Session Book

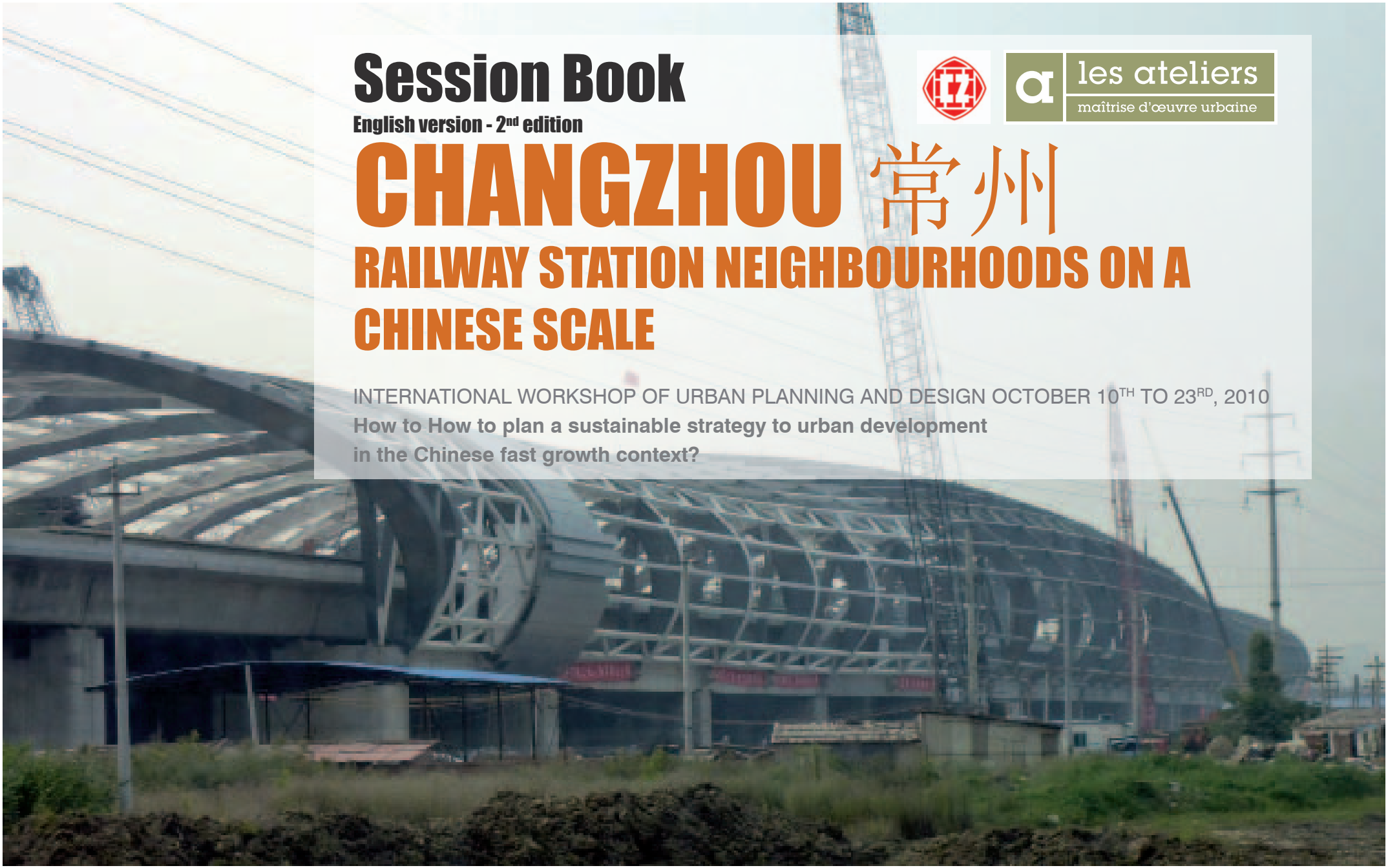
English version - 2nd edition

CHANGZHOU 常州

RAILWAY STATION NEIGHBOURHOODS ON A CHINESE SCALE

INTERNATIONAL WORKSHOP OF URBAN PLANNING AND DESIGN OCTOBER 10TH TO 23RD, 2010

How to How to plan a sustainable strategy to urban development in the Chinese fast growth context?



les ateliers
maîtrise d'œuvre urbaine

aftrp
la ville en perspective

TONGJI UNIVERSITY
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Ministère de l'Écologie, de l'Énergie, du Développement durable et de la Mer

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La Défense Seine Arche

The context of the session

Located between Nanjing and Shanghai, in the Yangtze delta, the Changzhou agglomeration has experienced dynamic urban expansion, like the rest of China. The city is already a pioneer in mobility and wishes to take advantage of the new railway network to promote sustainable urban development. These wishes have been echoed by the Jiangsu Province authority's desire to foster the "European style" urban development of its cities.

With their partner Tongji University, the local authorities asked the French organisation "Les Ateliers Internationaux de maîtrise d'œuvre urbaine de Cergy-Pontoise", an international network of urban planners, to organise a creative and professional workshop with the special methodology developed by this Ateliers organisation since 1982.

This workshop is being organised under a Franco-Chinese ministerial agreement on cooperation in the field of Sustainable Urban Development and also is co-financed by the French Ministry of Sustainable Development. This project also has the technological and financial support of the CSTB (the French Building Research Centre) as part of its "Chinese Ecocities and sustainable building of the future" project, www.urbanmorphologylab.com/chinese-project.html, aiming at promoting the know-how of French companies in urban development matters. This cooperation already enabled the workshop organized in Huludao in March 2009 « Designing an Eco-City » (session book online on Les Ateliers' website : www.ateliers.org).

This is the fourth international workshop of urban planning and design organized in China after Canton in 1999, Shanghai in 2000, and Huludao in 2009. The scientific management is done by Nicolas Samsoen, member of Les Ateliers and currently director of Asia AREP.

«Sensitive» map of the City of Changzhou (*author Chen-Yu ZHOU, pilot assistant of the workshop*).
In the square of elevated expressways, the historical centre in the «eye» of the great canal, the Gehu Lake in the South, the industrial neighbourhood of Qishuyan in the East, and the two towers of the city hall in the North - heart of the Xinbei neighbourhood.
Beyond, further north, the new high speed railway, and the Yangtze River.

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"Small handbook of environmental technologies and practises for urbanists' use"
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Les Ateliers

The International Workshops of urban planning and design

Les Ateliers is a non-governmental organization that gathers universities, decision makers and professionals dedicated to planning, development and urban design. Since 1982, les ateliers has been organizing international workshops on topics defined together with local authorities for city or regional planning. The method consists in gathering students or professionals of different nationalities and different specializations (landscape designers, architects, engineers, economists...), and make them work in different teams that finally present their proposals to an international jury composed of local authorities and international experts.

At the beginning, les ateliers focused on planning issues for the Paris Ile de France Region. Then, they developed a very high knowledge in Asia (we held 12 workshops there: Tokyo, Doi Tung, Canton, Shanghai, Ho Chi Minh, An Giang, Can Gio, Phnom Penh, Bangkok, Huludao, Cao Lanh and now Changzhou) and recently diversified their fruitful work combining workshops in Brasil, Western Africa (Benin, Senegal and Mali), and along the Mediterranean Sea (Casablanca, Marseille, and Turkey).

Workshops in project
2011 Bamako, Mali.
2011 Porto Novo, Bénin.
2011 La Défense, France.
2012 Thiès, Sénégal.
2012 Paris' Region - Image et representation of Paris' Region.

Recent workshops
2010 Cergy, France - The rural-urban interface of great metropolis.
2010 Porto Novo - A new neighboorhood along the river.
2010 Dunkerque, France - a transboarder coastal city.
2010 Cao Lanh, Vietnam – Promoting a sustainable urban development.
2010 Saint Louis, Senegal – Towards an equilibrate regional metropolis.
2009 Vitoria, Brazil – Metropolitan development and territorial solidarities.
2009 Cergy-Pontoise, France – The River, Future of a territory
2009 Huludao, China – Designing an Eco-City.

Subject by Nicolas Samsoen

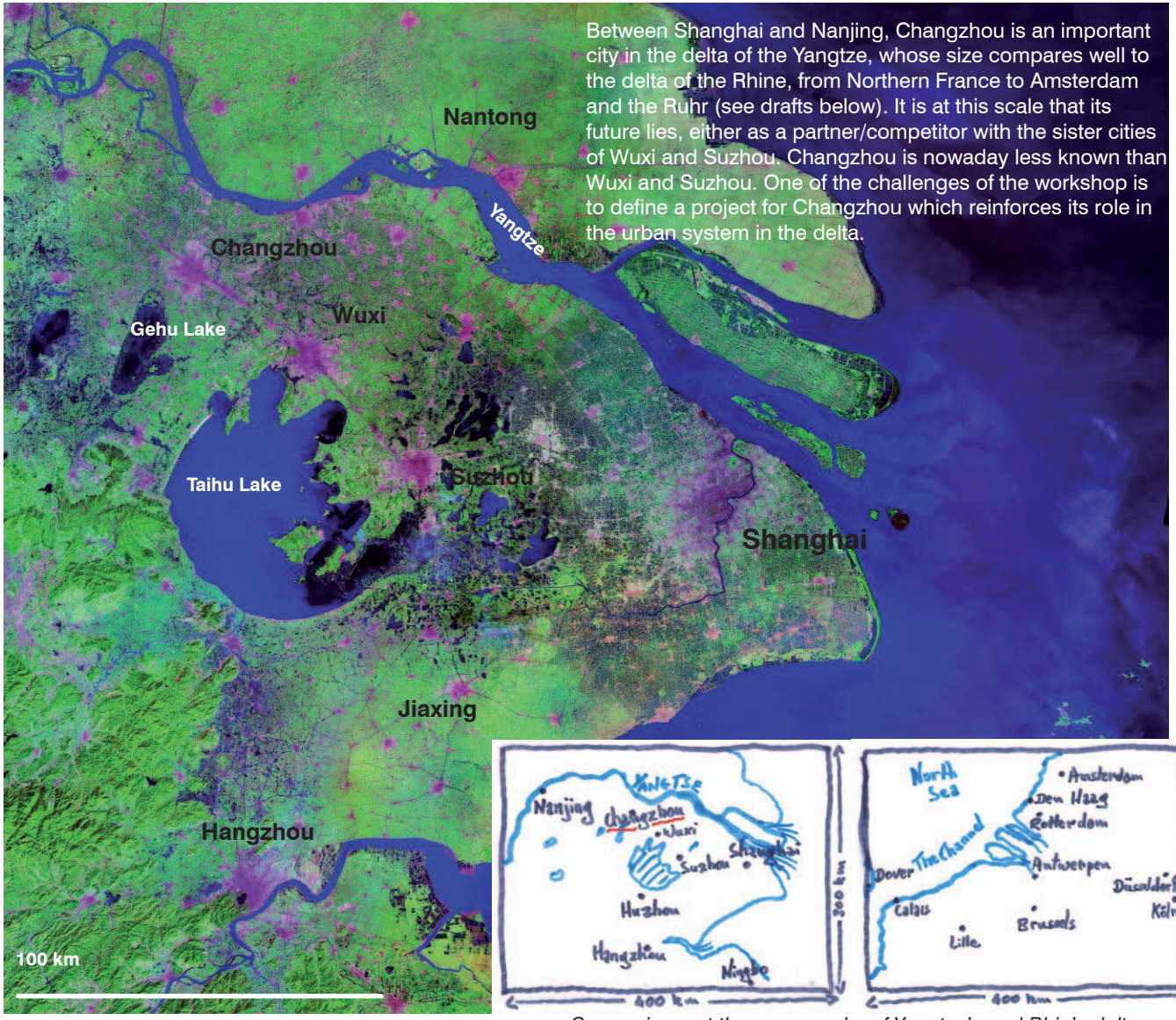
Identity

Through world's eyes Chinese growth is fascinating. Its size and speed are ten times those usually experienced in others countries : "medium cities" of 4,5 million inhabitants, 40 storey housings, 1300 km long viaduct for high speed train, 4% a year urban growth, delay of two years between project and building of a new railway… Beyond the figures, Chinese energy and desires of development creates a disturbing context.

At the same time, the issues of sustainable urban development are the same: low carbon, transport, mixity, city and nature...

The award recently won by the city for the quality of its parks or exemplary Bus Rapid Transit demonstrate the commitment of the authorities of Changzhou on this subject. Through this workshop, their expectation is to have the look of Europe, with over a century of experience of rapid urban growth - albeit at a slower pace -, our successes and our failures, to better lead their development.

The workshop main idea is to marry European methods of sustainable urban development and the context of fast-growing China.
Transport issue is particularly present. Since a high-speed railway is being built, Changzhou city is inquire about this new railways impacts, about public transportation strategy and about how to develop these neighborhoods around train stations.



Comparison, at the same scale, of Yangtze's and Rhin's delta

Scales and growths

Changzhou is growing very fast: the administrative urban area was multiplied by 10 in 20 years (187 km² in 1989 and 1872 km² in 2008) in order to accompany the urban growth. It covers 40% of the municipality area and accomodate 60% of the population, that is to say 2.6 million inhabitants, with an average density of 14 inhabitants per hectare.

The discrepancy between this low density and the urban shape - made of high towers quite close one from another, suggesting a density of several hundred inhabitants per hectare, is due to two factors :
- Industries strong presence occupying large areas from the edge of the urban area to the heart of the city.
- The loosening of the urban fabric as soon as one leaves the city center. Miscelleanous urban shapes are settled next to another including high towers, classic habitat in rows, several traditional houses and poor and less structured areas.

According to national rules, the city has reached the maximum expansion of its urban area and should continue, in the coming years, a very rapid development, attracting both population and jobs. Whatever the assumptions one can make on the rapid transfer of people both at the scale of the country - towards the major economic zones such as the Yangtze Delta - and at the scale of Changzhou, from the countryside to the city, it is certain that the urban area of Changzhou will accommodate hundreds of thousands of new residents in the next few years. The first issue of the workshop is to suggest ways to structure this development and make it more efficient, more sober, more pleasant : in one word, more sustainable.

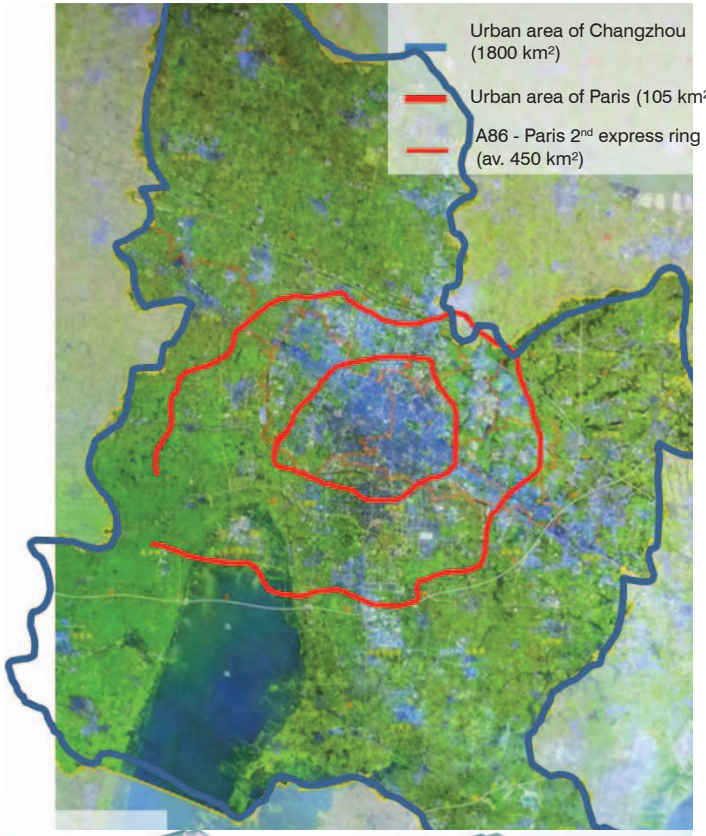
This structuration relies on a work on the urban structure: transport frame, green and blue frame, centralities, ... Work on the transport network is well underway and numerous infrastructures' constructions have been engaged, such as a network of elevated highways surrounding the city and the Beijing-Shanghai high-speed train. The green and blue framework is part of the strategic priorities of the city, including a massive network of parks and canals. Beyond the broad principles set out in the master plan, work on the articulation of centralities seems less developed yet, as it reveals the diversity of views between the districts and the central municipality. Above all, it results from a development brought by investors urbanizing large areas without overall control.

Two factors merit further study in order to improve the way things are developed, without ignoring the way it is implemented.

- Taking into account the scale of proximity, and the variety of urban fabrics inside each block - and not only between neighbouring blocks.

- Putting time into perspective, giving priority to transformation - even radical - of the city upon sheer replacement of former buildings, and offering a phased development project, not just a long term vision.

The number of housing buildings constructed, sold out, but empty today, also leads to question the relationship between supply and demand.



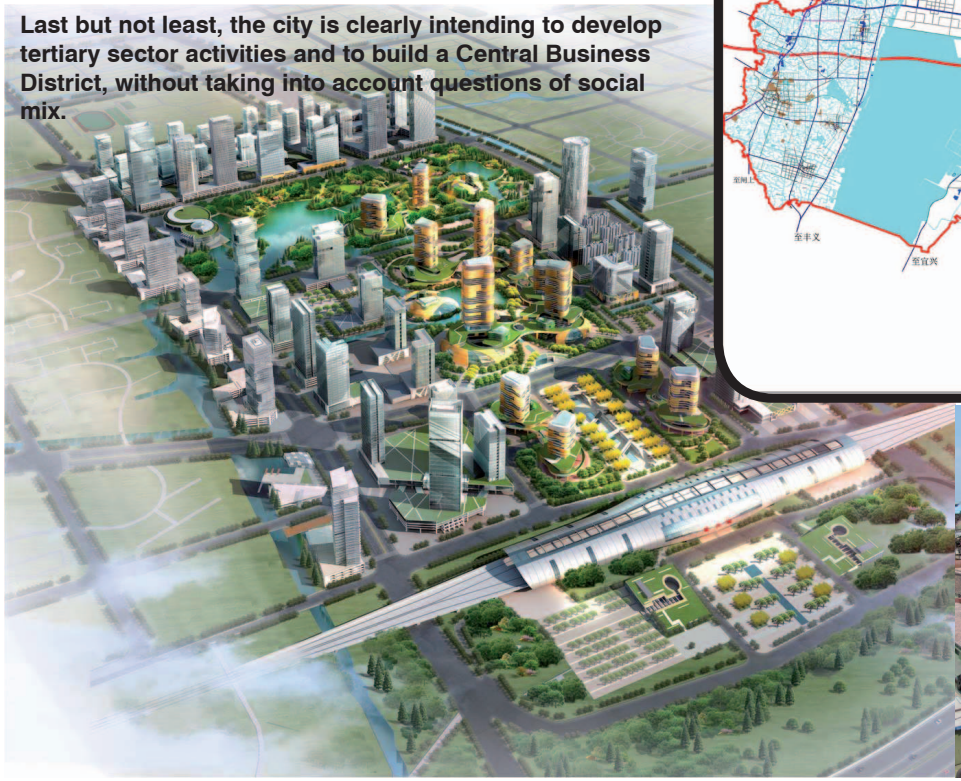
Economy

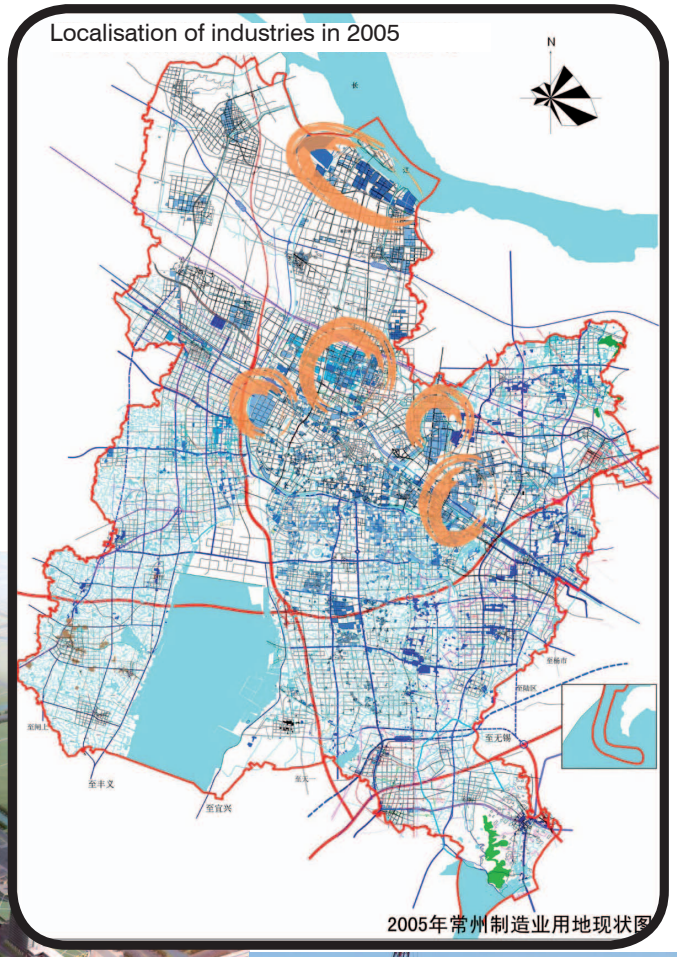
The economic issue, especially industrial development, are legitimately the first priority. The coexistence of industrial activities and housing raises the issue of nuisance and quality of life. Symetrically, how can we make sure that the presence of industry be fruitful for the city:
- by its impact on the residential economy (shops, services),
- while enabling the formation of clusters, particularly around the mechanical industries,
- while enabling, by example through taxes, the construction of sustaining infrastructures.

How to think about logistical issues, be it about transportation of the goods produced, or about supplying the city?

Tourism appears also among the priorities, with the development of amusement parks (Dinosaur Park, ...).

Last but not least, the city is clearly intending to develop tertiary sector activities and to build a Central Business District, without taking into account questions of social mix.





Environment

I would like to talk about environmental issues on the city scale, in a very simple way, in two different approaches :

- At the local scale, the aim is to keep the development in good conditions or, speaking in a harsh way, to avoid failure: to have enough drinkable water, clean air, enough energy, access to transportation…

- At a global scale, it is more about having a responsible attitude as a citizen of the world, taking care of two main topics: biodiversity and climate change.

