city's medical disciplines. Major biotech and medtech firms such as Philips Medical Systems, Olympus Medical, Evotec

Technologies and Eppendorf AG contribute to the interlinking of manufacturing industry, clinical research and application, giving important impetus to medical progress. The further development of biomedical and genetic engineering techniques, in conjunction with the new information and communication technologies, provides an opportunity for developing a diverse range of forward-looking applications in medicine and pharmaceuticals which evolve from the ideas stage to market maturity in Hamburg. The city boasts all the key factors for success in the life sciences sector: political will, availability of capital, central institutions, targeted integration and knowledge transfer. As such, Hamburg is growing to become an economic area in which innovative technologies are developed and applied for effective medical care of patients; this is fostered by the active and highly committed policies pursued by the Hamburg senate.

To remain competitive in international markets, the Free and Hanseatic City of Hamburg believes that it is important to foster up-and-coming young healthcare professionals and provide training for specialist medical personnel. The city's entire healthcare sector profits from the intensive interaction between teaching, research and practice, thus also offering high-ranking specialists from abroad an attractive platform of high-tech medicine and world-class technologies.





HOSPITALS IN THE METROPOLIS OF HAMBURG

Providing the highest standards of medical care

المستشفيات في مدينة هامبورغ

Healthcare in Hamburg – Around 40 hospitals form the backbone of the medical metropolis of Hamburg. Every year, some 400,000 people from all over North Germany and beyond receive high quality inpatient care here. Hamburg's hospitals provide almost the entire spectrum of medical services and enjoy an excellent reputation, both nationally and internationally. The Hamburg hospitals maintain contact with numerous international clinics. In addition, the Free and Hanseatic City of Hamburg has recently signed cooperation agreements with the Ministry of Health of the Sultanate of Oman (2001) and the Ministry of Public Health of the Republic of Tunisia (2002).



Cardiac surgery and cardiology

Cardiac surgery is performed over 3,500 times every year in the cardiac centres of the Hamburg hospitals. In cardiology, interventional treatment of all kinds of cardiac arrhythmias takes place, while restenosis is treated following the implantation of a stent in the coronary arteries. In paediatric cardiology and cardiac surgery, all types of congenital and acquired cardiac diseases in children and young people are treated according to the very latest international standards. In addition, complete arterial revascularization is performed whenever possible, as are beating heart procedures, avoiding the side effects of the heart lung machine. Aortic and mitral valve reconstruction is considered preferable to valve replacement.



Oncology

The interdisciplinary oncology departments for adults and children are highly specialized and employ the very latest medical procedures and surgical techniques. Stem cell and bone marrow transplants are performed here, as is individual chemotherapy, radiotherapy and nuclear medicine. Oncology day clinics and out-patient facilities provide the best possible treatment and post-treatment care.

Organ transplants

The City of Hamburg boasts one of the most renowned transplant centres in Europe, where kidney and liver transplants from living donors are performed for both adult and paediatric patients. Bone marrow transplants, likewise for adult and paediatric patients, are performed at the highest level.

Surgery

The hospitals in the city of Hamburg offer top-class specialized surgical units performing thoracic surgery, oesophageal surgery, liver surgery, pancreatic surgery und colorectal surgery at a very high level, and applying minimally invasive techniques.

Endoscopy

The use of microinvasive surgery and the very latest endoscopic procedures allows precisely targeted surgery which is gentle

on the patient. Examples include stopping gastrointestinal haemorrhaging, removing tumours and placing stents and prostheses. Endosonography permits staging of tumours of the digestive tract and the pancreas. Extracorporeal shock wave lithotripsy can be used to pulverize gallbladder, bile duct, intrahepatic and pancreatic stones in a virtually pain-free procedure.

Neurosurgery

Services provided in the field of neurosurgery include the treatment of centrally situated tumours, cerebrovascular diseases such as angiomas and aneurysms, and the treatment of brain tumours in children. Other areas of specialization, conducted in part within the framework of intra-regional cooperation, include surgery of the spinal column, spinal cord and peripheral nerves, functional stereotactic treatment of Parkinson's disease and the treatment of pituitary tumours. Almost all operations are performed by microsurgery, and laser and endoscopic procedures are also used. Brain surgery planning is aided by a computerized image-guided surgical system.



Oral and maxillofacial surgery

The highly specialized services available in oral and maxillofacial surgery include the use of implants to treat mandibular or maxillary atrophy, possibly following bone reconstruction, and the treatment of facial deformation, particularly cleft lip, jaw and palate.

Plastic and reconstructive surgery of the face is performed in close cooperation with all neighbouring disciplines.

Prenatal, perinatal and paediatric centres

In prenatal diagnostics and therapy, minimally invasive operations can be performed on babies still inside the womb. Optimum care for sick newborns and premature babies born as early as the 24th gestational week is provided, in direct proximity to their mothers, in the perinatal centres. The specialist paediatric departments treat the whole spectrum of diseases afflicting children and young people, including the most serious burn injuries.

