

## City of Ingolstadt

Ingolstadt is a modern industrial city: Technologically leading products manufactured by AUDI represent Ingolstadt on roads throughout the world. Positive economic forces have turned Ingolstadt and its surrounding areas into one of Germany's best-known areas of growth. These factors have led to a strong population increase over the past years.

### Integration of Master Plan and Local Agenda 21

In 1997, the city council decided to set up a new City Master Plan and Master Strategy until 2015, according to the principles of sustainable development. Until 2000, there were two unconnected processes. The Master Plan Process (internal) was set up by the local government, while the Local Agenda 21 Process (external) started with the participation of local non-governmental organisations (e.g. AUDI) and other companies, and was supported by the local government. A central problem was that the average citizen was not really involved in either processes. To encourage civic participation, the city organised a big event in October 2000, „The Day of Visions“, replete with music, workshops and prominent guests (among others the Head Coach of the German National Football Team, Franz Beckenbauer), in the main theatre and elsewhere. Overall, more than 5000 citizens participated, and 900 feedback cards were submitted by the citizens of Ingolstadt with over 1500 ideas for urban development.



In May 2001, the City Council decided to combine the Local Agenda 21 Process with the Master Plan Process, (Modellprojekt „Visionen für Ingolstadt“) and all other existing and future urban projects under a Good Governance approach. This project was and is sponsored by the Bavarian State (Bavarian Ministry for State Development and Environmental Affairs) as a contribution to the Johannesburg Summit and as one reference project for the next Local Agenda 21 phase that involves 550 Local Agenda 21 Processes in Bavaria (until 2012).

The thematic integration of both processes took place in six Citizen Conferences with 41 Round Tables (Autumn 2001), where citizens, councillors, experts from the administration and representatives of the Local Agenda 21 built a consensus regarding the new Master Plan and the Local Agenda 21 Action Programme (41 selected projects).

