

Global manufacturing networks and the European company – 4 convictions

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Selective localization and management of the whole value chain will be the main trend for European companies in manufacturing

- Europe's part of Added Value in Manufacturing is decreasing, with a Roland Berger Survey showing a trend of more closures than openings of Production Sites in Europe
- What is the trend, where will it go – we have 4 convictions on how to succeed in the future global manufacturing landscape, concerning labor cost, market dynamics, innovation and integration
- Conviction n°1: No one can ignore factor prices – and the trade-off between major sites for unsophisticated manufacturing will clearly be determined by the cost of production
- Conviction n°2: Production follows the markets – market access is the first reason for localizing production sites in developing countries, in order to take into account market specifics and adapt products
- Conviction n°3: Innovation plays a major role in the localization of production sites, as closeness to engineering and R&D sites is paramount in particular for lead sites in manufacturing networks
- Conviction n°4: The integrated operation of production sites allows to capture technological edge and market access while ensuring specialization and shared improvement - major assets for European companies
- What does this mean for companies' international manufacturing strategies ?
 - Follow your markets (e.g. VW in China)
 - Use sources of low cost labor, so will your competitors (eg service offshoring in India)
 - Leverage on European R&D excellence (e.g. Nokia ?)
 - Optimize your manufacturing through an integrated approach (RB manufacturing strategy experience)

Manufacturing value added is increasingly shifting towards developing countries, in particular Asia

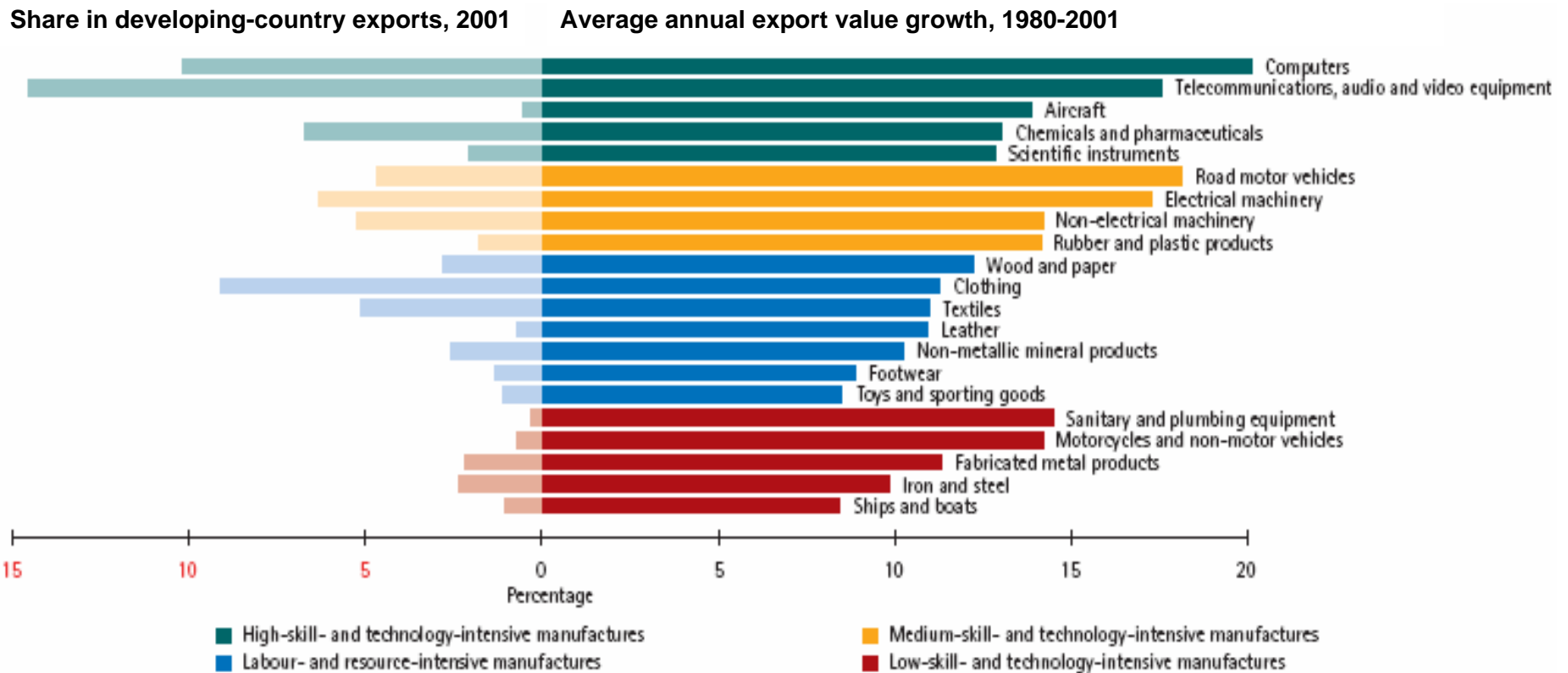
Distribution of world manufacturing value added, at current prices, by region⁽¹⁾ [%]

Region	1980	1990	2001
World	100.0	100.0	100.0
Developing countries	13.7	14.4	23.7
Africa	0.9	0.9	0.8
America	7.1	5.6	5.7
South and East Asia	4.1	6.1	16.0
West Asia and Europe	1.6	1.8	1.2
Countries in Central and Eastern Europe	19.3	8.9	2.7
Developed countries	67.0	76.7	73.6
North America	22.1	23.3	30.1
Western Europe	32.1	34.0	26.2
Others	12.8	19.4	17.3
<i>Memorandum</i>			
China	3.9	2.6	7.2
Least developed countries	-	0.3	1.0

