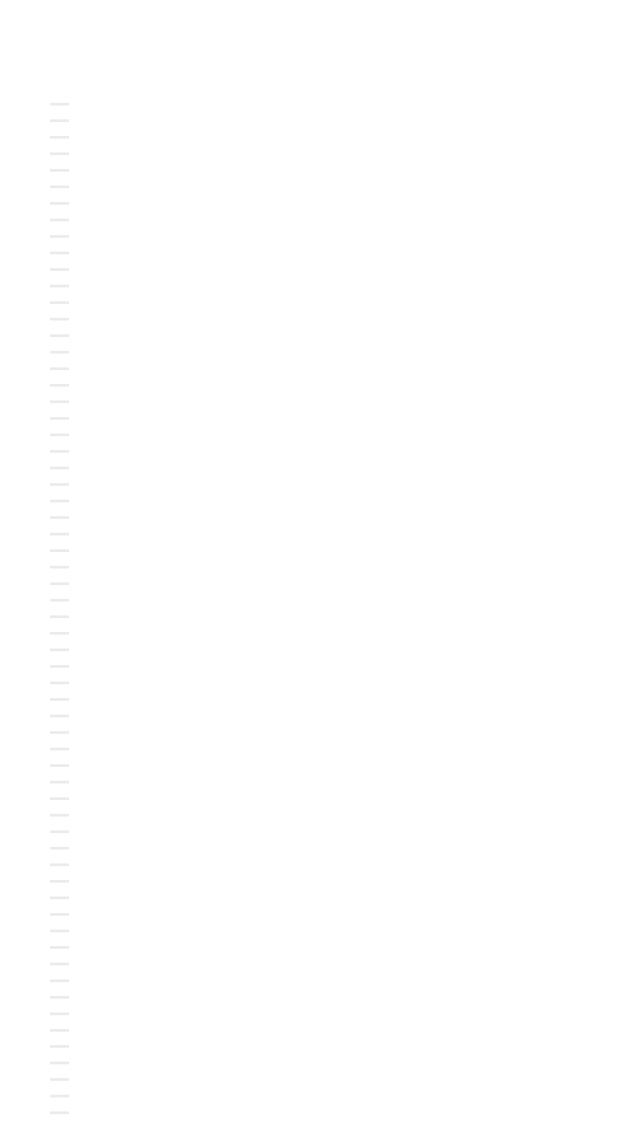


# 



### place 2.5 **HEALTHIER SITTING**



Welcome to Place 2.5 –the new office cultureof productive well-being.









Place 2.5 represents office worlds which offer the same stimulating qualities as those places where people enjoy a real sense of well-being. Worlds which encourage staff to work together and develop outstanding ideas. According to Fraunhofer studies, this can increase office productivity by up to 36 percent. Sedus has developed this forward-looking concept with continuous development plans in mind. Why? Because Sedus is committed to making office work a profitable experience at all times for the well-being of both companies and staff. For more information, ideas and an inspirational magazine, visit the forum at www.place2point5.com



HANS IN LUCK really could have done with an ergonomics specialist. "I can't hold my head up, and it hurts my shoulder", lamented the protagonist of the Grimm brother's fairytale of the same name as he tried to carry home a lump of gold which he had been rewarded for seven years' work. To help alleviate his load, he soon exchanged the gold for a horse, which then promptly threw him off. And so the story continues: After several exchanges, each of them successively worse, Hans is ultimately left with nothing to show for his work. Nevertheless, he considers himself to be a lucky man, since he has ridden himself of all his burdens. The perfect tale! But just think how happy he could have been if he had been given a wheelbarrow to carry the gold. Ergonomics is not always that simple. But it is always decisive for the end result.

#### Contents

**002** Introduction

**010** Ergonomics

**018** Sitting

**040** Workplace

**048** Solutions

**ERGONOMICS** The focus is on the most productivity element within a knowledge-based economy: The Human Being.

**SITTING** Since people who spend all their time sitting are engaged in heavy labour, they require the best possible support.

**WORKPLACE** With the right working environment, companies can boost productivity in the office.

**>>>> SOLUTIONS** Healthy sitting options can be designed and enjoyed in a great variety of ways – tailor-made for every need.

4/5



### From Europe's first modern office chair to productive well-being.

For some 140 years, Sedus has been committed to the principle of sitting properly and has developed state-of-the-art solutions time and time again.

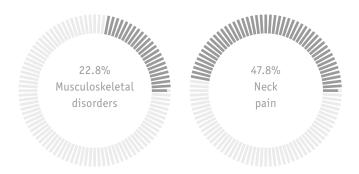
At a time when civil servants and employees in German offices spent their 50 working hours a week on simple and uncomfortable wooden chairs, Sedus brought innovations to the market which set completely new benchmarks in terms of design and functionality. Since then, key developments towards achieving the goal of perfect office ergonomics worldwide have been linked with the name Sedus. For example, Sedus, amongst other things, was behind the principle of dynamic sitting and, with its concept Place 2.5,

is today revolutionising the office world for the benefit of both companies and their employees. These achievements are based on comprehensive expertise in all areas of office design, untiring research and development and a passion for perfection.

## 

1871		Foundation of the company by Albert Stoll			
1925	=	Construction of the first-ever swivel chair in Europe			Wooden swivel chair 1880
1929	_	The first swivel chair with castors			
1971	=	Foundation of the company's own research and development department with testing laboratory		1	
1973		Development of the dynamic sitting principle ("Similar" mechanism, permanent contact backrest, anatomic seat)	_		Sprung swivel chair 1925
1985		Foundation of the Stoll VITA Foundation for promoting health care			
1994	=	The millionth swivel chair from the Sedus paris series, certification according to DIN ISO 9001			
1995	_	First furniture manufacturer in Germany to participate in the EU standard eco-audit			
2000		Development of the first swivel chair with an opening angle of > 40 degrees			
2002		Sedus becomes an all-round supplier following the merger with Sedus Systems GmbH (formerly Gesika)			
2004		Development of the "Similar" mechanism with quick adjustment spring force			
2008	_	Development of the "Similar-Plus" mechanism with preselectable opening angle and quick adjustment feature			
2009		Opening of the new Development and Innovation Centre in Dogern			
2010		Certification according to EMAS III			

The clinical picture of employees in administrative roles



### Why reading this is really worth your while.

Absenteeism. Almost a quarter of all sick days are due to specific physical strains which, in turn, result in losses amounting to billions from reduced productivity and value creation.

