Intellectual Capital for Communities
in the Knowledge Economy
Nations, Regions, Cities and Emerging Communities

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World Conference on Intellectual Capital for Communities
- Third Edition -

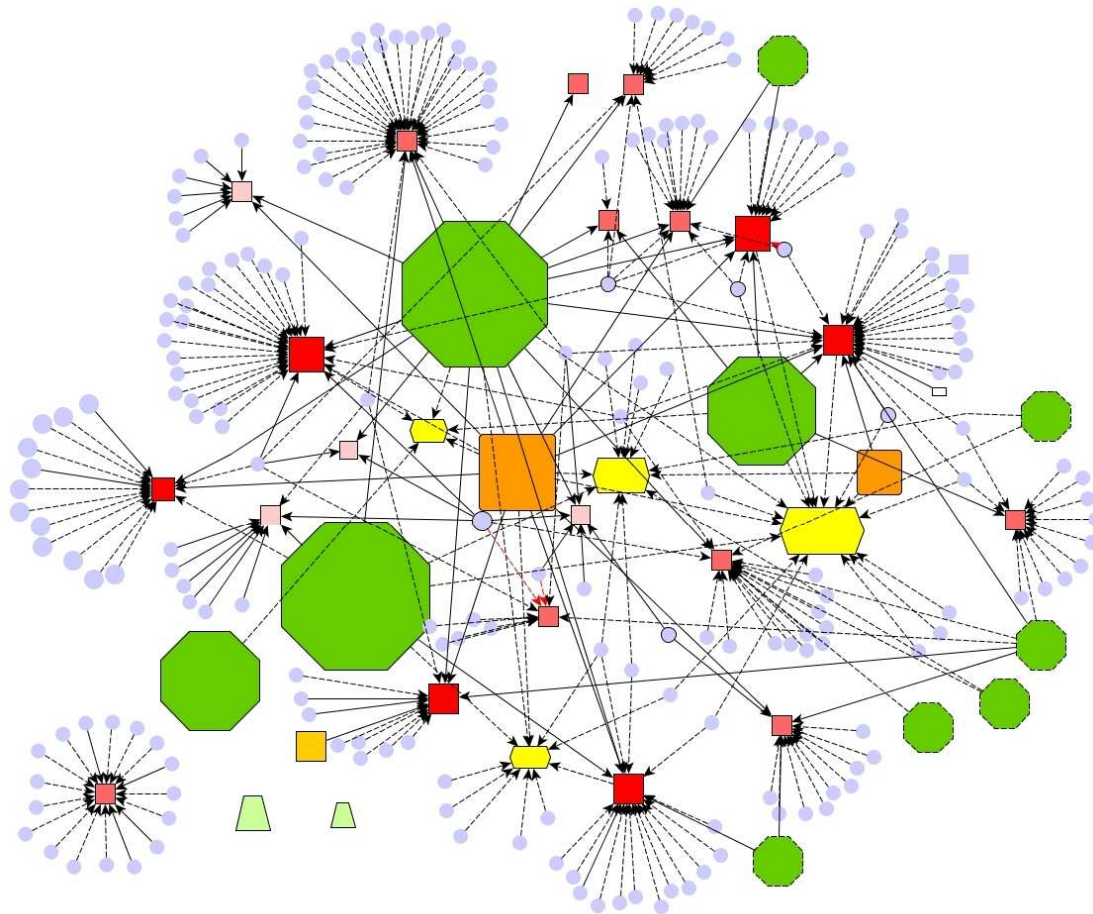# Strategic Governance: Measuring the Performance of Knowledge-Intensive Networks in the Public and Private Sectors

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May 24, 2007

Effective Measurement of Nework Impacts is Crucial to Strategic Governance

- **Changes in strategic governance of institutions reflect growing economic complexity**

- **These developments span the public and private sectors as well as national boundaries**

- **The market is moving: monitoring and evaluating indicators for knowledge intensive networks has begun**

- **Measurement methodologies are constrained only by lack of comparability**

- **Specific examples that follow illustrate the robust nature of experimentation in Europe and the US.**

New Governance Strategies Have Been Implemented (MAP*)

- combining various actors
- bundles of concerted measures
- shaping structures and collaborations