Endoprosthetics

Precision surgery in the area of endoprosthetics is performed by specialized surgeons, with hip, knee, shoulder, elbow and ankle joints being replaced with artificial joints.

Other services include arthroscopies and cartilage transplants. Particular experience is available in the replacement of endoprosthesis and the difficult treatment of infected endoprosthesis.

Geriatrics and gerontopsychiatry

Centres for geriatrics and gerontopsychiatry, where science and practice are closely intermeshed, provide optimum care of multimorbid elderly patients. This includes, for example, the treatment of strokes and Parkinson's disease, disorders of the cardio-circulatory system, osteoporosis, and diseases of the motor system. Specialist care is also available for patients with memory disorders (dementia) and those diagnosed as physically and mentally ill.





HOSPITALS IN THE METROPOLIS OF HAMBURG

Providing the highest standards of medical care

المستشفيات في مدينة هامبورغ

Tropical medicine and infectiology

Imported and rare diseases pose special challenges in terms of diagnosis and effective treatment. In this field, patient care and diagnostics are closely intertwined with basic applied research of outstanding international reputation, e.g. in the development of molecular approaches for the rapid detection of pathogens. In 2003 the first publicly available SARS coronavirus test came from Hamburg. Several specialized outpatient centres successfully treat long-term and chronic infections such as HIV/AIDS and hepatitis, applying a concept of integrated medical care involving regular counselling and treatment.

In addition:

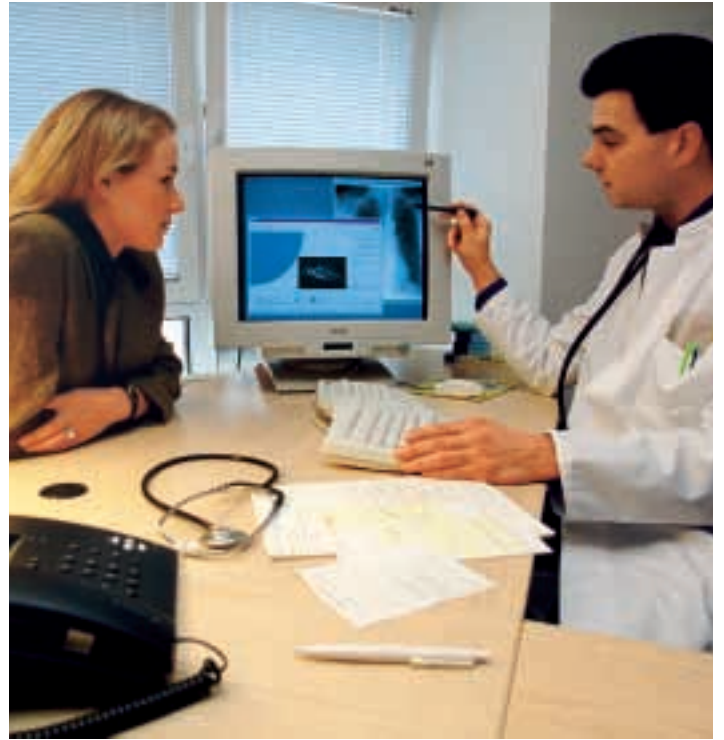
- Special procedures for the treatment of epilepsy
- Diagnosis and treatment of all forms of acute and chronic rheumatological diseases
- Special treatment of diabetes
- Centre for the treatment of paraplegics
- Centre for burn injuries

The high quality of the medical care provided in the hospitals is guaranteed by fully qualified doctors and skilled nursing staff.

Quality assurance

As far as quality assurance is concerned, Hamburg has always been and remains a pioneering force in Germany. Since 1991, the Hamburg Hospital Association, HKG (Hamburgische Krankenhausgesellschaft) together with health insurance providers and the Hamburg Medical Council (Hamburger Ärztekammer), have pursued external quality assurance in almost all areas of medical specialization.

Hamburg hospitals provide top-class medicine and the very best inpatient care at fair and reasonable prices. The costs of medical treatment are transparent and are also subject to legal regulations for patients from abroad.



MEDICAL SPECIALISTS IN PRACTICE

أخصائيين في العيادات الخاصة

Nowadays, patients expect the very latest and best medical techniques available to be employed in their diagnosis and treatment. In addition, their personal choice of doctor - for professional, interpersonal or cultural reasons - today plays an increasingly important role. Renowned international specialists work in Hamburg in their own practices, providing patients who suffer from specialized medical conditions with the treatment they need.



