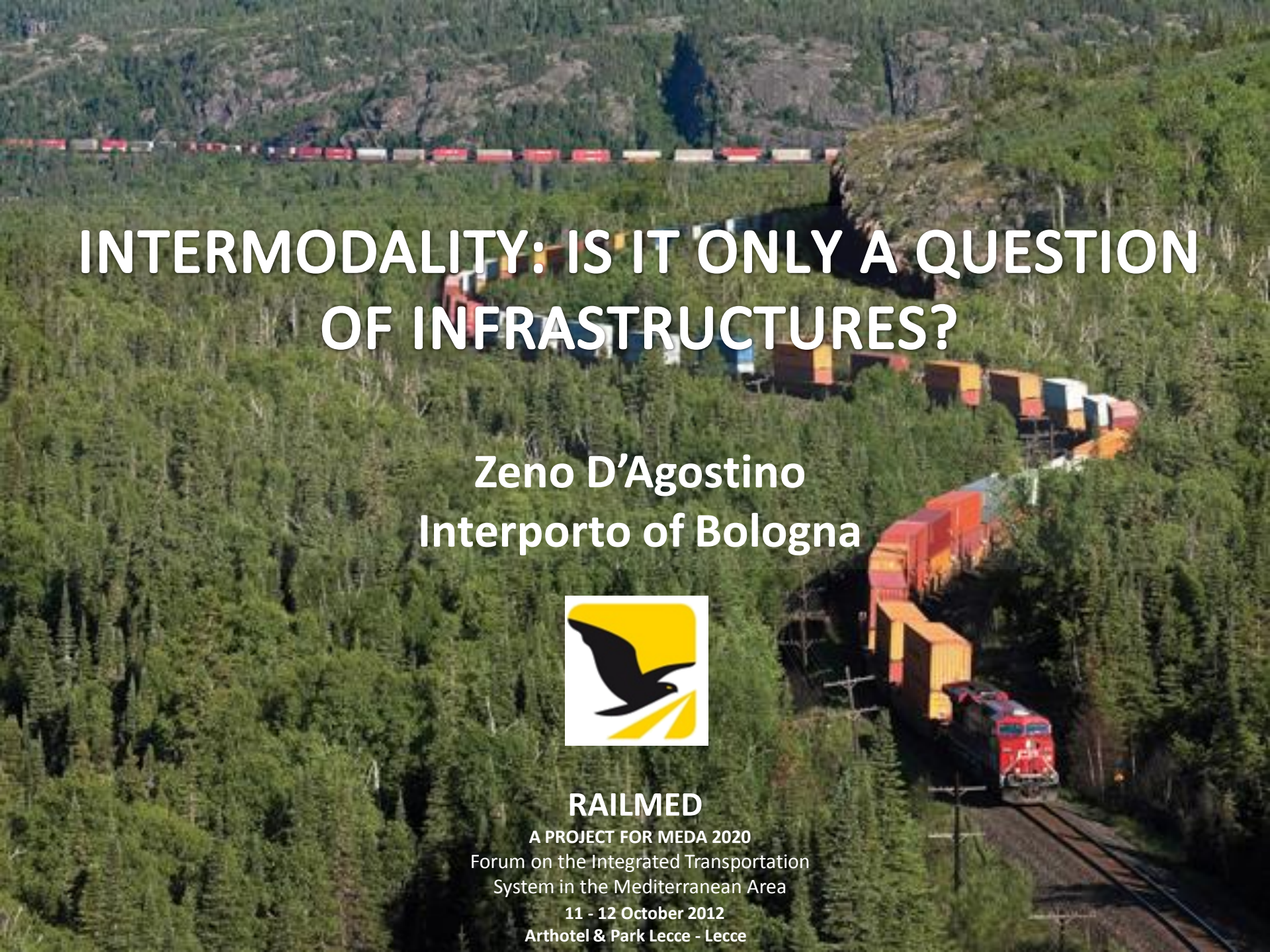


INTERMODALITY: IS IT ONLY A QUESTION OF INFRASTRUCTURES?

