

European Union Strategy for the Danube Macro-Region in a Multipolar World

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Clubabend des OWWF Bayern
Bayerischer Landtag – Maximilianeum
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Macro Danube Region Business Week 2017 (DMRBW2017) fand in Wien und Linz (www.dmrbw.net) und das 6. EU-Donaustrategieforum 2017 in Budapest statt. Reflektionen der Ergebnisse beider Veranstaltungen reflektieren und Schlussfolgerungen für unsere Aktivitäten.

Danube Region Business Week

Hosts



Content Partners



Agenda

1. Introduction
2. Multipolar World
3. Danube Macro Region
4. EU Strategy Danube Region (EUSDR)
5. Transport & Logistics
6. Supply Chain Design & Logistics
7. Global Challenges
8. Conclusion
9. Annexes (1-6)

Week Overview DMRBW2017

Monday, October 2nd 2017, Hofburg/SECI, Vienna



CONFERENCE DAY 1

<http://www.danubeforum.org/>

ECOLOGY & ECONOMY | Why Paris is part of the Danube Region - The Next Steps

Tuesday, October 3rd 2017, WKO, Vienna



CONFERENCE DAY 2 (conference language: GERMAN)

<https://www.wko.at/service/Veranstaltung.html?id=b4421bff-bfdc-4c08-9625-8684dfbd5d05>

FORUM | Export in the Danube Region



Wednesday, October 4th 2017, Linz



CONFERENCE DAY 3 (limited number of participants)

<https://www.dmrbw.net>

BUSINESS DIALOG | Logistics & Infrastructure | Technologies & Capabilities



Wednesday, October 4th 2017, Linz



CONFERENCE DAY 3 (by invitation only)

<https://www.dmrbw.net>

Evening Dinner Reception | voestalpine Stahlwelt

Thursday, October 5th 2017, Linz



CONFERENCE DAY 4 (limited number of participants)

<https://www.dmrbw.net>

BUSINESS DIALOG | Supply Chain Design & Finance | Processes & Application

SITE VISIT | voestalpine Stahlwelt



Thursday, October 5th 2017, Vienna



CONFERENCE DAY 4 (by invitation only)

<https://www.dmrbw.net>

Evening Dinner Reception | Austrian Purchasing Association (BMOE)

Annual Event 2017, Vienna (tba)



Friday, October 6th 2017, DA, Vienna

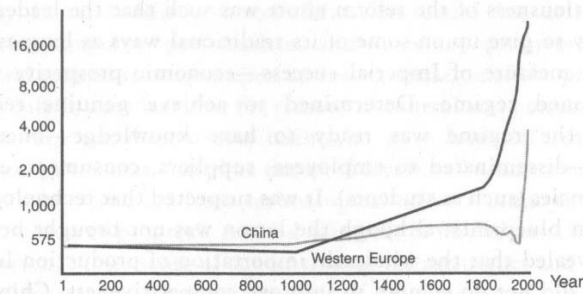


CONFERENCE DAY 5

<http://www.danubeforum.org/>

SMART DANUBE REGION | Economy & Entrepreneurship in the Danube Region

Impact of Rising China



Source: Figure 1 (p. 42): GDP per capita: China and Western Europe: 1–1998 A.D. in Maddison, Angus (2001), The World Economy: A Millennial Perspective OECD. Copyright, OECD 2001.

Exhibit 2-1 GDP per Capita (in 2002 Dollars): China and Western Europe: 1-1998 A.D.

Relative Certainties in the 2025 Global Landscape

- Emerging of a global multipolar (oligopolar) world
- Shift of wealth and power from West to East
- US will remain the single most powerful but less dominant
- Continued economic growth and 1,2 billion more people will put pressure on energy, food and water resources

(NIC 2008/US Government Printing Office)

China's rise has more in common with the rise of the United States of America a century earlier than with the progress of its modern-day predecessors and followers.

What we are witnessing is the sustained and dramatic growth of a future world power, with unmatched breadth of resources, lofty aspirations, strong bargaining position, and the financial and technological wherewithal of an established and business-savvy diaspora.

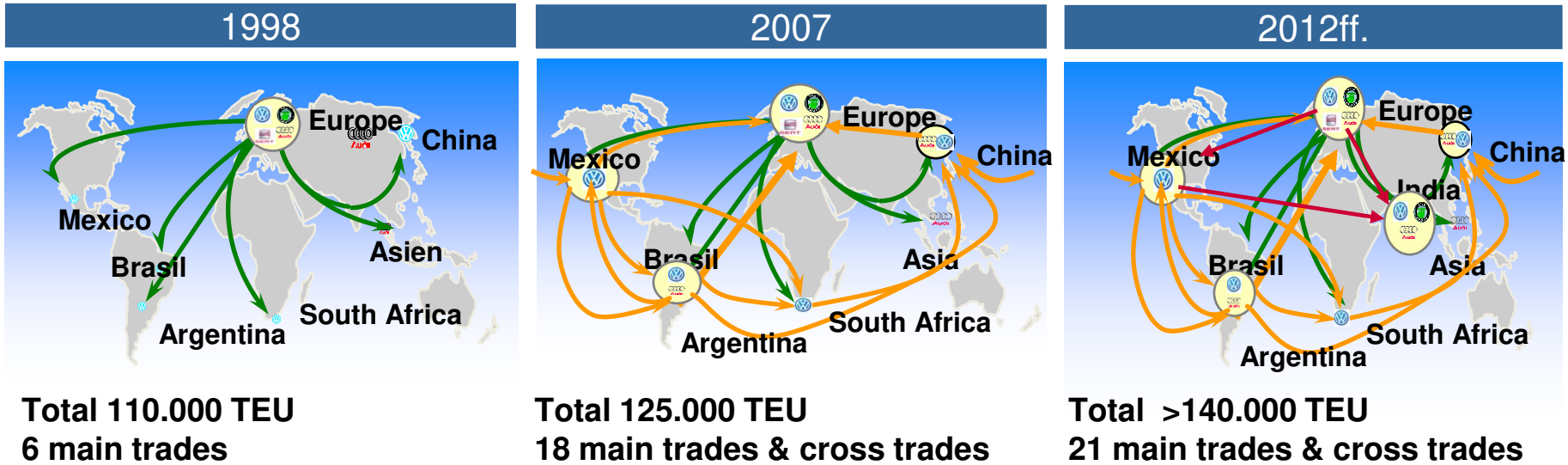
The impact of a rising China on countries of the world – both developed and developing – will be enormous, and so will be the need to develop strategies and responses to meet the challenge.