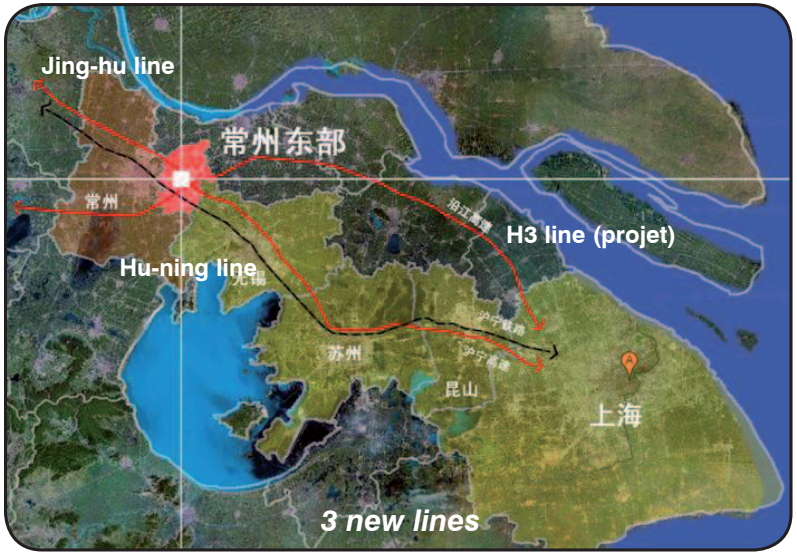
This distinction, which does not claim to be orthodox, is very practical and avoid normative or moralizing judgement.
It is also useful to consider that carbon emissions have four different causes of equal importance: industry, transportation, housing and agriculture. It is necessary to pay special attention to these four sources to decrease greenhouse gaz emission.

In Changzhou, the question is getting rather concrete : huge investments will be made to depolute Lake Tai. Sometimes blackouts happens. At the same time, local industry is comitted to produce photovoltaic panels, and more generally all forms of clean energies.
Last but not least, traffic jams began to occur.


Urban sprawl is always, in the Yangtze delta, made on agricultural land.

Transportation

Making the junction between urban planning and transportation development: this is the central thematic of this workshop, the one on which local authorities express their strongest expectation. While the high speed railway network is beeing built, the city of Changzhou is concerned about the impact of these new lines, on the role of public transportation in its urban strategy and the role of railway districts as to structure the development of the city.



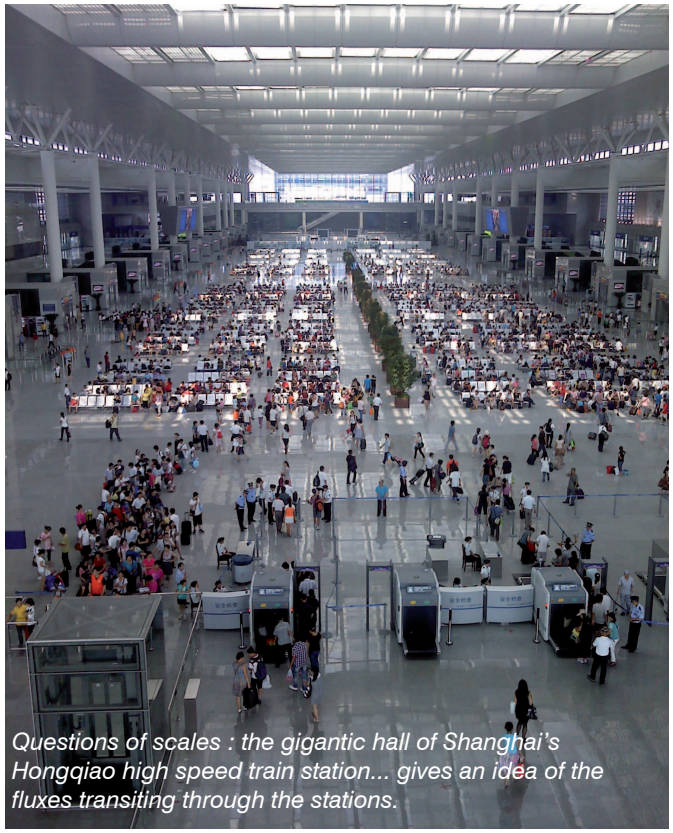
Transportation System

At the scale of the transportation network, it is crucial to give a rather coherent outlook of the urban development project, and of the planned transportation system.

In Changzhou, a key question arises: how to ensure that the substantial investments engaged to realize new railway infrastructure (fast intercity line Shanghai-Nanjing (Hu-ning line), Shanghai-Beijing line (Jing-hu line) under construction, future regional line (H3 line)) have the best possible impact on economic and urban development of the city? The way that these networks connect - or do not connect - with each other will greatly affect the urban development.

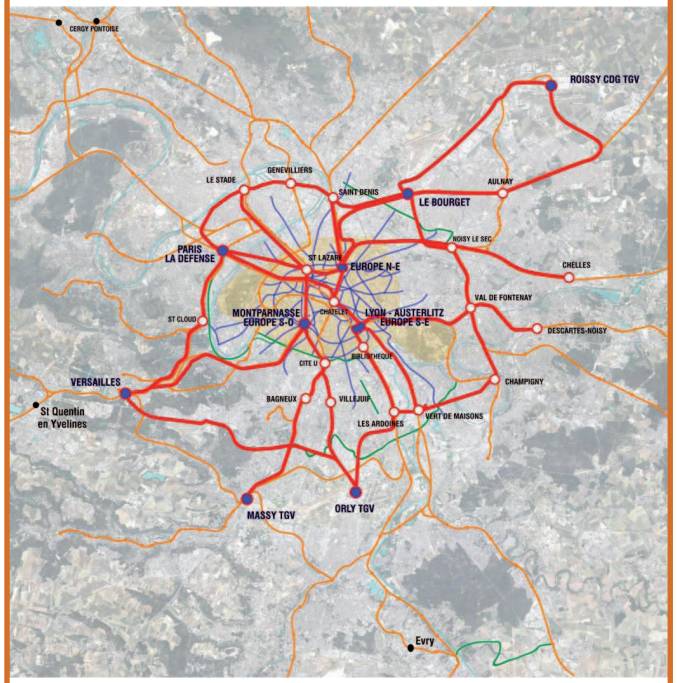
Depending on the plan adopted, a decision which is taken on a national level, the transportation scheme of Changzhou should help connect the three stations mentioned, as well as the future stations planned on the Intercity line. This pattern of transport must be designed together with the urban project. Thus, to me it does not seem possible to link through continuous and uniform urbanization the axis Central station / Qishuyan station: how can we think this over? And what role will be given to North high speed railway station ?

Thanks to the efficiency of its connection to the national transportation system, and of the internal connections linking together all the stations, will Changzhou be able to become one the the main hubs of the Yangtze delta?



Questions of scales : the gigantic hall of Shanghai's Hongqiao high speed train station... gives an idea of the fluxes transiting through the stations.

Example : The transport network designed by the team Nouvel / AREP / Cantal-Dupart for the consultation for the Greater Paris.



For the Greater Paris, the problem was : Paris is powerful and efficient in tis centre. On the contrary the suburbs are not able to play their proper role in the development of the capital-city, and symetrically do not benefit from the wealth of the metropolis.
This project consists in giving to some suburbian «centres» a metropolitan role, while giving them metropolitan functions and in the same time making them the hubs of a more complete network transportation, irrigating the whole territory.
In order to be efficient and to link two random points of Greater Paris in less than an hour, the network transportation has to be hierarchized. This supposes, while taking into account the two existing networks (metro and RER), to create a new transportation network linked to the two others.

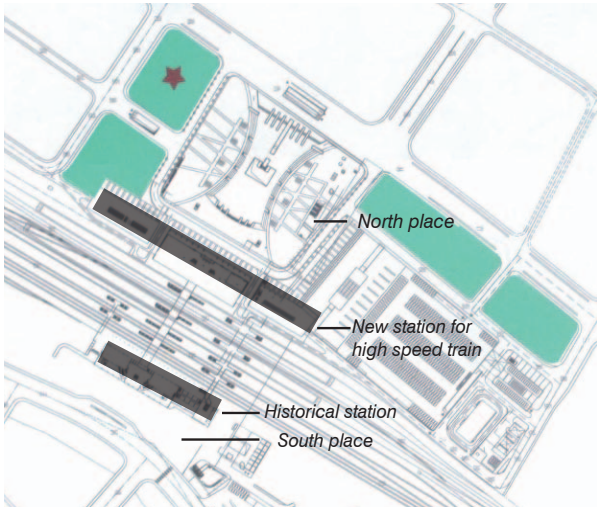
This specific answer to a speific situation illustrates the necessity of conceiving coherently urban development and transportation system.

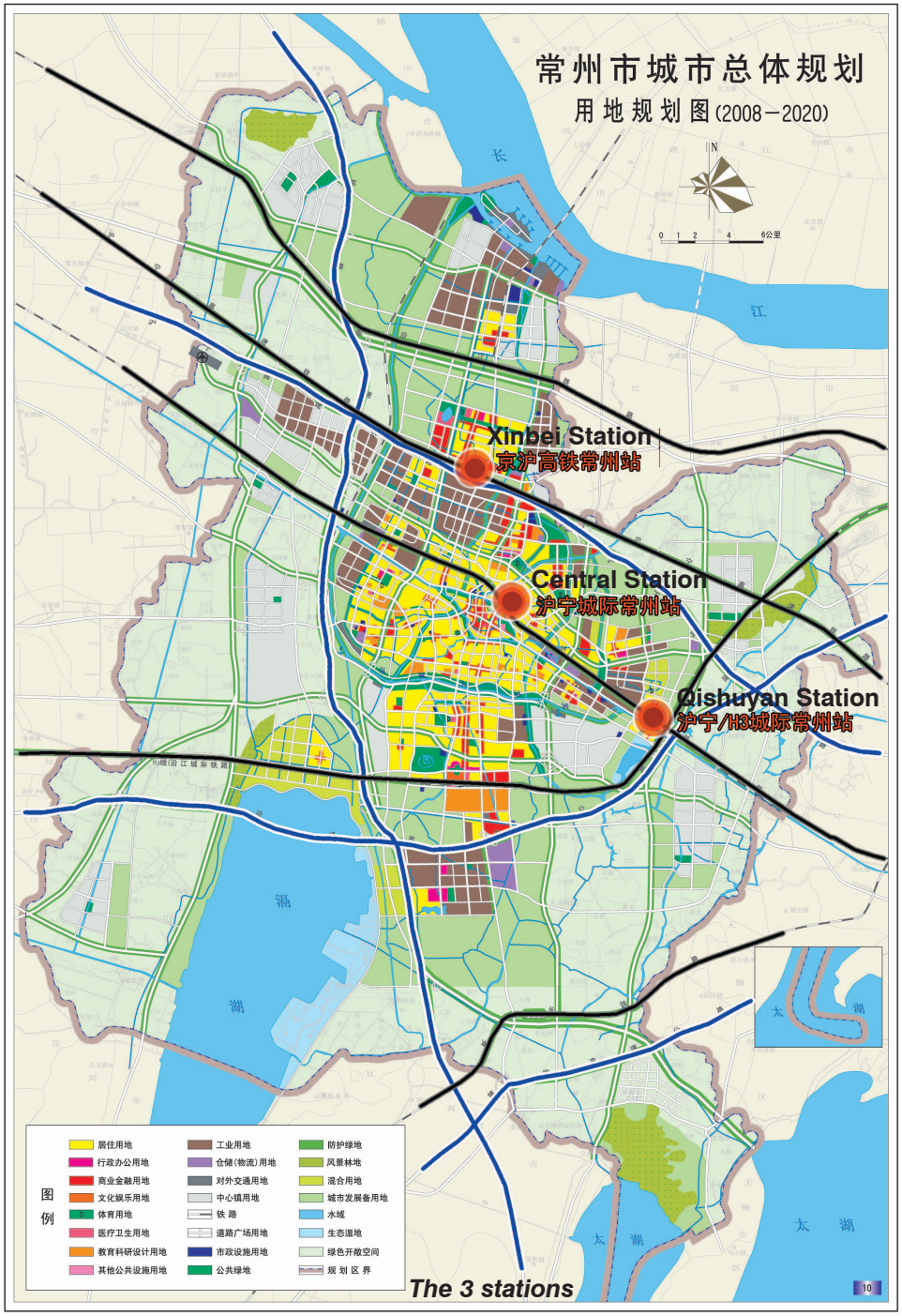
Stations' neighbourhood

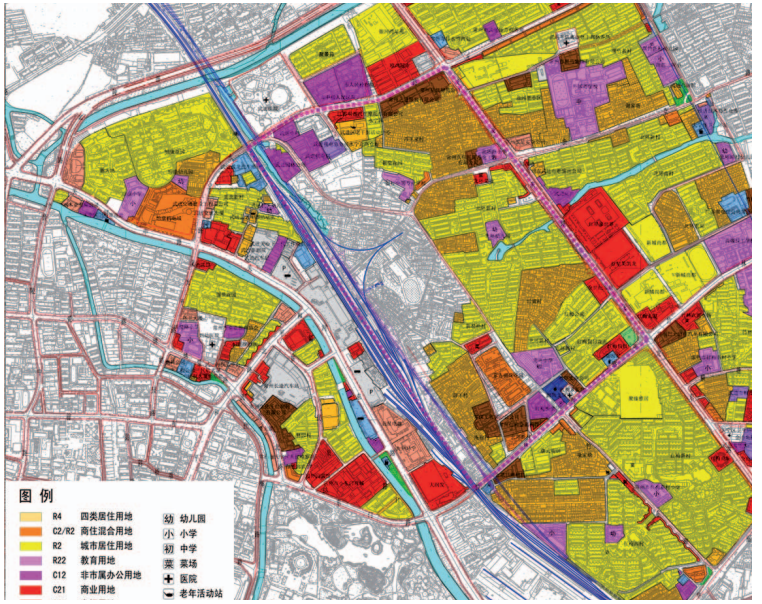
Changzhou wishes to develop areas around the new stations in order to make the best out of them. Teams were especally asked to work on Central station's and Qishuyan station's areas.

The central station is located directly nearby downtown ; its two entrances - North and South - are linking the old town to thenew city centre in the North. The urban design project must take into account the whole urban system of the city, and particularly the relationship between the old centre and the newer one.

The surroundings have already been, or soon will be demolished, in order to accomodate new developments. How to organize the immediate surroundings of the station in order to maximize their uses? A whole network of buses and (soon to be developed) metro is being organized around central station. How to run at best this inter-modality ?

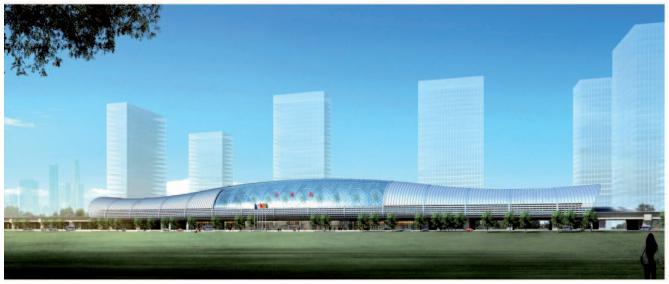






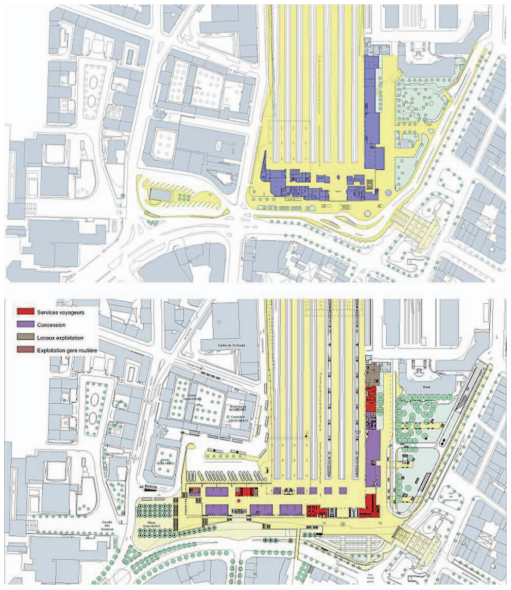
Qishuyan: The first question for Qishuyan Station is about the H3 railway construction and how it will be connected to the existent railway network. Many different hypotheses were raised: crossing lines, like subway, without connection between trains, a unique station with exchange between from platform to platform, a complex system of interchange such as freeways…

The role of Qishuyan station, located about 10km from down-town, will determine its project, as it happens to the central station. How to use large spaces likely to welcome industrial areas? What kind of housing, similar or different from those built downtown? What are the links with the secondary district centrality built northwards?



Xinbei Station, under construction (cf. cover of this book session), will be the stop to the high speed trains Shanghai-Beijing. Thus, it gives the city a national importance

Example : The renovation of Marseille Saint Charles



In Marseille, the old train station Saint Charles was a real cut into the city. It was impossible for pedestrians to cross and go to both parts, bus stop were badly conceived and the station neighborhood was devalued.

The project designed by AREP to SNCF when the new high speed train arrived transformed these aspects, giving the building a better feature appreciated by the Marseillais, and more than this, the station became a connector in the city, and a vector of development.

This example shows some steady specificities of stations neighborhood: comfort and easy pedestrian access, links between different transportation modes, development potentials.

Conclusion

This workshop raises wide, strategic and in the same time classical issues. It is not about producing «academical» solutions, but about truly designing, creating, imagining a possible answer that may open new perspectives. It is impossible in two weeks to bring a totally complete solution, integrally checked on a technical point of view. This work is about enlarging the range of choices. This is the temerity that we expect from the teams.

Let me end with my favorite motto: If it is not fun, it is not sustainable.
May this « wisdom » lead you !

Nicolas SAMSOEN
AREP - Director Asia
Scientific manager of the workshop

Conferences

Relationship between urban planning and protection of the environment in the Yangtze delta.

Jean-Claude Lévy, Historien et géographe. Conseiller spécial auprès du Délégué pour l'action extérieure des collectivités territoriales au Ministère français des affaires étrangères et européennes.
jean-claude.levy@diplomatie.gouv.fr _ France

Presentation of Changzhou, history of the urban growth and evolution of the Masterplan.

Xiufeng SUN, Chief engineer of Changzhou Municipal Department of Planning Administration

190820566@qq.com

An introduction to the urban development and urban planning in China.

Professor Zhao Min, Urban Planning Department of Tongji University of Shanghai.

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Urban structures : transportation, and central station neighbourhood.

ZHANG Fulin, director of Changzhou urban planning institute.

Presentation of North station high speed train station and Xinbei district.

GE Kaigang, Changzhou urban planning institute.

Presentation of Qishuyan station's neighbourhood.

HUANG Gang, Urban planner, Vice-director of Division II - Changzhou urban planning institute.

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In 1981, Changzhou was an industrial middle town. Today it is an economic pole of more than 2 millions inhabitants, with three high speed train stations.
XIUFENG SUN

Since 1959, China had not payed attention to its material and immaterial heritage.
XIUFENG SUN

One must situate the development of Changzhou in industrial development stage, with very strong urbanization.

WANG Chengbin, deputy mayor of Changzhou

The size of the real estate market of the delta, and the rythm of construction are determining necessarily a standardized pattern which is due to become quickly old.
Jean-Claude Levy

Changzhou, between the Yangtze and the Taihu Lake, is a necessary passage for large infrastructure. This is an opportunity to make a hub, but it also generates large urban cuts.
ZHANG Fulin

Given the rate of the inner provinces migrations toward the coast, the real estatedemand is such that I do not think that any speculative bubble might be possible..
ZHAO MIN

There is already adense public transportation a cycle ways network, but the expansion of the city arouse problems : the agglomeration is practically 50 kilometres long, from North to South.

Zhang Fulin

The approach on resources has undergone a shift and the municipality is working on saving energy. A public transport system is essential. These public policies need to meet with happiness of the inhabitants.

WANG Chengbin, deputy mayor of Changzhou

The acceleration of th urbanization process raises the issue of social management
WANG Chengbin, Maire-adjoint de Changzhou

We can imagine the pressure on the natural environment, intensive agriculture, the strength of urbanization, the price of land, la force de l'urbanisation, le prix du sol, the economic rent
Jean-Claude Levy

The intersection between the H3 and Hu-ning line should be an opportunity of interconnection.
Nicolas SAMSOEN

Changzhou, images of the city

French-chinese meeting around the workshop

The city [...] given its transversal caracter, [...] appears to be concerned by all challenges of sustainable development, be it climate change, transportation and mobility, biodiversity and preservation of the natural ressources, or governance.
Michèle Pappalardo - Meeting with WANG Chengbin, deputy mayor of Changzhou in charge of Sciences, Technologies, and Education.

Michèle Pappalardo - Meeting with WANG Chengbin, deputy mayor of Changzhou

Taking the opportunity of undergoing construction and development of high-speed railway network and mass transportation corridors in Yangste Delta, we now invite the presenting urban planning experts from all over the world, focusing on the three high-speed railway stations in Changzhou. We hope to combine the European experience with fast urban growth practice in China, on the transitional moment of urban transportation modes, to plan a better future for the station neighborhoods, and also for the city.*Mrs. ZHOU Zhaoli - Director of Changzhou's Urban Planning Department.*

« The opportunity to have French and Chinese professionnals working together seems very stimulating to me, and I am very curious about the projects which will emerge from this workshop. »
Michèle Pappalardo - General Commissionner for sustainable development.

The agglomeration

Projects

项目

ÉQUIPE 1

第一工作小组

TEAM 1

Aurélie COTTON 欧瑞丽 • 克东	Analyste du marché Market analyst 市场分析师	France / Chine France / China 法国/中国
Sophie DUMAS 索菲 • 都玛	Architecte, urbaniste, sociologue Architect, city planner, sociologist 建筑师、城市规划师、社会学者	France France 法国
LIU Zhuqing 刘竹卿	Étudiante à l'Université de Tongji Student at Tongji University 同济大学学生	Chine China 中国
Nicolas JOBARD 尼古拉 • 日巴尔	Architecte et urbaniste Architect, city planner 建筑师、城市规划师	France France 法国
Ken TANI 肯 • 塔尼	Architecte-paysagiste Architect - Landscape designer 建筑师、景观设计师	Italie-Japon / Angleterre Italy-Japan / UK 意大利-日本/英国
TAO Xiaoya 陶小伢	Urbaniste de transport Transport city planner 交通工程师	Chine China 中国

Changzhou : 3 stations / 3 scales / 3 roles

First impression

First approach: High tower as far as the eyes can see, super wide road, trees everywhere like a long green ribbon along the road and a hazy sky. Where the north, Where is the south? Very few landmarks: the buildings are grey, white or beige, with bow-windows and south oriented: One single model.

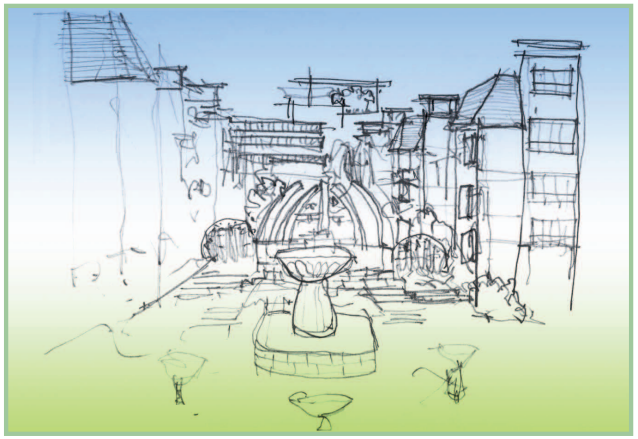
Homogeneity

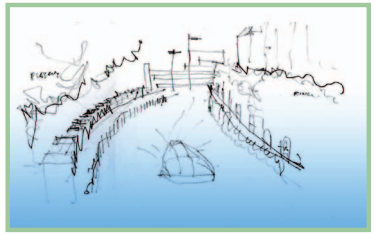
Second approach: **Diversity** is on the ground: Shops, walkways, gardens and canals, bustling streets. Sales on display, stalls, tailoring and hairdressing installed on the sidewalk; activities like dance or gymnastic... public space is lively and full of activities.