Zeno D'Agostino
Interporto of Bologna

RAILMED

A PROJECT FOR MEDA 2020

Forum on the Integrated Transportation System in the Mediterranean Area

11 - 12 October 2012

Arthotel & Park Lecce - Lecce

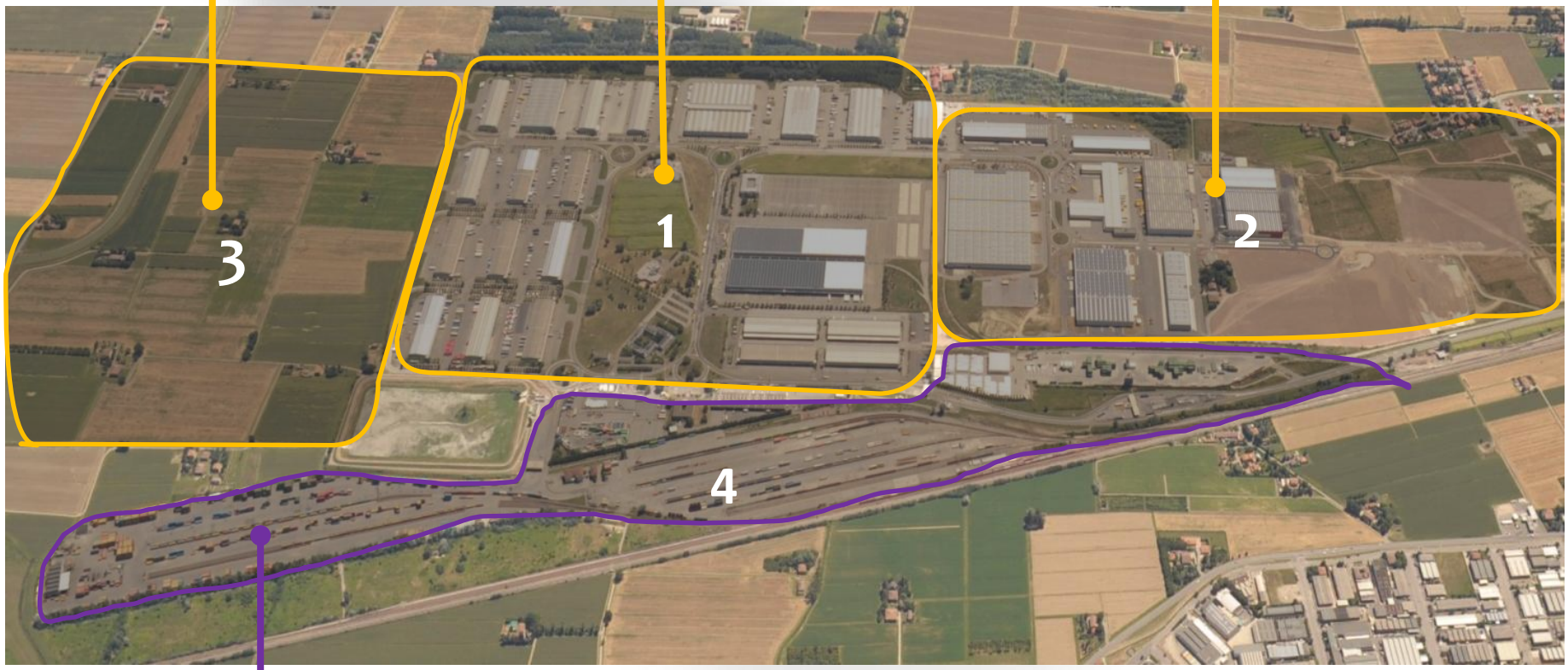
INTERPORTO BOLOGNA SPA

THE INTERPORTO BOLOGNA LOCATION

3° logistics area
1.165.000 m²
Future development

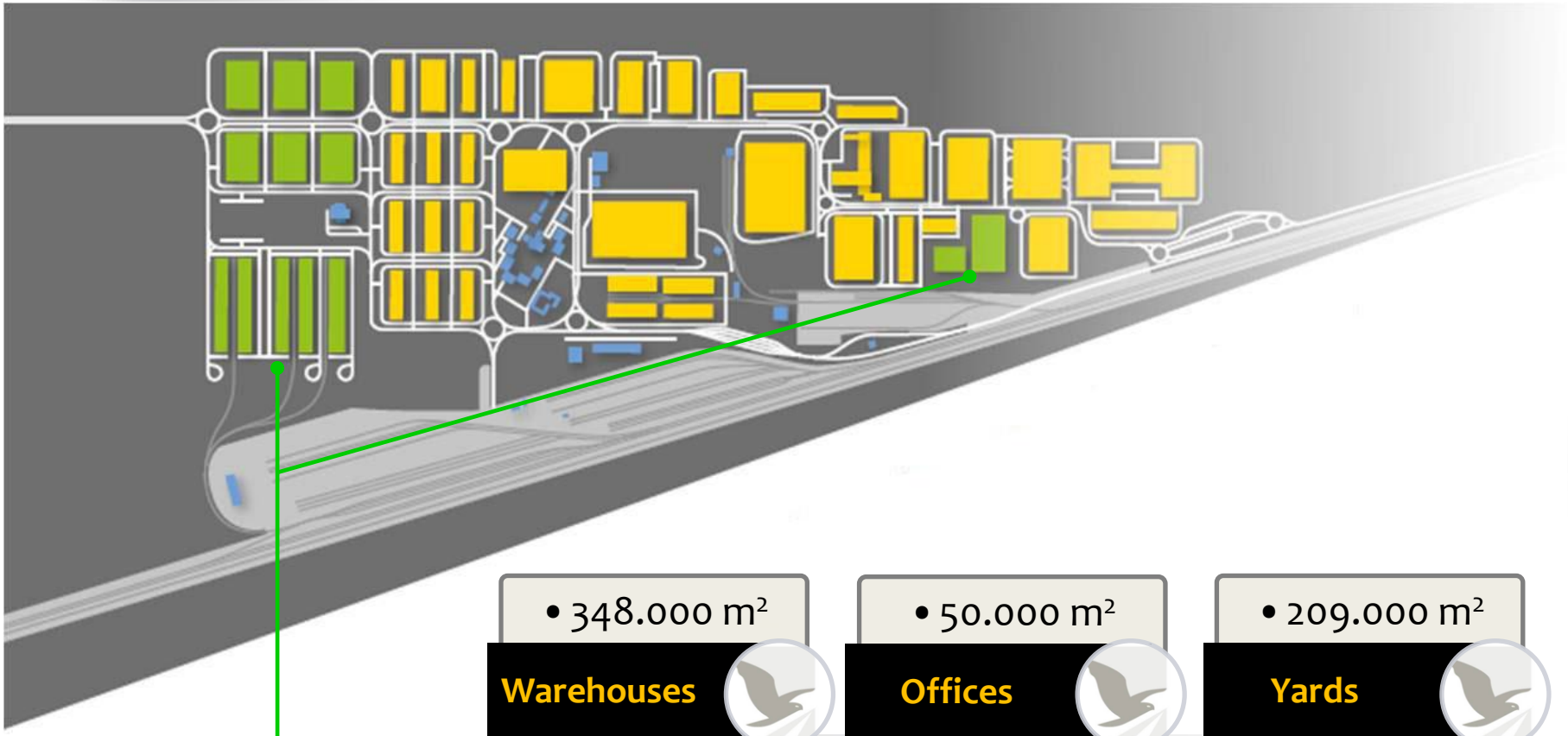
1° logistics area
1.380.000 m²
Couriers and standard warehouses

2° logistics area
986.000 m²
International companies
Contract logistics



Rail terminal facilities
665.000 m²

TOTAL FENCED AREA
4.194.000 m²

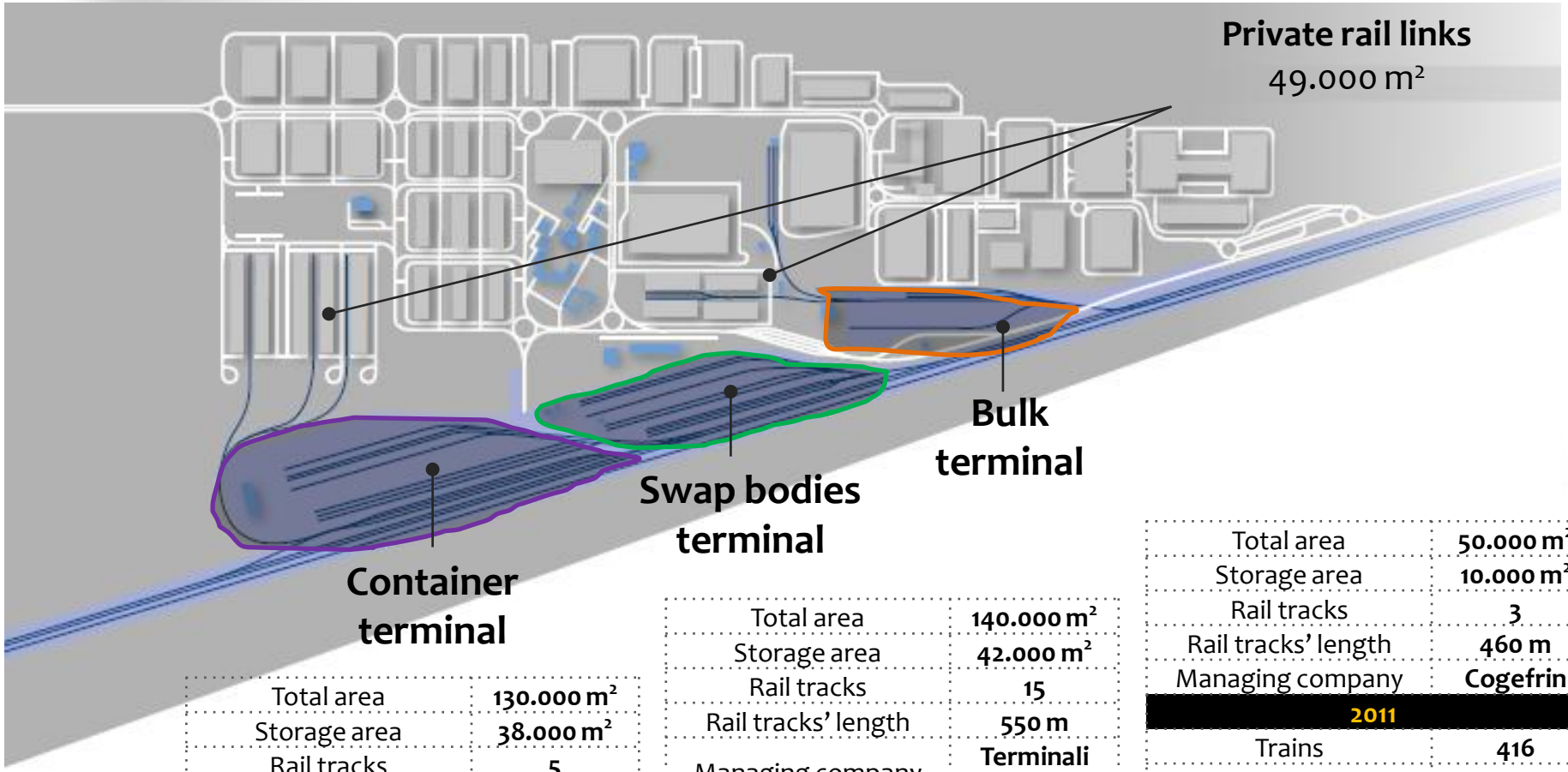


Areas for future development

- 348.000 m²
  Warehouses
- 50.000 m²
  Offices
- 209.000 m²
  Yards
- 47.000 m²
  Parking areas
- 132.000 m²
  Uncovered storage areas
- 49.000 m²
  Private rail links