## Message of greeting

*from the Bavarian  
Minister for the  
Environment  
Dr. Werner Schnappauf*

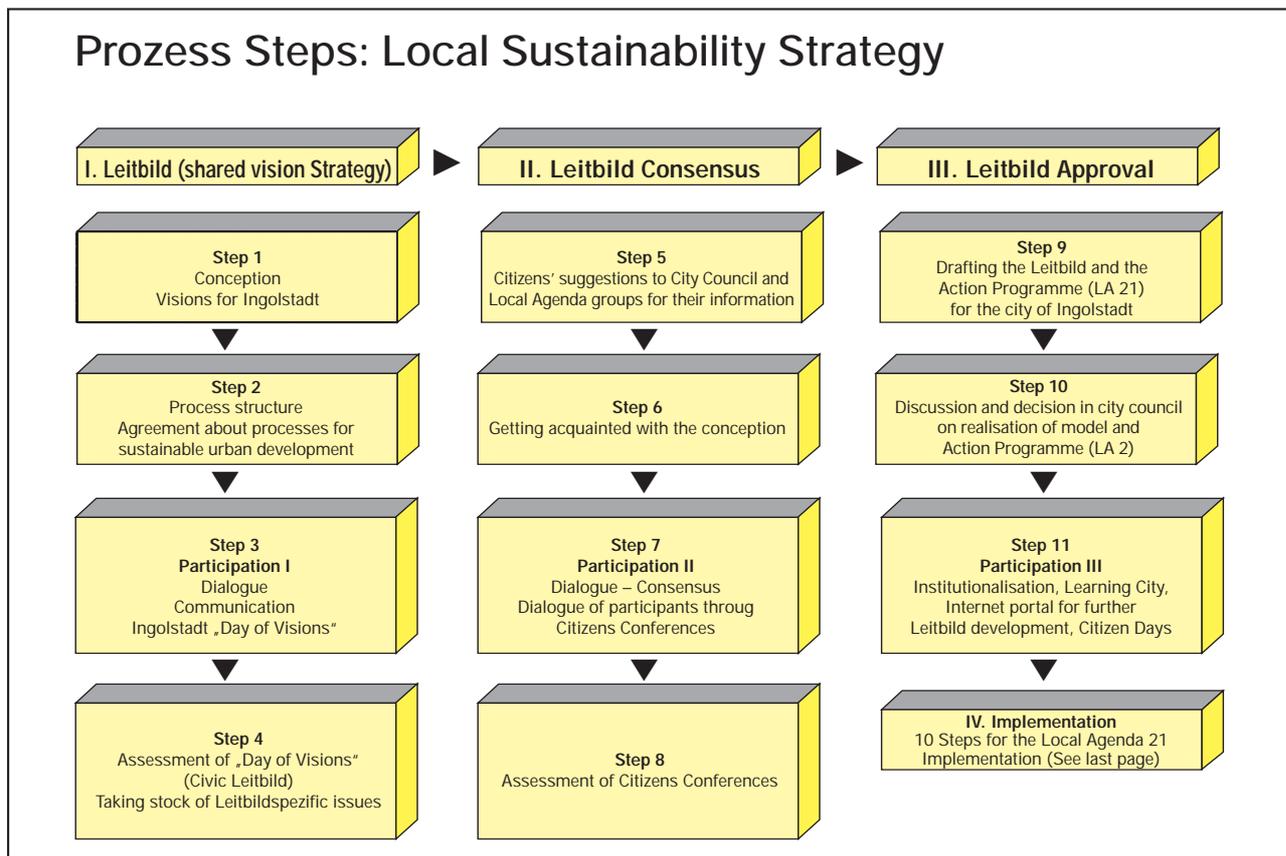


The integration of Agenda 21 ideas into our local reality has been substantial. Local Agenda 21 has become a civic movement firmly established in our community. The city of Ingolstadt has taken a path that can be a model for other communities even beyond the borders of Bavaria: The combination of Agenda 21 and sound urban development planning has integrated it beyond the field of ecology in all topics of urban development. This strategically-planned approach has initiated a dialogue between politics, administration and the citizens, and has made civic participation an inherent part of municipal development planning. For this, I would like to say, „Thank you very much.“ I wish the Ingolstadt model every success, and may it be praised and imitated far beyond the borders of Bavaria.

*Dr. Werner Schnappauf*

Bavarian Minister  
for State Development  
and Environmental Affairs





### Citizens Conferences

- The Preservation of our Environment (Tuesday, Oct. 9, 2001)
- Experience Culture (Tuesday, Oct. 16, 2001)
- Work Innovatively (Tuesday, Oct. 23, 2001)
- Traffic – Mobile with Style (Tuesday, Nov. 06, 2001)
- Living and Dwelling (Tuesday, Nov. 13, 2001)
- Getting to Know One Another (Saturday, Nov. 17, 2001)

The complete process is documented on the internet portal ([www.ingolstadt.de/visionen](http://www.ingolstadt.de/visionen)) of the city and also in the media. The results of the Citizen Conference formed the new base for the Master Plan and Local Agenda 21 development in Ingolstadt. Another new approach was the plan's integration with other sustainability strategies. The Local Sustainability Strategy of Ingolstadt is now full compatible with sustainability strategies of Germany, Bavaria, the EU and the

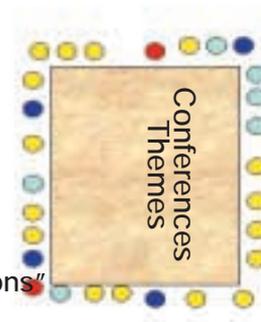
UN (Agenda 21). Possibly for the first time worldwide, all important external strategy results have been integrated! In April 2002, the City Council passed (with a one vote majority) the Master Plan and Local Agenda 21 (96 pages) with an Action Programme that includes 164 projects with a volume of over 500 million € for sustainable development in the economic, social, environmental,

educational and cultural sectors of Ingolstadt until 2015. Instruments being employed are for example the development of a Local Agenda 21 Management System with Geographic Information System GIS, Indicators, Sustainability Reporting System, new models for civic participation, training programmes for the city administration and heuristics for Sustainable Development.

