



LAUNCH – MILESTONES – TARGETS  
**HANNOVER ON THE WAY TO SUSTAINABILITY**

# CONTENTS

	Foreword	2
	Important international steps before and after Rio	4
1	Hannover on the way to sustainability	6
2	Sustainable municipal finances and infrastructure	10
3	Future-compatible management	16
4	Sustainably mobile	22
5	Climate Protection	28
6	Sustainable building and living with ecological standards	36
7	Sustainable protection of the means of subsistence	42
8	Nature in the City – in times of climate change	50
9	Think global, act local – fair and together	56
10	Education for sustainable development	60
11	Participation for all – design social life fair and fit for future	66
12	Foodstuffs – Means for living	72
13	Sustainability and Sport	78
14	Sustainability needs a lot of people	82
15	Sustainability management	88
16	On the way to sustainability! Summary	94



Hannover on the way to Sustainability  
Launch – Milestones – Targets

# HANNOVER ON THE WAY TO SUSTAINABILITY

## FOREWORD



Dear readers!

Hannover has a wonderful symbol of sustainability - the Eilenriede, right in the heart of the City, with 640 hectares it is one of the largest central city forests in Europe. In city ownership for 750 years now it has never been felled more than would regrow again – the classical scientific definition of sustainability.

The term “sustainability” first originated from forestry, but today it has a much broader meaning: namely to take consideration of the ecological, economic and social dimensions of our dealings in all concerns of life.

As the use of the Eilenriede shows, sustainability – or to go further a future-oriented city development – has been a heartfelt wish of the council, administration and inhabitants of our City for many years. On the occasion of the conference **Rio + 20 - Local sustainability!** held in Hannover in December 2011 we intend to illustrate with this brochure how manifold local commitment is. At the same time the examples named represent only a selection of that which makes Hannover stand out on its way to sustainable city development.

The brochure focuses on the activities of the city council in its entire spectrum. Reports are given on the services of the Agenda 21-office, the climate protection coordination centre with the Climate Alliance 2020, the city planning with the Mobility Masterplan 2025, giving a trendsetting overall concept for cycle traffic, the local integration plan, current building modernisation programme, the efforts of the entire administration, to achieve a balanced finance economy and much more.

Sustainable development thrives on the commitment of the inhabitants, the many clubs, societies, organisations, economy and politics. Hearty thanks go to everyone at this point for their sustained efforts. They help our City do justice to its global responsibility and they have played a great role in making Hannover the home for people who wish to enjoy and appreciate the sustainable quality of life - today and in the future.

Stephan Weil  
Lord Mayor

Hans Mönninghoff  
Director of Economic and Environmental Services

# IMPORTANT INTERNATIONAL STEPS BEFORE AND AFTER RIO

## 1972 UN-Conference/Stockholm “on the Human Environment”

In the same year the Club of Rome published the report “The Limits to Growth”.

**1987 Brundtland-Report:** “Our Common Future”, the independent committee of “Experts World commission on Environment and Development“. The report provides perspectives regarding longterm, sound, environmentally friendly development and defines the political term of sustainability.

**1992 UN-World Summit in Rio de Janeiro:** UN-Special General Assembly on Environment and Development, participation of 179 States, passes the

- **Rio-Declaration on Environment and Development**
- **UN-Convention on Biological Diversity:** an international treaty to combat species extinction and to conserve natural biotopes
- **Agenda 21:** worldwide action programme with the aim of counteracting a further worsening of the situation of man and his environment and the assurance of a sustainable use of natural resources
- **Klimaschutz-Konvention**

**1994 Aalborg Charter** of European Cities & Towns Towards Sustainability

**1995** the Council of the City of Hannover passes the signing of the Aalborg Charter and cooperation in the aims of Agenda 21; start of a comprehensive process for a local Agenda 21

**07. - 09. December 2011 in Hannover** under City coordination 23 predominantly nationwide organisations met under the motto “Rio + 20 – Local sustainability!” (Rio + 20 – Nachhaltig vor Ort) to discuss the achievements to this date and develop perspectives for the future. The results of this conference are to be amalgamated in the work of the German delegation at the international Rio-Conference in 2012.

**20. - 22. June 2012 Earth Summit Rio+20 in Rio de Janeiro:** Follow up conference to the World Summit in Rio 1992.

*“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*

- *the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and*
- *the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.”*

Definition according to the Brundtland-Report of 1987

# HANNOVER ON THE WAY TO SUSTAINABILITY

- 1.1 | From Rio to Hannover – design our future hand in hand
- 1.2 | Challenges for a sustainable city development
- 1.3 | Sustainability as a municipal cross-sectional task

The global action programme approved in Rio 1992 for the 21st Century – Agenda 21 – pays equal consideration to ecological, economic and social concerns. It is intended to enable people from all parts of the world to satisfy their basic needs – now and in the future. To achieve this the precautionary approach of sustainability has to be adopted as a basis of our actions, in our professional as well as private lives. Hannover is on the right path as the many examples show, whilst at the same time making it clear that sustainability is a continual process.



## 1.1 | From Rio to Hannover – design our future hand in hand

### Hannover takes on its global responsibility

On the political level the local authority is closest to the people. It deals with many tasks which are of particular importance to the future capability of a city and the quality of living of its population: energy and water supply, housing estate construction, rubbish and waste water disposal, traffic, nature protection etc. Therefore it is meaningful and necessary for each local authority to prepare its own “local Agenda 21”.

In Hannover such a local agenda 21 has been prepared since 1995 with the help of city-wide dialogues with inhabitants and the social bodies. Since then the urban Agenda 21-office has acted as crystallisation point: Many activities have in the past been initiated here and will continue to be so in the future, many suggestions were made concrete and put into practice. The Agenda 21-office realises projects, actions, exhibitions, lectures and training events, provides info material in cooperation with clubs and environmental, health, development policy, training sector, scientific and economic facilities.

## 1.2 | Challenges for a sustainable city development

In 2005 the City administration presented with ‘Hannover plus10 – Working for a Young and Innovative City’ an urban development concept, which, in view of the demographic, economic and social changes, analysed the challenges to be faced by the City for the coming decade. It covers targets, focuses of activity and concrete individual projects which follow the keynote of a sustainable urban development.

Until 2015 the city will concentrate on the ten following “plus factors”

- promotion of citizens’ involvement and vital city districts
- investment in education and children
- promotion of integration
- creation of family-friendly housing
- acting cosmopolitanly
- strengthening the economy
- liaison between science and city
- living/loving city culture
- protection of climate and environment
- securing its capability to act

Hannover plus10 was assessed by the EU-Commission as Best-Practice-Case Study for an integrated and sustainable city development concept and recommended as model for the preparation of integrated urban development plans.

At the beginning of 2011 the Five-Year-Interim-Balance of Hannover plus10 came out. It shows that the strategic points have been set correctly for urban development in the last five years. Therefore the concept will remain the basis for the development of Hannover into a future-oriented, sustainable city.

The interim balance also makes it clear that in many fields of urban policy different interests, development priorities and the use of resources must still be balanced. We regard the aim of achieving this interest balance within a differentiated urban society as basis for a stable and secure city.

## 1.3 | Sustainability as a municipal cross-sectional task

There are no simple patent remedies for a sustainable municipal development. It will be based on the experiences and ideas of the people living in Hannover. Another equally important requirement for its success is that City administration and political leadership pave the way with good examples. For this reason the City of Hannover has amalgamated with several other municipalities in the initiative “Cities for a sustainable Germany” (“Städte für ein nachhaltiges Deutschland”).

Sustainable development can only thrive with the commitment of the inhabitants, many clubs, associations, organisations, economy and politics. We appreciate the experience and knowledge of the people in our city and encourage their political involvement. All participants should be able to assume a share of responsibility for the sustainable development of our city.



As administrative body we intend to be a model for sustainability, paying equal consideration to economic, ecological and social aspects in our decision procedures. In the past economy and ecology were regarded as two extremes. In 2005 Hannover was the first and as yet only large city in Germany to amalgamate both administrative sectors in one joint economic and environmental department.

“We shall encourage each other to establish long-term local action plans (Local Agendas 21), thereby strengthening inter-authority co-operation, and relating this process to the European Union’s actions in the field of the urban environment.”

Aalborg Charter, 1994, Aalborg

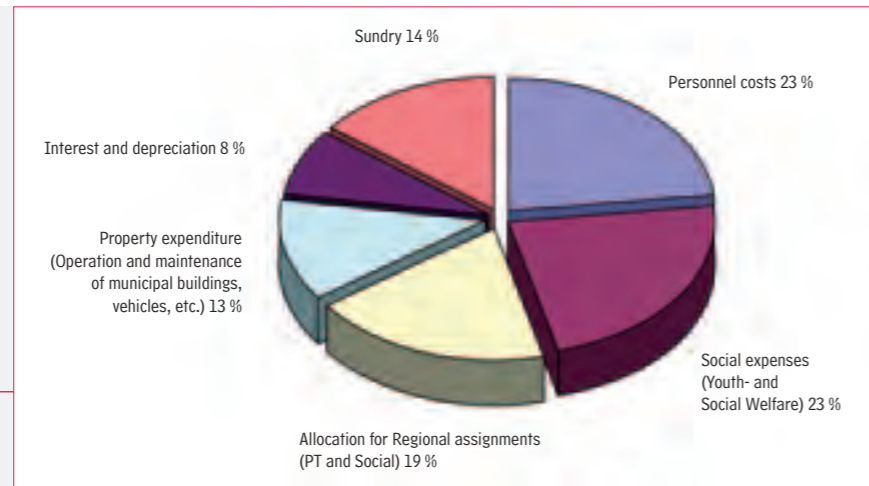


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

# SUSTAINABLE MUNICIPAL FINANCES AND INFRASTRUCTURE

- 2.1 | Sustainability of municipal expenditures
- 2.2 | Sustainability of municipal income
- 2.3 | Sustainability of the urban infrastructure
- 2.4 | Sustainability of urban capital

Sustainability is not an expensive luxury but a fundamental economical principle, which had its origin in forestry: Only fell as many trees as can be replenished. Anything other than this is overexploitation. Exactly the same applies for municipal finances and the far-sighted 'care' of municipal assets.



## 2.1 | Sustainability of municipal expenditures

For a sustainable financial policy on a municipal level it is essential that the current expenditures (outlay) in the municipal budget do not exceed the current earnings (income). Otherwise we are living at the expense of our children. On average over the last five years we have realized this sustainable approach in Hannover. But new deficits are looming as from 2011: One reason being that we had to make depreciations and reserves for the first time, the other reason being the fact that we are required by law to extend children's day care facilities, which costs a lot of money. This is why we are working on a further budget consolidation programme so that the current budget is still balanced in the future.

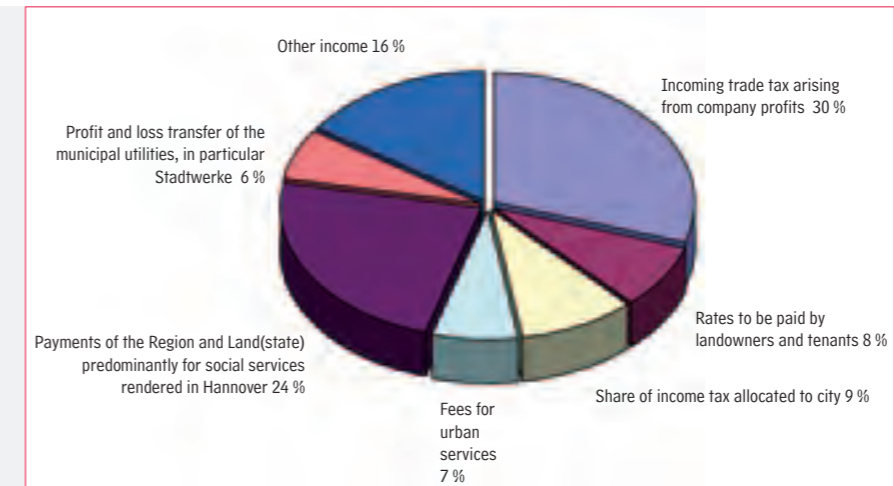
The aim of generation equity is the main reason why the City of Hannover shows its budget since 2011 in a commercial accounting quoting depreciations and reserves.

### The essential cost pools of the City of Hannover (2011 budget) are:

- circa 400 Mio. Euro (23 per cent) Personnel costs
- circa 400 Mio. Euro (23 per cent) Social expenses (Youth- and Social Welfare)
- circa 330 Mio. Euro (19 per cent) Allocation for Regional assignments (PT and Social)
- circa 220 Mio. Euro (13 per cent) Property expenditure (Operation and maintenance of municipal buildings, vehicles, etc.)
- circa 140 Mio. Euro (8 per cent) Interest and depreciations
- circa 250 Mio. Euro (14 per cent) Sundry

The expenditure situation produces the following consequences for a sustainable development:

- The largest cost pools consist of resp. 23 per cent in personnel expenditure as well as in youth and social welfare; in both these sectors the saving possibilities after the cost cutting phases already completed are limited; in the youth sector the costs will rise.



- Over the past years the largest cost increases were in child day care services due to the considerable expansion of the service offered. Further improvements are intended here, therefore additional costs are anticipated.
- Since 1994 the City has saved more than half a billion Euro in a total of seven budget consolidation rounds. 92 per cent of our budget is fixed by statutory guidelines, personnel costs and others. Only approximately eight per cent of the budget is now available for all voluntary expenditures, e.g. for museums and sport clubs, culture, youth and environmental projects.

