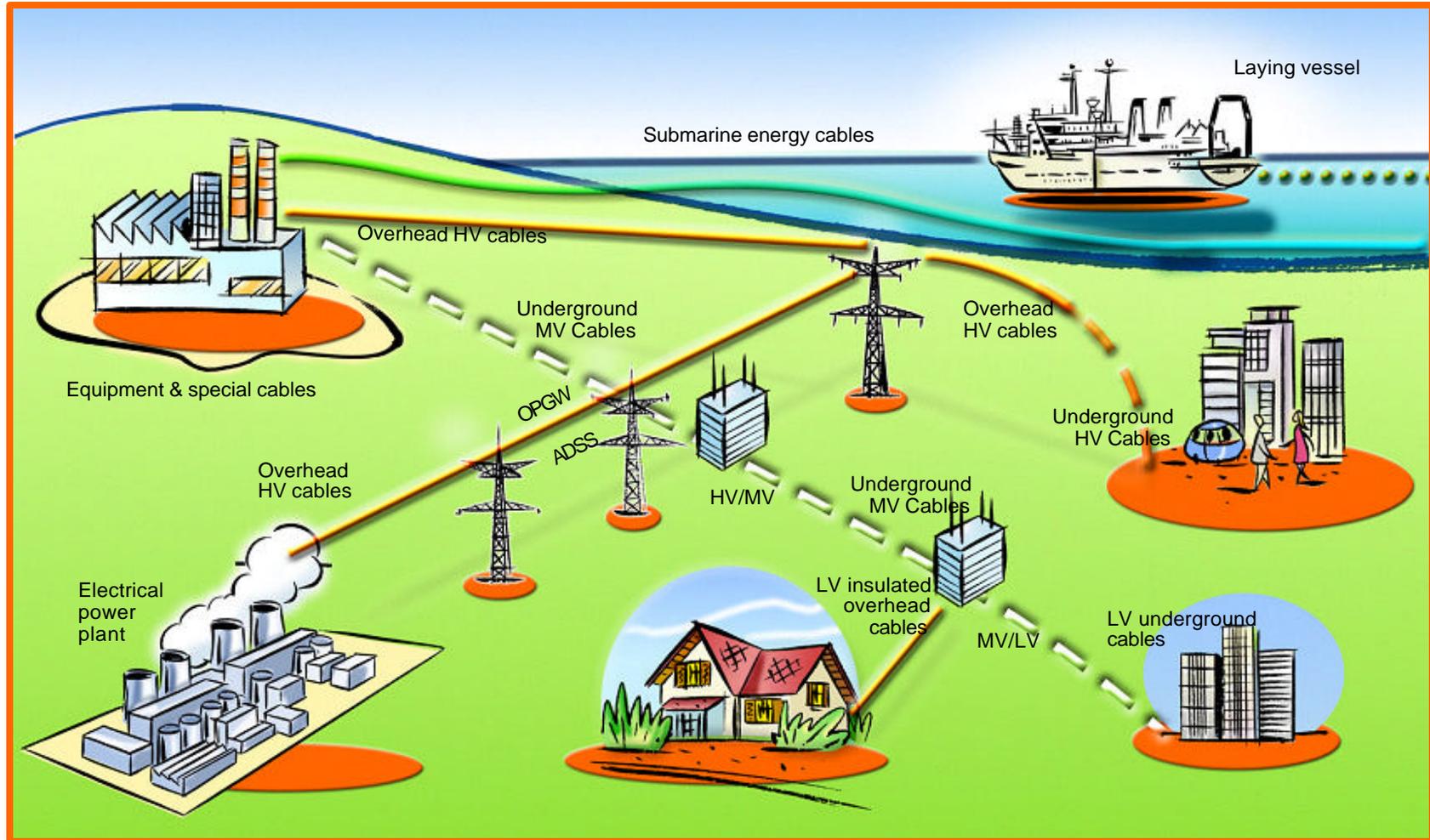


Competitive Trends
in the
Wire and Cable Industry
by
Gordon Thursfield
Nexans North America