INTERPORTO BOLOGNA SPA

INTERPORTO BOLOGNA LOGISTICS FACILITIES



Container terminal	
Total area	130.000 m²
Storage area	38.000 m²
Rail tracks	5
Rail tracks' length	600 m
Managing company	Terminali Italia
2011	
Trains	1.316
Rail wagons	21.091
ITU	44.320
TON	754.773
TEU	70.912

Swap bodies terminal	
Total area	140.000 m²
Storage area	42.000 m²
Rail tracks	15
Rail tracks' length	550 m
Managing company	Terminali Italia
2011	
Trains	3.036
Rail wagons	29.375
ITU	35.273
TON	804.408
TEU	74.073

Bulk terminal	
Total area	50.000 m²
Storage area	10.000 m²
Rail tracks	3
Rail tracks' length	460 m
Managing company	Cogefrin
2011	
Trains	416
Rail wagons	6.657
ITU	9.733
TON	185.757
TEU	12.652

INTERPORTO BOLOGNA SPA

INTERPORTO BOLOGNA INTERMODAL FACILITIES

amazzoni global logistic system
ARCO SPEDIZIONI SPA
Trasporti Artoni
AWS CORRIERE ESPRESSO
BARTOLINI CORRIERE ESPRESSO
bellesia corriere nazionale
CEMAT COMBINED EUROPEAN MANAGEMENT AND TRANSPORTATION
CEVA
CO.FI.TRAS. 1989 BOLOGNA - LYON - PARIS
COMETRAS SPEDIZIONI TRASPORTI
DB SCHENKER
DHL
DUE TORRI Logistics Partner
eurocot SpA
FERCAM Logistics&Transport
FRESCHI & SCHIAVONI Cargo
Foppiani Shipping & Logistics Foppiani Group
GEFCO
GEODIS
hellmann Worldwide Logistics
HERBOVITAL2 THEFANTASTICWAYWELIVE
KUEHNE+NAGEL
ITALCONTAINER
ITALIA LOGISTICA
Agenzia Marittima LE NAVI
Logista
NIEDDU TRAIL BO
NORBERT DENTRESSANGLE
palena
PANALPINA on 6 continents
ONE EXPRESS IL PALLET ESPRESSO
Posteitaliane
RÖHLIG
SAIMA AVANDERO
SDV INTERNATIONAL LOGISTICS
Segafredo ZANETTI
SIFTE BERTI
sogemar
S.T.L. SOCIETA' TRASPORTI LOGISTICA S.r.l.
türker
TUVIA
UTI
VENTURA AIR TRUCKING SERVICE
YOOX.COM

INTERPORTO BOLOGNA SPA

INTERPORTO BOLOGNA COMPANIES

Highway A13 Bologna-Padova

Dedicated highway exit Bologna Interporto **3km**

Highway A1 Milano-Napoli **5km**

Highway A14 Bologna-Taranto **8km**

2011

Transited trucks: **580.440**

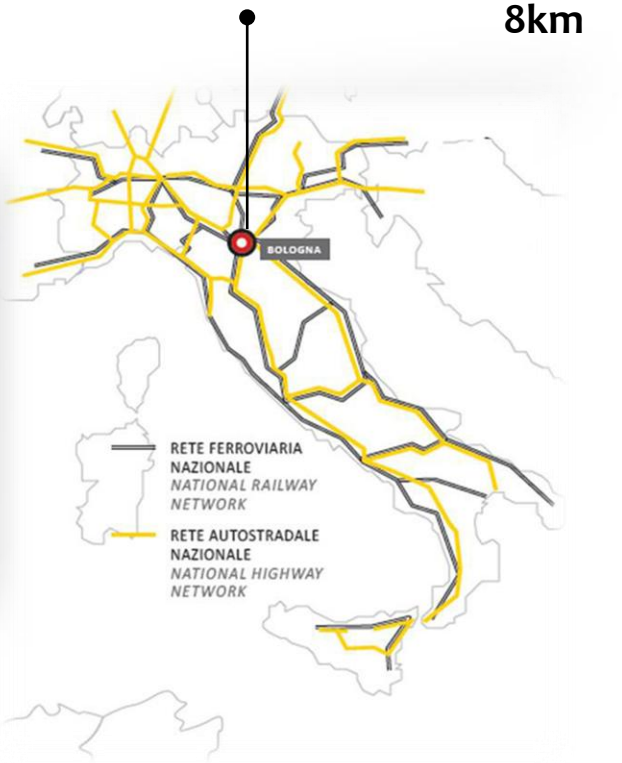
Freight traffic: **4.396.000 tons**

inbound: 2.129.000 tons

outbound: 2.267.000 tons

1° semester 2012

Transited trucks: **289.760**



2011

Freight traffic: 2.015.568 tons

Swap bodies: 783.518 tons

Containers: 754.773 tons

General cargo: 477.277 tons

ITU: **89.326**

Trains: **5.510**

Rail wagons: **74.999**

TEUs: **157.637**

1° semester 2012

Trains **2.528**

Rail wagons **35.082**

Direct link to the national rail network

Bologna – Padova – Venezia main line equipped with automatic block system, GSM-Railway and SCMT (ERTMS system)

WORLD CELLULAR FLEET (CONTAINERSHIPS) IN SERVICE AND ON ORDER

Size range	In service today		On order 2012		On order 2013		On order 2014		On order 2015		Total vessels on order	Total TEUs on order
	No	TEU	No	TEU	No	TEU	No	TEU	No	TEU		
0 1.499	1.795	1.471.303	25	20.138	25	24.122	6	8.600	?	?	56	50.860
1.500 2.999	1.251	2.695.858	14	29.183	56	121.838	4	8.760	?	?	74	159.781
3.000 4.999	970	3.938.505	36	149.115	74	311.777	10	45.668	3	10.600	123	517.160
5.000 7.999	604	3.630.967	13	80.472	32	204.296	8	41.800	3	15.300	56	341.868
8.000 9.999	281	2.400.987	10	86.182	50	431.516	29	250.212	?	?	89	767.910
10.000 12.499	48	524.358	5	56.900	9	92.400	12	120.000	3	30.000	29	299.300
12.500 15.999	107	1.448.047	4	62.317	32	424.675	36	476.086	?	?	72	953.078
Over 16.000	-	-	3	48.000	9	54.000	8	44.000	9	58.000	29	604.000
TOTAL	5.056	16.110.025	110	622.307	287	1.764.624	113	1.093.126	18	213.900	528	3.593.957