## 2.2 | Sustainability of municipal income

### Essential earnings of the City of Hannover (2011 budget) are:

- circa 480 Mio. Euro (30 per cent) from the incoming trade tax arising from company profits
- circa 130 Mio. Euro (8 per cent) from the rates to be paid by landowners and tenants
- circa 150 Mio. Euro (9 per cent) share of income tax allocated to city
- circa 110 Mio. Euro (7 per cent) fees for urban services
- circa 380 Mio. Euro (24 per cent) payments of the Region and State of Lower Saxony predominantly for social services rendered in Hannover
- circa 100 Mio. Euro (6 per cent) profit and loss transfer of the municipal utilities, in particular Stadtwerke/energy utility (incl. concession tax)
- circa 250 Mio. Euro (16 per cent) other income (e.g. bagatelle taxes such as dog licence, amusement tax, V.A.T., municipal finance balance and other)





The income situation has the following consequences for a sustainable development:

- The municipalities hold a considerable interest in having economically thriving firms in the urban area.
- The municipal trade tax must be reformed in such a way as to ensure that the urban income is continuous and calculable (currently this is subject to considerable fluctuations).
- Building land policy is to keep persons in the high income bracket within the city area.
- Totally outdated values of property tax must be finally adjusted after almost 50 years.
- State and Federal Government must equip the local authorities with adequate financial resources to carry out their duties.

## 2.3 | Sustainability of the urban infrastructure

The municipal assets are of particular importance to the population – in particular the 600 municipal buildings covering 1.1 million sq. metres floor space (about 70 per cent of these being schools and approx. 10 per cent children and youth centres) plus the urban road network. To act sustainably means annually reinvesting in this property so as to retain its substance. As this did not occur in the past, the city has realized over the past years a special building modernisation programme with a volume totalling approx. 320 million Euro.

In addition Hannover finances several large projects – in particular new schools – using so-called PPP (Public-Private-Partnership). The buildings are constructed by private companies and (pre-) financed, with the City as tenant.

In the future reinvestment in buildings and other infrastructural institutions is planned for at least the same amount as the occurring depreciations.



## 2.4 | Sustainability of urban capital

The opening balance sheet presented at the end of 2011 in conjunction with the new local double bookkeeping shows that the City of Hannover has assets amounting to several billion Euros, in particular plots of land, buildings, roads, works of art and urban enterprises – considerably greater than the round 1.7. billion Euro debts and not inconsiderable reserves. The City has therefore by all means considerable capital resources and unlike other cities is far from being overindebted. The municipal companies are cautiously evaluated in the balance – presumably the sale of the municipal services alone would suffice to completely free the City from debt. However no sale is desired, as otherwise the transfer of high profits would be lost and the municipal services are an essential pillar of the municipal climate protection policy.

A municipal finance policy is only sustainable if its own capital remains, that is to say as long as the City is not living from its substance. In the end it would be critical if the level of debts were greater than the capital. This would mean a debt overload, which in the case of a company would inevitably lead to insolvency. But even if this limit is not reached, taking out additional credits for planned investments is to be regarded critically as the interests would burden the current budget and so restrict the leeway for action.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## FUTURE-COMPATIBLE MANAGEMENT

- 3.1 | Climate Protection Region Hannover
- 3.2 | hannoverimpuls GmbH
- 3.3 | Gründerinnen-Consult Hannover (G-CH)
- 3.4 | Ecoprofit Hannover
- 3.5 | Sustainable pupil-run companies – The early bird ...

Main goal of sustainable economic policy is to have enough jobs for the Hannover population. Despite considerable upheavals in the globalized economy (with approx. 60,000 less industrial workplaces over the last 30 years) Hannover has today 22,000 more jobs than in 1980. The unemployment number has dropped by 9,600 over the last five years. But with approx. 30,000 looking for jobs (unemployment rate of 11.1 per cent) there is still a lot to be done!

In the case of economic support on a local level sustainability means bothering in particular about the stability of small and medium-size companies and contrary to the business world trend towards a further centralization means stabilizing the situation in the decentralized city districts. Furthermore there is a series of projects focusing on the sector of sustainable economic promotion.



*“The development of a large city can only be sustainable if it is adapted to suit the urban environment – this is particularly true of our claim to achieving a climate-neutral residential-, and traffic development”*

Lord Mayor Stephan Weil – Cities for a sustainable Germany, in text No.36 issued by Difu under commission of participating Lord Mayor, Berlin, 2011.



### 3.1 | Climate Protection Region Hannover

Hannover is literally bursting with energy: around one hundred companies in the region deal with the supply, component construction, projecting and quality assurance connected all round energy. Hannover is one of the leading climate protection regions in Germany and can rely on an optimal infrastructure:

- already since 1992 Hannover has had a climate protection coordination centre – one of the first of its kind in Germany;
- in the ‘Klimaschutzagentur Region Hannover GmbH’ (Climate protection agency Hannover Region) around 70, i.e. nearly all important actors have amalgamated to engage in the marketing of energy saving and utilisation of alternative energies;
- the ‘energy-Fonds proKlima’ which is annexed to the energy utility of Hannover, annually pours out 5 million Euro for climate protection projects which exceed the legal requirements or qualitatively go beyond the conventional practice. In this way approx. 50 million Euro additional investments are triggered off each year – an important factor, in particular, for local handicraft;
- the Kompetenzzentrum für Energieeffizienz e.V. (Competence Centre for Energy efficiency) links the activities of Hannover universities and private research institutions in a network;
- for the business development company hannoverimpuls GmbH the energy sector is one of the six focal clusters.

### 3.2 | hannoverimpuls GmbH

Setting-up, growth and settlement of businesses in the Hannover Region: that is the task and aim of hannoverimpuls – in close cooperation with the economic support in 21 cities and districts in the Hannover Region. hannoverimpuls GmbH concentrates on setting up businesses and in addition focuses on six branches standing for special growth, high potential and innovation power: Automotive, Energy, Information and Communications Technology, Creative Services, Health and Production Engineering.

Internet:

- [www.hannoverimpuls.com](http://www.hannoverimpuls.com)



Via hannoverimpuls EU structural aid funds for small and medium businesses are granted (European Regional Development Fund) and sustainability criteria play quite a special role in its award.

#### Revolving Capital Input

Precisely the young technology-oriented businesses have a high financial requirement to enable them to realize their business concept. They often have great difficulty in finding risk investors. This is easier in the Hannover Region: Via ‘Invest-Impuls’ hannoverimpuls offers promising businesses equity capital in the start-up phase.

All in all 28 million Euro investment fund means are available as risk capital. Young regional high-tech businesses can receive up to 1.5 million Euro equity capital for their business. No other region in Germany offers young technology enterprises such a comprehensive financial support.

After the knock-on phase the capital flows back into the fund in the form of agreed repayments. This circulation of funds enables start-ups to be permanently supported. A professional fund management makes sure that the public funds of the Hannover Region and from the EFRE-Structural promotion can be permanently reinvested.

#### Co-working Room use – Setting-up promotion in three centres

Young businesses need space to develop. Start-up centres offer the right framework in the start-up phase and offer support with the joint use of a co-working infrastructure. hannoverimpuls makes attractive offices and workrooms available at suitable conditions in three locations within the city area. Start-ups from the media sector find a favourable infrastructure in Camp Media and creative people in the sector of Creative Services can settle in the converted industrial buildings of the former Hanomag. As from 2013 the Marienwerder Technology Centre will be open for technology-oriented businesses. Once the business has established itself, it must vacate the premises, which then become available to other start-ups.





### 3.3 | Gründerinnen-Consult Hannover (G-CH)



Business women who contribute to the local economy are a plus for a sustainable Hannover. Gründerinnen-Consult Hannover (G-CH) is a business sector of hannoverimpuls GmbH and the liaison contact for women interested in starting up a business or already in business. To improve the starting chances of women founding a business, to win over more women for self-employment, support founders with intercultural competences and arouse the economy's interest for women starting up a business, those are the aims of G-CH. In future the focus lies on the branches, health and creative services. In particular women freelancers are to be given an equal possibility of access to growth markets.

The remarkably high demand from 2010 shows the requirement: 760 consultations with 383 women, 330 lady participants in the qualification, 980 participants in the network offers – in all 883 women, who have taken advantage of these offers. The start-up quota in the case of those seeking advice is on average 57 per cent. The start-ups are in various sectors, e.g. intercultural care service, child- and youth psychotherapy, marketing consultancy, purchase and sale of dental equipment online and management training and team development.

### 3.4 | Ecoprofit Hannover



The first ECOPROFIT-operations were appraised in 2000. Since that time far more than a hundred renowned companies have participated successfully in this practice-oriented counselling programme. Ecological weaknesses in the businesses were reviewed and saving potentials discovered as a basis for demanding environmental programmes.

The concept has proven worthwhile: Resource-saving action is intensified and combined with economic targets. More than 12,000 tons of avoided CO<sub>2</sub>-emissions increase the quality of life and are an important contribution to climate protection. In addition to their commitment to the protection of the environment and resources as well as their operational economic interests many companies are also engaged in social concerns quite in line with sustainability. Firms' own Kindergarten were established or framework conditions for a family-friendly business created. Youth projects were pro-



moted or the Tafel e.V., which distributes food to the needy, was supported. The demand for the project is endless: Even in the present annual beginners round which starts anew every year 20 firms will be participating. Many of them work afterwards in the ECOPROFIT-Club, which has developed into a successful and ever-expanding regional network. The good cooperation with the project management, the control group made up of authorities and chambers as well as external counsellors has proven a vital success factor for the ECOPROFIT-operations.

### 3.5 | Sustainable pupil-run companies – The early bird ...

In Hannover's schools the idea of a sustainable economy is introduced already at a very early stage. In cooperation with the regional coordination of the country-wide project "Nachhaltige Schülerfirmen" the schools are given organisational, financial and legal advice regarding the setting up and running of a business. The City aids the young entrepreneurs with workgroups and workshops.

In the meantime there are more than 20 pupil-run enterprises in Hannover's schools. These have committed themselves to the principle of sustainability: ranging from making of healthy break-time snacks, Bio-catering, computer services for senior citizens, bicycle repair, beekeeping and honey-making.

Sustainable pupil-run businesses are school projects which orientate themselves to real companies. The pupils produce and sell goods or offer services, taking into consideration ecological and social needs. They put a business concept into practice, whilst learning all aspects of setup and running of a business. At the same time they earn money with their products. What more tangible way than this can there be of discovering and demonstrating sustainability as the intersection of ecology, economy and social responsibility.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## SUSTAINABLY MOBILE

- 4.1 | Mobility Masterplan 2025
- 4.2 | üstra Hannoversche Verkehrsbetriebe AG – ecological public transport for Hannover
- 4.3 | Carsharing – individual and sustainable Mobility

Mobility and flexibility are attributed great significance as basic requirements for our “just-in-time” economy and our consumer behaviour. At the same time mobility also shapes and enhances the outward image of a city and influences its quality of living. To prevent this urban pulse from soaring up into an unhealthy rapid tempo, a longterm mobility plan, promoting attractive alternatives to motorized individual transport (MIV), is required. Hannover has already taken great strides in the right direction.

In Hannover 41 per cent of all routes are covered in MIV, in the Hannover region 50 per cent and the national average is 59 per cent (Mobility in Germany, 2002). Whereas the percentage of Public Transport (ÖPNV) in Germany on national average is only 8 per cent, in Hannover this is even 17 per cent and in the Region 13 per cent.



#### 4.1 | Mobility Masterplan 2025

The Mobility Masterplan passed by the council in January 2011 formulates an “overall mobility concept” covering all modes of transport. This makes up the traffic policy scope of action for the next 10 to 15 years.

The goal is mobility planning to sustainably strengthen and develop the City of Hannover as a central, nationwide significant location for economy, living and culture.

The Masterplan focuses on mobility facilities which support barrier-free involvement in public life and mobility, the overall cycle transport concept, inner-city transport concept, mobility management, road safety, air, noise and climate.

Within the framework of the Masterplan a trendsetting approach was designed as action strategy for cycle traffic until 2025.

- Target is to double the share of cycle traffic to 25 per cent.
- At the same time to cut the number of cycle traffic accidents involving serious injuries and deaths over the next ten years.
- Hannover intends to link up an attractive integrated cycle route network by the year 2025.
- To minimize waiting times and detours for cycle traffic.
- Setting up of suitable parking facilities at the start and destination of special cycle routes.

More intensively than ever before cycling and the public awareness of environmentally conscious traffic behaviour and a change of attitude in the selection of transport means is being promoted. Within the next few years apart from the two existing cycle parking house facilities in the City increased offers of service-oriented public and private service facilities are to be provided.



#### 4.2 | üstra Hannoversche Verkehrsbetriebe AG – ecological public transport for Hannover

Hannover can boast a successful and widely developed system of Public Transport (PT). Within the Hannover Region the four transport services üstra, RegioBus Hannover, DB Regio and Metronom work together to provide the passengers with an optimal service package in the PT. The integrated public transport system provides a well-coordinated transport network, which customers can travel on using one and the same ticket. Short journeys are the basis of the transport planning. Proof of its quality is the yearly increasing number of passengers. With a total of 195.5 million passengers 2010 was the most successful year ever in the history of the alliance called GVH. In all, the passengers in 2010 travelled in the GVH 37 million journeys more than ten years previously in 2000, an increase of round 23.5 per cent.