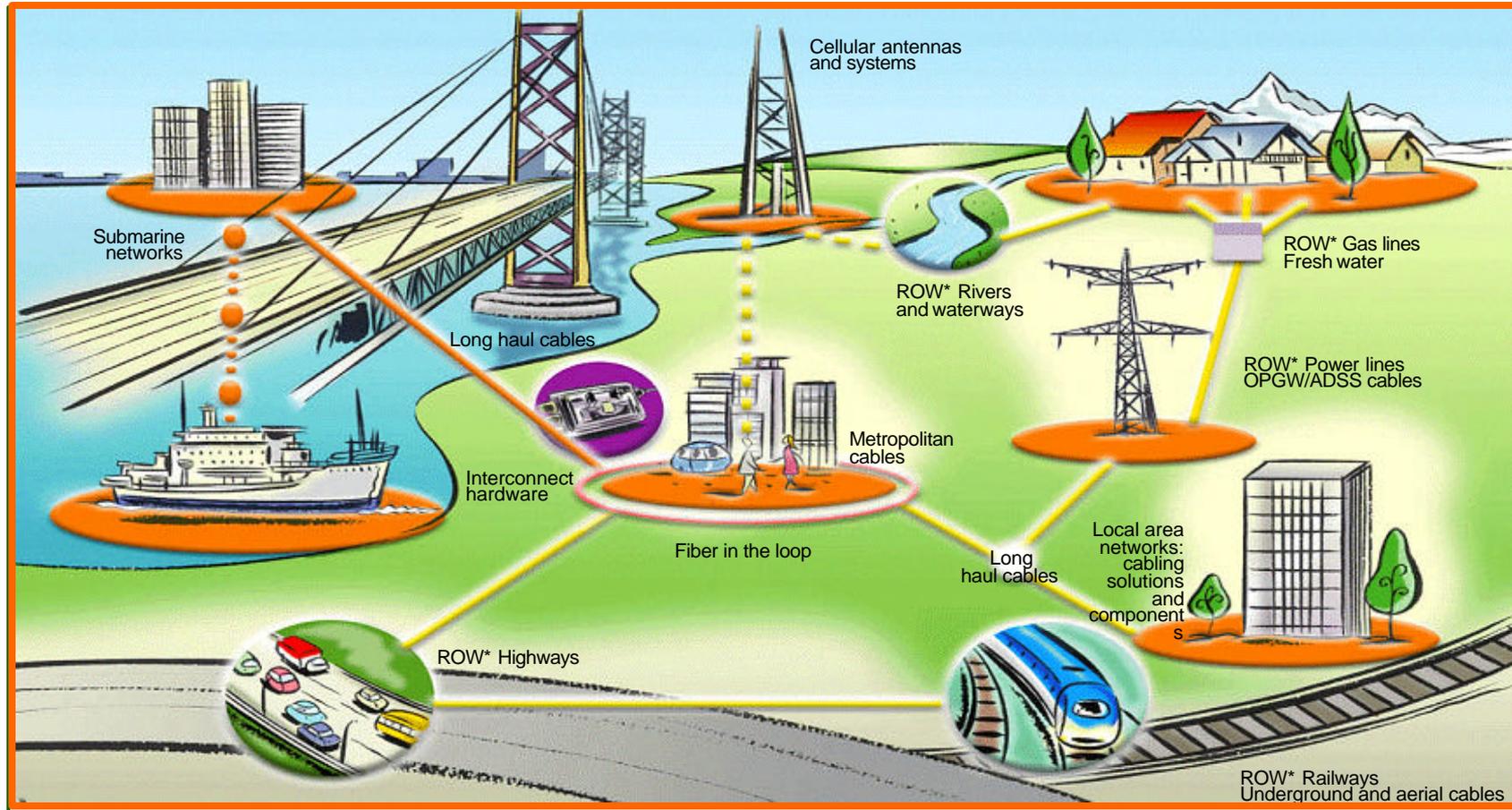


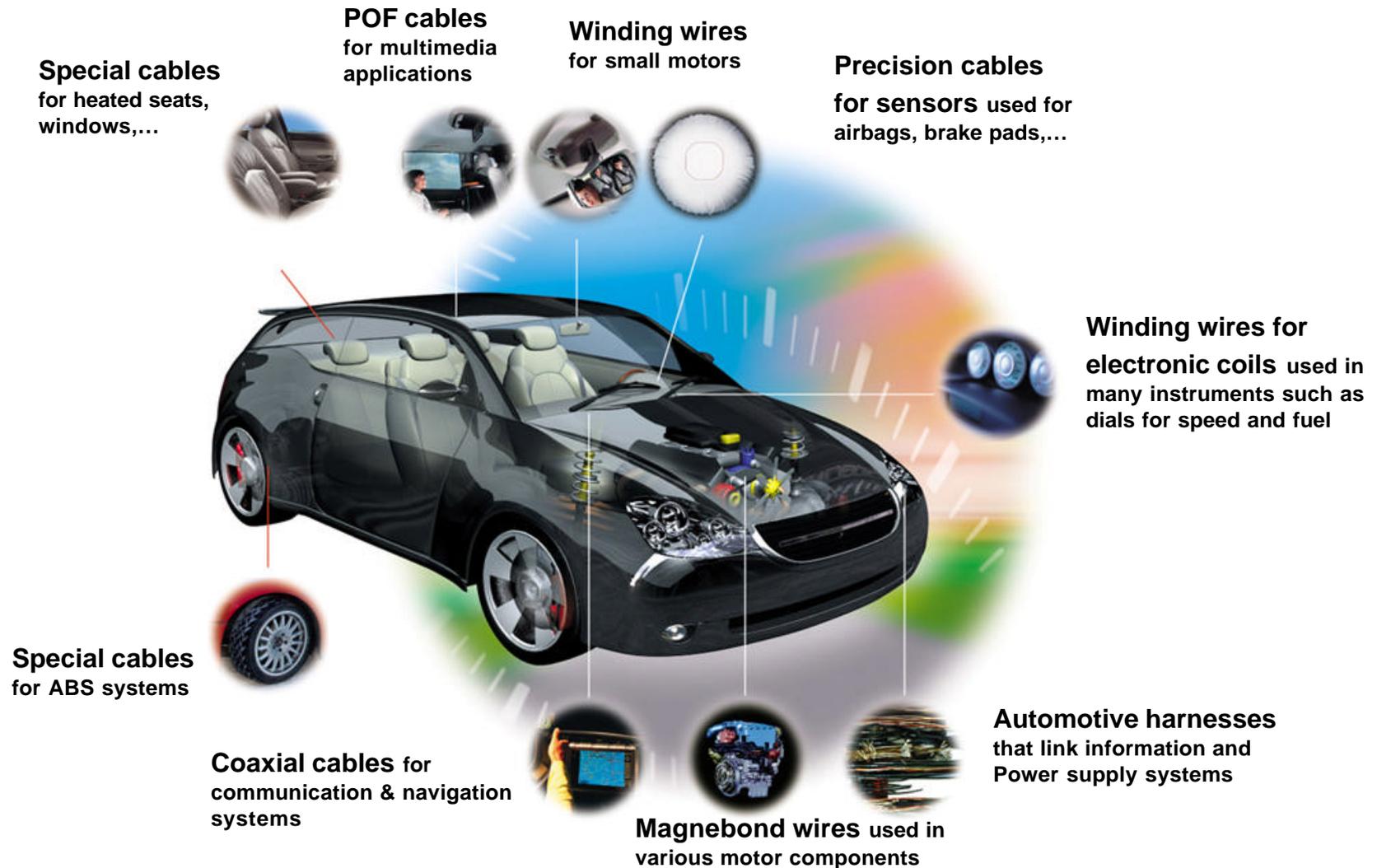
- Technological Developments
- Industry Rationalization
- Economic Environment
- The Future

