SERENATE NREN Workshop
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SERENATE : Deliverable D6

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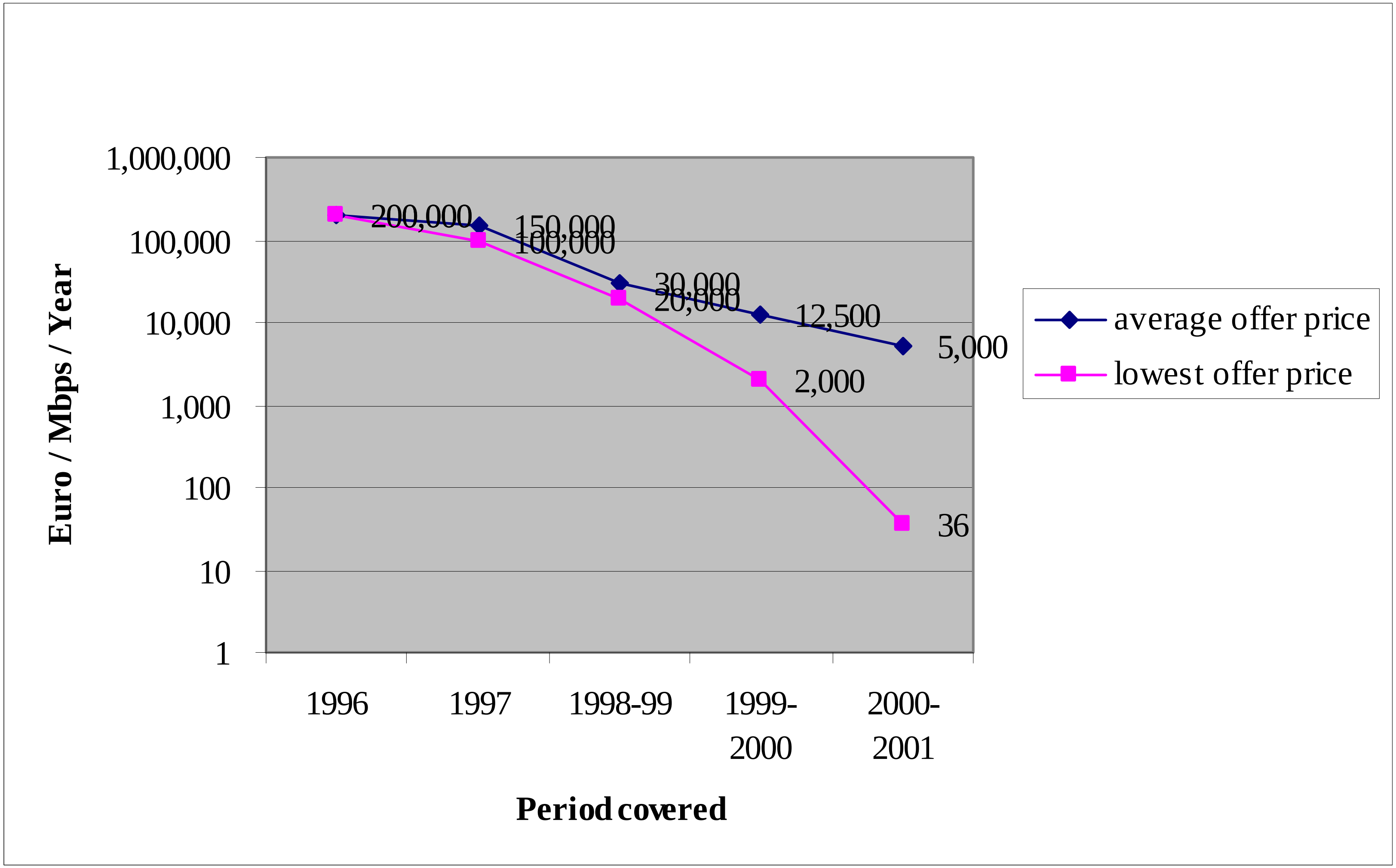
Table 1 Technology Available 1991-2002

