LANDUSE INTENSIFICATION AND TRANSPORTATION IN ALMERE

YOUNG PLANNERS’ WORKSHOP
17 OCTOBER 2003

on the occasion of the
39th International Planning Congress of ISoCaRP, Cairo, Egypt
17-22 October 2003
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This report has been made possible with the support of the Dutch Ministry of Transport, Public Works and Water Management as well as with a grant from our Vice President Dr Pierre Laconte, President of the Foundation for Urban Environment, Kortenberg, Belgium.

COLOPHON

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### Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>7</td>
</tr>
<tr>
<td>Introduction</td>
<td>9</td>
</tr>
<tr>
<td><strong>Micro Approach: Rails to Trails in Almere</strong></td>
<td>11</td>
</tr>
<tr>
<td>Introduction</td>
<td>11</td>
</tr>
<tr>
<td>Issues</td>
<td>12</td>
</tr>
<tr>
<td>Strategy Decision</td>
<td>13</td>
</tr>
<tr>
<td>Values</td>
<td>13</td>
</tr>
<tr>
<td>Objectives</td>
<td>13</td>
</tr>
<tr>
<td>Reasoning Philosophy</td>
<td>14</td>
</tr>
<tr>
<td>Solution</td>
<td>14</td>
</tr>
<tr>
<td>Actions</td>
<td>14</td>
</tr>
<tr>
<td>Conclusion</td>
<td>16</td>
</tr>
<tr>
<td><strong>Macro Approach: Almere’s Bridge to the Future</strong></td>
<td>17</td>
</tr>
<tr>
<td>Introduction</td>
<td>17</td>
</tr>
<tr>
<td>Issues</td>
<td>18</td>
</tr>
<tr>
<td>Objectives</td>
<td>19</td>
</tr>
<tr>
<td>Solution</td>
<td>19</td>
</tr>
<tr>
<td>Actions</td>
<td>21</td>
</tr>
<tr>
<td>Conclusion</td>
<td>25</td>
</tr>
</tbody>
</table>

### Annexes:

List of Participants and their Background

Preparatory Papers submitted by the Participants beforehand:

**Rolee Aranya, India:**
Redevelopment of the City Centre trough private Investment: Expanding the Midtbyen of Trondheim through the Nedre Elvehavn Project

**Laura Bisaillon, Djibouti:**
The two Faces of Djibouti-City

**Brett Clavio, USA:**
Land Use Intensification in the San Francisco Bay Area

**Eman Abdel Ghaffar, Egypt:**
Urban Transport Planning in Metropolitan Cairo

**Dino Juloya, USA**
Intensification of Land Use in urban Areas and its Relation to Mobility and Infrastructure: San Diego Region (California), USA

**Elizabeth de Ridder, South Africa:**
Intensification of Land Use in urban Areas and its Relation to Mobility and Infrastructure: Case Study of Baphalaborwa Municipality, South Africa

**Caterina Timpanaro, Italy**
The Metropolitan Area of Milano, Italy

Presentation of ISoCaRP
PREFACE

by Fernando Brandao Alves, Vice President ISoCaRP

Thanks to the generous grant from the Dutch Ministry of Transport, Public Works and Water Management (V&W) and to the efforts of ISoCaRP Executive Director Ms Judy van Hemert, an interesting innovation could be added to our congress and to the traditional 3-day Young Planners’ Workshop: an additional 1-day Young Planners’ Workshop was held on 17 October 2003.

The main idea of the workshop was to create an international technical forum for seven Young Planners from around the world who could help the Dutch Ministry of V&W as well as the city of Almere to reach independent points of view and fresh ideas.

In other words, facing the ambitious building program for Almere, the contrasting opinions of Ministries about locations and the enormous traffic problems which the connection Amsterdam-Almere already faces now, this workshop with such different international backgrounds could constitute an excellent opportunity to look for creative solutions and new approaches concerning the steering processes.

Three representative officials from the Dutch Ministry of V&W – Jutta Kulcke, Eras Wijkhuizen and Paul van den Hoek provided a programme paper concerning problems and possible solutions of Almere’s future growth and traffic infrastructure.