In pursuit of a baby – fertility treatment

In Hamburg, specialist practices offer treatment to childless couples wishing to conceive. Such treatment includes artificial and in-vitro fertilization, e.g. using the ICSI method, with subsequent transfer of the embryo into the womb (ET) or intrafallopian tube transfer (ZIFT). A total of six medical practices, which have undergone a special approval procedure required by the Hamburg Environment and Health Authority, conduct

fertility treatment in close cooperation with Hamburg's hospitals. Each year, as many as 2,000 IVF treatments are performed in Hamburg.



Healthy and attractive teeth – dentistry and dental technology

Hamburg's dentists, oral surgeons and orthodontists provide dentistry at the highest international level. Dentists in Hamburg offer the entire spectrum of modern treatment methods and procedures. The services made available by the 1,400 or so practising dentists

include gentle dental treatment and corrective techniques, patient-friendly dental improvements and the state-of-the-art prosthetic. Dental implantology is one particular area of focus in which, besides the hospitals in Hamburg, 220 practices have specialized. To meet individual needs when placing implants, the very latest plastic surgical methods are applied. Alongside conventional methods of surgery, electrosurgical, laser and endoscopic procedures are used.



Feeling well again – diabetes treatment

In addition to the services offered by hospitals, 24 specialist diabetes practices are concentrated in Hamburg, providing the targeted diagnosis of the widespread diabetes mellitus. In recent years, there has been a significant rise in the incidence of type II diabetes in particular, which is generally caused by obesity and an unhealthy diet. Hamburg's specialist practices focus not only on regular control of blood sugar levels, constant checking of the proper functioning of the internal organs, and vascular or neural disorders but, most importantly, organize special training seminars to teach patients how to manage their own conditions. Part of this is also individual diet consulting and advice on how to promote good health.

In pursuit of beauty: plastic surgery

Contemporary medical technology and pharmaceutical products are enabling constant advances in plastic surgery. In Hamburg, besides the hospitals themselves, there are in total some 40 plastic surgeons, some of whom specialize in reconstructive surgery, which includes reconstructing skin and soft tissues, muscles and tendons, bones and cartilage, and correcting congenital malformations. The range of services available covers reconstruction, tightening of eyelids, corrective surgery on the nose and chin, tightening of the abdominal wall, removal

of wrinkles, facelifts, breast reduction and enlargement, and liposuction.

Other areas of focus in specialist medical practices:

Cardiology: around 63 cardiology practices provide a range of services for the prevention, diagnosis and treatment of heart disorders, e.g. colour echo cardiography (heart ultrasound), stress ECG, cardiac catheter examinations and outpatient pacemaker surgery, pacemaker checks and programming, and stent placement.

Oncology: around 40 doctors in specialist oncology practices treat patients with all types of cancer, usually in conjunction with or as a follow-up to a course of hospital treatment. The services they offer cover drug therapy, coordination of further necessary treatments, pain therapy and palliative medicine.



SPECIALIZED DEVICES FOR SPECIFIC INDICATIONS

الأقسام الإختصاصية للحالات الخاصة

Medical technology has a long tradition in the Free and Hanseatic City of Hamburg, and one of the city's priorities is to promote the further expansion of this industry. In this context, advances in medical technology profit considerably from the close cooperation between clinical research and the manufacturing industry.

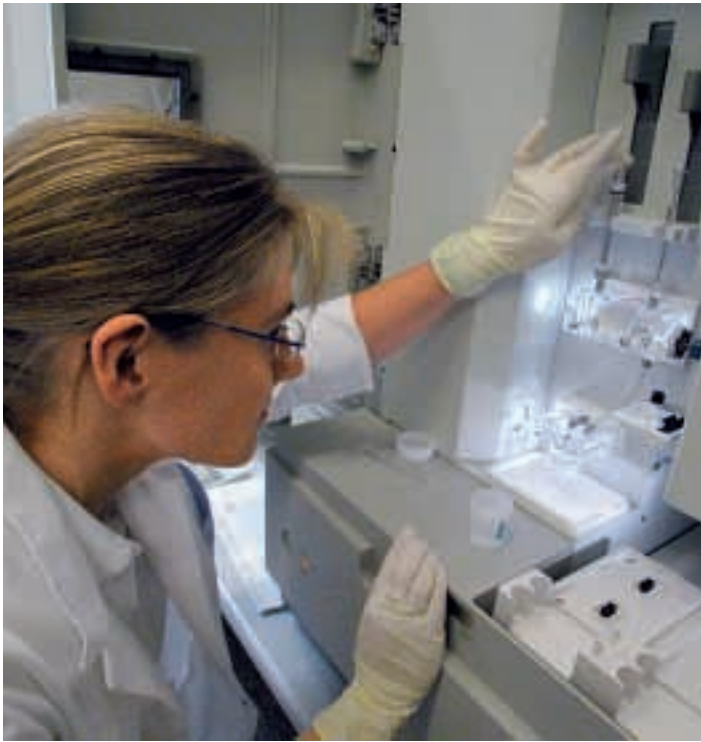
Cardiology: quality of life with high-tech equipment

Sophisticated modern medical devices can save the lives of patients suffering from serious heart diseases and ensure a high quality of life in the future. Cardiology and cardiac surgery departments in Hamburg's hospitals work with highly specialized, state-of-the-art equipment, providing medical care all over the Hamburg metropolitan region and 24-hour cardiac emergency care. Many hospitals have their own cardiac catheter labs, allowing quick and effective diagnostics and therapy.