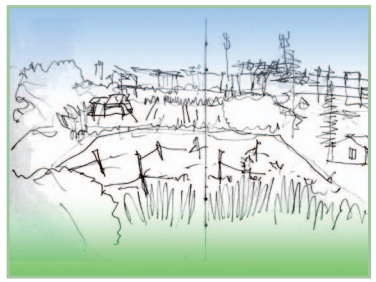
How do we live here? Image of Changzhou

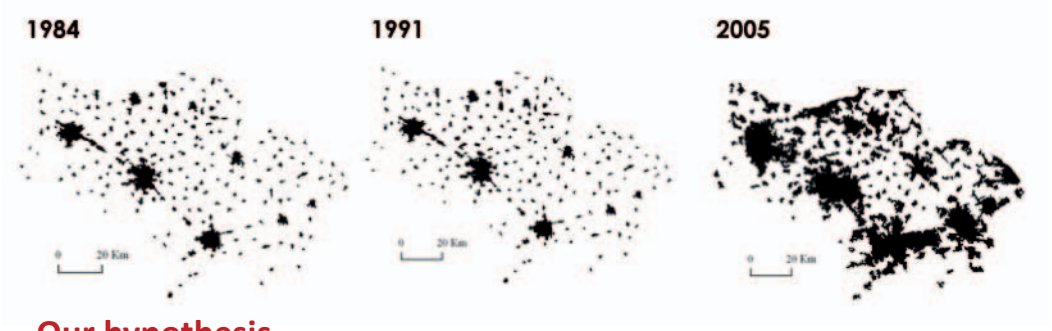
Empirical approach: Despite is large size compared to European cities, Changzhou has all the characteristics of a Middle size city: little historical heritage, no major cultural events, spaces for cultural exchange are too concentrated and this limits intellectual exchange and access for everyone. However Changzhou is well known for it good quality of life, green spaces and mixed population. **Changzhou is above all a city where standards of living are good** : an accessible and comfortable housing, an efficient and cheap transport network, many parks and corner shops. Above Changzhou is a city with a wide capacity of employment (unemployment rate is around 2,9% of the registered persons) and where the travel between house and working place is short.

« What do you wish for your granddaughter ? –That she could live nearby and in a low building ."









Our hypothesis

A strong industry, sustainable thanks to its updating: Industry now represents 56% of the GPD in Changzhou

The challenge is to have a sustainable industry oriented in the way of a ecologically responsible more than the development of an international CBD.

A tertiary sector focused on local and regional services (transports and merchandise, education, sciences, technologies and telecom, software and cartoons, medical, restaurant and hostelling)

Two kind of tourism: one related to advertising (dino park, Yangcheng) and the other related to the **traditional and craft industry**. They are the strength of Changzhou.

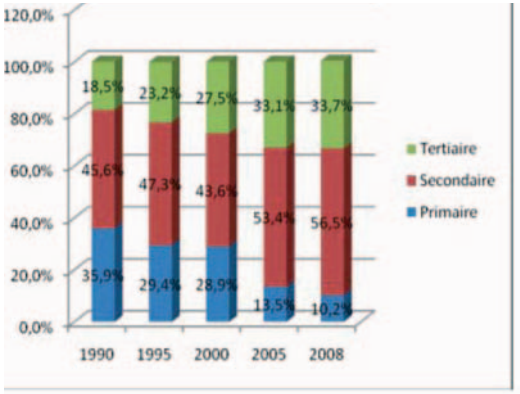
A strong urban economy (sewing, shoes repairing, convenience store …), which provides revenue and sociability for a part of the population. That urban economy is directly linked to the urban structure.

Despite the continuous growing development of the road infrastructure and the continuous augmentation of the cars in the city, roads are more and more crowded

Large development of the railway network and a high traffic density

Large use of the public transport system compared to European rate (30%)

On the long term(2050), an international airport in Changzhou but less attractive than Shanghai and Nanjing airports



Carbon and environmental approach: change levers

China= first worldwide producer of greenhouse gas emission since 2006

3 main causes: industry, road transport and buildings

-Continuing growing demand for energy and a economical growth based on the industrial production.

-36% of the energy used in Changzhou is produced in the city (gas and methane).

-Solar energy just used for hot water

Strength

- Traditional buildings orientation: natural ventilation, and heating by the sun in winter
- An efficient transport network which restrain the use of individual cars
- Widespread use of electrical motorized bicycle
- New technologies industries (renewable energies, new materials)
- Wastewater treatment policy to treat Tianmu Lake
- Wetland and natural areas
- Low flooding risk

Weakness and risks

- Urban structure and density which large energy needs (cf. CSTB)
- Huge road systems which enhance the use of private cars: compete the train
- Not ecologically sound waste treatment
- Polluting industries in the city
- Tap water pumped from the river and need water treatment before use
- Growing urbanization: jeopardize the natural areas

Energy

The water of the canal is used for hot and cold water network

Energy recovery from industrial waste

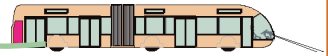
Develop the use of the photovoltaic energy

Waste treatment

Transports

Develop river transportation and inner city public transports

Replace the current thermal buses used for BRT by **electrical buses with optical guidance**

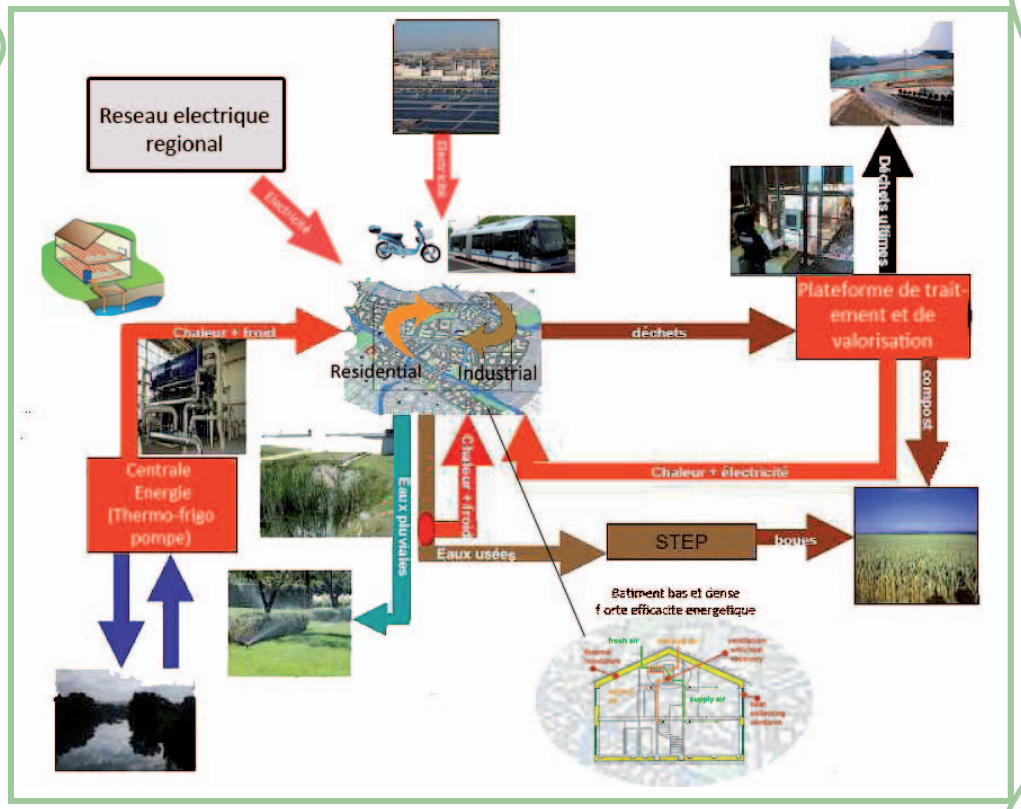


Air and soil pollution

Polluting industry delocalization out of urban zones

Transformation of the industry in the way of a clean production

Industrial disused sites (circular economy)



Proposal for the new neighbourhood of Qishuyan

Biodiversity

Create ecological stream which linked natural

Waste management

Better and extend small scale recycling facilities (private collection of recycling materials)

Water resources

Protect and enhance water resources: lake and canals

Rain water reuse for wastering

Urban structure/ buildings

Conserve North/South traditional building orientation

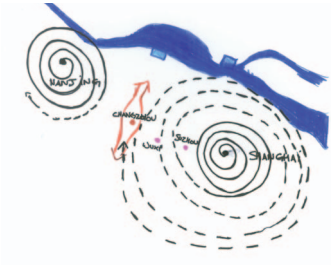
More dense and compact – Adapt the urban morphology

Reuse of the existing

Use of new materials

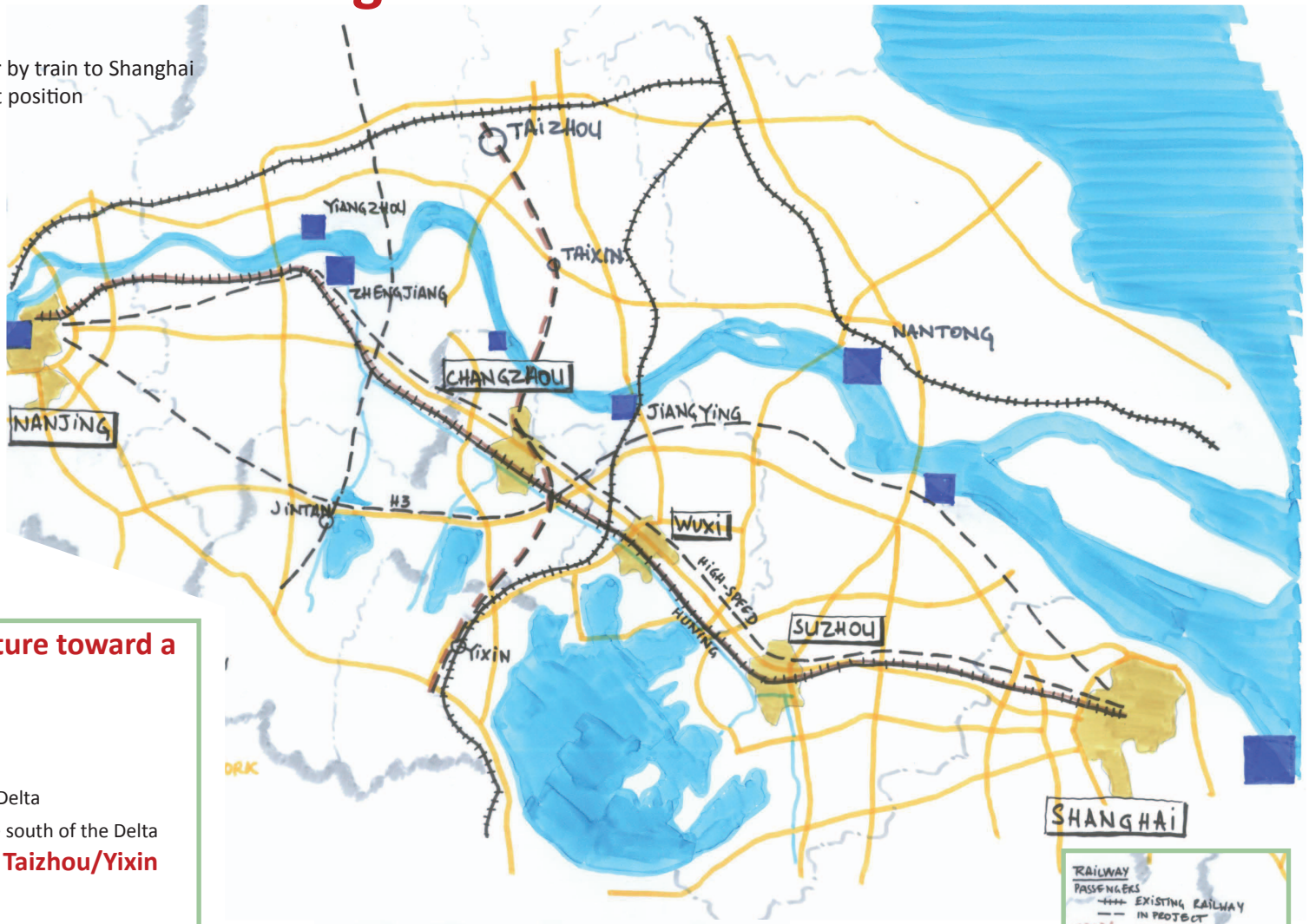
Large Scale –Changzhou in the Yangtse River Delta

Changzhou is in the barycenter of the delta: almost one hour by train to Shanghai and Nanjing, between two centripetal strengths => the worst position



The risk: to become a far suburb of Shanghai

The challenge: to take advantage of this central position to become a transportation nod in the delta with a solid industrial activity



Enhance and upgrade the industrial structure toward a greener production

Rely on transport infrastructures

Its **port** (to develop): to deliver goods and raw material in the Delta

The **high-speed railway line** to attract the north and the south of the Delta

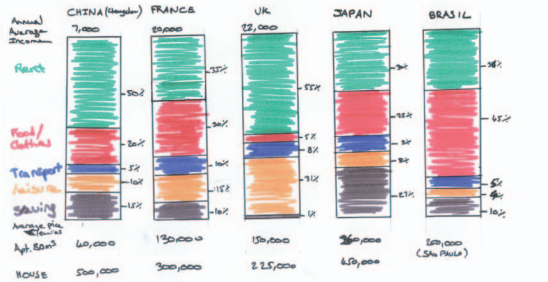
Its **provincial network (H3) to enhance with the Taizhou/Yixin line**

Strengthen the good quality of life

Maintain an **attractive office rent price/m²** (40RMB/month/ m²: two times lower than in Nanjing, 5 to 6 times lower than in Shanghai) **and residential rent** (6500 RMB/m²).

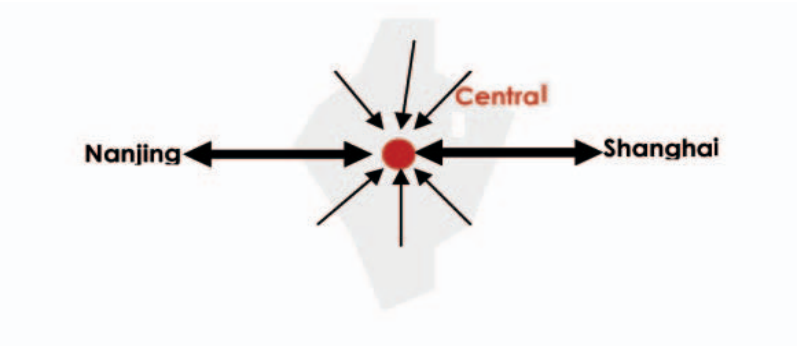
Maintain **low tariff for inner city public transports**

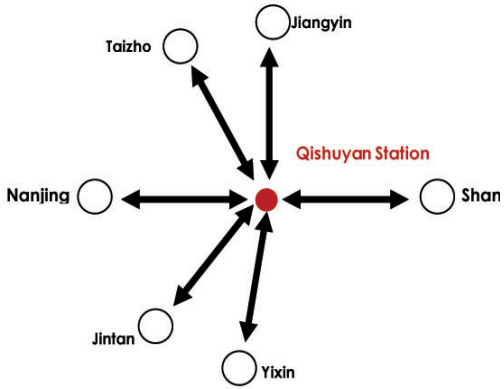
**NB: We could propose a free access to public transport. Some cities in Europe are trying it with success. Given the important cost of the subway we wonder if it would not affect the current low tariffs. The question of the subway must be raised with regard to the image of a contemporary and modern city.*



Comparaison des postes de dépense dans le budget d'un foyer

Analysis of transport system





Destination	Train									Air		
	Huning					High-speed						
	Prix (RMB)	Durée	Nb trains/ j			Prix (RMB)	Durée	Nb trains/ j Bleu : estimé			Prix (RMB)	Durée	Nb vols
			2010	2013	2015			2010	2013	2015			
Shanghai	80	1h	New: 32 Old: 65 Total : 97	New : 45 Old:40 Total :85	New : 60 Old:20 Total :80	99	40'	under construction	8	10	~	~	~
Nanjing	66.5	0h50	New : 30 Old: 65 Total : 95	New : 45 Old: 40 Total: 85	New: 60 Old:20 Total :80	80	35'		8	10	~	~	~
Beijing	399	8h50	12	5	5	665	6 h		15	25	878	1h50	14
Zheng zhou	213	11h30	15	12	12	432	6h		8	10	1143	2h	14
Chongqing	452	35h53	3	3	3	997	20h		2	3	1057	2h50	4

Attractivité des différents modes de transport

Beijing / **Zheng zhou / Chongqing**

Beijing / Zheng zhou / Chongqing

Shanghai / Nanjing / Zheng zhou / Chongqing

→ **Taizhou / Yixin / Jintan / Jiangying** / Shanghai / Nanjing

→ **Jiangsu – Taizhou / Yixin / Jintan / Jiangying** / Shanghai / Nanjing

→ Changzhou / Taizhou / Yixin / Jintan / Jiangying / Shanghai ? ($)

From / To Changzhou

Tourist 240' /annually → **Huning / High Speed**

Business-man 60' / occasional → **Huning / High Speed / Air**

Worker 45' / daily → **Huning / H3 / Taizhou-Yixin**

Family 240' / occasional → **Huning / H3 / Taizhou-**

3 stations: strength and weakness

North Station

The existing: industrial area, residential area
Low density
Possibilities: reserve and upgrade, demolish, use new empty land

Do we need **a CBD around this station?** Still on question
The risk: weaken the central station.
Do not be attractive for the investors because of the distance from the industries (it could not become a large district for financial activity and multinational headquarters because of the proximity with Shanghai).

Central Station

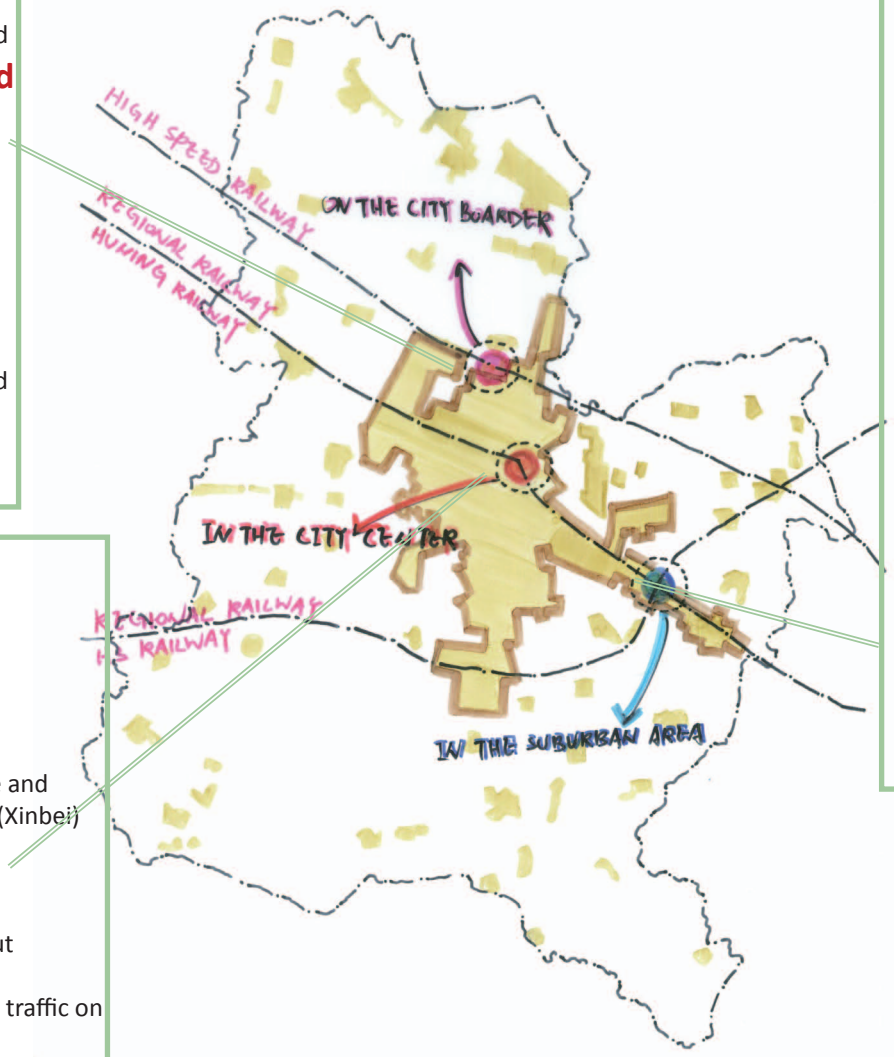
The existing: residential area, commercial area
Density: high

Possibilities: reserve and upgrade

A station between the old, attractive and lively city center and the new north (Xinbei)

But a malfunctioning public space:
- No relation with the canal
- A functional North/South access but restrictive (tunnel)
- A difficult access to the south (high traffic on the road)
- On the north a beautiful space but lack of urban animation

The South doesn't take benefice from the development in the north. The lively life in the south doesn't penetre into the north.



Qishuyan station

The existing: low and high quality industry
Density: low
Possibilities: reserve and upgrade, demolish

Poor area, traditional implantation area for state-owned companies (working place, residential building and leisure infrastructure in the same place)

Industrial suburb which needs a renewing based on the new station and railway activities:
short term, long term?
The development strategy has to be thought in regard with the whole city development.

3 stations / 3 roles

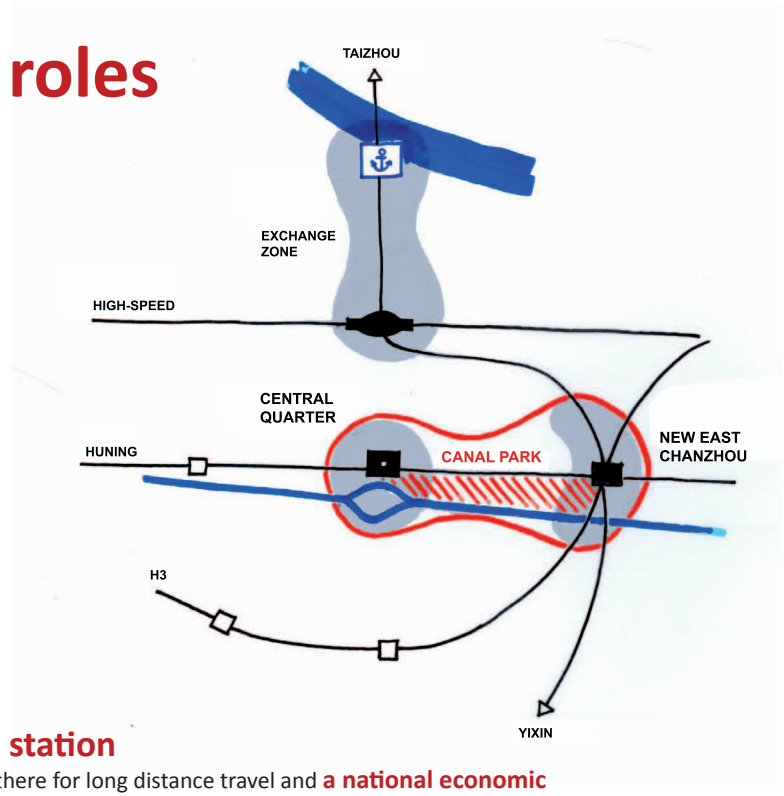


Image : a cool city

Identities : water and transports

3 stations : 3 specific developments, urban contrasts

Water : one of the main characteristics of historic towns in China : economic and identity role (public space, renewal of industrial sites, urban frontage, canals for goods distribution, ..)