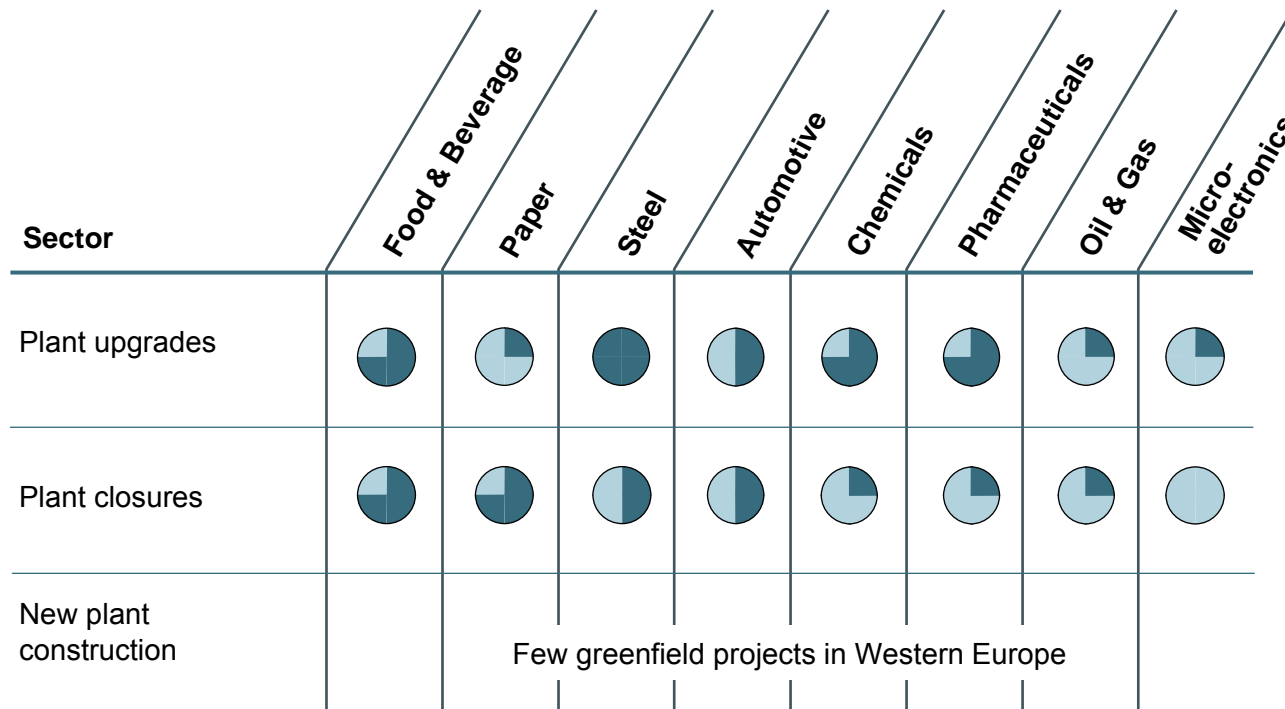
- Concentration of industrial activity in a few countries
- Developed countries still account for about three quarters of global value added
- Developing country share has significantly risen in the past 2 decades, concentrated in Asian countries
- Increases concentrated in specific sectors:
 - textiles
 - transport equipment
 - natural resources intense sectors
- Major increase in the sector of electrical machinery

(1) The data shown for the year 1980 corresponds to 1981 data at constant 1980 prices

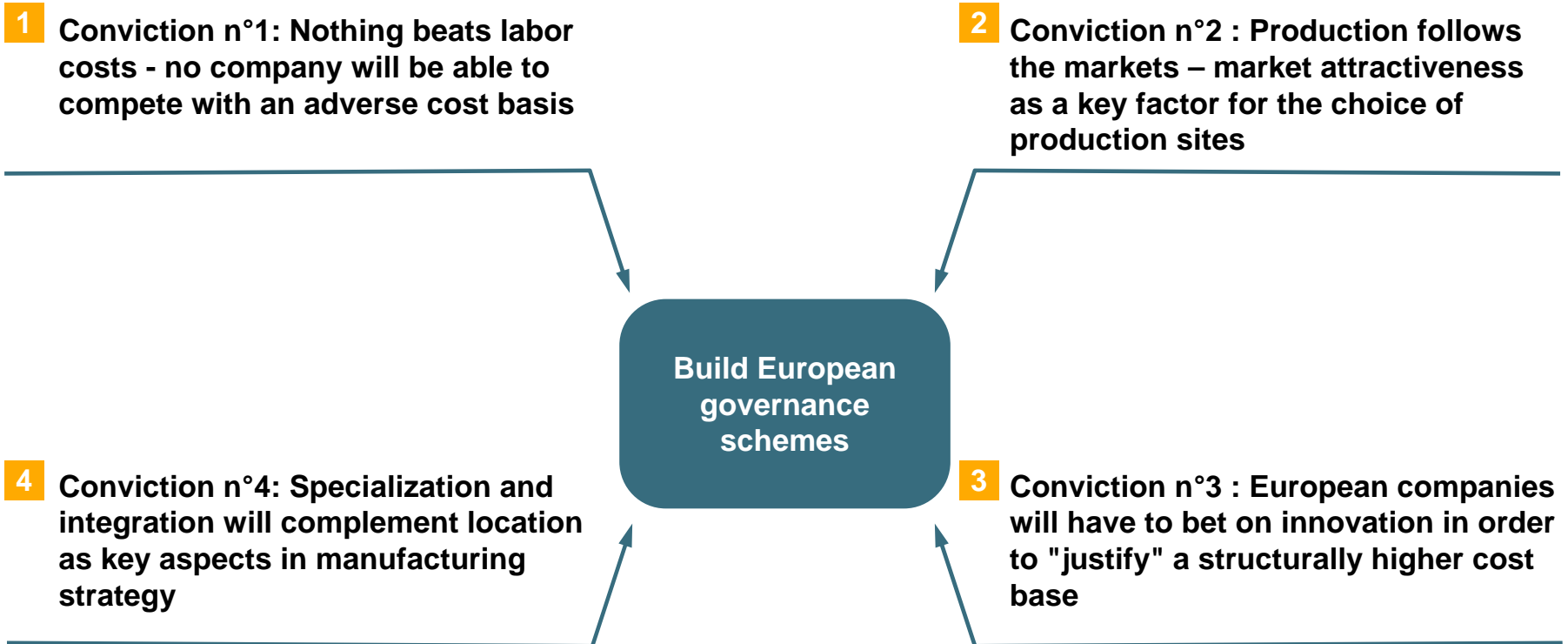
Share of exports by developing countries has already evolved beyond the "usual suspects" towards higher added value categories



