



Port Net

Ravenna April 5, 2006



A REGIONAL APPROACH TO LOGISTICS FOR SMEs CLUSTERS

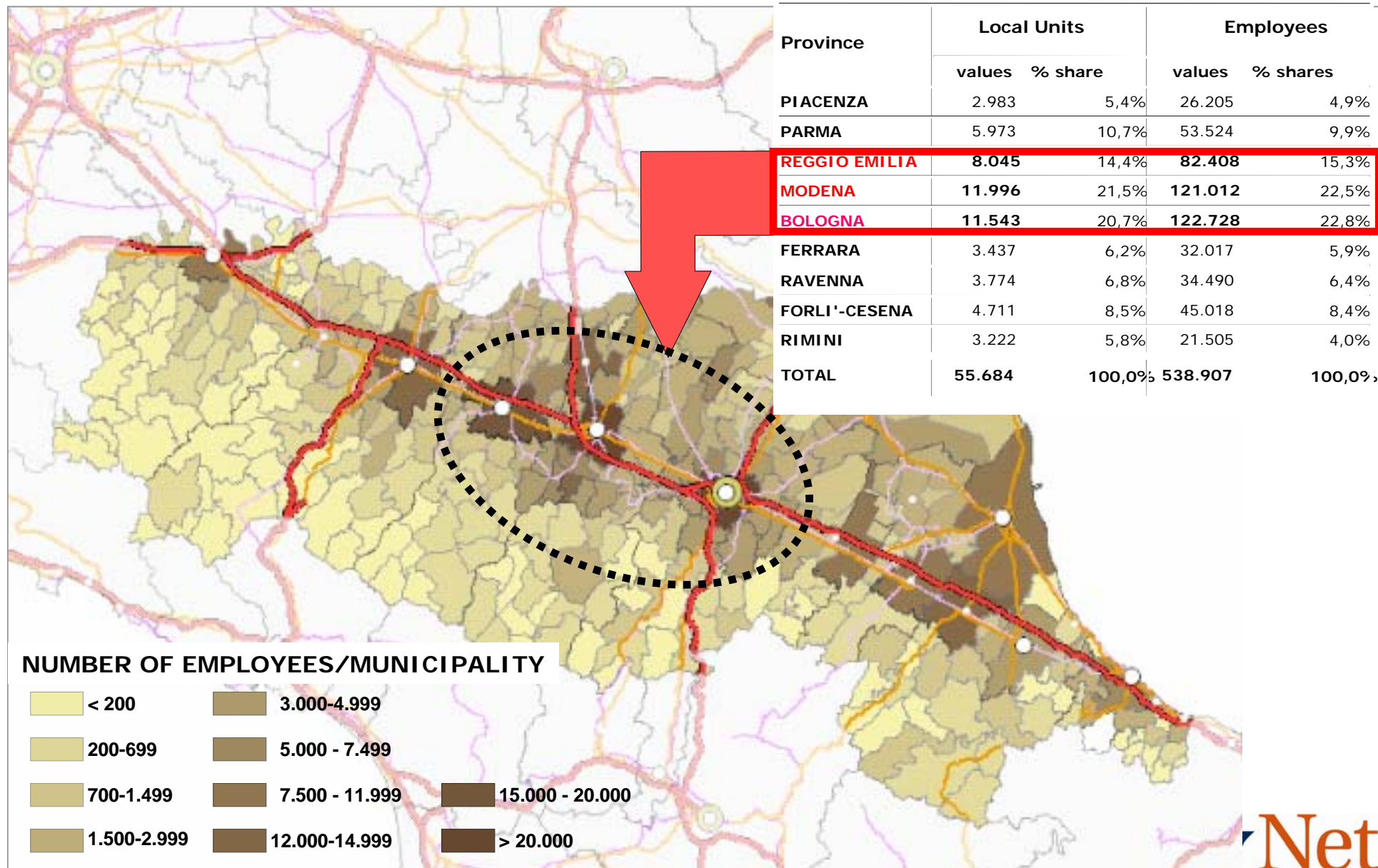
Rino Rosini
Head of Transport Planning and Logistics Unit