Operations like heart transplants, catheter technology and the treatment and curing of cardiac arrhythmias are just some of the services which can be provided by these departments, equipped with the latest technology and staffed by highly qualified medical experts. In the field of cardiology, intensive partnerships have been established in recent years between research and industry, and between the various heart clinics and out-patient cardiac

centres. The goal of such cooperation agreements is to achieve a permanent transfer of knowledge, optimize the quality of patient care and ensure a smooth treatment process from diagnosis to full recovery.





Minimally invasive surgical techniques in gastroenterology

Micro-surgery and minimally invasive operations have become routine procedures in the field of gastroenterology, where use is made of natural body orifices or only minor incisions are made in the abdomen to gain access to the digestive organs. This reduces the physical strain on the patient, lowers the rate of complications and shortens the length of hospital stays, all without sacrificing the standard of care and treatment.

Hamburg enjoys an outstanding reputation in performing micro-surgery and minimally invasive operations. Patients benefit from the rapid advances in medical technology, e.g. in imaging diagnostics, where the optical resolution achieved by endoscopes will soon reach the same levels of microscopes and histology, and as regards new techniques which will replace conventional endoscopy. Three-dimensional computer tomography and magnetic resonance tomography are steadily increasing their usefulness in diagnostics, and there is no end in sight to these technical developments. One particular feature of Hamburg are the close links and direct contact between R&D engineers and those using medical technology in hospitals and medical practices.

Endoprosthetics at the highest level

Devices and accessories for endoprosthetics are among the best-known products produced by world-renowned firms in the

metropolitan region of Hamburg and shipped out from here to customers all over the world. Clinical centres have specialized in the reconstruction of arthritic joints and the replacement of hip, knee, shoulder and elbow joints. In athroplastic endoprosthesis surgery, performed thousands of times every year in the centres, joints are substituted by artificial parts fixed in healthy bone material. The quality of the endoprosthesis care is ensured by a stringent system of preimposed operative assessments and a joint registry allowing for a close follow-up of the patients and the performance of the implanted joints. Scientific analysis demonstrates the long term results which, together with the exceptional experience of the entire staff, are the foundation of Hamburg's international reputation and standing in this area.



HAMBURG'S MEDICAL DEVICE INDUSTRIES

الشركات المنتجة للصناعات الطبية في هامبورغ

In recent years, Hamburg has evolved to become one of the most important centres for medical technology in Germany. Besides the academic and scientific potential which abounds in the various hospitals and specialist departments of the city's universities and colleges, the medical technology companies based in Hamburg also contribute to the strength, dynamism and competence of this important economic sector.

Specialists in small and medium-sized businesses

Among the best-known products manufactured in the Hamburg region and exported all over the world are devices and accessories for fields such as radiology, anaesthesia, intensive care medicine, microscopy, minimally invasive surgery, endoscopy and laboratory diagnostics. In addition, there are the products and services provided by numerous small and medium-sized companies which, as specialist suppliers, occupy a firm position in the market. These products include specific medical solutions such as vascular implants (stents), prostheses, blood storage systems and dental implants.



The world's oldest X-ray tube manufacturer

Philips Medical is an imaging diagnostics provider with extensive experience and impressive expertise, based in Hamburg. With a tradition of developing and manufacturing X-ray tubes spanning more than a century, the company is the oldest X-ray tube manufacturer in the world – and today still remains one of the most successful. Besides offering one of the world's best product ranges for X-ray applications, the company is also one of the most important providers of magnetic resonance tomographers and ultrasound devices, nuclear medicine and patient monitoring systems.

Hightech manufacturer in biotechnology

Eppendorf AG, one of the world's most important manufacturers of products and systems for academic and commercial research in biotechnology was founded 60 years ago in Hamburg. The company's product range is split between two divisions: the Bio-tools division covers products for liquid handling, sample preparation and the separation of fluids, such as pipettes, centrifuges and consumable articles like reaction vessels. The Molecular Technologies segment handles products for the amplification, detection and purification of nucleic acids, PCR instruments, consumables and Kits, as well as products for cell technology and Microarray systems.