Roland Berger's recent survey on Manufacturing Policy shows that the European trend is towards closures more than new Plant Construction

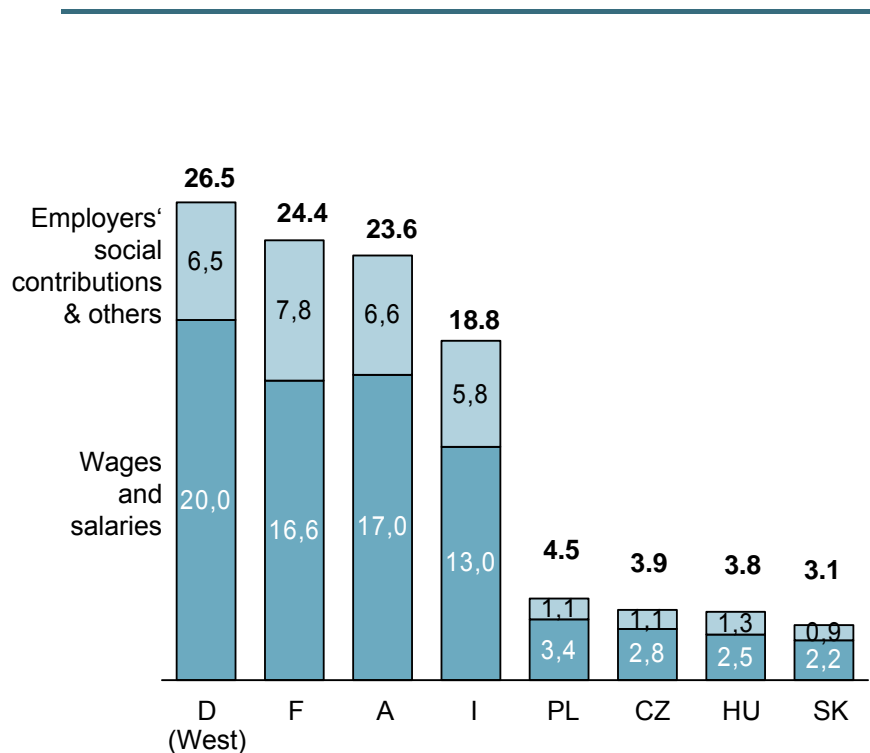


4 convictions on how companies will need to reshape their manufacturing tool for leadership in the coming decades



Conviction n°1: Nothing beats labor costs - no company will be able to compete with an adverse cost basis

Per hour labour costs in European countries, 2001 [€]