Because Almere is situated in the Dutch Randstad1 this case study should also give an insight into specific Dutch phenomena as well as an insight into the general urban problems of the Randstad.

The main issues identified were:
1. Congestion (traffic bottlenecks on the highway towards Amsterdam
2. Almere has the image of dormitory community (there is a job-housing imbalance between Almere and other cities in the Netherlands
3. Almere desires a municipality vision (identity of place, image in the region)
4. An ecological corridor between Almere and the Randstad is possible.

1 The Randstad, a polycentric metropolis in the western Netherlands, is home to 7.1 million people, a little less than half the total population of the Netherlands. In the 1950s the Randstad was described as a circle of large and small cities and communities around an open central area, the Green Heart. The port of Rotterdam and Schiphol Airport are its main economic bases. The image of the ‘green-hearted’ Randstad, which is based on the traditional distinction between town and country, has remained largely intact up to the present day. For the past thirty years the stated goal of successive national governments has been to keep the Green Heart open.
The Methodology used for this study resulted from the ideas exchanged between the Dutch officials and the coordinators. As the Dutch Government has to cope with large budget deficits, the participants should look for:

- creative solutions
- new approaches concerning the steering processes that demand as less governmental investment as possible
- solutions in the field of town planning, traffic planning or others.

It was quite a difficult challenge. Technical details were formulated in order to provide the participants with the conditions, circumstances and rules that had to be followed up, focusing on the intensification of land use in urban areas and its relation to mobility and infrastructure as a general perspective of the study.

The Young Planners had no prior knowledge on the City of Almere. However they had produced short case studies exploring the topic in their own countries: Milan, Italy; Baphalaborwa, South Africa; Djibouti; Cairo, Egypt; Trondheim, Norway; San Diego and San Francisco, USA (see Annex).

Summing up we can say that the work was intense, challenging and well organized – a productive event where issues discussed reached good technical levels. Thanks to the efforts and knowledge of the participants, we believe that the solutions developed could also demonstrate an interesting perspective of leading and solving Almere’s problems without loosing the sense of reality and opportunity. The nature of the solutions reinforces the idea that the main way for urban planning in the era of globalisation is originality and creativeness.

I would like to thank Jutta Kulcke, Paul van den Hoek, Eras Wijkhuizen (coordinators V&W), Judy van Hemert, Pierre Laconte (ISoCaRP) and of course the participants of the workshop: Rolee Aranya, India; Laura Bisaillon, Djibouti; Brett Clavio, USA; Eman Abdel Ghaffar, Egypt; Dino Juloya, USA; Elizabeth de Ridder, South Africa and Caterina Timpanaro, Italy.
INTRODUCTION
by the coordinators of the Dutch Ministry of Transport, Public Works and Water Management
Jutta Kulcke, Paul van den Hoek, Eras Wijkhuizen

On the occasion of its annual congress ISoCaRP yearly organizes a three-day workshop composed by young professionals from all over the world. The Young Planners’ Program is an outstanding fixture of the congress. The recent 39th ISoCaRP World Congress in Cairo started a unique innovation adding to the traditional figurine of the Young Planners’ Workshop a one-day Young Planners’ Workshop which was held on October 17th 2003. It was a joined cooperation between the Dutch Ministry of Transport, Public Works and Water Management and ISoCaRP.

The issue we discussed within the group of international young professionals was the relation between mobility and intensification in urban dwellings, a problem that we are presently dealing with at the Ministry. Our aim was to achieve new lines of thought and creative input from the students since they might have a more distant and fresh look at the topic. Furthermore we wanted to learn from the way of coping with this kind of issues in other countries. The participants had to write short papers on the topic beforehand.

During the workshop we zoomed in on the specific case of the city of Almere. Solutions for the development of this middle-sized city in the Netherlands where asked for. At present Almere is a subject of discussion at the Dutch Government. The Young Planners analysed several aspects of the question and decided to concentrate on solutions for

- the image and attraction of the city
- the (traffic) corridor Amsterdam-Almere.