High-end products for the drug discovery

Evotec Technologies GmbH is focussed on technology development and instrumentation to serve current and future needs in all major fields of pharma, biotech and academic research. The Company provides cutting-edge technologies for measurement, miniaturisation and automation by seamlessly integrating hardware, software and bioware modules. The Company's solutions are based on validated core technologies that result in extremely high data content and quality output. Evotec Technologies portfolios of core technologies includes Optical Microplate Readers for single cells and molecules, Automated Liquid Handling, Automation Systems, Data Handling and Informatics as well as Microplates/Chips and Assays. Especially its biological competence – with a bright application know how and track record – gives Evotec Technologies a significant competitive advantage over pure instrumentation companies.

Endoscopes for minimally invasive diagnosis and therapy: Olympus

The trend in medical technology towards further miniaturisation and higher requirements on instrument reprocessing has for several years been reflected in development projects of Olympus in Hamburg and Tokyo. One successful result of these intensified activities is the worlds first entirely autoclavable video laparoscope with chip-on-the-tip technology. It has a seamless, one-piece design that permits a mechanically decoupled image rotation in which the imaging unit is fully encapsulated.

The cooperation between research centres in Hamburg and Tokyo, puts on increased focus on the development of interdisciplinary system solutions such as the development of bipolar HF-technology for surgical and urological applications.

Important key factors on the product side is the expansion of system-bound product lines for prostate treatment in the urology field and EndoAlpha as a multifunctional integrated OR-System, for the hospital. With regard to the new products, opto-digital endoscopes for selected fields of application will be particularly prominent.

A network for technology of the future

More than 120 companies, institutions and clinical bodies have joined forces in Hamburg to form a medical technology cooperation network. Among its members are companies like the renowned German planning group M + M AG, which has recently moved its operations to Hamburg on account of the dynamism of the city's health care sector. M + M plans technical infrastructures at the very highest level of engineering for hospitals and logistics centres, with planning encompassing all the facility's equipment, including medical technology. This is a good example of how all the players in the health care sector in Hamburg work hand in hand to continually drive forward medical progress in close cooperation between research, medicine and industry.



NETWORK OF SUCCESS

شبكة الإتصالات الناجحة

In Hamburg, long-standing Hanseatic trading traditions co-exist in unison with high-tech industry. The city's main port and the trading links which have been maintained for centuries with countries all over the world have made Hamburg a European metropolis with a cosmopolitan outlook and a full network of services for foreign companies. From its beginnings as a traditional centre of trade, Hamburg has evolved into a highly specialised logistics centre, its backbone being the world's eighth-largest port. Moreover, the city's service sector, life sciences, research, media and aviation industry contribute to an innovative and stable economic situation.

Made in Hamburg

Montblanc fountain pens, Nivea creme, Steinway and Sons' pianos, Tom Tailor garments, Dolmar chain saws, or Airbus planes are some of the brands coming from Hamburg. Many international companies have located their European or German headquarters on the river Elbe, like Olympus, Panasonic, Philips, Baosteel, China Shipping, Colgate to name but a few. They all profit from the highly qualified staff, the specialised services to the industry and the tight international network Hamburg offers.

The main port continues to be the backbone of the striving economy. Hamburg's geographical position within the continuously integrating Europe offers an excellent position to conquer the highly attractive European markets, especially in Scandinavia and Eastern Europe. With some 7 million standard containers (TEU) passing through the port with the help of the very latest quayside equipment and transshipment methods, Hamburg has become the gateway to Europe.

Hamburg also plays a leading role in the aviation industry. Employing some 30,000 people in all fields of aircraft construction, repair and airport management, Hamburg is one of the world's three most important centres for the civil aviation industry. The Hamburg Airbus plant is responsible for the single aisle Airbus family and also plays a major part in the production of the new Super Airbus A 380. Also private planes are well looked after: Lufthansa Technik AG, the world market leader in aircraft repair, maintenance and overhaul, is headquartered near Hamburg Airport, and fits out individual aircraft to meet every customer's personal needs.

Evolved expertise in the media industry

Throughout the world Hamburg is known as a home to the media and entertainment industry. With major publishing houses located in the media metropolis, more than half of all newspapers and



magazines sold in Germany originate here. Hamburg also plays a leading role in movies and television: every year, permission is given some 1,300 times to production companies wishing to film in Hamburg. And with some 150 feature films and TV movies made here, the city is one of the most popular film locations.

Creativity on the river Elbe

The city's creativity is also reflected in the fields of advertising, IT and telecommunications. Hamburg based companies regularly win design awards for their punching ideas. In terms of turnover and number of jobs, the advertising industry is the second most important sector of the media industry. Renowned agencies have done justice to Hamburg's reputation as a stronghold of creativity at national and international advertising festivals. The same is true of the online sector - the most important German information on the internet stem from Hamburg. With more than 700 designers working in the city, Hamburg is also a leader in the design business among German cities.