Wharton School Publishing,
The Chinese Century (2006)

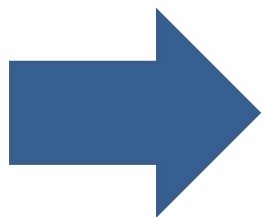


Adjustment of Global Material Flows

Transport Volumes



Emergence of Additional Trade Lines



- South Africa
- India
- Central Asia
- Russia
- Malaysia
- Middle East

Increased Supply Chain Complexity due to Additional Number of Trade Lines

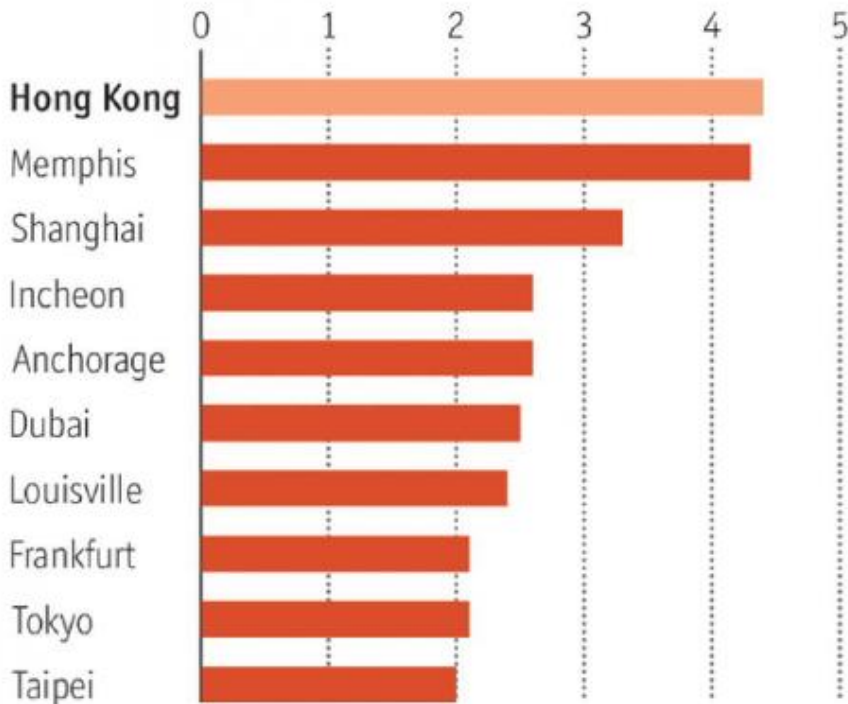
Sources: Factfinding CVI/NAPs in March 2008 and WTO April 7th 2011