Between the 3 stations- internal mobility

Connect the central station to Qishuyan

Connect stations/ centralities and tourism places

=> In addition to the planned subway network: **electric BRT** (High speed station/ dinosaur Park/ Central station/ Qishuyan)

North Station : destination station

A fonctionment like an airport: people go there for long distance travel and **a national economic exchange** area organized between the port and the station.

=>need a crossing with other railways like fret transportation railways (Taizhou/ Yixin line)

Central Station : between lively center and new north center, directly connected to the national scale.

Public spaces run transits and reinforce the living public spaces

Qishuyan : New economical (rail cluster) and residential district station based on the circulation of people and goods on the provincial scale

A new gate for the city which promote a new way of life

=> Taizhou/Yixin line: complete the access to the cities around Changzhou and link Qishuyan to the High-speed railway (goods and passengers)

Main axis: from central station to Qishuyan

Tension between the central station and Qishuyan: an axis between the train and the canal, **new image of Changzhou.**

Green, ecologic, rural and urban corridors connecting the two stations on the city scale.

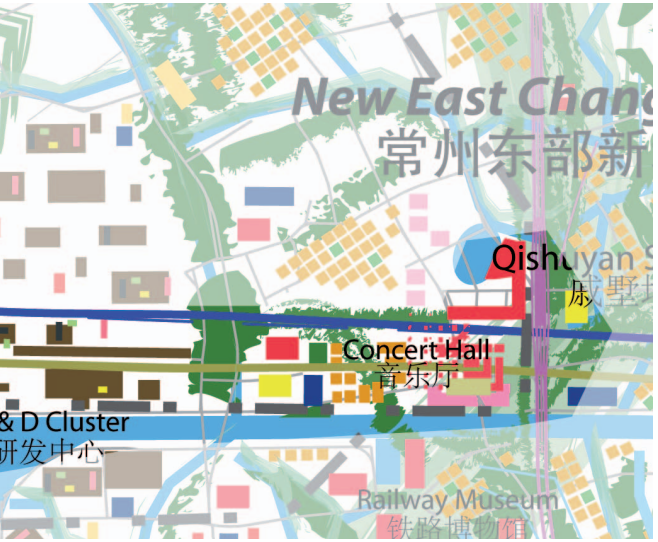
A technical and regional Business center on this axis instead of in the north

The main axis

Between Qishuyan and central station, the axis concentrates **many characteristics for a new way of life and a sustainable economic development** :

- Access to the transport facilities
- Proximity with the canal which could become a lively public space reflecting the soul of the city
- A lot of available areas
- Proximity with the 2 stations

This axis is **east gateway of the city**. It is crossed by the most used line between Shanghai and Nanjing.
Sequences organised around the economic activity and green pockets.



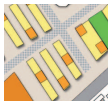
The main axis is connected to the whole city with 3 green belts (urban one, ecological one, rural one).

Central Station

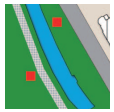
- **Urban contrasts** (various density, urban renewal and upgrading, preservation of the existing buildings)
- **Continuity of the public space** (piazza, pedestrian area)
- Accessibility (**underground**)
- **Public transport nod** (connexion bus, subway, train)
- **Urban frontage** (canal, park, pagoda and constructions)
- Intersection between green and water network connected to the others districts

Metropolitan center

High density housing

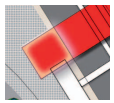


New typoogy activity + housing



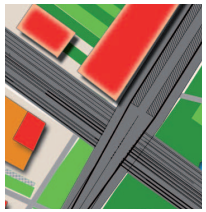
Folies

Offices + shoppinf mall

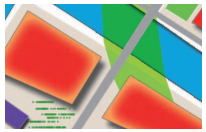


Urban landmark (station, tower)

Qishuyan



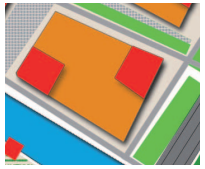
Qishuyan station
- 3 connected railway: Huning, H3 and Yixin/Taizhou
- Goods : Huning and Yixin/Taizhou



Rail Museum

Rail cluster :
Production units
Training centers
Research and development

Neighbourhood center
Services

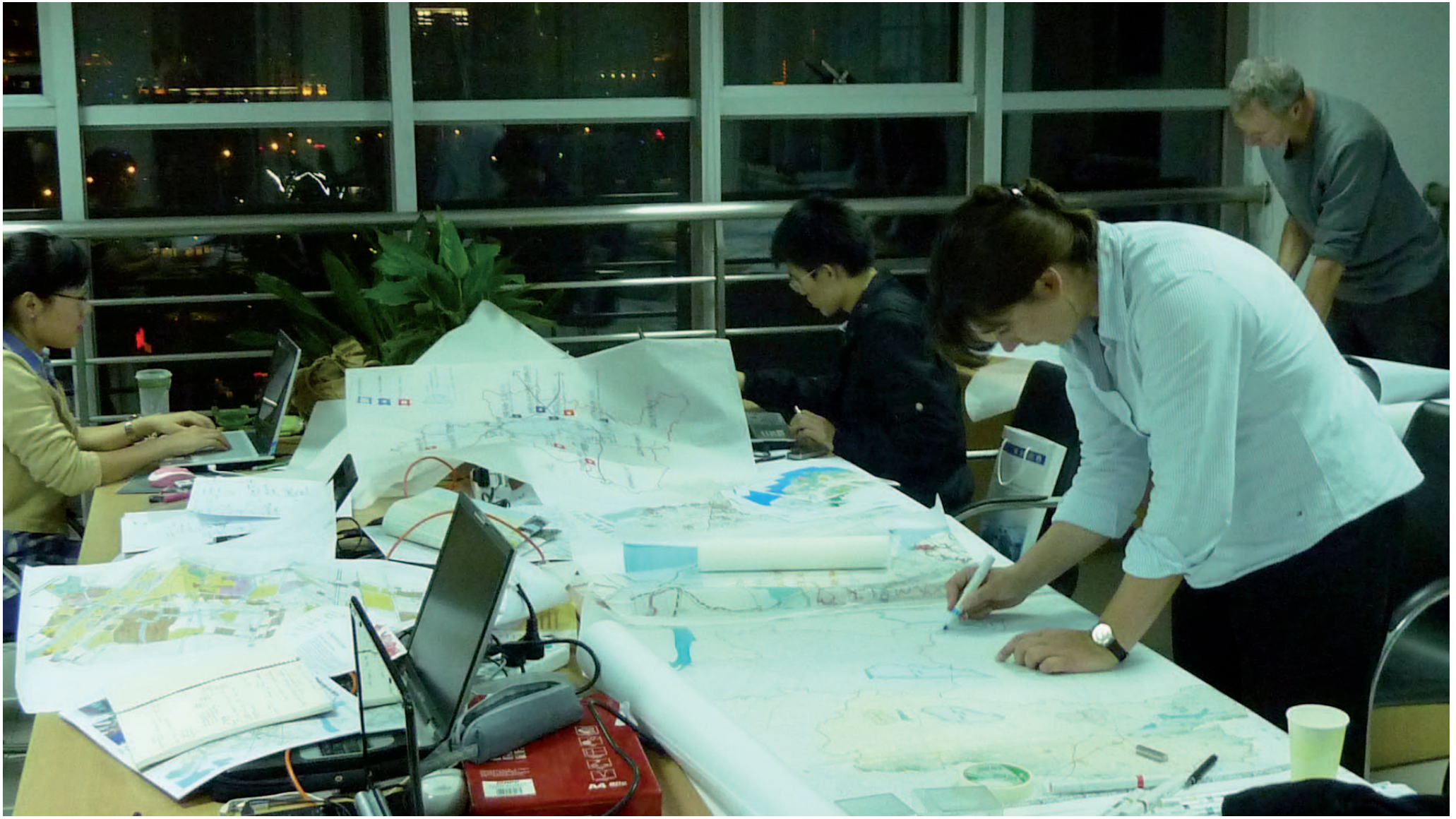


High density city-block

Wetland buffer zone

Eco-village :
housing / activties /
urban agriculture

Energy production
-Canals for hot water networks
-Energy recovery from waste
-Photovoltaic energy to produce the electricity for transport (buses and electrical motorized bicycled)



ÉQUIPE 2

第二工作小组

TEAM 2

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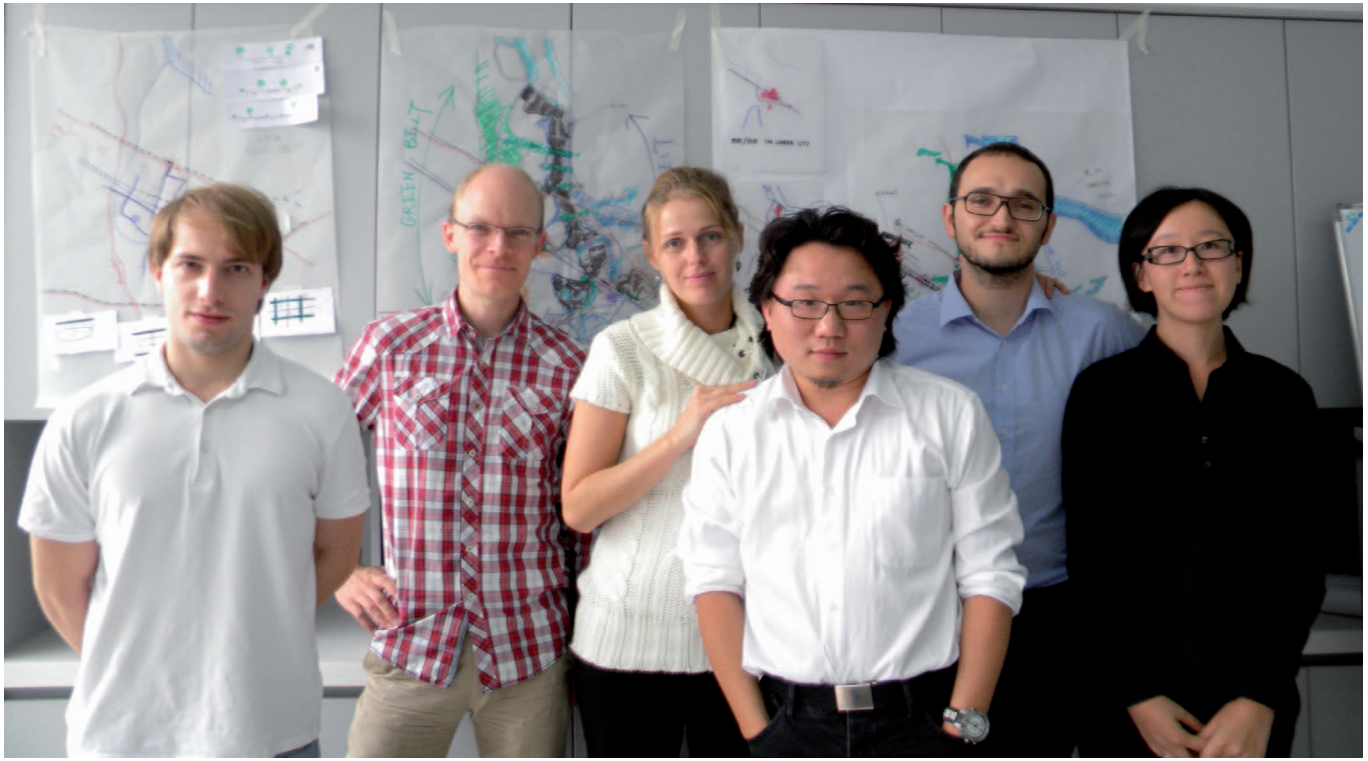
Florelle PREVOT 弗洛瑞尔 • 普瑞弗	Architecte Architect 建筑师	France France 法国
Paul LECROART 保罗 • 勒克瓦特	Urbaniste City planner 城市规划师	France France 法国
Christiane WUNDERLICH 克里斯提亚娜 • 乌代尔利奇	Architecte-Ingénieur Architect-Engineer 建筑工程师	Allemagne Germany 德国
SONG Bo 宋博	Étudiant à l'Université de Tongji Student at Tongji University 同济大学学生	Chine China 中国


HEALTHY
MEMORY
MY CHANGZHOU
PERSONAL
FUN
STRENGTH



ÉQUIPE 3

第三工作小组

TEAM 3

Axel WOLFERMANN 阿克塞尔 • 沃尔夫曼	Ingénieur de transport Transport engineer 交通工程师	Allemagne / Japon Germany / Japan 德国/日本
TU Yongbo 屠泳博	Architecte et urbaniste Architect and city planner 城市规划师 、建筑师	Chine China 中国
Rémi FERRAND 瑞觅 • 费让	Architecte et ingénieur civil Architect civil engineer 建筑师，市政工程师	France France 法国
LIU Ning 刘宁	Architecte Architect 建筑师	Chine / Suisse Chine / Switzerland 中国/瑞士
Barbara BOTOS 芭尔芭哈 • 波托斯	Aménagement urbain et régional City and regional planning 城市区域规划师	Hongrie Hungary 匈牙利
Antoine BLANCHER 安托尼 • 布朗施	Economiste analyste environnemental Economist environmental analyst 经济师，环境分析师	France / Chine France / China 法国/中国

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A dynamic eco-city in the Yangtze River Delta

Positioning the middle-size city of Changzhou in the Yangtze river delta has a lot to do with focusing on its distinctive urban and natural characteristics in the ancient settlement area of Jiangnan, and to address the problem of conflicts between residential, environmental and development goals on city level in the Chinese fast growth context.

A diverse web of green and blue corridors and a stable and diverse production of goods and services can foster biodiversity and economic stability in Changzhou. The city of Changzhou is on the good way to become a dynamic ECO-city in the Yangtze delta as there is social power in diverse evironment and economy.

SWOT - analysis of Changzhou

STRENGTH

Changzhou has money to invest and is fast in decision-making. It offers diverse jobs and an excellent transport infrastructure for person and cargo traffic.

WEAKNESS

Changzhou is not unique in the region. It does not have visible culture in the city. Currently, it is a polluted city with low standard of urban functions.

OPPORTUNITY

The city has the unique opportunity to provide low living costs and a human-scale urban environment for those searching for jobs in a diverse economic and natural environment based on green technology and green/blue corridors.

THREAT

However, special attention has to be given to avoiding urban sprawl, housing speculation and to reducing the ecological footprint of the city by not wasting resources.

Green and Blue belt

The Changzhou master plan is the sustainable vision of city development, which builds on the existing network of natural assets.

Transport hub for growth

In the present loose structure of the city industrial development will be structured by a strong mobility network.

Red, Green and Blue station

The Central Red Station attracts travelers to the city. The Blue Qishuyan and the Green Xinbei Stations melt into the two belts.

MY CHANGZHOU

A positioning strategy

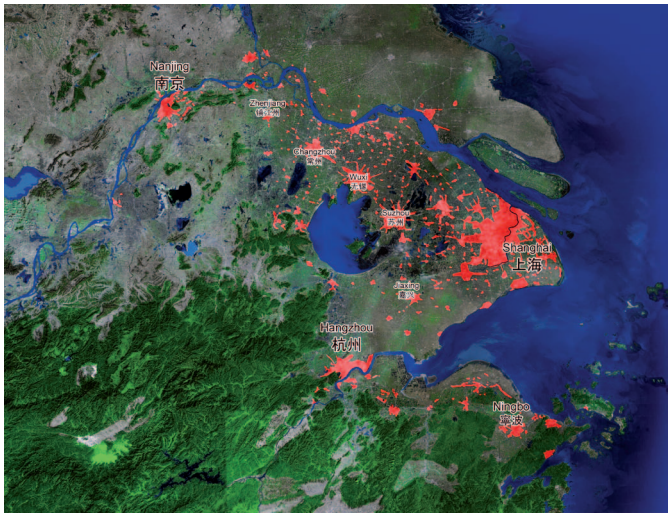
Changzhou is an in-between city in the Yangtze River Delta. The area can be characterised by its high level of development (urbanisation and infrastructure) and its high density of population.
The rise of the ecological footprint of the delta's cities and the homogenous urban sprawling make farmlands disappear.

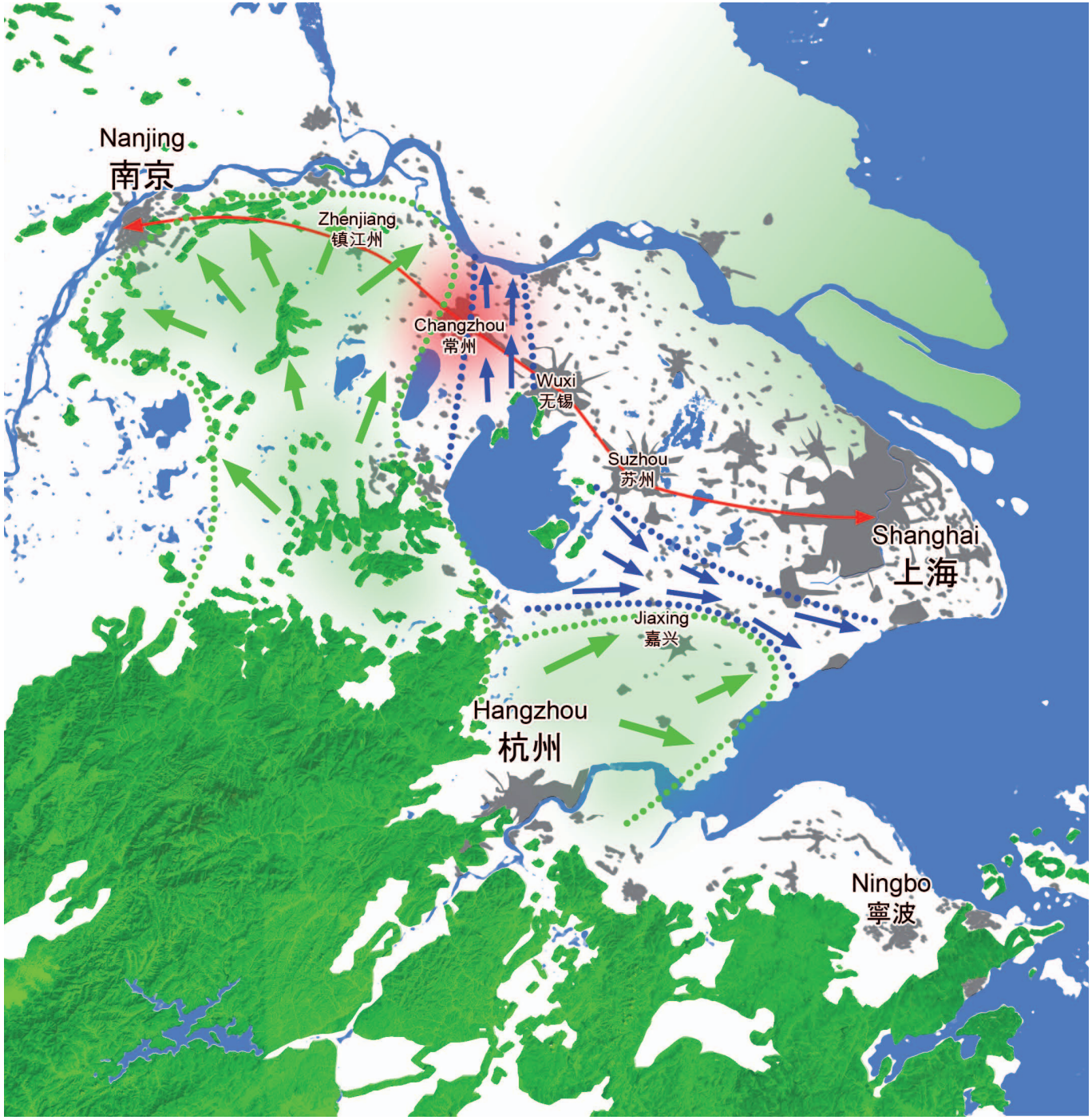
Changzhou is engaged in a regional competition among middle-size cities in the delta.
Its uncertain location (between Shanghai and Nanjing and between the Taihu Lake and the Yangtze River) can be considered either as a weekness or a strength.

Our intuition is that the question of green continuity at delta scale would be a major issue for the next thirty years.

Our double-belt proposal can position Changzhou in the Yangtze River Delta and provide the city with a leading role in this sustainable territorial vision.

In that scheme, Changzhou is at the edge of two major corridors :
- a western **green corridor** establishing a link with the forested mountain area of Langxi.
- an eastern **blue corridor** between the Taihu Lake and the two main rivers.





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Masterplan for city-evolution

This masterplan shows the possible links between the three stations inside an intensive centre.
We propose two belts around the city: a green and a blue way to structure future suburban developments.

In the
GREEN BELT
green industries (recycling and green manufacturing industries) should be developed with high technology and research and development. The agricultural lands in the green belt can provide the city with food supply. A forest of great dimension would be the only one in the Delta area. The energy forests (or reed, straw) to be planted can be used for electricity generation together with waste incineration.

In the
BLUE BELT
we suggest the development of a regional cargo hub or logistic centre to supply local and regional industries with goods in parallel with the present forms of manufacturing industries, retail and services. The blue belt can also be an experiment aera for innovative water-cleaning technology (plants or factories).

Confortably seated in their high speed trains, millions of passengers would discover Changzhou every year. If they do not stop, their journey would last only five minutes. 5-minute city is a skyline and urban renewal strategy to present a friendly city face.