The üstra Hannoversche Verkehrsbetriebe AG belongs to the top flight German local traffic companies. With around 159 million passengers per annum in their city buses and trams it is the largest partner in the GVH with a traffic percentage of round 75 per cent. With its modern metropolitan railway and fleet of buses the üstra provides environmentally-friendly mobility. The üstra Stadtbahnwagen (light rail carriages) are real climate blockbusters; the CO<sub>2</sub>-emission of the Stadtbahn has been reduced by 22 per cent since 1990. The Stadtbahnen produce the energy required partly themselves – from transformed brake energy. From 2013 onwards 50 new environmentally-friendly light rail trains will be underway in Hannover. This investment will be backed 50 per cent by subsidies from the State of Lower Saxony.

The üstra bus fleet is also environmentally-friendly: the vehicles acquired over the last few years meet with the highest environmental standards. Since September 2011 ten especially low consumption hybrid buses travel on a route, which passes through very heavy traffic zones and densely built-up road areas. These new buses reduce the noise and pollution stress for a number of Hannoverians. In this way the üstra offers yet again more environmentally-friendly mobility in Hannover.



### 4.3 | CarSharing – individual and sustainable Mobility

Carsharing offers the possibility of creating an optimal network of car travel with ecomobility (walking, cycling, public local transport) making it possible to profit from the individual advantages of the use of a car without having to own one personally. A positive factor for the quality of life within the town: Better use of vehicles available; traffic volume is reduced:

- 27 users to one Carsharing vehicle on average nationwide.
- One Carsharing-vehicle replaces up to 8 private vehicles.

In addition Carsharing customers only use the car when it is of more advantage than other means of transport, thus reducing the vehicle mileage of the users in motorized individual traffic.



There are currently two Carsharing projects in Hannover:

#### stadtmobil

Carsharing in Hannover has a tradition as contribution to sustainable city mobility: already in 1992 a Carsharing initiative was started and has since won more and more supporters. In the meantime the company Stadtmobil has a total of 1250 vehicles available at 510 locations in 60 cities. In Hannover more than 3,500 Stadtmobil-members (private persons, companies, clubs and administrative organisations) use 140 Stadtmobil-cars.

#### Volkswagen AG Carsharing project

In 2011 Volkswagen started a new Carsharing concept using 200 VW Golf BlueMotion. To begin with around 50 locations are being set up, medium term the vehicles are to be picked up and handed back at up to 100 locations within the city district. The VW Golf Blue Motion will be the start model for the fleet – equipped with start-stop-automatic and brake energy recuperation - which on average uses only 3.8 litres of fuel for 100 kilometres. This is equivalent to a CO<sub>2</sub>-emission of only 99 grams per kilometre.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## CLIMATE PROTECTION

- 5.1 | Climate-Alliance Hannover – a city commits itself to good climate
- 5.2 | Climate protection with energy production – enercity
- 5.3 | Energy saving in schools and administrative buildings

Cities, bulk consumers of energy, play a key role in climate protection. Hannover – contrary to many other municipalities – has its own municipal utility. This means that the city also has an influence on the type of energy production. Thanks to its highly efficient, modern production of energy, its conscious use and the numerous climate protection activities in the region, Hannover and the urban fringe are nationwide pioneers.





And we are thinking ahead:

Together with the Region we are striving to achieve a climate-neutral energy supply by 2050. There are a lot of points in favour of starting right now:

- Political necessity: The two-degree-target of the world climate council is at the same time the local yardstick. The Federal Government's energy concept 2010 also sets the target of reducing greenhouse gas emissions by 80 per cent by the year 2050. It is the task of the regional level to meet the requirements necessary to enable these targets to be reached.
- Social responsibility: for the city population, to minimize the risk of future rising energy costs.
- Economic considerations: The development of local companies dealing with climate protection ensures and promotes the added value within the region. As an innovative motor it offers good prospects for the future.
- Good experience: Pro-active dealings in the case of local climate/ environmental protection have paid off in Hannover. Currently there is a stringent need to think strategically beyond the goals set for 2020.
- Global responsibility: within the context of global responsibility it is the duty of a western city such as Hannover to disclose by way of example possible solutions for sustainable life and quickly put them into practice.
- As part of the industrial society: how can a technology and export-oriented industrial society within the globalized world economy be conciliable with sustainable climate protection, with regional cycling of materials and climate-neutral energy supply? Communities, too, should find answers to these basic questions.

## 5.1 | Climate-Alliance Hannover – a city commits itself to good climate

As far as climate protection is concerned Hannover has developed over the past years into one of the leading regions of Germany. In a nationwide exemplary process the City and its utility (Stadtwerke Hannover AG) have initiated a climate protection action programme in 2008 in which many actors have played a part: the Climate-Alliance Hannover 2020. This has given rise to a comprehensive climate protection confederation which sets the aim of reducing the annual CO<sub>2</sub>-emissions by 2020 by 40 per cent compared to 1990. This means annually 1.8 million tons.

In this alliance both large and medium-sized companies in industry, service industries, housing economy, church organisations, environmental organisations, trade unions and political parties have amalgamated. Precisely in this way the programme backs on the inhabitants, because one thing is clear: The ambitious climate protection goal demands a great effort from each and everyone.

The participants in the Climate-Alliance have developed a comprehensive contingency catalogue as central instrument. Short-, medium and long-term strategies are interwoven.

For their own buildings the City has decided to retrofit the building stock according to sophisticated energy standards, which are 30 per cent better than those stipulated. New buildings are to be built only according to passive house standards.

*„A lot has changed but not the necessity for local action towards the protection of the global climate. (...)*

*We should not overlook the fact that climate-friendly behaviour does not necessarily involve renunciation and restriction of individual freedom. Responsible handling of the natural resources can increase the quality of life within our city. Investments in climate protection, for example, in the modernisation of buildings give the local employment market strong impulses.”*

Stephan Weil, Lord Mayor and Hans Mönninghoff, Director of Economic and Environmental Services from the Foreword “Climate Alliance Hannover 2020”; Hannover 2009





### Concerto/act2 – an EU-Project for building modernisation

Thanks to the Concerto programme significant experience was gathered in Hannover with the efficient energy upgrading of 55 older buildings with a total used area of 34,200 square metres. Along with 52 residential buildings these also include three municipal school buildings. The evaluated consumption data for the residential buildings show heating energy savings which at 50 – 70 per cent are clearly higher than is the case with conventional modernisation.

The aim of this project is to support modernisation with an integrated approach. This involves both advisory, supervisory and quality assurance offers as well as the use of renewable energies.



## 5.2 | Climate protection with energy production – enercity

“Stadtwerke Hannover AG (enercity)” belongs to the large municipal energy suppliers. 75 per cent of it belongs to the City of Hannover – and that should remain so.



Under the umbrella “enercity – Positive Energy” it supplies over 650,000 people with electricity, gas, water and district heating and offers energy-related services.

Enercity’s actions are determined by the assumption of economic, ecological and social responsibility, and are anchored in the company strategy “Concept 2020 – vorwärts nach weit” (“Concept 2020 – thrust ahead”). A sustainable improvement of the energy mix by extension of regenerative energy and the increase in energy efficiency is the essential goal here. There has been a total abandonment of atomic energy since 1988.

In Hannover enercity operates its own power stations with efficient cogeneration (CHP). In total 60 per cent of the self-produced electricity is from inner-city locations. Modernisation of the gas and steam turbines in the CHP plant Hannover-Linden boosts the district heating in Hannover. Until 2020 considerable investments will be made in regenerative energies such as biomass and wind, enabling all Hannover households to be supplied with eco-electricity.

As its contribution to the Climate-Alliance enercity will save in the production sector alone round 700,000 tons of CO<sub>2</sub> annually by the year 2020.

The Climate protection fund ‘proKlima Der enercity-Fonds’ founded in 1998 together with communal partners promotes climate protection locally with an annual 5 million Euro. With round 45 million Euro this fund has already promoted more than 19,000 projects in the climate protection region of Hannover. Alongside the modernisation within the building stock a proKlima focus lies particularly in the promotion of passive house construction. Altogether all projects backed by proKlima since 1998 have prevented the annual emission of approx. 100,000 tons CO<sub>2</sub>.





### 5.3 | Energy saving in schools and administrative buildings



Alongside various special programmes for the sustainable upgrading of buildings in the past years a construction programme 2008 to 2012 (consisting of modernisation programme for schools and kindergarten, stabilisation programme as well as various Public-Private-Partnership modernizations and new constructions) with a volume of 320 million Euro is currently being implemented. In this programme primarily schools and day nurseries are being upgraded according to the ecological standards of the city: 30 per cent higher standard than stipulated by legal regulations (EnEV2009), new buildings in passive house standard.

The users of the municipal buildings are involved in this energy saving. Their contribution is made by correct ventilation, by heating as and when required, and by organisational measures such as the optimisation of operation times, avoidance of stand-by consumption.

The City has launched three target group-specific projects:

- GSE-Projekt: Energy saving in schools (since 1994)
- KliK-Projekt: Climate protection in Kindergarten (since 1999)
- Tatort Büro: Energy and water saving in the city administration (since 2000)



#### GSE-Projekt: Energy saving in schools

By means of the GSE-project (School energy management group) 92 of the 110 schools have successfully saved energy on a voluntary basis since 1994. For this purpose pupils, teachers and caretakers in a disseminator team with expert support by energy advisors take a joint look at their school to find non-investive energy-saving potentials, develop energy-saving measures, communicate and implement them. The schools receive one third of the financial savings.

The figures themselves are proof enough that the project is financially worthwhile and beneficial to the environment: eight per cent annual heating savings, nine per cent annual electricity savings, 30,200 tons CO emissions avoided since 1994 and a cost reduction totalling 6 mio. Euro.

The project is a model for many nationwide energy savings projects and is part of the Climate Alliance Hannover 2020.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## SUSTAINABLE BUILDING AND LIVING WITH ECOLOGICAL STANDARDS

- 6.1 | Sustainable building and living with ecological standards
- 6.2 | Climate protection estate zero:e park

Commercial and private (new) buildings determine the framework of work and life in the buildings for many years to come. In many sectors building can lay the foundation stone for sustainable acting. At the same time communities and building contractors can exert possible influences on the future design of the building and its environment. In Hannover even in the past exemplary ecological standards were set in Kronsberg; now in the south of the City Europe's largest climate protection residential estate is being built.



## 6.1 | Sustainable building and living with ecological standards

For construction within the urban sphere of influence the Council of the City of Hannover passed ecological standards in the year 2007. Model for this is the Kronsberg residential estate, which was created to high eco-standards for EXPO 2000.



The economical use of resources in the energy, water, construction material and soil sectors as well as the avoidance of waste as contributions to preserving and restoring an environment worth living in can be traced back to activities already in the 90's. The ecological standards apply for the modernisation and new construction of civic and also of other buildings. Instruments of their implementation are urban land use planning as well as the layout of private and public law contracts with the City of Hannover.



Requirements of these ecological standards are:

- solar-optimized efficient energy general building planning
- stipulation of energetic standards such as the passive house construction
- a timely advisory obligation
- preferential awarding of municipal plots of land to those willing to build passive houses
- an efficient energy retrofitting of municipal buildings and passive house standard for new building construction in the municipal sector
- precautionary-oriented soil values
- rainwater management and roof greening

### Climate protection with passive houses and exemplary retrofitting

The energy saving passive house construction method is regarded as the most important requisite for the efficient use of renewable energies. For this reason the City of Hannover sets the passive house standard as yard-

stick for new building construction within the communal sphere of influence. For the energetic retrofitting of municipal buildings a standard, which is at least 30 per cent higher than the legal requirements is realized.

### Eco standards as incentive in industrial building

The City advises investors in the industrial (business) building sector on economic solutions for a high quality energetic building shell, efficient energy technique, use of district heating and photovoltaics as well as on possible subsidies from the local climate protection fund proKlima Der enerCity-Fonds. The results are stipulated in a contract. Should several investors show an interest in a municipal plot of land, then acceptance will be awarded to the one achieving the highest eco-standard. This is how e.g. food markets with the highest energy efficiency in Germany currently occur in Hannover.