Alignment of Global Infrastructure

World infrastructure champions

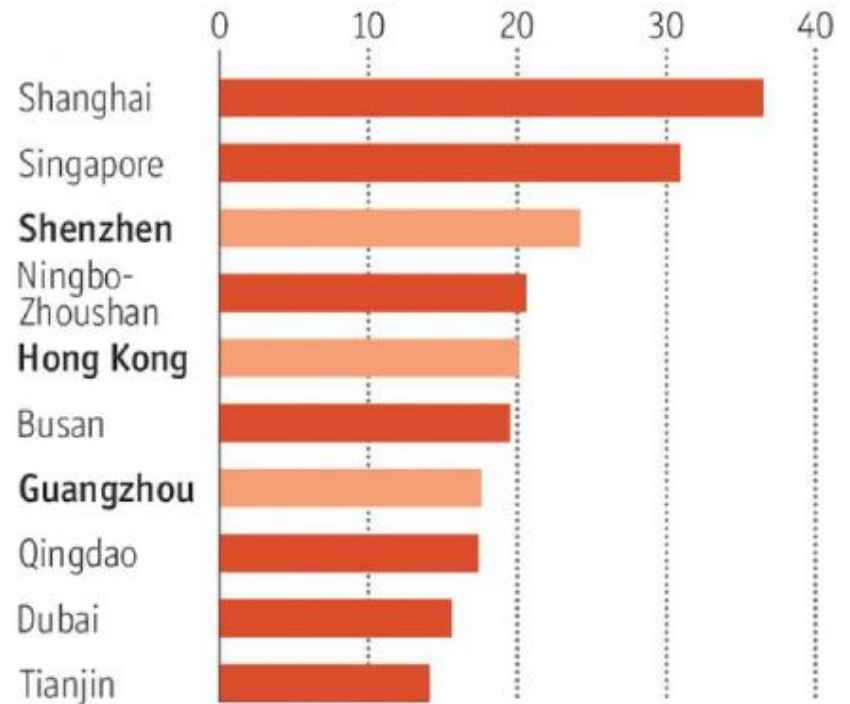
Busiest airports

By freight and mail, tonnes m, 2015



Busiest container ports

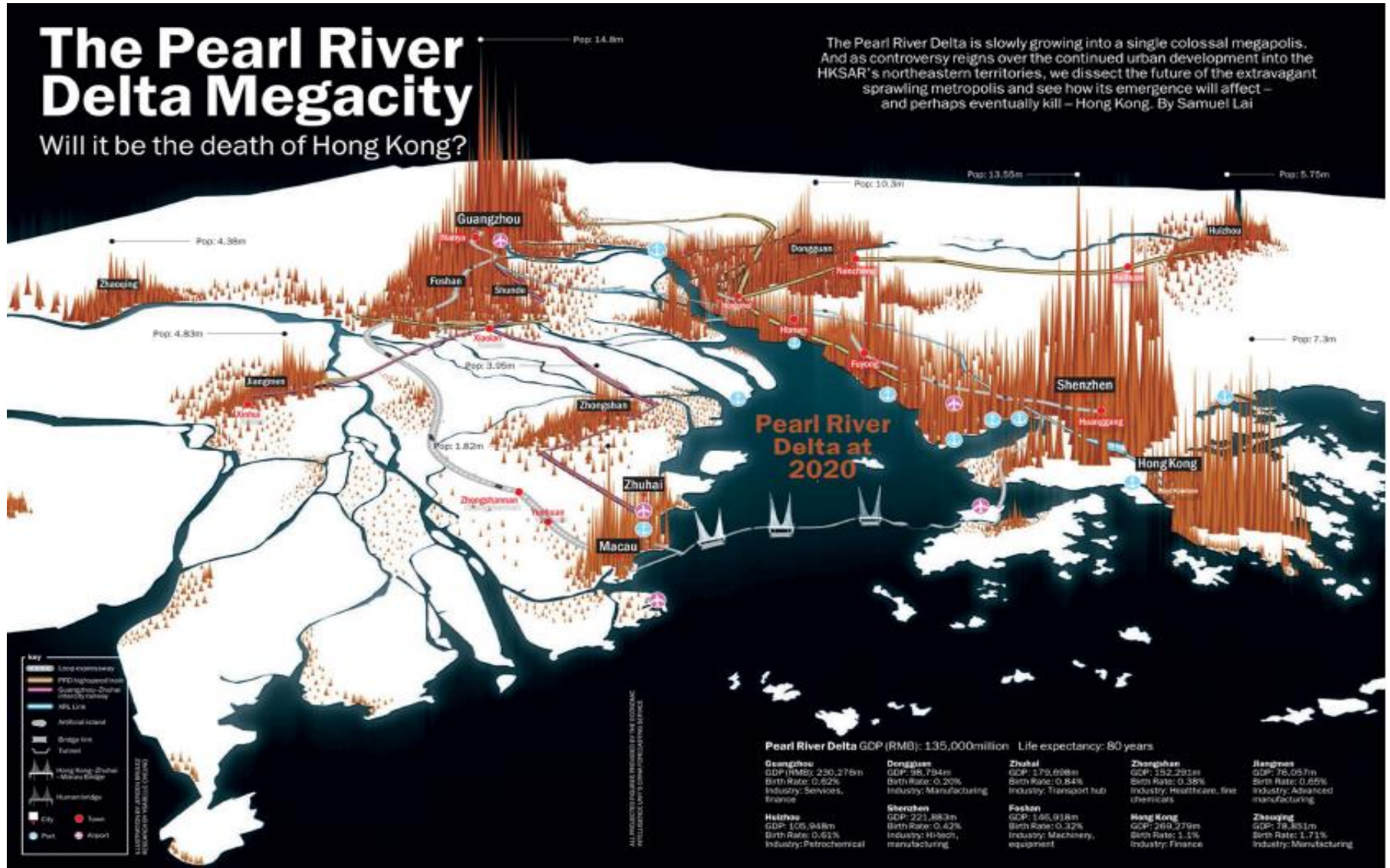
TEUs*, m, 2015



Sources: Airports Council International; Marine Department of Hong Kong

*20-foot standard container equivalent

Evolution of Global Macro-Regions



New Ways of Global Collaboration

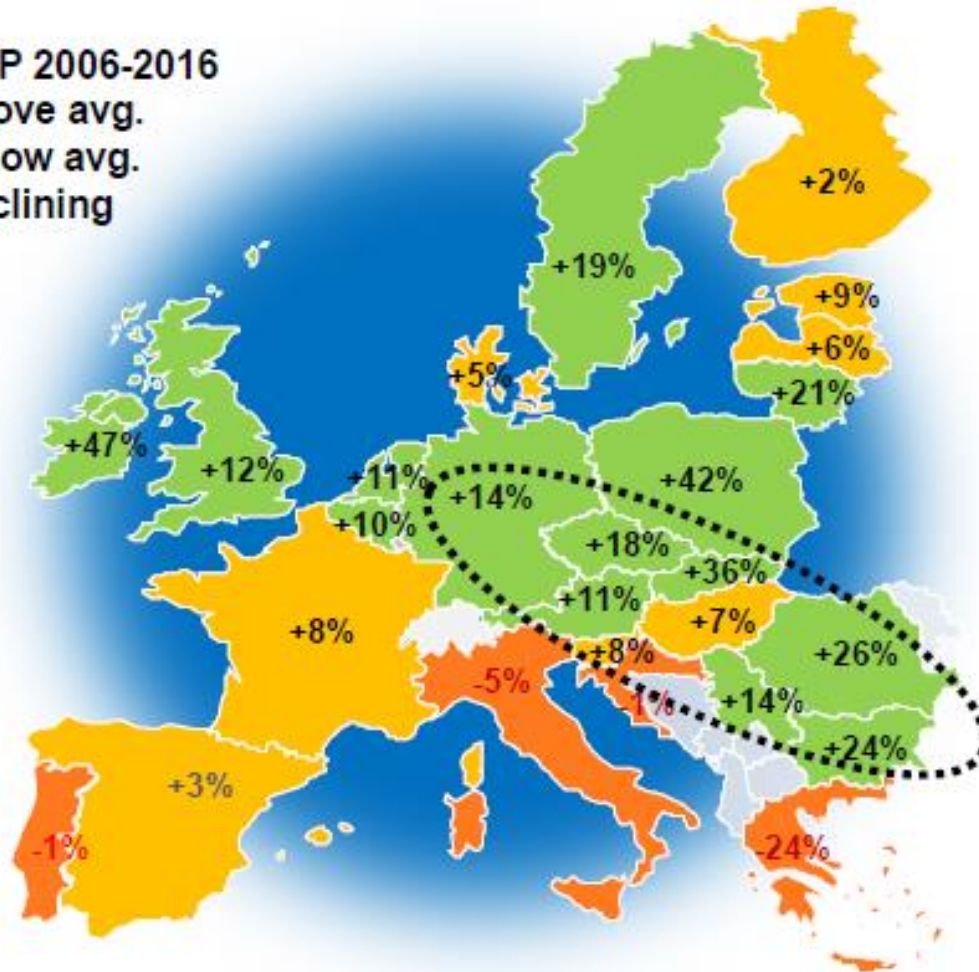
Baltic Region (2009)
<ul style="list-style-type: none">• Denmark• Sweden• Finland• Estonia• Latvia• Poland
<ul style="list-style-type: none">• Mecklenburg• Brandenburg
<ul style="list-style-type: none">• 71 Mio. Inhabitants• 1375 bn EUR GDP
<ul style="list-style-type: none">• Norway• Russia• Belarus

Danube Region (2011)
<ul style="list-style-type: none">• Romania• Bulgaria• Hungary• Slovenia• Slovakia• Czech Republic• Austria• Bavaria• Baden Württemberg
<ul style="list-style-type: none">• 89 Mio Inhabitants• 1620 bn EUR GDP
<ul style="list-style-type: none">• Bosnia & Herzegowina• Croatia, Serbia• Moldova, Montenegro• Ukraine

Gulf Region (2010)
<ul style="list-style-type: none">• <i>Bahrain</i>• <i>Kuwait</i>• <i>Oman</i>• <i>Qatar</i>• <i>Saudi Arabia</i>• <i>UAE</i>
<ul style="list-style-type: none">• <i>42 Mio. Inhabitants</i>• <i>917 bn USD GDP</i>
<ul style="list-style-type: none">• <i>Arab League</i>• <i>Iran</i>

Danube Region GDP Growth 2006-2016

GDP 2006-2016
■ Above avg.
■ Below avg.
■ Declining



GDP growth in EU-28:
 2006-2016: +9% (+0.8% p.a.)

GDP growth ranged between
 +47% (PL) and -24% (GR)

GDP in relevant OMV market:
 2006-2016: +14% (+1,3%p.a.)
 (incl. TR +19%)