Example: Energy networks

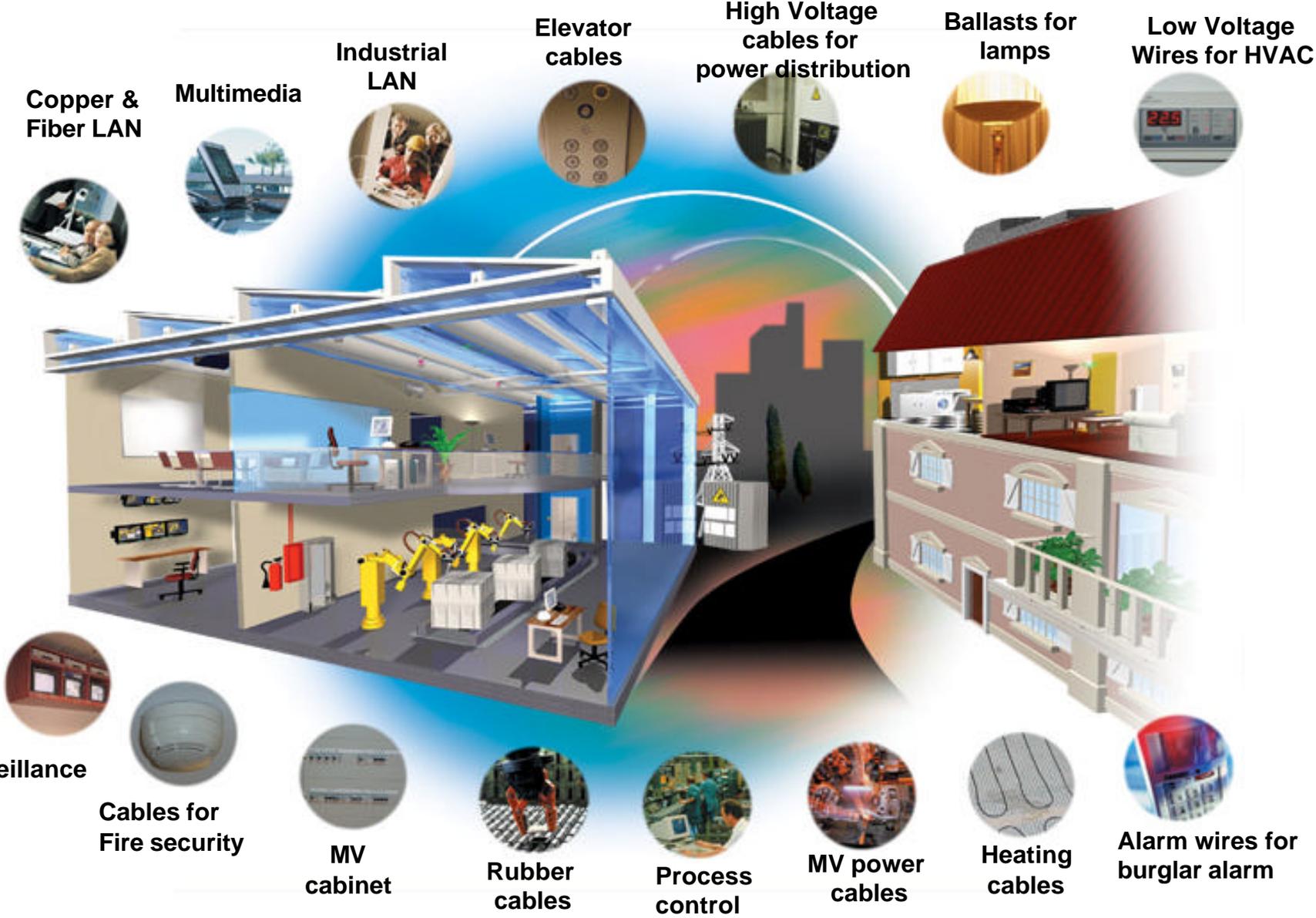


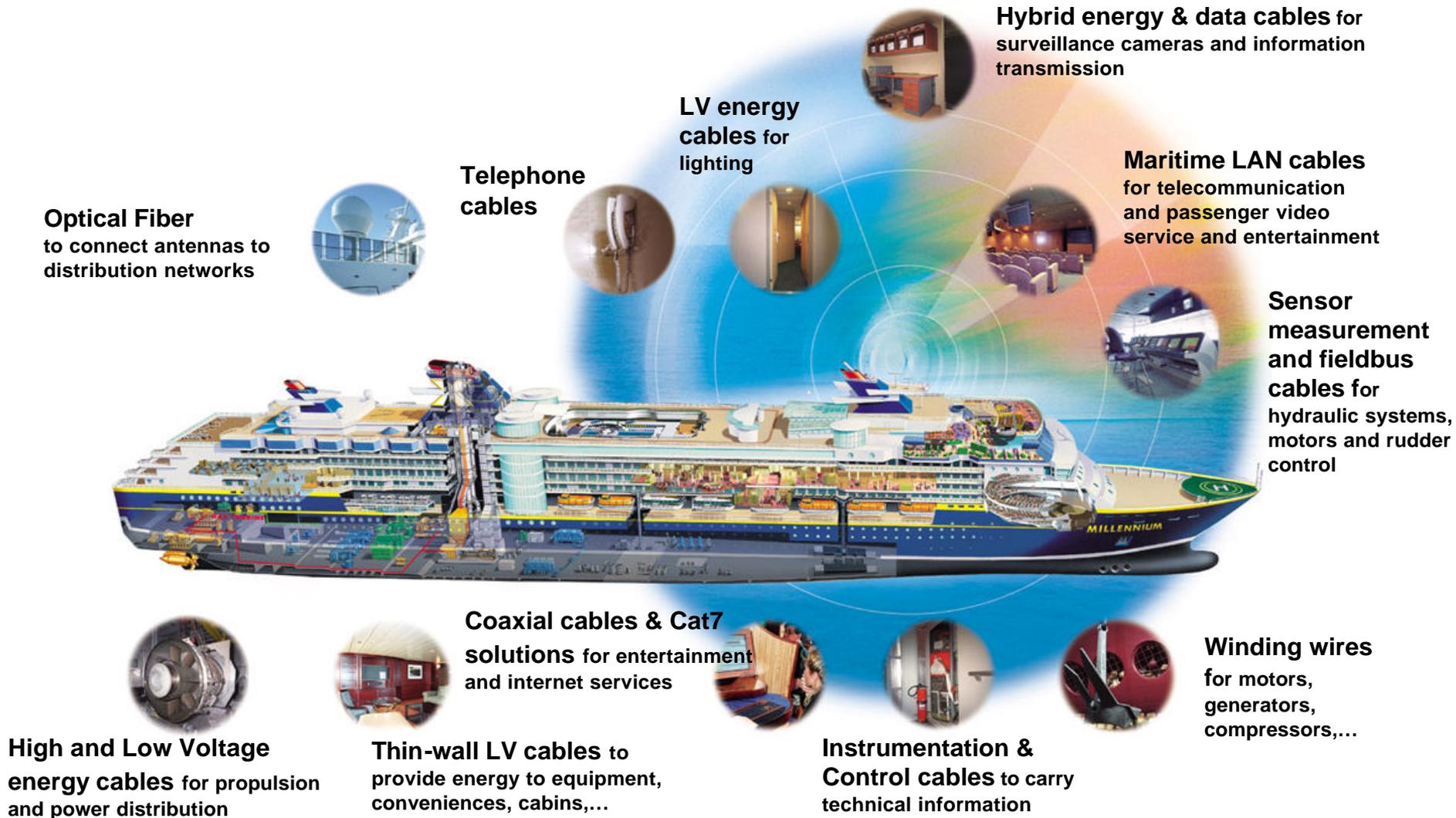
Example: Telecom networks



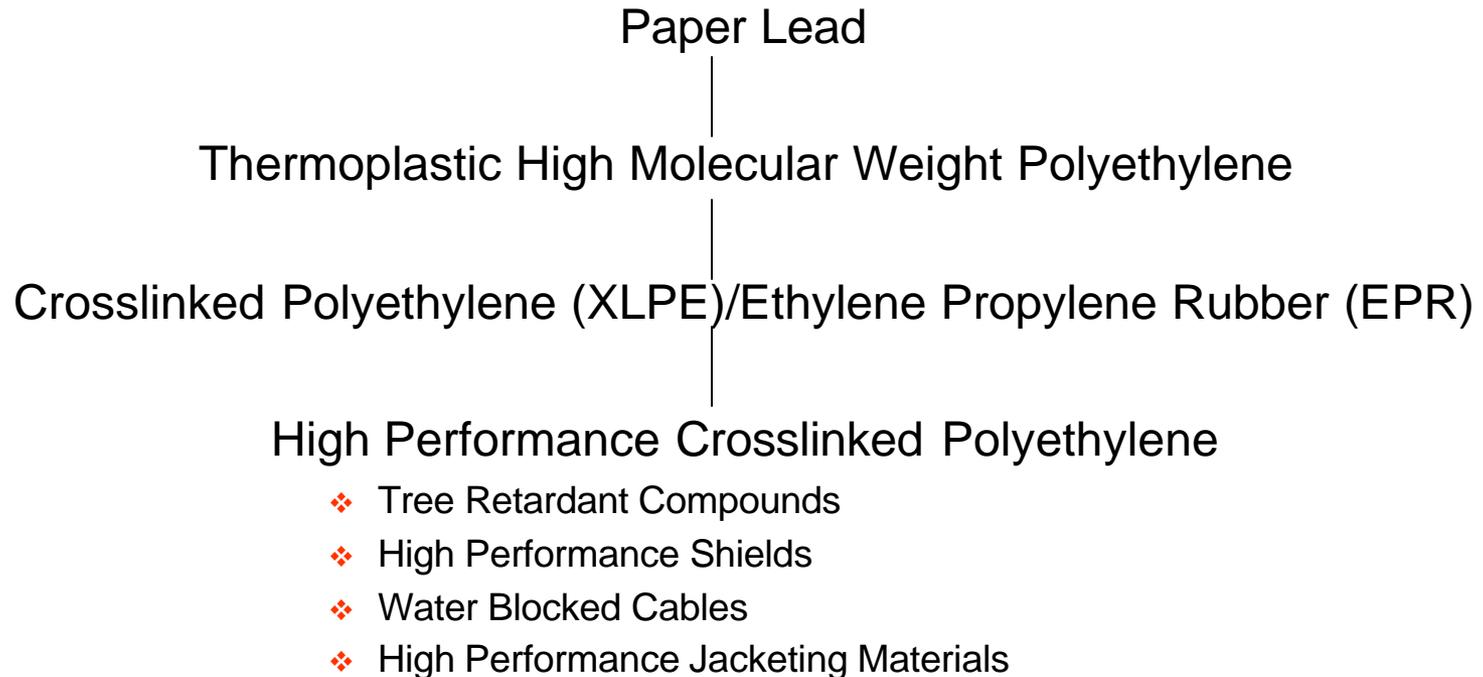


Example: Smart Buildings





Power Cables - Medium Voltage



- ▶ Cable life well in excess of 40 years even in arduous conditions.
- ▶ Paper insulated cables totally out of the picture.