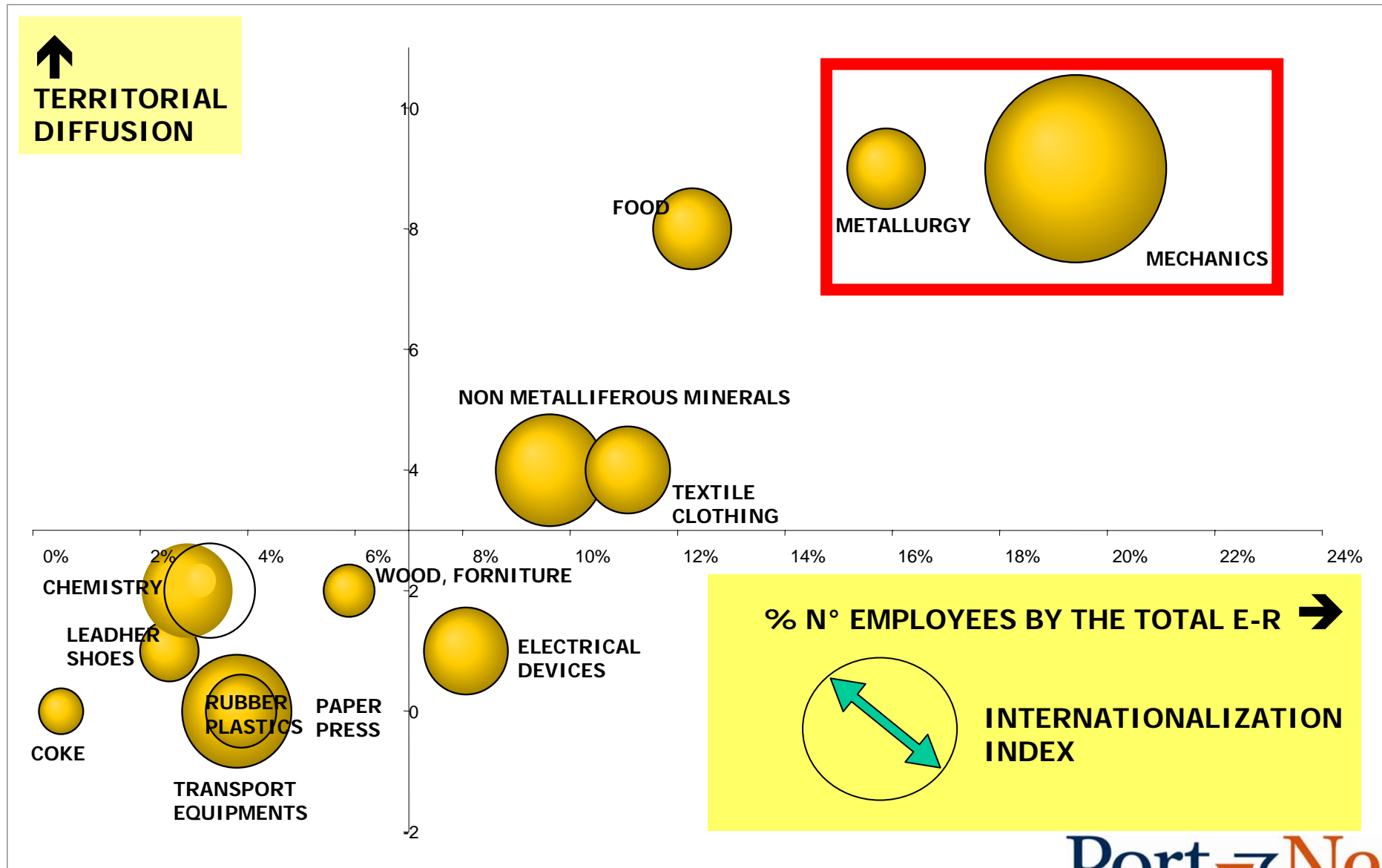
The Economic Structure

- Over 400.000 active firms
(almost 1 every 10 inhabitants)
- Characterised by SMEs
- More than 90% have less than 50 employees
(the average firm has 3.5 employees: 7.4 in manufacturing, 2.6 in service sector)
- There are more than 110.000 firms in the industrial sector

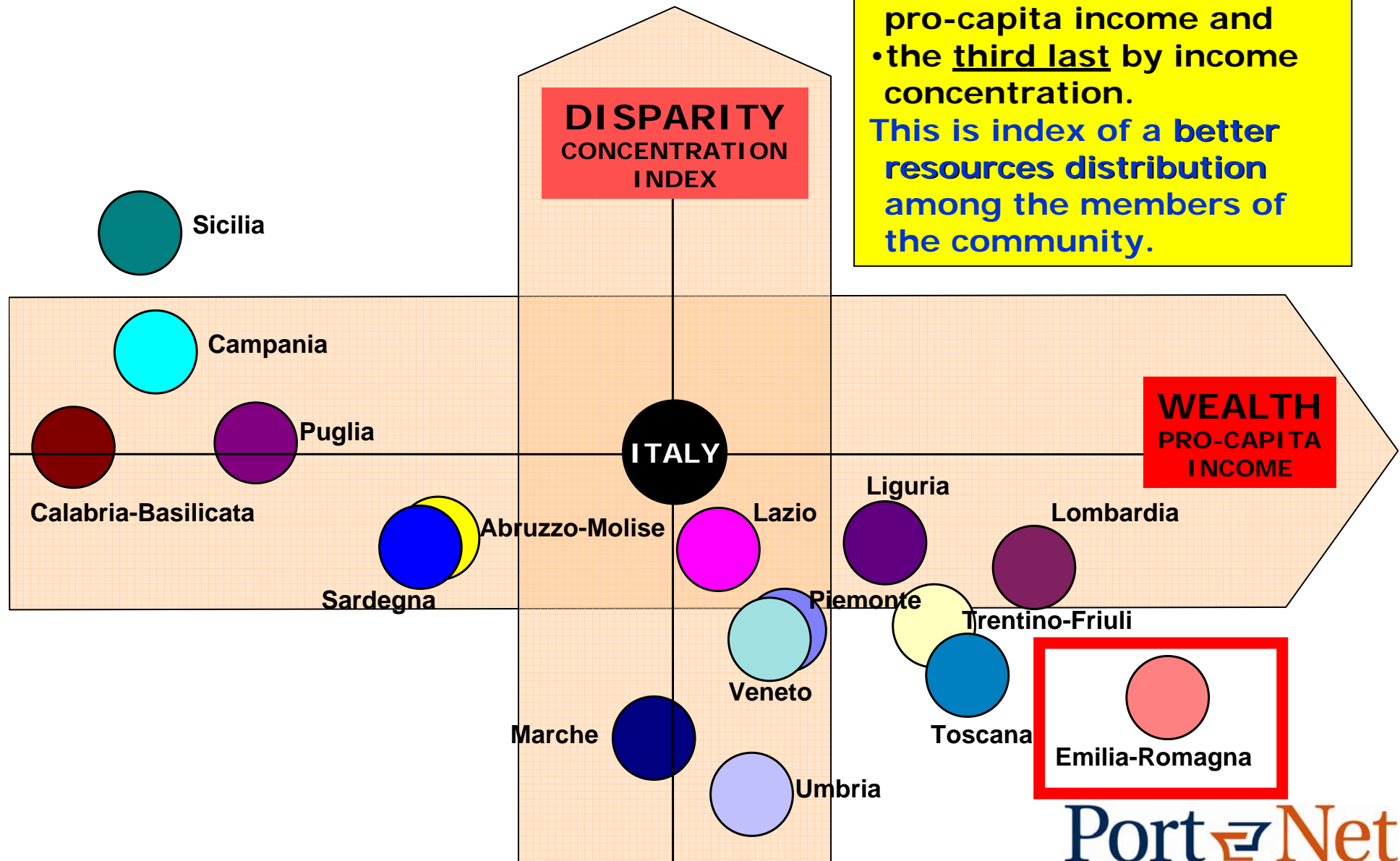
Emilia Romagna economic outlook: employees in the manufacturing sector (ISTAT, 2001) by municipality



Manufacturing Sector Divisions



Towards a sustainable economic growth ?