Countries with higher share of manufacturing performed better

GDP-Outlook 2016-2020: +9%

*) A, BG, CZ, D, H, MD, RO, SLO, SK, SRB

Danube Region GDP Growth Forecast

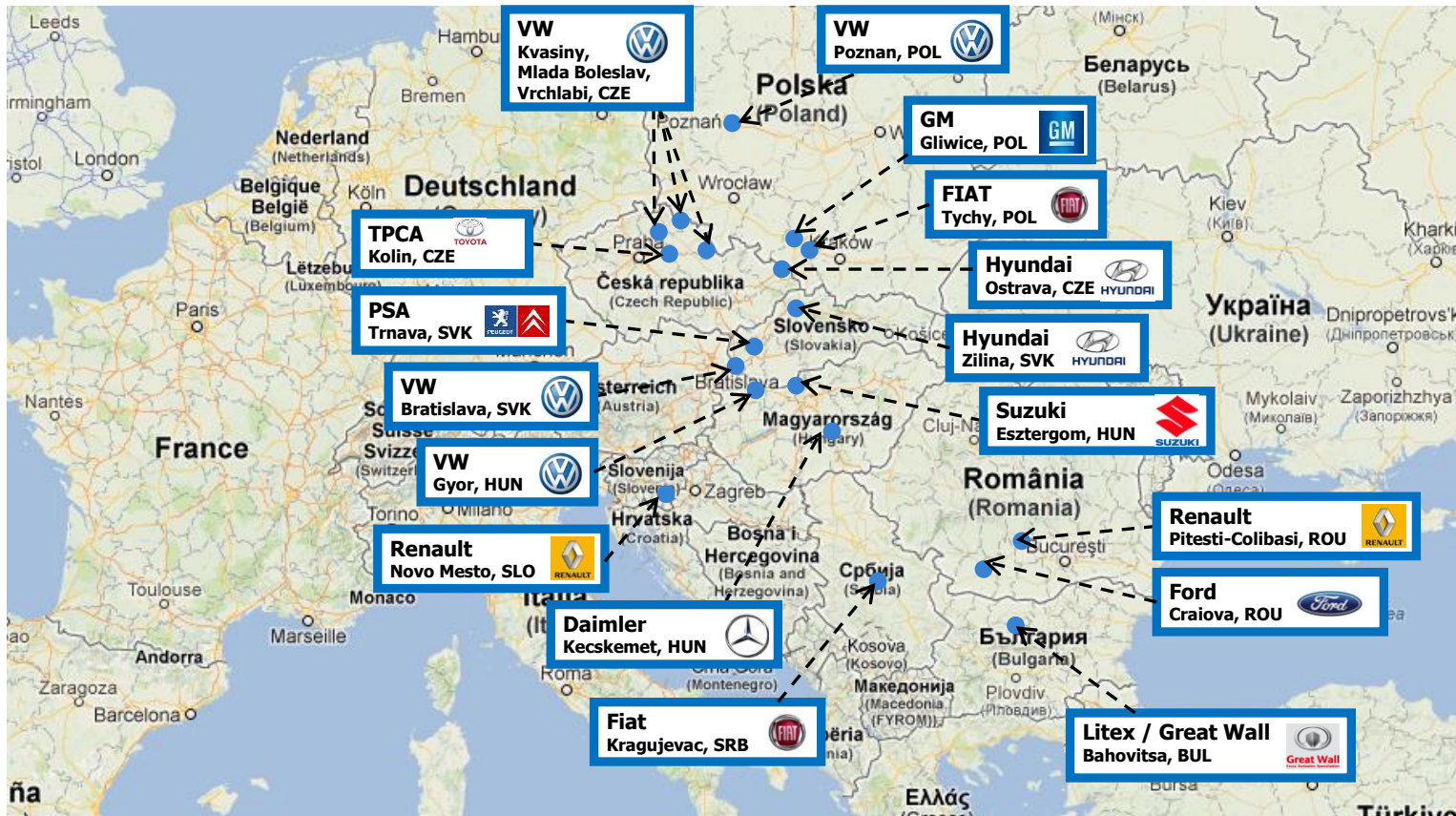
	2017	2018	2019
Romania	4.0	4.0	4.0
Kosovo	3.9	3.8	3.7
Albania	3.5	3.9	4.0
Hungary	3.3	3.4	3.1
Slovakia	3.1	3.6	3.9
Macedonia	3.1	3.3	3.0
Montenegro	3.1	2.9	3.3
Bulgaria	2.9	3.1	3.3
Poland	2.9	3.0	3.1
Slovenia	2.9	2.9	3.0
Croatia	2.8	2.9	3.0

	2017	2018	2019
Bosnia and Herzegovina	2.8	3.0	3.1
Serbia	2.8	3.0	3.3
Lithuania	2.7	2.8	3.1
Latvia	2.5	2.7	2.8
Ukraine	2.5	3.0	3.0
Czech Republic	2.4	2.6	2.3
Estonia	2.2	2.3	2.4
Turkey	2.1	2.6	3.1
Kazakhstan	2.0	3.0	3.0
Russia	1.7	1.7	2.0
Belarus	0.5	1.6	2.2

Forecast: wiiw (March 2017).

© wiiw

Industrial Capacities Moving East



EU Strategy Danube Region (EUSDR)

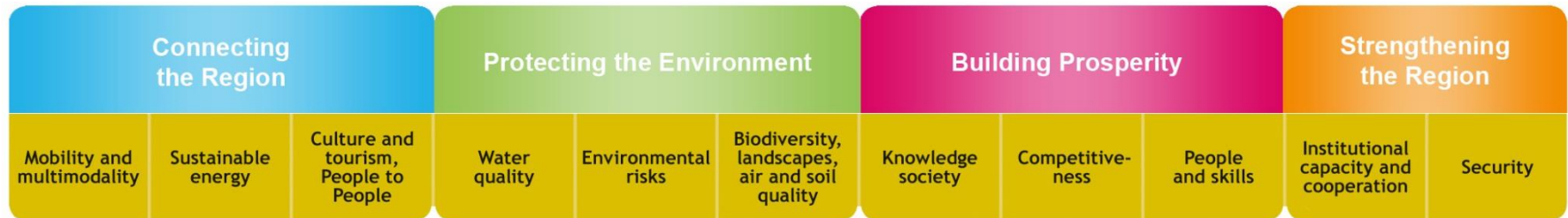
Strategy

addresses these various topics through
4 pillars
11 priority areas,
and of course actions and projects

Definition

Macro Region not yet determined
by Policy and „Völkerrecht“
Aim is to support
practical application of territorial
cohesion on transnational level

THE FOUR PILLARS



11 priority areas, coordinated by a priority area coordinator

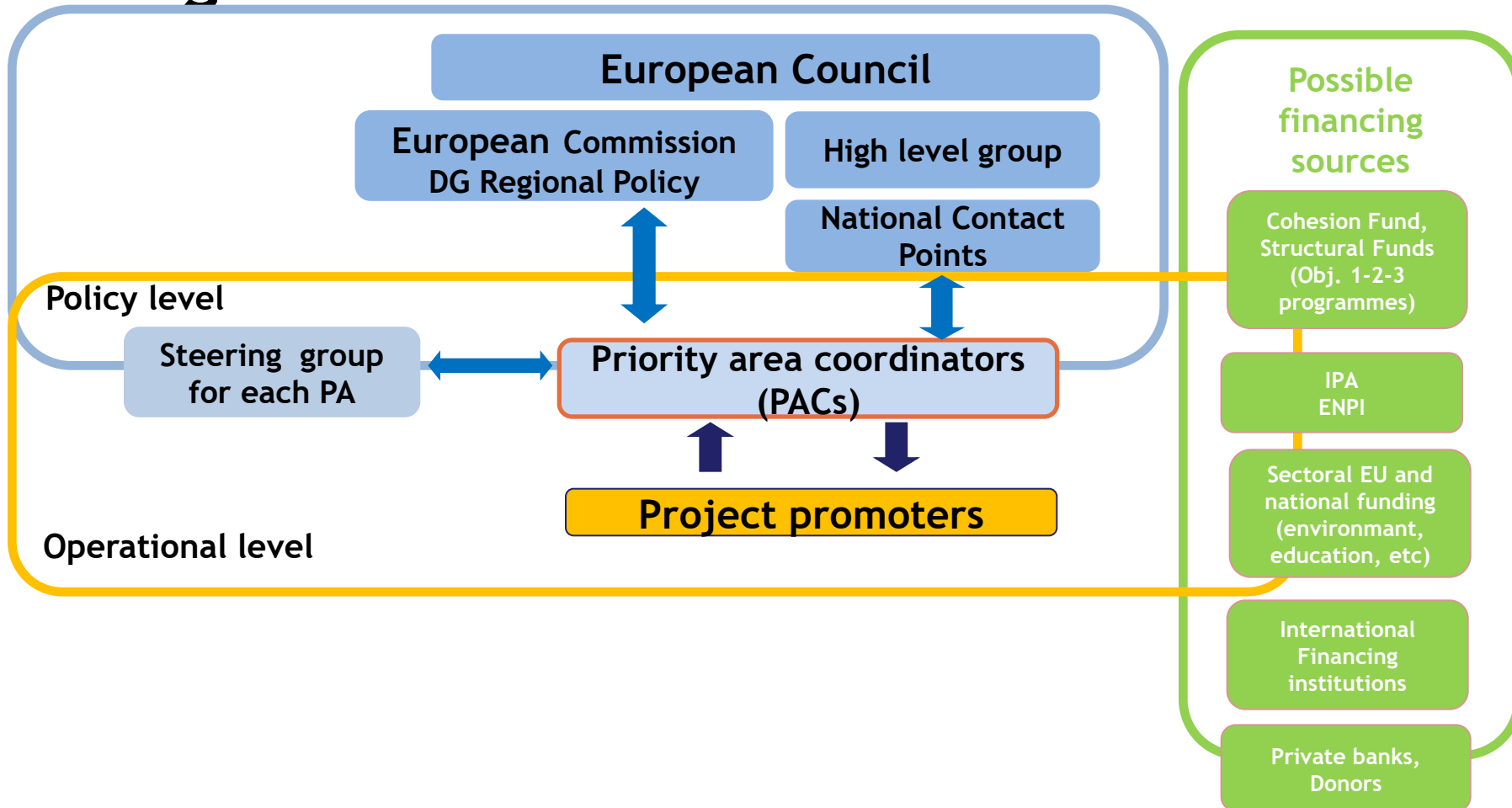
Actions

Projects

EU Strategy Danube Region (EUSDR)