Period	Most performant Data Link technology available	Technology available in pan-European network	Technology available in United States network
1991 - 1995	34/45 Mbps PDH	2 Mbps PDH	45 Mbps PDH
1996 - 1997	155 Mbps SDH	45 Mbps PDH	155 Mbps SDH
1997 - 2000	622 Mbps SDH	155 Mbps SDH	622 Mbps SDH
2000 +	10 Gbps DWDM	10 Gbps DWDM	2.5 Gbps DWDM

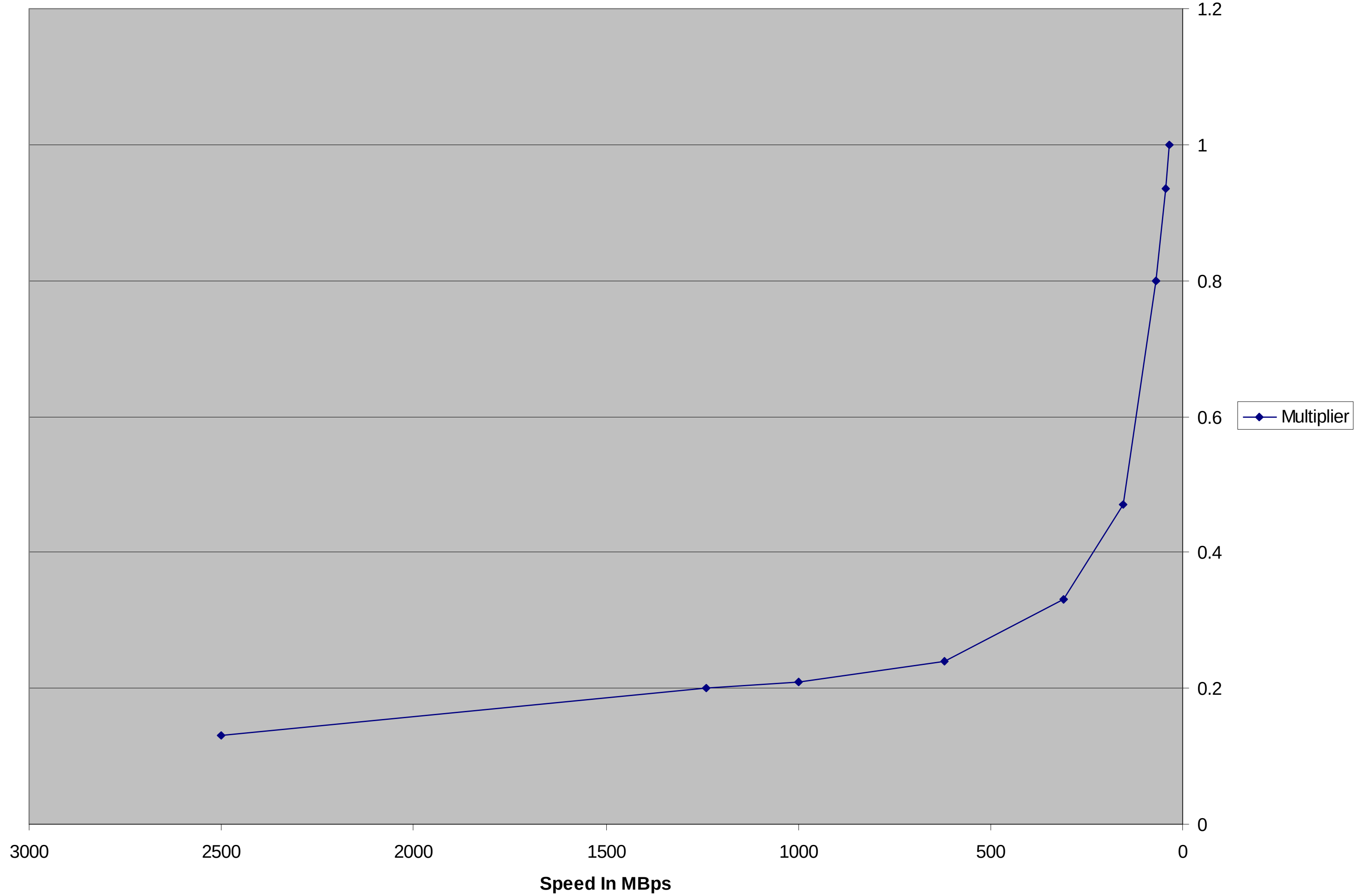
Table 2 International Connectivity Costs in the Differing Market Segments