### The Citizen Conferences

Up to 25 participants

- 2 – 4 city council members
- 3 – 6 administration experts, external experts, LA 21 representatives
- 15 citizens, selected because they contributed to the specific topic of this conference at the „Day of Visions“
- 1 – 2 experienced moderators Conference „Topic“



# A NEW PATHWAY TO LOCAL SUSTAINABILITY PERFORMANCE

## The Dynamic Agenda 21 Process

It is an important insight of Ingolstadt Agenda 21 that Agenda 21 processes, both on a local and global level, must be understood as cyclic or dynamic, not linear (like a screw turning upward, cyclical yet advancing). Sustainability can only be achieved long-term through continuing improvement. With the Dynamic Agenda 21 Management Process, continuing improvement of the conceptual model and the Action Programmes is becoming institutionalised (management system), and permanently controlled (controlling). Only through this is it possible to obtain steady improvement of the public welfare, of sustainability, and community morale. Overall, there are four different central Agenda 21 management processes.

1. Development of Local Agenda 21, development of local sustainability strategy
2. Local Agenda 21 Action Programme, local sustainability strategy
3. Local Agenda 21 Management System
4. Local Agenda 21 Controlling System

The Dynamic Agenda 21 Management Process has practical consequences for all elements of the system of city management, be it the planning of specific projects, model projects, civic participation, goal implementation and monitoring, be it the adaptation and further development of the Dynamic Agenda 21.

The following principles must be made permanent in the entire Dynamic Agenda 21 Process:

- Participation of skilled citizens
- Continuing improvement



- Sustainability-oriented optimisation of decisions
- A creative process of learning and searching
- Dynamic updating
- Organisational embedding
- Systematic controlling
- Sustainable financial management
- Efficient sustainability management
- Sustainable strategy management

### Assessment of Approaches of the Ingolstadt Reference Project

Green = positive Yellow = negative	Master Plan (Urban Development Planning)	Local Agenda 21	Reference Project Local Sustainability Strategy
<b>Topics</b>	All topics (ecological, economical, social)	Theoretically: all topics (ecological, economical, social) Practically: Primarily environmental topics	All topics (ecological, economical, social)
<b>Sustainability</b>	Plays only minor role, but not as an explicit or basic principal	Sustainability in the ecological, economic and social sense as a basic principle	Sustainability in the ecological, economic and social sense as a basic principle
<b>Integration</b>	Integration of all topics; avoidance or identification of conflicts due to different goals	Integration is demanded, but not possible due to limited topics	Integration of all topics; avoidance or identification of conflicts due to different goals
<b>Participation</b>	No participation by average citizens; only experts, institutions, interest groups and organisations	Theoretically: Civic participation demanded on a broad basis Practically: low response from citizens	Extensive participation by citizens through „Day of Visions“ and Citizens Conferences
<b>Acceptance</b>	Only little acceptance due to low civic participation and no public identification with the process	Little acceptance due to low civic participation and misleading terminology	Henceforth, high acceptance due to extensive civic participation and attractiveness
<b>Terminology</b>	Term sounds bureaucratic, synonym	Partly unknown partly misleading term, partly	New term that is related to the future and the location

## Preservation of the Environment and Nature<sup>1</sup>

From Stockholm, Rio to Johannesburg

In the 30 years since the first UN environmental summit in Stockholm in 1972, protection of the environment and nature in Germany has made considerable headway. A number of measures have been introduced, for exam-



ple in the areas of air pollution prevention, hazardous material security, soil protection, and brownfield redevelopment, which have significantly improved the environmental quality. Environmental preservation was especially strengthened when the protection of the natural foundations of life was added to the Constitution as a fundamental goal of the state (article 20). Despite considerable achievements, new environmental problems of a global dimension are emerging today, such as global warming and the loss of biodiversity, the unchecked use of land, and soil degradation. To meet these challenges, decisions with long-term implications have been made, for example the massive participation in renewable energies, especially through support for solar and wind energy.

