TERRITORIAL MANAGEMENT
Sustainable Development of Territories
The REGION as space of intervention and innovation
new territorial condition

In the age of regional and global economic integration, local situations are affected by larger and complex dynamics.

Local processes are better understood if focused in a wider, regional and global frame.
problematic

- The current **territorial dynamics** are more complex and extensive, exceeding the local political-administrative logic

- Globalization deepened the distances between the **decision-making instances** and the local **spaces** of action

- Lack of social instances with **capacity to negotiate** with regional and global agents and to manage projects implantation
It is impossible to approach sustainable development only from local conditionings
global processes

brasil - china

exportações do brasil para a china

soja e derivados 35
minério de ferro 17
ferro e prod. siderúrgicos 16
celulose 6

principais mercados das exportações
de minério de ferro do brasil

(US$ milhões em 2020)

china
japão
alemanha

china - importação de aço

japão
coreia
brasil

mineração de ferro

local dynamics

regional process
The social-economic processes and decision making mechanisms complexity demand the creation of **territorial management tools** and the **qualification** of public administration and companies operating in the region.
siderurgy and territory

siderurgia e consolidação mundial

The global economy reorganization implied the constitution of new productive territories. Determined not anymore by geographic or administrative criteria, but by:

- Infrastructural systems
- Economic profitability
- Planning and management capacity
car industry

mapa mundial: produção por região
Ásia – 36%
Europa – 33%
Américas – 30%

indústria automobilística

1 fase - eixo ferroviário
ocupação industrial concentrada

2 fase - eixo rodoviário
ocupação industrial dispersa

ABC - São Paulo
infra-estrutura e eixos de industrialização
new dynamics

- Productive flexibility
- Technological and market innovation
- Articulation with logistic systems
- International integration
soja
production and logistics

Produção mundial da soja (média 2004-2006)
gráos: 20,0 milhões
soja: 21,4 milhões
farelo de soja: 1,360 milhões
óleo de soja: 32 milhões
Focus on the articulation between local dynamics and global processes.

Apprehend the impacts of the production reorganization on the territory.

The restructuring of transport and logistic infrastructure redesigns the regions critical situations for development appear.

Demand: combined government - corporate strategies for the sustainable socio-economic solution of critical situations.
the challenge

Creating **strategies** to enlarge the focus and the effectiveness of corporate and the public administration operation models:

1) **articulation**: to extend the inter-social dialogue, establishing new agreements between the actors to face the fragmentation of the decision-making capacity and the strategic performance in the territory

2) **instrumentation**: to enlarge the analytical and technical repertoire of local and regional actors for the understanding and management of new territorial processes
railroad transposition

critical urban situations

são paulo

porto de santos
Develop an extensive survey of the situations, in different scales, allowing a **visualization of its dynamics and potentials**.

Tools increasing the territory accessibility to the protagonists and supporting **strategic approaches and management practices**.
Enxergar a necessidade de aumentar a produção industrial mundial, resultado da crescente demanda da China, intensificando-se a busca por fontes de energia. Petróleo e gás tornar-se-ão recursos estratégicos. EUA, China e Japão são os maiores importadores mundiais de petróleo.

Em 2016, a India deve tornar-se o quinto maior importador. Mas Europa, em conjunto, importa tanto quanto os EUA. A Flavia tornou-se grande exportadora de petróleo e gás.

**energia petróleo**

- Produção de petróleo (milhões de barris/dia)
Great amount of information is needed for territorial planning and management. It is necessary to develop operational mechanisms to support the organization, presentation and use of the knowledge generated in this process:
**database**
Data - supplied by inhabitants, enterprises and researchers
Info-territorial platform   Georeferentiated database (SIG)

**scenarios**
Forum with participation of all involved actors
Tests patterns of collaboration for the development of prototypes
prototypes

Planners, enterprises and creators propose specific solutions
The prototypes are engines of innovation in planning and management

action planning

Decision-making by the different actors and administrators
It establishes the practical conditions for the proliferation and implementation of the prototypes
铁路转位
innovation

Territorial management demands operational and technical innovation. New technologies must be produced and diffused in:

- Urban diagnostic and design
- Constructive materials and processes
- The city as transportation and logistic platform
- Degraded environment evaluation and recovery
- Communication devices
methodology:

- In the analysis of local situations, starting from the macro-region where they are located.