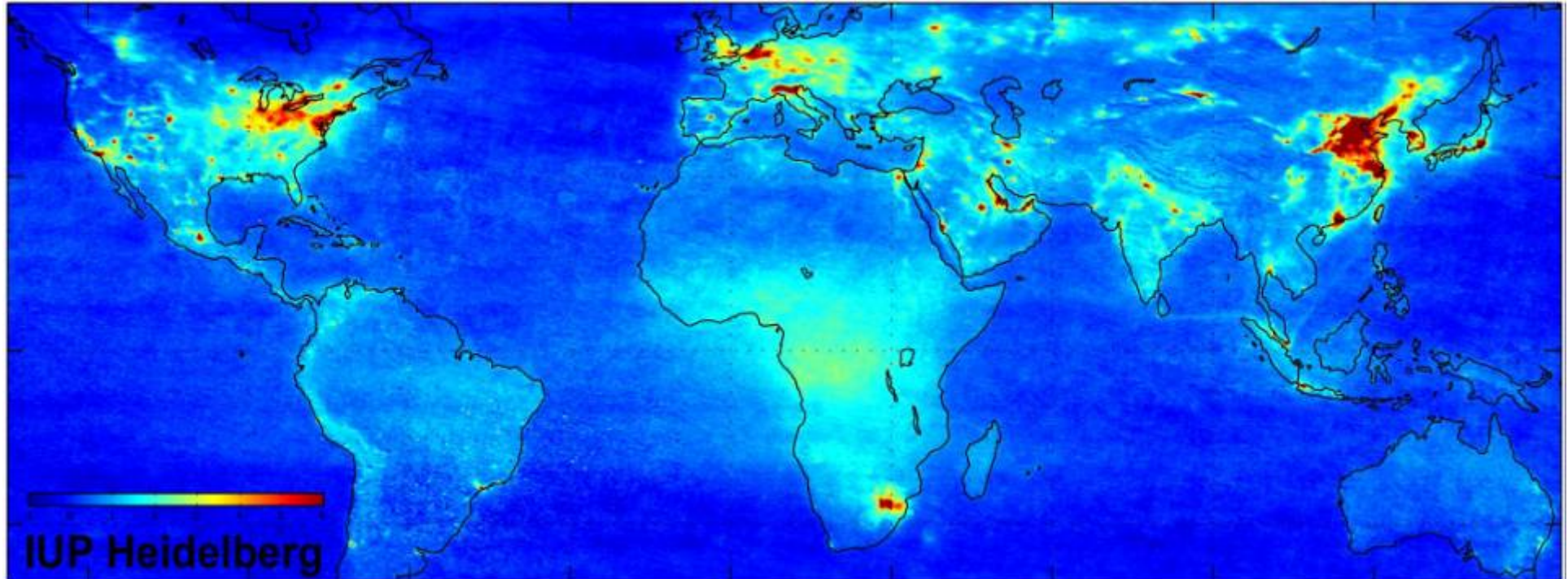


NO₂ CONCENTRATION GLOBAL MAP

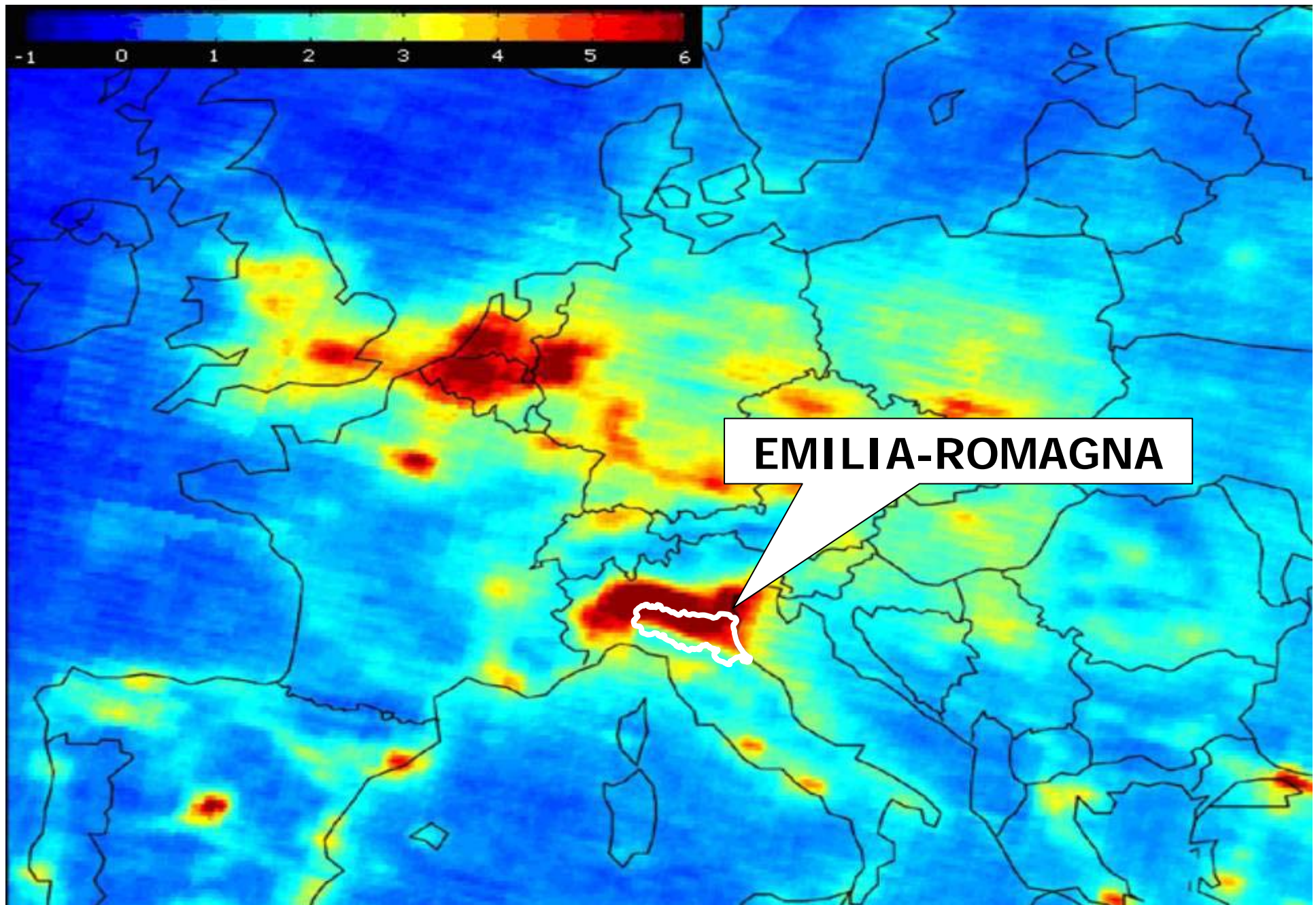
NITROGEN DIOXIDE concentrations taken by ENVISAT satellite in 18 month (January 2003 -June 2004).

NO₂ is responsible for the ozone production in the biosphere.

NO₂ is produced by the emissions of the electrical plants, by the heavy industry, and by the **road transport** besides biomasses combustion.



NO₂ CONCENTRATION LEVELS IN EUROPE





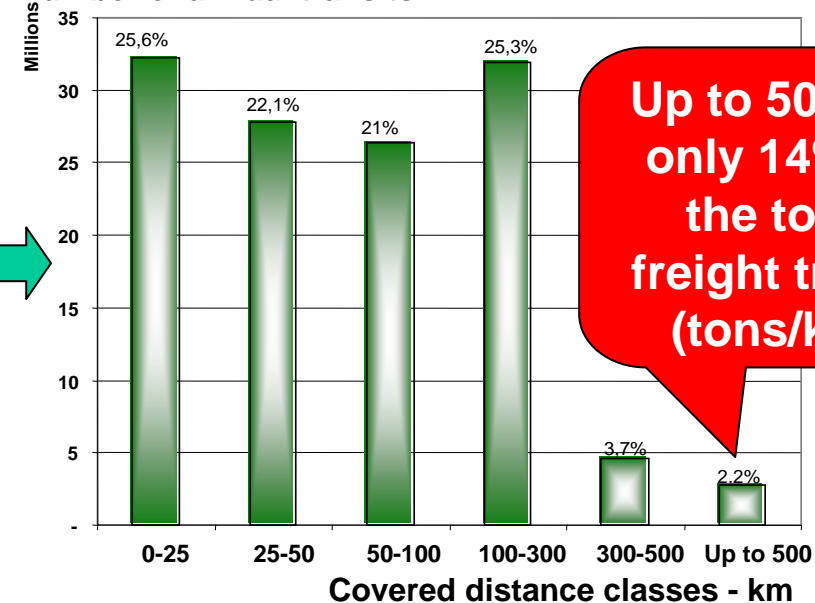
SIDE EFFECTS TO BE FACED

- **POLLUTION** (maximum level in Europe: PM10, NOx, CO, ...)
- **DISEASES** (very high health costs on regional&local budgets)
- **CONGESTION** (traffic jams and waste of time all over the entire transport network, not only at urban level)
- **HIGH COSTS OF PRIVATE AND PUBLIC TRANSPORTS** (lot of money wasted by industry, services and public administration)
- **LOSS OF COMPETITIVENESS BY COMPANIES IN THE GLOBAL MARKET**