Since the Rio Earth Summit, it has become increasingly clear that the economic methods and lifestyles of industrialised nations are not sustainable, originating in the high consumption of resources and the high levels of polluti-

on caused by our lifestyles. To transfer this prosperity to everyone, we would need four planets earths instead of one.

### Factor 7: Less Consumption of Resources, More Quality of Life

The new ideal of the 21st century should therefore be a combination of a lower consumption of natural resources with a higher quality of life. According to scientific studies, an efficiency increase by a Factor 7 of the utilization of resources would be necessary to facilitate especially the third world with adequate opportunities for development. The key word is efficiency. In the future, energy services (power, heat, cooling, light, communication, mobility) must be provided much more efficiently than so far – that means with a considerably lower use of primary energy.

### Future Trends

► Reduction of so-called „Kyoto emissions“ (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, H-FKW and SF<sub>6</sub>) between 2008 and 2012 by 21% (reference year

1990) as the German contribution to the burden sharing within the European Union.

► By 2005, reduction of German CO<sub>2</sub>-emissions by 25%, increased to 50% by the year 2050. (compare to 1990 levels).

► The portion of renewable energies in the overall German energy consumption doubles by 2010 (reference year 2000: around 2.1%), while the share of renewable energies in power consumption roughly doubles, reaching 12.5% in 2010 (compared to 2000) in accordance with EU guidelines.

► Energy saving and increase of energy efficiency in private households, traffic, the industry and energy industry, according to the catalogue of measures by the National Climate Protection Programme of October 18, 2000.

► The creation of a large network of biotopes on at least 10% of the expanse of Germany. This net of linked biotopes will serve the sustainable protection of local fauna and flora, and complement the European ecological network Natura 2000.

An Example for a Primary Goal:



### Guidelines for the Protection of Environment and Nature

- Our path to sustainable development in Ingolstadt has been a continuing learning process, promoted by lessons on environmental friendliness, information on the environment, and communication about the environment. This learning process does not only apply to our citizens, but to all organizations and institutions. We realize the need for all institutions that are able to contribute to a deeper awareness of the environment, nature, and a sense of sustainability to cooperate closer with the city in the future. It is also necessary that existing efforts are combined and supported.
- In Ingolstadt, nature and the scenery are very valuable for our recreation and health. Sustainability also means that the natural balance and ecosystems are protected and secured efficiently and in perpetuity. We promote the designation of additional protected habitats for plants and animals, and the safe-guarding of the natural scenery. Also, recreational areas close to Ingolstadt are to be designated for those people who consider and support the concerns of nature conservation adequately.
- In the future, we want to live and manage our economy in harmony with nature. We are aware that a circular flow economy will be only possible through sustainable consumption and sustainable production. To achieve that, we want to consider the ecological, economic and social points of view equally (per time and importance).

<sup>1</sup>Only the Environment topic is summarised with all the central elements: Description of the situation, trends, guidelines, goals, plans and projects. The other topics include only the guidelines, which are a consensus of the citizens' conferences. The complete „Loka-

le Agenda 21 in Ingolstadt“ report (ca. 90 pages) is available in German as PDF (2 MB,) or in print in Autumn 2002 (order from city of Ingolstadt).

# A NEW PATHWAY TO LOCAL SUSTAINABILITY PERFORMANCE

Sustainable Use of Natural Resources and Precaution against Harmful Influences to the Environment

## Secondary Goal:

**Protection of Our Drinking Water**  
Clean and pure drinking water, as we can find it today, should also be available to the generations that will follow us. We want to conserve ground water resources in the lowest levels of malmkarst through economical use and the substitution of drinking water with water of lower quality in areas where that meets the requirements. By tapping groundwater resources closer to the surface, we want to continue lowering the use of karst water considerably.