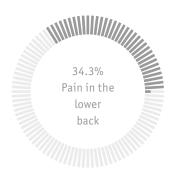
**Ergonomics creates sustainable added value:** Employees are the most important factor influencing productivity in today's knowledge-based working world. Companies which offer perfect ergonomics at the workplace are ensured more productive, more motivated and more effective employees who work more efficiently and produce better results in the long term. According to Fraunhofer studies, increases in productivity of up to 36 percent can be achieved.

**Ergonomics fulfils guidelines:** The wish to protect employees and prevent economic losses through health care has been borne from a series of internationally valid statutory regulations and standards for the ergonomic design of workplaces. Enforceable minimum standards have been defined to which companies are obliged to adhere.

**Ergonomics reduces absenteeism:** Back pain is endemic in all sitting cultures, problems relating to the musculoskeletal system have been the number one reason why employees are written off sick for many years now. Days lost in this way are expensive for companies since, in addition to labour costs, reduced value creation must also be taken into account. Ergonomically optimised workplaces, on the other hand, pay for themselves quickly thanks to reduced absenteeism and increased productivity.

**Ergonomics enhances efficiency:** Straining working conditions also put a strain on the overall efficiency of the company. Fatigue, decreased performance, more frequent breaks due to discomfort and pain, a lack of motivation and suboptimal working results are all evident long before an employee is off sick. Employees are only able to fully exploit their potential in the long term in an ergonomically intelligent working environment.





**Reduced output.**Those who sit a lot suffer from typical complaints.

A lost working day of an office employee, all figures in  $\ensuremath{\mathsf{EUR}}$ 



**Cost factor.** Every day which is lost is reflected in overall profit.



### Ergonomics<sup>1</sup>

-Mankind

Work

-Physiology

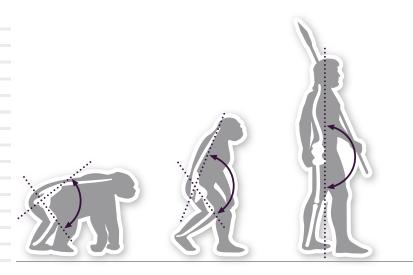
<sup>&</sup>lt;sup>1</sup> Modern occupational science aims to adapt working conditions to employees – and not the other way round.

\* "So that from our lives we harvest the best fruit at the smallest effort, with the highest satisfaction for our own and the public good" this is how the godfather of ergonomics, Wojciech Jastrzebowski, described the goals of this principle over 150 years ago. These goals still apply, even if scientists tend to use less flowery language nowadays. The term "ergonomics" combines the ancient Greek words "ergon" for work and "nomos" for law. Ergonomics is the science of the laws of work and serves to create workplaces where people enjoy a sense of well-being, remain healthy and develop their full potential. Everyone benefits from this: the individual, the economy and society as a whole. The starting point for all ergonomic solutions is mankind. Evolution has served man well, however the human body is, in essence, not designed for the modern working world in which a lot of time is spent sitting, mostly in front of a monitor and under large amounts of pressure in terms of time and results.

### Mankind was designed to move.

Why, when and how our ancestors decided to walk upright is a source of much debate in research circles. However, one thing is certain, this was one of the most important stages along the path to becoming Homo sapiens with large brains. The ability to walk safely on two feet depends essentially on an upright body weight which is centred above the feet. The displacement of the body's centre of gravity toward the back was made

possible by the formation of the curvature of the spine. Over the course of evolution, mankind developed a locomotor system which served primeval hunters and gatherers who walked long distances extremely well. Whilst, today, our bodies remain unchanged, the way in which we now work and live is such that the body's weaknesses are put under particular strain.



**The upright gait** marks the beginning of humanisation, and is made possible by the S-shaped curved spine.

### Today, the endurance walker has become an endurance sitter.

For many thousands of years, most people spent the majority of their time in motion. Work essentially meant physical labour, sitting in a chair was, for a long time, a luxury and privilege reserved for a few professions.

What's more, people also walked far more than we do now in the modern automotive society. Nowadays we spend virtually all our time seated; day-to-day lives are becoming increasingly motionless.

**Sedentary.** Modern man spends most of his day sitting down: at work, during free time and in the car.



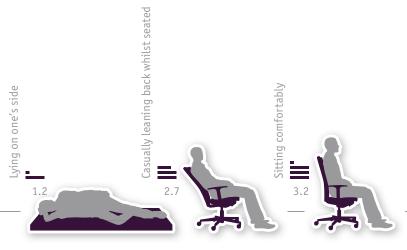
# 23 good reasons for improved ergonomics when sitting.

Intervertebral disc to brain: "If I have to sit still like this for much longer, I'm going on strike." Brain to intervertebral disc: "Keep quiet down there, I've got important stuff to do!" This comedy sketch is played out on a daily basis in many offices. The human spine is made up of 23 intervertebral discs. Like shock absorbers, they act as small jelly cushions between the individual vertebrae. Unlike the muscles, they are not



Dynamic sitting with permanent contact with the backrest promotes the metabolic activity of the intervertebral discs.

supplied with liquid and nutrients via a capillary system; instead they function through osmosis and diffusion from the surrounding tissue. This requires alternation between strain and relaxation – i.e. a pump effect. If this metabolism process is impeded due to a lack of movement, the intervertebral discs become worn and brittle and are no longer able to function properly.



Strain on the intervertebral discs (values in bar)



Static sitting with a hunched back increases the pressure on the intervertebral discs which release fluid as if squeezing out a sponge.

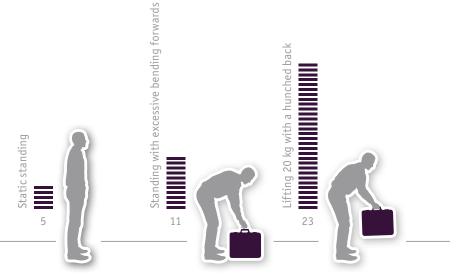


Whilst the relaxed "lounging" posture is intermittently perceived as comfortable, in the long run it places strain on the neck and lower back.





Avoidable. If the intervertebral disc becomes worn there is a risk of a condition, whereby the core of the disc pushes against the nerve tract in the spinal cord.



Strain on the intervertebral discs

### Brainworkers need muscles too.

Reflecting, brainstorming, communication – modern knowledge workers work first and foremost with their heads. However, it should not be forgotten that the head is attached to the body, which also has its own very specific needs. Efficient, knowledge-based working is no longer possible if employees are distracted by back pain and headaches caused by tension in the neck. For this reason, strong muscles which optimally support and hold the body are so important.



Muscles need to be exercised. The supply of oxygen and nutrients is essential for physical fitness and mental well-being.

