

Conférence Arts & Métiers / Insead

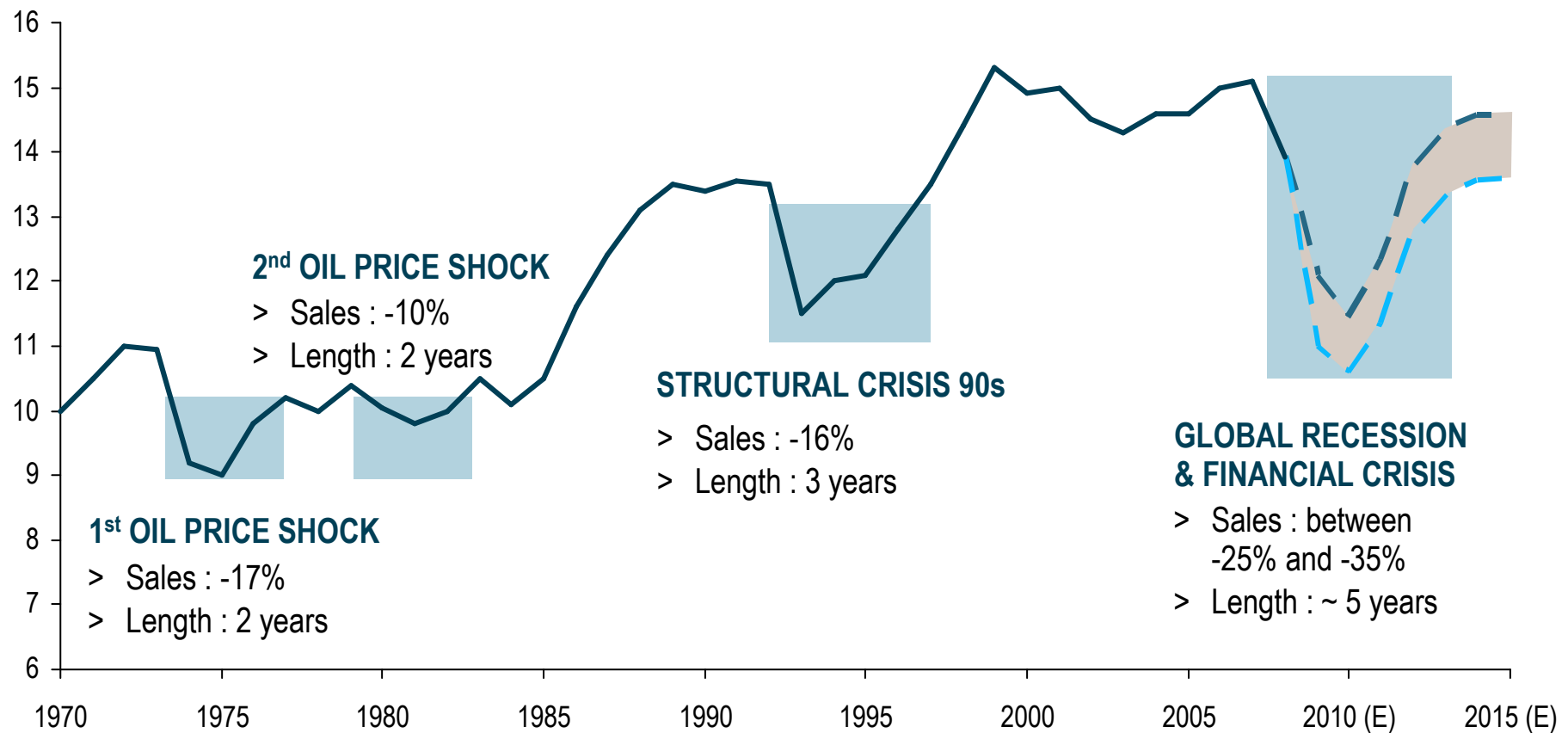
Max Blanchet

OEMs – Supplier relationships : key issues

1. **The crisis tsunami** : why OEMs-Suppliers relationships are a hot topic ?
2. **OEMs / Suppliers relationships** : a structurally schizophrenic relationships ?
3. **After-the-crisis** : will lessons learned be learned ?

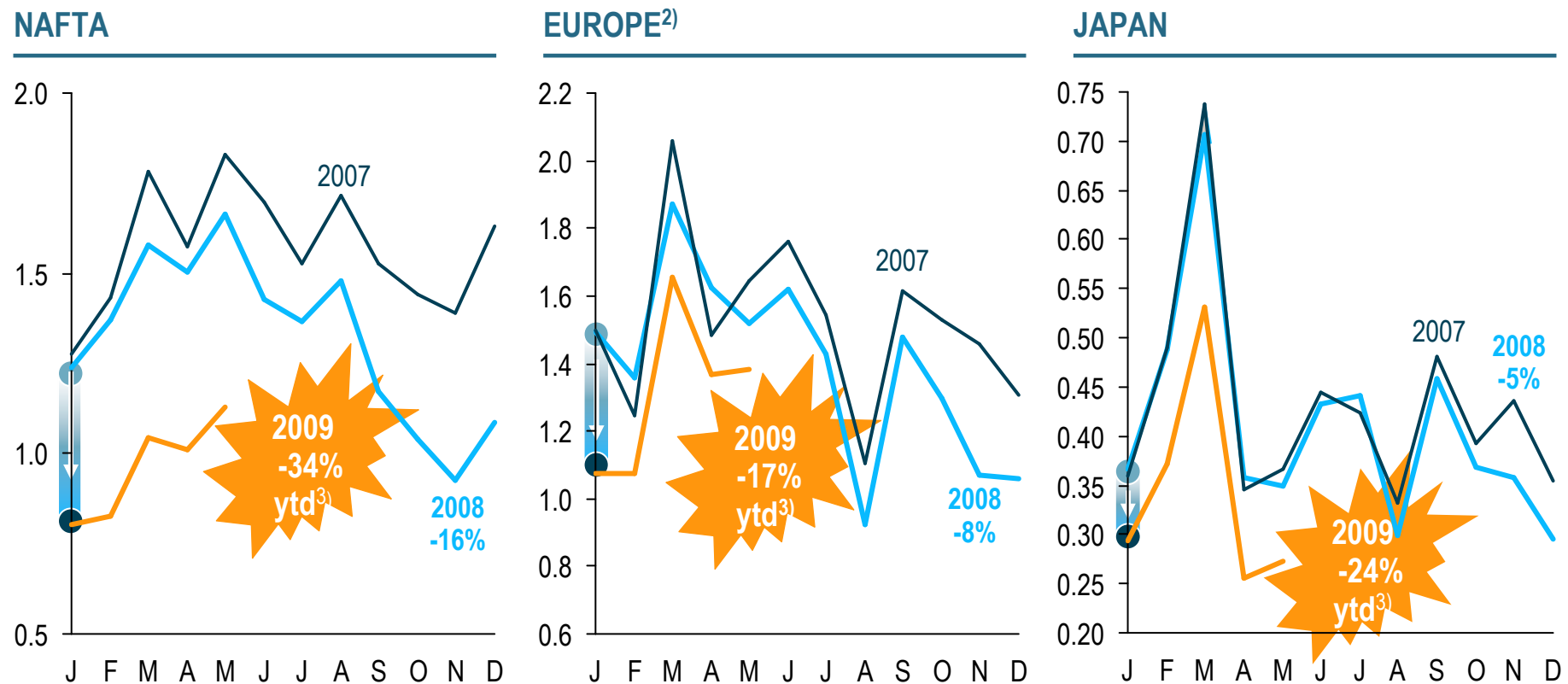
Worst crisis ever : volumes back 25 years!