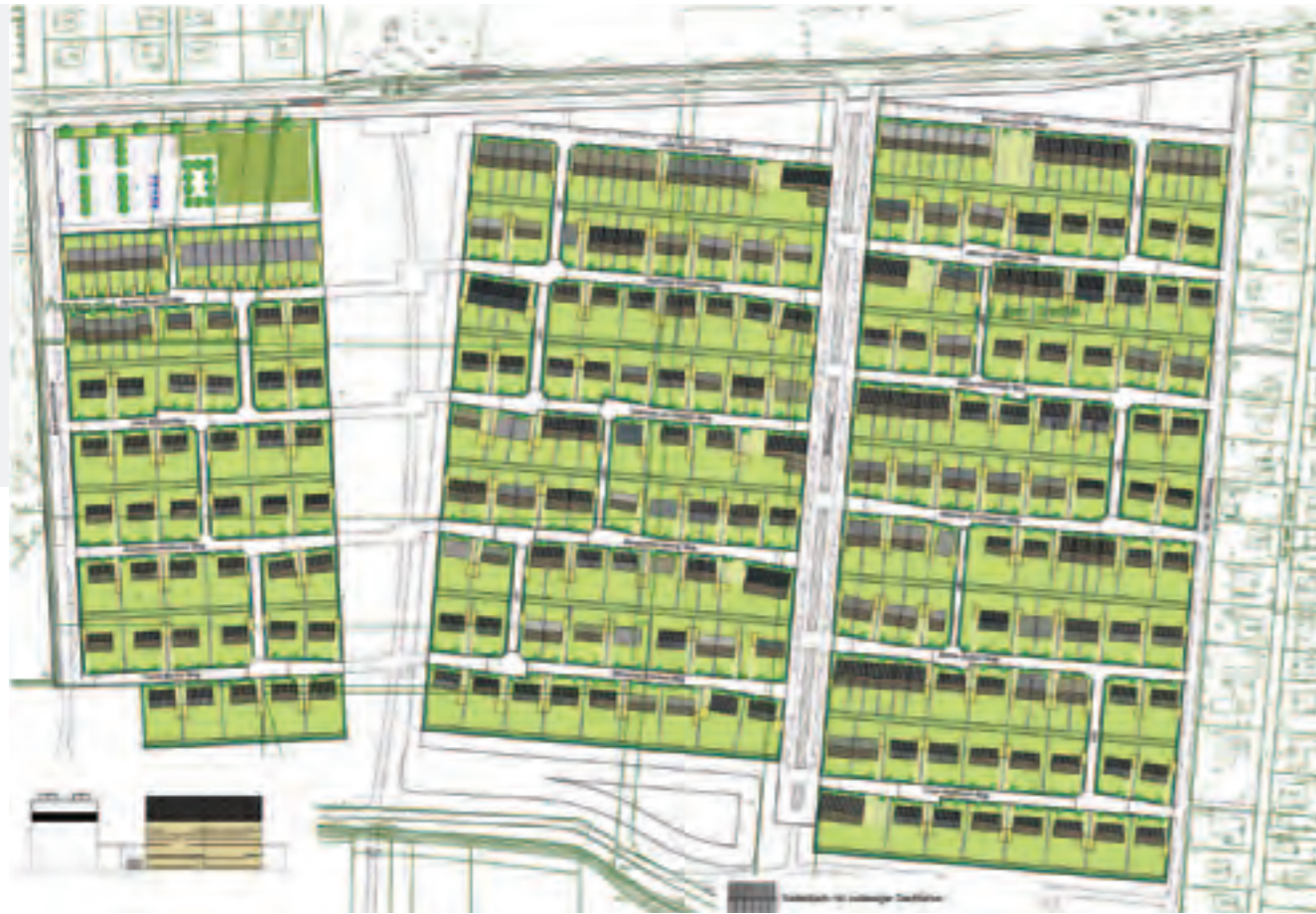
### Soil protection

To date there are no nationwide valid maximum values for soil contaminants in urban land use planning. With the soil values passed in 2007 Hannover shows precaution-oriented quality standards. These make it much easier to process areas of potential pollution and contaminated derelict sites in the general building procedure.

### Rainwater management and roof greening

Rainwater management is a system combining the absorption, collection, retainment and slow gradual release of the rainwater. The open rainwater channeling is an important municipal design element which improves the city climate and creates small, near-natural areas. In locations where the soil conditions hamper infiltration ,a combination of Mulden (gulleys) and underground pebbles (Rigolen) is constructed. Roof greening can also considerably retain rainwater due to the 'sponge effect' of its substrate and plant layer.





## 6.2 | Climate protection estate zero:e park

With the building of passive houses in the new building site “zero:e park” Hannover conquers new territory: here the largest zero-emission residential estate in Europe is being built. This site for 330 single-family houses will be realized by 2020.

An efficient energy coverage type with passive and active solar energy utilization reduces the heating requirement of the houses to a minimum. Compared with the current legal standard (EnEV 2009) the passive house coverage type of the new zero:e-houses cuts the greenhouse gas emissions for heating by 65 to 87 per cent. Due to the low heating requirement and the use of renewable energies the requirement can for the most part be covered in the climate protection housing development itself.

Statutory stipulations in the local development plan, contract guidelines as well as counselling and quality assurance contribute to the achievement of this ambitious target. In addition the City promotes the development of the new building site and the entire city sector with the project Lebendige Nachbarschaften (LeNa) (“living neighbourhoods”). Advisory meetings, information evenings concerning the construction and other activities offer the new neighbours a chance to get to know one another better.



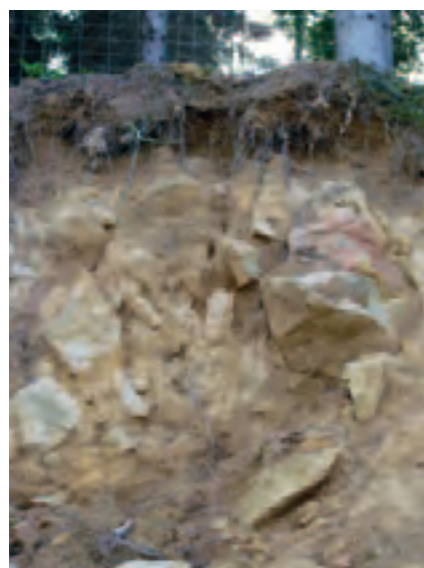
HANNOVER-WETTBERGEN  
**zero:e park**  
 0-EMISSIONSBEWUSSTSEIN AM HINTERBACH

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## SUSTAINABLE PROTECTION OF THE MEANS OF SUBSISTENCE

- 7.1 | Actively save space
- 7.2 | Sustainable water resources
- 7.3 | Sustainable waste management
- 7.4 | Noise action plan as contribution to sustainable city development
- 7.5 | Clean air planning and emission zone

Our life and work uses resources. Some of these are exhaustible, some like regenerative energy or regrowing raw materials are renewable. Precisely for those non-renewable or recyclable raw materials it is necessary to find a precautionary handling method. The most precious commodity that mankind possesses is health. This costly resource must similarly be given lasting protection. Hannover is also actively engaged in this field of sustainability, as the noise action plan and the clean air plan show.



## 7.1 | Actively save space

### Precautionary soil protection – climate protection from below

In the Federal Republic of Germany round 94 hectares of land are built over per day for residential and traffic routes – a great loss for nature and agriculture. One aim of the national sustainable strategy is for this reason the limitation of land conversion to nationwide 30 hectares per day by the year 2020. To achieve this the communities must save active space by

- strengthening the inner development of the cities and conserving previously untouched land.
- implementing a precautionary soil conservation linking up ecologically significant free space.
- making polluted areas reusable again.

Soil, as carbon dioxide storage, makes an important contribution to climate protection. In order to protect the natural soil functions a special procedure is applied in Hannover e.g. in the urban land use planning: A digital map for precautionary soil protection makes it easier to evaluate the soils suitability for protection and to select the soil conservation measures. This evaluation also provides hints for possible compensatory measures and substitute remediation.

### An example of land recycling: der Wissenschafts- und Technologiepark Hannover (Science and Technology Park Hannover)

In the City borough Marienwerder the “soil was prepared” for the Wissenschafts- und Technologiepark Hannover. The former plot of land of a battery manufacturer was partially highly contaminated with heavy metals. After removal of the poisonous industrial heritage now an attractive location for university and scientific institutes and companies is arising together with 500 high quality job locations. Site remediation as well as ‘close-to-nature’ design of the gully are linked up with the layout of a country park and campus: a 10 hectare green belt and 10 hectare high quality industrial area are taking shape.



## 7.2 | Sustainable water resources

Maintenance of water quality and the development of strategies for handling water are focal aspects in a sustainable water resources management. This applies to streams, rivers and lakes just the same as it does to groundwater.

### Close-to-nature waterways design

For 25 years now Hannover has had programmes to ecologically improve the watercourses. Meantime almost 20 kilometres of watercourses in Hannover have been designed close-to-nature. In many locations disturbing obstruction was eliminated. Riparian zones were set up, alluvial areas created and individual care and development plans realized. The success of these can be seen in a marked improvement in the water quality: In 2002 thirty three per cent of the water resources (flowing water, running water) had the water quality II (max. moderately polluted), 2007 it was 43 per cent. (Quality II is the water quality category which is aimed at by politics and water management).

Only four per cent of the water reaches are still highly contaminated, in 2002 it was still seven per cent. This is proof that the City of Hannover’s efforts connected with the programme of near natural state conversion of watercourses and the activities of the urban sewerage system, as e.g. the rainwater management concept and the remediation of the wastewater treatment plant have been successful.

Already since 2000 the three weirs on the Leine river are “barrier-free” passable for migrating fish species and microorganisms due to the construction of bypass channels and fish ladders.







### City-wide groundwater monitoring

Since 2003 the City operates an extensive groundwater monitoring system in order to detect changes in the water quality at an early stage and, if need be, take suitable steps to remedy this. Groundwater, which is completely unaltered by human influence, can no longer be found in cities. “Background pollution” is the result of diffuse material inputs e.g. from traffic or air pollutants. There are special monitoring networks where the groundwater is polluted by outflow from old controlled landfill or industrial sites. Monitoring is also an important planning basis for groundwater protection.



### Good drinking water

Drinking water is obtained for the most part from Fuhrberger Feld. There the sustainable water management carried out by Stadtwerke Hannover AG (enercity) using extensive groundwater protection activities is the basis for the excellent water quality. In the water production area of over 30,400 hectares enercity has been working together with the resident farmers for a long time, so chemical input into the groundwater is avoided.



For more than 15 years now enercity has had a broadleaf tree-planting programme. The aim of this is to convert the coniferous woodland into valuable broadleaf forest stock. More than 2,500 hectares have already been converted into mixed resp. broad-leaved woodland using round nine million seedlings. This promotes the groundwater increment and at the same time is good for climate protection, around 4,000 tons of CO<sub>2</sub> are bound annually.

### 7.3 | Sustainable waste management

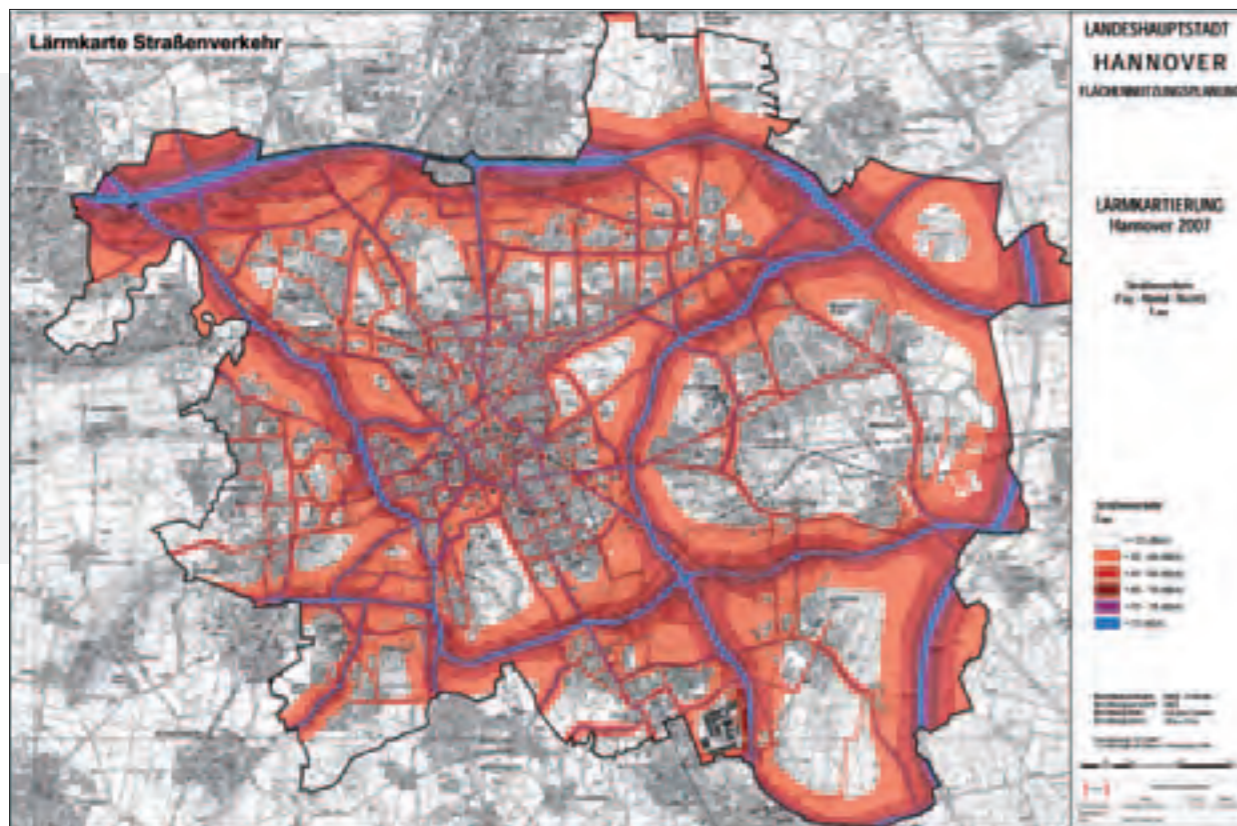
Waste in itself is not sustainable and resource protection means the production of as little waste as possible by means of waste minimization. Waste demands deposit areas and requires additional expenditure for disposal and recycling. By means of a waste management concept Hannover has succeeded in making an extreme cutback in the quantity of domestic waste to be disposed of: in 1990 round 1,290 kg waste/inhabitant from the City were dumped on the central waste disposal site. This quantity dropped 56 per cent by 2002 to 566 kg/inhabitant. The collection of recyclables covering the whole area is supplemented in the Hannover Region by a network of recyclable waste centres. Today there are 20 such centres with 3.1 million customers per year.