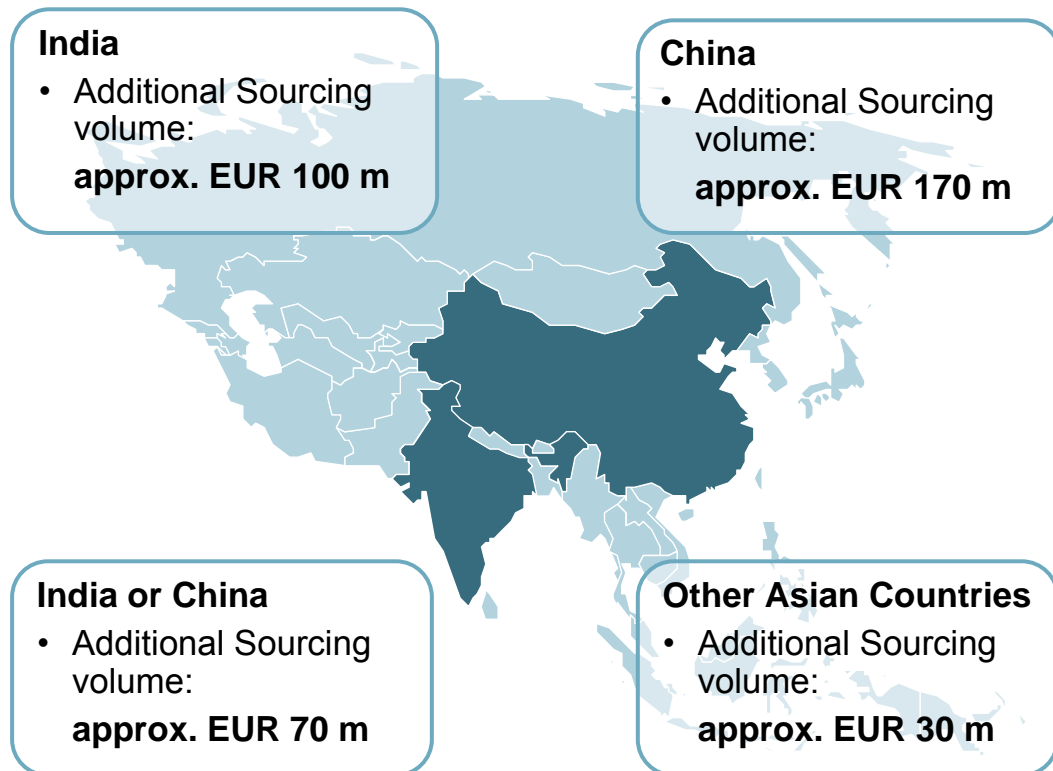


Typical savings range for export from China to US and Europe

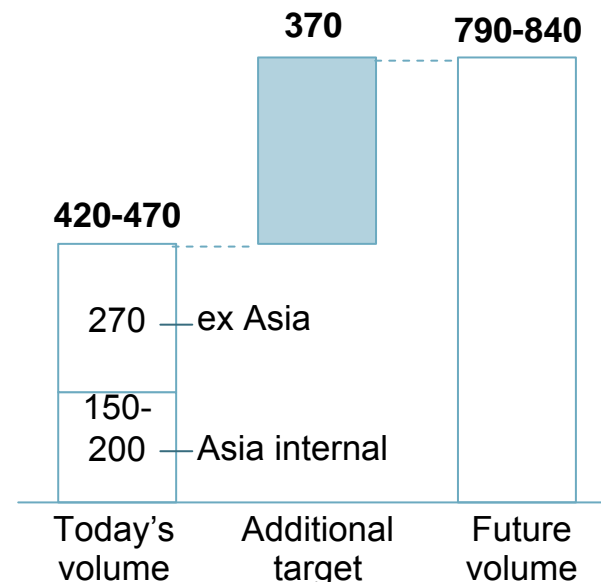
1	Capacitor	15% - 35%
2	Diode	20% - 35%
3	Connector	30% - 50%
4	PCB	20% - 35%
5	Cable	15% - 30%
6	Plastic injection molding	15% - 35%
7	Metal forming	18% - 42%
8	High precision machined iron casting	18% - 28%
9	High precision machined Al casting	10% - 24%

Procurement projects show that tapping into foreign low-cost resources can be a powerful lever for increasing performance

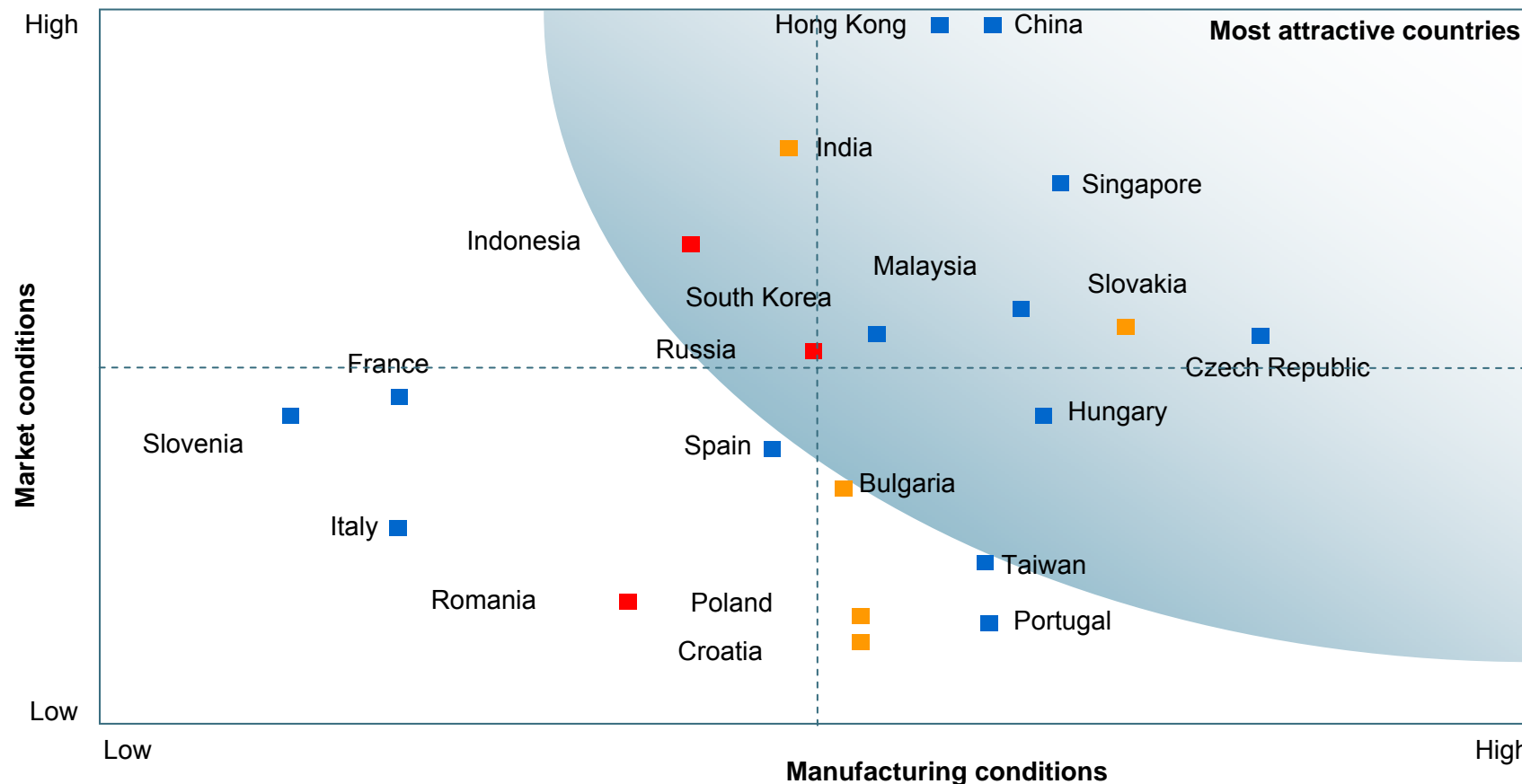
Estimated business impact in 2004/5 [EUR m]