Sales, Western Europe, (millions units)



While NAFTA was affected first, the downturn in Europe and Japan only started in Q4/2008. May YTD 2009 is 17-34% below last year

Monthly new car¹⁾ registrations [m units]

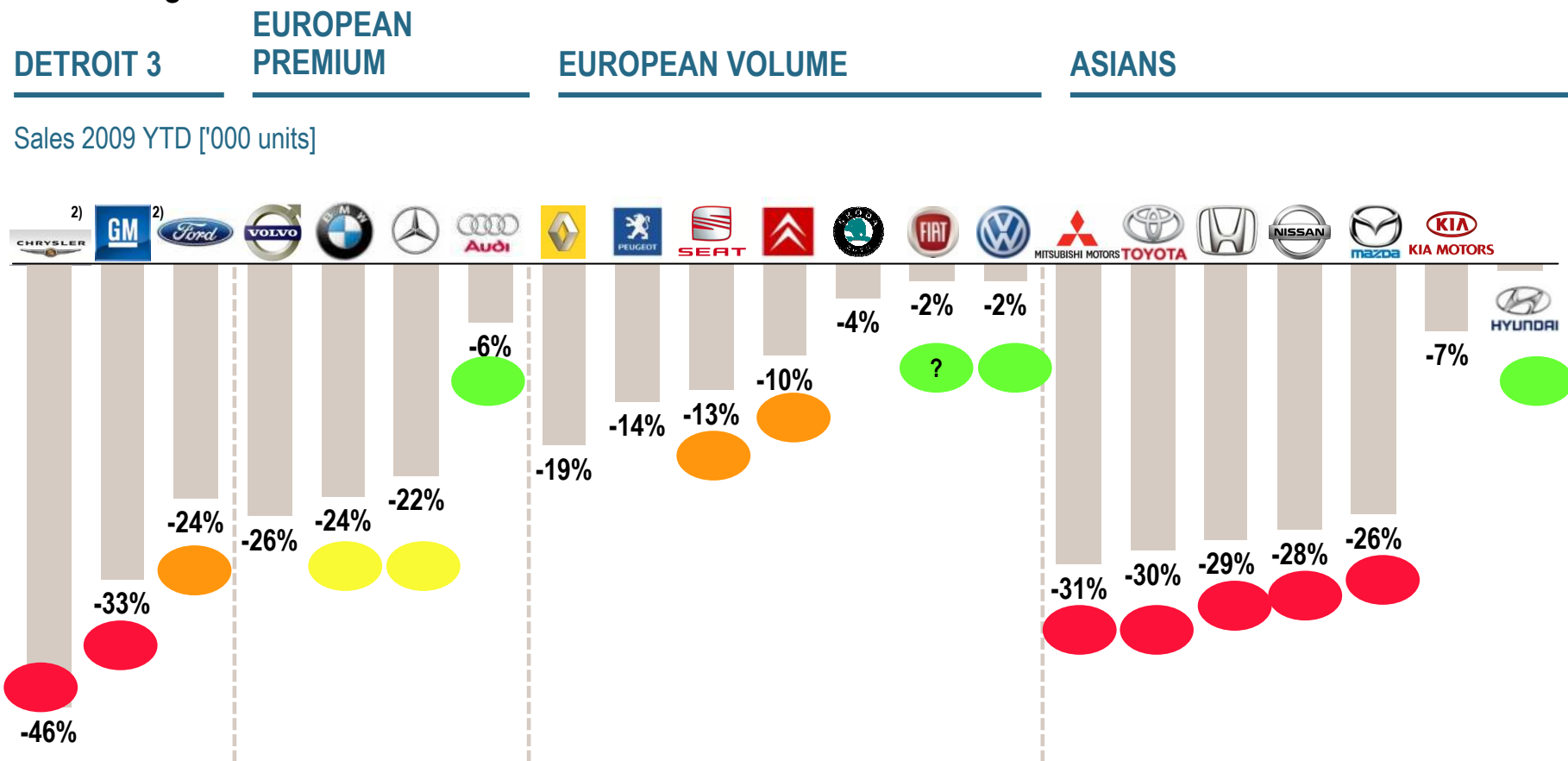


1) Passenger cars and LCVs 2) EU + EFTA 3) 2009 vs. 2008

Source: ACEA; Ward's Automotive Group; JAMA; Roland Berger/Rothschild analysis

Ranking order is shake-out : some bad surprises (German Hi-End and Japanese), Big3 continued drop, VW and Hyundai emerge on top

Global¹⁾ light vehicle sales 1HY 2009 vs. 2008



1) Figures include EU, EFTA, USA and Japan (Limited coverage in Japan) 2) Group level

Large cars/SUVs collapse (expected) but premium cars also. German lo-end customers pick the small car government bargains!

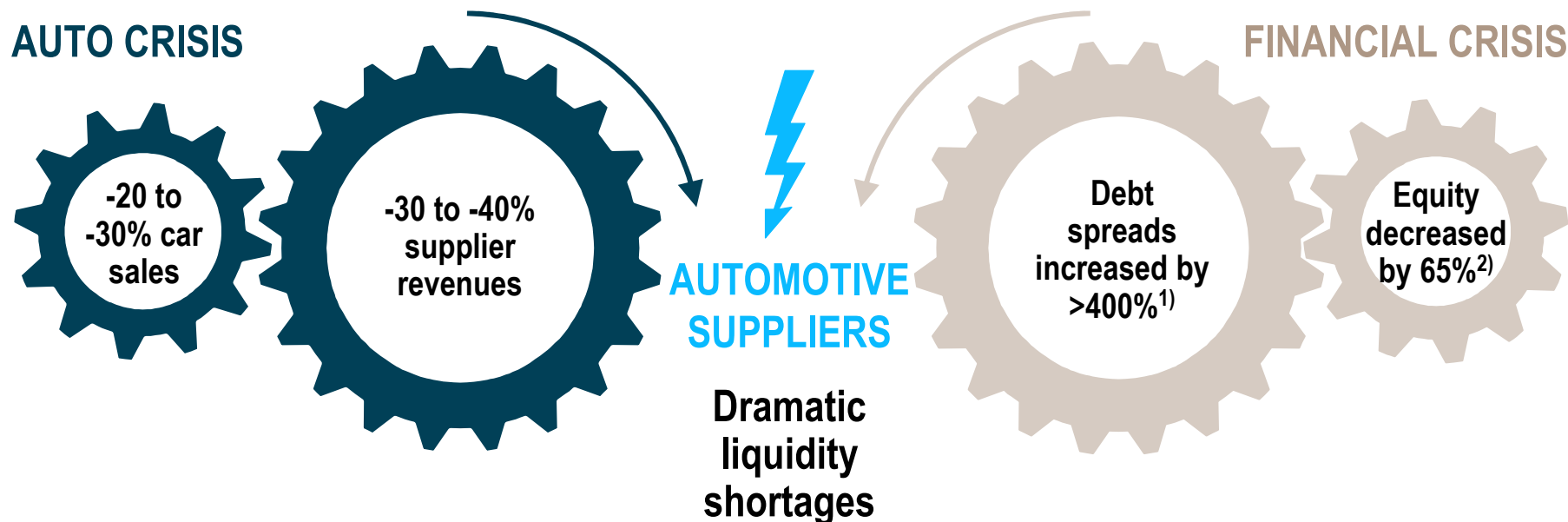
Light vehicle sales by segment 1HY ['000 units]