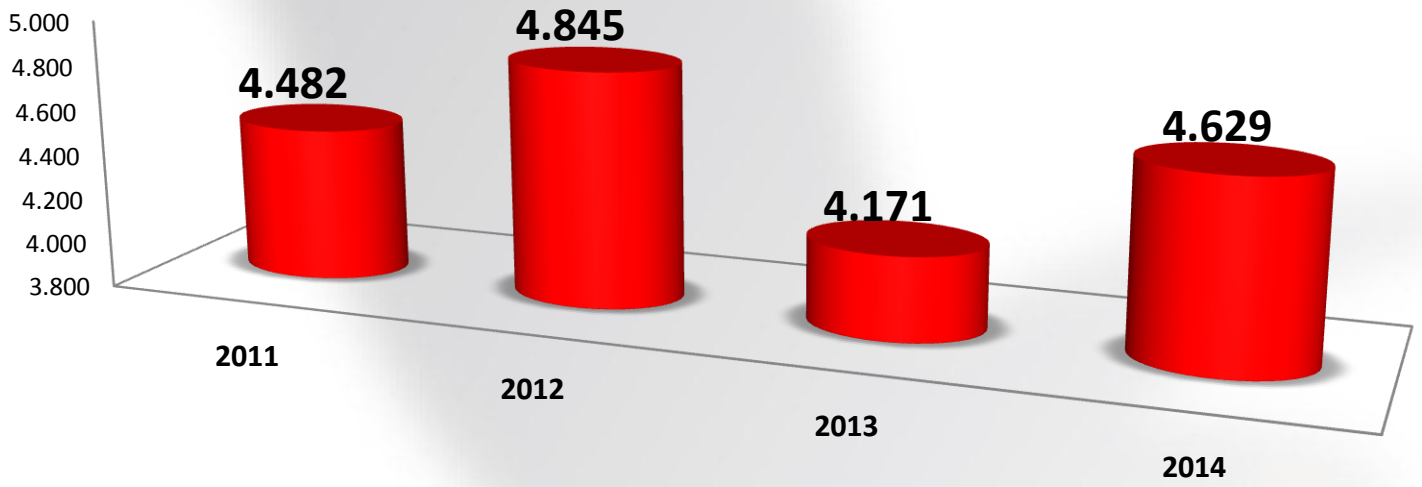
(Source: Lloyd's List Intelligence August 2012)

- LARGEST NUMBER OF VESSELS IN THE FIRST TWO CATHEGORIES (0 – 1.499 1.500 – 2.999)
- HIGHEST CAPACITY (6.961.634 TEUS) IN THE 3° AND 4° CATHEGORIES (3.000 – 7.999)
- HIGHEST NUMBER OF VESSELS ORDERED (123) ARE IN THE 3° CATHEGORY (3.000 – 4.999)
- SECOND PLACE FOR 8.000 – 9.999 VESSEL CATHEGORY WITH 89 VESSEL ORDERED
- HIGHEST NUMBER OF CAPACITY ORDERS (953.078 TEUS) IN THE 12.500 – 15.999 VESSEL CATHEGORY
- SECOND PLACE FOR THE 8.000 – 9.999 VESSEL CATHEGORY (767.910 TEUS)

THE AVERAGE SIZE OF VESSELS IS INCREASING AND THAT MEANS NOT ONLY MORE WATER DEPTH IN OUR PORTS BUT ALSO BETTER RAILWAYS ACCESSIBILITY

Container Traffic (in 000 teus): Far East to Mediterranean Sea

G6 Alliance (APL, Hapag Lloyd, Hyunday, Mitsui OSK, NYK, OOCL), **CKYH Alliance** (Cosco, K Line, Hanjin, Yang Ming) **and Maersk announced the withdrawal of some services from Asia to Europe (especially to Mediterranean Sea)**



Source: Containerization International sept 2012

	Container traffic Far East Mediterranean			
	2011	2012	2013	2014
Traffic	4.482	4.845	4.171	4.629
%	4,8	8,1	-13,9	11,0

ASIA TO THE MEDITERRANEAN SEA		
Period	Average vessel utilisation	Freight rate trend compared with previous quarter
Q2 12	87%	up
Q3 12	81%	down
Q4 12	81%	down
Q1 13	88%	up
Q2 13	82%	down

Container maritime flows in some italian ports years 2005/2011 (in teus)

	2005	2006	%05/06	2010	%06/10	2011	%10/11
Genova	1.624.964	1.657.113	1,98	1.758.858	6	1.847.102	5
La Spezia	1.024.455	1.136.664	10,95	1.285.155	13	1.307.274	2
Livorno	658.506	657.592	-0,14	628.489	-4	637.798	1
Napoli	373.626	444.982	19,10	534.694	20	526.768	-1
Salerno	418.205	359.707	-13,99	234.809	-35	235.209	0
Gioia Tauro	3.208.859	2.938.176	-8,44	2.852.264	-3	2.304.987	-19
Ravenna	168.588	162.052	-3,88	183.577	13	215.336	17
Venezia	289.860	316.641	9,24	393.913	24	458.363	16
Trieste	198.319	220.310	11,09	281.643	28	393.186	40
Taranto	716.856	892.303	24,47	581.936	-35	604.404	4
TOTALE	8.682.238	8.785.540	1,19	8.735.338	-1	8.530.427	-2

Container railways flows in some italian ports years 2005/2011 (in teus)

	2005	2006	%05/06	2010	%06/10	2011	%10/11
Genova	381.036	415.175	8,96	171.481	-59	257.155	50
La Spezia	312.195	350.180	12,17	230.508	-34	272.000	18
Livorno	157.991	142.295	-9,93	85.005	-40	73.198	-14
Napoli	29.519	28.194	-4,49	17.811	-37	0	-100
Salerno	1.760	0	-100,00	0	-100	0	0
Gioia Tauro	72.576	89.501	23,32	13.971	-84	13.673	-2
Ravenna	33.660	32.933	-2,16	16.530	-50	14.052	-15
Venezia	1.754	7.248	313,23	4.519	-38	4.726	5
Trieste	58.580	66.087	12,81	49.040	-26	nd	nd
Taranto	31.721	23.759	-25,10	0	-100	0	0
TOTALE	1.080.792	1.155.372	6,90	588.865	-49	634.804	8

Comparison between the trends of the maritime and the railways container flows in some italian ports in the years 2006/2010 (%)

	%06/10	%06/10
Genova	6	-59
La Spezia	13	-34
Livorno	-4	-40
Napoli	20	-37
Salerno	-35	-100
Gioia Tauro	-3	-84
Ravenna	13	-50
Venezia	24	-38
Trieste	28	-26
Taranto	-35	-100
TOTALE	0	-50

The maritime flows increased in quite all ports considered (Genova, La Spezia, Napoli, Ravenna, Venezia, Trieste) but in all ports the railways flows collapsed