- First estimation indicates savings potential of **EUR 30-44 m** (approx. 10%)
- **EUR 2.5 -3 m** realized during negotiation of first materials in India



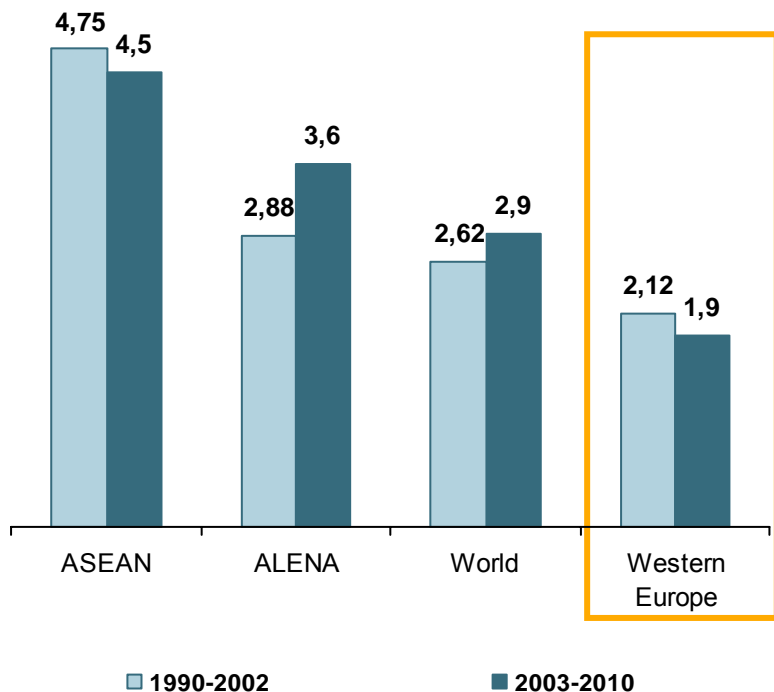
Conviction n°2 : Production follows the markets – market attractiveness as a key factor for the choice of production sites



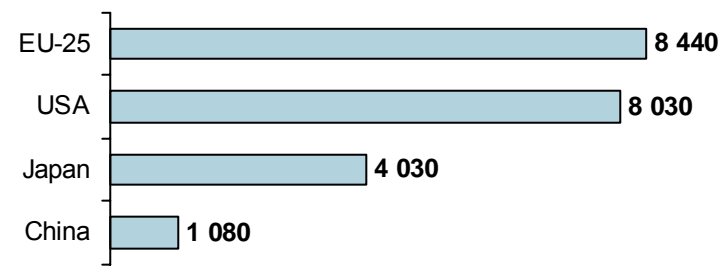
■ No/very low risk countries ■ Low risk countries ■ High risk countries

European market dynamics as a danger for Europe's manufacturing base

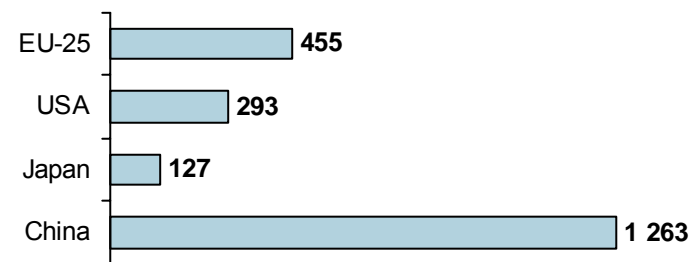
GDP regional growth
[Average yearly growth rate [%], 1990-2002]



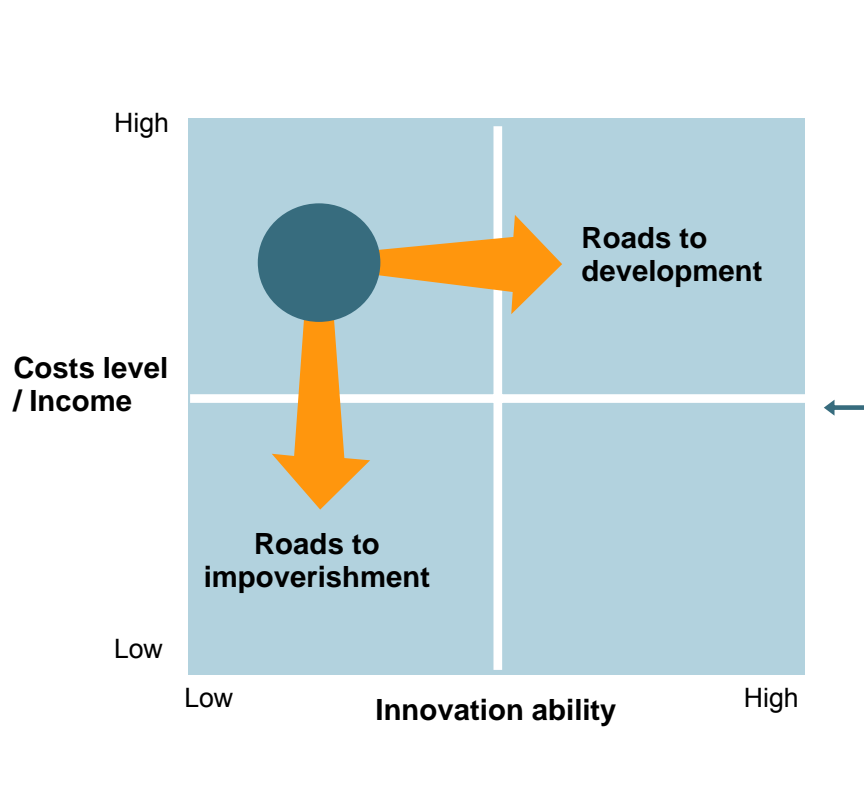
GDP
[bn € 2004]