The industry is now totally comfortable with MV TRXLPE/EPR cables in almost all environments.

Power Cables - High Voltage

Oil Filled/Oil Impregnated Cables



Crosslinked Polyethylene
(EPR to 230 kV)



Super Conductors

- Crosslinked polyethylene now the standard for almost all voltages and particularly >230 kV.
- Crosslinked XLPE performs well even at extra high voltage.
E.g. several 500 kV installations performing well.
- Super conductors could be the norm for inner-city installations 10 years from now.

Industrial Application Cables

Trends include:

- Fire Retardant
- Low Smoke Zero Halogen
- Crosslinked Jackets - Water Curable Compounds
- High Flexibility Cables
- Umbilical Cables for Off-Shore Installations
- Ultra High Temperature Resistant

Technology has advanced to the extent that cables can be designed to perform in almost any environment.

Telecommunications and Data

- In a little over 10 years, fiber optic cables have become a commodity - contributing to massive reliance on industry and society on high performance communications on a world wide scale.
- Also high performance data cables have emerged to satisfy needs for high speed and universal internet access.

Profitability of Industry

Despite massive technological advancements this is not a profitable industry.

- Margins are very thin.
- Costs of maintaining a presence in industry while continually advancing technology are high.
- The market does not reward excellence.

As a result -

- Significant rationalization - but still no where near enough.
- A number of high profile bankruptcies.
- Difficult to continue to attract talent to facilitate continued advancement.

The World Picture

Commodity application cables have migrated to low cost countries (primarily ASIA).

e.g. Cords
 Cord Sets
 Magnet Wire
 Lighting Cables
 Automobile Harness Wiring
 Low Category Data Cables
 Hook-Up Wires

and others could follow:

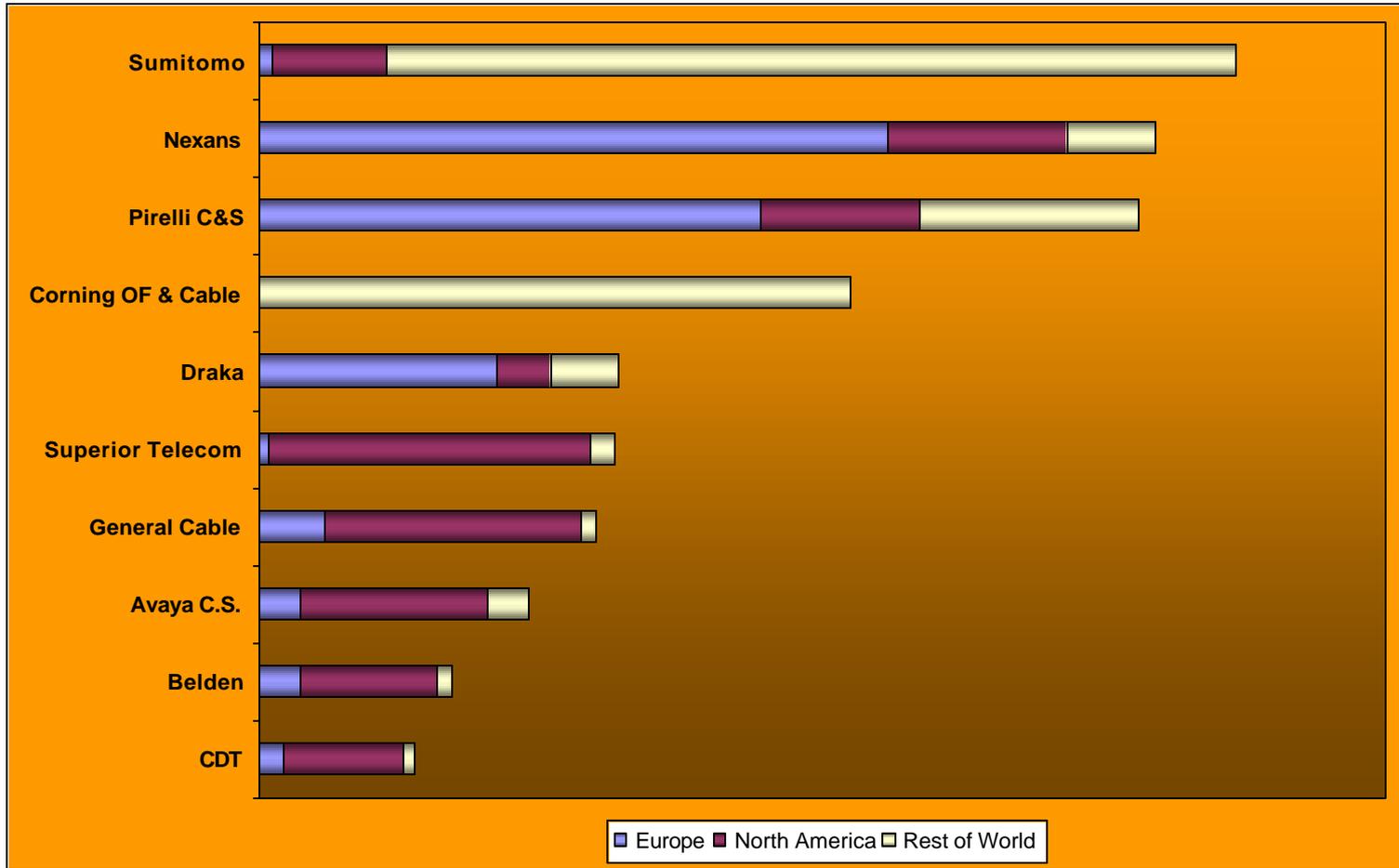
e.g. Overhead Transmission
 Building Wires
 Electronic Application Cables

The North American manufacturing base for wire and cable will continue to shrink!