	USA [Δ 2008 – 2009]		GERMANY [Δ 2008 – 2009]	
Small/Basic cars	-37%		90%	Not expected!
Middle class cars	-36%		19%	
Upper class/Luxury cars	-35%	Expected!	-22%	Not expected!
Vans ¹⁾	-38%	Expected!	-2%	
SUVs	-31%	Expected!	6%	

1) Incl. Pickups

The dilemma of auto suppliers: Cash shortages from operations cannot be compensated with cash injections from the financial markets

Current situation of automotive suppliers



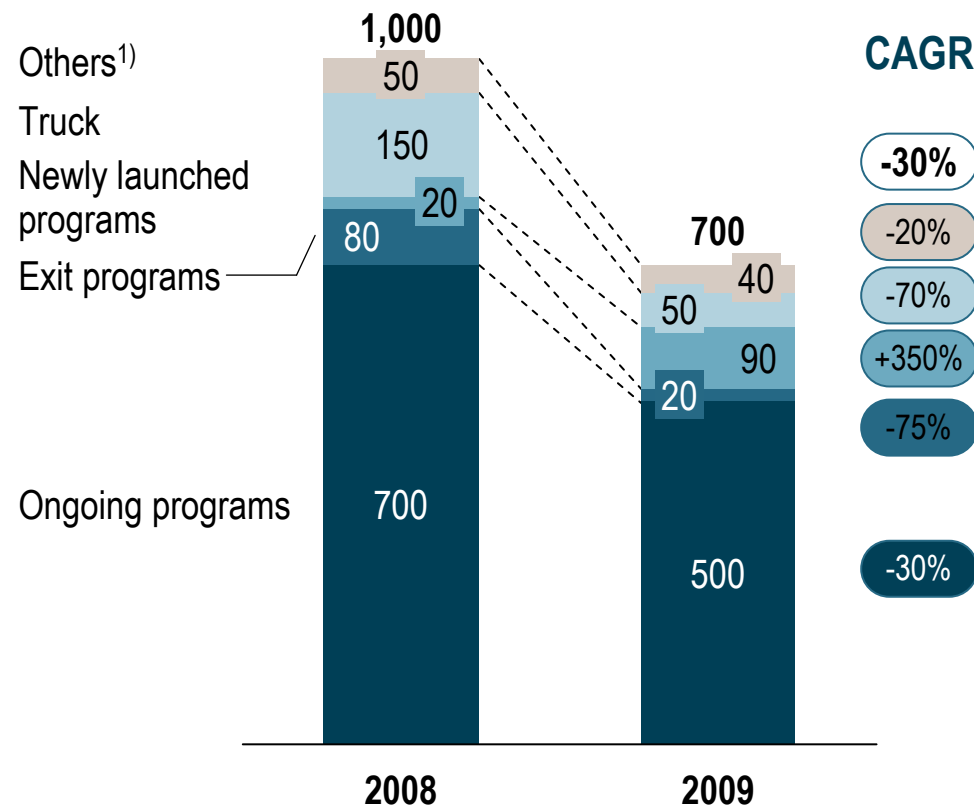
1) Calculated for BBB 5 year spreads to Bunds from Aug. 1, 2007 to Feb. 10, 2009

2) Based on average change in market cap. of 262 auto suppliers from Aug. 1, 2007 to Feb. 10, 2009

Revenues of a typical supplier will be down by > 30% in 2009 compared to 2008

Typical supplier revenue 2009 vs. 2008 [EUR m]

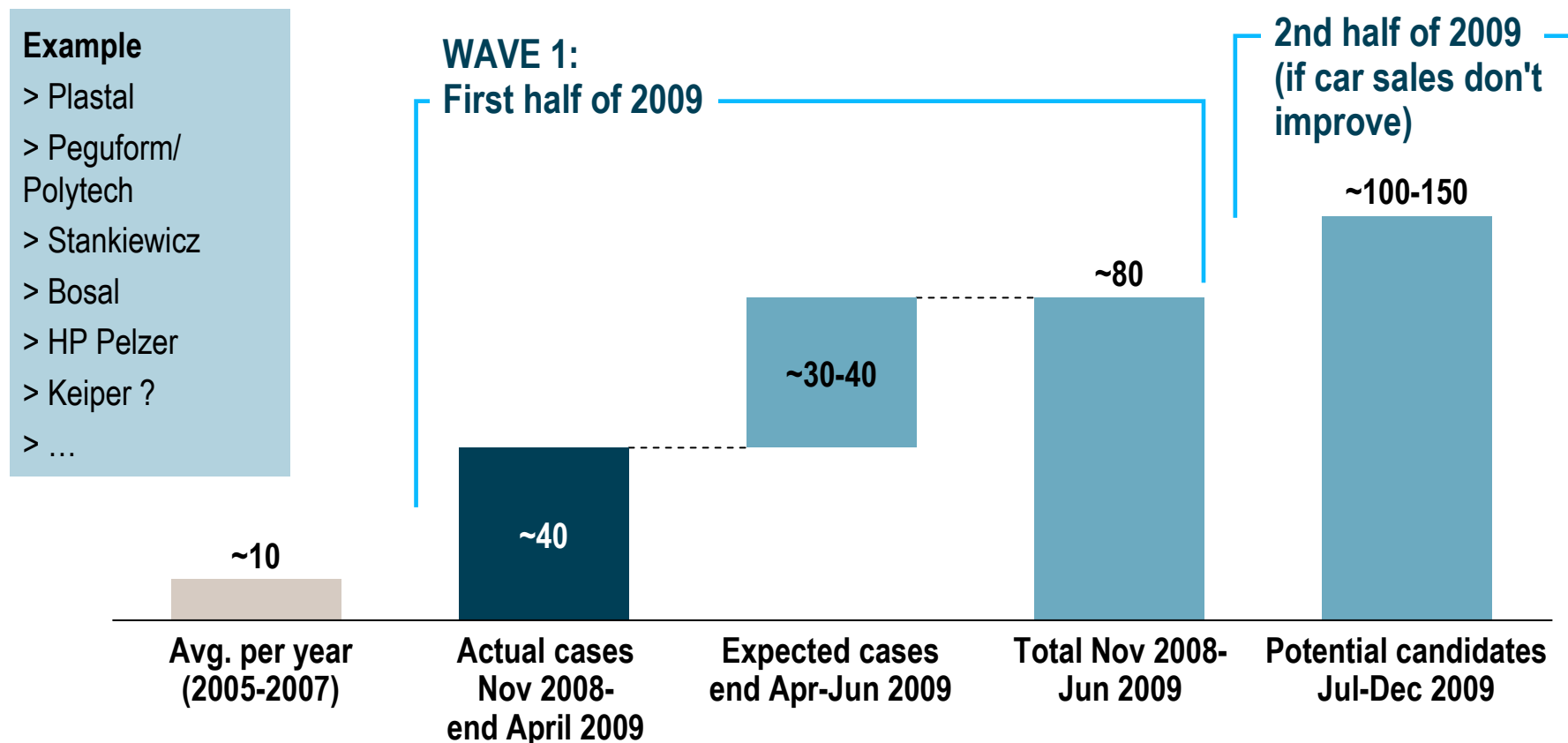
EXAMPLE



1) Agriculture, aftermarket, buses, non-auto, ...