Study Project – City of Almere (NL)
At present Almere is an important “dormitory town” near Amsterdam, although it once had been designed as independent town and still is presenting itself as such. The biggest problem that the municipality of Almere faces is the fact that the level of accessibility, facilities and employment is lagging far behind with respect to planning compared to the number of houses built. The Ministry of Housing, Spatial Planning and the Environment (VROM) considers Almere above all the location where the biggest house-building program of the Netherlands should be realised until 2030 (growth from now 170,000 houses to 400,000). The Ministry of Transport is mainly worried about the enormous traffic problems, which the connection Amsterdam-Almere already faces right now. They will further increase because of the fact that the government has designated Almere as one of the top locations of future residential growth. The Ministries of Transport and Spatial Planning, the regional government of Flevoland and the municipality of Almere are working together on an integral plan for Almere. The most important question for the Ministry of Transport is how to optimise the number of houses to be built with respect to the infrastructure capacity and investment money available.
Results
We were very positively surprised by the enthusiasm and the diligence of the participants to think of nice as well as practical solutions. The fact that all participants came from different countries and thus looked at the problem from different views seemed to be of much extra value. During the workshop but also during the enjoyable breaks we learned a lot about the way of approaching problems somewhere else in the world. We were above all interested in the critical view the young planners gave us on the different lines of solutions for the future development of Almere.

Apart from the one-day workshop, the young professionals spent much more to prepare the presentation to be given at the congress and to finish the final report. Evaluating, it would have been better to have some more time for discussion during the workshop, since especially the discussions offered new insight for us. For the Dutch Ministry of transport a Young Planners’ Workshop has proved to be a way of study that we surely can apply more often.

This report will be presented to the project team investigating Almere. We think that it will offer them much inspiration for new approaches and a fresh view on the project of the future development of Almere.

Acknowledgement
First we thank the seven participants Rolee Aranya, Laura Bisaillon, Brett Clavio, Eman Abdel Ghaftar, Dino Juloya, Elizabeth, de Ridder and Caterina Timpanaro for their knowledge, work and enthusiasm. Especially Dino Juloya and Elisabeth de Ridder for their extra work on this report. Also we were very lucky to get the professional and decisive support of the ISoCaRP team, especially Judy van Hemert, Fernando Brandao Alves and Pierre Laconte.
**RAILS TO TRAILS IN ALMERE:**

*Connecting our Community*

*Micro Approach to the Transportation Problem*

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**Introduction**

The problem presented was the proposed increase in housing development and its related impact on the already congested transport system linking Almere and the rest of Randstad.

Transportation problems are not a problem related only to vehicles and access routes, but it is part of an entire system supporting a community. Its influence is comprehensive, as it determines the quality of human life like in the amount of time people spend with their loved ones, as opposed to spending it *en route*; it determines the quality of the environment as certain means of travel lead to pollution, degradation of scarce resources and human rights abuses; and it determines the quality of the economic basis of a community as speed and efficiency is essential in today’s globalised world.

Therefore, by looking at solutions for a community’s transportation problems, one should also take a more holistic approach, investigating the causes further afield than mere numbers of vehicles owned by people. Single zoning for residential areas forces women to stay at home and be excluded from the economy, forces people to leave their homes and children and work in isolated workplaces, which add tension and unnecessary stress. Quality of life is the most important factor in ensuring a happy and efficient labour force, taxpayers and community. Every community and city should aspire to ensure this quality of life.

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**Group Members:**

Laura Bisaillon, Djibouti  
Elizabeth de Ridder, South Africa  
Caterina Timpanaro, Italy
In order to address the presented problem the following steps were taken in this study and it will also provide the outline of the report:

1. ISSUES – status quo which add dimension to the problems
2. STRATEGY DECISION – option paths available
3. VALUES – strengths in Almere
4. OBJECTIVES – that what is to be achieved in Almere
5. REASONING PHILOSOPHY – the foundation on which all suggestions and decisions within the proposal are based
6. SOLUTION – state one core solution to address the problem of transportation in Almere
7. ACTIONS – the proposed solution steps to be taken in addressing the problem of transportation in Almere.