The European Picture

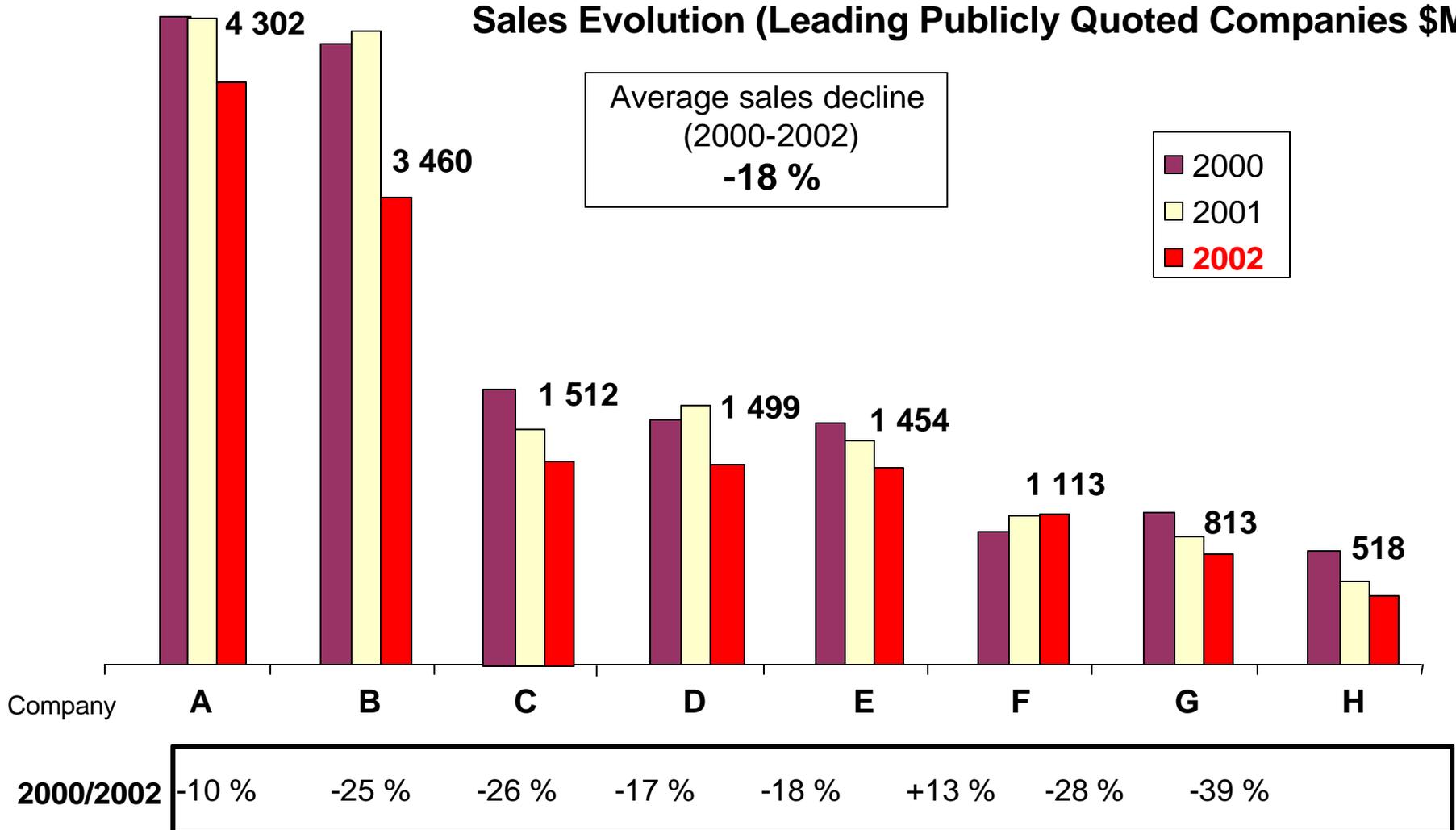
- Many “famous” companies have disappeared and/or been absorbed through rationalization and closures.
- Creation of the single European market has eliminated “country specialists and leaders.”
- Market rationalized to 3 major players in Europe -
 - ◆ Nexans
 - ◆ Pirelli
 - ◆ Drakaand a few product specialists focussing on specific market niches.
- The North American, and indeed, the World market could follow.

Sales 2001 (by geography)



Leading cablemakers have faced declining markets over the last two years

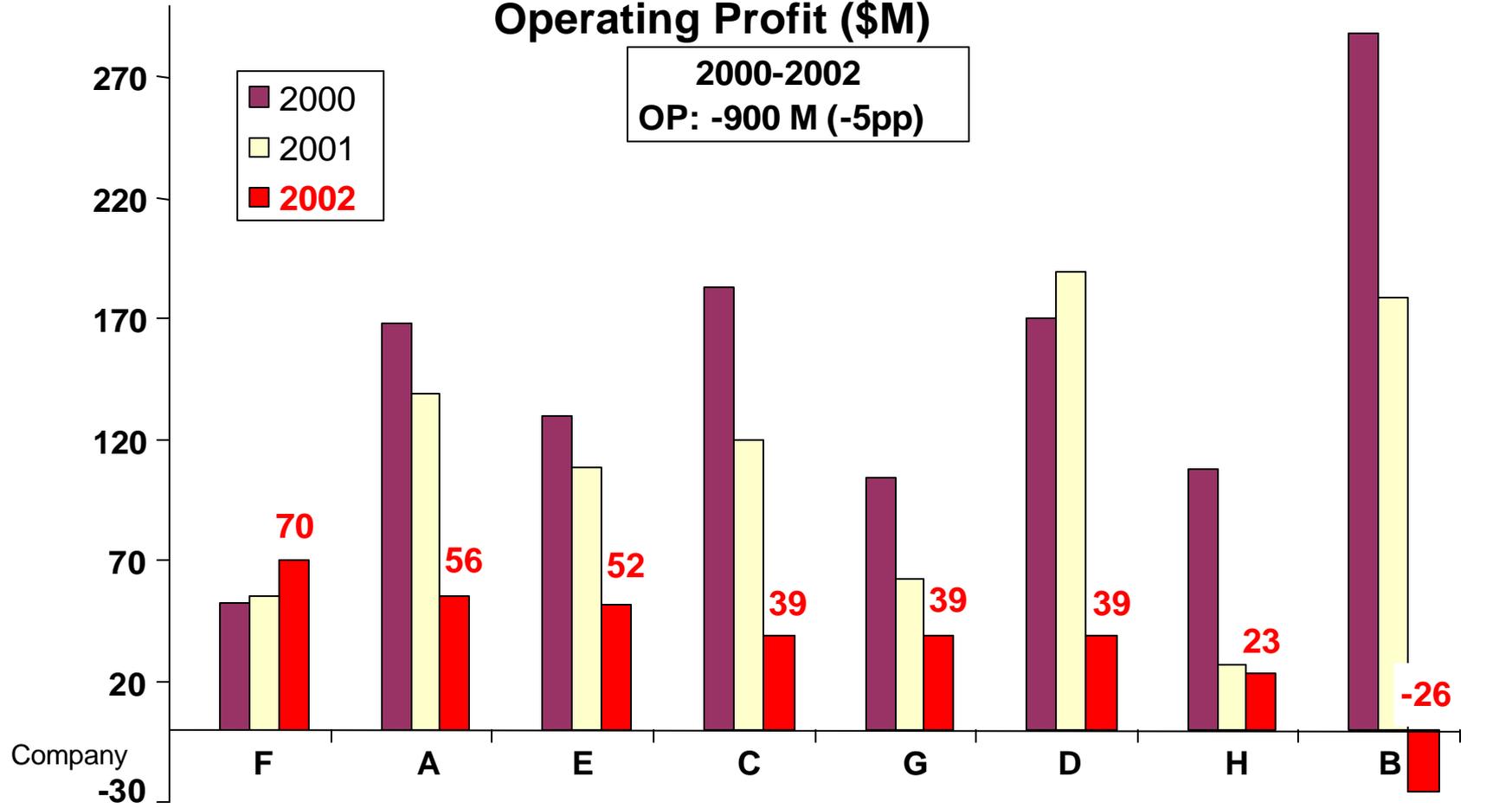
Sales Evolution (Leading Publicly Quoted Companies \$M)