Port regionalization

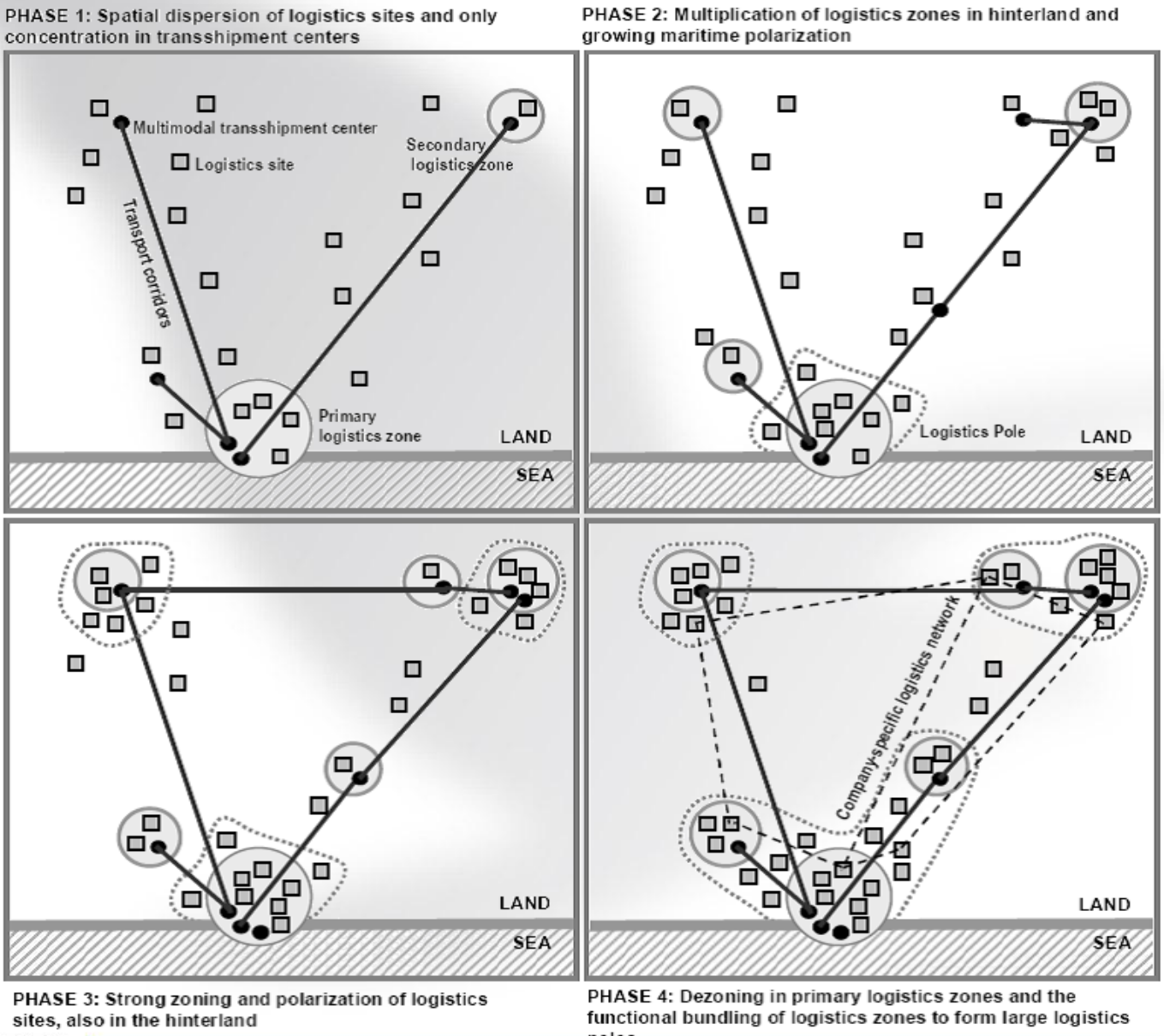


Figure 6 A spatial model on logistics sites in the hinterland

INTERPORTO BOLOGNA SPA

INTEGRATION AMONG PORTS AND INLAND TERMINALS (PORT REGIONALIZATION):
International Public and Private experiences

- El Alameda Corridor
- BostWash Corridor
- DP World Inland Strategy

El Alameda Corridor (California)