**Issues**

In order to present solutions to the transportation problem in Almere, the prevalent issues must be identified. The issues that have to be dealt with in the planning and development of Almere on micro-scale are the following:

1. Current and potential conflict:
   - Current conflict is the unsafe feeling in the evenings of the train travel due to the harassment of travellers at the various stations and on the trains by gangs.
   - Potential conflict will arise between existing and new residents, especially when densification projects are undertaken in the current suburban areas. The proposed new suburban development is earmarked on land that is owned by the government, but leased out for farming purposes. The older areas of Haven are becoming degraded and low-income groups are taking over the areas.

2. Low connectivity between areas and transportation corridors that segment communities. Fragmented development in Almere has led to a pattern of different cells developing through time, with no consideration of a continuous flow of traffic or neighbourhood dynamic.

3. Low residential densities that will be difficult to increase on site. The suburban areas are characterised by low-density development, where the residents own single-storey houses with gardens. This will be extremely difficult to increase in density, as there are costs involved in purchasing the land, consolidating it and subdividing it for densified development. The community could also be against it.

4. Dormitory and not independent city. Most of the people residing in Almere either work in Amsterdam or the other towns in Randstad. Many of the people also work in the Schiphol Industrial Zone. This creates a problem that Almere is a dormitory city. Furthermore, it adds to the transportation problem due to the people mostly owning private vehicles and having to leave Almere in the morning and get back in the evening. On weekends the residents however enjoy their gardens and for example the available water related leisure facilities.

5. Lack of job opportunities on the local market. One reason that people leave Almere for other cities and workplaces is because there are insufficient jobs in Almere itself.

6. Priority of views. Currently the local residents of the various cells in Almere, the local government and the central government all have different views on what should happen in Almere.
7. Status quo. The current residents spent money to purchase property in Almere with the reasons that it is a cheaper accommodation than in Amsterdam and because it is in a natural, suburban setting.

**Strategy Decision**

**Market Based vs Marketing by Public Authority**

In other words a decision should be made whether all processes should be led by the market, with Almere staying a dormitory city of people choosing to live in Almere for its suburban neighbourhoods OR should the government come in and establish a unique identity for the city of Almere and market it as an independent city with jobs, homes, retail and leisure facilities. The obvious alternative is to combine these two approaches.

**Values**

Certain core values are herewith identified which provide the strengths on which solutions should be built in the process of addressing the transportation problems of Almere. These values are:

1. Rich and beautiful natural setting with ample opportunities for sport, leisure and recreation. The area is surrounded by parks, open spaces and water. Many of the existing parks and open spaces in the Netherlands are being lost to development. The prevalence of natural areas in Almere provides an attraction for people to come and stay in such environment and it also provides an attraction for tourists from surrounding areas to relax and take part in leisure activities.

![Figure 1: Rich and beautiful natural setting of Almere](image-url)

2. Affordable housing in a garden setting. Many of the existing population moved to Almere because of cheap accommodation. It is also single-storey houses with gardens, which, internationally, are becoming the housing of choice for families who are moving into New Towns, Gated Communities and Suburban Neighbourhoods.

3. Perceived high quality of life. People move to Almere in order to be with their families in a peaceful, natural and leisure-filled environment. Quality of life is becoming increasingly important, as indicated by the “Cocooning” effect, where people spend a lot of money on making their houses into homes and not mere places to sleep at night.
**Objectives**
The following two objectives should act as guide in all solutions and related action plans:
1. Create a unique and independent community identity.
2. Provide a smart alternative to the City of Amsterdam.

**Reasoning Philosophy**
1. Respect the current population’s choice of place and established market forces. The local population invested money in their homes, transportation, gardens and community. They moved to Almere because of its suburban neighbourhood character and because costs are low. These housing choices are also echoed in the market, where the need for this type of neighbourhood development is demanded by the market.

2. Combat low density “inbleeding” into further-set communities like Lelystad. Internationally there is a need and demand for suburban neighbourhood housing development. It has been found that when an area looses this character and identity, people merely move on to an area that meets these criteria. Therefore, if the densities in Almere become too high, people will merely sell their homes and move to nearby areas like the adjacent town of Lelystad. The problem of transportation between Almere and Amsterdam will become the problem of transportation between Lelystad and Amsterdam, with Almere in the middle.