MY CHANGZHOU
Sustainable industrial development

Green industries, high technology, research and development, agricultural lands, energy forests

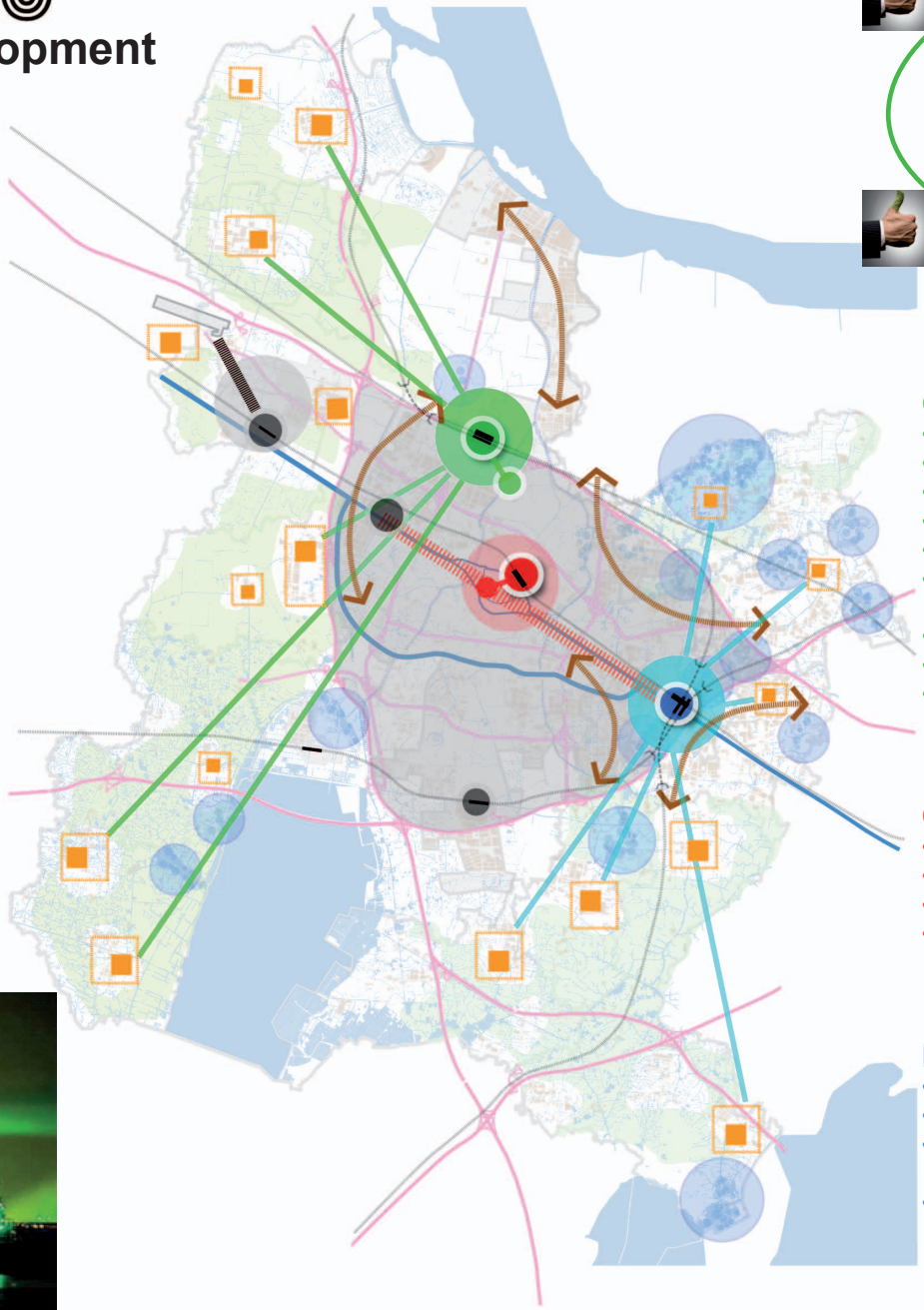
The economically sustainable system of Changzhou must be able to produce goods and services on a continuing basis to avoid extreme sectoral imbalances, which damage agricultural or industrial production.

For Changzhou we define **sustainable industrial development** in terms of three parameters:

1) growth of endogenous productive capacities, especially the capacity for **innovation**;

2) improvement in the environmental **performance of industry**;

3) improvements in **living standards** and a reduction of inequality, especially via growth in the quantity and remuneration of jobs in the manufacturing sector.



Green industries
- Green and smart tech
- Recycling
- Tree nursery
- Organic farmland
- Biomass energy generator
- Forest related industry (forestry, paper, furniture wood...)
- Energy forest
- Carbon offset
- Leisure and tourism

Central Services
- CBD
- Retail and Shopping
- Cultural activities and tourism
- Leisure and recreation

Blue industries
- Reviving of old factory buildings
- Transport manufacturing (rail, locomotive)
- Water treatment facilities (plants, phytoremediation wetlands, factories)
- Logisitic

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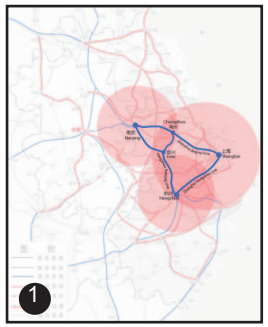
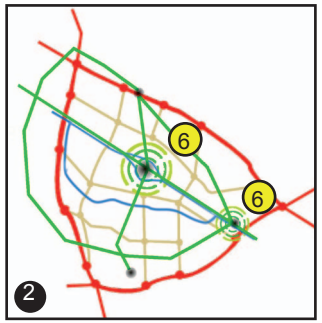
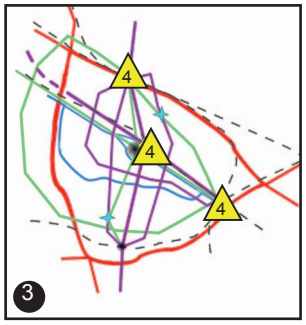
Transport system

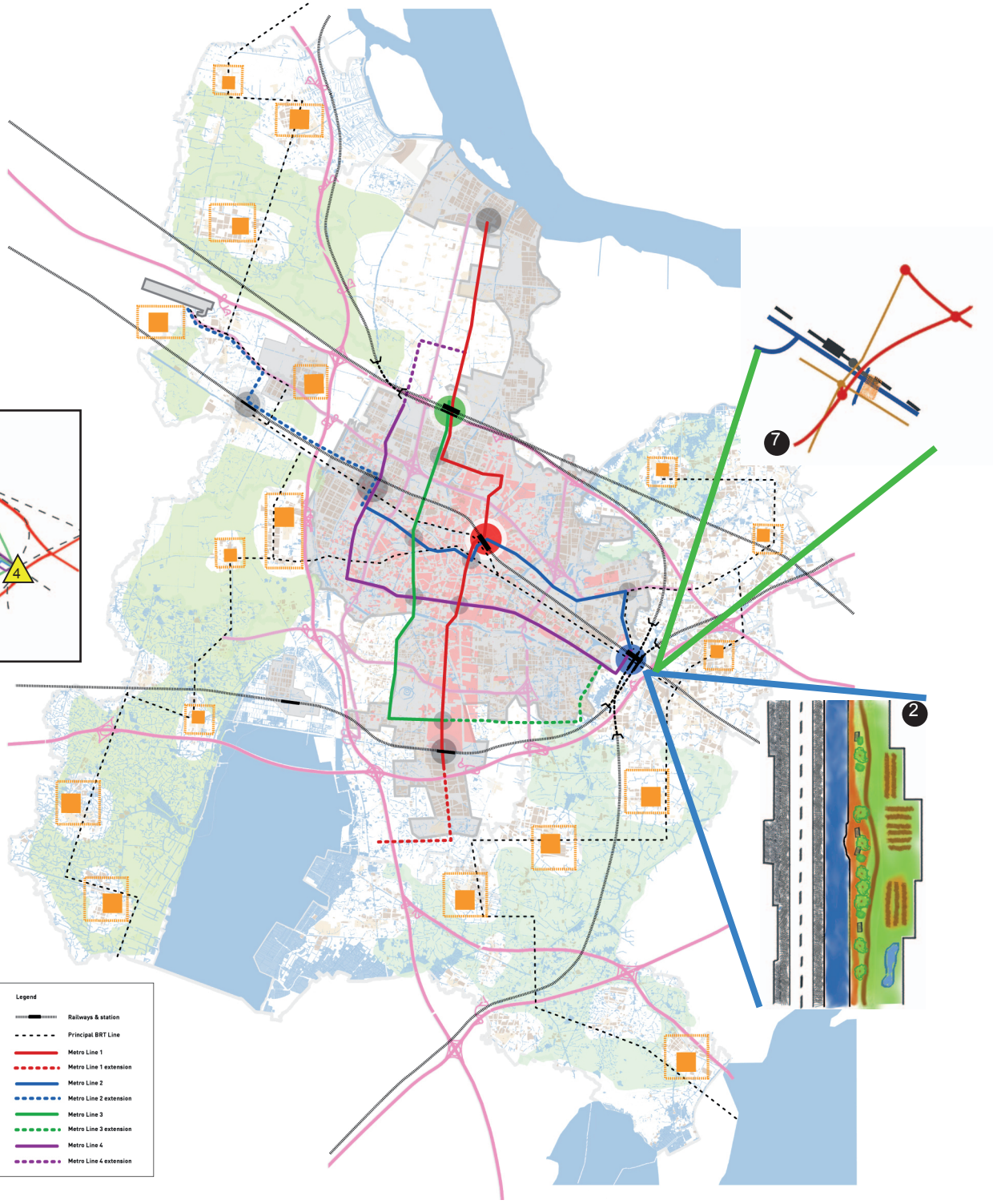
1. Good integration of Changzhou into high speed train network. Changzhou as a major interchange between national and regional high speed train services
2. Balanced use of all transport modes by fostering bicycle use (major connections along the green belt, the blue belt, and the old Great Canal)
3. Providing an efficient metro network while concentrating car traffic on trunk roads and expressways
4. Strong interchanges between trains, metro, BRT, and bike/pedestrians at the train stations







5. Visible hierarchy of road network (wide trunk roads, narrow local streets)
6. Attractive district centres with good public transport access, pedestrian areas, and limited car access
7. Benefit from the opportunities offered by the distinguished transport connections on roads, waterways and rails by creating a regional logistic hub
8. Three stations in the network as three peculiar hubs taking advantage of their position within the masterplan: red, blue and green stations



Red Station

RED STATION: Central Station

The Central station, as the Red station, is the door of the city of Changzhou. It is red because of its density, its central position and the historical, symbolical connotation of the colour. Its central position invites travelers into the city. The Red station will be connected to the Blue, the Green, the Ming Huang station and the airport by respective metro lines. It will also serve as a local interchange point for BRT, local and long-distance buses and metro lines. The road access along the canal towards the Blue station will be free of through traffic and provide fast public and individual connections on the surface level between the two stations.

Five-minute city

The central East-West railway line crossing the city and the Red station is to become an attractive axis with plenty of greenery along it, which invites travelers to get off at this station and discover the old city centre. The five-minute city of Changzhou of passers-by can later become the target of longer stays and discoveries.

Pedestrian city centre

The neighbourhood of the Central Station will be turned into a pedestrian residential and commercial area by diverting car traffic into a tunnel in front of the southern exit of the station, and connecting the station with the old cultural landmarks (Pagoda) and the planned new landmark on the North side of the city by flawless pedestrian access.

Existing situation

In the existing North Square a high density neighbourhood is to be built.

The high speed trains arrive at the new station on the north. There is only one pedestrian tunnel to reach the south square.

The South Square is facing heavy traffic on the Guanghe East Road. This main boulevard separates the station from the city centre and the canal.

The Hongmei Park is next to the busy neighborhood around Xinfei Street.

Proposition

1. CBD in the North part of the station: density, iconic landmark design fitting the «5-minute city» strategy.

2. Tunnel for cars under the Guanghe East Road.

3. Convenient access to public transport interchange next to the station.

4. Second pedestrian tunnel on the east side of the station.

5. Open pedestrian square and retail area.

6. Easy access to the Hongmai park.

Blue Qishuyan Station

BLUE STATION: Qishuyan Station

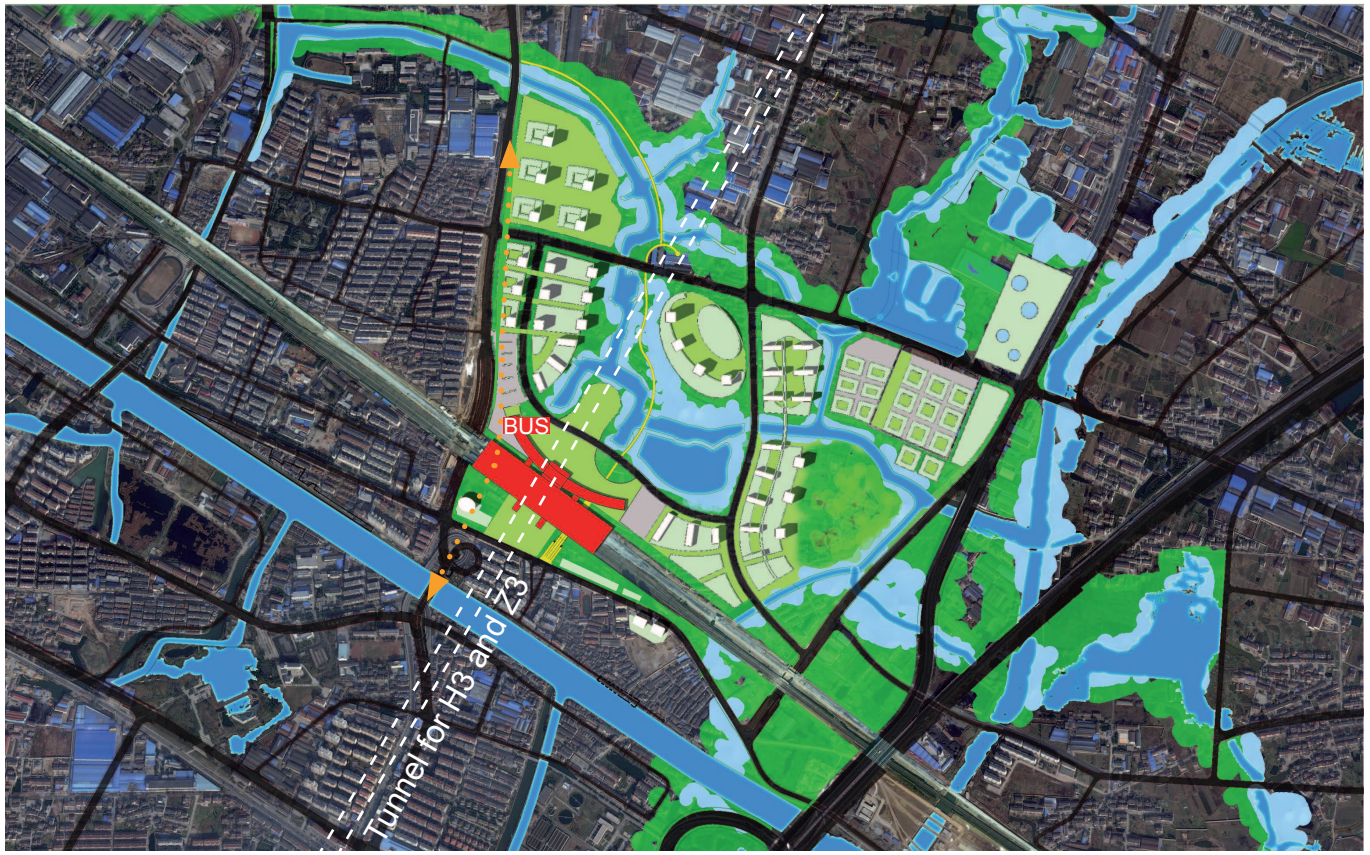
The Qishuyan station, as the Blue station, is to become the eastern transport and logistic hub of the city. It is blue because it is in the centre of the blue belt and the planned water-oriented developments. The presence of blue-roof industry and blue-collar workers also supports the blue concept.

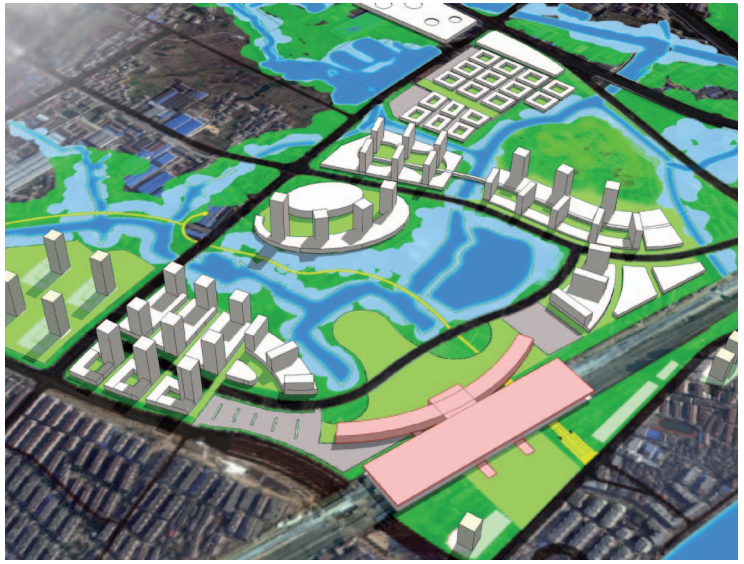
Station for connections

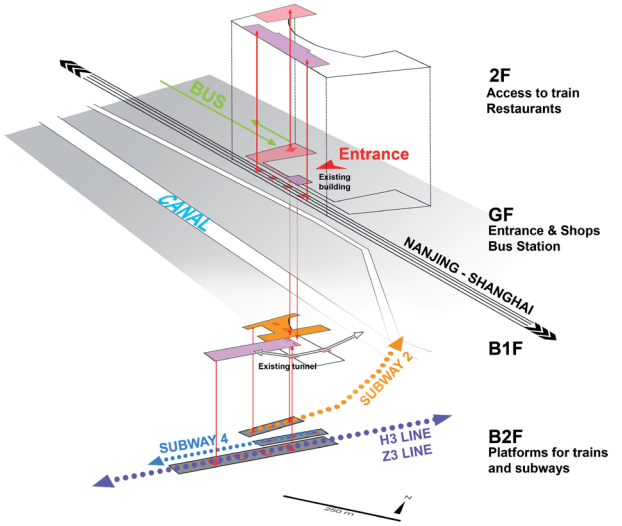
The Blue station will serve as a major connection and interchange for the existing and the new high speed Shanghai-Beijing lines, the H3 and the Z3 lines. It will be connected to all the other three stations and the airport by metro lines. Due to its good strategic location along the existing cargo railway, the Great Canal, motorways, the Blue Station is to be developed into a major regional cargo hub to supply local and regional industries with goods.

CBD in blue setting

The water-oriented developments around the Blue station and the fast metro and surface access along the canal towards the Red and Green stations will create a fresh and blue setting for CBD in the station neighbourhood. However, it is important to clean the canal system and treat sewage water (e.g. by using biotechnology). At the same time, a network of pedestrian and bicycle access along the canals will connect these two centres.







Green Xinbei Station

GREEN STATION: Xinbei Station

The Xinbei station is green because it has a central position in the planned high-density “forest shore”. This shore is between the green parks/forests, as the breathing lung of Changzhou, and the planned green tech park in the green belt of the city.

High speed hub

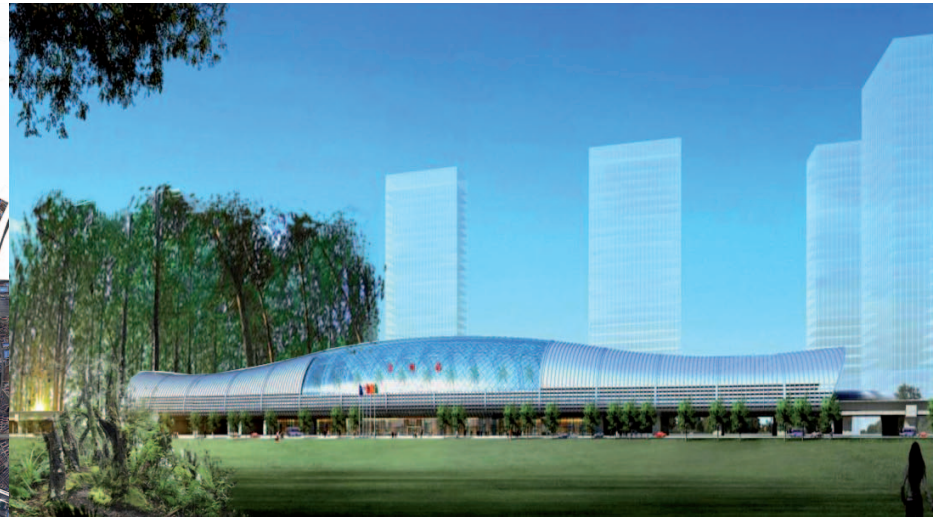
The Green station will serve as a connection and interchange for the new high speed Shanghai-Beijing line and the planned Z3 line (which can develop into a major north-south connection in the future), and will be linked to the other three stations and the airport by metro lines. Therefore, it will provide local access for long-distance travelers.

Green tech centre

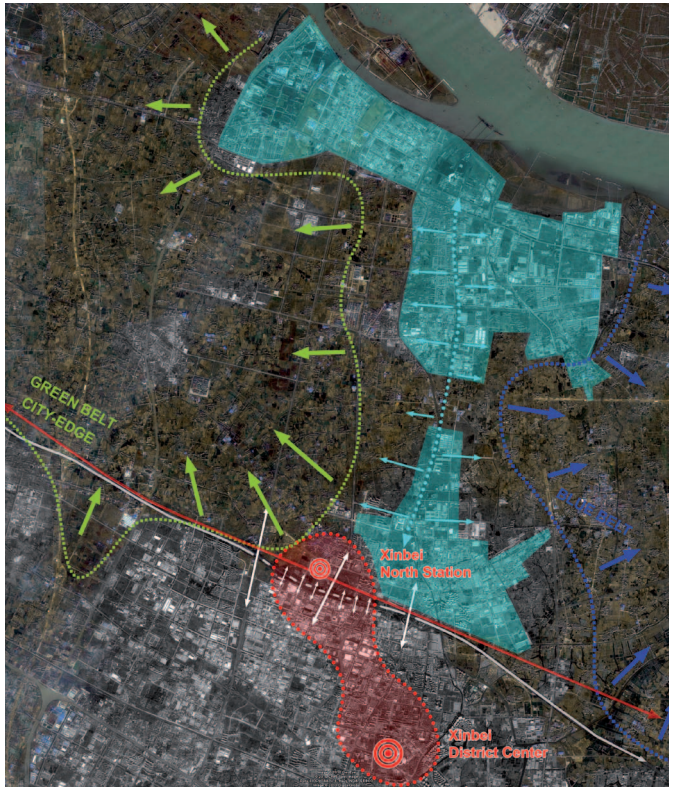
The Green station will be the perfect symbol for a progressive city district with a central educational role. It should be filled with green industries based on high technology and research and development. The agricultural lands in the green belt will provide the region with food supply. The forests to be planted can be used for electricity generation and wood industry.

Carbon offset

The green parks/forests east off the planned high-density “forest shore” can serve as future forest plantation areas for carbon offsetting investments by individuals and companies.



The Green Station will be the gate to the Yangtze-scale forest project and the centre of hight tech busines and green industries.
The proposal allows easy access to the existing district centre by lowering and bridging the express way.
The high-density «Forest Shore» development is a link between the green tech park and the green belt.



MY CHANGZHOU
Urban references

Two kinds of reference for the «My Changzhou» project are presented here:

- train stations (international renowned operations dealing with density, centrality and multimodal facilities,
- green spaces within city centers (references represent the ideal city, which is clean, quiet, beautiful, healthy (not polluted), conveninent, dynamic, and where there are places to hide away.)

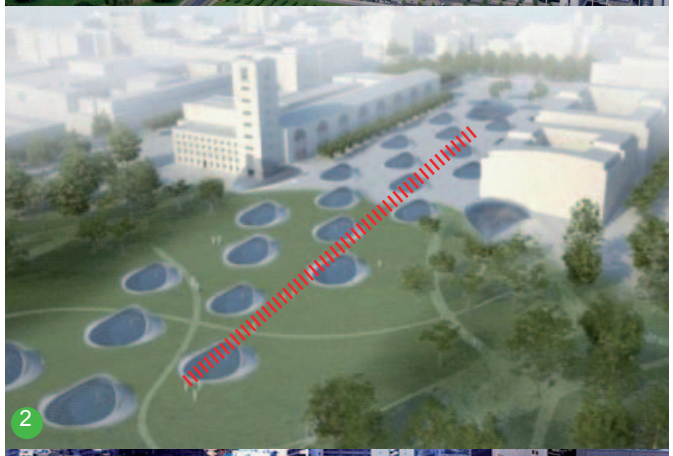
1. The transport hub of the **Central Station Berlin (Germany)** is a model of interconnected long distance train services with local and regional public transport.