Market segment	Number of Countries	Cost Range
Liberal Market with transparent pricing	8	1-1.4
Liberal Market with less transparent pricing structure	7	1.8-3.3
Emerging Market without transparent pricing	3	7.5-7.8
Traditional Monopolist market	9	18-39

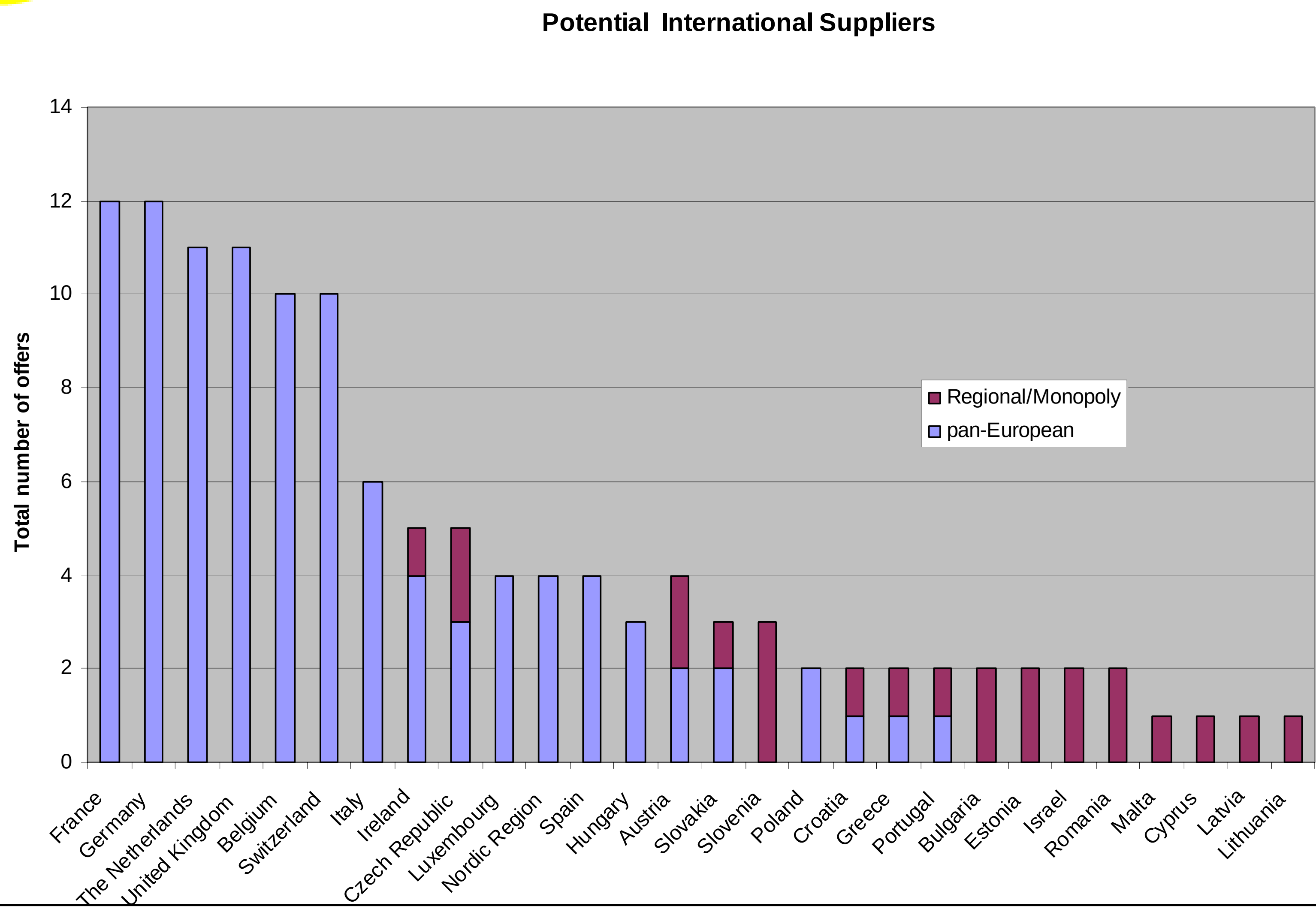
Evolution of Market Competitiveness : International Intra-European Connectivity