The waste concept of the municipal association Abfallwirtschaft Region Hannover (aha) is a sensible mix of maximum recovery and ecological residual waste treatment. It combines active climate protection with disposal assurance for the region of Hannover.

Around half of the residual waste goes directly into the incineration plants. The other part is treated mechanically-biologically. The energy generation from both processes supplies round 43,000 households with electricity per year.

In 2004 waste management had a four per cent share in the CO<sub>2</sub>-emissions in the Region Hannover – in particular due to the volatilization from both earlier operated disposal sites. By 2015 a coverage of the old disposal site with gas cylinder and gas incineration shall be operated, collecting all climate-detrimental landfill gases.





## 7.4 | Noise action plan as contribution to sustainable city development

The protection of the population from damaging noise emissions is also part of a sustainable urban development. The EU Environmental Directive prescribes noise action plans. The noise action plan for Hannover, which was passed by the City council committee consists of a 4-point programme:

1. To protect the quiet of the night rest period tests should be made in strongly noise-stressed road sections, to see whether the traffic tempo can be reduced by monitoring systems. If this is not the case, then a tempo limit of 40 km/h could be introduced during the night time period.
2. Noise reduction road surfaces should help to reduce traffic noises and so decrease the traffic-related noise stress.
3. The design of road areas has an effect on the noise level and the subjective noise sensitivity. During the planning of road conversions noise avoidance should be taken into consideration.
4. The City can only prescribe noise reduction measures in its own field of competence. Noise conflicts occur, however, also at traffic routes (road and rail) of other traffic bodies (motorways, railway network). The other providers involved are therefore requested to reduce the noise exposure in their respective field of competence.



## 7.5 | Clean air planning and emission zone

In larger cities people are subject to pollution due to air pollutants from road traffic. These include (fine) particulate matter, nitrogen monoxide, nitrogen dioxide and benzene. The European Parliament Directive on ambient air quality and cleaner air that came into force 2008 stipulates binding threshold values for these noxious gases. If these limits cannot be observed, the community must prepare an air quality plan, showing measures to be taken to ensure a permanent reduction of the air pollutants.

As the threshold values in particular for nitrogen dioxide cannot be observed in Hannover, the City set up a clean air action plan in 2007, which entails the introduction of a low emission zone. Together with Berlin and Cologne, Hannover was forerunner and has introduced a low emission zone in 2008. In three stages driving bans were fixed. Since the beginning of 2010 only vehicles displaying a green disc can be underway in the low emission zone. In the meantime 46 German cities have such zones.

Although the annual mean threshold value for  $\text{NO}_2$  of  $40 \text{ g/m}^3$  is still exceeded, considerable improvements in the air quality have resulted due to the emission zone (in conjunction with the remaining measures of the air quality plan: The  $\text{NO}_2$ -contamination could be reduced from  $56 \text{ g/m}^3$  in 2007 (prior to the emission zone) to  $51 \text{ g/m}^3$  in the year 2010 (after stage three). In 2011 the annual mean contamination was  $43 \text{ g/m}^3$ .

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## NATURE IN THE CITY – IN TIMES OF CLIMATE CHANGE

- 8.1 | Federal Capital in nature and species conservation
- 8.2 | Urban woodland utilization – Eilenriede exemplary
- 8.3 | Act sustainable also means: getting ready for climate change

Hannover is Germany's greenest large city – with 108 m<sup>2</sup> green area per inhabitant, giving Hannover a high and well appreciated quality of life. Biological diversity improvement is a vital concern of the administration and the many inhabitants who commit themselves to environmental and nature protection. Lush nature moulds the attitude to life in a city and enormously increases its leisure and recreational value. To ensure that this remains the case in Hannover even in times of climatic change, there are now already forward-looking plans for climate-adapted action.



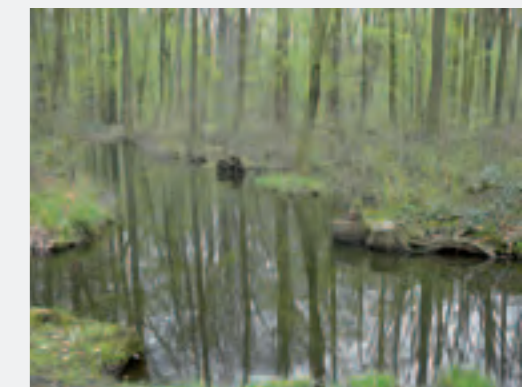
## 8.1 | Federal Capital in nature and species conservation

Since April 2011 Hannover bears the commendation title of “Federal capital of biodiversity”. The prize honours numerous programmes and projects concerning nature and species conservation under the motto: “more nature in the City”.

A natural, diversified living and working environment is a permanent assurance of a high quality of life within the city. That is why nature conservation and biological diversity are fundamental aims of Hannover. This can be seen in a number of activities which are only seldom found in other communities:

- Watercourses are designed to the greatest extent ‘close-to-nature’.
- The City woodland is FSC-certified and has a programme to support the deadwood sector.
- On green spaces close-to-nature areas replace the care-intensive lawn areas.
- The courtyard and neighbourhood residential environment programme supports inhabitants in their attempts to enhance their environment with greenery.
- To retain genetic diversity the City tree nursery cultivates plants typical of the area.
- In the landscape spaces small ponds are laid out, copses (small woodlands) planted, arable weeds protected, grassland agriculture intensified and organic farming promoted.

“More nature in the City” would like to arouse people’s enthusiasm for the diversity of nature. This becomes successful thanks to a series of unusual facilities, which are spread out over the City area: Kinderwald Hannover, Eilenriede woodland with woodland study centre, city farm, school biology centre – to name just a few. These locations for hands-on environmental education demonstrate well-thought-out educational concepts. They clearly bring home the message of the importance of biodiversity and the necessity to protect it.



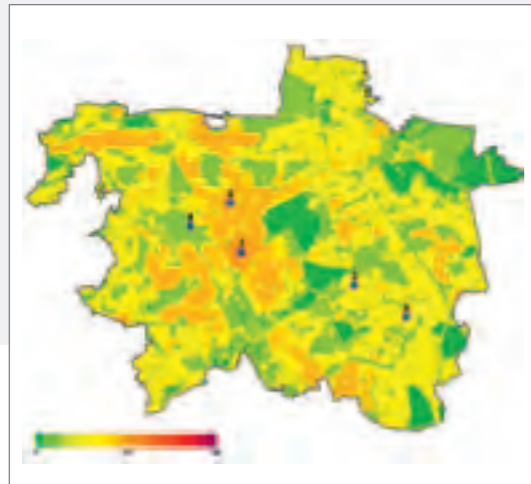
## 8.2 | Urban woodland utilization – Eilenriede exemplary

Hannover owns the largest central city woodland in Europe, the Eilenriede, covering 640 hectares. It has been a woodland for thousands of years, has been used for various purposes but never been built up or used as agricultural area – this makes the Eilenriede so special.

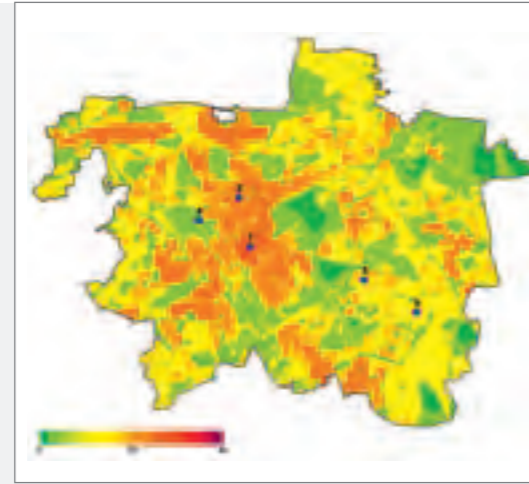
The managed areas are certified according to the strictest ecological standards – namely FSC and “Naturland”. In the meantime more than ten per cent of the City woodland area is under full protection; there is forestry and no paths here. In the Eilenriede there is a continuous rise in the percentage of dead wood, rare plants, insects and birds settle, making it an important element in the City biodiversity plan.

Apart from its important functions in the urban natural balance for climate, air quality, water regime and as close-to-nature biotope, the Eilenriede is also indispensable for outdoor short-term recreation. A compact path network for pedestrians and cyclists cover the Hannover urban woodland. As “sports woodland” there are two skater routes and six signposted jogger or runner routes, ranging from 2,500 m to the half marathon, 21 km which lead solely through woodland.

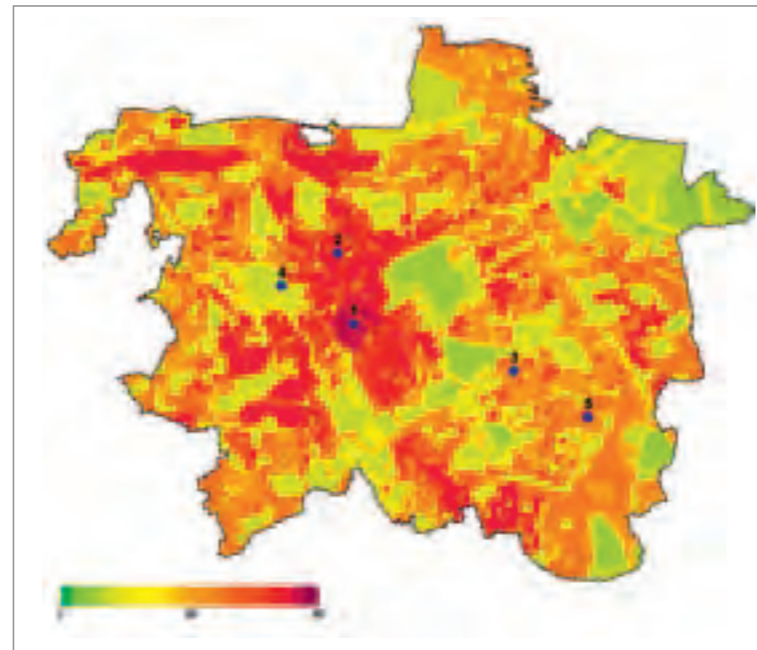




— 2001 – 2010



— 2046 – 2055



— 2090 – 2099



### 8.3 | Act sustainable also means: getting ready for climate change

The climate change strides on ahead. Experts predict a global warming of at least 2 degrees Celsius by the end of this Century at the latest. This will mean Hannover can expect a considerable increase in the number of hot days (max. temperature > 30 °C) and tropical nights (min. temperature > 20 °C). The result: increasing stress due to heat with corresponding consequences for people's health. In addition rising economic damages are to be feared due to local heavy rain and flooding as well as summer drought periods and storms.

In order to take early precautionary measures in Hannover and enable a forward-looking urban development, the City administration is currently developing a comprehensive action plan to adapt to climatic change, taking the following aspects into consideration:

- Urban planning aspects (urban heat islands, heatwaves, tropical nights and their effect on people's health)
- Water management aspects (on the one hand an increase in extreme rainfall occurrences, on the other hand increasing dry periods, change in annual rain distribution, risk of flooding.)
- Green planning aspects (increase in summerlike dry periods; effects on agricultural and silvicultural areas as well as green spaces).



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## THINK GLOBAL, ACT LOCAL – FAIR AND TOGETHER

- 9.1 | Aware & fair
- 9.2 | Local Integration Plan
- 9.3 | Migrants for Agenda 21 e.V. (registered society)

“Think global – act local” is an old but still applicable slogan of the sustainability debate. The following are three examples of how Hannover gives international aspects of sustainability a high priority:

### 9.1 | Aware & fair

Under the motto ‘aware & fair’ Hannover has cooperated with its twin cities Poznan (Poland) and Blantyre (Malawi) as well as Miskolc (Hungary) and Litomerice (Czech Republic). They all cooperate and jointly implement locally the United Nations millennium development goals. An example of fair trade: In the four European cities the market for fair trade products from Malawi (coffee, macadamia nuts, tea and rice) is opened up and expanded. Detailed information and campaigns aim at consumer identification with the products, producers and production methods involved in order to promote fair trading.

Our local trading has far-reaching consequences especially for the developing countries. The aware and fair project makes the effects clear in concrete examples and demonstrates fair trade possibilities.



“aware & fair” has made it its task to create public awareness for other urgent topics and to intensify the cooperation: growing poverty, illnesses such as AIDS/HIV, malaria, global climate change, use of natural resources, illiteracy and much more. The eight millennium development goals serve as basis. These cover the principles of the Agenda 21-activities including other targets decided internationally by the World Health Organisation (WHO), the World Social Forum, the UN-Environment Organisation (UNEP) and the International Labour Organisation (ILO).



## 9.2 | Local Integration Plan

In Hannover integration is a prominent development goal. Around a quarter of the inhabitants of the City have a migration background, i.e. they belong to the 126,000 people who hold a foreign citizenship or another one additional to the German citizenship. For many immigrants Hannover has become their hometown. For this reason the cohabitation of people with different original cultures has a marked effect on city life.

An expression of this central significance for the urban development is the preparation, approval and implementation of a comprehensive integration concept – the Local Integration Plan (LIP) in 2008. With this plan the integration work of Hannover was set on a completely new footing. In a widespan participation procedure integration possibilities and steps were analysed, developed and coordinated. As a result 243 concrete courses of action arose as task for the urban society, politics and administration. With LIP, integration is understood to be a cross-sectional task. Participation is a significant element. Here, above all, the integration advisory committees of the urban districts are to be mentioned, they are responsible for direct networking of actors directly on site and the promotion of concrete integration projects.