Over this period, OP has gone down
by 76 % on average

Operating Profit (\$M)

2000-2002
OP: -900 M (-5pp)

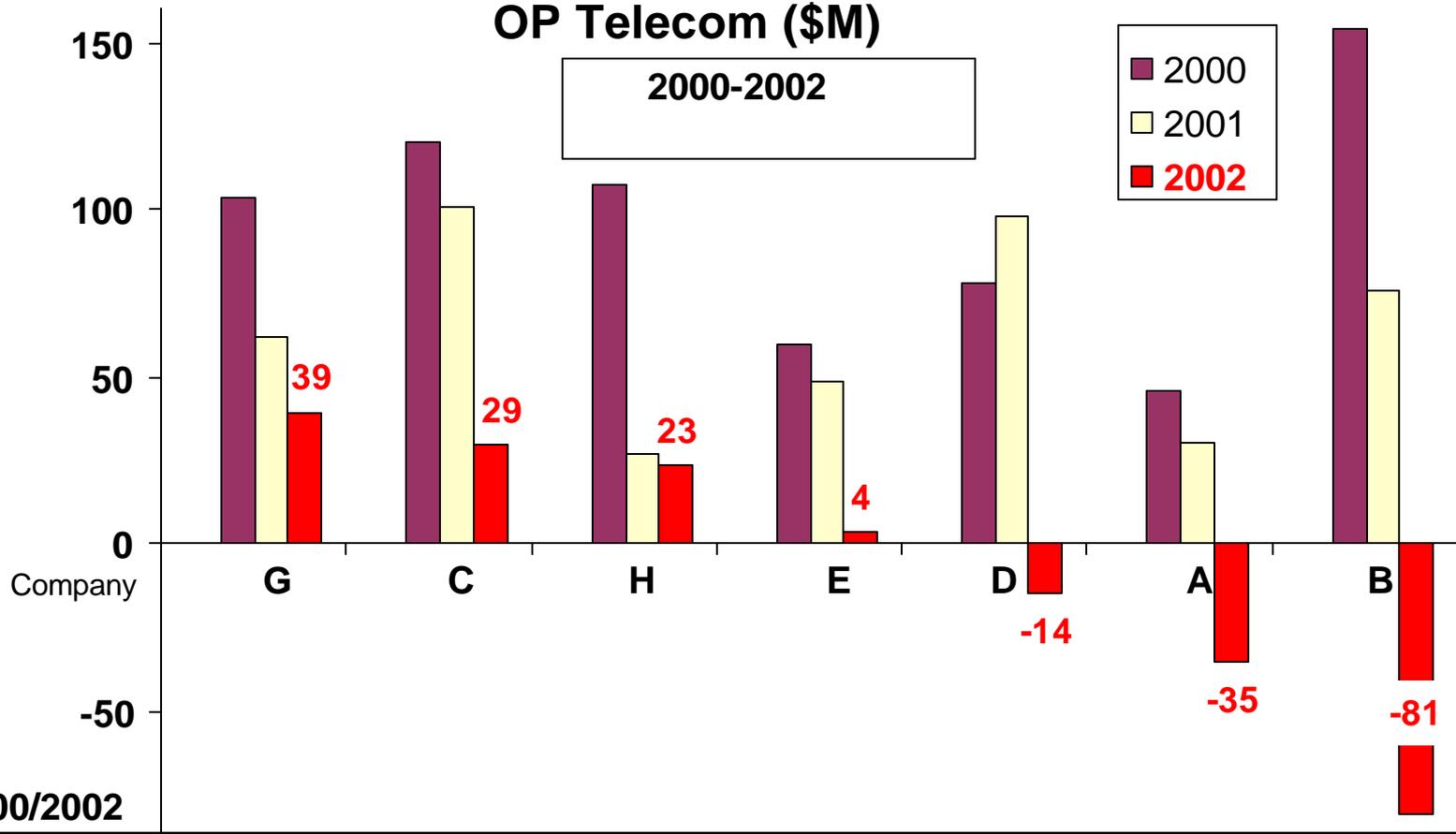
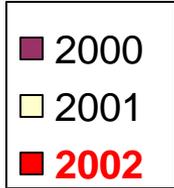


OP 2002	6.0 %	1.3 %	3.5 %	2.6 %	4.8 %	2.6 %	4.5 %	-0.8 %
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About 80% of the OP decline is related to the “Telecom crisis”

OP Telecom (\$M)