## Secondary Goal: Protection and Maintenance of Water Resources

We regard the protection of groundwater as an important precautionary task. For that purpose, we want to check, renovate and replace sewers and other waste water facilities over the next few years. We are working toward an improvement of the safety of industry and industrial facilities, so that substances hazardous to water cannot reach the sewage system and the groundwater. We will increase our efforts in the conservation, protection and re-naturation of surface waters. By building buffer zones around intensively used agricultural land, we wish to further reduce the entry of fertilizers and pollutants. Wherever possible due to existing geological conditions, we want to prevent rainwater from being dumped into the sewage system, or at least delay the entry into the sewage system.

## Secondary Goal:

**Soil Protection and Use of Land**  
We want to be economical with land. Therefore, we concentrate on the development of the city centre before unimproved land in the surrounding areas is used. Examples for this are the alternative use of former industrial areas (Viehmarktplatz, Giessereigelän-

de), the development of the former railway connection between Ingolstadt and Augsburg, as well as the considerate re-densification of inner-city neighborhoods. When it comes to new housing developments that are unavoidable, we want to avoid unnecessary sealing and protect the original soil from negative influences if possible.

## Secondary Goal: Rational Energy Use

We want to significantly reduce the local pollution through emissions from combustion plants in the city centre as well as emission of green house gases. Within the



city administration, we also want to set a good example through rational energy use, and contribute to the levels of CO<sub>2</sub> reduction that are the national goal.



## Plans and Projects Environment

### Concrete Plans:

- Chapter in environmental report on goals and measures
- CO<sub>2</sub> reduction plan
- Waste management programme
- Noise reduction plan

### Model Projects:

- Sustainable building
- Increase of proportion of renewable energy
- Expansion of marketing regional products in the area around Ingolstadt

### Other Projects:

- Support programme solar panel installations
- Cellular Phone Network Pact Ingolstadt
- Support programme low- and passive energy houses

## Plans and Projects Nature

### Concrete Plans:

- Silviculture plans
- Floodplain programme – Renaturation of southern Danube floodplains/ bypass
- Floodplain programme – maintenance and development programme for the oak woods of Gerolfing
- Landscape plan
- Water care plans

### Model Projects:

- Cultural landscape Schuttermoos
- What are the perspectives for storks and company?
- How much wilderness in the Glacis? Looking for a healthy balance between nature, use and culture
- Virtual Museum of the Danube
- Institute for environmental education
- Network sustainable education
- Support of Adopt-the-Environment initiatives

### Other Projects

- Schuttermoos programme
- First-time reforestation programme
- Mapping of biotopes and management of biotope maintenance
- Fluvial waters programmes
- Idea for neighbourhood parks
- Initiative Habitat in Field and Meadow - Biotope Network
- Biotope Bike Tour „Experience Nature“
- Eco-audit in the city administration
- Environmental Protection
- Award of the City of Ingolstadt Expansion of the Biotope Adventure Trail



## Living and Dwelling

### Building Guidelines

We want to support sustainable urban development which facilitates neighbourly forms of residential living and focuses on space and energy-saving buildings. This means the precedence of inner-city development over the development of the surrounding areas, and thus the use of existing resources through the development of empty lots, the revitalisation of abandoned sites as well as renovation of existing buildings. Aspects of energy saving and emission reduction have to be taken into consideration on the construction management level as well as on the building planning level.

### Traffic Guidelines

Due to the growing need for mobility, the infrastructure of our city is faced with great demands. For the future, we want to contribute to the decrease of environmental damage in Ingolstadt. This is possible especially through increased support for public transport. We want to make public transportation attractive and affordable for our citizens, and continue to expand it.

Together with the administration, the scientific community and the industries (automobile industry), we want to develop integrated

and sustainable traffic plans for Ingolstadt. For that result, regional interrelations have to be integrated. All elements of mobility should be included in these sustainable traffic plans: pedestrians, cyclists, taxis, busses and trains, and also cars. All sustainable innovations in the realm of traffic should be used, such as a structuring of residential areas that minimises traffic and a better connection between the different means of transportation.