3. Ensure environmental quality within designated zones with set development parameters over the long term. The environment, characterised by a lot of green open spaces and water, in Almere is one of the reasons that people moved here. It will also in future provide a reason for people to settle in Almere. Therefore, unlike in many other areas in the Netherlands and Europe, strict and strongly enforced legislation should be put in place to protect this green city identity.

**Solution**
Develop and market Almere as a Green City with a holistic quality of life as core identity.

**Actions**
In order to add depth to the solution, certain actions should be taken. The identified and proposed actions are the following:
1. Port-to-Core development in a north-south axis

In order to combat the fragmentary nature of development in Almere, it is important to have an actual, physical and psychological break in the current East-West transportation-based development corridor. Through time two separate business centres have developed, the first centre at the Port and a later one in the City Centre. Nothing links these two centres. It is therefore suggested that a development axis be identified and developed between these centres. Zoning and urban design can be used to provide a multi-zoning commercial axis, which will ensure densification of residential and commercial functions along the axis. Shops and restaurants can be located at ground floor level, offices at first storey level and residential functions above it, as typical in the urban downtown paradigm. This will enable people that are not the target market for suburban living, to also stay in Almere if they wish to do so. Pedestrian walkways, with suitable street furniture, should be provided along the axis. Regarding vehicles, the status quo can be maintained. Therefore, the axis should thus be on human scale and psychologically enhance the ‘quality of life’ and ‘connectedness’ of Almere. It should provide the facilities of a typical urban centre, close to, but not intruding into, the green neighbourhood character of Almere.

![Figure 2: Port-to-Core development concept](image)

2. Trail system linked with recreation, learning, leisure and interpretation opportunities

Throughout Canada a green belt system is being developed, to ensure that all green areas are connected. This is now also attempted in certain parts of the USA, Scotland and Australia. It can also be done on small scale. Almere today is characterised by green open spaces and an abundance of water. A trail system for pedestrians and cyclists should be developed in and around Almere. There is scope for a primary extensive trail around Almere, as well as connections of various secondary trails of varied lengths within Almere, all linked to the primary trail. Design should be utilised to enhance the natural ambience of the trail, but it should also be a safe, comfortable and rewarding experience. Therefore, at certain spots interpretation boards should be placed that explain concepts regarding the ecosystem, types of grass and birds found and so forth. One or two interpretation centres can also be provided that is staffed by skilled volunteers or personnel to explain concepts regarding the environment. At these centres special facilities can be provided for disabled people, for instance examples of bark with notes for the blind and vibration-decks of bird sounds for the deaf. At various suitable locations picnic facilities, ablution facilities, resting points, water facilities; bicycle hiring, boat hiring and so forth should be provided. Strict legislation regarding noise, pollution and development should be set and implemented. This trail will eventually be unique in the
Netherlands and Europe and will attract day or weekend visitors to experience the educational and recreational nature thereof. With the focus of quality of life and sustainable living, the trail will also attract more residents to Almere.

3. Public-private partnerships to stimulate investment
The market forces currently prevalent in Almere have led to a suburban neighbourhood development, which should not be interfered with, but rather promoted. The open spaces that are earmarked for future developments belong to the government. The government should make this land available for business ventures and private developers that wish to develop offices, industries or residential developments in Almere. The drafting of a development portfolio marketing Almere as a unique and sustainable community to such business ventures will attract the necessary and right kind of investors and investments. A strict set of rules regarding the coverage, height, zoning, density and design should be established and enforced without exception. It is essential that more jobs also be provided and secured in Almere, in order to combat the amount of people leaving Almere to work elsewhere.

4. Security
Better security at the train stations and pedestrian walkways is essential in ensuring the safety of the users, in order to facilitate use and re-use thereof.

5. Work at Home Focus
The growth of communication technology like the Internet, e-mail, fax machines, scanners and so forth has led to the SOHO (small office, home office) revolution. It is only since the industrial revolution that the house lost its function as combined workplace and home. It is now however time to reclaim this shared function and allow people to work from their homes, where they could be with their families, in a comfortable and nurturing environment. This will cut travelling, eradicate unnecessary land use for office blocks and solve the myriad of social problems that resulted from the single-zoning phenomenon. Almere can become the pioneer in Europe in promoting and ensuring the growth of the SOHO-phenomenon.