Long periods of static sitting prevent the sufficient flow of blood and cause rigidification and painful tension. Fatigue and poorer performance are the result.





# Feet are part of the intellectual process.

Oxygen is to the brain what petrol is to the car. A

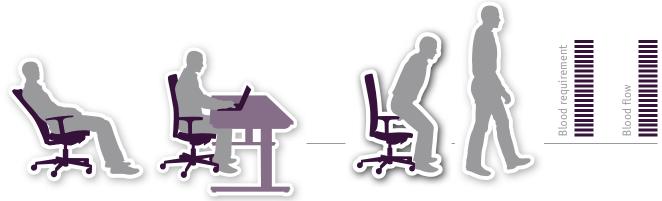
Wake-up call.

Movement promotes
blood circulation;
one stays awake and
mentally fit for longer.

good oxygen supply demands correct breathing
and well-functioning blood circulation. Both are
prevented if we sit motionless and with an
incorrect posture for extended periods. Only
those who sit dynamically or stand up and walk
around frequently are able to concentrate for the
entire working day and remain alert and efficient.

Dynamic sitting prevents one-sided long-term stress. Natural movement ensures the necessary alternation between the straining and relaxation of muscles and intervertebral discs; metabolic processes are activated.

Frequently standing up for short periods is more effective than standing for a long time. Blood requirement and blood flow are well balanced if we change our posture three to four times an hour.



### Sitting<sup>2</sup>

Biomechanics

\_\_\_Milestones

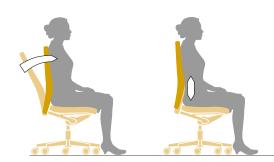
\_ Movement

<sup>&</sup>lt;sup>2</sup> Can cause illness but can also be a source of energy; it's all a matter of the right technology and setting.

» For modern man, sitting has become the most important posture. At up to 14 hours, we spend more time sitting than we do lying down and moving around. In our day-to-day lives, during leisure time and, of course, at the office. Sitting is a form of relaxation, the pulse and breathing slow down, energy consumption drops, the organism comes to rest. This allows us to reflect and concentrate fully on intellectual tasks. Yet the more time we spend seated, the more we suffer from tension, back pain and circulatory problems – this is the body's way of telling us that it wasn't designed to stay seated for long periods. For the body, sitting down for extended periods is hard work. That's why, it needs intelligent technology which offers individual support and makes sitting more dynamic.

### The technology behind improved sitting.

The technology behind the office chairs from Sedus is perfectly aligned to human biomechanics. And since we are all unique, there are no automatic settings at Sedus but, instead, intelligent options for personal and individual adjustments.

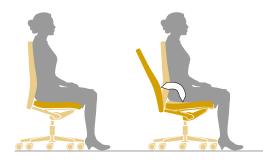


Adjustable backrest pressure. Depending on size, weight and the user's personal sitting preferences, the backrest pressure can be individually set by adjusting the spring force.

Height-adjustable backrest. The height of the backrest can be individually adjusted according to the height of the user in order to achieve the optimal position for the curvature of the lumbar support.

### Patented seat features.

The Sedus development think tank has been the home of many unique, patented innovations for the further development of sitting ergonomics – developments which, even today, remain ground-breaking.



Anatomically shaped seat. The seat recess and rounded front edge assure the correct sitting posture and proper support for dynamic sitting. Prevents unconscious 'sliding forward'.

"Similar" mechanism. The seat and backrest move synchronously with the body, the back is supported in every sitting position. With a very large opening angle and virtually infinite individual settings to accommodate body weight.











#### Height-adjustable lumbar support.

The patented heightadjustable lumbar support inside the backrest cushion always offers individual, intervertebral disc-friendly support for the lumbar vertebral arch.

#### Seat tilt adjustment.

The normal position of the seat can be changed by up to 4 degrees so that the seat can be tilted forwards in line with ergonomic recommendations.

#### **Sliding seat.** The cushion can be pushed

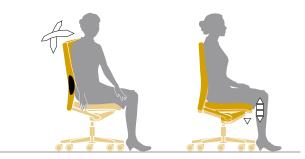
both forwards and backwards to set just the right support for the legs depending on the height of the user.

#### Adjustable armrests.

To enable perfect adjustment to suit the user and various tasks, the armrests are height adjustable and, in part, their width and depth (3D) can also be altered.

#### Adjustable headrest.

Headrests with adjustable height and tilt relieve the strain on the neck and prevent tension.



#### Dorsokinetic backrest.

The dorsokinetic suspended backrest, another of Sedus' patented developments, supports the body during rotating and lateral movements and thus offers even more mobility for dynamic sitting.

#### Sedo-Lift mechanism.

This unique seat height adjustment feature with maximum seat-depth springing has been internationally patented. Even in the lowest setting, it guarantees soft suspension which is kind to the back when sitting down and comes with a 30-year guarantee.

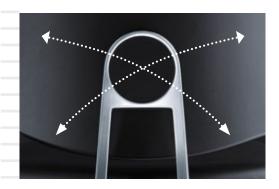


#### Intuitive operation.

Thanks to their simple and self-explanatory handling, Sedus chairs facilitate individual settings.

### Impressive mobility in all directions: Dorsokinetic.

The dorsokinetic suspension of the backrest at just one point thanks to the flexible ball joint offers the user maximum mobility during rotational and lateral movements, whereby the upper body and back are given optimal support. Sedus developed this innovative technology with the aim of promoting dynamic sitting, which is recommended in contemporary sitting ergonomics.







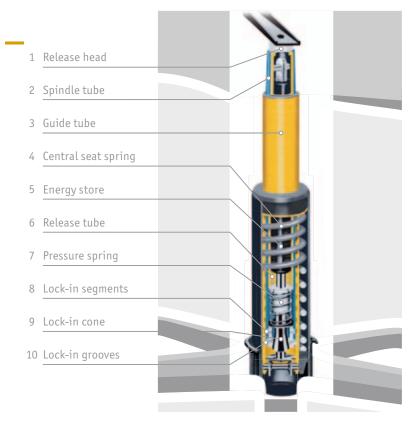


### Maximum seat-depth springing, minimal wear: Sedo-Lift mechanism.

The user's weight rests on the screwed pressure spring. It ensures outstanding suspension comfort thanks to the optimal seat-depth springing and prevents straining of the spinal column at all sitting heights.

Spring travel of up to 55 millimetres is available even in the lowest sitting position. There is no loading whatsoever on the gas lift mechanism which exclusively serves to set the seat height. This minimises the need for maintenance and reduces wear. This internationally patented technology comes with a 30-year guarantee

from Sedus.