Many more insolvencies will follow if production volumes don't improve significantly in the second half of 2009 – Example Germany

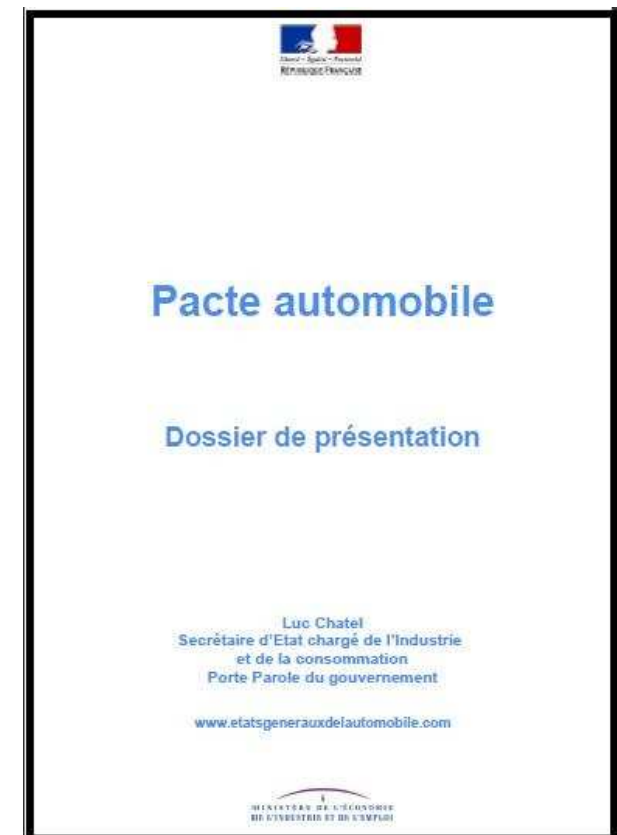
Number of supplier insolvencies in Germany



The crisis tsunami rescue plan from the french government

Le Pacte Automobile :

1. La **refondation nécessaire des rapports** tout au long de la filière automobile entre les **constructeurs, les équipementiers**, mais aussi les dizaines de milliers d'entreprises **sous-traitantes** qui la composent
2. **L'emploi et les compétences** afin de conserver et développer les compétences des salariés du secteur
3. **L'innovation**: mettre en place une meilleure coordination des efforts en matière de R&D afin de conserver le niveau d'excellence du pays qui a inventé l'automobile
4. Dynamiser la **demande VE** par des groupement de commandes d'une trentaine d'entreprises publiques et privées



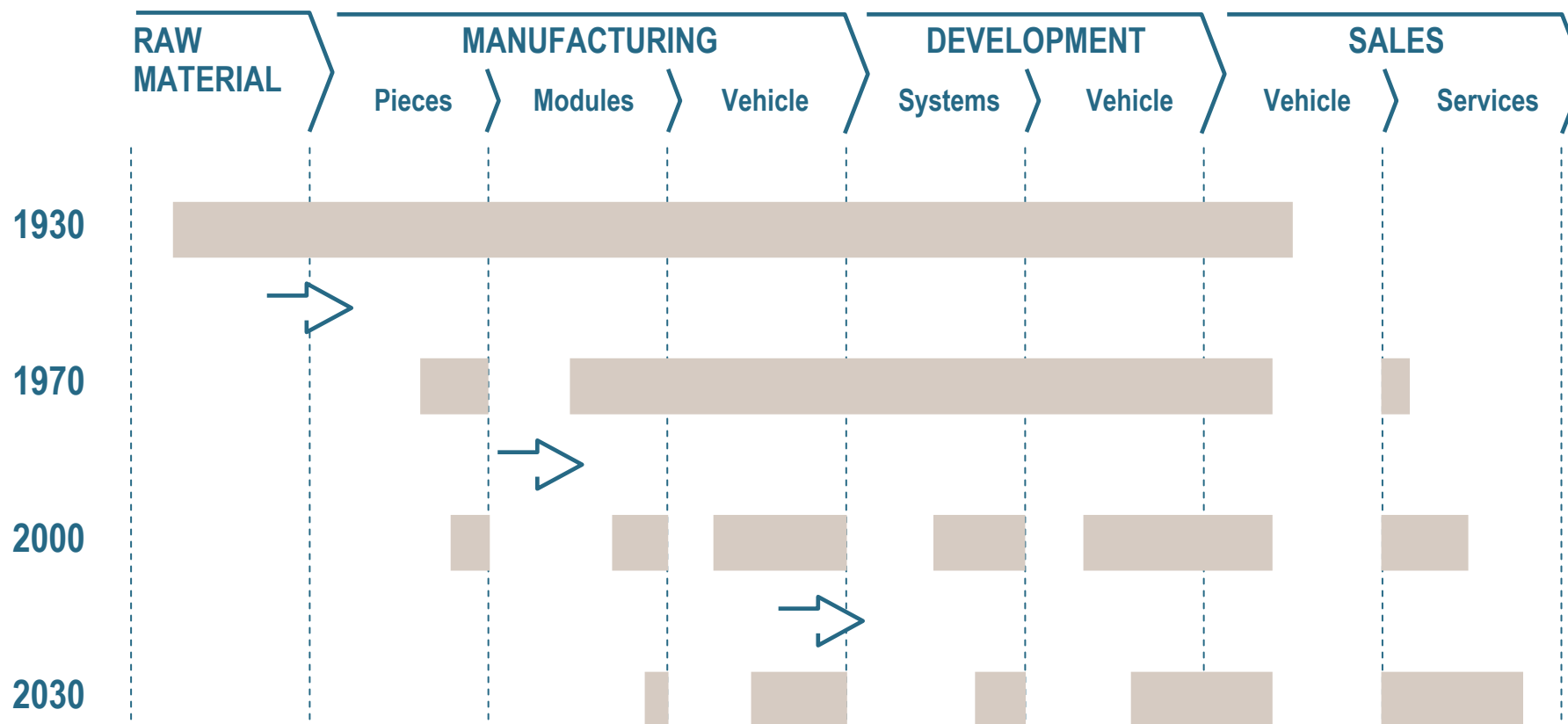
OEMs – Suppliers relationships under question

- > Suppliers market too fragmented ? Should it be more consolidated ?
- > Is it the result from previous sourcing policies ?
- > Are suppliers too fragile ? How to make them more robust ?
- > Should relationships be changed ?
- > Should there be a French "Stuttgart Keiretsu ?"