Extensive range of teaching and research

Creativity and variety characterise the city's universities and research centres, attracting international specialists to Hamburg. The DESY research institute (Deutsches Elektronen-Synchrotron) is probably one of the world's most renowned basic research institutes in the field of physics. Hamburg University offers some 180 degree courses ranging from applied art to media sciences

and dentistry. Additionally, the Northern Institute of Technology at the Technical University of Hamburg-Harburg, Bucerius Law School, Hamburg School of Logistics, or Hamburg Media School are privately run universities offering internationally recognised degree courses.

Looking to the future

In line with its vision of growth, Hamburg is keen to get people and businesses to focus more on the city as the centre of the metropolitan area. Hamburg is a lively and striving city. Growth is palpable not only in the number of handled containers but also in Europe's most exciting urban development scheme on a former port site, the HafenCity. Adjacent to the existing city centre a new urban quarter is emerging, offering homes for 12,000 and jobs for 40,000 people with stunning views on the waterfront. Hamburg welcomes newcomers, whether they come to study or work, to enjoy medical treatment or a holiday – or to witness capturing soccer games during the world championship in 2006, which will take place in Hamburg.



If you would like to get in contact with Hamburg companies please visit www.hamburg-economy.de

TIMES OF LEISURE

A DAY IN NATURE ...

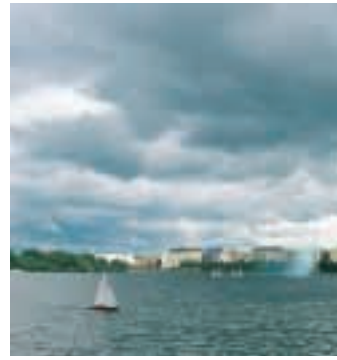
It is dawn. Slowly, Hamburg awakes, as the sun picks its way around the city's silhouette with its numerous towers and spires. Hamburg is beautiful, and Hamburg is green, with more than 10 percent of the city covered by woods and green spaces. A long walk around the Aussenalster lake, over 160 hectares in size and more or less completely surrounded by parks and grass, is a must for every visitor. For water sports enthusiasts there are sailing boats, rowing bows and pedalos to rent in the summer. Another attraction are the 120 or so swans which can be seen majestically making the rounds of the lake.

Our walk begins in the Atlantic Hotel and follows the banks of the Alster, over the Schwanenwik bridge, to the Schönen Aussicht, or beautiful view – one of Hamburg's finest addresses. To the right, in front of the Feenteich bridge, is situated the senate's guest house, an imposing building of the late classicist period. The path then proceeds away from the Alster, across the Langenzug bridge, and into the splendid Bellevue street, until we reach the Fernsicht viewpoint. Now it is time for a short break at the „Bobby Reich“, a restaurant which also rents out boats and serves delicious fish dishes with a fantastic view of the water. Refortified, we continue our walk, crossing the Krugkoppel bridge into the Alsterpark, a beautiful area of trees and greenery. Harvestehuder Weg, at the edge of the park, is home to nine foreign consulates. We now pass the trendy meeting points „Cliff“ and „Bodos Bootssteg“ until we reach the Kennedy bridge, which marks the end of our nearly seven kilometre walk.

Those who still haven't had enough fresh air should have a chauffeur drive them to the Treudenberg Golf Hotel. First-class limousine services offer luxurious travel in Mercedes Benz or Lincoln limos. The hotel is just 25 minutes away by car, and provides a golf course where you can practise your swing and emulate Tiger Woods. Wonderfully situated in the natural setting of the beautiful Alster valley, the four-star hotel boasts an 18-hole championship golf course covering a total of over six kilometres, a 9-hole pitch and putt course, and a driving range with 33 covered places. Whether you want to try out golf for the first time or perfect your technique, the water obstacles, cleverly positioned bunkers and interestingly designed greens make this course one of Northern Germany's most beautiful, and will make any golfer's heart beat faster.

After a round of golf, the Club Restaurant with its wonderful terrace is the perfect place to meet with friends and enjoy rustic dishes and refreshing drinks or, for fresh, light cuisine with an Italian touch, try the gourmet Treudenberg restaurant.





A DAY OF RAIN ...

Hamburg is famous far and wide for a particular type of dreary, wet weather, and rain indeed falls on the city on as many as 113 days a year. It is with good reason, therefore, that Hamburg's citizens and tourists are well-advised always to carry an umbrella with them, though they should not let their day be spoilt by the odd shower. After all, Hamburg has a total of 14 indoor shopping arcades in the centre of the city – in terms of square footage this is more than any other town in Germany. The countless shops offer everything the heart could desire – especially in terms of clothing and jewellery from world-famous designers such as Gucci, Jil Sander, Joop and Dior, Coco Chanel and Karl Lagerfeld.