2000-2002

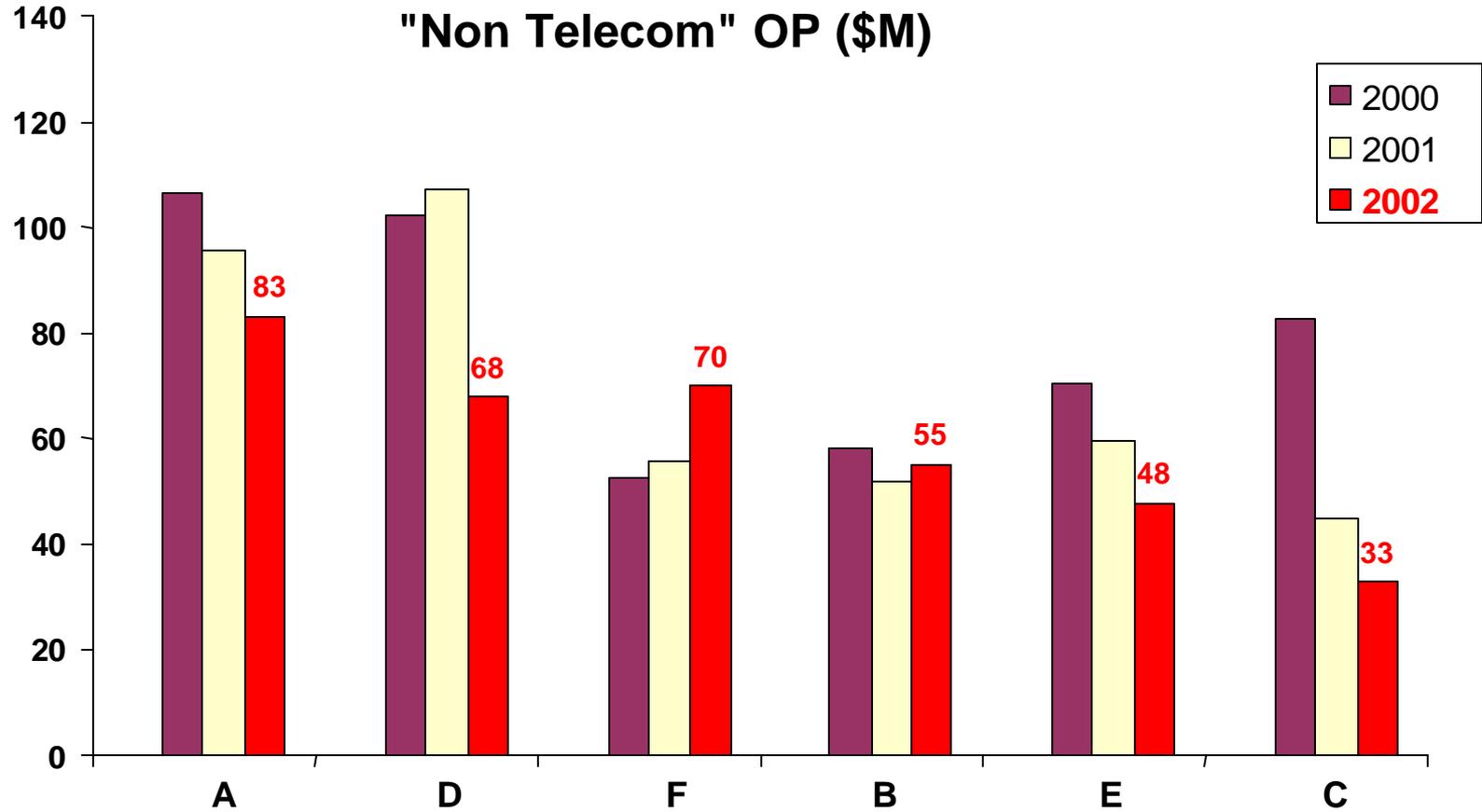


2000/2002

OP margin:	9 → 5 %	14 → 6 %	13 → 5 %	9 → 1 %	15 → -5 %	5 → -6 %	11 → -18 %
Sales:	-28 %	-38 %	-39 %	-31 %	-50 %	-34 %	-67 %

Telecom contributes \$700M to the profit decline.

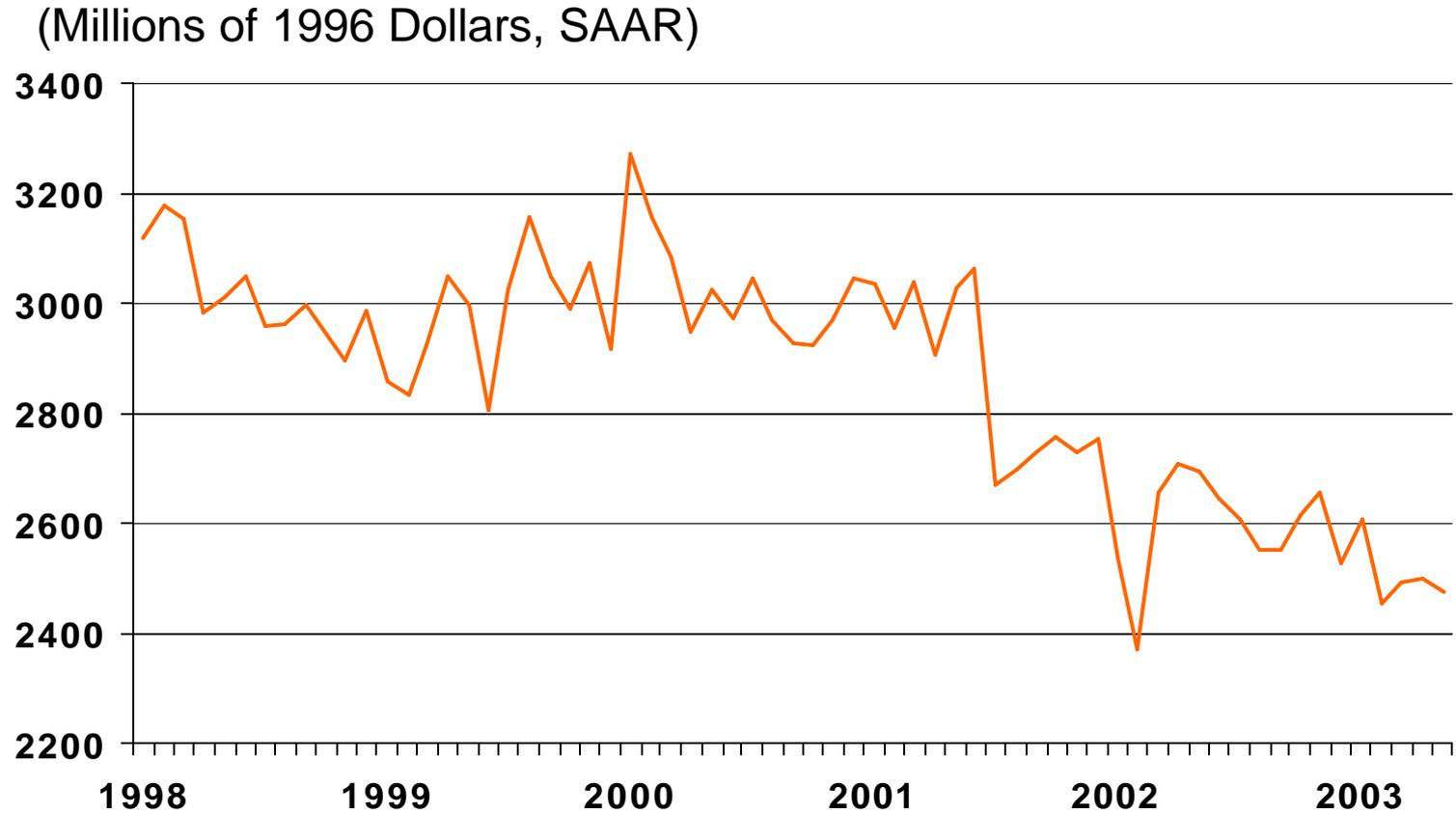
OP from "non-Telecom businesses" has become vital to many cablemakers



OP margin 2002	2.6 %	5.5 %	6.0 %	1.8 %	4.7 %	3.3 %
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- The environment has changed dramatically over the past two years - Most players have been injured and a few are barely alive
- All have been actively restructuring their operations to cope with current market conditions:
 - ◆ Significant headcount reductions at all major players.
 - ◆ Industrial rationalization with elimination of excess capacity and reduction of floor space
 - ◆ Reduction of SG&A in line with sales decline
- Looking forward, there is not any sign of a market recovery yet and the cable business is more challenging than ever:
 - ◆ Cost/price competitiveness will remain key to achieve decent margins
 - ◆ Fight among large and small players to secure/gain market share is likely to intensify
- **Impact of Asian, East European, South American competition will also intensify.**