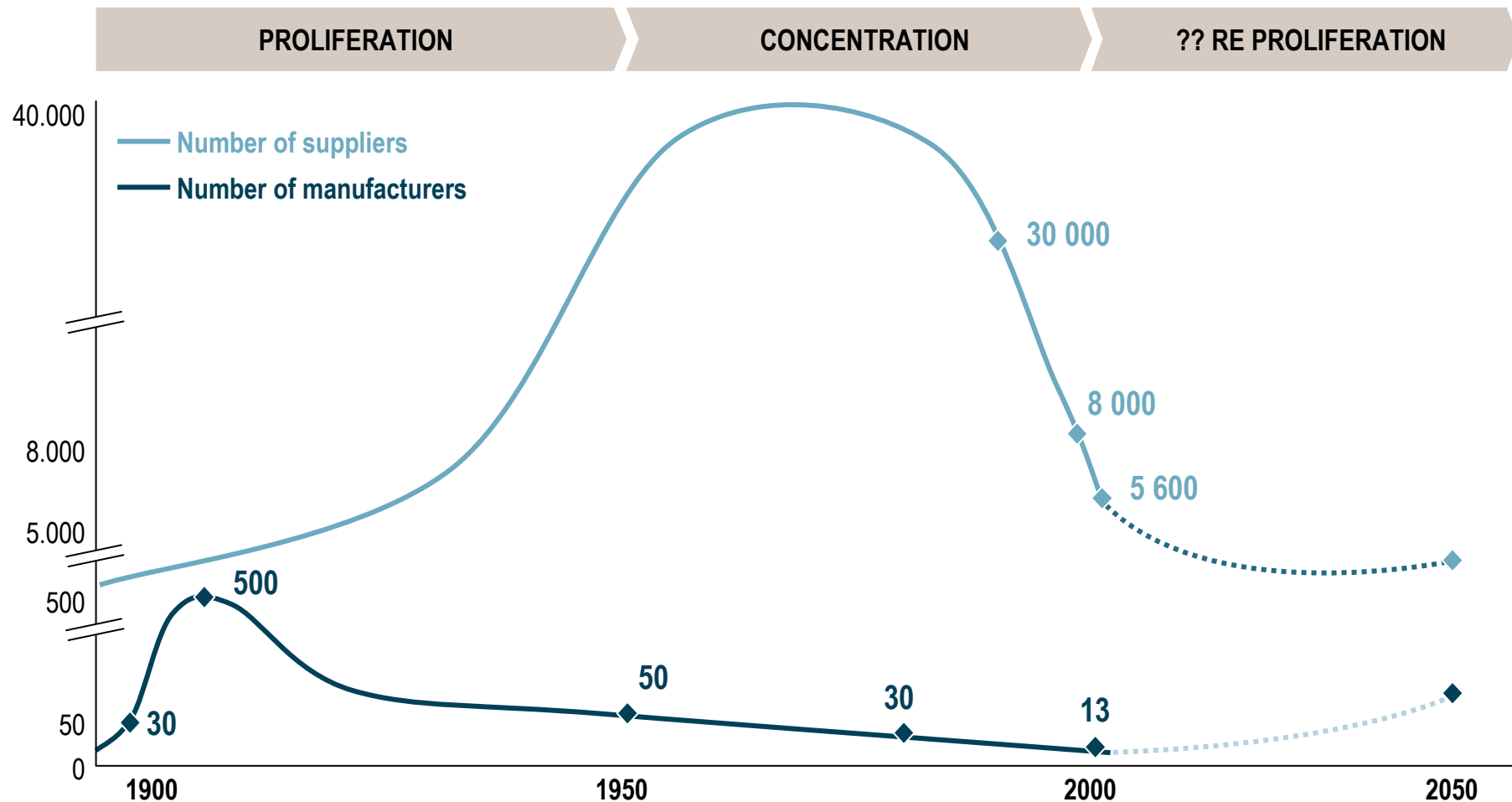
OEMs – Supplier relationships : key issues

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Automotive suppliers are born from OEMs ...









OEMs and Supplier sector have been drastically restructured over the century, especially over the past 20 years



This restructuring pressure is driven by a huge performance and productivity effort to match product evolution (power, safety, cost, ..)

VW Golf

	GOLF I (1974-83)	GOLF II (1983-92)	GOLF III (1992-97)	GOLF IV (1997-03)	GOLF V (2003-09)	GOLF VI (2009-)
Model						
Characteristics	37 kW 810 kg 3,82 m	37 kW 1 025 kg 3,99 m	44 kW 1 140kg 4,02 m	55 kW 1 313 kg 4,15 m	55 kW 1 357 kg 4,20 m	59 kW 1 340 kg 4,20 m
Price	5 262 EUR	8 487 EUR	11 379 EUR	14 288 EUR	15 220 EUR	15 990 EUR
Constant price	5 262 EUR	6 754 EUR	7 075 EUR	7 717 EUR	7 524 EUR	7 915 EUR

**Car price
+50%**

**Salaries
+30%**

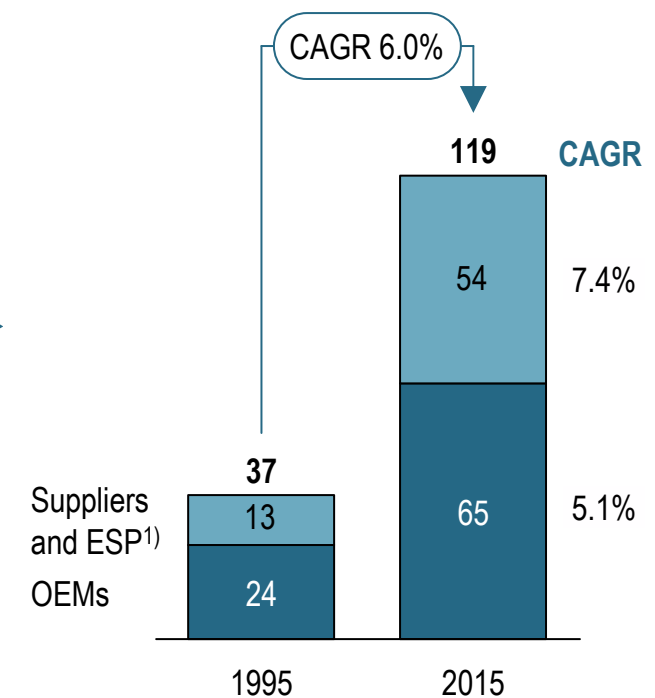
Workload to develop the Automotive products have continuously increased, requiring more and more delegation to suppliers

Evolution of R&D expenditures

EXPENSE DRIVER	PERFORMANCE MULTIPLIER [1970=100%]		
	1970	2000	2030
Model life cycle (1: number of years on the market)	1.0	1.4	1.9
Model variety (1: annual sales volume per model)	1.0	1.8	2.5
Vehicle complexity (Number of parts per vehicle)	1.0	1.4	2.0 ¹⁾
Degree of innovation (Number of patents per year)	1.0	2.1	4.4 ¹⁾
Total	1.0	7.4	41.8

7% p.a.
6% p.a.

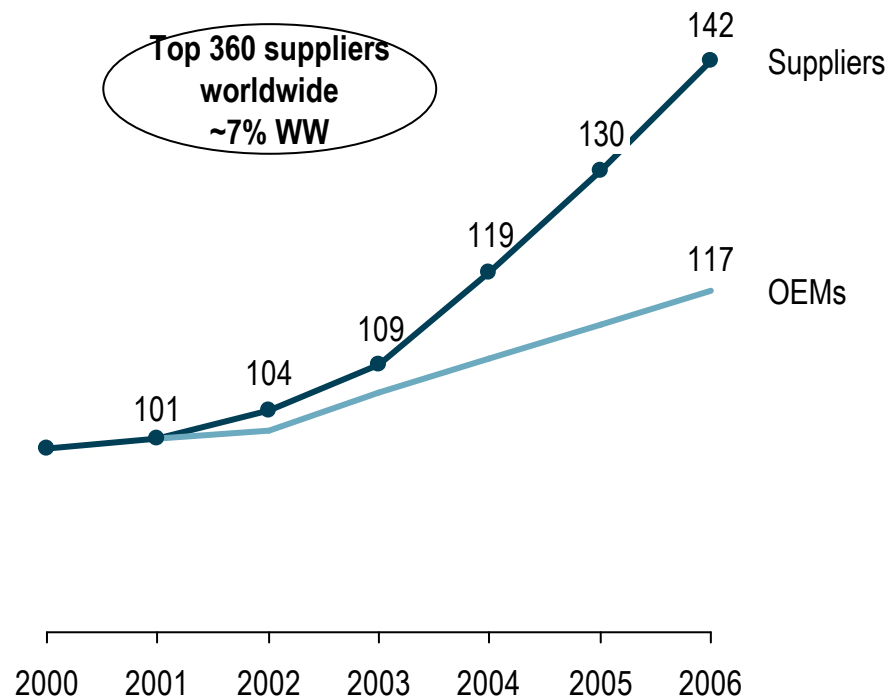
GLOBAL AUTOMOTIVE ENGINEERING VALUE ADDED [USD bn]