<i>Priority Area</i>	<i>Countries in charge of coordination</i>
<i>P1 Mobility and intermodality</i>	<i><u>Inland waterways:</u> Austria, Romania <u>Rail, road and air:</u> Slovenia, Serbia</i>
<i>P2 More sustainable energy</i>	<i>Hungary, Czech Republic</i>
<i>P3 Culture and tourism, people to people</i>	<i>Bulgaria, Romania</i>
<i>P4 Water Quality</i>	<i>Hungary, Slovakia</i>
<i>P5 Environmental risks</i>	<i>Hungary, Romania</i>
<i>P6 Biodiversity, landscapes, quality of air and soils</i>	<i>Germany (Bavaria), Croatia</i>
<i>P7 Knowledge society (research, education and ICT)</i>	<i>Slovakia, Serbia</i>
<i>P8 Competitiveness of enterprises</i>	<i>Germany (Baden-Württemberg), Croatia</i>
<i>P9 People and skills</i>	<i>Austria, Moldova</i>
<i>P10 Institutional capacity and cooperation</i>	<i>Austria (Vienna), Slovenia</i>
<i>P11 Security and organised crime</i>	<i>Germany, Bulgaria</i>

The governance model of the EUSDR



Logistics Management in EUSDR

- **LOGISTICS was NOT the Inventor of...but**

- Containerisation & Multimodality
- Integrators and Aircargo
- Warehousing- and Material Handling
- Packaging; one way & returnables
- Internet and Real time
- CIM incl. CAD/CAQ/CAM/Barcode/RFID
- Artificial Intelligence, Robots & 4.0

SEALAND
FEDEX
MANNESMANN
GE PLASTICS
INTEL/MICROSOFT
SAP/IBM

- **LOGISTICS is INTERCONNECTING** the core processes of R+D, Purchasing, Manufacturing and Sales (and Financing and HR) to exploit the Advantages

measured by

Service levels
Capacity utilization of workforce & assets
Inventory levels
Logistics costs (direct and indirect)

managed by

Macrologistics for mobility of societies
Micrologistics
Logistics enterprises

- **....All together have achieved over few decades**

- Improvement of service levels including shortening time to market
- Saving inventories/GDP by app 50 % and freeing cash plus stabilizing logistics costs

U.S. Logistics Costs & Capacities

	\$ Billions
Carrying Costs - \$ 1.965 Trillion All Business Inventory	
Interest	47
Taxes, Obsolescence, Depreciation, Insurance	252
Warehousing	122
Subtotal	420
Transportation Costs	
Motor Carriers:	
Truck - Intercity	460
Truck - Local	220
Subtotal	680
Other Carriers:	
Railroads	63
Water (International 33 Domestic 6)	39
Oil Pipelines	10
Air (International 16 Domestic 24)	40
Forwarders	32
Subtotal	184
Shipper Related Costs	8
Logistics Administration	52
TOTAL LOGISTICS COST	1,344

US Network Capacity/Miles

>1 Mio/Highways

> 100.000/Railways

> 10.000/Inland Waterways

> 1 Mio/Pipelines

Volume & Value daily

50 Mio Tons

30 Mrd USD Value
25 % of global GDP

U.S. Logistics Costs <10 % of GDP
Railway Costs app. 0,5 % of GDP, Intermodal 0,1 % of GDP

Supply Chain Architecture

Why the Big Blue lost app. USD 100 bn in Market Cap ?

The power in the chain shifted to a horizontal structure and upwards in the chain, as the financial rewards. Here is what happened in the Supply Chain Architecture:

Vertical Structure (old)

- Microprocessors
- Operating systems
- Peripherals
- Application software
- Network services
- Assembled hardware

IBM	DEC	Bunch
IBM	DEC	
IBM	DEC	
IBM	DEC	
IBM	DEC	
IBM	DEC	
IBM	DEC	

Horizontal Structure (new)

- Microprocessors
- Operating systems
- Peripherals
- Application software
- Network services
- Assembled hardware

Intel			Moto	AMD	etc.
Microsoft			Apple	Unix	
HP	Epson	Seagate	etc.	etc.	
Microsoft		Lotus	Novell		etc.
DEC	HP	IBM	EDS	etc.	
HP	Compaq	IBM	Dell	etc.	

Supply Chain Development consists out of Supply chain architecture decisions:

- decision whether to **make or buy a component**
- sourcing decisions: **which companies to include in the supply chain**
- contracting decisions: **structuring relationships among supply chain members to determine who in the chain performs which task.**

Logistics and coordinating decisions include

- the inventory, deliveries and
- information systems to support ongoing operation of the supply chain.

The art is to **identify core competencies and to keep them in-house.** (be aware „Intel inside“)