HEAVY-TRUCK TRAFFIC ON THE MAIN MOTORWAYS (Italy - 2003)

The distribution of the heavy-truck traffic is fairly homogeneous among the different covered distance classes (up to 300 km), but it decreases rapidly beyond 300 km

Number of annual transits



- In 2003 the total number of heavy-trucks covering more than 500 km was 1.7 million (average distance covered: 662 km)
- The quantity of goods carried by these trucks was 32.000 mln tons/km, equal to:
 - 22% of total freight road traffic
 - 14% of total freight traffic

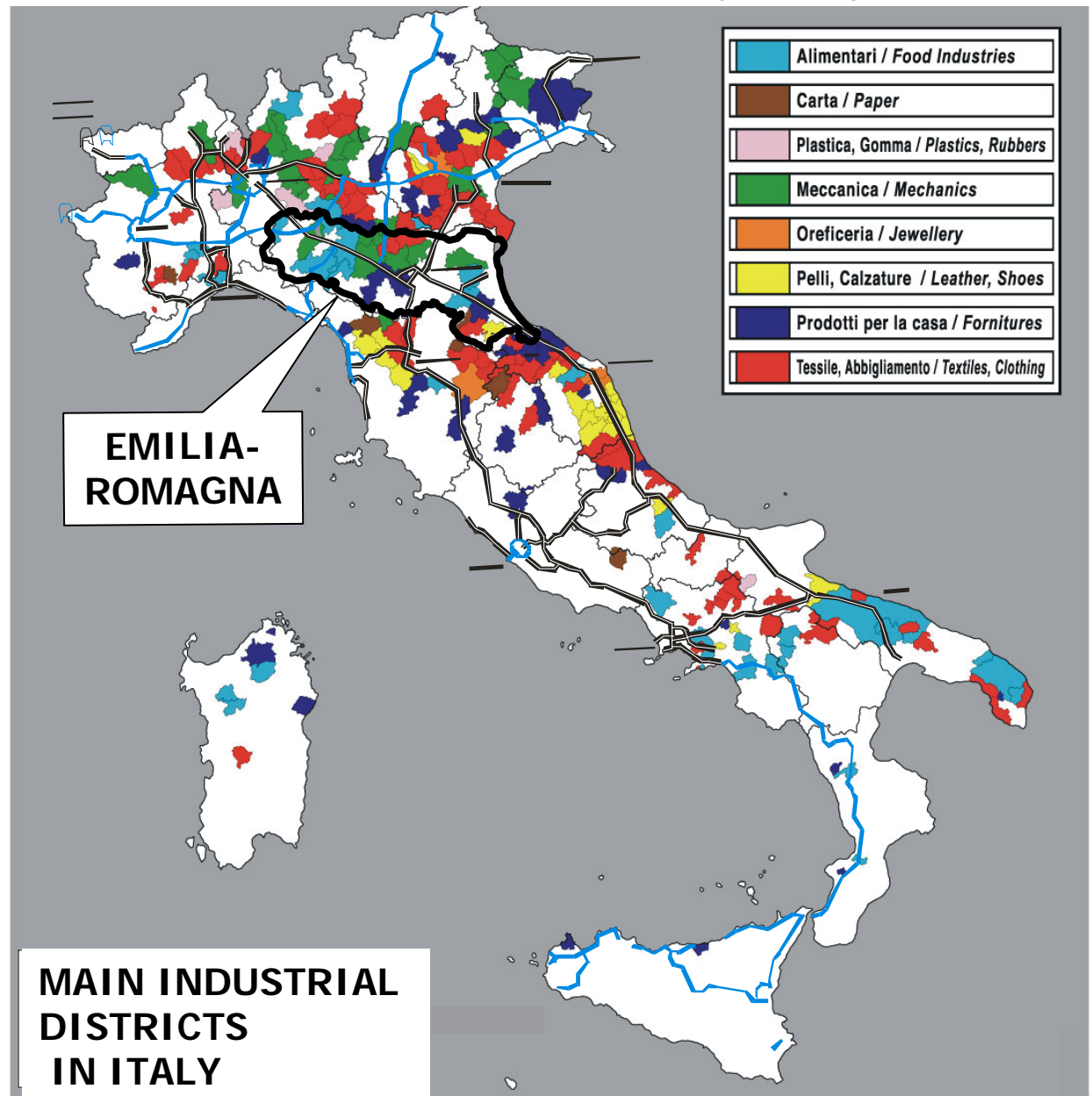
HIGH DIFFUSION OF THE LOCAL PRODUCTION SYSTEMS (LPS)

In Italy, the industrial system is highly differentiated and widespread over the territory.

It requires complex linking infrastructures and transport services to maintain its competitiveness.

Logistics and intermodality are the main issues for:

- access to ports, airports, dry ports and freight villages
- access to border countries
- access to sea routes
- access to Eastern European countries



INTERMODALITY FOR SUSTAINABLE ECONOMY ?

There is room for a significant freight transfer from road to rail or ship: in theory in Italy we can transfer the 22% of the freight road traffic (tons/km)

BUT THIS (LONG TERM) PERSPECTIVE

- require huge investments in rail/ship transport facilities and technologies so that the services become definitely competitive with the road transport (lead time, reliability, costs, ...)
- having not practical outstanding results on road traffic: in Italy only 3-4 % less in terms of vehicles number on roads (2002 data)

**Let's say that intermodality
is a placebo (for sustainability)**

ROAD FLOWS (1)