#### Clever springs.

Multiple small grooves have been milled into the side of the guide tube of the gas lift mechanism, which allow the mechanism to click into place to keep the chair at the set height.





# Perfect motion synchronised with the body: "Similar" mechanism.

The centrepiece of all Sedus office swivel chairs is the synchronised movement of the seat and backrest in every posture, which is enabled by the specially developed "Similar" mechanism from Sedus. Perfectly adjusted mechanical springs assure extremely well-balanced force distribution during dynamic sitting. The backrest is always in contact with the upper body. The adjustment mechanism is simple and intuitive to operate, which means that the chair can be quickly and simply adapted to the individual's body weight; the "Similar" mechanism with quick adjustment spring force allows settings to be made particularly conveniently.

#### "Similar-Plus" mechanism.

With a pre-selectable

opening angle of up to 32 degrees and quick adjustment spring force, it offers previously unknown smooth movement and continuous support of the iliac crest.

#### Taking measurements.

A large man and a small women, a sitting giant or a "daddy long legs", Napoleon or the perfect size, XXL or supermodel measurements – office seating must accommodate all shapes and sizes.





### The human body sets the standard.

According to Greek mythology, Procrustes was a rogue smith and bandit who offered travellers a bed, whereby he attached great importance to the perfect "fit"; if the person was too big for the bed, he would chop off his feet. If, however, he was too small, he would be painfully stretched. Modern ergonomics is faced with the same problem but, luckily, the opposite approach is taken here and the tools and furniture are adapted to the individual, rather than vice versa. Anthropometry, the study of human measurements, is taken as the basis for adaptations. Using statistical data, the scope which office furniture needs to offer in order to be able to accommodate the majority of people can be precisely defined, as a rule between a body height of 151.5 cm and 191 cm. Intelligent technology guarantees the perfect individual setting within this range.





#### Healthy sitting: A question of setting.







Set the seat height exactly. The feet are in full contact with the floor, the legs and arms are at right angles (90°).



Adjust the backrest. The curved backrest supports the spinal column in the region of the lower back.



Set the armrest height. The arm and shoulder muscles need to be supported, particularly when working intensively on a monitor.

#### Time to get up.

Albert Einstein developed his ground-breaking theories at a lectern – a fact which quickly illuminates the creative effect of this working posture. Whilst employees who are given the opportunity to work standing up might not immediately become geniuses, they certainly will become healthier and more effective. As a strategy against the harmful sitting marathons which are endured in offices, nowadays occupational scientists recommend that a dynamism involving both sitting and

standing be encouraged, with frequently changing working phases. In addition to meetings, this also applies to work at the desk. You don't have to be seated in order to look through documents, make phone calls and answer e-mails. Lecterns and height-adjustable desks in particular allow employees to make the transfer and work standing up. The benefits have been proven in studies: The time employees spend seated is reduced by up to 30%, fewer health problems are recorded.

#### Sitting

- stable balance and calm upper body
- improved fine motor skills, increased visual accuracy
- low energy consumption
- improved concentration

#### Standing

- the spine assumes its natural shape (double S)
- minimal loading of the intervertebral discs
- dynamic posture, circulation is promoted

#### Prolonged sitting

- great strain on spine and intervertebral discs
- pelvis tilts back against the lumbar curve
- circulation in the legs is compromised
- tension in the neck and shoulders
- breathing and the transport of oxygen are hindered
- metabolism and digestive organs are impaired

#### Prolonged standing

- more balance work is necessary
- greater energy expenditure
- quicker fatigue
- venous return flow is impeded
- strain on back

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Standing table. A desk which can be quickly and simply transformed into a standing table is ideal. This allows the posture to be changed at any time without having to stop working.

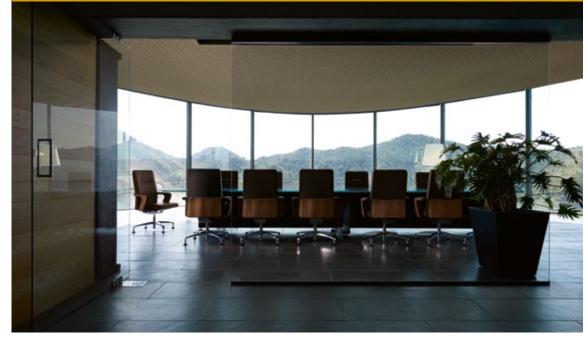
The perfect fit. The work surface of the standing table should be set level with the elbows; a standing table helps to relieve the strain during extended standing breaks.

#### Long live variety.

For ergonomics experts, healthy sitting in the office essentially means sitting as little as possible but when this can't be avoided then sitting should at least be dynamic. In terms of physiology, mankind is designed to be on the move. As such, it is recommended that the working posture is frequently varied. According to one rule of thumb, a maximum of 50% of a

working day in the office should be spent sitting down, the remaining time should be spent standing up or in motion. This, of course, demands an office design which specifically promotes mobility, with facilities which offer plenty of opportunities and which also encourage employees to be more mobile.

# During longer conferences and meetings, chairs are needed which facilitate dynamic sitting.



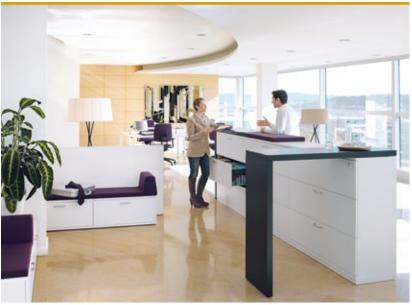
Invitation. Comfortable lounge furniture for informal communication and team meetings entice staff away from their office chairs.





A change of methods. Movement and alternative working postures boost concentration in training sessions, workshops and seminars.





Meeting. Opportunities for standing should be made available for quick and efficient team meetings.

#### A new approach to seating.

In the long history of mankind, sitting on a chair is a relatively new notion. In bygone years this was reserved for those in power, and even far into the last millennium a sitting job was seen as an expression of an executive position. Today, it is no longer a privilege, but rather a problem, since we spend too much time sitting down. The solution lies in getting office employees to move

about and leave their chairs more frequently. Once clever option is multifunctional storage units which can be used as seating for quick consultations with colleagues or for informal gatherings and which encourage employees to change their sitting posture more often.

#### Multifunctional.

Practical storage units which can be used as seating during meetings kill two birds with one stone.