### Recreational Guidelines

We want to provide all citizens of Ingolstadt with a wide variety of opportunities for leisure and recreation that is close to their homes and according to their needs. The different needs of all levels of society should be considered for this.

## Health Guidelines

We want our city to be a place where health is preserved and secured.

## Innovative Work

### Guidelines for Economy and Work

We favour the creation of conditions for a sustainable economy and sustainable employment. Existing jobs should be preserved, and new, sustainable jobs should be created, especially through the increased support for the establishment of new businesses and innovative companies. Those citizens who are disadvantaged on the job market should be integrated in the labour force through measures of employment promotion.

### Guidelines for Institutions Corresponding to the Central Function of Ingolstadt for the Region („oberzentrale“ Institutions)

We want to expand Ingolstadt as an innovative location for general and higher education. Through this, practical vocational and higher education for our region should be guaranteed permanently to ensure a ready supply of qualified labour. This measure, as well as an increased cooperation between local industries and universities, will raise the profile of Ingolstadt as a prime business location effectively.



## Social Aspects

### Guidelines for Social Security

We participate through intensified volunteer work (enabling self-help) in the continuing improvement of the social quality of life in Ingolstadt. The city of Ingolstadt supports its citizens and those in charge of social institutions in this task, and lends aid where self-help alone is not enough (subsidiarity principle).

### Guidelines Sense of Community

In the future, we the citizens of Ingolstadt, together with the city council, the city administration and the local institutions and companies, want to participate even more actively in the shaping of our city and take part in all decision making processes that affect us.

### Guidelines for Families, Children and Young People

We want to develop Ingolstadt into a children- and family-friendly city. For this purpose, we want to include families, children and young people in all the planning and decisions that affect them from the beginning. The forms of participation have to be decentralised and have to be attractive to children, young people and families.



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## Experience Culture

### Guidelines for Education

We want to prepare our students in the best possible way for the future challenges of professional life and the demands of society. Pursuant of this goal, the idea of sustainability should be embedded in the thoughts and actions of the new generation. We want to strengthen schools as cultural and social centres. For this purpose,

- We want to remodel school yards in the spirit of sustainability, and we want to include students, parents and teachers in this process.

- We want to establish after-school-care, and we want to recommend this service to students and parents.

- We want to tune the teaching contents of our schools to the changes and needs of our society within the boundaries of communal jurisdiction.

- We want to provide building conditions that will prepare our schools for the challenges of the years to come.

### Guidelines for Culture

Ingolstadt is a city with a vibrant and multifaceted cultural life that inspires people's imagination and creativity and stimulates self-reflection of our society. We want to live up to this ideal and increase the diverse cultural spectrum this city offers, placing emphasis on how we deal with our own past, and our cultural heritage. We want to look at the new forms of expression of structurally new aspects of contemporary art, and try to learn about and experience other cultures and what is alien for us in these cultures. Thus the citizens of our city should be lastingly encouraged to consciously and creatively take a close look at and play an active part in their environment, history, culture and with it their meaning of life, in both professional and private spheres.



Library Department of Economics  
Catholic University of Eichstätt-Ingolstadt

## Local Agenda 21 Implementation after WSSD

Many communities have already passed a Local Agenda 21 Action Programme, and are now facing the difficult task of implementing it. The following points constitute a first draft of possible steps over the next 10 years following the WSSD. It would be very helpful if - during the WSSD - a consensus could be reached on the different steps of the implementation process.

## 10 Steps for the Local Agenda 21 Implementation

### Phase I: Initiation and Organisation of Implementation Process

**Step 1:** Qualified initiation of the implementation process. Think about in- and outsourcing of implementation measures, and additional measures (external participants, advisors)

**Step 2:** Sound out implementation instruments, external and internal resource potential and financing (government aid and budget resources); pass LA 21 implementation plan and financing in city council.

**Step 3:** Structure the implementation process, re-structure the LA21 process, and set up project supervision (process/ project management).