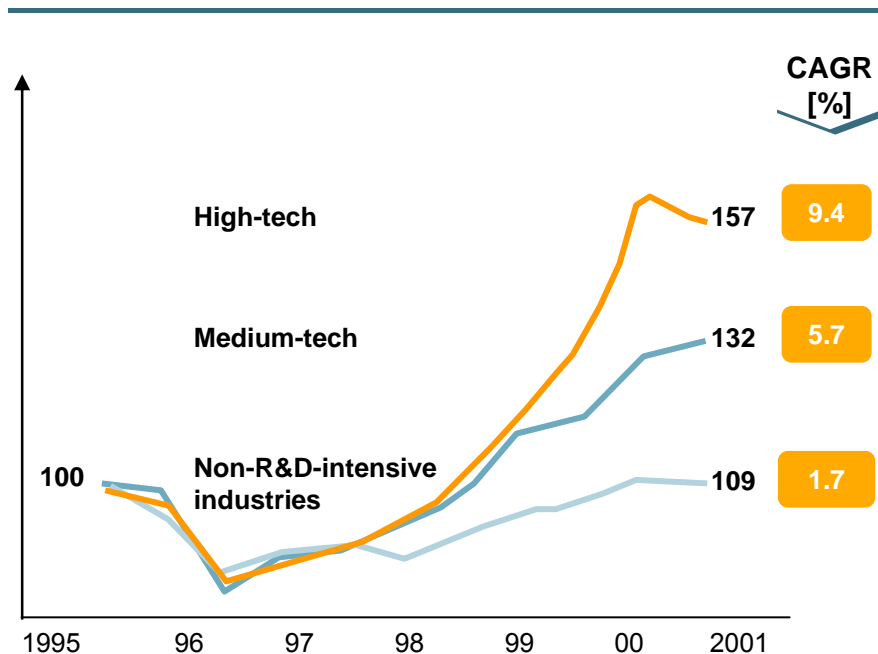
Population
[m]



Conviction n°3 : European companies will have to bet on innovation in order to "justify" a structurally higher cost base

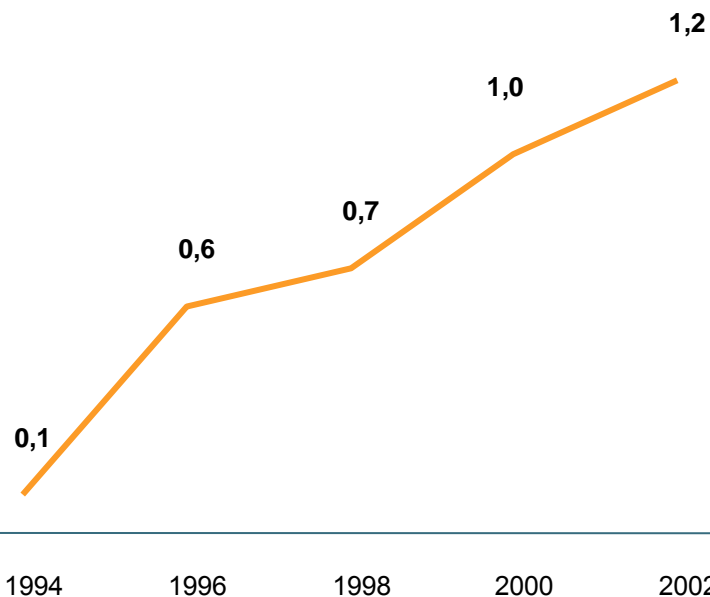


Growth per branch of industry in Germany (1995 = 100)

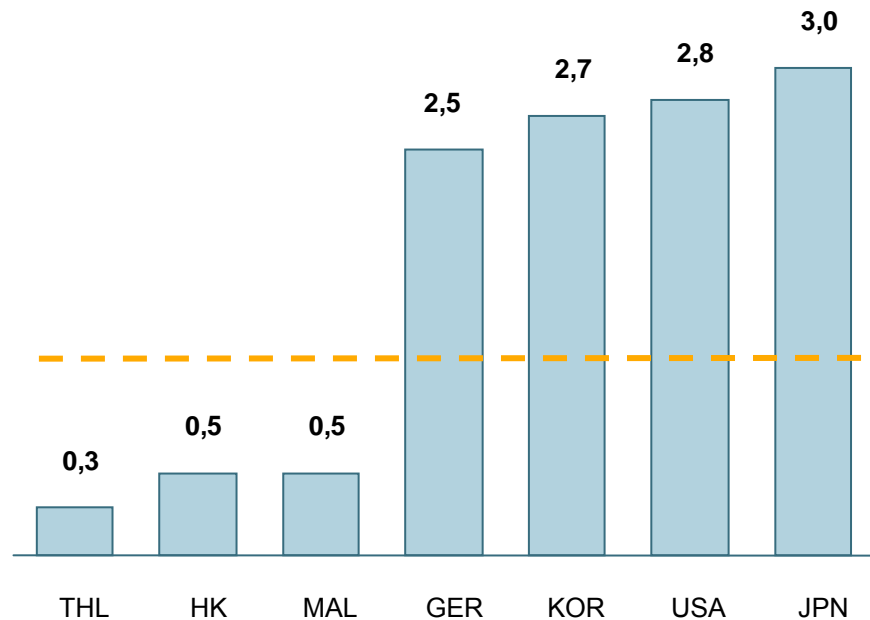


Today's roles are not fixed: China is becoming the world's "work shop", it may well become more than that...

