

# Knowledge Intensive Business Services – distinctive innovation, distinctive roles in innovation systems

Ian Miles

(a) Manchester Institute of Innovation Research  
Manchester Business School

(b) Laboratory for the Economics of Innovation, Higher School of  
Economics, Moscow

**ian.miles@mbs.ac.uk**

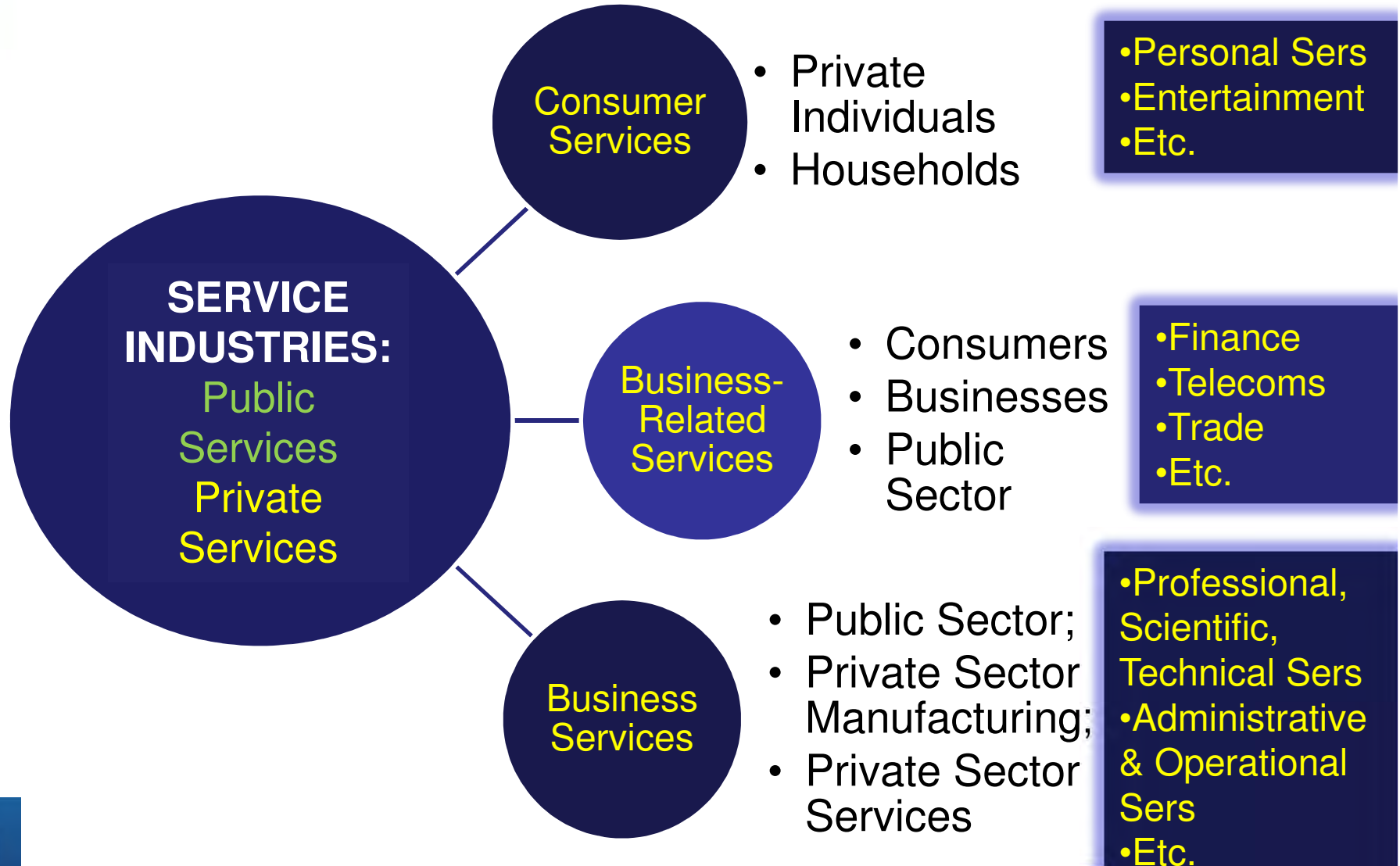
# Outline

- ✚ What KIBS are
- ✚ What they do
- ✚ How they do it
- ✚ How they contribute to innovation