- Establishing the main dynamics articulating the region

- Mapping the strategies of the main strategic actors in the territory, its conflicts and potentials synergies

- Framing the impacts of the main industrial and logistic operations in the territory, in regional and local scale.

- Detecting the main local protagonists, its operations and demands.
Detect **articulations** between local situations and possible profits with **integration**.
Identify **cooperation** potential between City, State and companies in:

- Urban and territorial restructuring
- Optimizing the transportation and logistic system
- New economic activities
- Environmental recovery

Develop scenarios, prototypes and action plans, with intense contribution from city planners, architects, engineers and artists.
porto de tubarão
porto de ubu
espírito santo
serra

espírito santo
variante FCA

espírito santo
variante litorânea sul

grandes vitórias
região portuária
international cooperation

Mining and steel industry world regions

Territorial structures similar to Brazilian regions

New regional approaches and tools for territorial management

Cooperation projects with governments, companies and innovation centers
The Pearl River Delta (PRD) and the Yangtse River Delta (YRD) are the China’s most important economic regions. The provinces of Anhui, Jiangxi and Hubei, in the Yangtse delta, have iron mines and steel plants.
24% of China industrial production, 34% of the foreign investments and 35% of the exportations. Industrial park: steel, automobiles, naval construction, petrochemical and telecommunications.

The multinationals corporations are directing their activities to the hinterland, due to deterioration of operational conditions in the coastal areas. The industrial relocation demands the modernization of the river and its main ports.
Three regional maritime ports and 24 fluvial ports
80% of the fluvial transportation is concentrated between Shanghai and Nanjing.
Ports and railroads without conditions to face the imports of iron ore, increased with the growth of the steel production. Problems in the local movement of coal, oil and steel products.

Great infrastructure projects in the delta: Pudong Airport and the Yangshan deep water maritime port. New railroad and road corridors. The Three Gorges Dam.
Baosteel – China’s largest steel producer
Bigger fluvial port of the country, where Baosteel has four privative ports
Majishan maritime port ore terminal (ore landing from CVRD)
Yangshan deep water port (Baosteel)
Macro region formed by the mining and steel production area in the Ruhr (Germany) and the port of Rotterdam (Holland).

Largest industrial and logistic center in Europe
Arcelor and Thyssen-Krupp operation center _ they control Belgo-Mineira, CST and CSA and are the most important importers of iron ore from Brazil (CVRD).

Bigger European fluvial port (Duisburg), linked to the maritime port of Rotterdam.
The Ruhr - Reno Region
coal mining and steel production

60’s: coal and steel products imports, the mines are closed.
Structural change: economy is reoriented for services and information technology.

Postindustrial reversion projects:
mines and steel installations converted into cultural / technological centers and shopping centers.
One of the largest in the world - industrial supply and containers. Complex intermodal system - ships, fluvial cabotage, trains and highways.

The port territory - expanded to the coast - regional logistic center. Redirecting the Rotterdam installations to leisure and tourism.
European steel industry

Dissolution of the old territorial structure - reserves of coal and steel plants.
New spatial logic, of global character - transoceanic access to the insumos

Arcelor global restructuring and its impacts in Europe
- Closing of plants and concentration on the special steel production
- Displacement of the production to more competitive countries

Impacts in Brazil:
- Insertion in the international market
- Concentration
Espanha – Astúrias
mining, steel industry and port

Asturias - until the 70's: 70% of the Spain coal production.
Closing of the mines and crises of the naval and steel sectors
Arcelor: steel plants in Asturias. Gijón is the biggest Spanish grain port, for coal and ore discharge.