Suppliers market is growing faster than OEMs market

Key performance indicators 2000-2006

REVENUE GROWTH [2000=100]



Basis: Revenue-weighted average of performance-rated suppliers

Source: J. D. Power; Roland Berger/Rothschild Supplier Database 2007

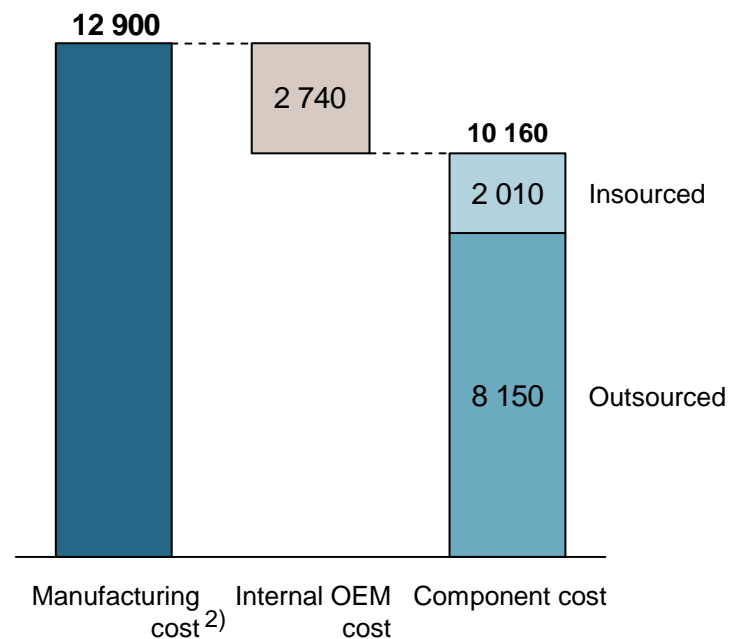
Factors

- > Increasing delegation from OEMs
 - scope increase in added value: casting + machining, submodules (mechanical+E/E,...)
 - increasing content of equipment
- > Concentration of suppliers
- > Numerous fast-growing suppliers in emerging markets (China, India, E.Europe)
- >

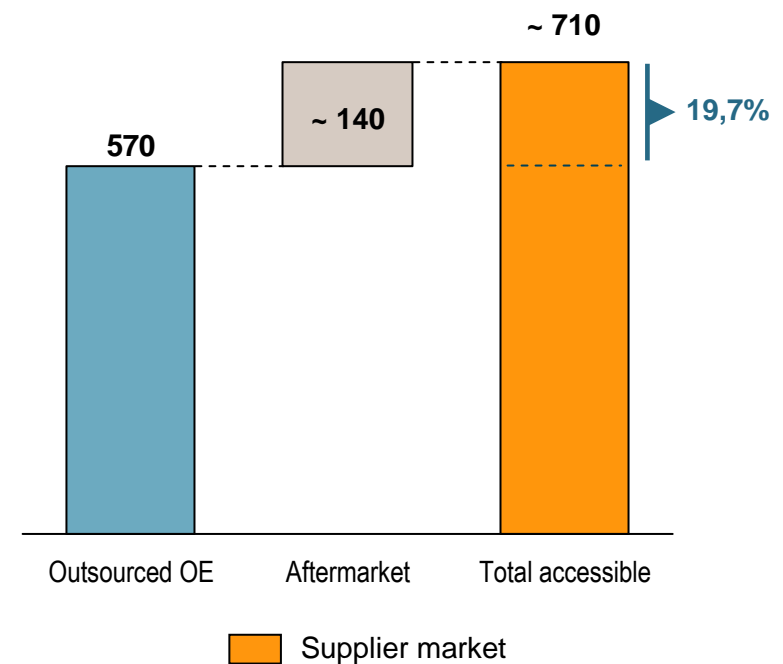
Automotive supplier takes ~60% of a vehicle, which represents a market globally weighting ~€ 700 Bn

Original equipment accounts for € 570 Bn and aftermarket accounts for € ~140 Bn

Average cost structure of a vehicle [€, 2007]



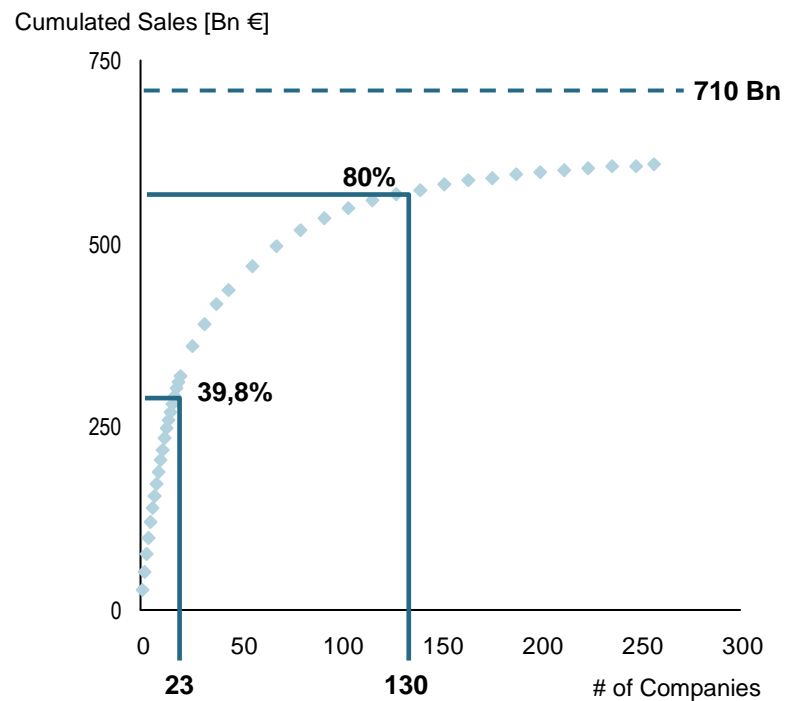
Suppliers market size¹⁾ [€Bn, 2007]



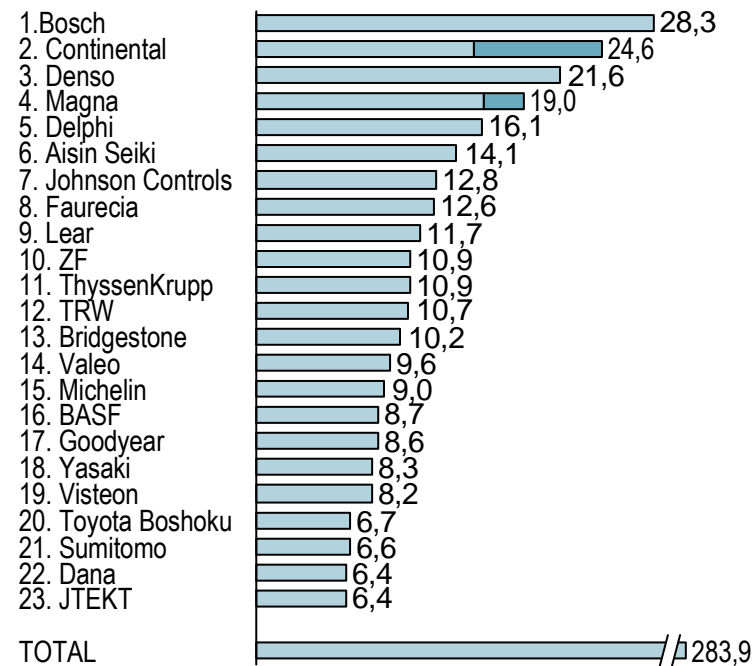
1) Based on 2007 global production of 70 M vehicles
2) Assembly and machining, body in white, painting, block and cylinder head casting