Conclusion
It is essential for the well-being and sustainability of the community of Almere, Randstad, the Netherlands, Europe and the world that a holistic approach is taken in addressing the transportation problems of Almere. Therefore, the government and community should establish a unified future vision for Almere. It is important that the current residents, thus ratepayers, should have say in their future. As disparities in views between the residents and different spheres of government have been detected, it is essential that a common view be established. In line thereof, a priority line of views should also be established, that when conflict arises the necessary steps of complaint and remedy must be set. Along with the common view of the future of Almere, a Port-to-Core axis will provide a heart to Almere and the trail system throughout the green area of Almere will provide the soul.
ALMERE’S BRIDGE TO THE FUTURE:
A Regional Perspective
A Macro Approach to the Transportation Problem

Group Members:
Rolee Aranya, India
Brett Clavio, USA
Eman Abdel Ghaffar, Egypt
Dino Juloya, USA

Introduction
Almere is a thirty-year old new town in the Netherlands. The young city has a brief history as a bedroom community, serving young families with residential housing opportunities outside of the big cities. Employment and other activities are concentrated in the large cities of the Randstad Region: Amsterdam, Rotterdam, Utrecht, Den Haag, and the Schiphol International Airport area. Currently, two automobile bridges (only one towards Amsterdam) and one train bridge serve Almere.

The Randstad is the most dynamic region in the Netherlands. It faces a tremendous pressure of land use intensification to accommodate a growing population and economy. Current growth scenario for the Randstad region projects the building of 440,000 new housing units, with 60,000 - 70,000 of those units potentially built in Almere.

As Almere matures, the city has been facing some issues about its identity. Should it grow more connected, or more independent from Amsterdam? Does it need a more controlled and centralized planning or should it simply allow natural growth, driven by market demands? Along with its identity, Almere also faces physical and financial constraints as it grows older. Building new infrastructure is undoubtedly very costly, yet public transportation is becoming unsafe and transportation infrastructure is becoming congested. (Notably along the A1 highway where traffic on A6 from Almere merges with traffic from Hilversum.)

Figure 3: Traffic Congestion Along A1
**Issues**

This workshop identified several issues facing the city of Almere. Four of the issues were selected as the most significant and were incorporated into an implementation program to synchronize with the micro-scale issues discussed in the first part of this report. The issues identified are:

1. **Traffic congestion.**  
   Commuters from Almere contribute to the traffic congestion along highway A1. In the early morning they commute to the Amsterdam area and in the afternoon they drive home. (See Figure 3.)

   ![Figure 4: Work location (random survey) for Almere residents](image)

2. **Almere’s bedroom community status.**  
   As discussed on the first part of this report, Almere functions as a “dormitory” city with most of its residents working in the Schiphol Industrial zone or Amsterdam. (See Fig. 4)

3. **The alternative municipal vision: an independent city.**  
   The residents and leaders of Almere are envisioning a more independent image for their city, distinct from Amsterdam. The central government on the other hand sees Almere as an area that can accommodate more residential development for the Randstad, which would re-enforce its bedroom community image.

4. **The feasibility of creating an ecological corridor linking Almere and the Randstad’s ecological preserve.**  
   The region’s urban areas form a ring around a ‘Green Heart’ of open space that is used for agriculture and nature preservation. The green areas in Almere can be designed to fully integrate with this regional ecological preserve. It can function as a major focal point for the park system.
Objectives
Our objective is to balance Almere’s aspiration to be an independent city, with its own unique identity, while allowing it to be an integral and important part of the growing Randstad region. The objective includes:
(1) accommodation of the projected growth for the area.
(2) Broaden Almere’s image, and maintain its family orientation.
(3) Prioritise improvements to infrastructure, including the level of service performances on the highways.
(4) Offer alternatives to the one automobile bridge and one Train Bridge serving Almere.