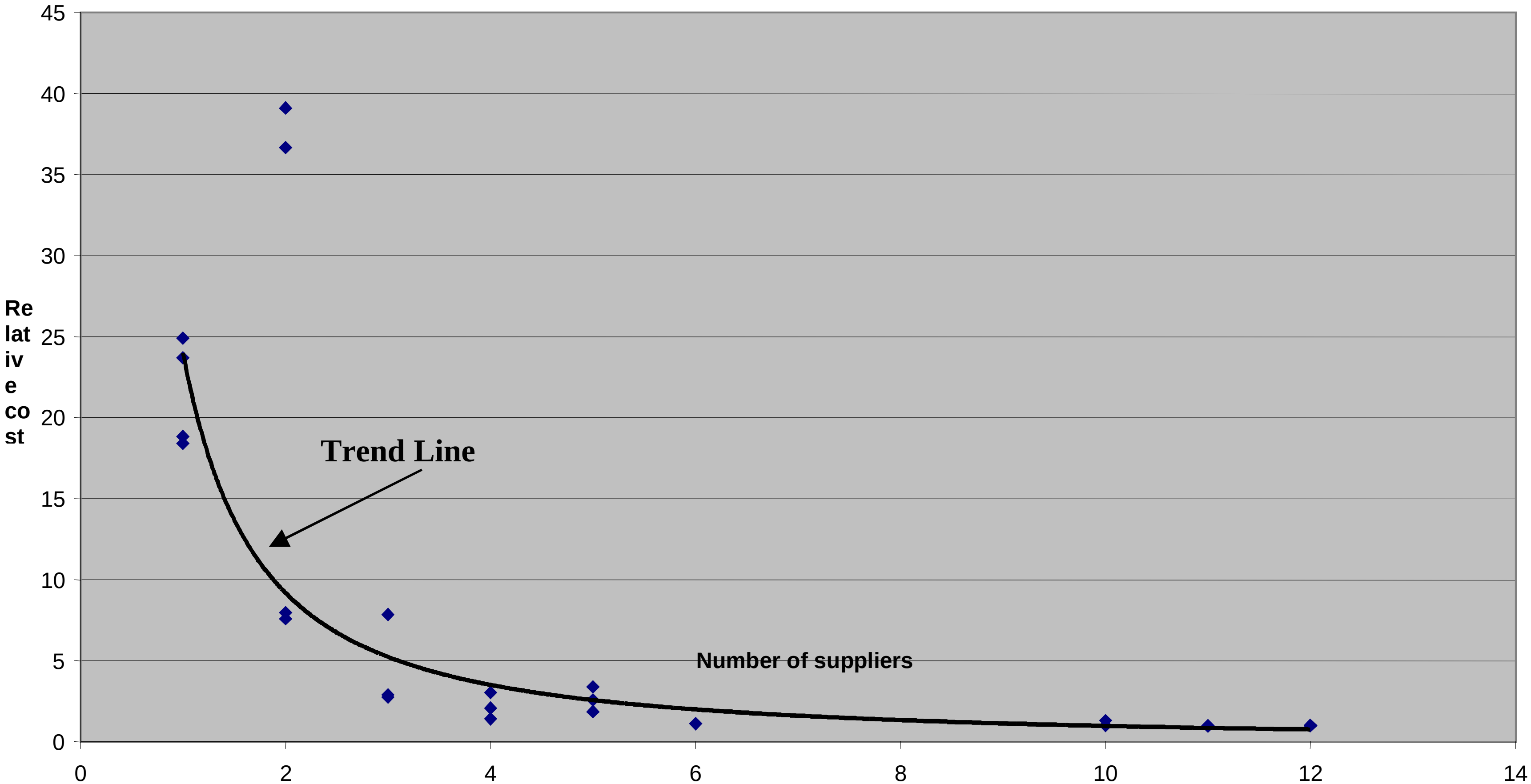
Multipliers for Differing Circuit Speeds