Demand for Electrical Equipment Products has Declined 25% in the Last 5 Years



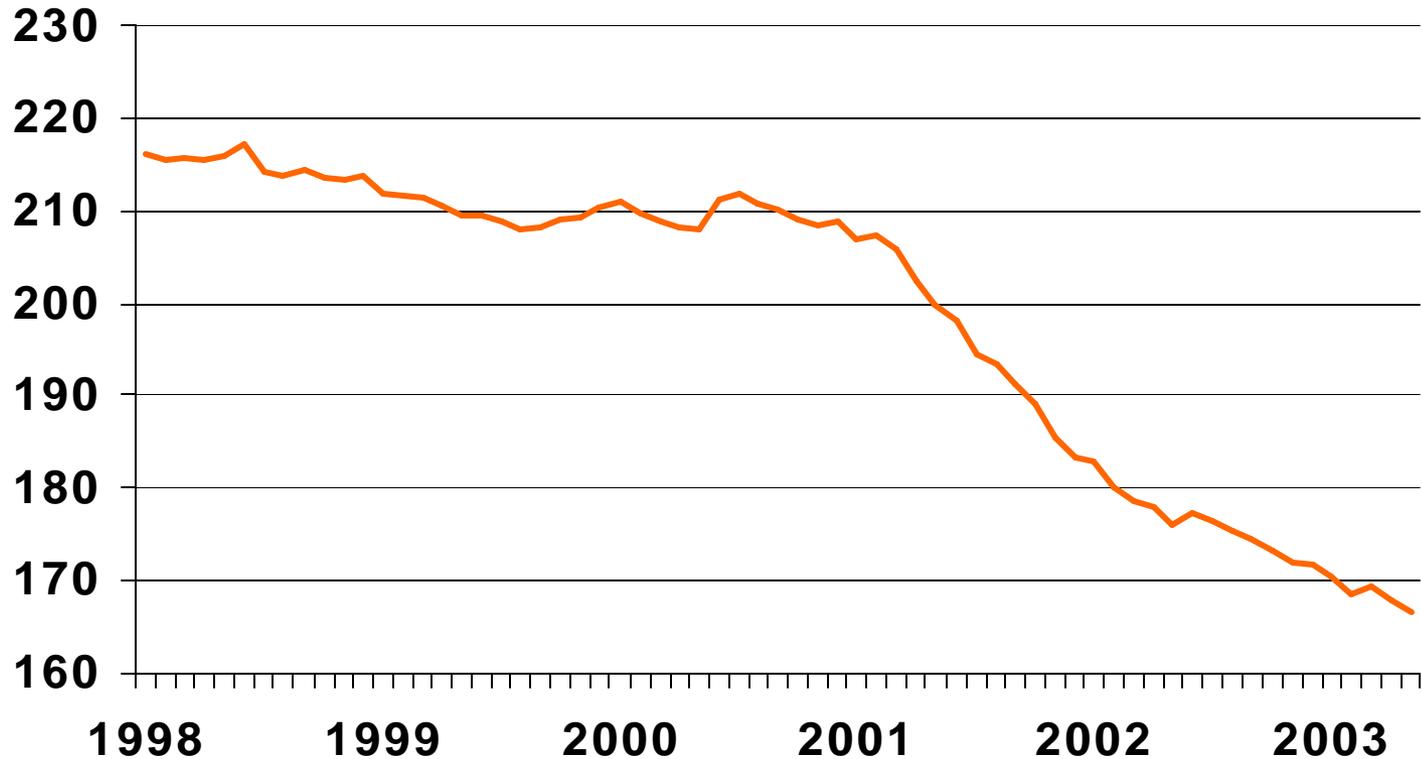
Source NEMA - July 2003

September 10, 2003

Presentation to ICC

Employment in our Industry has Declined 30% in the Same Period

(Number of Employees, in Thousands)



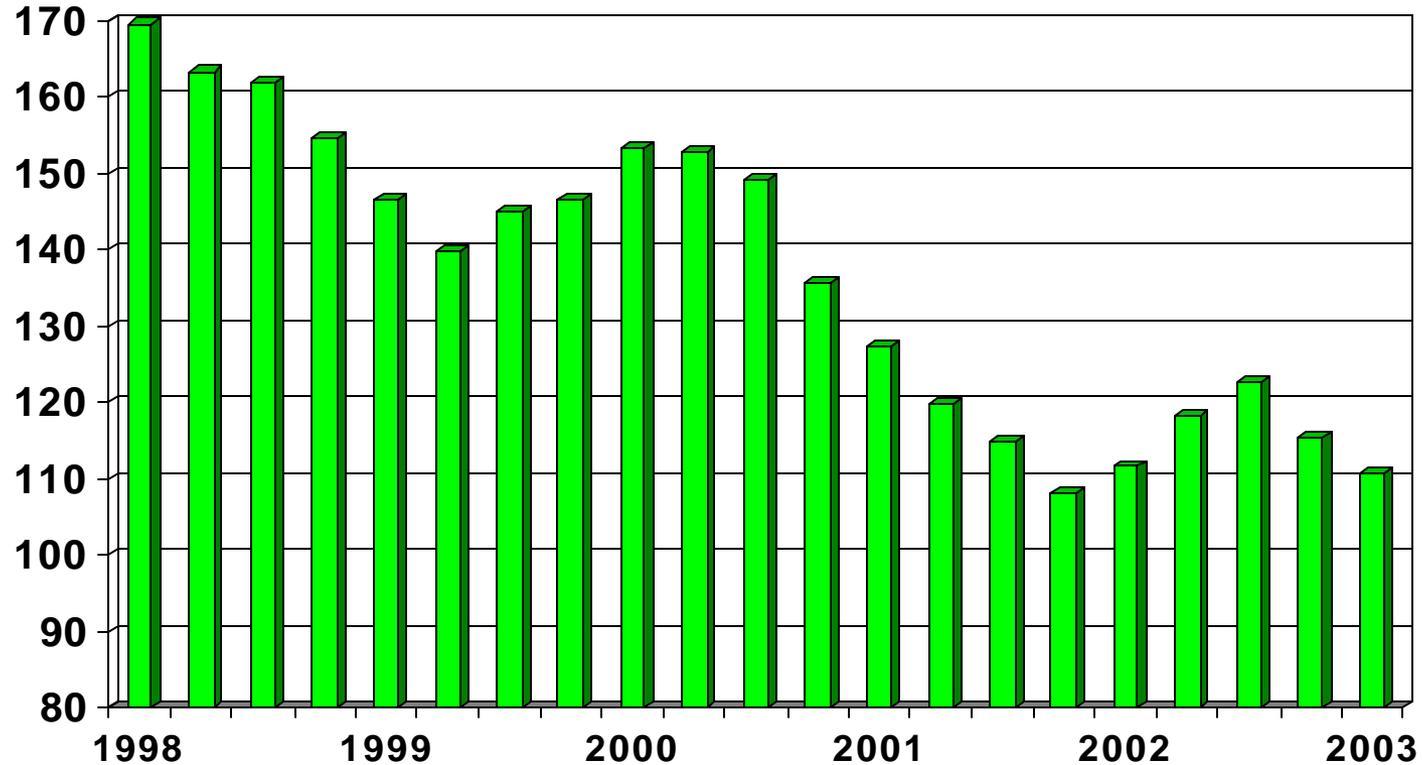
Source NEMA - July 2003

September 10, 2003

Presentation to ICC

Decline in US Demand for Wire and Cable is Even Greater

(Seasonally adjusted index, average quarter 1987=100)



Source NEMA - July 2003

September 10, 2003

Presentation to ICC

Future Challenges

- North America is an increasingly expensive manufacturing base.
 - ◆ High Labour and Benefit Costs.
 - ◆ Environmental, health and safety, taxation and other costs much higher than in developing countries.

Employment in US manufacturing has declined 20% since 2000.

- To succeed, North American manufacturers must continue to differentiate themselves.
 - ◆ Cannot compete on manufacturing cost alone on commodity items.
 - ◆ Must compete on service, quality and technical leadership and higher value added products.
 - ◆ Must continue to develop system solutions to create value-added to the customer.

Future Challenges

- Perhaps the biggest challenge of all is to advance cable and cable system design to facilitate high levels of manufacturing efficiency.

- The potential for significant infrastructure investment in the North American power grid, presents a real challenge for our wire and cable engineers.
 - ◆ Propose System Solutions
 - ◆ Propose Latest Technologies
 - ◆ Propose Underground Solutions Wherever and Whenever Possible.

Pro-active leadership from the wire and cable industry on this issue could improve the viability of our industry during the next decade.