The integration topic is not limited only to migrants: in the entire city this is a question of promoting social balance and making the chances of education and development possible for all.



## 9.3 | Migrants for Agenda 21 e.V. (registered society)

The society “Migranten für Agenda 21 e.V.” founded in 2002 devotes itself especially to the topics of sustainability and integration. The work carried out by the society is neither political nor denominationally bound; it is open to people from all nations.

The members of the society, coming from different countries, have the aim of informing migrants above all about environmental protection and sustainable living styles, and of motivating health-conscious behaviour. Migrants for Agenda 21 e.V. organize celebrations, bicycle tours and sightseeing of environmentally relevant locations, and support the purchase of fair trade products.

In the case of all advisory events, lectures and seminars the society focuses on intercultural, specialist and personal exchange. From the very start the Agenda 21-Office is a vital cooperation partner. Both parties profit from the successful cooperation and the regular interchange of experiences and know-how.

The society is also coordination point for the “Integrationslotsen Umwelt (ILU)” (“integration environment pilots”) and is commissioned to take on the following tasks by order of the Agenda 21-Office:

- Contact person
- Coordination and planning as well as placing of ILUs and locations
- Further training.

The integration pilots are intended to assist in further promotion of the integration of migrants in Hannover and make it easier for them to acclimatize and settle in, paying particular attention to the individual cultural backgrounds and origins.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## EDUCATION FOR SUSTAINABLE DEVELOPMENT

- 10.1 | Hannover plans education
- 10.2 | STADT MACHT SCHULE (City goes schooling)
- 10.3 | Environment educates!
- 10.4 | Out-of-school learning centres  
‘Kinderwald’, School biology Centre, City district farm, woodland centre
- 10.5 | Science Initiative Hannover

Sustainability is an educational topic, taught increasingly by schools, universities and out-of-school learning locations. Education in itself is an aspect of sustainability. It focuses on equal involvement and the creation of a future-oriented lifestyle; education paves the way for this. Precisely for this reason Hannover plans forward-looking education and develops the overall system of education, care and upbringing. Science, too, opens up more and more to the interested public.

*“The key to integration and a lasting involvement of really all young people in a self-determined and future-oriented life design lies in ‘education’, whereby education is to be understood as the successful acquisition of schooling, social and emotional competences. That is why ‘education’ is the substance which will secure the future of our society.”*

Lord Mayor Stephan Weil – Foreword to Hannover Educational plan, Hannover 2009.



## 10.1 | Hannover plans education

“Education is not just school and school means more than mere education” this is the basic idea behind the Hannover Education plan 2009. The overall system of education, care and social upbringing is to be further developed. As an overview and basic information it helps to set municipal priorities. So the educational plan becomes an element of qualitative urban development.

The education plan provides a comprehensive insight into the available activities and services and how they can be used by children, youngsters and parents. Based on this the plan defines activity focuses for the strategical approach adopted with regard to City “educational investments”:

- Equal opportunities
- Mothers, fathers, parents
- pre-junior school early learning incentives
- Full day facilities at school age
- Raise awareness of educational profile at out-of-school learning centres
- social education and action concepts

The first educational monitoring took place in 2010. This is intended to ascertain development trends every two years. Particular progress was achieved in one point in the last few years: The percentage of foreign children, leaving school without a final school certificate was cut from more than 20 per cent in the year 2003 to 14 per cent in 2009. The percentage of German youngsters was halved to five per cent over the same period.

## 10.2 | Stadt macht Schule (City goes schooling)

Democracy is something which has to be learned and there is a lot to be said in favour of starting this in one’s own city. The City of Hannover has compiled a programme entitled “Stadt macht Schule” (SMS) which is intended to help children to familiarize themselves with city politics. It was developed in cooperation with Council members, city administration personnel, pupils and teachers from various schools. One element of SMS is



“Pimp your Town!” organized by the society “Politik zum Anfassen e.V.” (Hands-on politics).

“Pimp your town!” is a simulation game where 120 pupils assume the role of Council members. They debate on petitions concerning current topics and take decisions, which are presented to the Council in the form of printed informational material. During the preparation in school lessons and on the day of the simulation game councillors from all parliamentary parties assist the pupils and give them an insight into political practice.

Several of the pupil petitions in the simulation game were taken up by the parties. These petitions made it into the “real” Council debate sessions where justifying arguments were presented by the “Pimp your town pupils” and passed by the “real” council; in this way the petitions flow directly into the decision-making of the city.

## 10.3 | Environment educates!

Children and youngsters need space to encourage them to discover their environment, put their own questions and find creative solutions. In this way they become competent enough to assume responsibility and shape their world in a sustainable manner. The projects and environmental educational offers available in Hannover for children, youngsters, families, nursery school teachers and schoolteachers focus their attention on practical activity.

The offer is great: activity boxes, exploration rucksacks, experiment sets and numerous workshop facilities to be hired out free of charge. Day care nurseries, schools and other educational establishments can explore the world involving the topics forest, water, climate, energy, waste, paper and biodiversity. In addition to this the city offers expert advice, instruction aids, exhibitions and events for various target groups.

The offers, which are mainly free of charge for institutions belonging to the City of Hannover are carried out in conjunction with numerous cooperation partners both within as well as outside the administration. This “network of environmental advice” covers a wide range of topics with a high level of specialised competence and flexibility as well as synergy effects.





## 10.4 | Out-of-school learning centres 'Kinderwald', School biology Centre, City district farm, woodland centre

"I spy with my little eye ..."

Children are always curious. In Hannover there are "out-of-school learning sites" to quench their thirst for knowledge, especially in things to do with nature. Along with the numerous offers provided there is also the possibility of absolving a Voluntary Ecological Year "Freiwilliges Ökologisches Jahr" (FÖJ) in all institutions (except for the Kinderwald – children's woodland).



### Kinderwald Hannover (Children's woodland)

Here children can experience nature with all their senses: with the help of instructors they can plant trees, build willow tipis, dig, and take on responsibility under the motto "Think global, act local". Culture also thrives here: Kinderwald choirs, theatre and other performances are on the programme.

### School biology centre

For more than 25 years now the school biology centre has offered a broad kaleidoscope of instructional events, materials, experiences and ideas concerning biological and related topics. Among other things there is a large variety of courses available on the programme for pupils, further training for teachers and Sunday specials for parents and children.

### Town district farm

The farm makes it possible for children from the town to learn more about animals and nature. This farm with its own bakery and vegetable garden provides numerous offers – focus: traditional handicraft and responsible handling of animals.

### Woodland station Eilenriede

"Hands-on forest experience" is the woodland centre programme. 28 locations invite to a hands-on experience in exploring and understanding the secrets of the forest. The large workshop building offers space and incentives for handicraftwork and construction using natural materials. The latest



attraction: the 'Waldhochhaus' which at a height of 32 metres offers a far reaching look into the treetops round about and onto the skyline of Hannover.

## 10.5 | Science Initiative Hannover

With the foundation of the "Initiative Wissenschaft Hannover" the City of Hannover has succeeded in 2007 in linking up a supporting network of the most significant scientific institutions. This paved the way for more cooperation between universities and city.

All Hannover universities, VolkswagenStiftung, Studentenwerk Hannover, important scientific establishments as well as the City of Hannover are committed to this initiative. The joint aim is to strengthen and profile the university and science location. Students should have even better general conditions. The City administration coordinates the activities of those participating. A joint University and Science website [www.science-hannover.de](http://www.science-hannover.de) gives daily reports on the studies, theories, research and every day study routine of students in Hannover.

With new events such as the "November of Science" the series "Science in the townhall" as well as the nationwide unique "Festival of philosophy" the universities and science institutions open up successfully to a large public. Excursions for small and medium-sized companies of the Region to scientific establishments give an insight into the scientific potential and educational training of specialists in Hannover.

Students and scientists from home and abroad are greeted with a special Welcome and Service offer. Students with a main residence in Hannover profit from the discount card "Hausmarke" which grants e.g. discount for shopping, sports and cultural establishments.

INITIATIVE  
WISSENSCHAFT  
Hannover

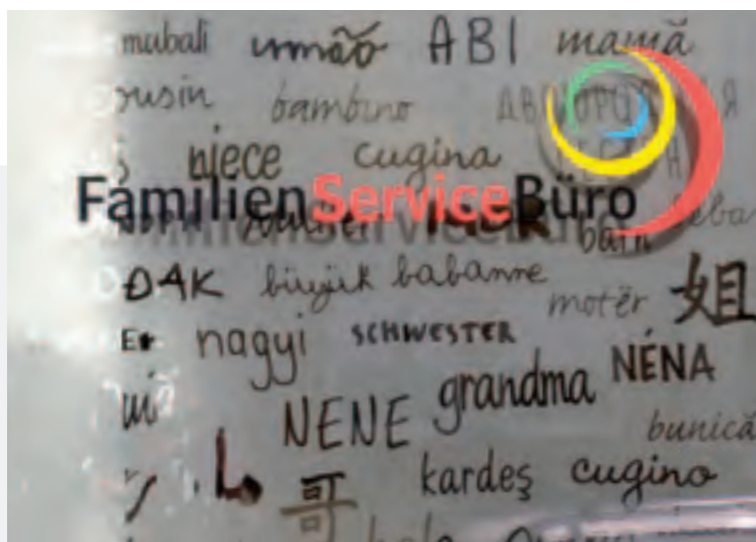


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## PARTICIPATION FOR ALL – DESIGN SOCIAL LIFE FAIR AND FIT FOR FUTURE

- 11.1 | Family-friendly Hannover – Child care services and parent education
- 11.2 | HannoverAktivPass
- 11.3 | Two practical examples in the training sector

To what extent a municipality is sustainable can be seen in its willingness to devote its attention to our future generation, the children. Parents are included more and more in the offers provided by the City, e.g. in the 23 family centres existent in Hannover. One focus of Hannover social policy is to make it easier for socially and financially deprived persons to participate in public life. Hannover is yet again above the federal average when it comes to the offers made available for children and youngsters.



## 11.1 | Family-friendly Hannover – Child care services and parent education

Currently there are 23,071 child care service places available: the main offer of 13,428 places is allocated to the 3 – 6 yr. olds; 4,643 places for the very small children in day nurseries and in day care. By 2013 we intend to offer at least 40 per cent of the 0 – 2 yr. olds a nursery place. Quantity and quality go hand in hand: in Hannover more than 90 per cent of all Kindergarten places are full day or  $\frac{3}{4}$  day places, around double the average offered in the former Bundesländer (Federal States).

23 of the 415 day care facilities for children in Hannover have in the meantime been extended into family centres. These are located in city districts with a special need for action. With these centres the sectors of infant education, development and social training was successfully linked up with parent education and advice for about 2,330 children. Every family centre is supported by a network of various facilities ranging from school, advisory services, health services and culture. Multiple cooperations on site make possible a comprehensive offer and are therefore a good social supervision for the families.



## 11.2 | HannoverAktivPass

In Hannover more than 80,000 people live in financial poverty, i.e. from transfer payments to safeguard their livelihood – mainly “Hartz IV”. Families (round 12.000 resp. 26 per cent of all families) and children (round 21.000 resp. 27 per cent) are more frequently hit by this than childless resp. Senior citizens. The “Hannover principle” places emphasis primarily on the perspectives of children in poverty by creating better chances of participation. The key instruments lie within the sectors “Parental training”, “Give children and youngsters support at an early stage and strengthen them” and “accompany them on their way into working life” (see practical examples in Chap. 11.3).

One instrument which enables all children and their families to more involvement is the “Hannover-Active-Pass”. This combines social justice with social basic needs. The Hannover-Active-Pass enables Hannoverians entitled to a claim – (grand-)parents, children or single persons participation by reductions for public transport, libraries, municipal cinema, theatre, opera, Volkshochschule (adult education centre), music school or swimming baths.

Membership in a sports club with a membership fee of up to 120 Euros per year is made possible for every child using the pass. This offer is available at the moment for children in addition to the educational and participation package deal of the Federal Government. In order to be particularly effective the Hannover-Active-Pass is sent to all those entitled automatically once a year.





### 11.3 | Two practical examples in the training sector

#### Trainee restaurant of Pro Beruf GmbH

School dropouts and former homeless juveniles conjure up Three-Course-Menus and serve fingerfood. In the city's trainee restaurant socially deprived youngsters are given the chance of a training in the hotel and restaurant industry. The clue here: Hannover's top class restaurants and kitchens of the City of Hannover cooperate with the trainee restaurant. Thanks to the combination of a training in the hardgoing everyday kitchen routine and an intensive social instructional supervision the youngsters manage the plunge into working life.

For two years now the trainee restaurant has been running successfully. Under the instructional guidance of chefs, who have learned their trade in star graded kitchens, the young trainees create and serve Roastbeef with sweet-heart cabbage-tomato vegetable, chocolate parfait and many other delicacies. No wonder that the trainee restaurant is fully booked every lunchtime.

**WERK  
STATT  
SCHULE**

-statt-Schule e.V.  
innützigter Verein



#### Profession orientation Centre – a Werk-statt-Schule e.V. project

The profession orientation centre offers assistance in selecting a suitable profession with a 1-day orientation course giving pupils a nearly true picture of everyday reality. Pupils from schools providing general education, class 8 to 10 gain first impressions of activities typical of a profession:

“Discover your unknown talents” is a new way into professional orientation. The main aim is to arouse the interest of young people in various different professions by the method of learning by doing. Job descriptions and content of various professions are mediated using typical exercises with a close resemblance to reality.