**Dynamic.** As a comfortable upholstered seat, mobile pedestals invite employees to change their sitting posture.

# The germ cell for ergonomic innovations.

The Sedus Innovation and Development Centre combines an idea workshop, testing laboratory and prototype production facilities under a single roof. Highly qualified engineers, designers, model builders, precision engineers and testing technicians work hand in hand here to create perfect products for the start of production. Since 2009, the 25-strong team has been housed in a

new building, which provides a particularly inspirational working environmental as per the principles of the Sedus Place 2.5 concept. The consistent networking of expertise from the very first conceptual idea provides for the ideal interlinking of design, functionality, environmental friendliness and quality for which Sedus products are known all around the globe.

Enveloped. The Sedus Innovation and Development Centre is characterised by the translucent fabric façade which hides inspirational working spaces.





Inspirational. The atmosphere in the Sedus hotbed for innovation promotes creative processes, communication and team work.



Integrated. Prototypes are developed and optimised using state-of-the-art technical facilities and unique testing equipment.



# Sedus tests are more stringent than any standard.

In its own Innovation and Development Centre, Sedus tests the safety and service life of its products using test procedures which, in part, are considerably more stringent than international standards and safety guidelines. In addition to the manufacturer-independent laboratory of the certification bodies, the Sedus testing laboratory is the only furniture testing lab in Germany to have been accredited to DIN EN ISO/IEC 17025:2005. Factors such as service life, construction, material wear and noise development are tested by means of simulated 5-year use. This is the basis for the unique five-year guarantee on all Sedus chairs.

**Stress test.** The new "Similar-Plus" mechanism was tested in 17 different test stages with several million load changes to ensure its service life and longevity. This goes well beyond what is prescribed in the relevant standards.

**Around the world.** During testing, the castors cover a distance of more than 40,000 km on various types of flooring, with a a load of 200 kg (the standard stipulates 75 kg).





**Test sitters.** In cooperation with scientists, computer-controlled and fully mobile sitting dummies have been created for realistic simulations.





**Circuit training.** Ergonomics and comfort measurements, safety tests according to DIN-, EN-, ISO- and ANSI/BIFMA standards, fatigue strength tests, overload tests, drop tests, abrasion tests, gas lift mechanism tests, base tests – every single Sedus chair must successfully pass all of the above.

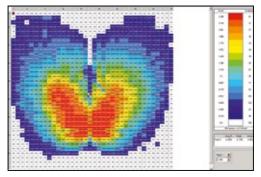
Pressure distribution testing. The seat and backrest upholstery of an office chair are decisive for comfort. Here, low compression loading and yet stable body support are required in all sitting positions. Pressure distribution is examined in complex test series with persons of different sizes, in order to establish the best possible upholstery material and design. The evolutionary factor is also taken into account since humans are becoming heavier and taller.

Back .....

**Elaborate.** For the optimal pressure distribution of the Sedus of course range, multilayer upholstery was developed with three different material layers.



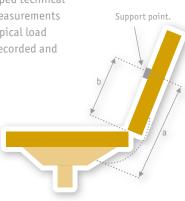




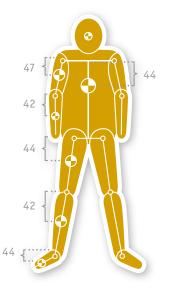
Graphic in test report

Force path measurement. The weight force of the human body is distributed differently on the various body parts. However, the design of the synchronous mechanism in office chairs should enable balanced force paths when sitting dynamically. Using specially developed technical processes and many comparative measurements with differently built people, the typical load paths for each chair model can be recorded and optimised.

Complex. Careful dimensioning is necessary in order to establish the forces which have an impact on the mechanism and backrest support.



Determining the support point of the upper body



Location of the partial focal points of the individual limbs as a percentage

### Workplace<sup>3</sup>

Monitor work

Room for movement

Well-being factors

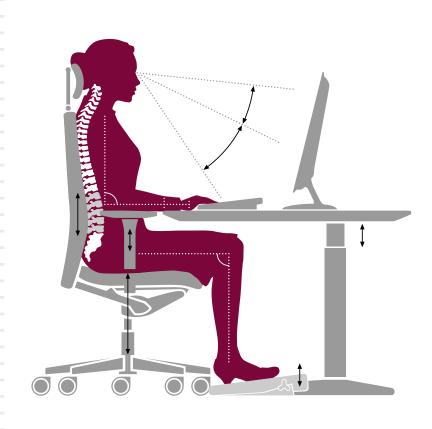
<sup>&</sup>lt;sup>3</sup> Comprehensive intelligent ergonomics are all important here.

when don't just sit on a chair, we also sit at a desk in a room, and often together with others. Despite the increasing flexibility of office work, our own desks still remain the main workplace and the computer the most important tool for the majority of people. The entire working environment must be perfectly optimised in terms of ergonomics. Efficient working processes and ideal area planning must be aligned with the needs of individuals. The individually adjustable desk, the correct positioning of the keyboard and monitor, the functional organisation of tools are all part of this. As too are factors which determine our sense of well-being such as light, air, acoustics and an attractive stimulating interior design.

### A look at the most important tool in the world.

In 1943, the then boss of IBM predicted a global need for a maximum of five computers. The degree to which he got this wrong is evident in every single office. Today, the computer shapes the way we work like no other tool before. And it also has a unique effect on posture, sitting conduct and, as such, the health of employees. The optimal ergonomic setting of monitor workplaces is thus extremely important.

Whereby, it should be guaranteed that the workplace is also suitable for the many varied other tasks associated with modern office work.



Chair adaptation. The height, sitting depth and backrest pressure of ergonomically sound office chairs can all be set individually.

Desk height. The forearms should lie comfortably at right angles on the desktop; a desktop with individual height adjustment is ideal. **Footrest.** If necessary, an adjustable footrest can also be used.

# Monitor position The monitor must be positioned directly in the field of vision in order to avoid incorrect head

**Axis of vision.**Practical rule of

posture.

thumb: The uppermost legible line should be below eye level.

Observation angle.

One should be able to read comfortably with the head tilted slightly forward.

Viewing distance. This depends on the size of the monitor, but should be at least 50 cm.



# The workplace as a personal space for movement.

Findings on correct workplace ergonomics have been incorporated into international statutory regulations and standards which dictate the guidelines when planning offices. When implementing these guidelines, however, enough scope must be provided for the individual needs of employees depending on their tasks and processes within the company.



#### Space requirements.

The minimum work-place size has been standardised, yet it is the actual task-specific requirements which are all important. The more generous the room, the greater the freedom of movement. Pedestals and sideboards at standing height also encourage employees to stand up more frequently.