REGIONAL DATA COLLECTION CAMPAIGN 2003

12.000 INTERVIEWS TO VEHICLES DRIVERS OF:

C2 VEHIC. TYPE: 3,5 tons load < Vans < 11.0 tons load

C3 VEHIC. TYPE: Heavy trucks > 11,0 tons load

LOAD FACTOR



8.141 (69%) →

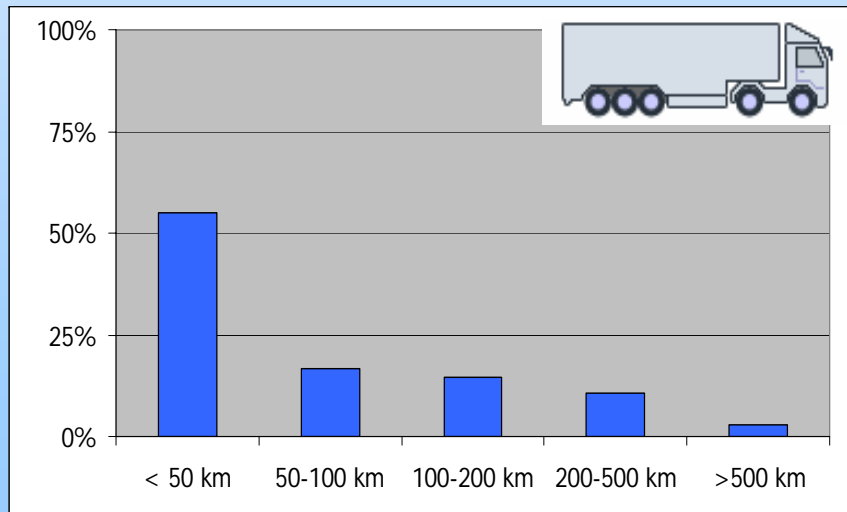
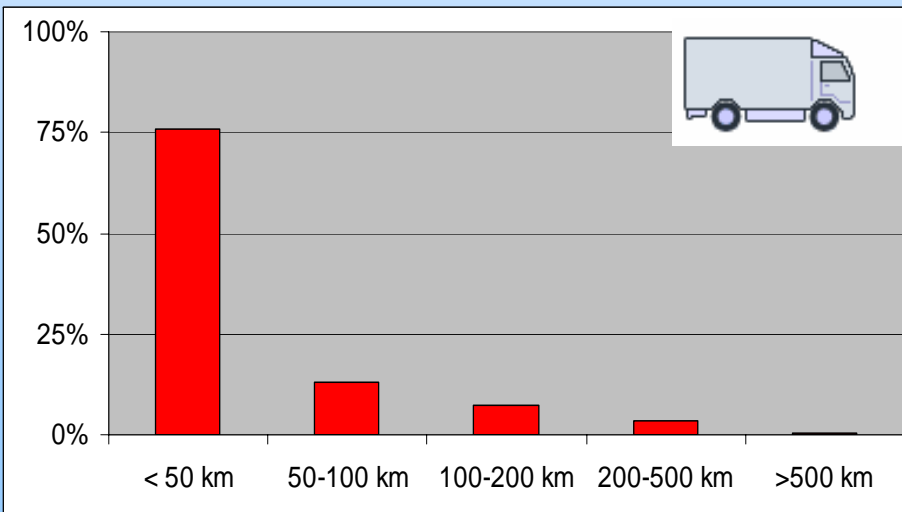
68% loaded
32% unloaded



3.704 (31%) →

56% loaded
43% unloaded

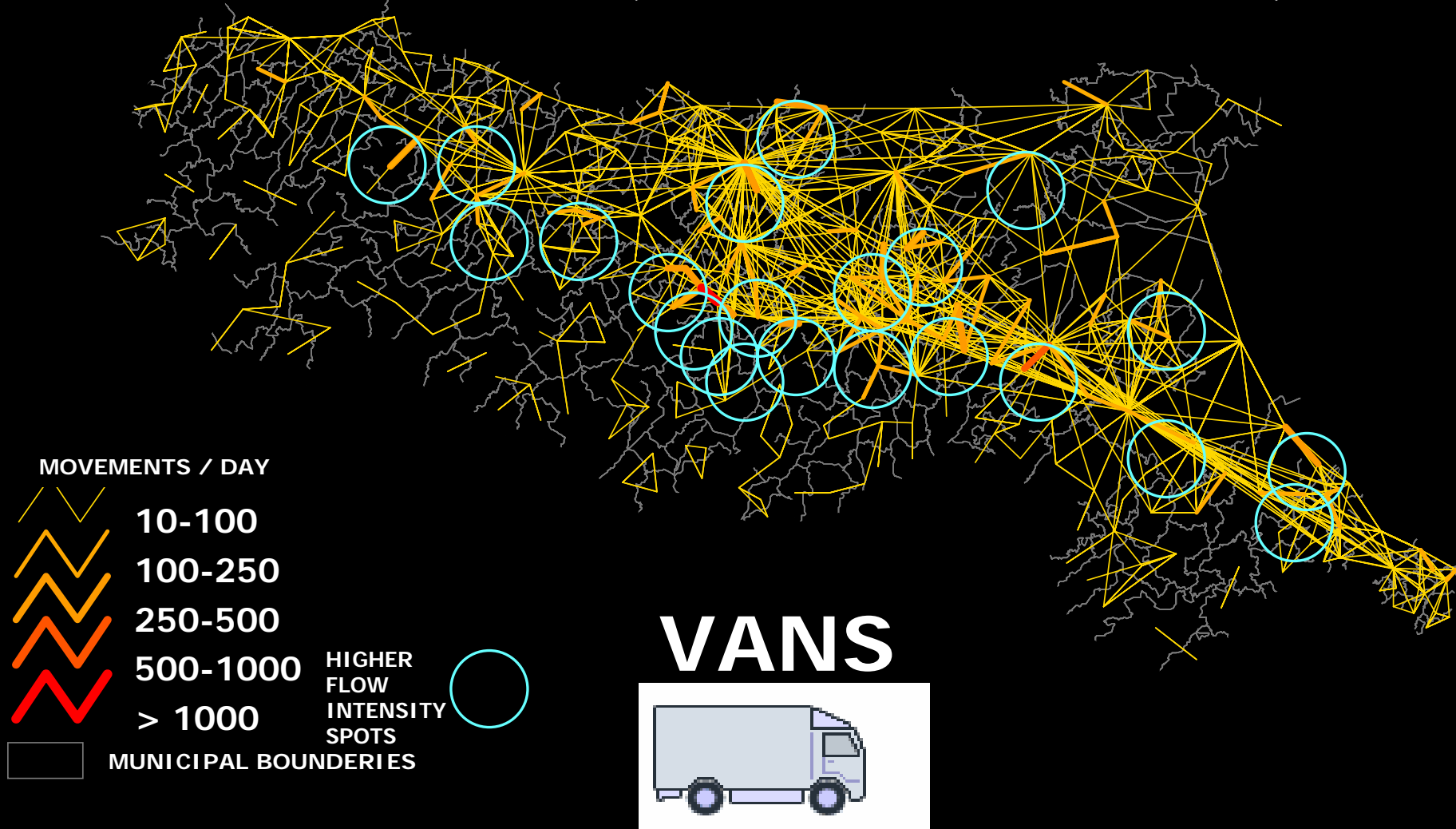
DISTANCE RANGES



ROAD FLOWS (2)