**Step 4:** Inform and consult LA 21 groups and citizens about the implementation steps (civic participation). Inform and consult members of the municipal administration about the implementation steps (staff participation).

### Phase II: Building a LA 21 Management and Information System

**Step 5:** Conceptualise and build Local Agenda 21 Management and Information System/ synchronise systems or embed „best practices“ principles.

**Step 6:** Adjust administration structure to the LA 21 Action Programme, realise internal changes (internal organisation development/ learning). Align LA 21 work groups with LA 21 Action Programme, and ensure qualified civic participation in all planning procedures, for example through citizens' conferences and Civic Action Days (external organisational development/learning).

### Phase III: Additional Measures

**Step 7:** Introduce measures that additional the implementation process, such as embedding the LA 21 education programme in commune and administration, developing and strengthening the core competence for sustainability, information campaign (public relations) and LA 21 internet system.

**Step 8:** Ensure quality and continuous improvement, set up a proposal- and idea system. Orientate communal incentives- and reward system toward sustainability and the LA 21 Action Programme.

### Phase IV: The Institutionalisation of Local Agenda 21 as a Long-Term Process (2015)

**Step 9:** Compose Sustainability Report (GRI) and publish them (every one or two years).

**Step 10:** Permanently update LA 21 Action Programme, continuously improve it, present it to the city council, discuss and decide on it, permanently update LA 21 action programme as internet system module.

## Contacts and Webpages:



Bavarian Minister  
for State Development  
and Environmental Affairs  
Minister of State  
*Dr. Werner Schnappauf*

Contact:  
Section International Cooperation  
Section Head: *MR Dr. Wulf Riess*  
e-mail: [wulf.riess@stmlu.bayern.de](mailto:wulf.riess@stmlu.bayern.de)

Section Sustainability in Municipalities,  
Education Programmes and Sustainability  
Section Head: *MR Franz Hinterstoßer*  
e-mail: [franz.hinterstoisser@stmlu.bayern.de](mailto:franz.hinterstoisser@stmlu.bayern.de)

Webpages: Bavarian Ministry for State  
Development and Environmental Affairs  
[www.umweltministerium.bayern.de/england/index.htm](http://www.umweltministerium.bayern.de/england/index.htm)

Agenda 21 Webpage:  
[www.umweltministerium.bayern.de/agenda/index.htm](http://www.umweltministerium.bayern.de/agenda/index.htm)

Agenda 21 Zentrale für  
Bayerische Kommunen:  
[www.bayern.de/ifu/komma21/index.html](http://www.bayern.de/ifu/komma21/index.html)



City of Ingolstadt  
Major *Dr. Alfred Lehmann*

Contact: Urban Development  
and Statistic Section  
Section Head: *Helmut Schels*  
e-mail: [helmut.schels@ingolstadt.de](mailto:helmut.schels@ingolstadt.de)  
Webpage: [www.ingolstadt.de/visionen](http://www.ingolstadt.de/visionen)



Francis of Assisi Academy  
for the Protection of Earth  
President Prof. Dr. Jean Pierre  
Ribaut (France)

Contact: WSSD Task Force 2002  
Secretary General *Ralf Klemens Stappen*  
e-mail: [ralf.stappen@faape.org](mailto:ralf.stappen@faape.org)  
Webpage: [www.faape.org](http://www.faape.org)

Sustainability Performance Group  
(SP-Group)

General Director  
*Ralf Klemens Stappen M.A.*

Contact: Intern. Agenda 21 Consulting  
Director: *Ralf Brand (USA)*  
e-mail: [ralf.brand@agenda21-consulting.com](mailto:ralf.brand@agenda21-consulting.com)  
Webpage: [www.agenda21-consulting.com](http://www.agenda21-consulting.com)

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*Ralf Klemens Stappen*  
*Helmut Schels*

Translation: *Julia Eischer*  
(University of Texas at Austin)

Advisor: *Ralf Brand*  
(University of Texas at Austin)

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