### A sense of well-being is healthy.

What Sedus has been using for years as the basis for further development of offices as part of the Place 2.5 concept is now seen as an established fact in the occupational science world: Man is an emotional being who must feel at ease in order to produce the best results and, at the same time, remain healthy and efficient. Holistic office planning thus takes important well-being factors into account.

Light. The biggest light in our planetary system is also the best for enhancing well-being and is a great anti-stress agent. Depending on the location and room conditions,

perfect lighting provides the right mix of natural and artificial light, general room lighting and targeted, individual workplace lighting.



Quiet. You can't close your ears: In many offices noise is one of the biggest distractions and stress factors. Pleasant acoustics reduce mistakes as well as illness-related absenteeism and also enhance concentration and efficiency. To this end, sound-absorbing surfaces, sound-deadening elements and specific acoustic room planning can all be used.

Airy. The notion of a good working climate should be taken literally and balanced air conditioning and ventilation must be ensured. Plants improve the ambient air and absorb pollutants. The aromas in the office are a

frequently undervalued factor, since these directly influence the way we feel. A pleasant, low-key fragrance instead of the typical office "pong" helps to create a good, relaxed atmosphere and also boosts creativity.

### Solutions<sup>4</sup>

Sedus chairs

Diversity

Advice

Movement

<sup>&</sup>lt;sup>4</sup> A solution is the answer to individual requirements which gets right to the point.

» At the desk, in conferences and during team meetings, in seminars and training sessions, in reception waiting areas, in bistro and breakout areas – seating is required everywhere within the company. The people who sit on these chairs couldn't be more different. And in every company the usage and, as such, the specific requirements vary. The right solution for a company must be versatile and variable, satisfy various demands in terms of comfort and style yet nevertheless create a harmonious overall impression. Planning is based on the premise of ensuring that individuals move as much as possible so that, in the long term, they are healthier and more efficient in their day-to-day working lives. This demands versatile, adaptable furniture ranges and expert, customer-oriented advice.

# We are all entitled to perfect ergonomics.

If it were up to Sedus, this sentence would be included in the Universal Declaration of Human Rights. More than half of the working population in modern industrial nations works sitting down; job demands are high, not only at an executive level. Chairs which feature adjustable armrests and a back-friendly mechanism should not be down to a question of hierarchy or available funds. So that the demand for improved ergonomics for all does not remain a mere plea, Sedus sets particularly high ergonomic standards for all of its seating ranges, such as the synchronous movement of the seat and backrest as well as smooth-running adjustment features. Whether attractively priced products for newcomers or top-of-the-range creations, Sedus develops solutions for healthier sitting which impress with their first-class technology.

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More detailed information can be found in the product brochures which can be ordered from www.sedus.com and which are also available from specialist dealers.



### yeah! A true Sedus chair which is kind on both the body and the budget.

Featuring the "Similar" mechanism, seat tilt and sliding seat, it offers Sedus-style ergonomics at an extremely attractive price. Thanks to the patented quick adjustment feature, the seat mechanism can be set in a few seconds using just one hand, ideal for multi-user office chairs for employees of all shapes and sizes. With its straightforward design, it fits seamlessly in all office landscapes







#### netwin

Outstanding sitting comfort with a back-friendly double net.

Sedus netwin is characterised by the double membrane design made from patented high-tech fabric. Here, the transparent look of a net back is combined with the comfort of an upholstered backrest when leaning back. Together with an integrated, adjustable lumbar support, the "Similar" mechanism, a large seat and the quick adjustment feature, netwin guarantees outstanding comfort which is just as appealing as the value for money it offers.



























#### match

The ideal introduction to Sedus quality seating.

Sedus match is proof that top-class ergonomics are not exclusive to the high-price segment. A striking look with an elegant silhouette and the typical backrest with flexible slats which ensure perfect pressure distribution when leaning back. Soft flexibility, excellent support and quick adaptation for various users set this chair apart from the rest. The range also includes matching visitor and conference chairs.

» Award: red dot design award 2010









#### match up

Flexible all-rounder for all workstations with monitors.

Sedus match up offers the unbeatable sense of well-being which people need to work well and work gladly. It stands out from the crowd with its fully upholstered backrest which can be adjusted with one hand. The additional neck support and lumbar depth adjustment feature mean that match up can be used flexibly and efficiently in all room situations and applications.

» Award: FACTS test assessment "very good" (5/2011)











#### early bird

The appealing all-rounder in the medium-price segment.

This chair is characterised by its superior technology, attractive design and numerous individual features. The "Similar" mechanism with a particularly large opening angle of 32 degrees and the 3-point dorsokinetic mechanism encourage dynamic sitting and offer users optimal freedom of movement. The patented sliding seat is adjustable by 60 mm and can be set in four positions. The "Sedo-Lift" mechanism guarantees perfect suspension even in the lowest sitting position.













black dot For active sitting with unbeatable freedom of movement.

A swivel chair designed for well-being and efficient working. The innovative technology offers unparalleled freedom of movement. The dorsokinetic backrest, which has been patented by Sedus, supports the body even during extreme rotating and lateral movements. Its quality is evident in the three backrest heights, clean-cut design, colour concept and attention to detail. The 4-leg models and cantilevers also feature comfortable upholstery.

» Awards: Design prize of the Federal Republic of Germany 2007 nomination, iF product design award 2007, FACTS test assessment "very good" (5/2007), ÖKO-TEST back-friendly chairs "very good" (3/2011)









#### mr. charm

The benchmark in class and elegance for offices with a sense of well-being.

Sedus mr. charm is the perfect and extremely comfortable symbiosis of reliable technology and timeless design. Varied and versatile, it is able to cope with the tough demands of modern offices. Together with the Ottoman stool, it enables an almost lying posture for relaxed, creative working and regenerative power naps.

» Award: iF product design award 2003









#### mr. 24 Promises top performance — even in continuous use.

Continuous loads, all day every day, and changing users of various builds are normal in companies which run three shifts, e.g., in control and measuring stations. Sedus mr. 24 offers users weighing up to 200 kg a comfortable and robust swivel chair with first-class ergonomic features and outstanding material quality. This high-performance chair also comes with a 5-year guarantee, regardless of the service life.









### open mind

The professional solution for relaxed and efficient working.

The "Similar" mechanism, with its large opening angle which moves in synchronism with the body, offers great manoeuvrability and a flexible sitting or lying posture. The integrated backrest support with highly flexible membrane ensures ideal sitting comfort – in accordance with the rules of bionics. Additional features such as seat depth and tilt adjustment unite the ambitious design with the outstanding ergonomics.