4-Part Solution

1. Traffic
The most pressing problem of Almere revolves around mobility issues. It is needed to find ways to move its residents not only within the city but also in and out of Almere. The City can consider one or a combination of the following approaches to increase safety and mobility of the region. First, it needs to maximize the use of its existing infrastructure through policy changes that would encourage the use or creation of transportation alternatives for commuters. Second, it needs to consider shifting growth outside Almere. And third, it needs to consider having more than one access to and from Amsterdam to relieve the congestion on A1. The new corridor can take the form of a bridge to Amsterdam.

2. Identity
One way to establish the identity of Almere is to provide and identifiable landmark for the city. A landmark bridge linking Almere to Amsterdam could be established. It can be made unique through its form, such as distinct design features and uses, such as multimodal transport use. The bridge’s design could represent some of the values of Almere - family, recreation, nature, and harmony. Combined with this unique link to the region, Almere could also become a destination for regional and international tourism based on its natural, recreational assets. Distinctive employment centres and institutional and governmental facilities can also be set up in Almere to further enhance its identity and desirability as a regional or international destination.
3. Job-Housing Balance

To develop as a distinct well functioning city, Almere should balance its residential development with complementary employment areas. It should provide the existing and potential residents of the city with the choice to work in Almere by providing good employment opportunities. These employment opportunities can be defined by the areas asset and local assumptions and preferences. Recreational and ecological tourism is an asset highly encouraged for development coupled with low impact sporting facilities.

4. Environmental

As presented in the microanalysis of Almere, the city has a remarkable amount of environmental assets, which include various wildlife habitats and corridors for deer and
migratory birds. At a regional scale, there is a tremendous opportunity to link the island to the Randstad’s network of trails and parks. This will not only create a better wildlife sanctuary in the region but also provide recreation and a boost to the economy of the area.

**Actions**

It is of great importance that the most efficient and least costly interventions should be exhausted before the more heavy handed intervention is undertaken.

1. **Relieve traffic congestion**

   - Maximize the use of existing infrastructure through different programs. One or a combination of the following programs should be considered for adoption in the region. First, increase the frequency of train service and its length to accommodate more passengers. Second, add a rapid bus service to Amsterdam as an alternative to the train or driving. Third, explore ways to reduce driving by considering how goods are delivered in the region. Household trips to grocery stores can be reduced if an alternative delivery system is made available. Regulating where large trucks can be at specific time of day can also be considered. And fourth, create “managed lanes” within the existing highway infrastructure. This can range from the establishment of high occupancy vehicle lanes, toll lanes, to multi-directional/adjustable lanes. This managed lanes approach has been successfully implemented in the United States in regions such as Houston, Texas and San Diego, California.

   ![Figure 8: Maximize the use of existing infrastructure](image)

   - New infrastructure - The Bridge.

   To accommodate all the projected growth for the area without overloading the existing transportation infrastructure, the eventual creation may be inevitable. Traffic congestion on the A1 could be relieved with a new, direct route between Almere and Amsterdam. But a watchful consideration should be placed on how a new bridge might be used. When considering its use and design, careful attention should be taken so as not to encourage unsustainable growth in the Flevoland area. A multi-modal alternative is highly re-
commended. Along with autos, light rail, bicycle, and pedestrian access on the bridge would increase its functionality.

![Figure 9: New bridge between Almere and Amsterdam](image9)

- Intensify land use development along the Almere-Utrecht axis. Land use intensification is recommended along the Almere-Utrecht axis to take advantage of existing infrastructure and offer alternatives to Almere. Housing units, employment centres or other mixed land uses could develop as infill or clusters near existing communities along the less impacted route between Almere and Utrecht. Development of employment centres in this area will reduce the need to drive to the Amsterdam area, thereby relieving congestion on A1.

![Figure 10: Encourage growth along the Almere-Utrecht Axis](image10)
2. New job centres in Almere

By creating employment opportunities in Almere, commuting would also decrease, relieving pressures on the regional transportation system. The city should explore the most compatible employment base for the area by considering its natural assets as well as the preferences of its residents. It can capitalize on its natural environment by attracting ecologically focused industries or institutions in the area or it can explore other niche industries in the region that Almere can fill. (See also discussion on “Work at Home focus” on page 8)

Figure 11: Reverse commute from Almere with employment centres

3. Establish a new identity:

- Conduct research and public participation to define identity. The people of Almere should be invited to help shape the future of their community. Through public outreach and planning advisory meetings, the public could help address issues that professionals may have overlooked. The identity could be incorporated into urban design, park planning, and public works projects (bridge).