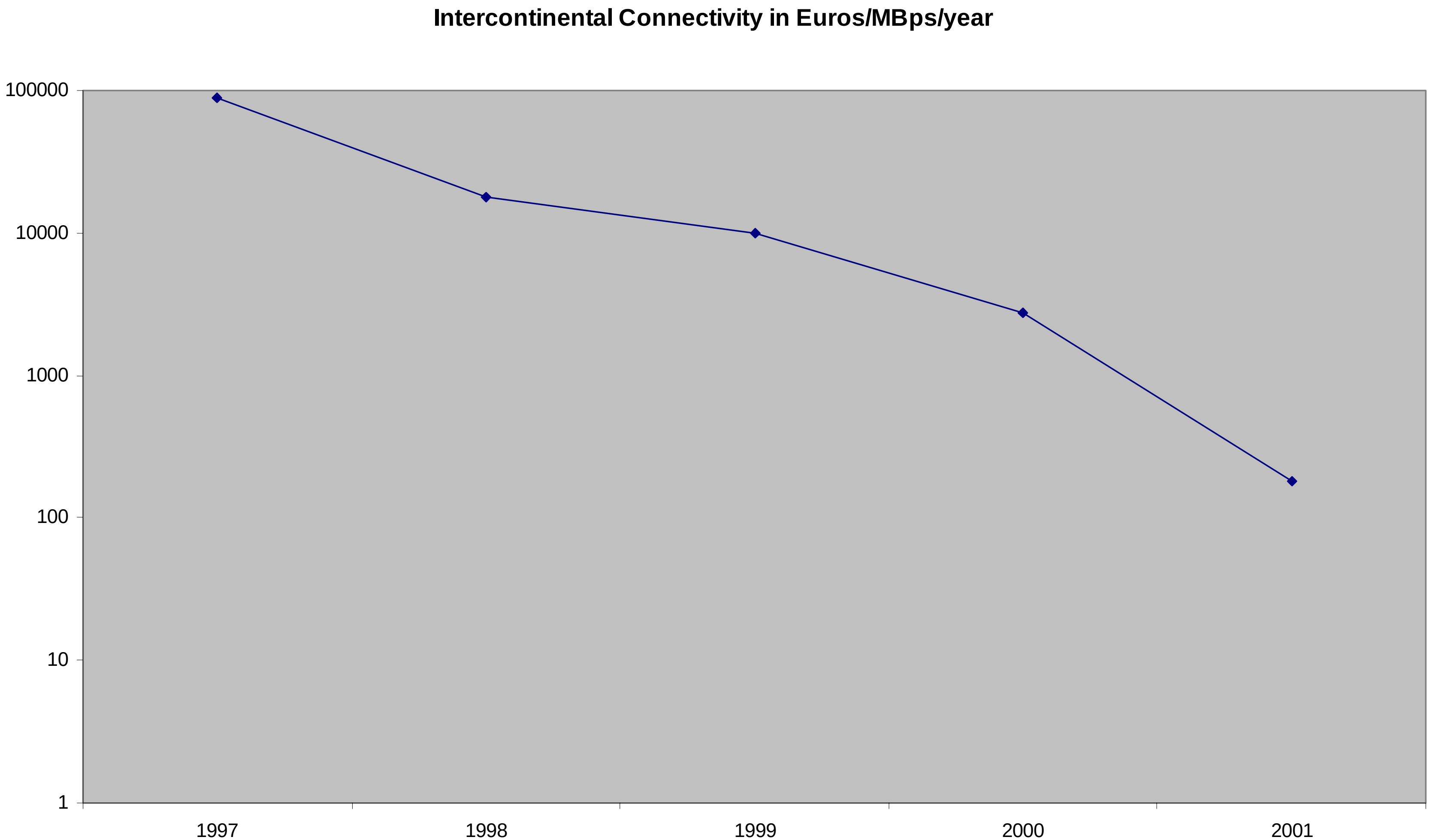
Graph of International Suppliers per Country (GÉANT Tender Data)