- US, Japan, Australia
- EU: Sweden, France, Finland, Austria, …

*Multi Actors Multi Measures Programmes

Austrian Best Practice Experience: Conclusions for Governance

Network Approach / Performance Indicators	Research	Innovation	
		phys. Infr.	virtual
Network Partners (average value)			
network partners	23,6	9	6
research institutions/universities	7,5	2,4	1,6
industrial partners	14,4	6,2	4,6
range minimum - maximum	10 - 45	3 - 20	
strengthening **science-industry cooperations**	↗	↘	↘
stimulating **private R&D-investment**	↗	~	~
faster willingness for **risky R&D activities**	↗	↗	↗
new cooperations/partners - **openness**	↗	↘	~
interregional/international **embeddedness**	↗	↘	↘
creation of **critical masses**	↗	↗	~
improvement of **regional attractiveness**	↗	↗	~

Source: aggregated by convelop after Edler et al. 2004b.

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Network-Analysis is Prescribed in Austria's Future Evaluation Concept

Examples for interrelated network indicators measuring cooperation
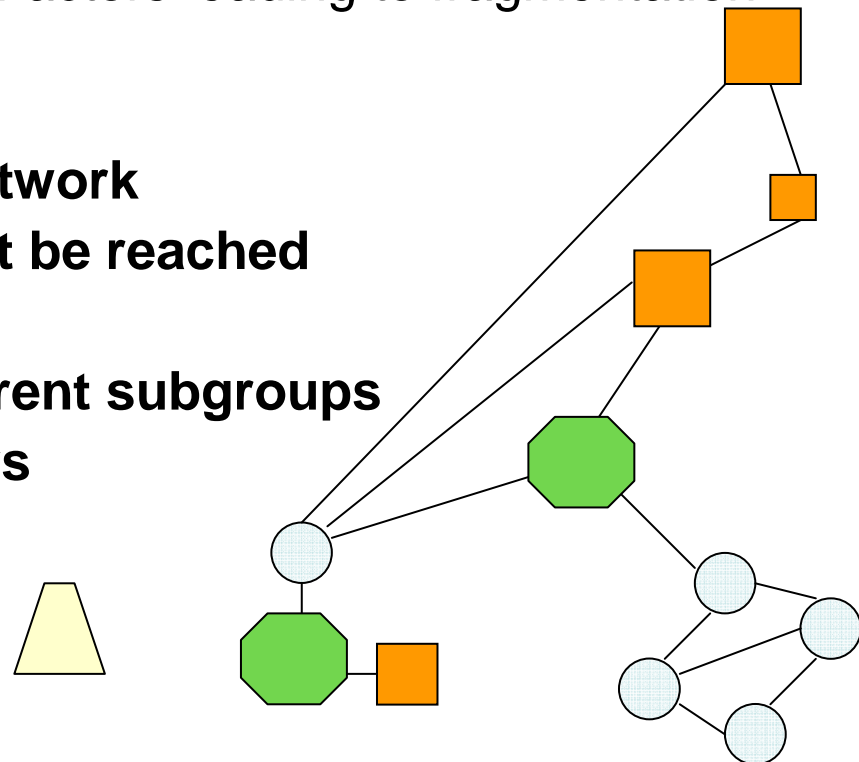
- **Stability:**
  - **minimum cutset:** Number of actors leading to fragmentation when removed
- **Efficiency:**
  - **path length through the network**
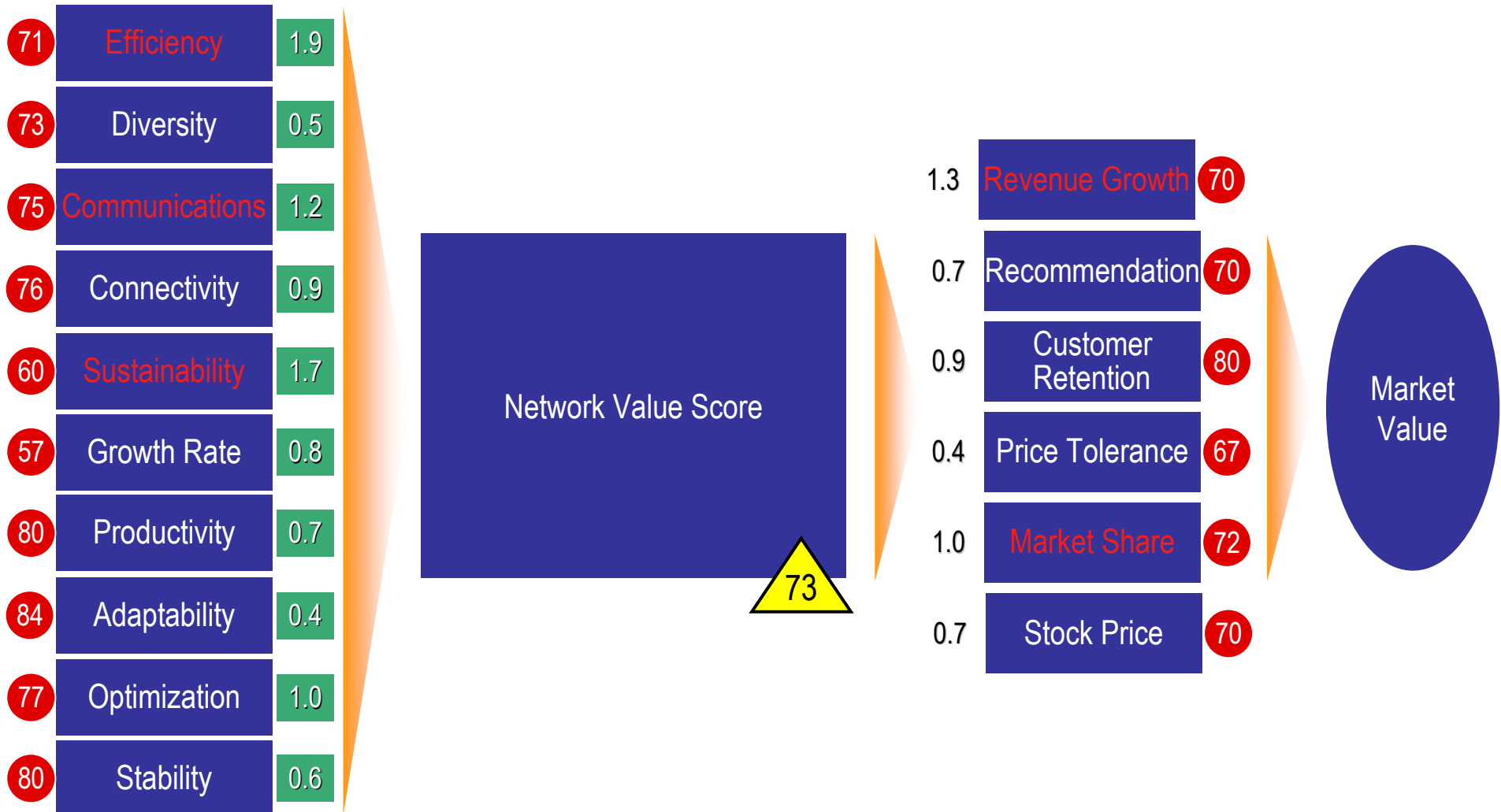 - **Number of actors that can't be reached**
- **Diversity:**
  - **connections between different subgroups**
  - **different attributes of actors**