The pupils perform 4 to 6 exercises per day from the sectors technical handicraft, research, artistic and creative, care and instruction, management and sales, organisation and administration.

In addition to this a professional interest test assesses the strengths of the pupils. To conclude they receive personal professional profile in the form of a certificate.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## FOODSTUFFS – MEANS FOR LIVING

- 12.1 | Sustainable safeguarding of agricultural areas
- 12.2 | Farm-produce markets – regional healthy foodstuffs
- 12.3 | Veggieday – [colourful.organic.tasty](http://colourful.organic.tasty)
- 12.4 | Eat yourself fit

The topic, nutrition, is a prime example of the complexity of sustainability: From the environmentally sound production of foodstuffs, the transport thereof using as little energy as possible, fair trade, the balanced and healthy combination of foodstuffs, seasonal selection, to tasty recipes using natural ingredients. No matter what, ecological, economical and social aspects of sustainability play a role here and can be experienced with the senses.



## 12.1 | Sustainable safeguarding of agricultural areas

Environmentally sound agriculture within the city fulfils important functions: direct supply of healthy foodstuffs, preservation of cultural landscape and city recreation. At the same time an ecological cultivation supports biological diversity.

At 14 per cent – measured over the entire area – Hannover has a truly high share of agricultural land and has recognized its significance at an early stage: the agricultural programme passed in 1989 by the City Council declared the development of extensive, environmentally sound forms of cultivation in the city area as an important aim.

Of the 2,853 hectares of agriculturally used areas around 995 hectares are in municipal ownership. Leasing agreements regulate an environmentally compatible agriculture. During EXPO 2000 an ecologically managed operation came about on Kronsberg. Unto this very day ecological agricultural landscape and green cultivation is operated here on round 120 hectares of urban area.

### Meadowland and green pasture rich in species are a cultural heritage

In Lower Saxony alone over the past 20 years round one third of the green space area was sacrificed. Increased planting of energy plants for biofuel and biogas worsened this trend. All over Europe meadows rich in species are therefore among those habitats which are most at risk. Hannover is attempting to counteract this trend in the urban area saving land by means of purchase or converting arable land into green space. In the meantime the city administration owns over 370 hectares of green space which is farmed extensively.

The city's own space is leased to farmers, who neither fertilize nor spray. Grazing by mother cow herds, sheep and horses guarantees lasting care and diversified development of the areas involved.

## 12.2 | Farm-produce markets – regional healthy foodstuffs

More than 25 weekly markets and 11 farm-produce markets spread out all over the city and held on different days of the week supply the Hannoverians with fresh groceries. These markets provide a popular meeting place which enhances the social life within the city districts.

The promotion of regional marketing is a vital method of action adopted to give support to farming both inner-city and on the urban fringe. The 11 farm-produce markets serve as possibility for direct produce sale. The stalls on the farm-produce market are operated exclusively by farms from the region (within a radius of up to 100 km from the city). Only regional and seasonal produce is on offer here.



## 12.3 | Veggieday – colourful.organic.tasty

That is the translated name given to the initiative, which started up after a round table gathering with representatives of the Agenda 21-office of the City of Hannover and e.g. the climate protection agency, the Slow-Food Convivium Hannover, the Transition Town e.V., the Utopia Team, and has led to a concrete council commission to carry out a campaign.

The regionwide campaign “Veggieday – colourful.bio.tasty” is intended to whet the appetite for vegetarian delicacies. It functions like this: once a week the city and Region eats vegetarian – at home or outdoors. This is good for one's own health and for the climate. Canteens, refectories, cafeterias and restaurants all offer tasty alternatives with vegetables, grain, tofu, cheese and co. one day a week.



For the sake of one's health: the German Society for nutrition (Deutsche Gesellschaft für Ernährung) recommends a weekly meat consumption of 300 – 600 grammes. For many in Germany the meat consumption is very much higher than this, and that is why one meat-free day per week is an important step on the way to a balanced diet with fruit, vegetables and wholegrain products.

For climate protection: Global livestock farming causes 18 per cent of the greenhouse effective gases – more than the traffic sector produces worldwide. If all inhabitants in the city and Region were to participate in the Veggieday we could all annually save a large quantity of climate gases, equivalent to the amount given off by about 80,000 cars.

The project is being carried out by the Umweltzentrum Hannover e.V. (Environment centre) in cooperation with the City of Hannover and the Region Hannover.



## 12.4 | Eat Yourself fit

As school entrance medical examinations show, many children eat a diet which is too fatty and has an excess of sugar, seldom eat fresh fruit and vegetables and are more frequently overweight and obese. Parents, on the other hand, often have very little knowledge about housekeeping and healthy nutrition. This is why the programme 'Eat yourself fit' is aimed at children's day care institutions, family centres and primary schools. Since 2006 up to 10 establishments per year have participated in the courses free of charge for twelve months.

Healthy nutrition is practised here in the children's daily routine, everyday, all year round and not merely in project weeks. Children, parents and employees are given expert instruction. The topics range from gardening to "Is bio healthier?" and "analogue cheese", to "spices and herb school" or the question "Do noodles make you fat?"

The project has a positive effect on those participating and on the institutions: Knowledge about healthy nutrition increases, children and grown-ups change their eating habits, the instructors extend their specialist and methodic know-how. Schedules, rules and structures within the institutions are changed in favour of a healthier nutrition.

"Eat yourself fit" is a health project under the patronage of the City of Hannover and is financed with funds from the Rut- und Klaus-Bahlsen-Stiftung (Foundation).





1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## SUSTAINABILITY AND SPORT

- 13.1 | Sportsmen save energy: e.coSport / e.coFit
- 13.2 | Fitness for all: Generation-playgrounds
- 13.3 | Midnight Sport

Care, integration, prevention and sustainability are all closely linked to each other. One approach is sport. Precisely because of its different facets and significances Hannover is prompted to think about an attractive sports programme with appropriate offers to suit various age groups: The sport development planning committee with the aim of “Sport for all” first enquires about the wishes and movement requirements of the population. With the cooperation of various groups – sports clubs, sport business facilities, schools, town etc. – easily accessible possibilities are worked out.

Apart from these social and health aspects the energy topic also belongs to sport – not only in the physical sense, as the projects e.coSport and e.coFit demonstrate.



### 13.1 | Sportsmen save energy: e.coSport / e.coFit

Since 2002 approx. 35 Hannover sports clubs have upgraded the club buildings energetically in an ecological and economically rewarding manner and have renewed the heating installations. 20 other clubs have received advice regarding modernisation. Energy efficient renovation/restructure prevents more than 790 tons of CO<sub>2</sub>-emissions per year.

The extensive advisory services and investments were made possible with the financial support in conjunction with the project “e.coSport – Energetic Sport centre restructure in the Hannover Region” Project sponsors are the City and Region Hannover, the sport associations in City and Region and “proKlima – Der enercity-Fonds”.

Since 2007 the e.coSport-Programme has been supplemented by the project “e.coFit - Umweltberatung für Sportvereine” (Environmental Advice for Sports Clubs). The aim here is to cut the operation costs of the clubs whilst simultaneously doing something good for climate and environmental protection. The advisory offer covers electricity and water saving, lighting, waste reduction, nature protection and modified user behaviour. As yet twelve sports clubs have completed e.coFit. 14 more clubs are currently at the advisory stage.



### 13.2 | Fitness for all: Generation-playgrounds

Since 2009 there have been new offers directed equally at younger and elderly people: the Generation playgrounds. Multi-function equipment, mostly laid out as parcours, make exercise possible and a target-oriented training for coordination, power, endurance and mobility in the open air. Without any extra preparation exercises can be carried out on modern, high-grade equipment, to boost flexibility, dexterity and strengthening of musculature. Rest areas with benches and other seating facilities round off this offer, inviting participants to relax and get into conversation with one another. By their very proximity to playgrounds these new facilities combine recreation and sport creating a possibility for young and old to get together socially.



At the moment there are four generation playgrounds in the City area: on the outdoor installations Freizeitheim (community centre) Ricklingen, in the Eilenriede next to the “Hexenspielplatz”, near to the Fridtjof Nansen School in Vahrenheide and on the playground and recreational area Fössewiese near to Davenstedter Market.

This new offer has taken on very well with the inhabitants, so the City of Hannover intends to set up further city district generation playgrounds over the next few years.

### 13.3 | Midnight Sport

This is a violence-preventive and movement-oriented activity event in Hannover, open to the youngsters of the City of Hannover. Since 1997 it has taken place every 2nd Saturday in the month (except during holidays) at the same time in 14 city districts with a total of up to 17 events, each of which attract on average 80 participants, making this a firmly established fixture of City Youth work.

Midnight sport in Hannover started up as a direct response to problems which had arisen in one city district. In the discussions here the suggestion was made to keep youngsters off the street by offering a midnight sport event – with success.

Each location is looked after by a partner from the youth work sector and/or sport. The police cooperates via its youth liaison officers at nearly all locations. Depending on the location these activities have gradually taken on their own particular movement-related and atmospheric ‘character’.

Midnight sport is a response to the mobility requirements of the youngsters and offers attractive alternatives to the usual weekend activities, partly regarded as problematic.

Midnight sport has established “three pillars”:

- organized sport with sport associations and clubs,
- associations and amenities belonging to independent bodies of Youth Work,
- municipal Youth Work.

Partners from Sport and Youth work make an effort to actively approach the youths over and above the youth programme, and win them over for their organisations in an attempt to reintegrate them into society.

#### “Girls in motion” in Midnight Sport

In five city districts a special games and movement programme is organized for girls only.

#### Types of sport in Midnight sport

The special favourite is football, even in tournaments. In addition many other movement activities are offered: Martial arts, volleyball, basketball, badminton, tam-bourello, table tennis, trampoline, climbing and especially in summer “On wheels and rollers”: BMX-ing, skating, snaking, Inline hockey, roller skating and discoskating.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## SUSTAINABILITY NEEDS A LOT OF PEOPLE

- 14.1 | Involvement of people in Hannover
- 14.2 | Local link and voluntary participation
- 14.3 | Residents become neighbours

Civic involvement is an enrichment for the quality of life and the vibrance of our city. In Hannover many inhabitants become involved in clubs, associations, initiatives and foundations, and take on responsibility. This voluntary commitment promotes social team spirit and sustainability to the same extent.

Fun, new contacts and recognition are just as important as networking and sharing know-how and experiences. The local city districts play an important role here. This is promoted by the marketing campaign “Hannover means home”. A close personal identification with one’s own city district is a good basis for sustainable action.

The city can look back on a long tradition of citizen’s involvement in various planning and decision processes.



## 14.1 | Involvement of people in Hannover

The roots of public participation in Hannover go back a long way: Right at the beginning of the 70's solicitor planners were involved in all areas of restructure. Even today people like this are available as contacts for all queries regarding local urban development, the spectrum of involvement is now even more multi-faceted:

- In a **Representative Survey**, taking place every three years the population is questioned about its satisfaction with the city administration and its specific urban life requirements.
- **Parent Enquiries** concerning the topic of school choice as basis for school development planning also take place on a regular basis.
- Within the framework of the **Finance Strategy Dialogue 2010/2011** with 150 participants and smaller sized forums the savings proposals of the residents were evaluated by the Director of Finance and discussed.
- **Resident assemblies and workshops** are carried out with the aim of achieving a mutually acceptable design of the city's open-spaces.
- **Children and Youth** are regularly involved in the design of city squares as well as with more cost-intensive playground modernisations.

Participation programmes resp. surveys in the past have led to permanent "facilities". For example the citizens' enquiry held in connection with the EXPO 2000 led to the foundation of the "Citizen's Office for Urban development" as contact for matters concerning the various topics of urban development. Today one focus of the work done by the Citizen's Office is the counselling and initiation of community construction projects.



## 14.2 | Local link and voluntary participation

In many ways Hannover encourages civic commitment. The administration coordinates resp. develops attractive inter-departmental possibilities. The social administration takes on the speaker function in the citizen cooperation network, an open cooperation alliance of municipal and free organisations.

Main network projects are the "Freiwilligenbörse" (volunteer exchange) and the "Hannover Marktplatz" (Hannover Marketplace). The "Freiwilligenbörse" provides information on numerous projects and encourages citizen participation. The "Hannover Marktplatz" brings together companies and charitable organisations for new project partnerships. The "Freiwilligentelefon" (volunteer hotline) provides information and advice around citizens' involvement.

Volunteer service deserves recognition. In Hannover this is realized by e.g. the "volunteer pass" and the promotion fund for accreditation culture. With this volunteer pass those who are voluntarily active over a longer period of time receive various perks. The promotion fund supports volunteers with compensation, qualifications or commendations.

The "Freiwilligenzentrum Hannover e.V." has for many years been the central contact location: the centre advises more than 500 volunteers and many charitable organisations per year. Round 5,000 volunteers and over 700 fields of activity are registered here. The Centre offers direct help with own projects: foster trainees support young people in finding a profession, making applications and training. Volunteers are also available to assist primary school and secondary school (grammar school) children with their homework. The Welcome Group helps newcomer citizens from all over the world to get to know people and city. In Service Learning pupils help others.

**FREIWILLIG**  
**IN HANNOVER**  
Netzwerk Bürgermitwirkung



### 14.3 | Residents become neighbours

For more than 30 years now there has been a courtyard and residential environment programme to uplift the appearance of the neighbourhood. From the very start the social aspect plays an important role; hence the advertisement campaign title: “Residents become neighbours”.