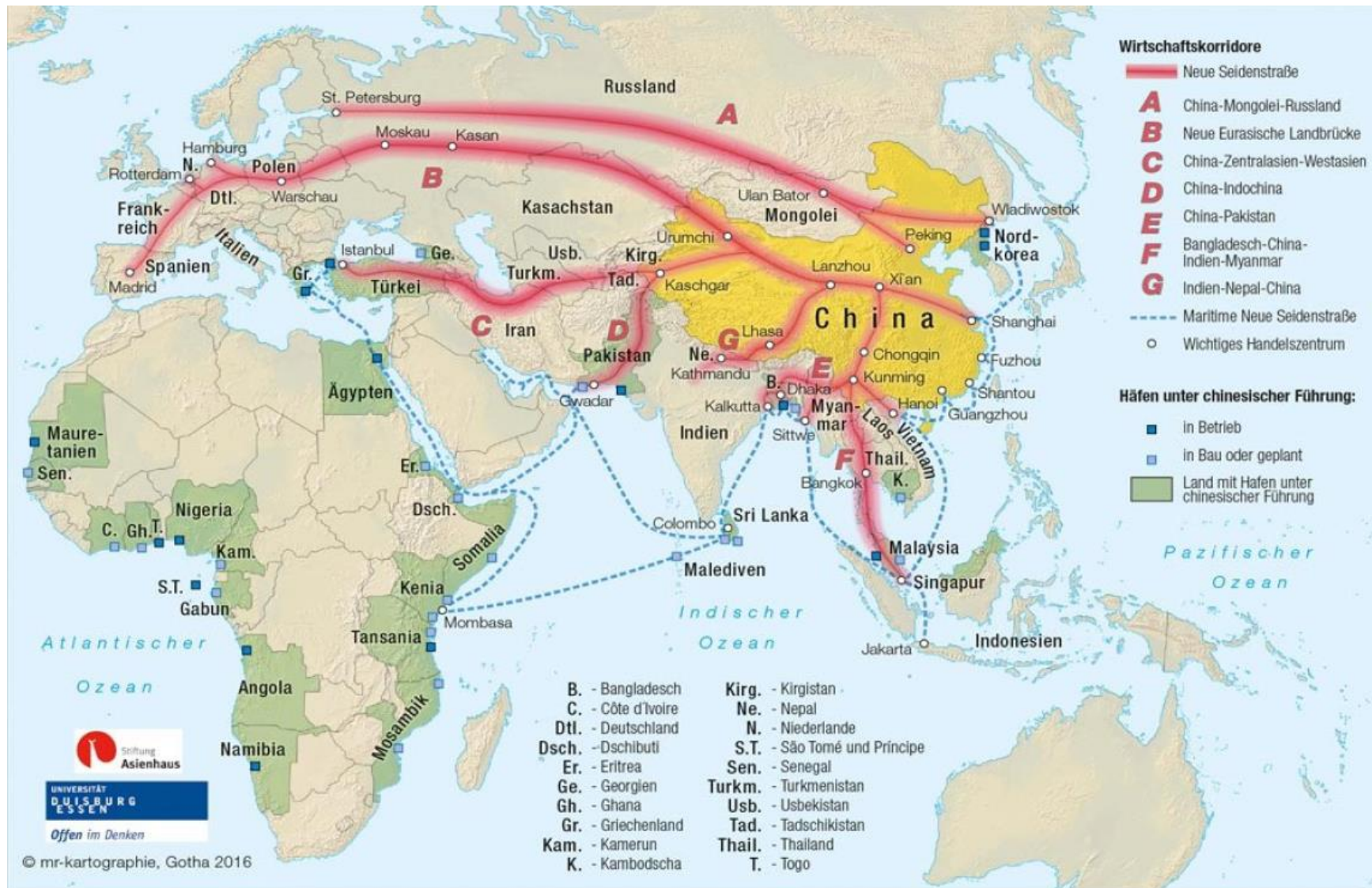
3-Dimensional-Concurrent-Engineering – 3DCE

- Traditionally, product designers have thrown new products over the fence to the manufacturing guys. It took what it took to realize the design, often at huge cost penalties.
- This disadvantage was recognised and addressed by concepts like Concurrent Engineering and Design for Manufacturability.



Ideally the supply chain (chain of organizations, technologies and capabilities) is designed together with the product & manufacturing process.

Macro-Logistics and the New Silk Route

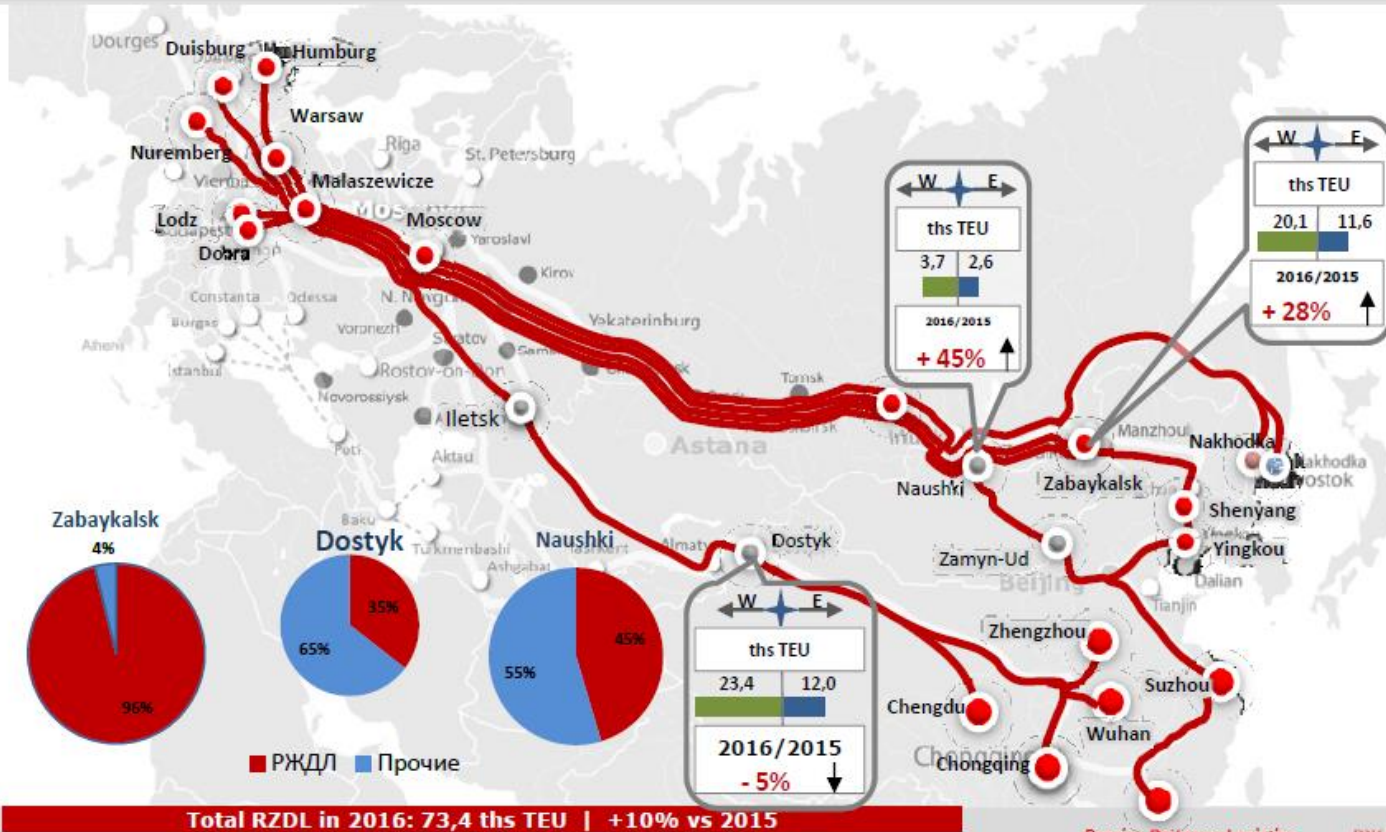


The New Silk Route and EAEU

Container transit China-EU-China 2016



Russian Railways Logistics



Russian Railways Logistics

РЖД Логистика RZD

Metropolitan Region Nuernberg Region

Remarks and Positioning

Harald Leupold: „The European Metropol-Region Nuernberg (EMN) should take an active part in the Development the Danube Region, in particular focusing on the following aspects:

- Positioning in the framework of the Danube Region Strategy (Transport, Markets, Tourism, Environment)
- HUB-Function (Gateway) between Western-Europe and Danube Region
- Participation in the Development of the „New Silk-Route (OBOR) Strategy“

Thank You for coming together and OWWF for excellent preparation of this event in this exceptional location.

With best greeting from Dr. Erhard Busek and Dr. Richard Schenz from Vienna, we are looking forward to teaming up in the Danube Region.

You and the Freistaat Bayern play an essential role.