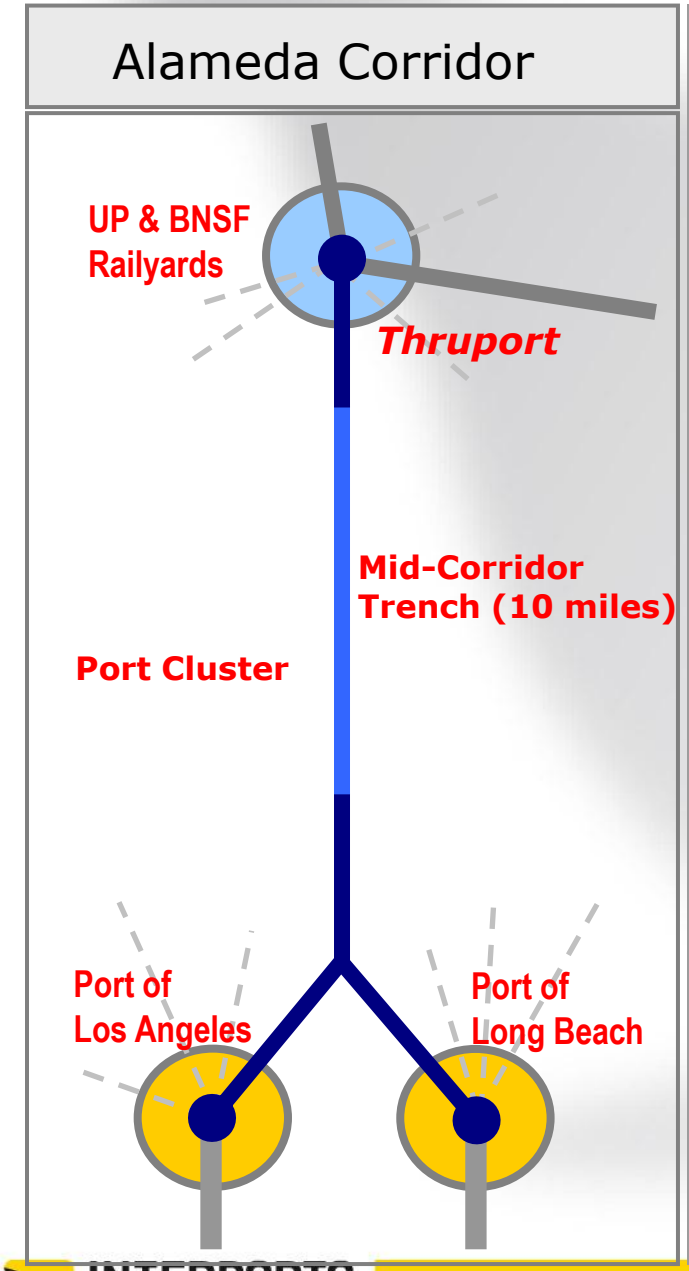
L = 32 km

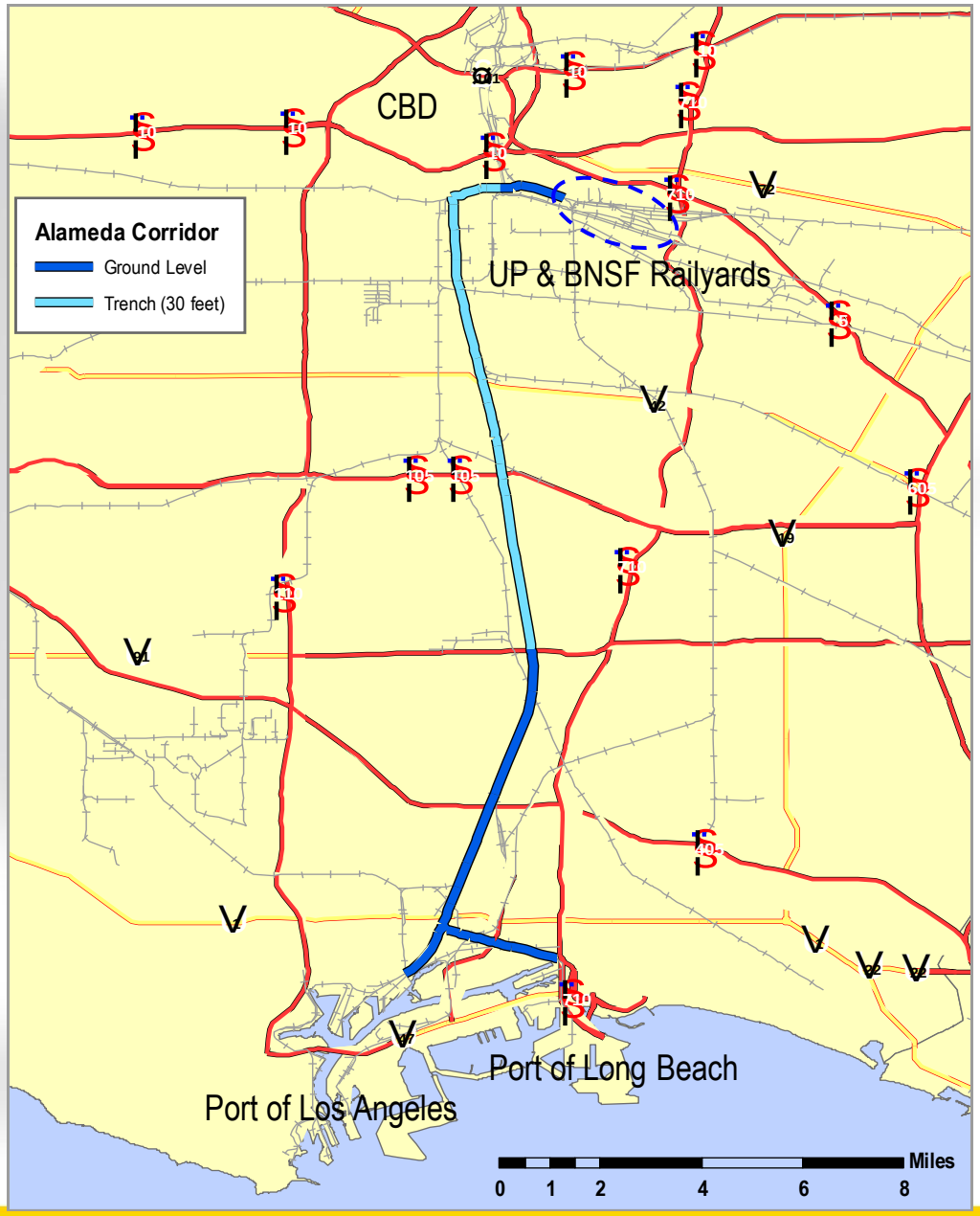
Train N° 2007: 4.446
Daily average: 49 trains

- Modal shift:
15.000 vehicles/hours per day less

- less 200 level intersections waiting times

El Alameda Corridor (California)

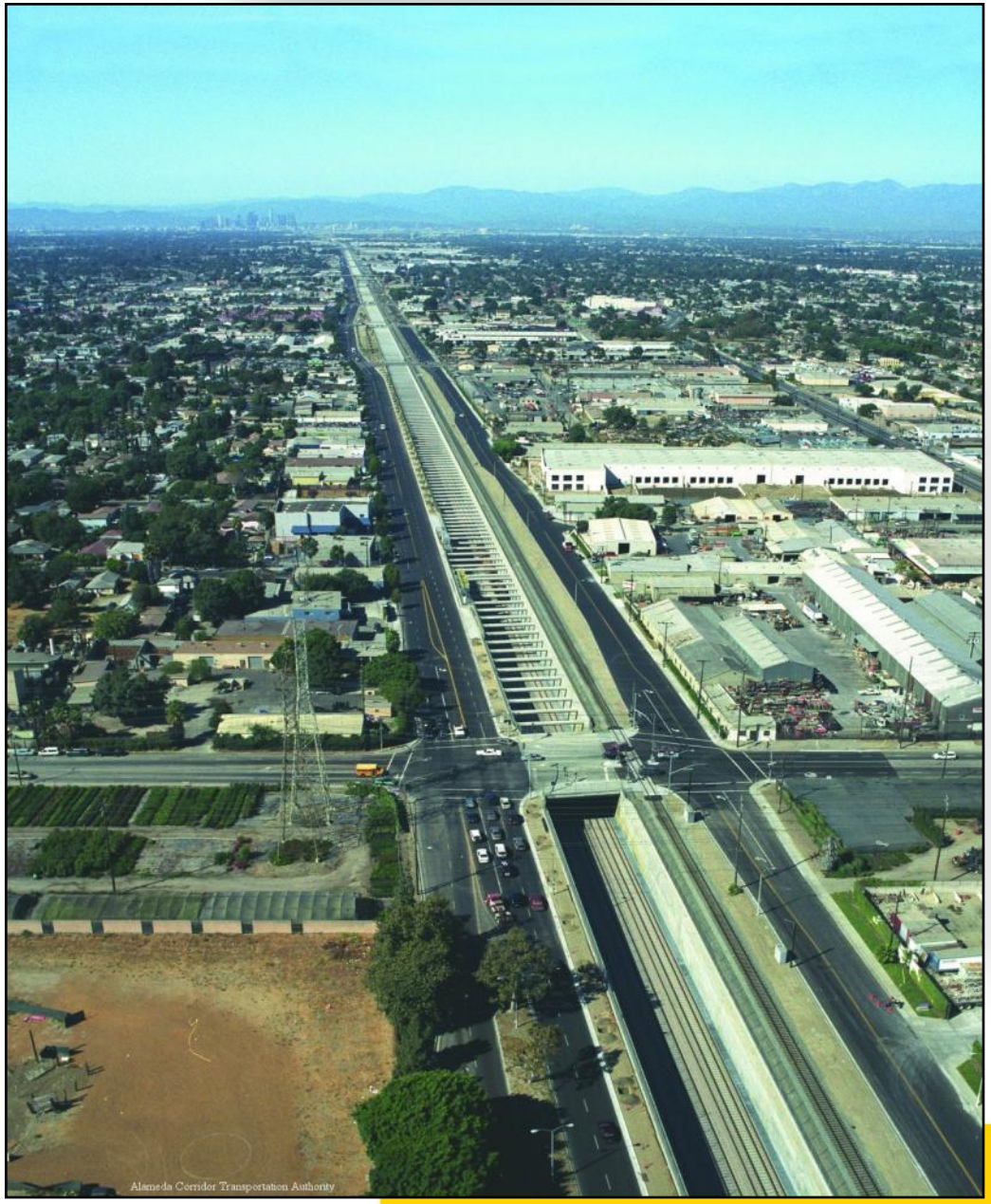




INTERPORTO BOLOGNA SPA

El Alameda Corridor (California)

El Alameda Corridor (California)