» Awards: iF product design award 2003, Design prize of the Federal Republic of Germany 2004 Acknowledgement, red dot design award 2004



#### open up

The dynamic office revolution.

Sedus open up has heralded the arrival of the regenerative power nap in the office and, in combination with the unique Work assistant, makes it possible to work sitting down, standing up and lying down. This unusual swivel chair features a reclining angle of up to 45 degrees; a value which, when combined with a dorsokinetically suspended backrest, is achieved by no other chair on the market. The flexible backrest connection ideally supports the back during all rotating and lateral movements.

» Awards: iF product design award 2001, red dot design award 2001, NeoCon Silver Award (USA) 2001, International design prize Baden-Württemberg 2002 (silver), Design prize of the Federal Republic of Germany 2002 Acknowledgement, GOOD DESIGN Award

















Role model for a new emotional office culture.

Motivating office worlds for the knowledge workers of today offer emotional qualities which enhance a sense of well-being, increase output and stimulate creativity. Sedus silent rush was designed with precisely this in mind. With its organically shaped backrest and operating elements which have been reduced to a minimum, it can be used wherever a more homely look is desired. The height of the lumbar support can be adjusted using an elegant slide.







#### crossline

Never before seen ergonomic perfection.

The centrepiece of this innovative swivel chair is the unique, patented "Similar-Plus" mechanism from Sedus. It ensures exceptionally smooth movements during dynamic sitting. The stream-line upholstery of the backrest adapts according to the weight of the user. It provides ideal support to the iliac crest, gently absorbs movements of the spine and always maintains contact with the back. With its simple-to-operate setting options, this chair is the ideal colleague for the workplace.











#### of course

Superior comfort and commanding design at their very best.

The executive chair for the desk and conference table is a masterpiece in which Sedus has realised its notions of quality, functionality and comfort without making any compromises. This is evident in every last detail, e.g., in the unique patented "Similar" mechanism and in the innovative "independent fit" technology which enables automatic adaptation of the back- and headrest to upper body movements. The elegant design with striking panels in high-gloss varnish, real wood veneer and Corian® visually underscore the chair's leading position. It is the only executive chair in its class to have been awarded the AGR (campaign for healthier backs) quality mark.









# Seating culture at a glance.

yeah!









netwin











match











early bird











black dot











open mind





open up







mr. charm









mr. 24











crossline











of course







#### Intelligent diversity.

Office chairs are not only "tools" for a great variety of applications, but also design objects which must satisfy aesthetic requirements. In order to fulfil both these needs, versatility is the name of the game at Sedus. By combining the different technologies, features, materials, upholstery and colours, millions of different product versions can be created to suit all needs in terms of usage, functionality and style. As such, the perfect unique solution can be achieved for all companies – on request, also in colours to harmonise with the corporate design.





#### Tailor-made.

All Sedus chairs come with a large selection of high-quality, breathable and hard-wearing fabric and leather covers in a great range of attractive shades.

Features matrix	yeah!	netwin	match	match up	early bird	black dot	mr. charm	mr. 24	open mind	dn uədo	silent rush	crossline	of course
Models													
Swivel chair with medium-high backrest	•	•	•	•	•	•	•		•	•	•	•	•
Swivel chair with medium-high backrest and headrest				0			0		0				
Swivel chair with high backrest	•				•	•	•	•					
Swivel chair with high backrest and headrest	0				0		0	0		•	•	•	•
Seat mechanism													
"Similar" mechanism					•	•	•	•	•	•	•		
"Similar" mechanism with seat tilt adjustment					0	0	0		0	0			
"Similar" mechanism with quick adjustment	•	•	•	•									
"Similar" mechanism with quick adjustment and seat tilt adjustment	0	0	0	0									
Similar-Plus mechanism with quick adjustment												•	•
Similar-Plus mechanism with quick adjustment and seat tilt adjustment												0	
Backrest technical features													
Adjustable backrest pressure	•	•	•	•	•	•	•	•	•	•	•	•	•
Height-adjustable backrest	•			•			•						
Height-adjustable lumbar support		•	•		•	•		•	0	0	•	•	
Depth-adjustable lumbar support	0			0			0	•					
Seat height adjustment													
Gas lift mechanism	0	0	0	0	0	0	0		0			0	
Gas lift mechanism with mechanical depth springing	•	•	•	•						•			
Sedo-Lift mechanism with mechanical depth springing					•	•	•	•	•		•	•	•
Frame versions													
Plastic base in black	•	•	•	•									
Aluminium base, powder-coated in black	0	0	0	0	•	•	•	•	•	•	0	•	
Aluminium base, powder-coated in white												0	
Aluminium base, powder-coated in white aluminium	0	0	0	0	0	0	0		0	0	•	0	
Aluminium base, polished	0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminium base, chromed								0					•
Model colours (mechanism and plastic parts)													
Black	•	•	•	•	•	•	•	•	•	•	•	•	•
White												0	
Armrests													
Without armrests	0	0	0	0	0	0	0		0	0		0	
Basic plastic armrests	•				•		•		•	•			
Basic plastic armrests with leather finish					0				0	0			
Height-adjustable plastic armrests		•	•	•		•							
Aluminium armrests with Softtouch or leather finish							0						
Armrests (integrated) with leather finish											•		•
2D adjustable armrests						0							
Multifunctional armrests with Softtouch finish	0	0	0	0	0	0	0	•	0	0		•	
Multifunctional armrests with gel finish	0				0		0		0	0		0	
Multifunctional armrests with leather finish	0				0	0		0	0	0		0	
Features													
Large seat								0		0			
Sliding seat	0	0	0	0	0	0	0	•	0			0	
Backrest with membrane		•							•	•			
Backrest with flat cushion			•						0	0			
Hard castors for soft floors	•	•	•	•	•	•	•	•	•	•	•	•	•
Soft castors for hard floors	0	0	0	0	0	0	0	0	0	0	0	0	0
Product range													
Cantilever	•	•	•	•	•	•	•		•	•	•	•	
4-leg model	•	•	•	•	•	•	•					•	
Conference swivel chair										•		•	•
Ottoman													

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### Tailored planning advice.



The highly complex process of achieving a completely ergonomically optimised office design demands a great deal of specialist expertise, experience and the use of state-of-the-art planning instruments. For this reason, Sedus offers a comprehensive and tailored consultation service for completely new office designs as well

as the modernisation of existing offices. The starting point is always the careful analysis of company-specific requirements and prerequisites. The results are efficient and future-proof solutions which lay down the ideal foundations for ensuring that staff are able to develop their full potential to the benefit of the company.