Supplier market is very fragmented, still the top 20 accounts for 40% of the market

Sales in automotive cumulated [Bn EUR, 2007]



Top suppliers [Sales in automotive, Bn EUR, 2007]



1) Estimates based on Continental sales in 2007 + VDO sales in 2006 (in dark blue)
2) In dark blue, Magna complete vehicle assembly activities (EUR 2,9 Bn EUR)

Relationships seen by suppliers : a true "régime de la terreur" ?

- > "Mandatory price cut every year from 5-6 %"
- > "Half of R&D cost at the charge of suppliers without volume guaranty"
- > "Everyday fierce competition to get a contract - despite long lasting relationship and tough competition (ex: global on hold practice)"
- > "Unbundled sourcing approach (we design the system, then we are cut into slices...)"
- > "Low cost sourcing by all means or out (even if same cost) - %Low Cost become a analysts KPIs"
- > "Intrusive relationship : suppliers audits, KPIs, etc.. so called "supplier development" – extensive use of costing models"

Relationships seen by OEMs : tough commercial relationships, but strong expectations towards suppliers

- > "OEMs counts on suppliers to bring more and more added-value and responsibilities"
 - Innovations in technology (ex: powertrain, emission control, safety system ...)
 - Increasing involvement in system design & validation
 - Ability to serve OEMs globally
 - Increasing risk sharing approach

- > "OEMs contributes to the development of their suppliers"
 - Partnership relationships with many strategic suppliers
 - Support for innovation development
 - Help to get a critical size and to develop internationally
 - Help them to implement best-in class practices through joint programs (QCD)
 - ...

- > "OEMs contributes to support the "filrière" : support restructuring programs of suppliers, reducing overcapacity"

Life of the relationship is dependant on the relative bargaining power...

+ "Lucky" suppliers

- > Proprietary technology with high entry barrier / huge know-how
- > Un-secable sub-components
- > Product / Process can be mutualized across customers
- > Product costing difficult
- > Global footprint is an advantage
- > High switching costs
- > Relationships barriers

"Unlucky" suppliers -

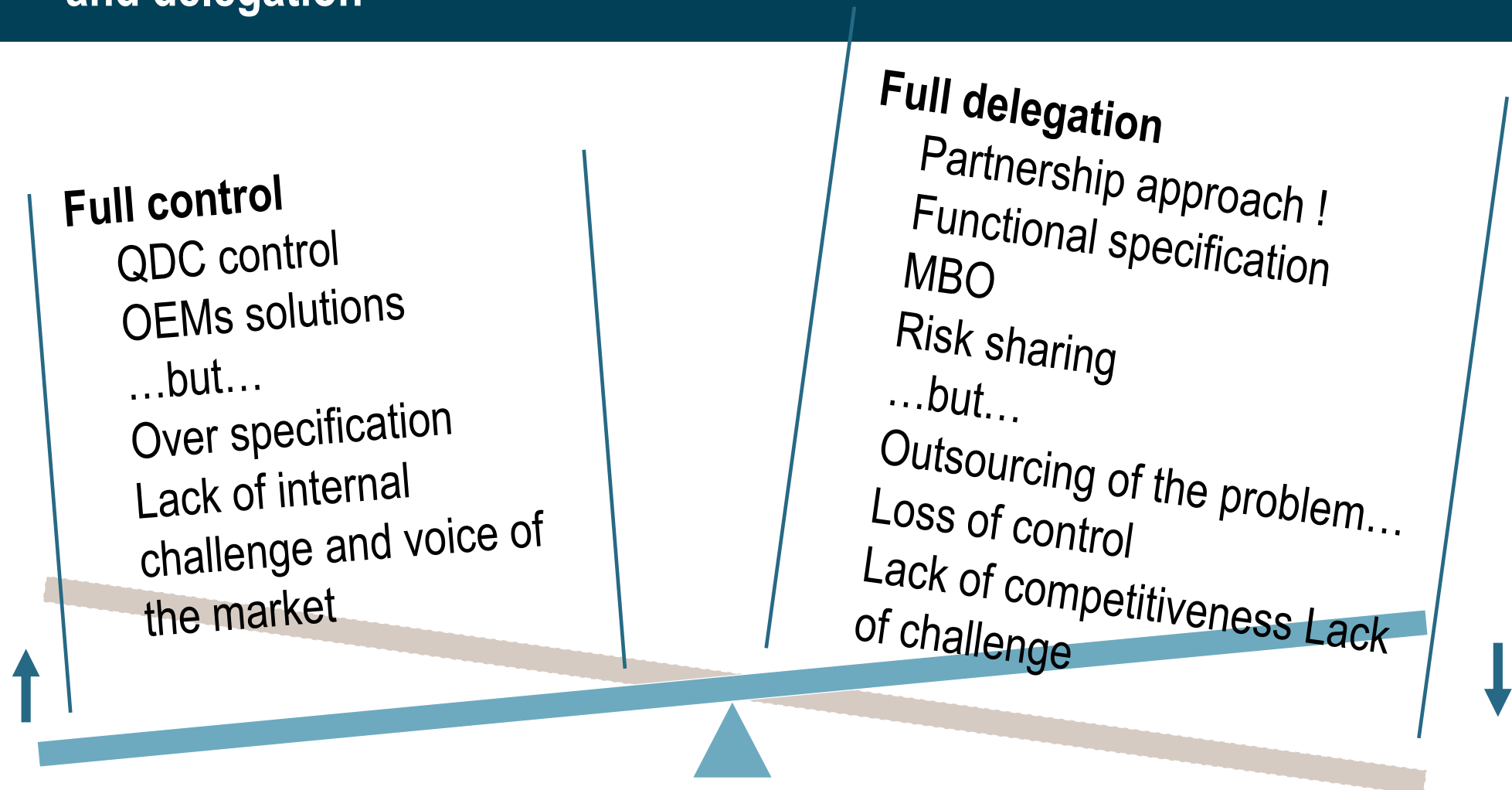
- > Basic technology (make & buy OEMs)
- > Easy to cherry pick
- > OEMs-specific products
- > Easy to cost
- > Local or Global the same
- > Easy to switch
- > Interface not needed

Injection system, exhaust system,
seat mechanism

Plastic parts, casting, etc...