Dr. Ernst Schmied

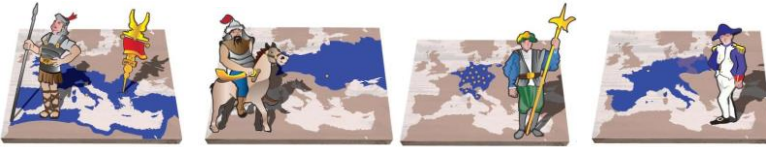
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- Annex 1: Competitiveness
- Annex 2: Infrastructure
- Annex 3: Logistics Functions
- Annex 4: The Great Recession
- Annex 5: 1000 Years GDP
- Annex 6: Smart PRD Region

Annex 1: Competitiveness



South East European Corporate Initiative (SECI)
[From Dayton to Brussels \(www.secinet.info\)](http://www.secinet.info)

EU Parliament Strategy for the Danube Region

EU REGIO, Countries, Districts, NGOs, Clusters

Identify the Core Competencies along the Chain

- Try to avoid cost competition only
- Innovate and seek time sensitive segments

Defend your Technology & Capability Chain

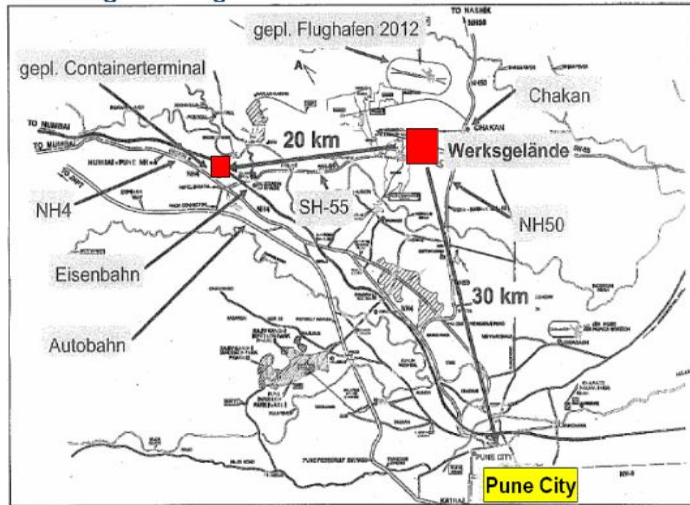
- Learn to live with nearly no IPR protection
- Develop an intelligence mentality

Restructure the whole Supply Chain

- Improve global access
- Selective outsourcing in region, MED & Globally

Take Advantage of the Chinese & Indian Market, dont forget the Potentials of Danube Makro Region

Annex 2: Infrastructure

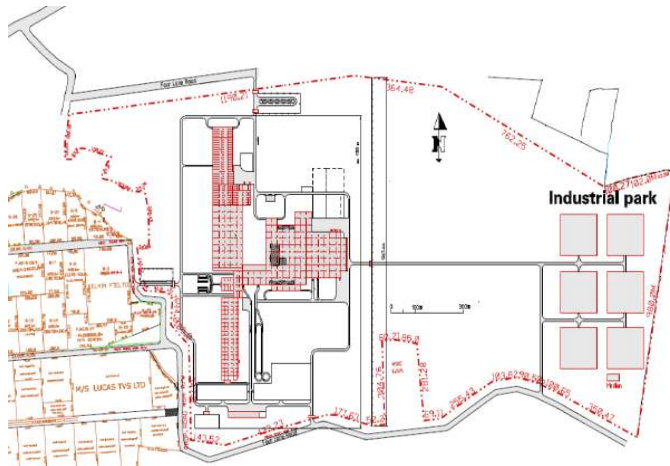


Property/asset development aligned between **Macrologistics** like:

- ports for import & export of parts and CBUs
- motorways, railway tracks, short sea shipping
- multimodal terminal infrastructure inc. overnight/in-night CEP services
- industrial parks on site & off site, localization

.....and commercial, technical, legal and financial relationship with **Micrologistics** entities

Logistics Service companies asset & non asset based

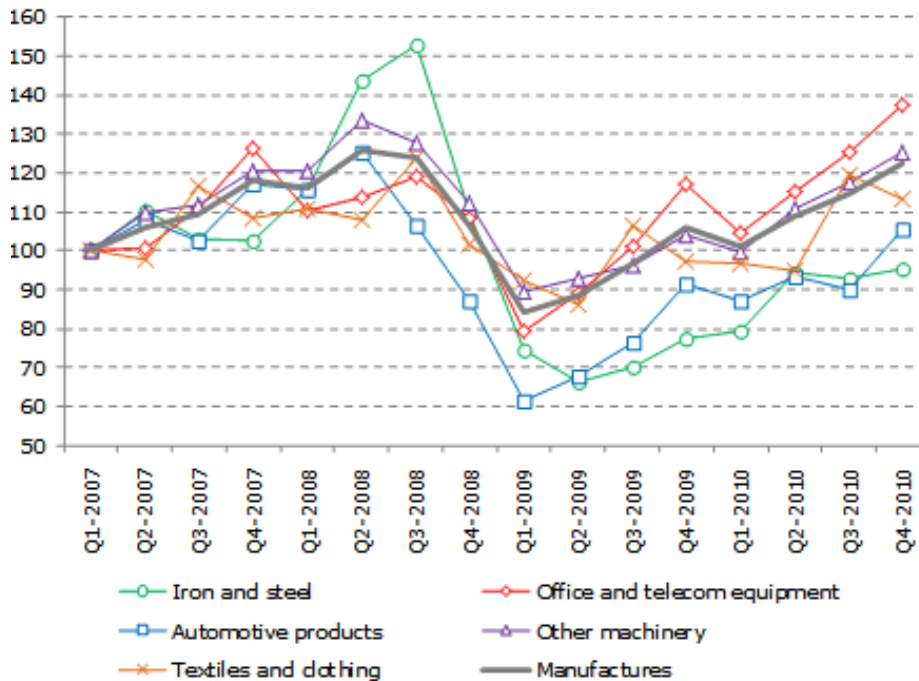


Interface and shake hand

- policy makers on the macro level
 - users on the micro level
- including knowledge bases, communicated into the cycle of **RESEARCH, THEORY BUILDING and EDUCATION**

Annex 3: Logistics Functions

The crises has told us, that we are living in exponential & nonlinear times with high volatilities like 60 % + f.e.:
Steel & Automotive



Source: World exports of manufactured goods by product, 2007-10 Indices, 2007Q1=100, WTO April 7th 2011

Logistics is:

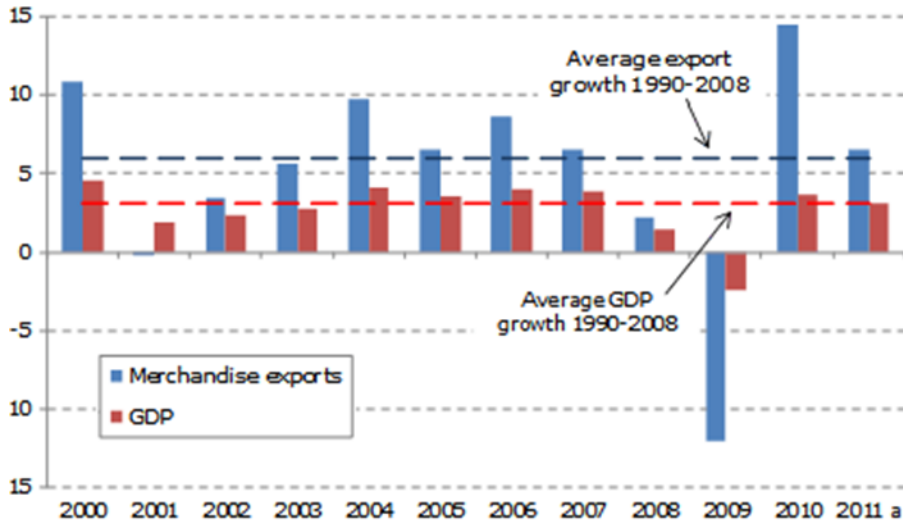
- owning forecasts based on S & O Planning.
- coordinating/chairing the manufacturing program committee meetings.
- running the permanent inventory control.
- managing dispo buffers & stock allocations.
- in charge of the smooth capacity utilisation of manpower (direct labor) and critical assets.
- in charge of setting/securing delivery dates.
- managing & executing the physical flows.
- setting up information systems & intelligence.