The aim is to transform unattractive backyards, inner courtyards and clearances into green, multi-utilizable open spaces, by improving bicycle parking areas and container sites, creating play areas, collecting rainwater or creating simple green oases for people and nature. Planting of often dreary backyards in the densely built city districts has noticeably improved the quality of life. Frequently these facelifts are carried out jointly by several tenants, promoting good neighbourly relationships and act as an incentive for other house communities to imitate.

Countless consultations took place on site. Round 200 initiatives were financially supported and more than 1,000 initiatives have taken part in the courtyard (backyard) and residential environment competition. This awards a prize to particularly successfully designed, ecological upgraded, and open undeveloped spaces in the residential environment. Since 2006 special prizes are awarded for successful design of facades or roof planting. These make an increasingly important contribution to the city climate, especially where there is no space for trees and bushes.

The courtyard and residential environment is only one of the numerous projects, which boost the joint incentive for a green, social city. In addition to these are also the allotment competition “colourful gardens”, initiatives for adopting a tree and playground or the action “friendship groves”. There residents can plant trees to mark a special personal occasion, on spaces made available by the City.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## SUSTAINABILITY MANAGEMENT

- 15.1 | LProgress report on urban development
- 15.2 | Hannover City 2020+
- 15.3 | Eco-audit using the EIA
- 15.4 | Environmental reports and sustainability indicators

It is often discussed that there is a need for a central sustainability management within the municipalities – at best allocated to the Lord Mayor’s office. There is nothing like this in Hannover and we intend to keep it so. This brochure shows that sustainability has a tradition in Hannover, it is something which has grown, is widely anchored in city life and in all administration units and at the same time is extremely flexible: the projects now running, plans and new ideas are very varied. The number of actors involved in all society and thematic areas is very large.

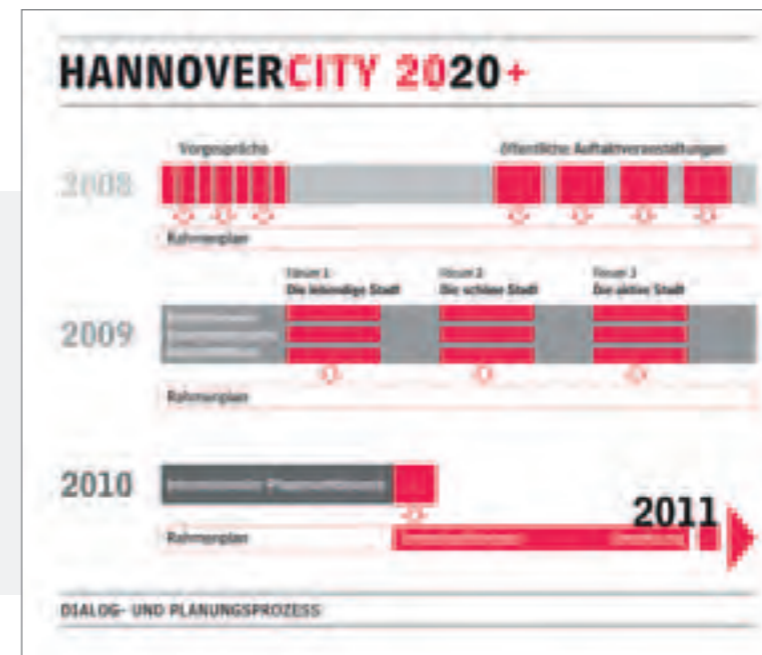
The delegation of sustainability to a central management would not do justice to the decentralized networks or would even be partially counter-productive. Instead of this our aim is to strengthen all areas of the city society and the administration from sustainability points of view. Independent of this some basic foundation stones have been laid in sustainability management.



### 15.1 | Progress report on urban development

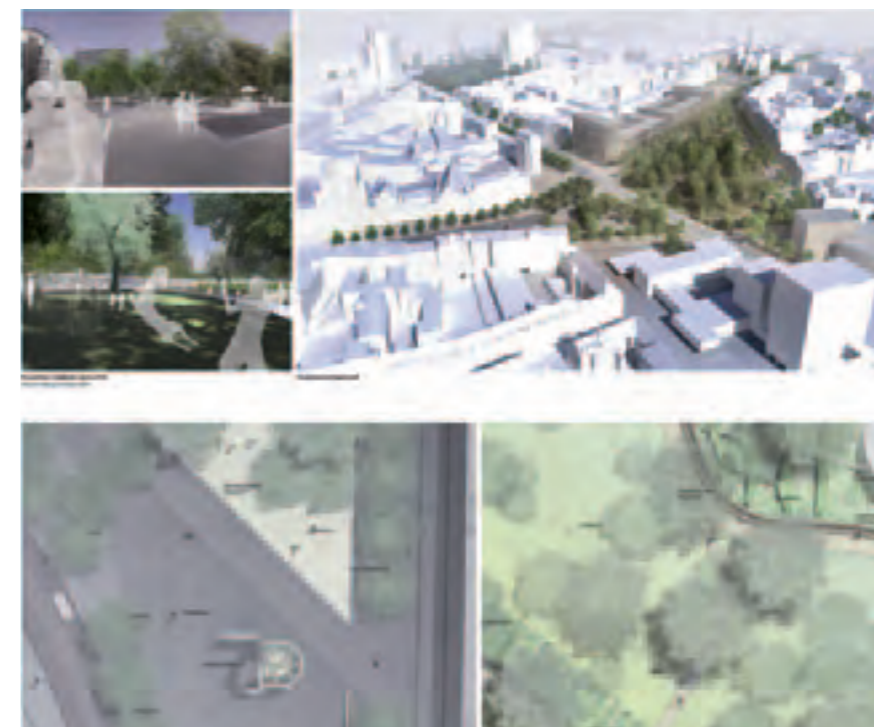
Since 1998 the administration has presented the progress report on urban development. The 2010 Report shows that Hannover comes off very well in the most recent comparison of large cities with more than half a million inhabitants: Increasing population due to influx and birthrates, an extremely wide choice of flats, moderate rent and real estate prices and a good job market make Hannover an attractive large city. Even as shopping location the city is right up at the top of the ladder.

The progress report makes it possible for politics, administration and the public to assess the development of Hannover in comparison with other German big cities and to evaluate it. Comparative cities are Hamburg, Bremen, Duisburg, Dortmund, Düsseldorf, Essen, Köln, Frankfurt, Stuttgart, Nürnberg, München, Berlin, Dresden and Leipzig. Developments e.g. in the sectors of population, economy and employment market, culture and leisure right up to the development of urban finances are taken into consideration.



### 15.2 | Hannover City 2020+

Hannover City 2020+ is a planning process promoted by the Federal Government for the preparation of a forward looking inner-city design concept, which was passed by the council in December 2010. Ten public presentations with up to 800 participants each were held prior to this. Concrete projects were developed to upgrade Hannover's city and consolidate the residential function. An attractively designed inner city with efficient energy construction projects and newly designed public places (squares) connected with an open space and green design of the Leine river bank is intended to increase the quality of living within the City. Inner-city traffic routes are to be newly arranged giving pedestrians and cyclists more space.



*“Something unique has been a success”,*

Prof. Michael Braum,  
Chairman of the Federal Trust for Building Culture, on the allocation of Hannover City 2020 in the context of the nationwide development of strategical inner-city planning – during presentation of the Hannover City 2020 concept on December 8, 2010.



### 15.3 | Eco-audit using the EIA

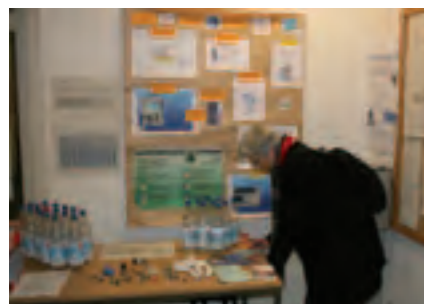
The environmental impact assessment (EIA) is a process which determines and evaluates at an early stage the effects of a project on the environment. This is intended to prevent negative environmental effects from manufacturing and processing products, recycling and disposal.

Apart from the existing legal stipulations the City of Hannover has since 1987 committed itself to undertake a municipal environmental impact assessment for its projects. Since then Hannover is regarded as one of the leading EIA-Cities in Germany.

When making urban decisions the criterion of environmental compatibility plays just as important a role as e.g. warrantability and economic viability. The test is carried out by employees, in whose sector environmentally relevant projects such as acquisition, construction measures and planning occur. Since 2005 social aspects of acquisition such as e.g. protection against exploitative child labour play an increasing role here.

The urban EIA-coordination centre organizes the exchange of information and training courses on environmental topics. In cooperation with other municipalities, with specialists in associations, university institutes and in business the basics for a more precise evaluation of the environmental impact are constantly being further developed.

Since 1996 the 'Eco-Audit' in the City administration - in connection with the EIA is gaining significance: eco-audit is an environmental management system based on the European EMAS-regulation. Within a feedback of planning, acting, testing and improvement the operational environmental protection is continuously and sustainably optimized. Trained coordinators support the further development of the eco-audit-systems in the specialized sectors.



### 15.4 | Environmental reports and sustainability indicators

Since 1992 environmental reports are prepared by the Department of Economic and Environmental Affairs. These outline and evaluate the actual environmental status and point out environmental aims and priorities.

1998 – 2000 the City of Hannover together with the participation of representatives from politics, administration, non-governmental organisations and science has worked out a system of environmental-related sustainability indicators according to which the environmental development of Hannover can be measured and assessed. These indicators are intended to contribute to the setting of priorities, showing the Agenda-21 targets already achieved and enabling a comparison of the environmental quality with other municipalities.

Particularly valid key indicators are compiled in the environmental reports as an environmental barometer. This makes it possible to read the development of the environmental situation at a glance. A comprehensive evaluation is also made, then target values, aims of specialist specific programmes, statutory stipulated threshold values, aims of the Agenda 21 and the city development programme Hannover plus10 are incorporated. Environmental sustainability indicators form an objective basis for environmental policy decisions and monitoring of their success.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

## ON THE WAY TO SUSTAINABILITY! SUMMARY

This brochure provides impressive proof of how Hannover at various levels, using different methods, and with the help of a great number of participants, is on its way to becoming a sustainable, liveable and lovable city. We have outlined the situation at the onset and the embarkment on this journey – the examples show what varied and manifold steps have already been taken and how far Hannover has already advanced on its way.

At the same time it is clear that we have described interim stages in this brochure: sustainability is a gradual process, constantly developing. It confronts us with great challenges, the sustainability of urban financing, demographic change, climate change, economic change (catch phrases globalisation, lack of skilled personnel). This means for Hannover, equipping the city from the planning, structural and financial side. To tackle this topic of sustainability three things are necessary, staying power, creativity and curiosity.

Hannover is in the lucky position that many organisations and companies, associations, clubs and neighbourhood initiatives have already paved their way towards sustainability. May we express our sincerest thanks yet again to all those male and female companions accompanying us on this journey!

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



Landeshauptstadt

Hannover

Lord Mayor

Department of Economic and Environmental Affairs

Trammplatz 2, 30159 Hannover

Tel. +49 (0)511/168- 46270

E-Mail: [eea@hannover-stadt.de](mailto:eea@hannover-stadt.de)

Internet: [www.sustainable-hannover.de](http://www.sustainable-hannover.de)

Text: Robert Exner; [www.fundwort.de](http://www.fundwort.de)

Translation: Helen Millauer

Editors: Silke Beck, Svenja Koebe, Brigitta Rawe

Design: [designagenten.com](http://designagenten.com)

Photographs: City of Hannover: Büro Oberbürgermeister – Grundsatzangelegenheiten, Fachbereich Umwelt

und Stadtgrün, Agenda 21-Büro, Fachbereich Planen und Stadtentwicklung, Fachbereich Soziales, Fachbereich Gebäudemanagement, Bereich Geoinformation, Stadtentwässerung Hannover, Frank Aussieker, Christian Balke, Ralf Decker, DesignGruppe, Ev. Luth. Familienzentrum an der Corvinuskirche, Franz Fender, Jörg-Axel Fischer (JAF), foundation 5+ architekten / landschaftsarchitekten, Jonas Gonell, GEO-NET Umweltconsulting GmbH, hannoverimpuls GmbH, hannover impuls GmbH – Gründerinnen-Consult Hannover, Sybille Heller, Nico Herzog, IFUA-Institut (Institut für Umweltanalytik Bielefeld), Initiative Wissenschaft Hannover, Karl Johaentges, Kien Hoang Le, Förderverein Kinderwald Hannover e.V., Klimaschutzagentur Region Hannover GmbH, Kompetenzzentrum für Energieeffizienz e.V., Thomas Langreder, Irmtraut Lohs, Migranten für Agenda 21 e.V., Prof. Nagel, Schonhoff + Partner GbR, Andreas Pauer, Dr. Pelzer und Partner, Pro Beruf GmbH, Stadtwerke Hannover AG – enercity, Stadtmobil, Umweltzentrum Hannover e.V., Üstra Archiv, Volkswagen AG, Werk-staff-Schule e.V., Lea Wifite, Christian Wyrwa, Zweckverband Abfallwirtschaft Region Hannover - aha

Printed by: Carl Küster Druckerei GmbH, auf 100% Recyclingpapier, klimaneutral gedruckt

Status: November 2011

*All rights, including microfiche, reserved. This applies to databases and similar facilities and to any commercial use. Use by Third Parties of whatever kind is subject to advance written permission of the City of Hannover.*