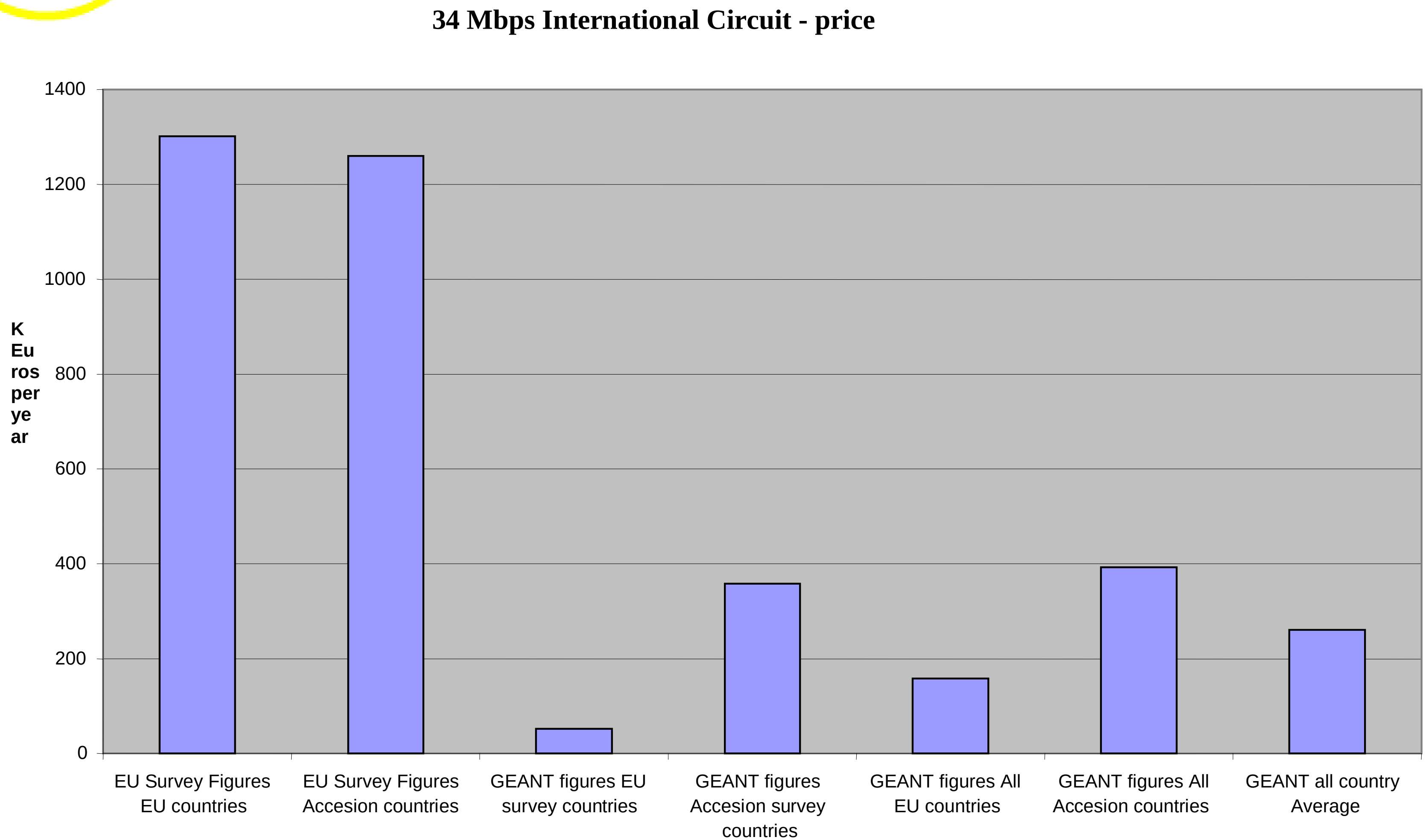
Relative Cost of Connectivity Compared with Number of Suppliers



Intercontinental Connectivity Price Evolution Europe-USA Route



Combined EU - Accession State Comparison



State of the Market

Where are KPN/Qwest, Teleglobe, Carrier1?

Prices are Stagnant

No one is making money

Conclusions

- Liberalisation has made a difference
- Significant digital divide
- EU view is complacent
- Market is not yet stable

Conclusions

Liberalisation has made a difference

Significant digital divide

EU view is complacent

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Scenario 3 (The Ugly)

More corporate failures

Return to the old PNO model

Fragmentation of the Market

Equality of Access denied

Scenario 2 (The Bad)

Current Market Structure is Maintained

Limited increase in Competition

Digital Divide Remains

Inequality of Access a factor

Scenario 1(The Good)

Cost effective connectivity for all

Equality of Access for all

Probability <10%

Needs political/direct action