REGIONAL DATA COLLECTION CAMPAIGN 2002

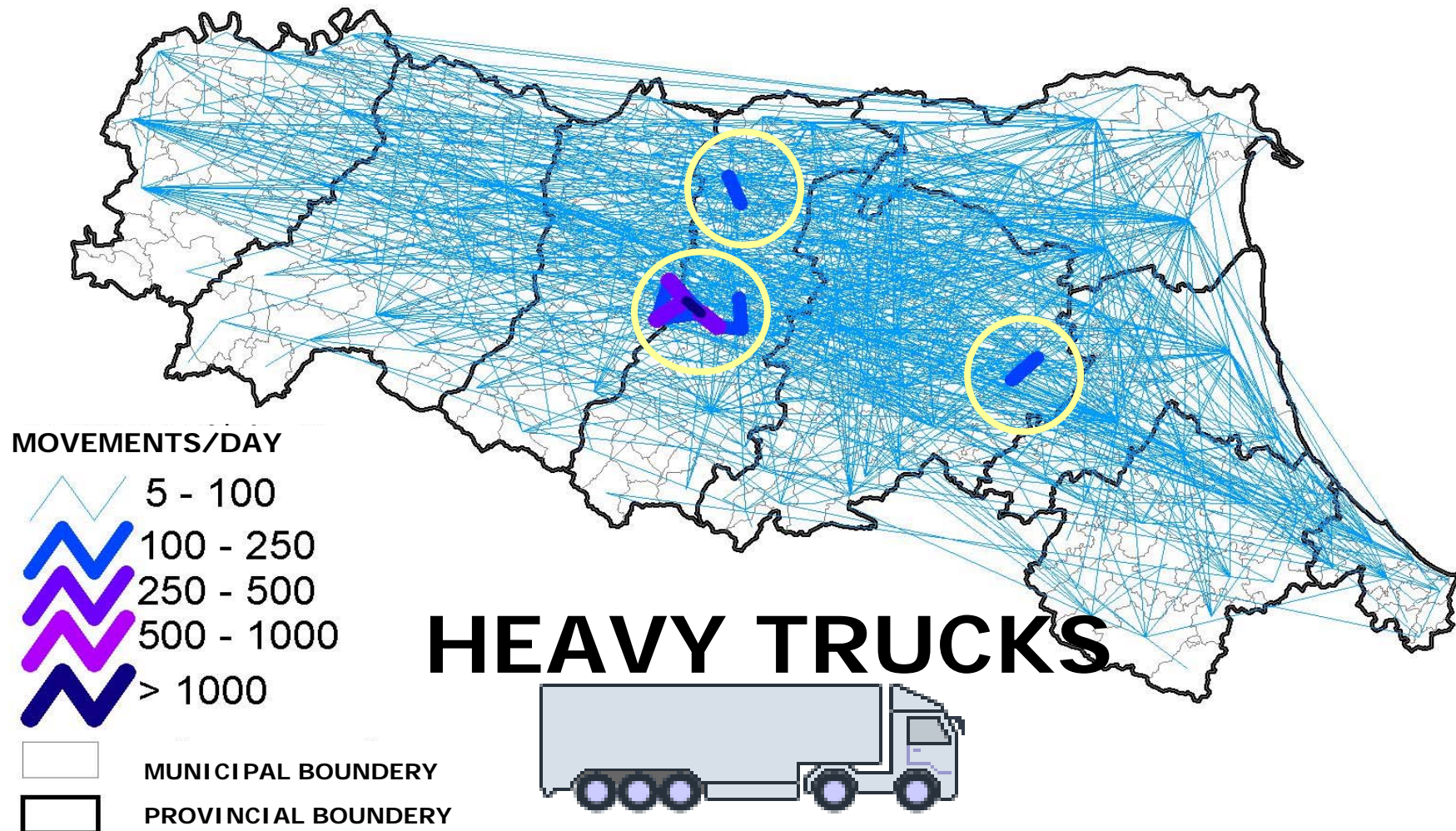
FREIGHT O/D DAILY MATRIX (INTER-MUNICIPAL FLOWS ONLY)



ROAD FLOWS (3)

REGIONAL DATA COLLECTION CAMPAIGN 2002

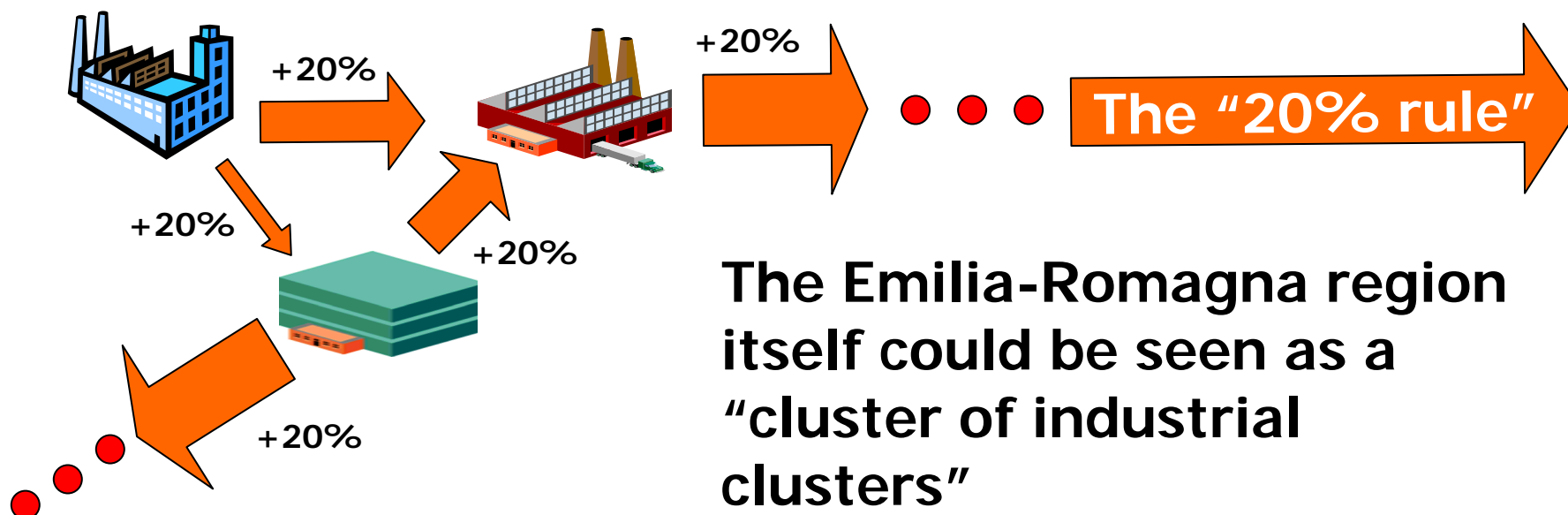
FREIGHT O/D DAILY MATRIX (INTER-MUNICIPAL FLOWS ONLY)