Measuring the Impact of Network Performance on Financial Outcomes in the Private Sector

- The impact of a change in network performance on financial results, including stock price, can be quantified with 95% assurance. 3.5% of stock price movement could be traced to these effects in one corporate example.

- 81% of corporate executives complain that management information is not well aligned with corporate strategy.

- <u>Communications</u> about intangible value has a quantifiable impact on results(as much as $300MM in one study).

- Impact on employee commitment by country, length of service, position, union vs. non-union, subsidiary can be measured.

- These methods can measure the effect of improvements or declines in networks on brand, reputation and financial performance.
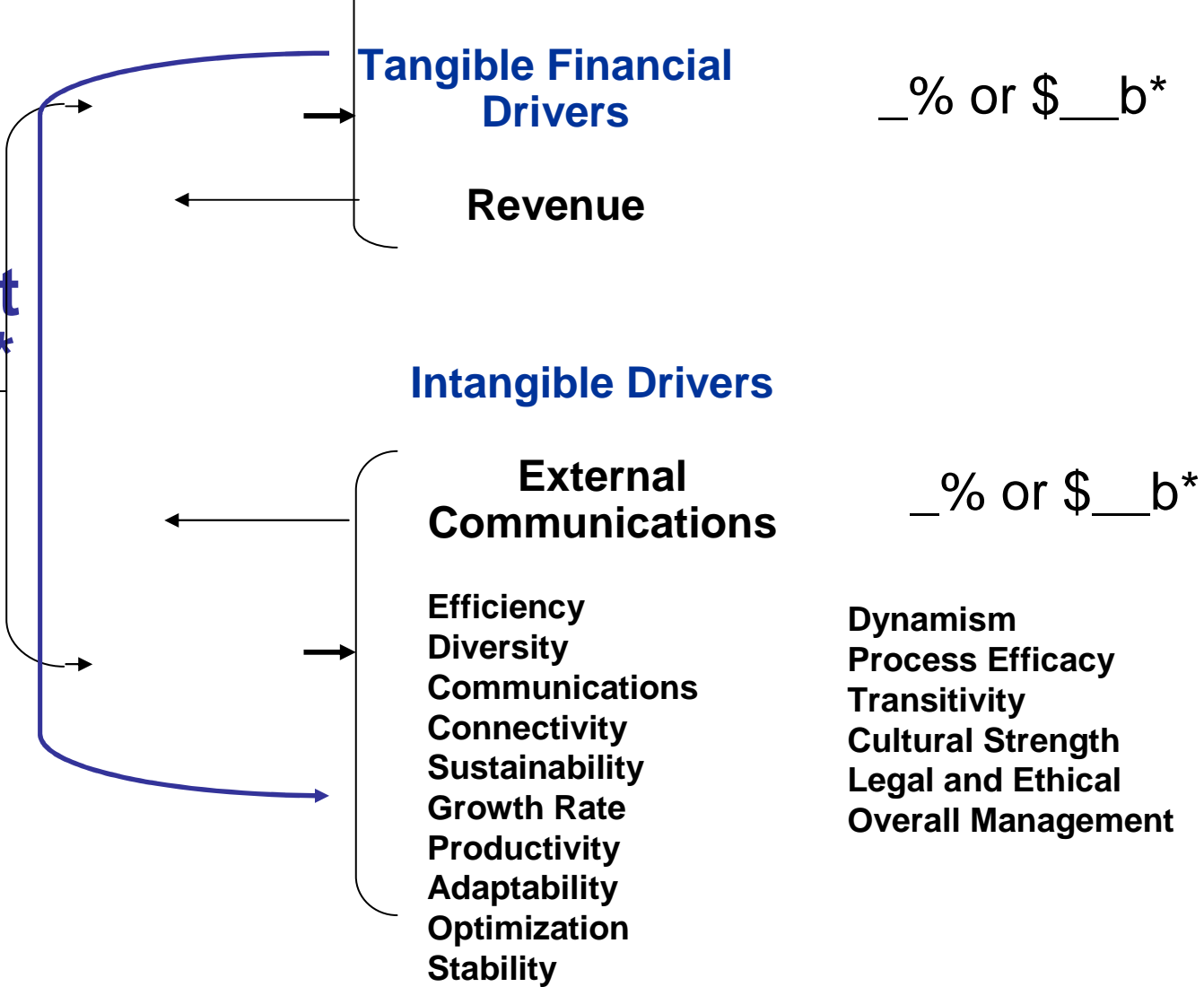
Network Value Model

Market Value Can Be Statistically Attributed to Messages About These Network Value Drivers.

Client Market Value*

*_B as of cob 2/17/06

Tangible Financial Drivers

_% or $__b*

Revenue

Intangible Drivers

External Communications

_% or $__b*

Efficiency
Diversity
Communications
Connectivity
Sustainability
Growth Rate
Productivity
Adaptability
Optimization
Stability

Dynamism
Process Efficacy
Transitivity
Cultural Strength
Legal and Ethical
Overall Management

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Evaluating Comparative Performance of Both Driver Scores (on left) and Revenue Impacts (on right)

Communications About:	Client Score US	Comp#1 Score UK	Comp#2 Score Austria	Potential Impact (%)
Efficiency	67	72	60	0.49
Diversity	65	65	55	0.19
Connectivity	57	60	52	0.49
Sustainability	53	51	48	1.64
Optimization	56	50	48	0.01
Adaptability	52	57	49	0.02
Productivity	45	48	50	0.16
Stability	44	44	45	0.63
Growth Rate	38	47	40	0.16