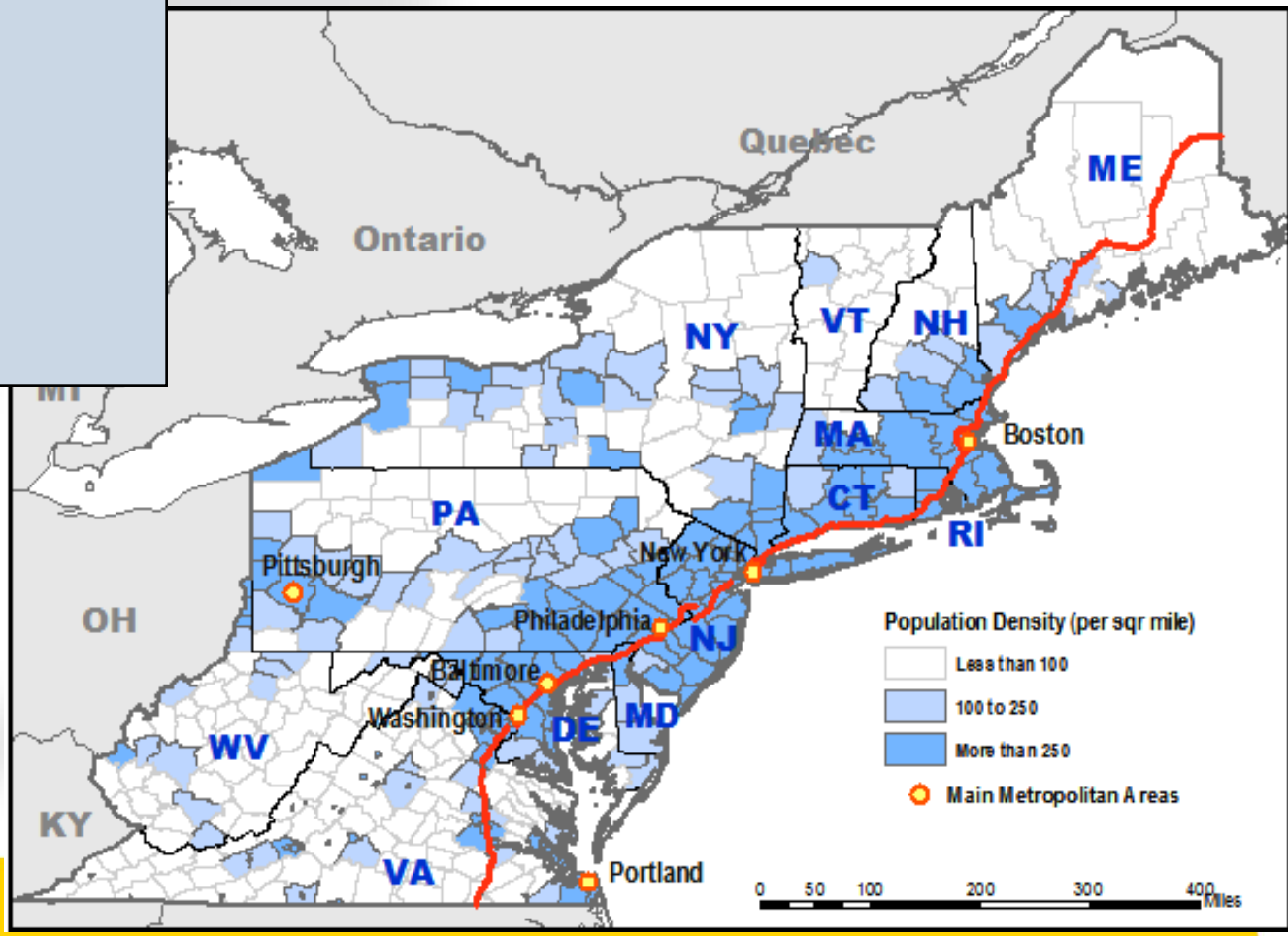


El Alameda Corridor

BostWash Corridor

Logistic nodes involved:
13 airports
11 ports

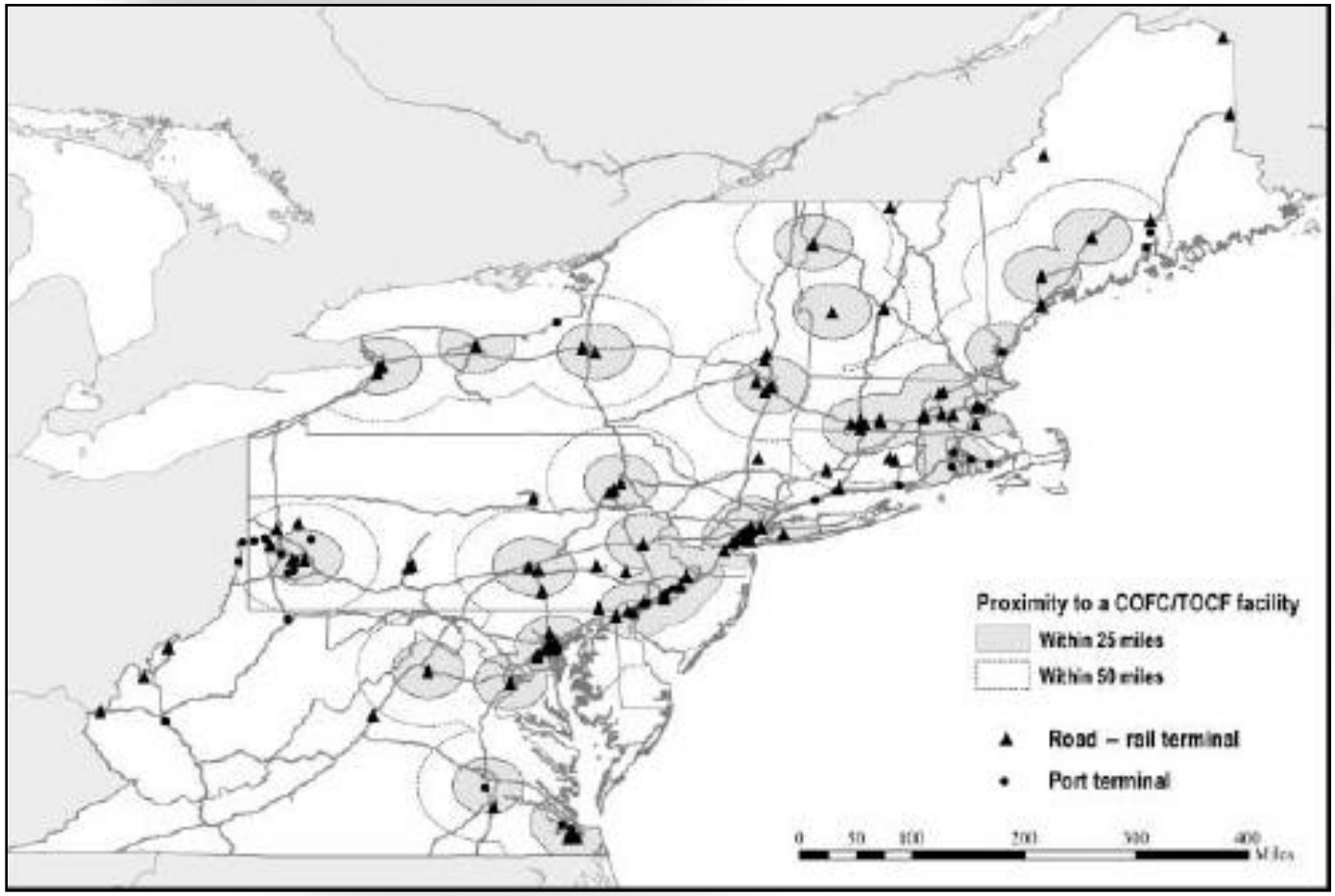
High level population density on the corridor area