2. The project of the new **Stuttgart Central Station (Germany)** is a model for the largest regional and long-distance railway station with an underground station running with a low-energy consumption concept.

3. The station neighbourhood of **Eurallille (France)** is a model of integrated urban planning combining an old train station and a new TGV station within a walking distance.

4. The shopping center of Namba parks in **Osaka, Japan**: a multi-level public garden integrated within a shopping mall

5. A vertical garden in **Sweden**: an example of mixing nature with buildings (www.greenfortune.com).



MY CHANGZHOU
Branding strategy

We propose a «branding» strategy for Changzhou, which consists of 6 major steps.
With this strategy “My Changzhou” can be a healthy, green and fun city to work and live for people whose memory is rich in culture. This personal richness can be represented by the diverse web of green and blue corridors and a stable and diverse production of goods and services to foster biodiversity and economic stability in a sustainable manner.

Clean water and thriving economy throughout the Blue Belt

Pedestrian city center

Skyline strategy for 5-minute city

Inter-connected multimodal transport system

Yangtze-scale Green Belt (farmlands and forest)

Green High Tech Economy

Jury

陪审团

Composition of the jury

LOCAL AND NATIONAL PANEL

To be confirmed. Deputy Director of Urban-rural Development Sub-ministry of MOHURD (Ministry of Housing and Urban-rural Development of China)
Mr. ZHANG Quan Vice Director of Jiangsu Department of Housing and Urban-rural Development
Mr. HE Zhigong Assistant Chief Engineer of China Railway Siyuan Survey and Design Group Co..Ltd
Pr. ZHAO Min Shanghai Tongji University. Special Advisor of the Municipality of Changzhou. Former director of the Planning Bureau of Shanghai.
To be confirmed. Dean of the Urban Planning Department of Architecture College of Tsinghua University.
Mr. ZHUO Jian Professor at the College of Architecture and Urban Planning of Tongji University.
Ms. ZHU Zhao Li Director of the Municipal Department of Urban Planning of Changzhou.
Mr GU Chunping Deputy-Director of the Municipal Department of Urban Planning of Changzhou.
Mr SUN Xiufeng Chief Engineer of Changzhou Planning Administration.
Mr ZHANG Fuling Urban planner, Dean of the Planning Institute of Changzhou.

FRENCH AND INTERNATIONAL PANEL

Mr Pierre-André PERISSOL Chairman of Les Ateliers, Former Minister of Housing, Chairman of the French Bank of Development.
Mr Yves COUSQUER State engineer, in charge of the state agreement between China and France on Sustainable Urban Development.
Mr Jean-Claude LEVY Geographer and historian. French Ministry of Foreign and European Affairs.
Mrs Francine GIBAUD In charge of international affairs for the Planning and Housing Department of the French Ministry of Sustainble Development
Mrs Françoise GED Architect. Head of the Observatory of Contemporary China for the Cite de l'Architecture et du Patrimoine.
Mrs Nazatul Shima MOHAMAD Deputy Mayor Secretary of Johor Bahru City Council, Malasia
Mrs Sirima NASONGKHLA Landscape designer from Thailand, professor of Johor Bahru University, Malasia.
Mr Jean GREBERT Transport & Mobility Research Manager for Renault.
Mr Pierre-Michel DELPEUCH Architect, engineer. Director of a French leading company for infrastructure consultancy, specialized in transportation projects and urban development.
Mr Tang JUN Chief Engineer and architect - AREP Beijing.
Mrs Vannina POMONTI Special Advisor of the Chinese Bureau of AFD – French Development Bank
Mr Daniel CUKIERMAN CEO Veolia Transport RATP Asia.
Mr Serge NEUMAN Ph-D, Bioclimatic Facades Initiatives Program Director, SOMFY.

Auditors: Mr. Jacques SAINT-MARC, Secretary General of the Interministerial Group «Mobility and electric vehicles» and delegate of the Franco-Chinese Sustainable Urban Development, Ms Carine HENRIOT, Project Manager on Sustainable development at the Consulate of France in Shanghai, Denis QUENELLE, in charge of Technical Cooperation on Environment and Sustainable Urban Development at the Embassy of France in Beijing, and Mr. Bernard FEUILLEDET, Head of the Project MACAUTO company (management of fleets of public vehicles including electric vehicles).

Role of the jury

Following the method developed in 28 years by Les Ateliers Internationaux, each workshop ends with the presentation to a « jury » of the propositions of three multidisciplinary and international teams of professionals. The members of the jury are chosen by Changzhou Municipality and Les Ateliers. Their mission is not to classify the teams' propositions, but to identify among the global production the most relevant projects and ideas that could be/should be implemented by the local authorities. Therefore the jury takes part to the process of collective production of the workshop and is sometimes compared as a "4th team"! Especially for this workshop, there will representatives of companies active in city engineering to provide an operational dimension to assess the proposals of the three teams.internationales.

Elements of conclusion, by Yves Cousquer, President of the Franco-Chinese ministry agreement on Sustainable Urban Development.

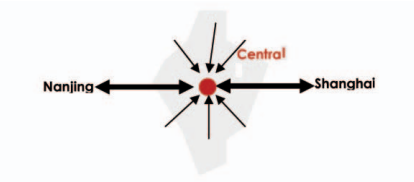
«What you've done for 15 days was somehow intended by this agreement: mutual understanding, exchange, with a vision to build the future.» «Foresee, design projects with the will to cross cultures, scales and generations. «

«The synthesis report will be produced for the use of the local and provincial authorities, who will be the first users of these recommendations, but it will also interest the steering committee of our ministerial agreement, which should meet in France next spring and will assess the demonstrative value of production of this workshop and its use by local authorities. «

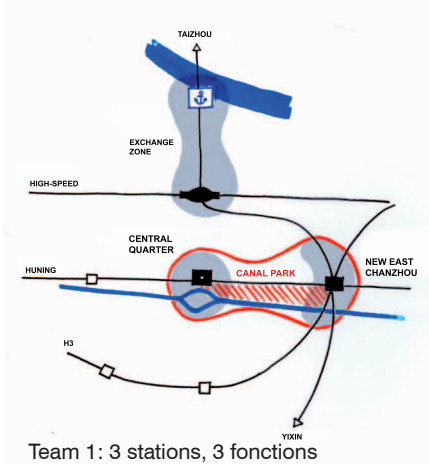
«This workshop allowed us to work together - planning agencies, businesses, universities, governments - and is an invitation to continue this effort to go beyond, to innovate and develop.»

TEAM 1: Work on the **cost of the city** for the people (housing, transportation) and proposal of differentiation of the city on this criterion. Urban project on the historic central axis of the city (Grand Canal), offering a series of urban sequences and quality of life permitted by **reuse and intensification of the industrial fabric towards the east**. Proposals for habitat and mode of life (Garden City) in sharp contrast with the new Chinese practices. A **central station with pedestrian surroundings**, opened to the historic town. Link train stations with local railway network. Understanding Xinbei as a «Airport» station.

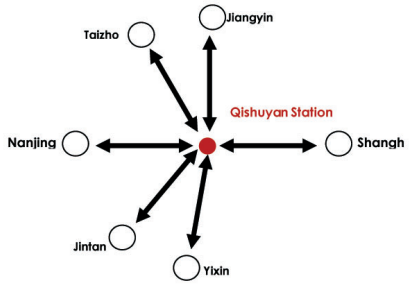
Xinbei: high speed



Central: gate of Changzhou

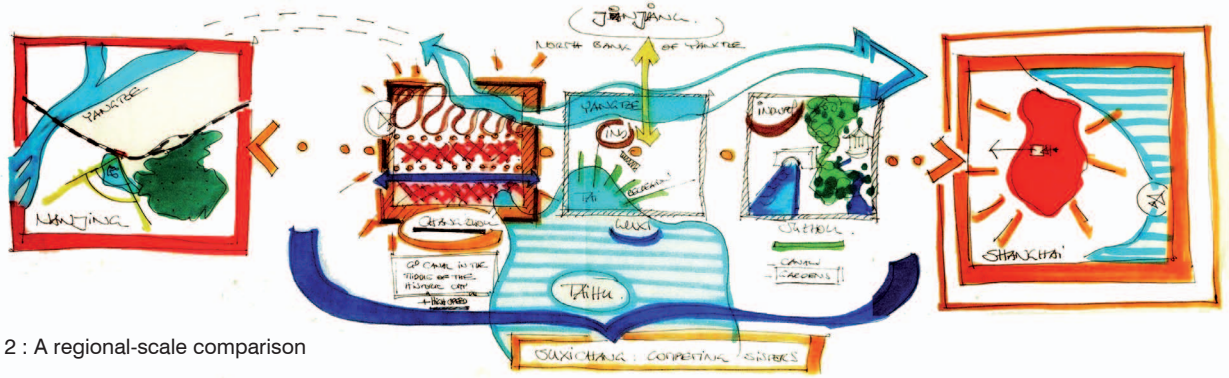


Team 1: 3 stations, 3 fonctions

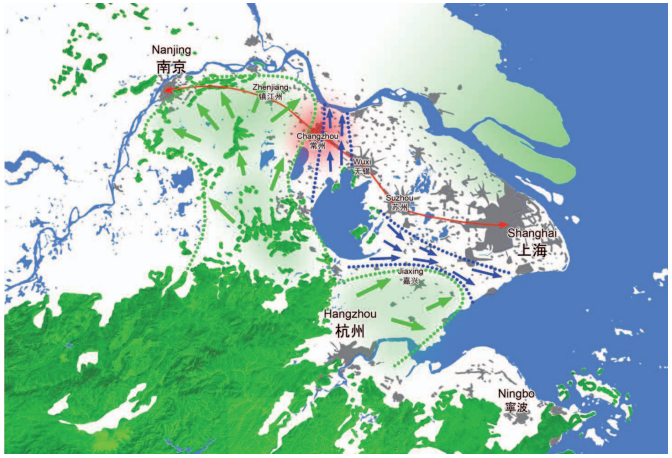


Qishuyan: regional hub

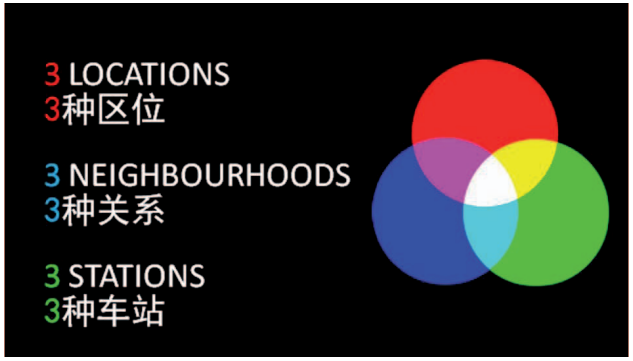
TEAM 2: An approach combining regional marketing and proposals of **urban development focused on the theme of water** and its valuation within the city, **using clean technologies**. Proposed **identity «Dragon City»**. Analysis of the urban sprawl of Changzhou. Reasoning on the fact that Chinese railway stations are closed. Idea of fun downtown. Strengthening North-South link, symbolized by a small canal running through the central station. Project Grand Canal with regular events, such as the race of solar boats.


Team 2 : A regional-scale comparison

TEAM 3: A powerful analysis at the large scale. Proposal for the creation of **a double green and blue belt** for the environmental balance of the Yangtze Delta and the control of urbanization. A comprehensive transportation system, offering bike lanes separated from traffic and 4 lines of subway. **Clear distinction of the stations by colors**, with distinct economic projects. A central station comprising the main functions of centrality of agglomeration. Original proposal: a «**5-minute city**», staging the city being crossed at high speed by planting a forest. Development of logistics at Qishuyan station. Proposal of a mobilizing slogan: I love my Changzhou.

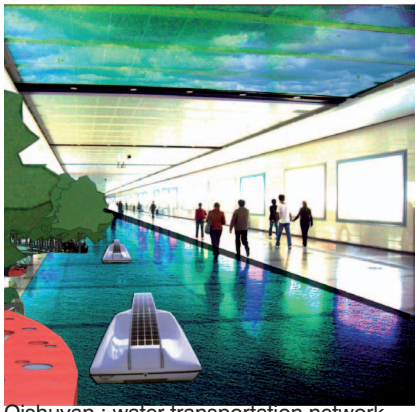


At the scale of the delta: the double green and blue belt



Clear colors, clear distinctions for one common identity.

A pedestrian central station



Qishuyan : water transportation network inside the station

Green Xinbei station : a future new forest ?

FIRST EXPRESSION OF THE RESULTS OF THE WORKS-HOP - 9 PROPOSALS FOR ACTION.

- Set a limit to the sprawl of the city, especially by developing a green belt at the east of the city, which would run across the Yangtze Delta.

- Develop Changzhou as a « fair price city” (low cost?), with services and urban quality, which can differentiate the city within the conurbation of the Delta. Provide an action plan for easy access to housing and cheap public transport.

- Image / Identity: Developing city marketing, involving the people. Develop local ambition and pride of belonging. Create a motto, like «I love my Changzhou”. Create events related to identity marks of the city: water / transport / industry. Proposals: race of photovoltaic boats, creation of a museum of railway transport (perhaps by hosting the pavilion of the Ministry of Rail, which was at the Expo).

- Transports. Encourage the development of a regional network. Create a tourist line. Better connect the various networks. Work more on the needs, with the residents, communities and the companies.

- Structure the green and blue network of the city, by reinforcing the green network - impacts on biodiversity, pollution and climate - and valuating more on the network of canals.

- Do not condemn bicycle! Encourage pedestrian and bicycle traffic, particularly for access to stations.

- Prioritize centralities / stations. Enforce the attractiveness of the central station through a special urban treatment of its neighborhood. Urban project with burying fluxes of cars, which today cut the station from the canal and the old city. Develop a functional and landscaped relationship between the station and the pagoda and Hongmei park. Propose a higher density; improve the connection between North and South of the station.

- Xinbei (new high-speed train station in the North): D**o not impose a ‘traditional’ development like a CBD**. Prefer qualitative or experimental projects, as well as soil conservation for the future.

- Create a special relation between the new high speed trains and the city. Highlight railway infrastructures in the city, but also stage what you see of the city from the train. Differnrentiate Changzhou from what you see from the train when you go across the city (the 5-minutes city). Proposal of a large forest rather than a CBD around the North station.

Annexes

附表

FACEBOOK

Nicolas SAMSOEN

WORKSHOP SCIENTIFIC MANAGER

nicolas.samsoen@arep.fr _ France

I've took part in three Ateliers sessions: Huludao, as participant, Cao Lanh and Vitoria, as jury member. I'm director Asia of AREP (Architecture and city planning agence of SNCF, French National Railroad) directed by Jean-Marie DUTHILLEUL and Etienne TRICAUD, and specially located at Asia. In China, we've designed the South Station of Shanghai, the City Museum of Beijing and a complex at XiZhiMen. Recently we just finished the highest skyscraper from Vietnam, Financial Tower. Before my curent position, I directed EPAMSA, a State public institution in charge for operation of the National interest of Seine-Aval.

Nicolas DETRIE

LES ATELIERS DIRECTOR

nicolas.detrie@ateliers.org _ France

Working as director for Les Ateliers since May 2007, I took part to the various works in progress of the NGO : financial and social restructuring, development and formalization of the method, communication and networking, organization of a dozen of workshops. I firstly experienced Les Ateliers as participant in Irkustk and Marseille 2007 and as assistant in Benin 2005. I was then a student at the ESSEC MBA School and involved in the Chair of Urban Economics. I worked 2 years for the National Rail Company on the development of multi-modality, then after an exchange student in Brazil, I worked in Marseille on the renewal of social housing.

Claudia VILELA

Architect Urban planner

WORKSHOP ASSISTANT

claudiarvilela@gmail.com _ Brazil

Architecture and urban planner degree in 2006 by Federal University of Minas Gerais –UFMG, Brazil. Since 2008 works in a Brazilian cooperative in Belo Horizonte- MG in which collaborates as architect in restoration projects. In 2009 she was invited by Les Ateliers to participate as assistant during 15 days at Vitória workshop (Brazil). Since January 2010 I took part in different and interesting missions with "Les Ateliers", as assistant at Saint-Louis du Sénégal and as participant at Dunkerque (France), and now since july in Changzhou, China.

Antoine PLANE

LES ATELIERS VICE DIRECTOR

antoine.plane@ateliers.org _ France

Graduated in 2009 with an ESSEC MBA (School of Economic and Comercial High Studies), I was then involved in the Chair of Urban Economics. I have guided my career towards urban planning after participating in two International Workshops in Cergy (2006) and Irkutsk (2008), and making an apprenticeship in an urban planning public society working on the former land of Renault in Boulogne-Billancourt (2006-2008). My idea of cities is born from my passions : travelling (Japan, Brazil), and photography. Working at Les Ateliers since July 2009, I was involved in the organisation of 8 workshops in different countries. I am also responsible for the production of documents.

Chen-Yu ZHOU

Engineer - Landscape designer

WORKSHOP ASSISTANT

zcynn@hotmail.com _ China

Graduated at National School of Nature and Landscape at Blois (France) and DESS Landscaope and rural territories of University François-Rabelais at Tours, I work as in charge of urban studies. I have a good comprehensoin of projects programs in different scales and I have the skill of dialogue between public services and to assess each part priorities, and I keep a soft and techinical approach of landscape designer. I'm passionate with art in landscape and city planning, I love to meet people, drawing, walking around and look for new experiences. I have a double culture, Chinese and French and it's the first time I participate of Les Ateliers.

CHANGZHOU MANAGING TEAM

SUN Xiufeng

Chief Engineer of Changzhou Planning Bureau

190820566@qq.com

Chief Engineer of Changzhou Planning Bureau. Master of urban planning at Tongji Uninersity. Experiences of winning international planning building competitions and provincial prizes.

YAN Ling

Chief Engineer of Changzhou City Planning and Design Institute

yanlin1968@hotmail.com

Graduated from Architecture Department of Southeast University with an urban planning diploma, now a senior planner and national charted urban planner, with years' experience in master, sub-district, and detailed planning and studies, I have worked as the Chief Engineer of Changzhou City Planning and Design Institute and won national prizes.

HUANG Yong

Urban planner

626356313@qq.com

Graduated from Shanghai Tongji University in 1992 with an urban planning diploma, now a senior planner and director of Planning Division II of Changzhou City Planning and Design Institute. I have led and participated in nearly a hundred of projects of different scales and kinds, having won national prizes.

HUANG gang

Urban planner

Technical assistant

czghy@21cn.com

He has graduated in 2000 from Xi'an University of Architecture and Technology, now working at Changzhou City Planning and Design Institute. Having led and participated in projects of urban studies, regional and urban development,industrial economies,etc.

YANG Chunfang

Urban planner

Technical assistant

chunfangyang@gmail.com

Open and sociable, She has graduated with a Master's degree of human geography at Nanjing University, and now is working at Changzhou City Planning and Design Institute. In 2009 she assisted the organization of Jiangsu Urban Planning Association in Changzhou.

JIN Yiwei

Urban planner

Technical assistant

yiweiapril@sina.com

With a Bachelor's degree of English at Nanjing University and a Master's degree of Human Geography at Hubei University, having been working at Changzhou City Planning and Design Institute since 2006, attended planning projects and studies of underground space utility, community development, industrial heritage protection and industrial land layout, etc, which have won provincial and municipal prizes.

ZHANG Jinhua

Urban planner

Technical assistant

In 2002 I graduated with an urban planning diploma from Architecture Department of Suzhou University of Science and Technology, national charted urban planner, now working with Changzhou City Planning and Design Institute. Mainly I work and research on rural town master plan, sub-district plan, city design, detailed planning, etc, having won municipal and provincial prizes.

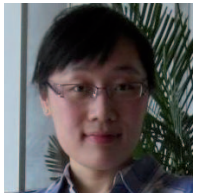
ZHOU Yanyun

Urban planner

Logistical assistant

Graduated with an urban planning diploma from Jiangsu Union Technical Institute, having been working at Changzhou City Planning and Design Institute since 2006, I participated in planning projects of underground space utility, gas station layout, town land use detailed control, etc, with municipal prizes.

PARTICIPANTS _ TEAM 1



LIU Ying-zi

City planner

lau_dodo@sina.cn _ CHINA

City planner assistant at Institute of City planning and design of Changzhou, I'm graduated at Architecture University of Dongnan in 2007 and had my master in Nanjing University. During this 3 years of studies I participate of «Studies of planning systems in important urban areas» organized by one professor. I published 3 articles. As I live in Changzhou, I know the city very well and I want it to develop to offer a better live. I am very active; I have communication skills and team cooperation.

Allan THOMPSON

Architectural advisor

alan@apthompson.com _ UK

I am an architectural and urban designer, but also a critic and writer. My original training was in philosophy, but I also trained and practiced design: from product scale to city masterplaning. I have designed and overseen the construction of large public buildings. I am currently chairman of the cultural organisation « Art & Architecture », which examines interdisciplinary practice of artists and architects in urban space. I helped masterplan the Ebsfleet railway interchange for Arup Associates. I participated in review of the new « Crossrail » station network in London, as design review advisor for CABE.

Florelle PREVOT

Architect

florelleprevot@yahoo.fr _ FRANCE

I have an analytic spirit and I' m curious, I love to learn and to exchange specially through other languages. I'm worried about quetions relqted with environnement, identity and memory, also to development and gouvernance. I see my training in architecture as, first of all, learning about how to understand and solve contemporary problems and foremost, a way to get closer to the human and social issues as the homeless, as the elderly or inhabitants of old Beijing. I' m currently assistant Urban Studies AREP Ville.

Paul LECROART

City planner

paul.lecroart@iau-idf.fr _ FRANCE

I'm passionate about urban planning and in love with the metropolis. I have a landscape designer feeling, and I can understand how human activities are organized in the space, in all scales. I believe in changing minds, in informal dialogues and collective production as a research method of creative solutions «hand-made», may reveal singular aspects of the territory. In Institute of urban planning of Ile-de-France region (IAU îdf), I specially manage the workshop "Great Urban Projects in Europe" and I lead, with Paris Metropolis and Paris Urban Workshop, an experimental approach to develop "metropolitan projects".

SONG Bo

Student at Tongji University

songbcom@126.com _ CHINA

I'm a person full of energy and always interested in doing group work. I also have a temperate nature and love to study with my friends in daily life. Love sports such as table tennis and soccer. I feel happy and responsible to be a town planer in China for the current rapid growth situation. Although I have participated in many projects especially in northeast and east part of China, I still need to gain more social experience.