R&D in China...[1994-2002, % GdP]



...compared to other countries [% GDP 2002]



GDP (Tn\$)

0.6

0.85

1.0

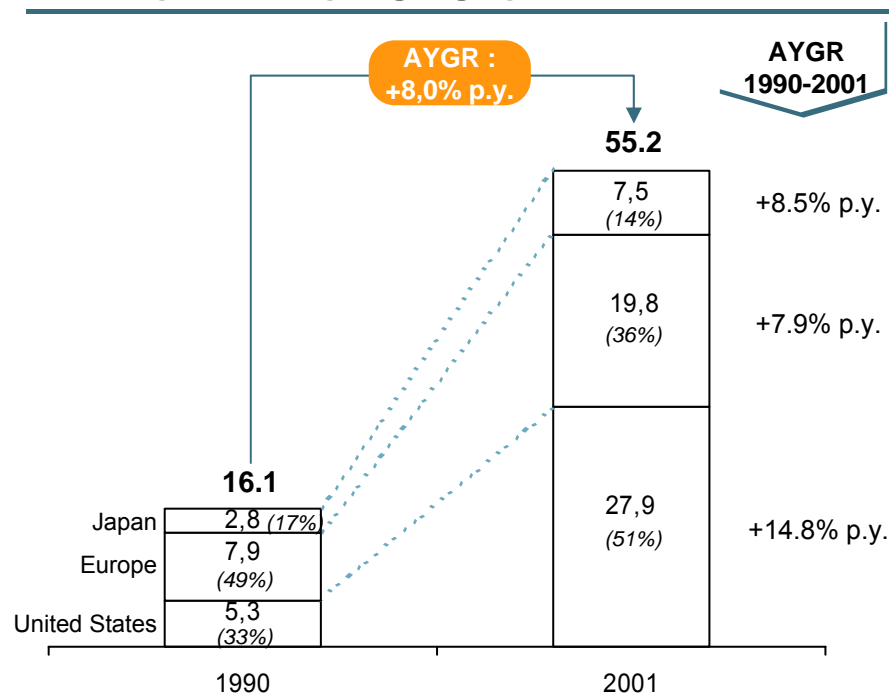
1.1

1.2

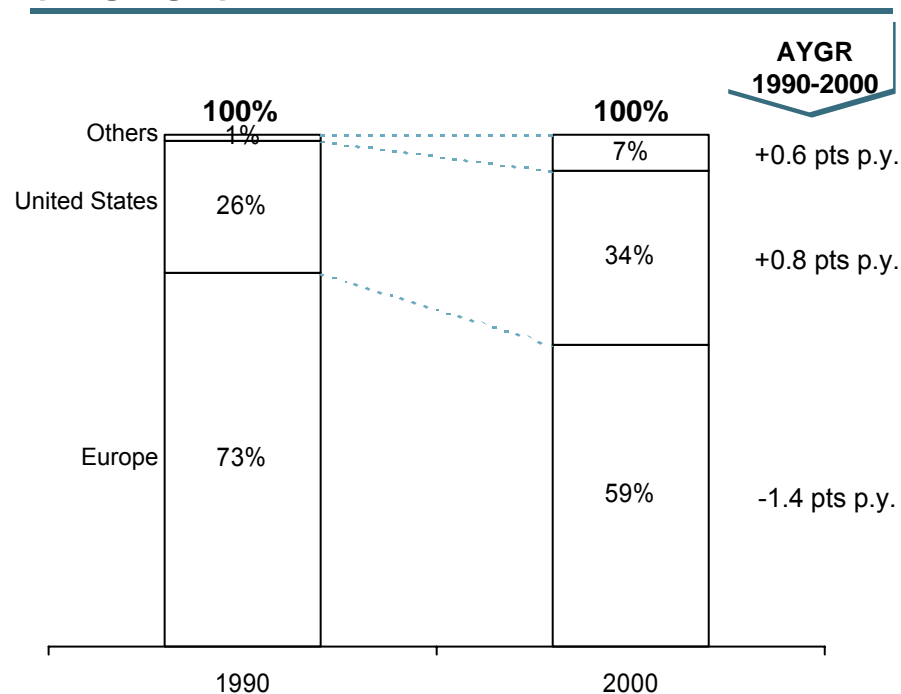
...whereas Europe's attractiveness as an R&D base lags behind that of other regions – even for the European companies

R&D expenditure in the Pharma industry [Md €]

R&D expenditure per geographic zone [bn€]