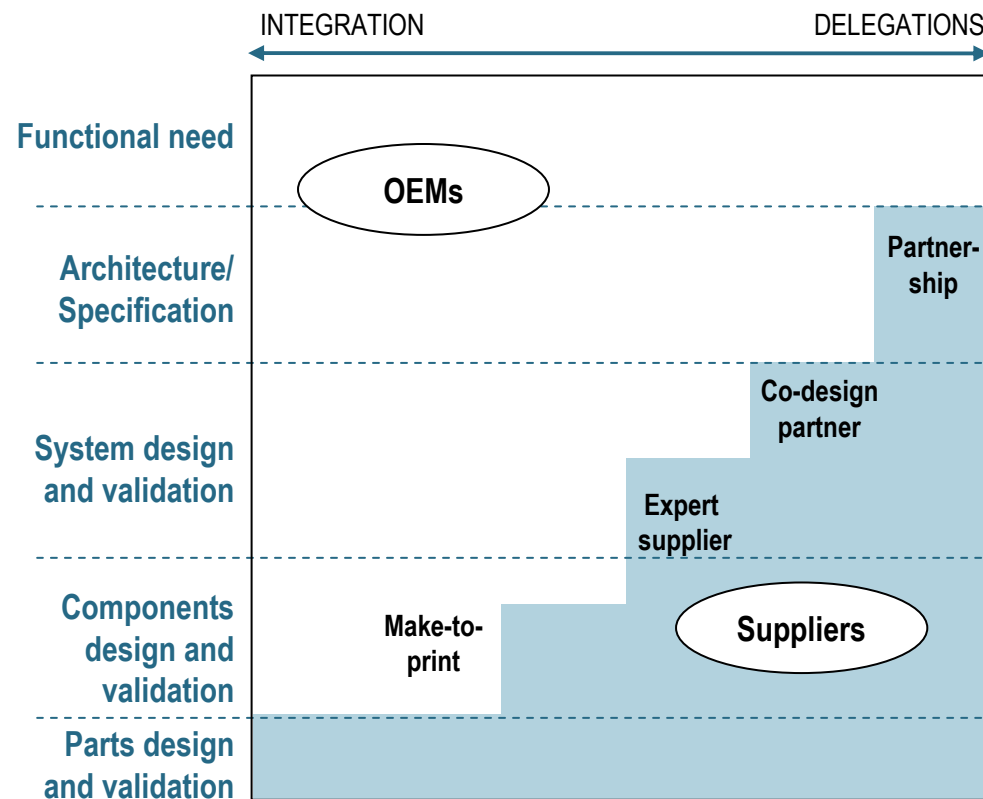
Wiring harness, simple casting

OEMs – Supplier relationship is always balancing between control and delegation



Truth is in between with diverse business models depending on OEMs / Suppliers

AUTOMOTIVE INTEGRATION MODEL



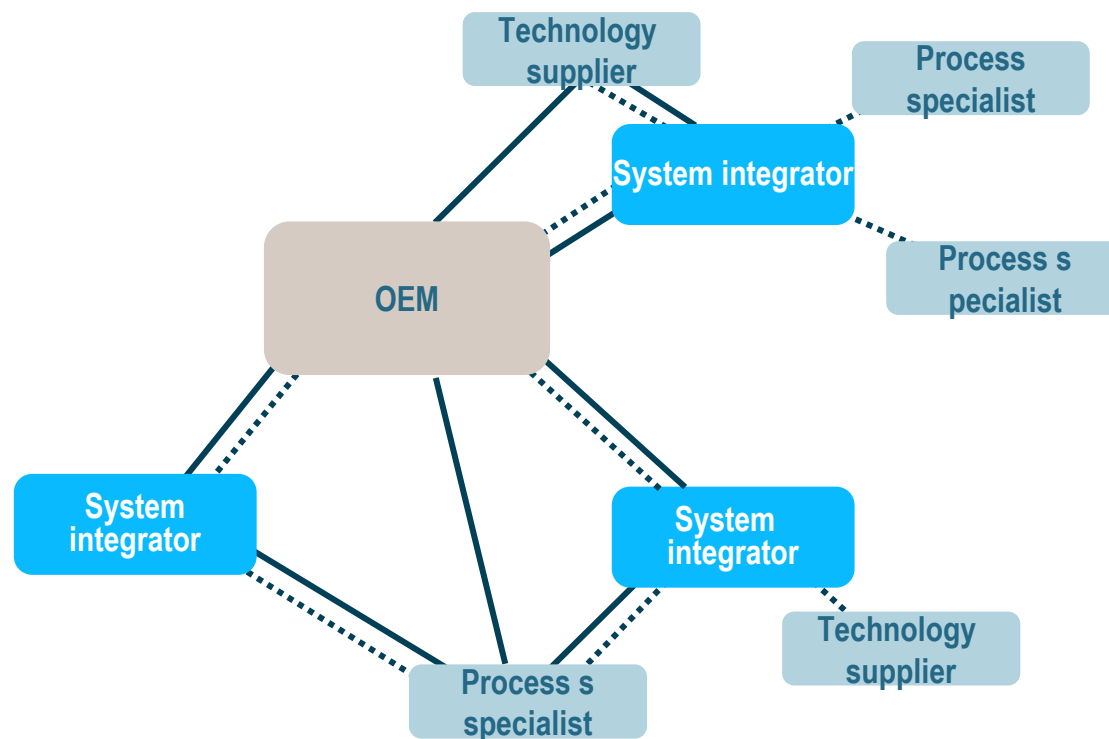
□ OEM □ Tier 1

COMMENTS

- > US & Western European Volume OEMs: insourcing, unbundling, control
- > Western European Premium : Mittelstand keretsu
- > Japanese & CorenOEMs: "keretsu model or Chaebol" : full partnership
- > Indian OEMs: "open source" approach

Relationships mode between suppliers and manufacturers will more and more follow a risk sharing / flexible network model

From the traditional pyramid to flexible network structures



- > **More trustful and transparent relationship – keiretsu** (control and delegation)
- > **Well defined "roles" for suppliers:**
 - "System integrator"
 - "Technology" satellite
 - "Process" satellite
 - "Partner" role
- > **Joint approach with shared risks**

System integrator

"Technology" satellite

Process-satellite

Product Development

Sourcing

Conclusion : a schizophrenic relationships ?

- > **OEMs-Tier-1 relationship is structurally extremely difficult due to enormous competitive pressure**
 - Quality and cost pressure
 - Technology innovation pressure (regulation, etc...)
 - High financial risk : high capital intensive, long development leadtime, uncertainty on success of car models

- > **Thus, restructuring needs are permanent**
 - overcapacity
 - too numerous suppliers with not enough critical size / performance
 - re-alignment to demand shifts

- > **Thus, OEMs-Supplier relationships takes various aspects**
 - different business models and delegations
 - more a network based with role on case-by case basis

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Will lessons learned be learned ?

**Yes: a
new era
is born...**

> New drivers / understandings

- Supplier – OEMs are dependents (the banker)
- Next technology challenge requires strong technologies (Green : EV, Hybrid, CO2...)
- Deeper capitalistic links (FSI/FMEA, ..)

> Thus, new relationships based on :

- Panel concentration / focus on viable suppliers to be developed
- Restructured supplier base
- From low-price wanted to best cost wanted
- More official partnerships

Will lessons learned be learned ?

**No: life
will
become
even
harder**

> Pre-crisis market drivers will accelerate

- Growth in BRIC increasing global pressure
- Pressure to make cheaper cars
- Agressive "greener" trends creating a revolution in powertrain (with losers & wininers)
- Global integration : global platforms, global R&D and more local integration
- Raw material inflation will regain

> Thus, supplier relationship will continue to be under same pressure

- No reduction of #suppliers (weakest are under perfusion)
- No major consolidation really happening
- Suppliers have to help OEMs to restructure (ex VW)

Conclusion

- > Shake up will be slow to recover
- > Mutual dependencies are revealed: change in mindset starts
- > Need for long term approach : clear and performing industrial network, with consolidated players
- > Next upcoming challenges are ahead