- Create a landmark bridge. The bridge could be designed through a national competition, where the local community is involved with the government institutions.

- Almere’s identity could be focused on its role as a regional destination for recreation, sports, unique educational or employment centre in the region.
4. Establish an ecological corridor

- Create a link to the regional park system.
  Plan a dedicated park system, with supporting facilities like museums, amphitheatres, RV parks, camping, hiking and sports. The parks should offer family recreation and entertainment. Hiking trails within Almere should link to the regional trails and scenery towards the southern region of the Randstad. These trails should be designed not only for human use but first and foremost, should function as a wildlife corridor.

![Image](https://example.com/image12.png)

Figure 12: Potential ecological corridor

- Ecological tourism.
  Wildlife habitats and corridors, in Almere can be a major focal point for the community and a major attraction for people from around the region or the rest of the world. Human interaction with the wildlife at the parks should be low impact to preserve the serenity of Almere. Camping, fishing, bird watching and photography, may be some aspects of the park. Support services to the tourism industry such as hotels, restaurants, shops, etc. will not only add to the attraction of Almere as a tourist destination but also provide the needed employment to the area.

![Image](https://example.com/image13.png)

Figure 13: Combined Approach: New Bridge, maximise use of existing infrastructure and create employment focal point within Almere
**Conclusion**

The key to a sustainable region relies on always keeping everything in constant equilibrium. For Almere to mature as a city with its own image, yet continuing to accommodate a large volume of housing units for the region, it should create a clear balance between the need of its current residents and the need of the Randstad region. Residential development should be balanced with distinct commercial and public institutions. Residential and commercial development should be balanced with the level of which the current infrastructure can accommodate or the provision of a new one. And before any new infrastructure is put into place, its ecological impact and other alternative non-infrastructural solutions should also be put into balance.

Figure 14:
The Young Planners giving their presentation during the main congress
ANNEXES
**List of Participants**

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**Background**

**Rolee Aranya** was doing her Dr Ing studies at NTNU in Trondheim, Norway, at the time of the congress on the subject of “Globalisation and urban Restructuring of Bangalore City, India: Growth of the IT Industry, its spatial dynamics and local planning responses” and finished successfully in 2004.

**Laura M. Bisaillon** is a community development specialist for the United Nations High Commission for Refugees in Djibouti.

**Brett Clavio** is owner of a small company ‘Clavio Designs & Planning’.

**Eman Abdel Ghaffar** works for the World Health Organization, Regional Office for Eastern Mediterranean, as an Information Management Officer.

**Dino Juloya** is adjunct professor at the Mt. San Antonio College, Walnut, California, as well as design consultant of Syzygy Planning & Design, City of Industry, USA

**Elizabeth de Ridder** is a Lecturer at the Department of Town and Regional Planning at the University of the Free State, South Africa.

**Caterina Timpanaro** was doing her PhD studies at the Università degli studi di Catania – Facoltà di Ingegneria at the time of the congress on the subject of “Progetto e Recupero architettonico urbano e ambientale” and finished successfully in 2004.
Preparatory Papers submitted by the Participants beforehand to facilitate the Discussion in the Workshop:

**Rolee Aranya, India:**
Redevelopment of the City Centre through private Investment: Expanding the *Midtbyen* of Trondheim through the Nedre Elvehavn Project

**Laura Bisailon, Djibouti:**
The two Faces of Djibouti-City

**Brett Clavio, USA:**
Land Use Intensification in the San Francisco Bay Area

**Eman Abdel Ghaffar, Egypt:**
Urban Transport Planning in Metropolitan Cairo

**Dino Juloya, USA**
Intensification of Land Use in urban Areas and its Relation to Mobility and Infrastructure: San Diego Region (California), USA

**Elizabeth de Ridder, South Africa:**
Intensification of Land Use in urban Areas and its Relation to Mobility and Infrastructure: Case Study of Baphalaborwa Municipality, South Africa

**Caterina Timpanaro, Italy**
The Metropolitan Area of Milano, Italy