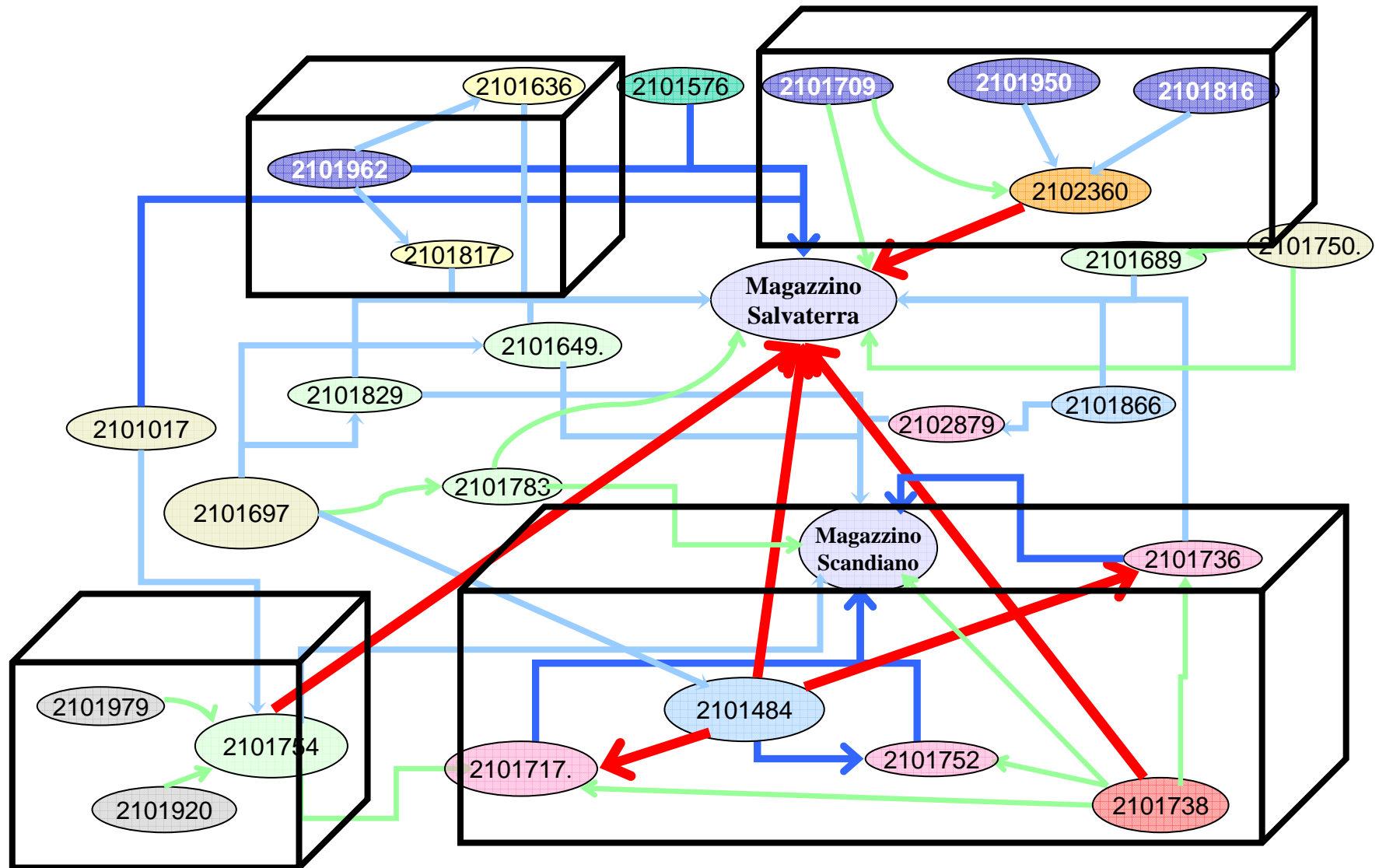
Emilia-Romagna is dealing with very complex clusters of SMEs (especially in the mechanical sector)

Each company buys from many other companies goods and services for an average amount of 82 % of the billing of its final products and services.

EVERYTHING IS MANAGED BY ROAD TRANSPORT !!!



SACMI (TILE OVENS - REGGIO EMILIA) MAIN SUB-SUPPLIER SYSTEMS



"20% rule"

+20%

+20%

+20%

+20%

+20%

+20%

+20%

+20%

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**The good transport is the main standard
“production mean” in an industrial cluster
of SMEs based on so complex exchanges of
goods and services**

So the optimization of the intercompany flows is the silver bullet to:

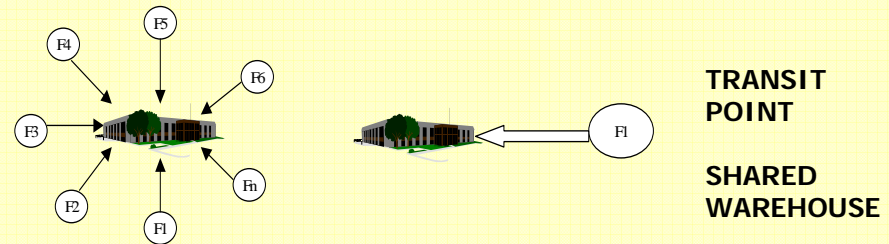
- **Improve the competitiveness of the SMEs clusters**
- **Save huge amounts of private and public expenses**
- **Substantially reduce air emissions and fuel consumption**

THAT IS A WIN-WIN POLICY

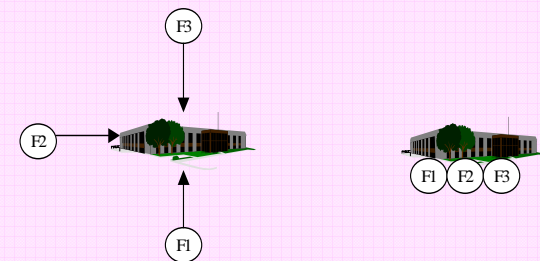
REGION-ENTERPRISES LAB PILOT PROJECTS

Emilia-Romagna Region has promoted several pilot projects directly involving **5 clusters of SMEs** in different areas according to three different approaches

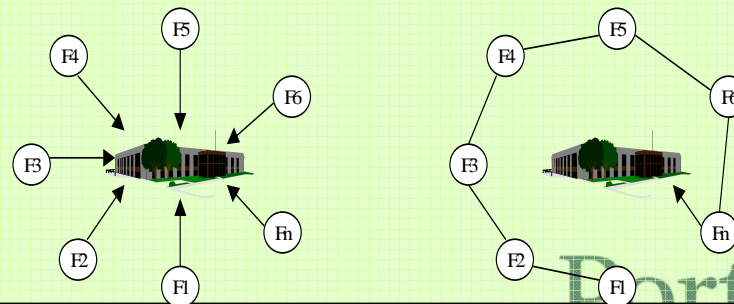
Pilot practice A - cluster 1 & 2
Sub-supplying centralization
(Bologna, more than 15 SMEs)



Pilot practice B - cluster 3
Re-location of suppliers plants
(Modena, 600 SMEs looking for new localization)



Pilot practice C – cluster 4&5
“Milk-run” system
(Reggio Emilia and Bologna, 10 SMEs + DUCATI)