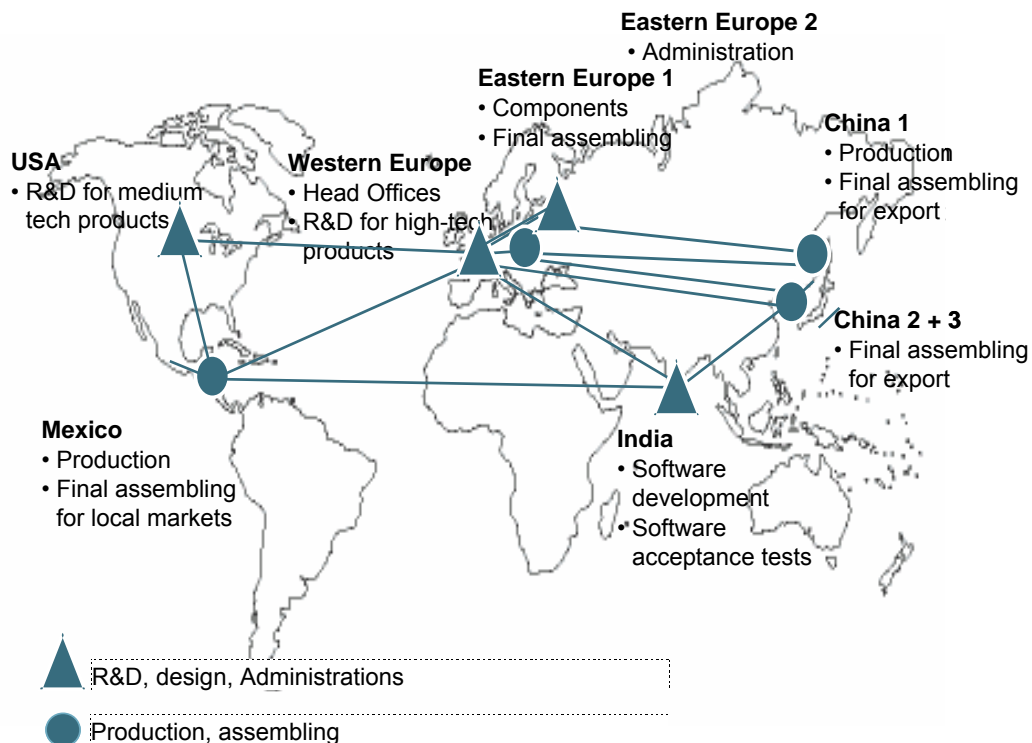


European pharma companies' R&D expenditure per geographic zone [%]



Conviction n°4: Specialization and integration will complement location as key aspects in manufacturing strategy

Project example : reshaping the locations scheme for a European microelectronics company



How to increase European competitiveness in global manufacturing

Localize

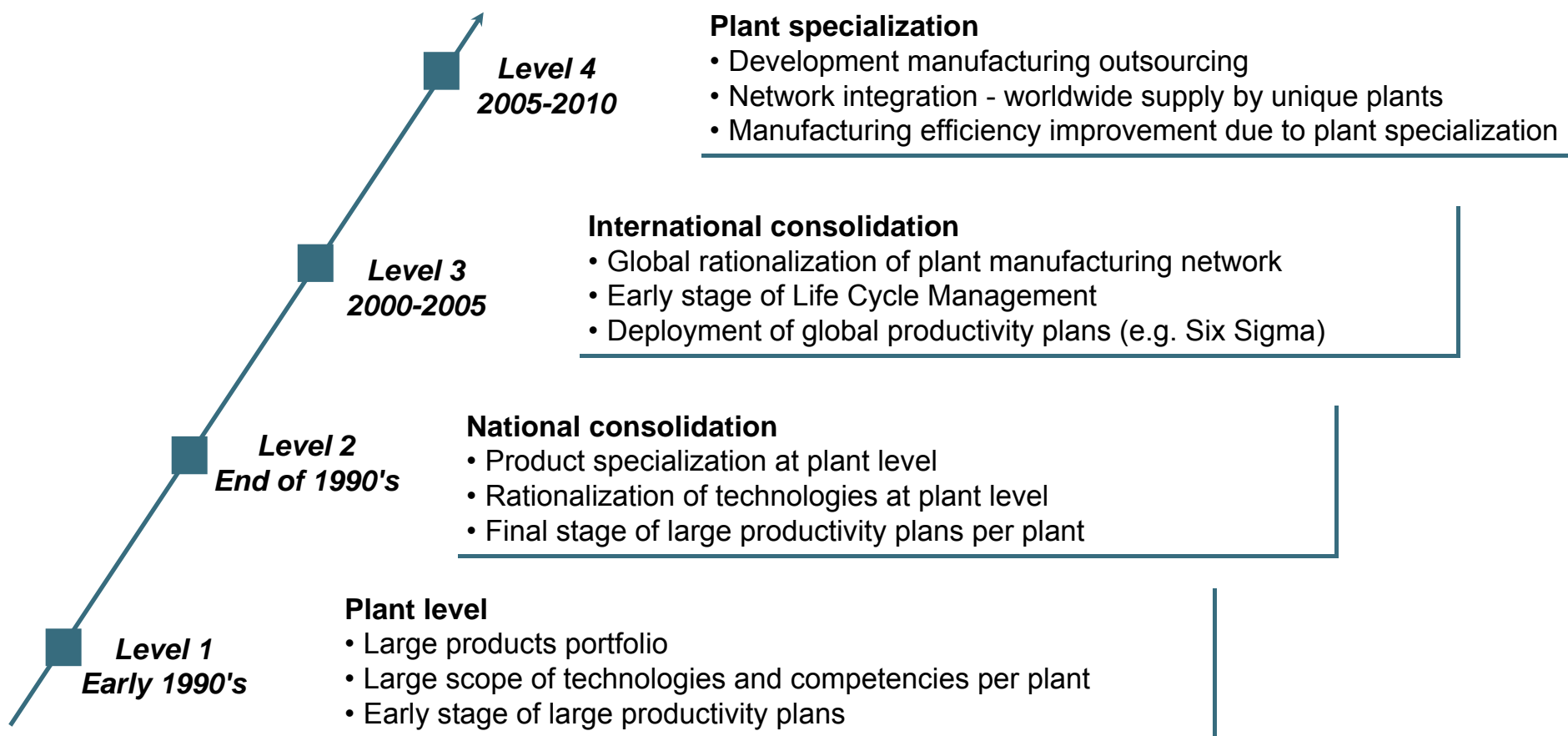
- ...in order to get close to markets, production Factors and Innovation

Integrate...

- ...in order to lower cost base (design, tools, methods...)
- ...in order to be able to realize economies of scale and competencies through specialization

This is why global manufacturing integration will become the main driver for competitiveness in the coming years

Manufacturing excellence time-line scale



Wrap-up

- **The presence of manufacturing is shifting outside Europe – its long-term allocation will be determined by 4 drivers :**
 - **Nothing beats labor costs – low cost labor countries will continue to attract production sites**
 - **Production will follow the markets – China and Eastern Europe are playing in particular this card**
 - **European companies will need to maintain a competitive edge to "justify" structurally higher cost bases – China and India will try to catch up**
 - **Specialization and integration of manufacturing sites are key levers for benefiting from access to innovation, to market volumes and to low-cost resources**
- **European companies will have to use all of these levers to successfully compete not only in foreign markets, but also in the home market**