Christiane WUNDERLICH

Architect-Engineer

cw@christianewunderlich.com _ GERMANY

Registered architect and passionate urban designer - from the participation in the Cergy Summer Workshop back in 1996 up to urban design projects in France (Austerlitz South Railway station district, GPV de Metz-Borny). Distinguished by numerous experiences in China: urban projects in Lijiang (Yunnan), Taiping (Jiangsu), Huludao (Liaoning) and professional activities abroad: professorship in Seoul for several years and academic consultancy in the Sultanate of Oman, currently based in Germany and mainly working on eco-city and urban redevelopment projects focussing on local identity and energy issues

PARTICIPANTS _ TEAM 2

Aurélie COTTON

Market analyst

aurelie.cotton@veoliawater.cn_FRANCE/CHINE

Market analyst working at Veolia, I have a good knowledge about the problems and issues of Chinese cities development and particularly in Changzhou, a city we work with during 15 years. I'm specialized in water management but I believe, as Veolia do, in a global approach environmental matters I'm graduated in political science and Chinese, I live in China for 2 years already and I'm passionate for this country. To take part in this workshop is for me an unique opportunity to offer our know-how in sustainable development to this municipality which is growing so fast.

Sophie DUMAS

Architect–city planner and Sociologist

s.dumas@epamsa.fr _ FRANCE

Initially graduated in architecture, I came to town planning over the course of my career. I am now working in urban planning management, where my job is more about procedures, financing, and negotiations than about drawing. What I particularly appreciate in my job is the confrontation of strategy, concepts, and operational implementation ; as well as that of different points of view, driven by professionals from differ ent sectors contributing to regional development (transport, agriculture, housing, economics, ...). My work is primarily centered around the large-scale projects and the emergence of projects that contribute to "make sense" for the territory.

LIU Zhuqing

Student at Tongji University

qingqing1500@yahoo.com.cn _ CHINA

I'm city planning student in Tongji University. In last August I did an internship project in Germany and in 2006 I did an internship in South Korea. That's why I' m used to take part in different workshops and work with people from different countries. I also took part in some planning projects around the Yangtze Delta, The Delta cities and their characteristics are very familiar to me.

TAO Xiaoya

City planner specialized in transport

343857088@qq.com _ CHINA

Graduated in Transport at Dongnan University in 2003, I work at City Planning and Design of Changzhou City. I have an extroverted personality, I'm specialist in parking management, in bridge and transportation regional planning. I participated as the project leader to develop the Master Plan of the city of Changzhou, plan of bicycle paths, study of railway line H3, the study allowance of parking areas and sketch of central city roads, etc...

Nicolas JOBARD

Architect–city planner

jobardnicolas@yahoo.fr _ FRANCE

Architect, graduated from the Institut National des Sciences Appliquées de Strasbourg, (formerly ENSAIS), I have already worked on several development projects in China. I completed my training as an architect and urban planner by participating in major urban projects under the guidance of Bernard Reichen, as the competition for the masterplan of the "Shanghai-Zhenru Subcenter, or on other projects for exampe in Morocco, such as the second-center on the former Casablanca Anfa Airport, or the development of the Bouregreg's banks in Rabat. I hold a Master of Advanced Studies in Architecture and Sustainable Development from the EPFL, this additional training allowed me to gain more knowledge about the "sustainable" architecture and city, by studying more precisely the relationship between density, urban form and energy efficiency, as well as the concepts of ecosystems and urban metabolism.

Ken TANI

Architect - Landscape designer

studiotani@gmail.com _ ITALY / JAPAN / UK

Architect and urban designer in Italy, Japan and the United Kingdom, I work in various sectors (urban planning and landscape architecture, new construction and conservation of cultural buildings), I worked extensively on master-planning projects and on environmentally sustainable design. Currently I am designing a new archive for St. John's College Cambridge, and I continue my research in urbanism. I am very interested in the human scale in relation to the built environment and nature in the Asian city, and its variation in different cultures, landscapes, economies, and in history.

PARTICIPANTS _ TEAM 3

Barbara BOTOS

Aménagement urbain et régional

kornyezet@tatabanya.hu _ HONGRIE

I am highly interested in the urban planning project of Changzhou because my experience as a strategic manager in governance & project management and as a senior lecturer of environmental science in higher education prepared me for the challenges associated with this assignment. My advanced international academic training in the US, England and Hungary, my superior command of English, my extensive research background, my strategic management and program innovation skills in the field of integrated urban development plans, local agendas and climate change action plans, and my vast experience in high-level programmatic work in thematic urban development issues supported by Interreg, Urbact and Intelligent Energy Europe projects will make me a very competitive and enthusiastic participant.

Rémi FERRAND

Architect civil engineer

remiferrand@hotmail.com _ FRANCE

My passion for human concentrations and building phenomena have lead me from engineering to architecture, from urban project to city and territory planning. Now eager to move between different scales, I use my skills to develop ideas and projects with freedom. In 2009 and 2010, in partnership with Emilie Cam, I made a prospective study, a city portrait of Shanghai agglomeration located at Yangtze Delta: «Shangwhy, agricultural metapolis».

LIU Ning

Architect

isaliuning@yahoo.com _CHINA/SWITZERLAND

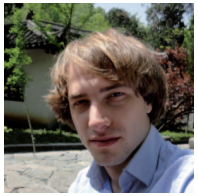
Lives and works in Lausanne (Switzerland) and in Paris (France). From 2005, she is an active architecturbanist working in projects located in France, Switzerland, Morocco and China. Since 2008, she is also an architect researcher at the School of Architecture, Civil & Environmental Engineering, Swiss Federal Institute of Technology (EPFL) in Switzerland. Her research work is focused on the implementation of sustainable principles in the developing world. Ning Liu studied architecture at Tongji University in Shanghai and then at the Instut National des Sciences Appliquées de Strasbourg (INSA Strasbourg, ex-ENSAIS) where she obtained the diploma of architect INSA in 2004. From 2000-2004, she was a holder of French government scholarship and member of the presidential Sino-French exchange program “150 Chinese Architects in France”.

TU Yongbo

Architect and city planner

tuyongbo1019@126.com _ CHINA

Graduated in architecture at Nanjing Technological University in 2004 and city planning master in 2007, I work at City Planning and Design of Changzhou City. I participated as project leader in the detail light project for Pipa’s Lake at Zhongshan square (International design award), planning the reconstruction of Sichun after the earthquake (Provincial award), and planning of High-speed train station of Changzhou.



Antoine BLANCHER

Economiste analyste environnemental

ablancher@gmail.com_ FRANCE

I’ve grown up in different countries, thanks to my parent’s job (Middle East, Asia, America). After studies in commerce (and French literature, as a personal interest - final work “Writing the city through contemporary poetry”), I worked as financial environmental analyst in clean technologies. I took part in Héliotrope in 2009 because I love architecture and nature (the world of green walls is located between architecture and nature). I work with the international development of the company, beginning in China where interesting projects are ongoing.

Axel WOLFERMANN

Transport engineer

axel.wolfermann@trafficdata.info _GERMANY / JAPAN

Trained transport professional with a wide range of skills in engineering, planning and team work. Professional focus so far on traffic engineering. Several visits to China, now working in Tokyo. Looking for new challenges and new experiences in an interdisciplinary context related to transport planning. Fascinated and enticed by the opportunities and threats of China’s.

JURY'S MEMBERS
FRENCH AND INTERNATIONAL PANEL

Pierre-André PÉRISSOL

PRESIDENT OF LES ATELIERS
pierre-andre.perissol@ville-moulins.fr _ France

Pierre André Périssol studied at l'Ecole Polythechnique and l'Ecole Nationale des Ponts et Chaussées. He is an Ingénieur Général des Ponts et Chaussées (General engineer of roads and bridges). He started his career as director of studies in the new city of Saint-Quentin-en-Yvelines between 1972 and 1974, then was founding CEO of the Groupe Arcade from 1976 to 1995, and, at the same time, President of Crédit Immobilier de France from 1991 to 1995. His political career began in 1983, as a City of Paris Advisor until 1993. He was a parliamentary representative from 1993 to 1995, and also from 2002 to 2007. He was Minister of housing from 1995 to 1997. He has been the Mayor of Moulins, Prefect of the Department of the Alliée, since 1995, and President of AFD (French Bank of Development) since June 2010. He has been involved in Les Ateliers Internationaux de Maîtrise d'oeuvre urbaine since 1999, first as Vice-President, then as President.

Pierre-Michel DELPEUCH

DIRECTOR OF «ATELIER VILLES & PAYSAGES»
pierre-michel.delpeuch@villesetpaysages.fr _ France

Pierre-Michel Delpeuch, architect, engineer of Roads and Bridges, spent 25 years in Paris Airports management company in airports projects, and particularly in France and terminals on the continents of Asia, Africa and America. He also participated in projects such as the Eurotunnel terminal in Calais and Cite Europe shopping mall, the Avenue de France in Paris, the plant of Airbus A380 final assembly, the A380 maintenance base of Emirates in Dubai, two towers in the city of Dubai, the Embassy of France in Tokyo. He now runs workshops Ville e & t Paysages, design agency public spaces integrated engineering group Egis.

Yves COUSQUER

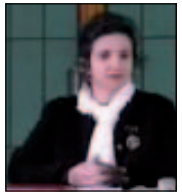
STATE ENGINEER, SENIOR ADVISOR TO THE MINISTRY OF SUSTAINABLE DEVELOPMENT
yves.cousquer@wanadoo.fr _ France

Yves Cousquer studied at École Polythechnique and l'Ecole Nationale des Ponts et Chaussées. Begins his pofessional life when Equipement Ministery was created, where he work 9 years in urban planning. Between 1975 and 1981, he was director of technical operations at Marseille's Harbor. In 1987 he joins the Water Management company "Lyonnaise des eaux", and becames CEO. He leads the transformation of "La Poste" in a public company. Stayed 5 years in Brussels as CEO of International Post Corporation, cooperative of 21 biggests Post companies of the world. In 1999, was invited by the French governement to be president during 3 years of National Council assessment policy, and simultaneously, Aéroports de Paris (1999-2001).

Jean GREBERT

DIRECTOR OF RESEARCH GROUP TRANSPORT AND MOBILITY AT RENAULT
fged@citechaillot.fr _ France

Jean Grébert, originally skilled architect, and ENPC (Ecole Nationale des Ponts et Chaussées), has been working at RENAULT for ten years. He is managing Transportation & Mobility Research activities within the Research and Advanced Studies Department. His in charge of prospective and systemic analysis about the mobility behavior changes in the main metropolitan regions of emerging countries. Before he has been Deputy Director of a medium size city's Town Planning Agency, in charge of planning and designing urban and transportation projects. He led numerous studies for the SNCF (the French railway Company) mainly about railway stations renewal and improvement in regional areas.



Françoise GED

RESPONSIBLE OF OBSERVATOIRE DE LA CHINE CONTEMPORAINE, CITÉ DE L'ARCHITECTURE ET DU PATRIMOINE
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Architect, researcher and head of "Observatoire de l'architecture de la Chine Contemporaine". In 1997 has the PhD in history and civilization at EHESS, a researcher at the Architecture and heritage direction, Culture Ministery, Responsible of reserches in Chinese heritage cities linked to CNRS. In 1997-2002 she was lecturer in Inalco in architecture and City planning in China. She is specialized in Chinese urban designer, in its contemporaries de ses évolutions contemporary and architectural development.

Francine GIBAUD

IN CHARGE OF INTERNATIONAL AFFAIRS OF THE FRENCH MINISTRY OF SUSTAINBLE DEVELOPMENT
francine.gibaud@developpement-durable.gouv.fr _ France

Architect and landscape designer, her carrer career was devoted to two major areas: landscape design for 15 years, and international field. Responsible of International Mission of housing and city planning at the direction of European Affairs Department of French Ministry of environment (MEEDDM). She is in charge of de faire connaître à l'étranger le savoir et le savoir faire français sur les thèmes de l'aménagement urbain ; les Ateliers font partie de ces objectifs fondamentaux. La session de Changzhou, inscrite parmi les actions de l'accord franco-chinois sur le développement urbain durable signé avec le ministère chinois, le MOHURD, en constitue un des projets phares.

Vannina POMONTI

In charge of studies and communication
Bureau de AFD Beijin
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Since February 2010 I'm in charge of studies and communication of AFD Beijing (French Agency de development). My work in China aims to support public policies in projects against de climate change. My work is based in sustainable urban development since my PhD. My thesis has a multidisciplinary approach about urban mobility studying the environmental impacts of transportation policies in large European cities. Since I arrived in Beijing, in 2004, my research field and work expanded to great themes linked to the fast growth of Chinese cities.

Jean-Claude LEVY

Special Advisor to the Ministry of Foreign Affairs
jean-claude.levy@diplomatie.gouv.fr _ France

Historian and geographer. Special Advisor to the Commissioner for external action of local authorities to the French Ministry of Foreign and European Affairs.

Daniel CUKIERMAN

CEO Veolia transport RATP Asia
danielcukierman@veolia-transport.cn _ China

President of VTRA, joint venture between Veolia transportation and RATP to manage public transportation in Asia (subway lines in Seoul - Korea, in Mumbay - India, bus systems in China, and the tramway in HK). He has been living in Beijing for 4 years. He is economist and expert in transportation and link between transportation and city planning, former development director of Veolia transportation 2003/2006. Between 1998/2000 il etait SNCF, French railway stations' director and between 1994/2003, CEO of France rail advertising.

Sirima NASONGKHLA

Landscape designer University Lecturer in architecture
nsirima@hotmail.com _ Malaysia

I'm from Thayland and curently senior lecturer in landscape architecture in Faculty of Built Environment University Technology Malaysia Skudai, Johor Bahru.

Tang JUN

Chief Engineer and architect - AREP Beijing
jtang@126.com _ Chine

Serge NEUMAN

Bioclimatic Facades Initiatives Program Director
serge.neuman@somfy.com _ France

Graduated from the Mines Paritech (Ecole des Mines de Paris) where he passed a Ph-D in nano-robotic. During his career, has worked on several innovative projects and has developed expertise in Home Automation as well as in sustainable building. He has worked within UNEP SBCI where he represents SOMFY, to put the building industry on the table of negotiation of the post-Kyoto protocol. Registered as expert for the European Union, he has worked in the advisory groups of international research programs.

Nazatul Shima MOHAMAD

Vice-secrétaire du Conseil Municipal de Johor Bahru, Malaisie
_ Malaisie

Opening ceremony made by :

Michèle PAPPALARDO

Interministerial Delegate or Sustainable Development Commissioner - General for Sustainable Development **_France**

Graduated at Political Studies Institute (Paris) and also with license in political economics, she is senior advisor of the Court of Auditors. From 1986 to 1988, she was financial director and executive director of affairs and finance of French Broadcasting. Director of the office of Minister of Environment, Mr. Michel Barnier (1993-1995). She was also executive director of administration and development at Environment Ministry (1995-1996). In 1996, she became executive director of France channel 2, position she held until 1999. She was responsible for developing the French strategy of Sustainable Development (2002-2003). From 2003 to 2008, she exercised the mandate of President of the Board of Directors of the Agency for Environment and Energy Management (ADEME).

Anne Charreyron PERCHET

Commissariat Général au Développement Durable, mission ville durable
Anne.Charreyron-Perchet@developpement-durable.gouv.fr _ France

Graduated in political science and city planning at Political Studies Institute (Paris) and Massachusetts Institute of Technology, Anne Charreyron Perchet held different positions at French Ministry of Environment MEEDDM in international and city planning fields. She developed a program that helps to strengthen presence of France in international funding agencies (World Bank) and was in charge of French coordination of European researches in transportation and construction field. She was responsible of research and did practical works at Regional Direction of Equipement of Ile de France.

JURY'S MEMBERS
LOCAL AND NATIONAL PANEL

Zhang Quan

Vice Director of Jiangsu Department of Housing and Urban-rural Development

WU Weijia

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Dean of the Urban Planning Department of Architecture College of Tsinghua University.

Zhao Min

Professor of College of Architecture and Urban Planning of Tongji University

Leader of national "Urban and Regional Planning Theories and Methods" teaching team, holding a cocurrent post as the director of planning appraisal committee of the national higher education, member of planning specialty steering committee of national higher education, and professional member of Shanghai Planning Committee. Having long term's teaching and reseraching practice in urban planning and design, with emphasis on combination of urban planning with social and cultural studies.

Zhuo Jian

Professor of College of Architecture and Urban Planning of Tongji University

Zhu Zhaoli

Director of Changzhou Planning Bureau

He Zhigong

Assistant Chief Engineer of China Railway Siyuan Survey and Design Group Co..Ltd

Sun Xiufeng

Chief Engineer of Changzhou Planning Bureau

Master of urban planning at Tongji Uninersity. Experiences of winning international planning bidding competitions, national and provincial prizes.

Zhang Fuling

Dean of Changzhou City Planning and Design Institute

Graduated from Huazhong University of Science and Technology in the specialty of Urban Roads and Transportation Engineering. In 2006 employed as a registered consulting expert of Jiangsu Province, and in 2007 selected as a candidate of "333" Higher Talent Cultivation Project of Jiangsu Province.

Sha Chunyuan

Former dean of Changzhou City Planning and Design Institute

Professor senior planner, first class registered architect. Being one of the people's representatives of Ninth National People's Congress, and of Outstanding Young and Middle-aged Experts of Jiangsu Province, and of National Advanced Workers in urban planning, specially subsidized by State Council. Graduated from Architecture Department of Tsinghua University, and further studied at university of technology Munich.

Small handbook of environmental technologies and practises for urbanists' use

Methodology

This small handbook was made to help the city of Changzhou develop while becoming a zero carbon city. It presents different environmental tools to use in urban planning and gives examples of firms offering corresponding systems and technologies. Environmental stakes specific to Changzhou and idetified by local authorities, the Ateliers' managing team and participants are underlined.
Here are some tools to be used by architects and planners working on urban development projects to answer the "low carbon city" concerns by technological means.
It includes CO2 emissions reduction, city energy management, along with environment protection and inhabitants' comfort.

The main environmental stakes in Changzhou :

* sustaining the industrial and economical development
* reducing greenhouse effect gaz emissions
* ensuring energy supply
* managing the increase in population
* preventing urban sprawl

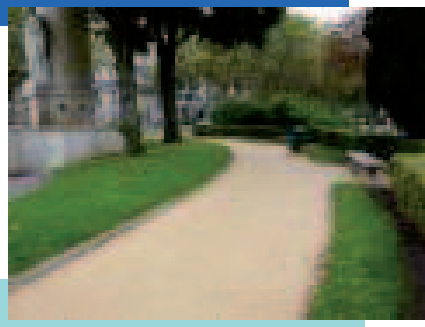
We will first present tools to limit the impacts of the city on nature at two scales, the one of the urban project and the one of the building. Then, development tools for an industrial park will be stated, with the concept of industrial ecology which is based on the creation of synergies between firms. Third, great infrastructures such as the three railway stations of Changzhou will be studied.
Finally, environmental performance at different scales can only be ensured by an analysis, and a monitoring of the different factors expounded before. Regulations can enable to reach numerous environmental targets, while favouring economical development and inhabitants' comfort.

Sources et références : L'Approche Environnementale sur l'Urbanisme (AEU) www.ademe.fr ; Rapport environnemental Green Technology Chine 2009 : www.china-greentech.com

Management of flows at the heart of the urban project: transports, water and waste

Free public bicycles for "the last kilometer"

In Hangzhou, 40 000 bicycles are available in 1400 stations. Changzhou has also a strong potential for the development of this non polluting mode of transport: a smooth topography, large roads, and an adapted city size.
Used as a complement of an efficient transport network, this transport mode can enable to reduce the number of cars and thus to limit the traffic jams and greenhouse effect gaz. **Renault and Macauto** are currently working on such systems.



Lagoons to treat water naturally

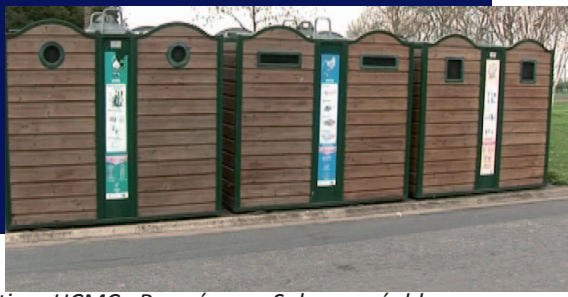
Laggons can be set to preserve landscapes while treating waste waters efficiently thanks to the action of the wind and of the light (photosynthesis which enables the activity of macro-organisms present in the water).

Permeable ground coating to enable the water circulation

On a territory crossed by numerous canals such as the one of Changzhou, water circulation is of prime importance. Urbanization leads to an excessive ground sealing provoking flows on the road which creates damages and stops the traffic.Grounds made permeable along with rain water evacuation and recovery systems enable to prevent these disadvantages and to benefit from a complementary water supply.

Sustainable common waste management

collecting : collecting points, their places and their integration to the landscape are to be planned. Adapted spaces for the grouping of waste after the household waste sorting can be designed and completed by a system of undergrround pipes which pumped them up out of the neighborhood. Thus, they can be directly sent to the treating center or to collecting points where truck can get them more easily.
Waste treatment : the city has for now a municipal dump. It is important to think of a treatment of the lixiviats to prevent the ground pollution. For the development of the city, the construction of an incineration plant with heat collection for an industrial use should be planned along with recycling plants and electricity production by biomass. **Veolia Environnement and GDF-Suez offer different solutions depending on the needs and capacities of the cities.**



Sources et références : Conférence franco-chinoise sur les systèmes de transports urbains 2009 ; Ville de Hangzhou, Zhejiang ; Tan Hoa Lo Gom Canal sanitation, HCMC ; Perméaway Sols perméables

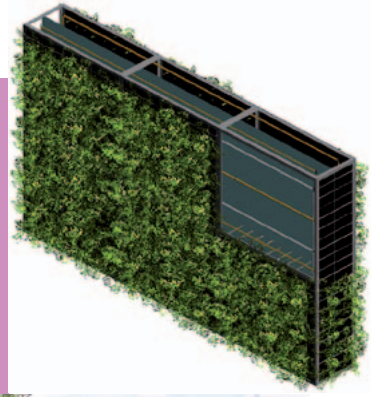
Energy management and nuisance reduction at the urban project scale

Diversification of the energetic mix and urban supply

The energy supply of Changzhou depends mainly on coal. Renewable energy must take a more important part in the strategy of the city for energy supply, to answer greenhouse gaz emissions reduction target and supply security goal. Thus, firstly, renewable energy use for public installations and public lighting are required as an example for the private sector. Energy can then be generated in cascade by collecting the heat produced by industrial activities and waste incineration. It can also come directly from renewable sources, sun and wind, thanks to photovoltaic panels and wind turbines. Management of these local intermittent sources can be facilitated by smart grids. Finally, energy needs are to be minimized by adapted architecture and technologies, heat and cold collection from industrial activites or underground and deep water temperatures.
Dalkia and **EDF** are specialized in the energy management and production, and offer innovative solutions.

Sound proof structures for accoustic comfort

The use of coating and sound proof walls can be integrated to the urban architecture.
The urban plan must also try to minimize possible accoustic nuisance in the dwellings zones, by the separation of highways from dwellings thanks to green corridors for example. **Green Fortune alias Heliotrope** offers vegetalized walls to isolate from noises, collect rain water and purify the air at the same time.