Redefinition of the interface between Supply Chain Management and the Finance World for Supply Chain Ownership based on

- process quality
- system integrity
- safty and security

RESEARCH & THEORY BUILDING & EDUCATION WILL BE KEY f. e. TO HELP THE FINANCE TO GET REINTEGRATED

Annex 4: The Great Recession



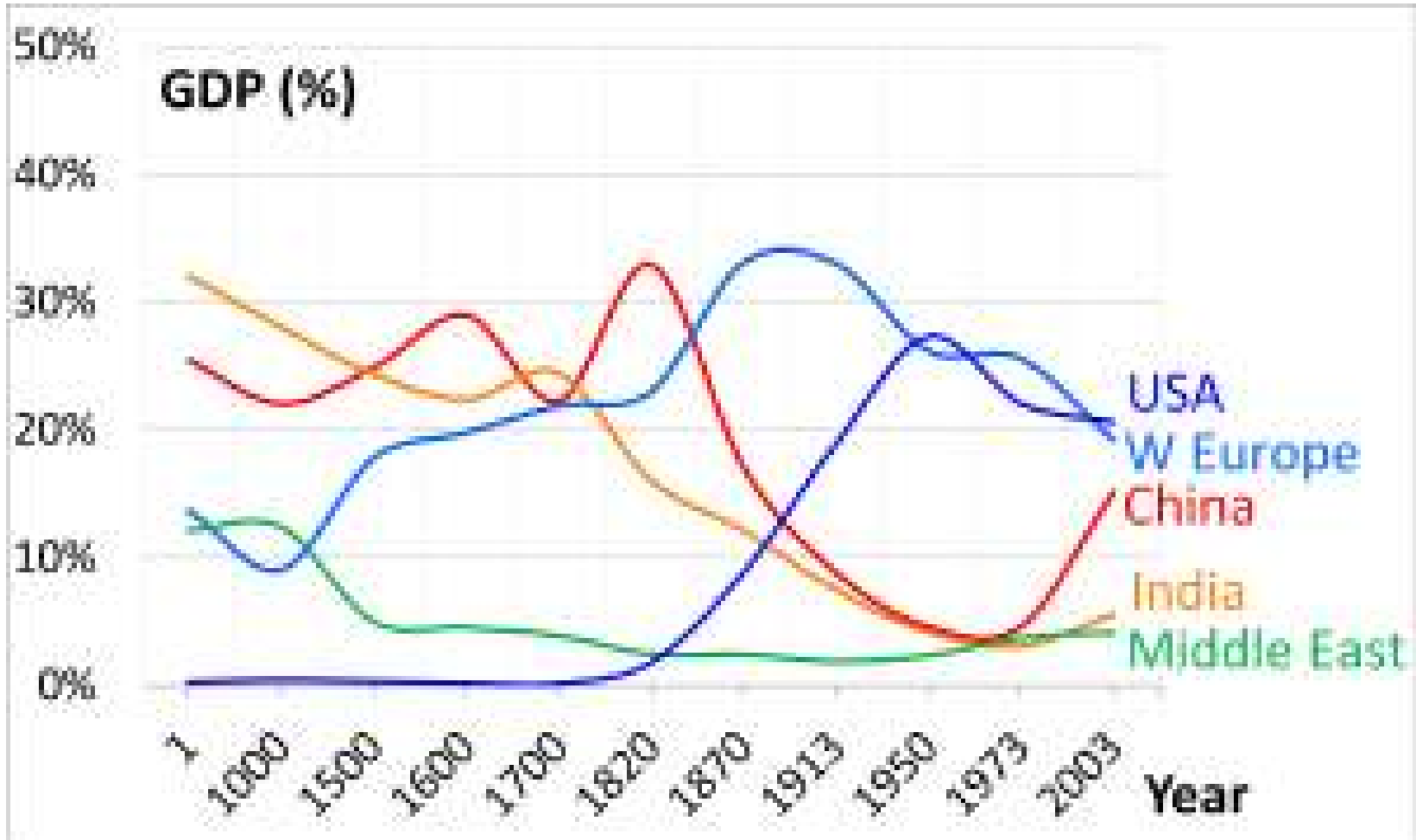
	GDP			Exports			Imports		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
World	1.4	-2.4	3.6	2.2	-12.0	14.5	2.2	-12.8	13.5
North America	0.1	-2.8	3.0	2.1	-14.8	15.0	-2.4	-16.7	15.7
United States	0.0	-2.6	2.8	5.8	-14.0	15.4	-3.7	-16.4	14.8
South and Central America a	5.1	-0.2	5.8	0.8	-7.9	6.2	13.2	-16.3	22.7
Europe	0.5	-4.0	1.9	0.2	-14.1	10.8	-0.6	-14.2	9.4
European Union (27)	0.5	-4.2	1.8	0.0	-14.5	11.4	-0.9	-14.2	9.2
Commonwealth of Independent States (CIS)	5.5	-7.1	4.3	2.0	-5.2	10.1	16.4	-25.6	20.6
Africa	4.8	2.1	4.7	1.2	-4.2	6.5	14.6	-5.0	7.0
Middle East	5.3	0.8	3.8	3.5	-4.3	9.5	14.2	-7.8	7.5
Asia	2.8	-0.2	6.3	5.5	-11.2	23.1	4.7	-7.5	17.6
China	9.6	9.1	10.3	8.5	-10.5	28.4	3.8	2.9	22.1
Japan	-1.2	-6.3	3.9	2.2	-24.8	27.5	-1.0	-12.2	10.0
India	6.4	5.7	9.7	14.4	-6.8	19.9	17.3	-1.0	11.2
Newly industrialized economies (4) b	1.9	-0.8	7.7	4.9	-5.7	21.3	3.5	-11.4	18.0
Memo: Developed economies	0.2	-3.7	2.6	0.8	-15.1	12.9	-1.2	-14.4	10.7
Memo: Developing and CIS	5.7	2.1	7.0	4.2	-7.8	16.7	8.5	-10.2	17.9

Learnings from the crises

- The factors that contributed to the unusually large drop in world trade in 2009 may have also helped boost the size of the rebound in 2010.
- These include **the spread of global supply chains and the product composition of trade compared to output.**
- Global supply chains cause goods to cross national boundaries several times during the production process, which raises measured world trade flows compared to earlier decades.
- The quantification of this effect would require **data on trade in value added that are not currently available.**

(Source: WTO April 7th 2011)

Annexes 5: 1000 Years GDP



Annex 6: Smart PRD Region