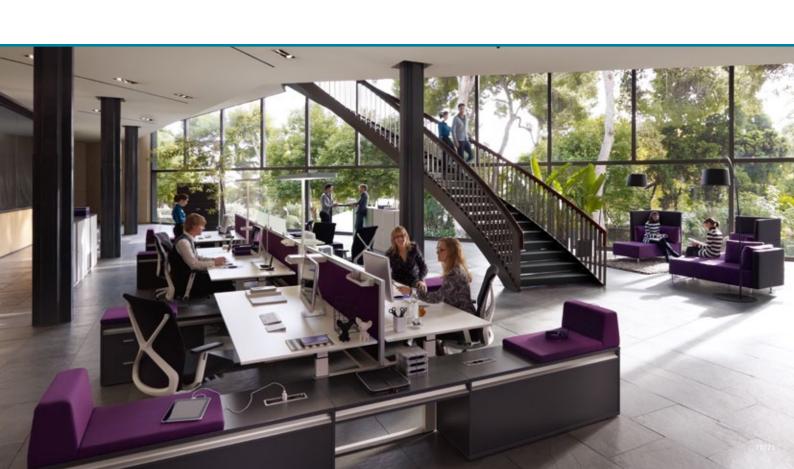




The team of experts at Sedus offers advice and support to planners; on request they can also assist right through to project realisation and implementation. Particular importance is attached to increasing staff awareness and training to ensure that the ergonomic benefits of the office design are fully enjoyed.



- » Appraisal, analysis, evaluation and documentation of requirements
- » Sedus office power check: Objective measurement of staff satisfaction with workplace conditions in the office
- » Place 2.5 advice on productive well-being
- » Advice on statutory regulations
- » Furniture planning using CAD tools
- » Viewing of samples to help reach decisions
- Staff training including information material
- » Events, training sessions and seminars



#### Tips to get you on your feet.

Children are bright: they never stay seated on a chair for very long. Let this be an example to us to get active. as often as possible and at every opportunity.

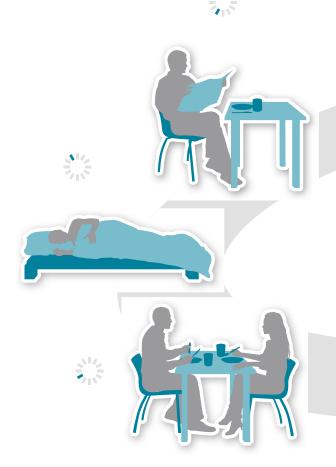
#### Bringing movement to the office.

Dynamic sitting in the office is good, but not good enough. Contemporary office planning gets staff off their chairs and moving. A lot of work can also be done at a standing table. Walking around when on the phone aids relaxation, particularly when discussing stressful issues. Stand up team meetings are shorter and more efficient. You can trick yourself into moving more by placing folders, the copier and printer out of direct reach around the desk, thus forcing yourself to stand up more frequently. For quick consultations with colleagues, don't use the phone or e-mail and instead pop by – this also helps to create a better working environment. And you only need a few minutes between jobs to do a bit of office exercise.

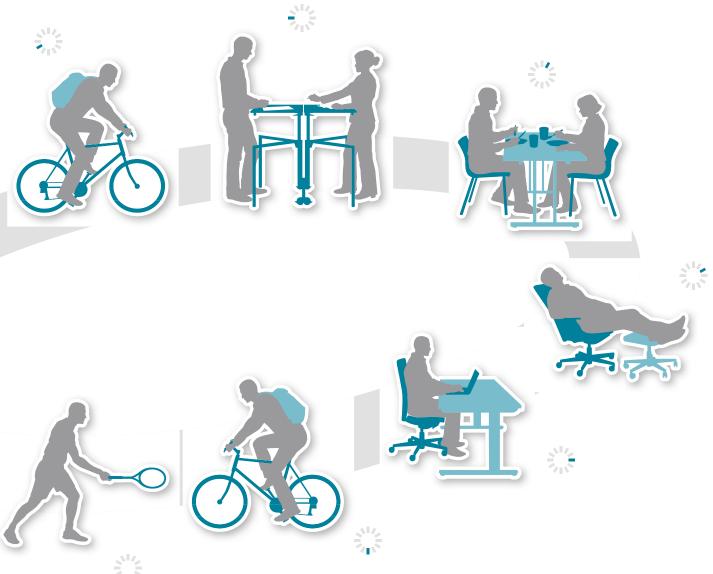
#### A day in motion.

Take the bike to work or park in a far off space so you have to walk further to the office. Climb the stairs instead of taking the lift. Do a bit of exercise before settling down in front of the TV.

As you can see, there are plenty of fun opportunities during the day to get moving for a fitter and healthier way of life.







### Companies, people and the environment all benefit.

Sedus is committed to transforming working in an office into a profitable experience for all. For the benefit of both companies and their employees. This mission statement is laid down in the corporate policy, to which the thoughts and actions of everyone at Sedus are bound. It is an ideal which encompasses all of the important aspects for office work today and tomorrow and, in order to achieve it, Sedus relies on the areas of competence Holistics and Customer Orientation, Quality and Sustainability, and the concept Place 2.5.

With the concept Place 2.5, Sedus has developed a unique and innovative approach – the new office culture of productive well-being. The concept is based on perfect ergonomics, functionality and working conditions, and is embedded in office environments designed to enhance well-being, in which people like to work and are therefore more productive. Design, light, acoustics, atmosphere and air are just some of the most important elements.

The concept is testimony to Sedus' holistic and customer-orientated way of thinking. After all, companies today do not need more pieces of office furniture, but rather seamless and needsorientated solutions for efficient working processes. They need future-proof office working

environments that are consistent with the corporate culture. Sedus delivers just that with its comprehensive, flexible product range catering for all requirements and with its individual consulting and planning services.

Quality and sustainability have ultimately been the cornerstone of Sedus' success for more than 50 years now. In addition to working in a way that conserves resources, designing products which are recyclable, using ecologically tested materials and being energy-aware in its manufacturing, Sedus pursues one thing above all else: Product quality that lasts, because that's what is best for the environment

For further information, visit www.sedus.com and www.place2point5.com







Company:
DIN EN ISO 9001
DIN EN ISO 14001
EMAS III Environmental
management







Around the world, Sedus adheres to the principles of the UN Global Compact for human rights, labour standards, the environment and anti-corruption.







**Products:**5-year Sedus guarantee
Safety-tested













www.sedus.com