INBOUND LOGISTICS SIMULATOR

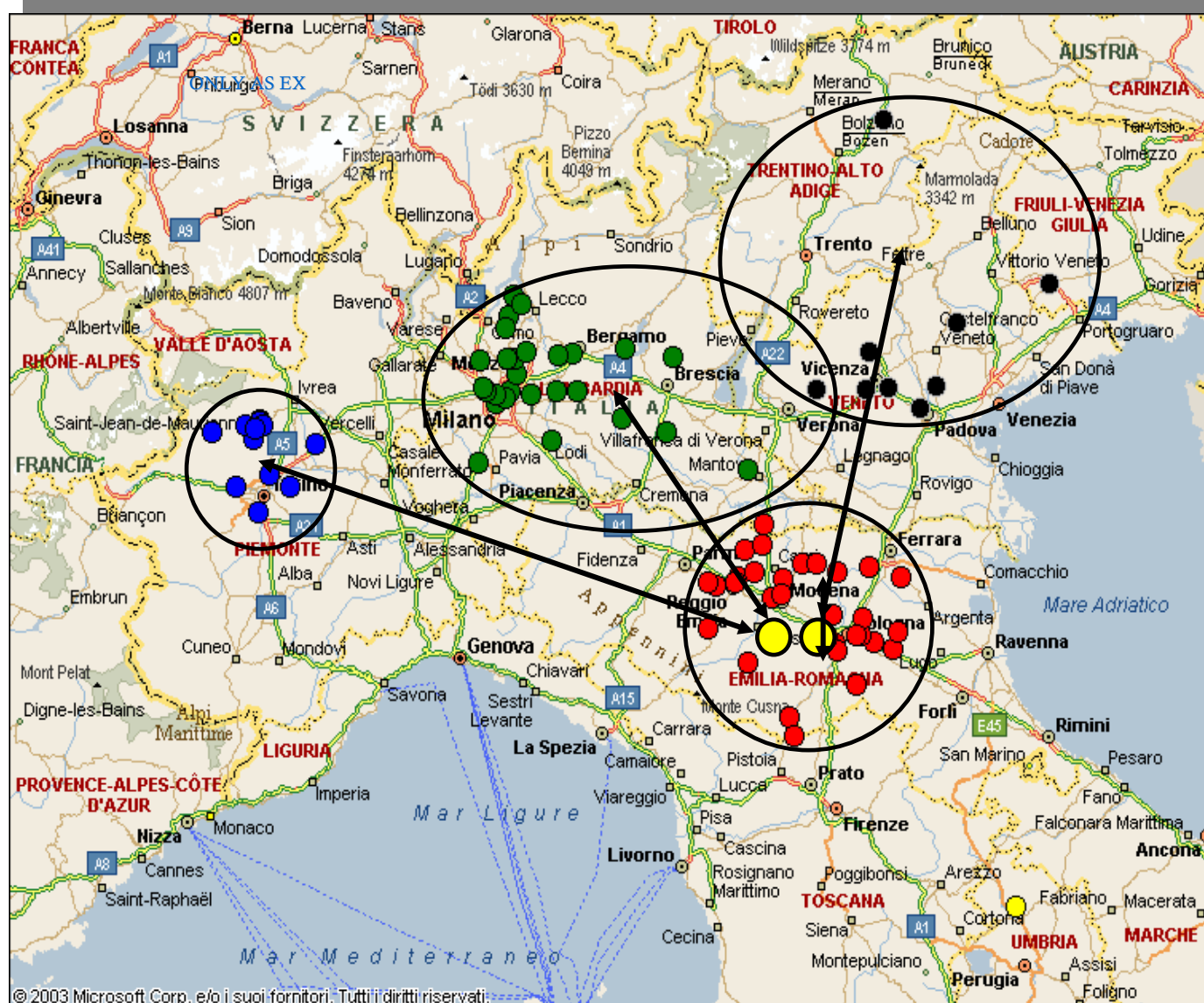


PILOT "C"



SMES - SUPPLIERS

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THE ONGOING LABORATORIES

FOCUS	COMPANIES	BODIES
SIMULATION TECHNIQUES FOR INBOUND LOGISTICS PLANNING REGGIO EMILIA	BREVINI RIDUTTORI COMER INDUSTRIES LANDINI LOMBARDINI	Confindustria Emilia-Romagna Assindustria Reggio Emilia Uni. Modena - Reggio Emilia SATA S.r.l.
INBOUND FLOWS RATIONALIZATION: SACMI FORNI EXPERIENCE REGGIO EMILIA	SACMI FORNI SUPPLYING SMES	UNIONAPI Emilia Romagna CNA Emilia Romagna API Reggio Emilia CNA Reggio Emilia Uni. Modena - Reggio Emilia
THE DEVELOPMENT OF A CONSORTIUM FOR TRANSPORT & LOGISTICS BUYING BOLOGNA	BEGHELLI BONFIGLIOLI DATALOGIC FAAC FINI TRANSPORT & LOGISTICS OPERATORS	Confindustria Emilia-Romagna UNIONAPI Emilia-Romagna Assindustria Bologna API Bologna <i>ITL in cooperation with:</i> PricewaterhouseCoopers S.r.l. Uni. Bologna
THE COOPERATION AMONG SMES IN PROCUREMENT AND LOGISTICS MANAGEMENT BOLOGNA	DUGOMRULLI, FEMI, OBER, PASTORE & LOMBARDI, VIABIZZUNO, DUE TORRI	UNIONAPI Emilia-Romagna API Bologna Province of Bologna <i>ITL in cooperation with:</i> Uni. Modena - Reggio Emilia SATA S.r.l.
THE DEVELOPMENT OF A EUROPEAN MILK-RUN SYSTEM: THE DUCATI MOTOR HOLDING CASE BOLOGNA	DUCATI MOTOR HOLDING TRANSPORT & LOGISTICS OPERATORS EUROPEAN SUPPLIERS	Confindustria Emilia-Romagna Assindustria Bologna <i>ITL in cooperation with:</i> Ducati Consulting

REGION-ENTERPRISES LAB

OTHER STARTING PILOTS

NEW APPROACHES

**Pilot practice D – TOWARD A DISTRICT LOGISTIC COMPANY
THE ASTRA CASE (PARMA)**

**Pilot practice E – THE NEEDS OF TRAINING IN LOGISTICS
FOR SMES**

**Pilot practice F – THE MACRO-ECONOMIC IMPACT
OF SUCH “REGIONAL LOGISTICS”
APPROACH**

... SUMMARISING END ENDING ...

TEN-T EU AND NATIONAL TRANSPORT PROGRAMS operate only at the “MACRO LEVEL” and in the LONG-TERM PERSPECTIVE (20-30 years).

SMEs systems require SHORT-TERM, “MESO LEVEL”, CONCRETE INTERVENTIONS (2-3 years)

... paying the necessary attention to:

- road transport innovation (flows and fleet management, new technologies, ICT)**
- cooperative environment (digital ecosystems, consortia, ...)**
- district logistics for SMEs systems**

... THE REGION LEVEL COULD BE RIGHT FOR THIS TASK

... BUT IT REQUIRES A VERY STRONG CO-OPERATION AMONG

- public administration and company representatives**
- the public bodies them selves (Region-Provinces-Chambers of Commerce, Municipalities, ...)**

... SUMMARISING END ENDING ...

TOWARD A REGIONAL LOGISTIC LAB ?

**THANK YOU FOR
THE KIND ATTENTION**