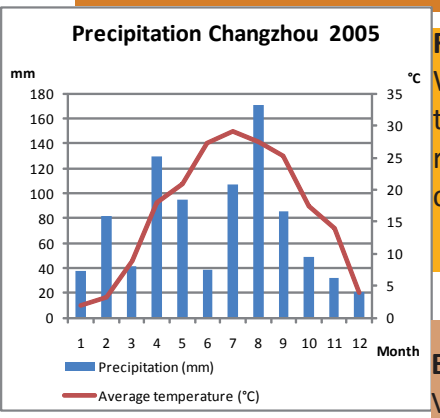


Decontamination and rehabilitation of polluted soils

Around former industrial sites, the pollution of soils and sites prevent the development and renewal of the disused neighborhoods.
The necessity of riding of pollution is crucial to plan the renovation of the sites, protect the populations and ensure the quality of the water of the territory. A greening of the grounds thanks to plants capting and stocking pollutants can play this triple role of depollution, greening and CO2 capture.

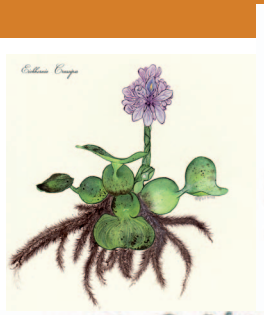
Sources et références : : Ross Lovegrove

Toward a better environmental quality of buildings



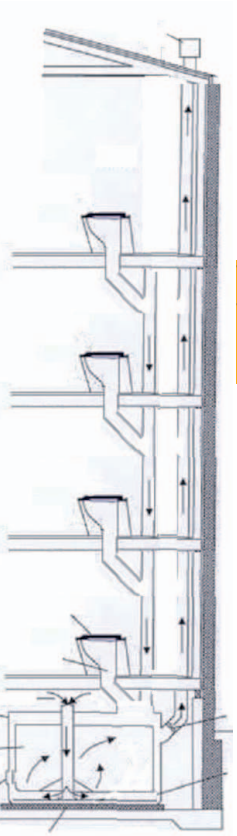
Rain water use and water resource protection

With around 1000 mm of annual rain fall, Changzhou lets rainwater run into its canals while they could be collected and used. Adapted systems can be implemented: the drainage of the rain water toward stocking spaces, in order to be used (watering, treatment). Stocking spaces can be installed in public spaces (pounds in residential parks) or on buildings.



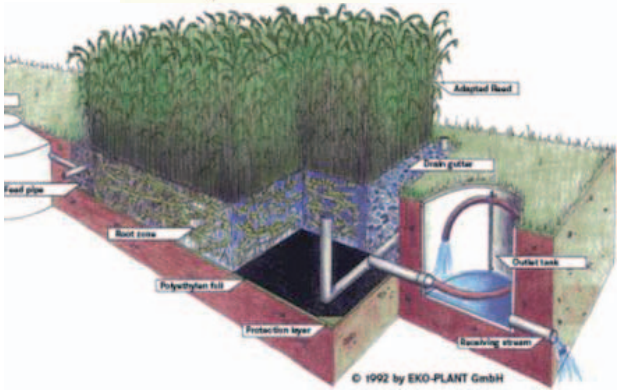
Building ventilation

Ventilation is necessary to a healthy inspace. But it is responsible for thermal losses and direct energy consumptions when it is mecanical. New systems as the one offered by **Aereco or Aldes** prevent from these two disadvantages.



Natural water filtration

At a smaller scale than the one of lagoons, this filtration technique can be used in public spaces and integrated to the landscapes for a treatment of waste water rich in nutriments. The plants used can be water hyacints of water lettuce which are recognised for their epurative qualities and capacity of accumulating heavy metals.



Toilets composting to autonomous decontamination and minimization of water consumption

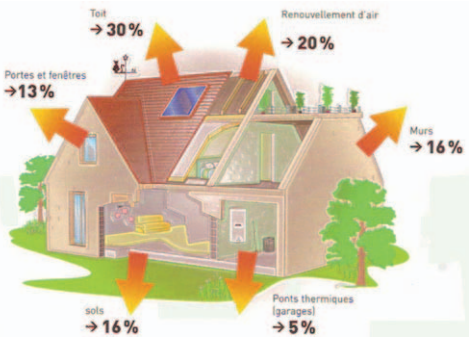
The setting of dry toilets in buildings requires a sizing of the cistern adapted to the building, a good ventilation for the aerobic decomposition of waste. The compost an then be used as fertilizer.

New freezing fluids and other air conditioning modes.

Buildings air conditioning are responsible for greenhouse gaz emissions, because of the electricity they consume, but also of the freezing gaz they use. When the system grows old, freezing fluids leaks with high greenhouse effect must push to use gaz with low carbon equivalent (ex : HFC-152a, HFC-41). **Aesa Clestra** offers efficient systems consuming few energy and functioning without dangerous fluids in the form of radiant ceilings: water passes through isolated metal ceilings, cooling the room through radiation.

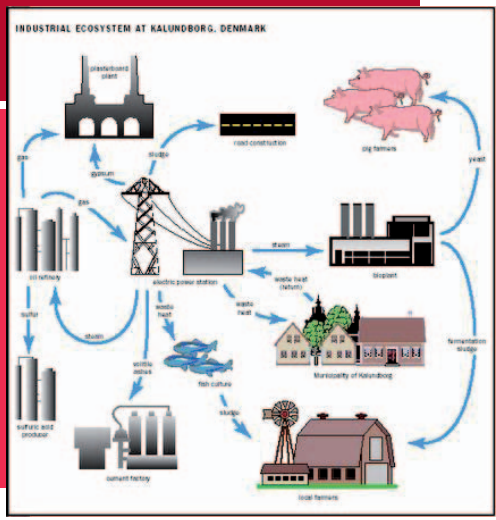
Thermal isolation to reduce energy consumption

Identified as an important factor of emissions, thermal losses can be easily slowed down by buildings isolation to reduce energy consumption. **Lafarge, Weber et Saint Gobain** offer walls adapted to humid climates and with good accoustic and thermal isolation.



Sources et références : ADEME ; Assainissement et compost Rota-Loo ;

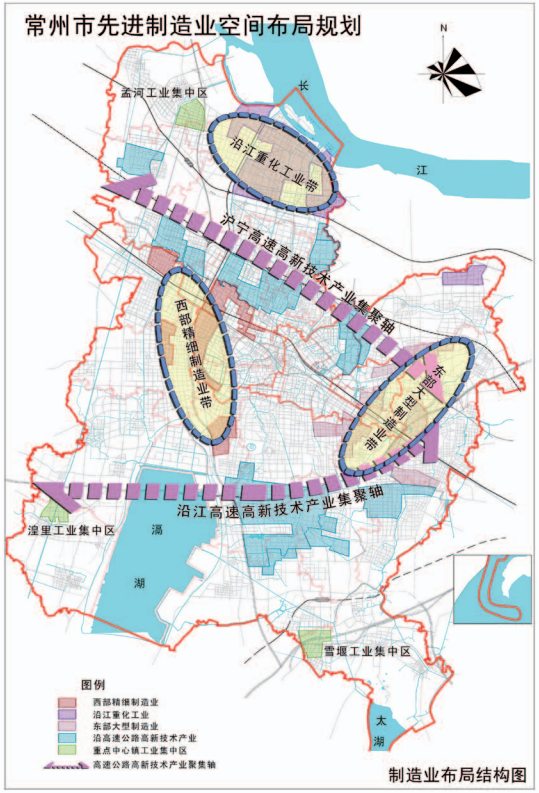
Industrial zones : experimentation spaces to develop new environmental practises

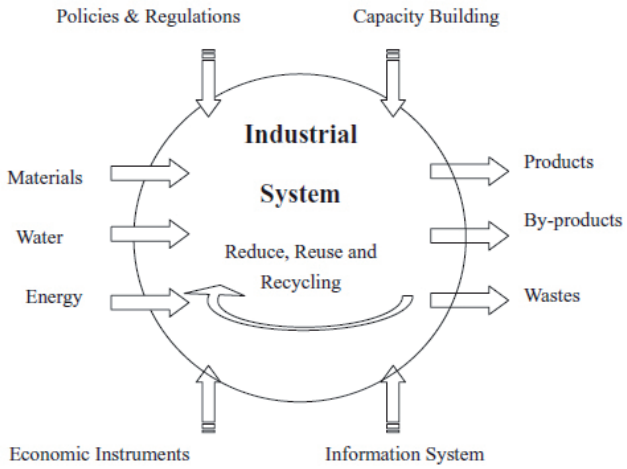


Industrial ecology to transform waste in resources

Initiated in Europe, industrial ecology makes its way toward Asia and Changzhou. Thereby, its neighbors Suzhou et Wuxi are already starting to implement industrial ecology. In an eco-industrial park, energy and material flows form a network between the different industries of the park, which implies the use of the waste of the one by the other, and leads to the reduction of inputs and final waste.

According to industrial ecology principles, it is interesting to plan the grouping of industries with various competences to benefit from the complementarities of needs and products, against the zoning of projects grouping industries of the same type in one place and keeping other industries in other places. This proceeding requires a precise analysis of flows for each type of industry. Consulting groups specialized in environment such as **Sogreah- Coteba** can help to choose the right grouping to benefit from the most economic profitability.





Proper production

Proper production is a complementary tool for an industry, in order to improve its own energetic and environmental performances.

Water recycling

The first use of water in industries is for cooling systems. This water is not contaminated and can be used in a close system, with a special light treatment system.

On the contrary, water highly poluted by an industry (such as textile industries) should be treated on the site at the exit of the plant, so as to prevent the transfer of pollution by the transport network in the nature. This treated water can then be released or better, reused. According to industrial ecology principles, several indsutries will be able to invest together in a treatment station of their waste water adapted to their type of pollution and build a closed network to reuse the treated water on site. **Veolia or Sogreah** can bring their expertises in these fields.

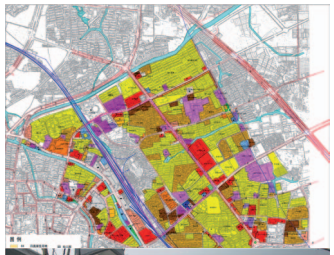
Sources et références : parc éco-industriel de Kalundborg, Danemark ;Eco Industrial parks in China ;

Railway stations in Changzhou : ecology in public infrastructures

Railway stations, hubs used as spaces of demonstration for the city

The three railway stations of Changhzou are strategic points which will welcome millions of visitors each year. These big infrastructures should be examples of good environmental practices as they are interfaces which give the first image of the city. Good practises to be implemented could be:

* development of **green spaces** capting rain water and treating it.
* **photovoltaïc panels** on the stations' rooftops for the electric consumption of these buildings.
* **thermal photovoltaïc panels** to heat water
* **rain water collect** for toilets and green spaces
* wa**ste sorting**
* **energy efficient buildings** with natural lighting and ventilation
* **public transports** well developped, diverse and easy to access from each station.

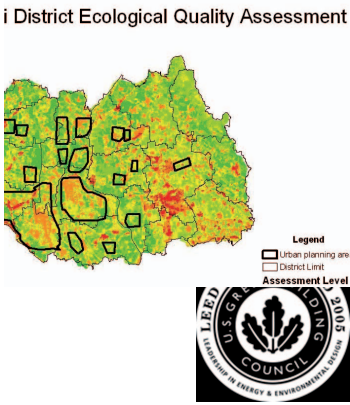


These measures can lead to the getting of the LEED certification and help using the stations as a communication space on the efforts and commitments of the city on environmental stakes.

Environmental quality assessment tools: ensuring quality

Preliminary analysis of environmental quality

A preliminary analysis based on geographical information systems (SIG) is a tool essential to urban planning. This analysis enables to delimit areas with high ecological quality, having to be protected (for example using natural corridors), and areas where construction is more adapted. This study is based on various criteria, such as topography, ground types, evaporation rating, present use of the ground... Specialized consulting groups (**Arep, Iosis**) can help the municipality in this task.
An analysis of pollution flows, a noise cartography, etc. are means of analysis for urban planners that are important to develop for the project to adapt to the particularity of the site.



Regulations, laws and assessment

For new buildings, respect of the thermic reglementation is necessary and can alone highly reduce buildings' greenhouse gaz emissions. The use of the LEED assessment (Leadership in Energy and Environmental Design), HQE (high environmental quality) or the one developed now by SB Alliance, are helpful.
A price to buy photovoltaïc electricity would allow the development of this type of energy, for the moment rarely developped in China.

Monitoring

Then, a monitoring system of the buildings' energetic performances, of the air quality, etc, enables to monitor permanently the buildings' efficiency or the pollution peaks and to keep a recording of the efforts realized to preserve the environment and to reduce greenhouse gaz emissions.

Sources et références : Gare SNCF HQE à Achères, Yvelines ; Evaluation de la qualité écologique du district de Shunyi, Hebei ; Certification LEED

French companies involved

RENAULT

RENAULT group has been making cars since 1898. Today, it designs, manufactures and markets vehicles under three brands: RENAULT, DACIA and RENAULT SAMSUNG MOTORS.

“For years, the world has had to adjust to the automobile: the time has come for the automobile to adapt to the world.”

4th largest global automaker.
Group sales worldwide : 2,726,645 vehicles
Revenues: □ 33,712 million
Workforce: 121,422 employees

Renault, France’s leading carmaker, is a modern and popular automotive brand. The company draws on its 111 years’ of innovation and on the economic and technological power of its Alliance with Nissan to build vehicles that are both environmentally sound and affordable for the greatest number of people.
At Renault, we believe that innovative developments and environmentally- friendly solutions should not be reserved for top-of-the-line vehicles. This is why our teams are developing sustainable mobility solutions that are tailored to mature and emerging markets.
And because zero-emission vehicles are the future, the Group has adopted a revolutionary new strategy based on mass production of all-electric vehicles. From 2011, Renault will be the first carmaker to offer a complete line-up of electric vehicles that meet the needs of different customers and usage requirements.

VEOLIA TRANSPORTATION

Passenger transportation and mobility services

Veolia Transport is one of the four divisions of Veolia Environnement. Veolia Transport helps transit authorities design and operate their mobility services under public service management contracts. It also offers passengers information services and assistance to facilitate their travel and is inventing the mobility of the future to help cities and regions to develop in a sustainable fashion.

2009 marked the first full year of operations for Veolia Transport in china.

Innovative, sustainable and safe mobility

In the current context of growing environmental awareness and tensions in emerging markets, Veolia Transport is promoting the use of public transportation: it uses less urban space, emits less CO2 and costs families less.

Veolia Transport China Limited, the Chinese subsidiary of Veolia Transport, has signed a partnership agreement with Nanjing Zhongbei. The agreement allows Veolia Transport to operate the transportation systems in six Chinese cities, located in the area of Nanjing with populations ranging from 0.5 million to 1.5 million.

Veolia Transport also operates public transit services in Hong Kong. Veolia Transport brings its expertise, methods and experience in the operation and management of the transportation system and in equipment maintenance. It will contribute to modernizing the transportation offer and adapting it to suit people’s needs for day-to-day mobility.

somfy

SOMFY provides solutions for homes and buildings to benefit from free natural energies and elements through their envelope. For 40 years, the group has constantly innovated for customers to enjoy energy savings inanalways more comfortable, healthier and secured environment. SOMFY controls and actuators satisfy the needs of more than 220 million users and 30 000 professional business partners in 53 countries all around the world.

Environmental impact
Dynamic passive strategies are the latest development of passive strategies that have been used for millenniums to heat and cool buildings.Applied to Bioclimatic Facades, it’s the guarantee of a high Interior Environmental Quality (IEQ) with avery little energy consumption as free natural energies and elements are always used first.
The positive impacts on health, comfort and energy consumption of bioclimatic facades depend on the weather, the usage of the building and its surrounding. TongJi University has shown that automated external venetian blinds reduce by 45% the AC consumption of a typical house at Shanghai!

Market leader, SOMFY offers a full range of solutions: from plug &playto custom made; from stand alone to integrated; from basic to high end; … SOMFY continuously anticipates market needs and develops innovative solutions with the highest quality standards.

HELIOTROPE is specialized in the conception and manufacturing of different types of vertical gardens (green walls/ living walls), for architecture and interior design.
It was founded in 2007 and won, the same year, the first price of Innovation from the French Ministry of Research.
The company is based is VEGEPOLYS, France's national research center for horticulture and specialized plants.

Product : a garden made of plants and soil, grown vertically, and fully part of the building. A narrow space between the building wall and the green façade enables air to circulate as well as to add an insulating material, for a better thermal insulation.

HELIOTROPE's living wall is based upon the sciences of biofiltration and phytoremediation and includes a biofilter, which enables air filtration and purification. Air is drown through the soil and roots of the plants, where microbes actively degrade the pollutants contained within the air before returning the new, fresh air back to the building interior.

The watering system offers the possibility for water reuse: the plants can purify slightly polluted water ,such as rainwater by absorbing the dissolved nutrients. Within the soil, bacteria mineralize the organic components to make them available to the plants.

The plants selected flourish at different periods; therefore, the green façade is kept green and flowered all year round.

The engineering group IOSIS offers expertise in consulting, management, engineering in the sectors of construction, infrastructure, energy and industry. The group is chaired by Bernard Boyer (Chairman) and Bernard Le Scour (Vice President), CEOs are Emmanuel Callico and Jean-François Cazes. The group realized in 2009 a turnover of 161 million euros and has over 1,100 employees.

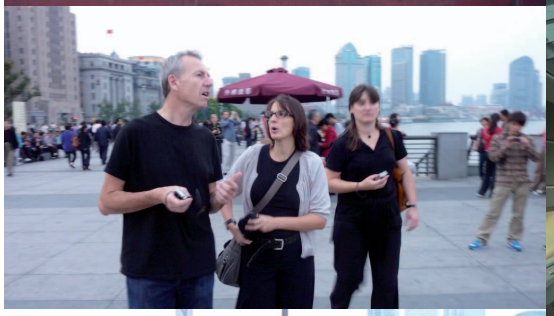
IOSIS participates in conducting major operations in France and abroad. Among others, its references are Tour Generali and First Tower in Paris La Defense and the renovation of the CNIT, the Laser Megajoule in Bordeaux Pole Test Airbus Toulouse, Flamanville EPR Taischan and China, the new Centre Hospitalier Princesse Grace in Monaco, the Philharmonie de Paris, the Council of Europe Strasbourg, the new Grand Stadium Lille airport in Jeddah, Saudi Arabia, the Renault-Nissan plant in Tangiers, Morocco ...

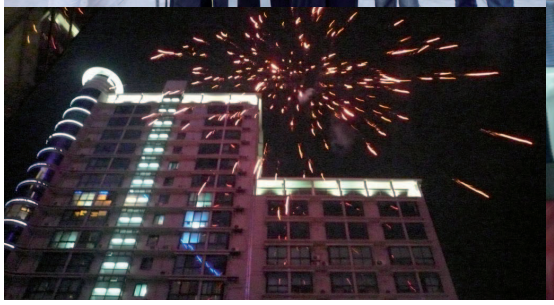
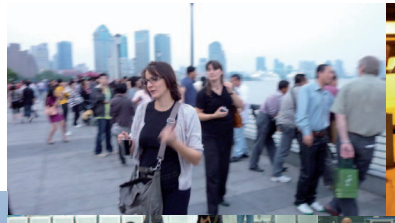
On October 16, 2009, meeting the challenges of sustainable development for their clients, EGIS and IOSIS have teamed to launch a new range of global engineering, thus forming the leading French engineering construction.

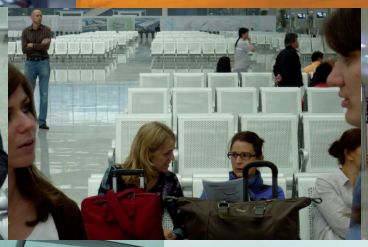
A multi-disciplinary design office, AREP is a laboratory for ongoing research on the urban travelling environment.
AREP's 400-strong workforce comprises people from over a dozen nationalities and plies its skills in every field of planning and construction, including town planning, multi-modal transport hubs, railway stations, cultural amenities, office buildings, housing, and shopping malls. Particular attention is paid to a program's relationship with the surrounding city, the history of the site, and to sustainability issues.

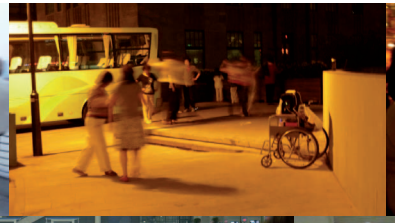
Le CSTB a contribué à la tenue de cet atelier dans le cadre du projet « écovilles chinoises et bâtiments durables du futur » financé par le ministère des finances français par un FASEP Etudes. Ce projet vise à proposer une expertise française dans le domaine des villes et quartiers durables, en créant des synergies entre les entreprises françaises du domaine. Le CSTB y amène le résultat de ses recherches sur les moyens architecturaux et techniques utiles à la réalisation de villes au moindre impact énergétique et environnemental. Ce projet a été l'occasion d'une coopération entre les entreprises françaises et les institutions chinoises, notamment le Shanghai Research Institute for Building Science, homologue du CSTB à Shanghai, et l'université de Tong Ji. Le CSTB a contribué à l'évaluation environnementale du pavillon de la municipalité de Shanghai à l'exposition universelle, et à faire participer des entreprises françaises à sa construction. 6 d'entre elles ont ainsi été retenues pour fournir des composants et systèmes de construction comme le système d'isolation par l'extérieur (Saint Gobain Weber, les vitrages auto nettoyants (Saint Gobain Glass), les protections solaires (Glen Raven), les systèmes de motorisation (Somfy), le système d'automation et de régulation du bâtiment (Schneider Electric)… Le CSTB a apporté son soutien à cet atelier, ainsi qu'à celui d'Hu Lu Dao en mars 2009, en tant que moyen exceptionnel de création de solutions innovantes entre professionnels des différents métiers de conception des villes, et de dialogue privilégié avec les responsables urbains chinois.
En Chine, le CSTB évalue et certifie des produits de construction destinés à l'exportation vers la France et l'Europe.
A travers l'association internationale de recherche SB Alliance fondée en 2009, le CSTB et ses partenaires européens et mondiaux participent à la création d'un cœur commun d'indicateurs de performance et de méthodes de mesure harmoniées destiné à être intégré dans les différents systèmes d'évaluation de la performance environnementale des bâtiments et des quartiers.

Images

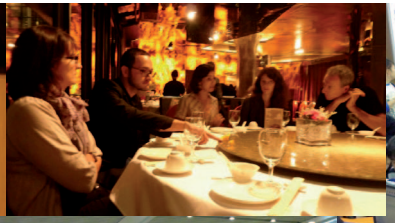



















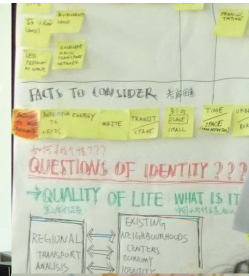
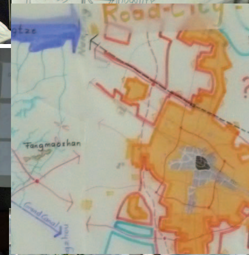











FACTS TO CONSIDER
QUESTIONS OF IDENTITY ???
EXISTING



Road-city

Thanks to the partners