# Service Industries in the Economy

## Supplying sectors

## Customer sectors Examples

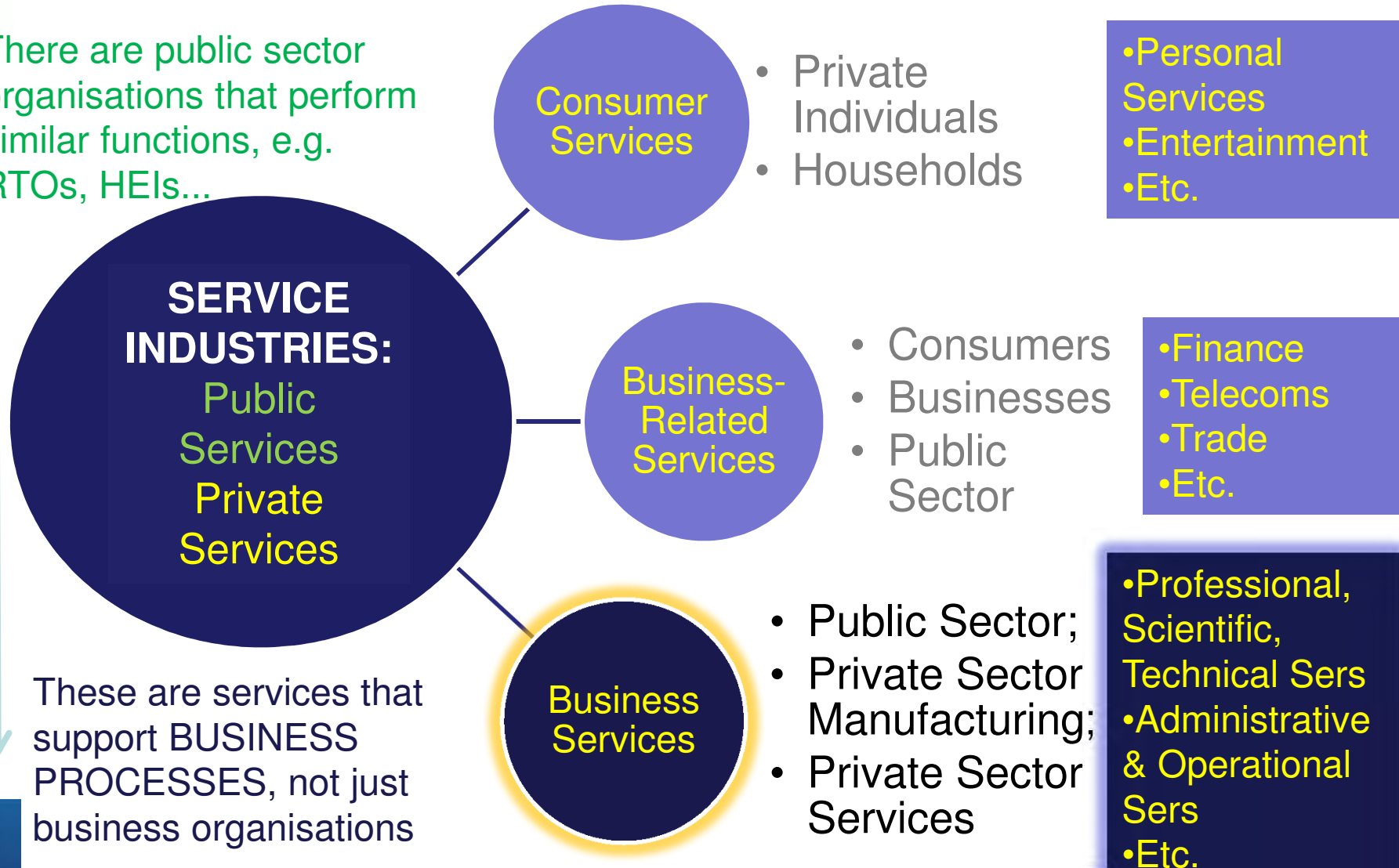


# Business Services Sector

## Supplying sectors

## Customer sectors Examples

There are public sector organisations that perform similar functions, e.g. RTOs, HEIs...



These are services that support BUSINESS PROCESSES, not just business organisations

# KIBS – initial definition (1995)

Service businesses that:

- ✚ Rely heavily upon professional knowledge. Thus, their employment structures are heavily weighted towards scientists, engineers, experts of all types. Many are practitioners of technology and technical change, Whatever their technological or professional specialism, they will also tend to be leading users of Information Technology to support their activities.
- ✚ **Either** supply products which are themselves primarily sources of information and knowledge to their users (e.g. measurements, reports, training, consultancy);
- ✚ **Or** use their knowledge to produce services which are intermediate inputs to their clients' own knowledge generating and information processing activities (e.g. communication and computer services). These client activities may be for internal use or supplied to yet other users in turn.
- ✚ Have as their main clients other businesses (including public services and the self-employed). Indeed, knowledge-intensive activities will frequently tend to be business-related, since as labour-intensive activities they will be relatively costly. (Educational and medical services demonstrate that delivery to final consumers often has to be mediated through collective service organisation.)