The Bleichenhof shopping mall boasts a total floor space of 3,500 square metres, with shops offering designer clothing, English china and arts and crafts, not to mention a number of cafés and restaurants: shoppers can choose whether they would prefer to eat a tasty fresh salad or enjoy an espresso in a bar-style setting. The city's biggest and most popular shopping centre goes by the name of the Hanseviertel. Its arcades, which are flooded with natural light, contain a wide range of shops, including fashion wear, original gift ideas, tea, leather goods and much more besides. Before continuing the day's shopping, why not take a short break in the lively bar of the Hamburg Marriott Hotel right in the heart of the city, where comfortable club chairs give you an opportunity to pursue the pleasant pastime of seeing and being seen. And while you do so, an extensive selection of home-made cakes and gateaux is available, as well as almost 20 different types of tea, to ensure the perfect afternoon tea.

Next, we recommend a visit to the Levante-Haus: this grand old office building has been painstakingly renovated to create a lively shopping arcade with many different shops. The world's very first gallery of Steiff toys displays an extensive collection of the traditional cuddly toy manufacturer. Many restaurants and cafés with international menus offer the perfect place for a rest. After a full day of shopping, there is nothing better than to give body and soul a rest, and one ideal place to do this is in the Amrita Spa, an exclusive fitness and health spa covering 600 square metres in the Raffles Hotel Vier Jahreszeiten, which also features a wonderful view over the roofs of Hamburg. From a full body massage to a mud wrap, an Atlantis bath to combat jet lag, and from sauna to solarium – the treatments and therapies on offer here represent a combination of the best elements of eastern and western philosophies. In the hotel's modern gym, trainers are on hand to offer customers an individual and personal service. And at the end of such a long and eventful day in Hamburg, a soft and cosy bed awaits for the perfect night's sleep in the luxurious Raffles Hotel Vier Jahreszeiten.



A DAY BY THE WATER ...

Hamburg locals and tourists alike crane their necks skywards at the droning of the engines of a DeHavilland Beaver DH2. A Hamburg firm which calls itself Himmelsschreiber – or Sky Writer – offers customers the unique opportunity to discover the Hanseatic city from an altitude of 600 metres in this seven-seater float plane. The 30 minute tour begins right in the heart of the city, at the recreational boat harbour by the Überseebrücke. Tours in a Piper A12 are also on offer, and in the summer visitors can enjoy a nostalgic trip above Hamburg in an open double-decker Waco Classic. Anyone who would rather view the city and its main waterways – the Elbe river, Alster lakes and canals – from a helicopter can choose between the bright-red Bell 407 and the Bell Ranger III. Both traditional pleasure flights and individual special tours can be booked with the firm „Helicopter Service Wasserthal“.

After seeing so much of Hamburg from the air, it is time to experience Hamburg’s wealth of waterways at closer quarters. Just beyond the city’s western limits, a ship welcoming station by the name of Willkommhöft greets and takes its leave of every passing ship by playing their respective national anthems, be it a small coastal motor boat, a specialist freight ship, a large container ship or an elegant cruise liner. The neighbouring Schulauer Fährhaus restaurant offers home-made cakes and delicious fish dishes, and includes a free view of the Elbe river. Another nearby attraction is the Buddelschiffmuseum, home to a collection of over 200 ships-in-bottles from all over the world.

Hamburg also boasts another unusual highlight: nowhere else is it possible to lie on the beach right in the middle of the city. During the summer months, there are many excellently-situated beach clubs to choose from, a unique variety in Germany.

Guests at the „Hamburg del mar“ club, for instance, can savour an uninterrupted view of Hamburg’s harbour while enjoying exclusive cocktails and delicious food and relaxing on luxurious teak wood loungers on 1,500 square metres of the finest Helgoland dune sand.

For those who still haven’t had enough of water, a steam boat tour of the Alster lakes, canals or other waterways in Hamburg is a must. A particular treat is the two-hour evening Dämmertörn, or dusk tour, which gives visitors the chance to experience the magic of the Alster and its canals as the lights start to come on in the centre of the city. The tour passes by some beautiful parks and magnificent buildings.



A DAY OF SPORTS ...

Hard to believe, but true: polo is played right in the heart of the busy metropolis of Hamburg, and this has been the case in Klein Flottbek ever since the Hamburg Polo Club was founded there more than 100 years ago. At the club's grounds, which provide seating for 4,000 spectators, regular matches are held, including the Champion Cup and a variety of other competitions. The equestrians train four times a week, and spectators are always more than welcome to come and watch this noble sport.

Hamburg is a stronghold of equestrian sports offering a variety of locations where these fine four-legged creatures can be admired: the race track in Hamburg-Horn stages galloping, flat and hunt racing, as well as parade events. As soon as the gun is fired at the start of the event, the spectators' heart rates begin to race and hardly anyone is able to keep their seats, no matter what type of bet they may have placed. But this is not the only exciting aspect of horse racing: it is also amazing just to see the speeds which the horses reach as they circuit the track. Horse racing has been a popular sport in Hamburg since 1886, and the Bahrenfelder trotting course stages attractive events on more than 100 days a year, giving visitors the chance to enjoy the unparalleled excitement of the races.