Revenue

Baseline %=100

Revenue =2397.75*
Revenue Deferred = 1747.5*

* Revenue = millions

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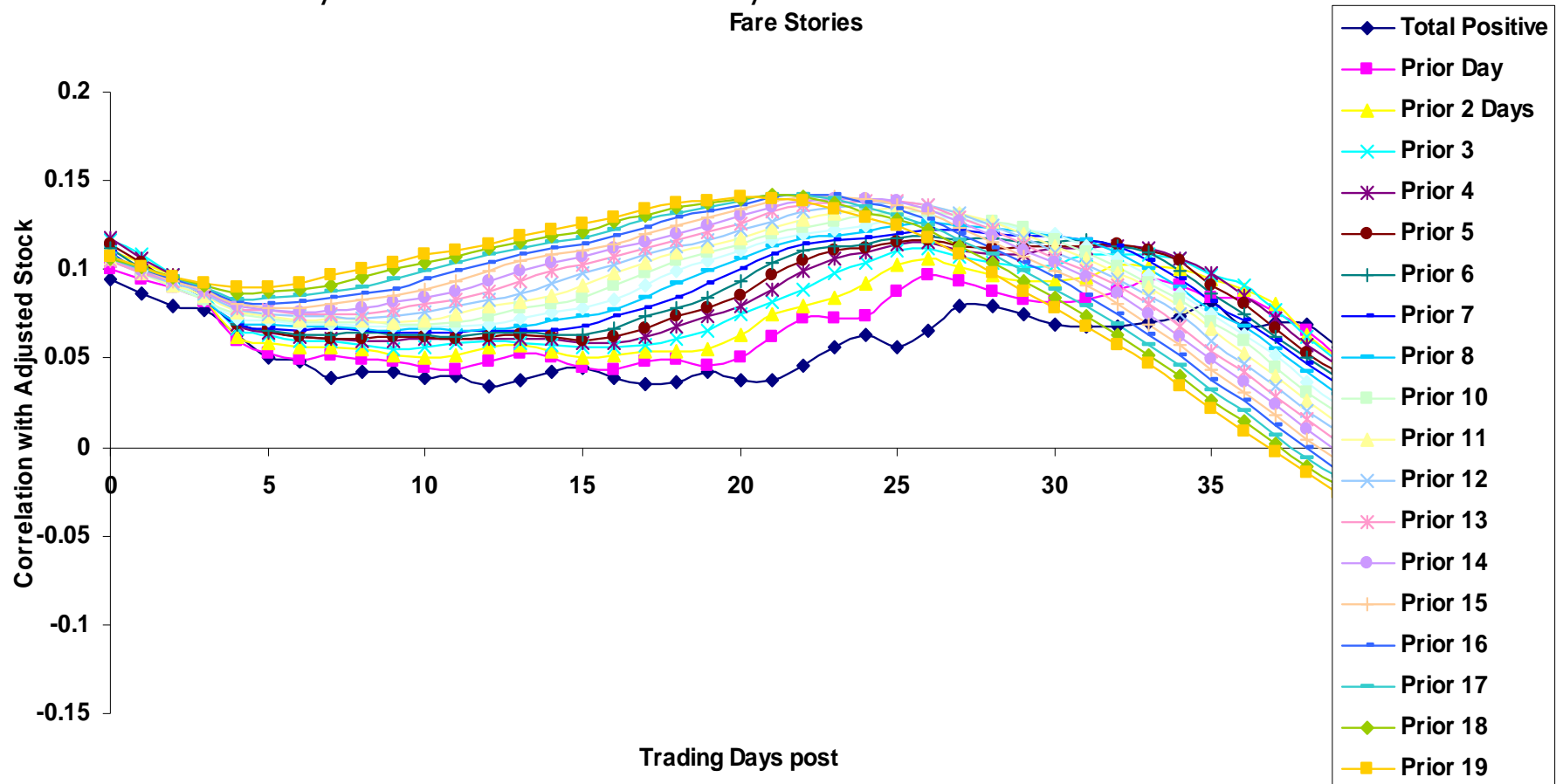
Certain Messages Have a Persistent Impact on Stock Price Measured Through Impact on Share Trading

Positive revenue stories have a life of about two months. The maximum occurs at cumulative 17 days stories with stock at 22 days

Fare Stories

Legend: Total Positive, Prior Day, Prior 2 Days, Prior 3, Prior 4, Prior 5, Prior 6, Prior 7, Prior 8, Prior 10, Prior 11, Prior 12, Prior 13, Prior 14, Prior 15, Prior 16, Prior 17, Prior 18, Prior 19

Y-axis: Correlation with Adjusted Stock

X-axis: Trading Days post

Conclusions, Further Research

- **The impact of networks on innovation, productivity and financial results has been established in both the public and private sectors.**

- **What is missing is a unifying and comparable set of metrics to capture impact and measure changes.**

- **Initial results from the US and Europe (eg, Austria) are positive.**

- **Strategic governance of public and private institutions will be enhanced by development of measurement indicators taking into account the interactive character of intangibles.**