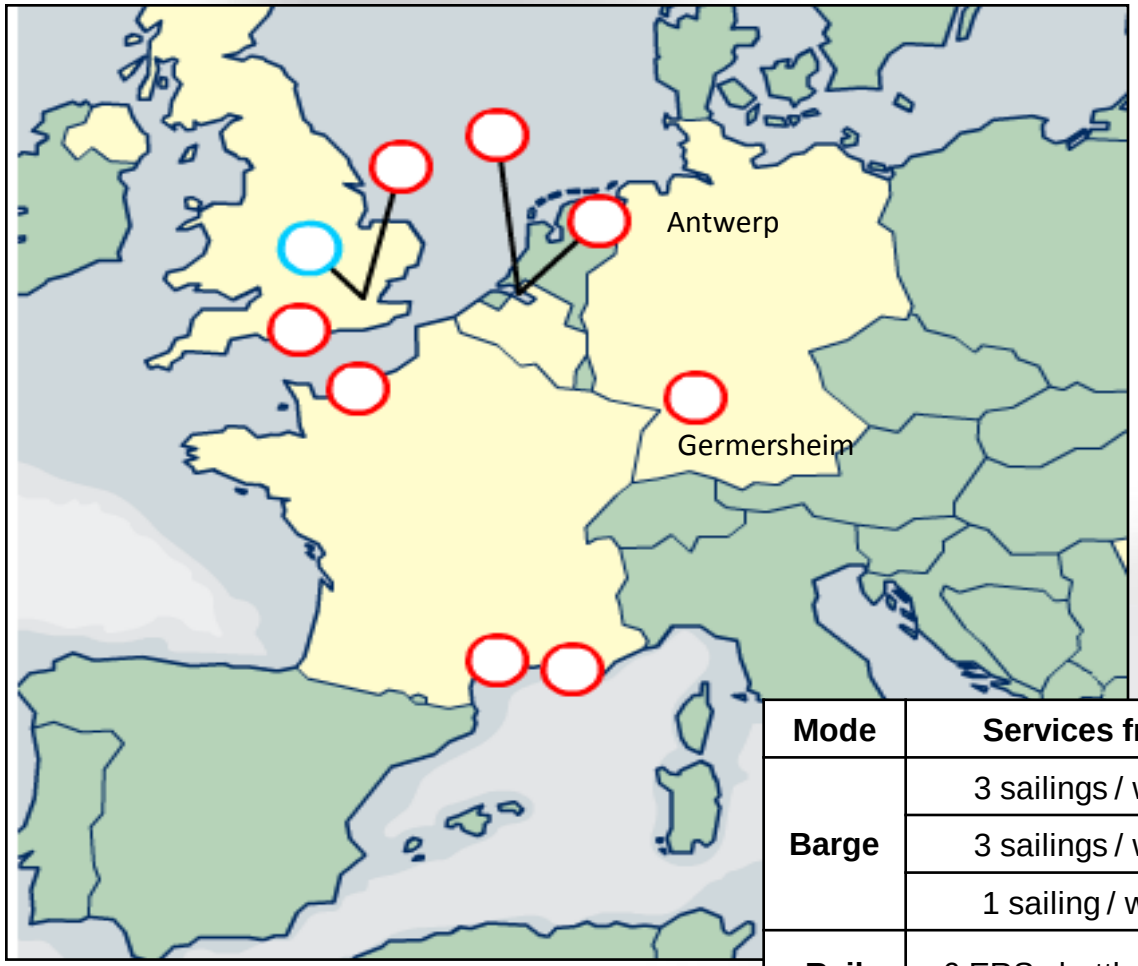
INTERPORTO BOLOGNA SPA

BostWash Corridor

Logistic nodes density



Inland Terminal - Germersheim



DP World
European presence

Port-inland Services

Mode	Services frequency	O	D
Barge	3 sailings / week (v.v.)	**Rotterdam**	Germersheim
	3 sailings / week (v.v.)	**Antwerp**	Germersheim
	1 sailing / week (v.v.)	**Amsterdam**	Germersheim
Rail	6 ERS shuttle / week (v.v.)	Rotterdam	Germersheim
Truck	125 trucks available		

Inland Terminal - Germersheim

Terminal description

Surface: 11 ha
Capacity: 220,000 TEUs
Channel deepness: 25 m
2 berths for 3 barges
315 m. of berths

The italian jurisprudence about the Port Regionalization evolution art. 46 of the Law 22.12.2011 n° 214, conversion of the law decree 6th decembre 2011, n. 201 (“Salva Italia Decree”)

Art. 46. Collegamenti infrastrutturali e logistica portuale

1. Al fine di promuovere la realizzazione di infrastrutture di collegamento tra i porti e le aree retro portuali, le autorità portuali possono costituire sistemi logistici che intervengono, attraverso atti d'intesa e di coordinamento con le regioni, le province ed i comuni interessati nonché con i gestori delle infrastrutture ferroviarie.
2. Le attività di cui al comma 1 devono realizzarsi in ottemperanza a quanto previsto dalla normativa comunitaria, avendo riguardo ai corridoi transeuropei e senza causare distorsione della concorrenza tra i sistemi portuali.
3. Gli interventi di coordinamento devono essere mirati all'adeguamento dei piani regolatori portuali e comunali per le esigenze di cui al comma 2, che, conseguentemente, divengono prioritarie nei criteri di destinazione d'uso delle aree.
4. Nei terminali retro portuali, cui fa riferimento il sistema logistico, il servizio ai fini dello sdoganamento è svolto di norma dalla medesima articolazione territoriale dell'amministrazione competente che esercita il servizio nei porti di riferimento, senza nuovi o maggiori oneri a carico della finanza pubblica.

The italian Port Authorities can create logistic systems together with Inland Terminals or Freight Villages (Interporti) by agreements and coordination acts with Regions, Provinces and the subjects managers of the railways infrastructures

The italian jurisprudence about the Port Regionalization evolution art. 11 bis of the law proposal of reform of the actual Port legislation (law 84 of 1994)

«Articolo 11-bis.
(Sistemi logistico-portuali).

1. Le autorità portuali, d'intesa con le regioni, le province ed i comuni interessati, possono costituire sistemi logistico-portuali per il coordinamento delle attività di più porti e retroporti appartenenti ad un medesimo bacino geografico o al servizio di uno stesso corridoio transeuropeo.

2. I sistemi di cui al comma 1 intervengono sugli aspetti di carattere generale di seguito definiti:

a) d'intesa con i gestori delle infrastrutture ferroviarie, sull'utilizzo delle reti ferroviarie di alimentazione ed integrazione del sistema logistico-portuale;

b) sulla promozione del traffico ferroviario "navetta" di collegamento tra porti e retroporti, che si può estendere anche alla manovra interna ai porti del sistema e che è regolata mediante bandi europei;

c) sul coordinamento dei nuovi piani regolatori portuali e comunali;

d) sulla promozione delle infrastrutture di collegamento, avendo riguardo sia ai grandi corridoi individuati in sede europea sia alle connessioni con i terminali portuali e retroportuali.

3. Nei terminali retroportuali cui fa riferimento il sistema logistico-portuale, il servizio doganale è svolto dalla medesima articolazione territoriale dell'amministrazione competente che esercita il servizio nei porti di riferimento».

The italian Port Authorities can create "Port Logistic Systems" together with Inland Terminals or Freight Villages (Interporti) by agreements and coordination acts with Regions, Provinces and the subjects managers of the railways infrastructures

CONCLUSIONS

The organization of container flows in the world is changing:

- **Bigger vessels**
- **Less port stops and more container to lift on/off every time**

The ship to shore activities must change:

- **Trucks are no more efficient**
- **Trains could be the solution**
- **“But” in Italy the ports are small and the railways facilities not enough**

The italian “Interporti” are a global best pratice:

- **Good railways and intermodal facilities**
- **Huge logistics area**
- **Good international railways services network**

Ports and “Interporti” must connect themselves:

- **By enhancing the railways infrastructures of connection**
- **By developing together policies of Port Regionalization**