To find out where the trotting horses are bred, you need to pay a visit to the Buchenhof stud farm in Delingsdorf just outside Hamburg. The farm comprises 85 hectares of pasture land to guarantee that the trotting horses, and the young foals one day hoping to follow in their hoofsteps, enjoy the best possible life. Many Derby winners were born here at this breeding and training farm.



All this fresh air, however, makes you hungry. It is time to bring this exciting and eventful day to a fitting close with a fine dinner in the Jacobs restaurant, which is situated directly on the Elbchaussee and boasts a Michelin star. This gourmet temple belongs to the five-star Louis C. Jacob Hotel, which was named Hotel of the Year 2003. Whether you choose „braised shoulder of Charolais beef with a Pomerol sauce“ or „leg of confit Vierländer duck“, and to go with it a good glass of wine – a visit to this restaurant is always a real treat and a feast for the senses. A wine-tasting by candlelight in the hotel's „ice cellar“, where rare wines from all over the world are piled high right up to the vaulted ceilings, is also highly recommended.





RECREATION AND HIGH QUALITY OF LIFE

للراحة و المستوى العالي للمعيشة

With a population of 1.7 million, Hamburg is Germany's second city after Berlin and, as one of the 16 federal states or Länder in Germany, is both a state and a city in one. Hamburg is the economic and cultural centre of North Germany, with as many as 3.5 million people living in the greater Hamburg area. The city, covering an area of 755 square kilometres, is four times bigger than Milan and two and a half times as big as inner London. Parks, green spaces and recreational areas account for almost 15 percent of the city, which contributes to the high quality of life enjoyed by the people of Hamburg.

One of Hamburg's particular charms are its waterways. Besides the port and the Elbe and Alster rivers, a striking feature of the city is the network of canals, the Fleete. With over 2,300 in all, Hamburg boasts more bridges than Venice and Amsterdam put together. The people of Hamburg have always taken care to establish and expand a modern traffic and transport infrastructure to keep their city linked to the surrounding region, and today Hamburg is situated at the centre of a dense network that allows the city to be reached quickly and conveniently by road, rail, water or air.

Airport of the future

Hamburg Airport provides fast connections to destinations all over the world. The airport is undergoing constant expansion, paving the way for further growth, even better accessibility and

future-oriented service. Handling over 9.5 million passengers and 150,000 commercial flights a year, Hamburg Airport is the fifth most important German airport. 60 airlines offer direct flights to over 114 destinations. To offer its international clientele maximum comfort, the airport with its highly modern architecture boasts over four airline lounges, many restaurants and bars, an expansive shopping mall and a banquet and conference centre.

From the end of October 2005, Emirates will be offering a daily non-stop flight from Dubai to Hamburg, thus linking the entire Arab peninsula to Hamburg via Dubai and giving rise to optimistic predictions in the Hanseatic city regarding the tourist and health care sectors. In addition, Hamburg can be reached from the United Arab Emirates via Amsterdam, London Heathrow, Vienna, Istanbul and Moscow.



Luxurious living

Individuality and comfort characterize the 250 or so different hotels and hostelrys in Hamburg. Two of the city's most famous luxury hotels are situated right in the heart of the city. The Raffles Hotel Vier Jahreszeiten on the Alster lake offers a home from home to royalty and state guests, as well as to well-off members of high society from all over the world. This magnificent building, which dates back to 1897, combines tasteful elegance and timeless luxury; from 156 rooms and suites guests enjoy a fabulous view of Hamburg's inner lake, the Binnenalster.

The picture is much the same at the five-star Kempinski Hotel Atlantic, likewise situated on the Alster. For almost a century, this majestic building has been one of the city's leading addresses, and is a meeting place for stars and celebrities from all over the globe.

Right in the centre of the city, at the Alter Wall, is another luxury-class hotel: the Dorint Sofitel combines exclusive and

stylish design with the very latest in modern comfort. For guests wishing to relax and unwind, a beauty and health spa covering 500 square metres is available. Fine dining is possible in the various restaurants, while the hotel also has bars and a terrace directly next to one of the Fleet canals.

Situated in the midst of shopping arcades, the five-star Marriott Hotel guarantees its guests an unforgettable stay in Hamburg, with its rooms of modern design, a restaurant featuring international specialities from Europe and America, and an exclusive bar with a summer terrace. Another exclusive address is the new luxury design SIDE Hotel in the heart of the city centre, which offers a very special type of hotel experience. Elegance, clarity and the expressiveness of contemporary hotel architecture were achieved by the renowned architects and interior designers. The hotel is uniquely appointed and guarantees absolute comfort.



SEE YOU IN HAMBURG

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