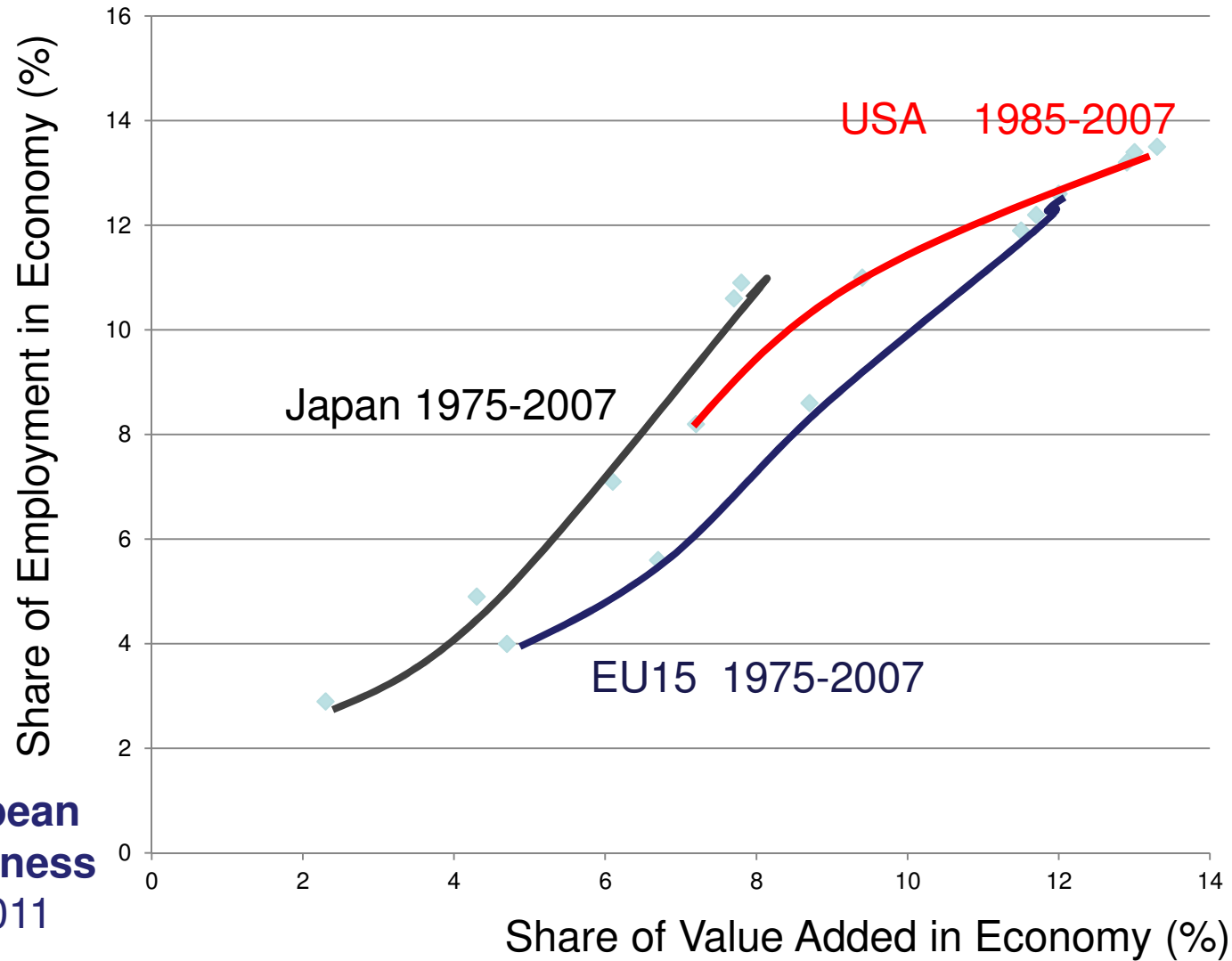
Miles et al (1995) at [http://www.academia.edu/4122950/Knowledge-Intensive Business Services Users Carriers and Sources of Innovation.pdf](http://www.academia.edu/4122950/Knowledge-Intensive_Business_Services_Users_Carriers_and_Sources_of_Innovation.pdf)

# Defining KIBS – EMCC (2005)

- ✚ KIBS are mainly concerned with providing knowledge-intensive inputs to the **business processes** of other organizations. These.... include public sector clients – KIBS do not only provide services to businesses.
- ✚ NACE 1 – most of divisions 72-75 are KIBS, plus a few others
- ✚ **Knowledge-intensity** is not easy to measure... one convenient indicator is the shares of graduates in an industrial workforce. By this measure, KIBS are unusually high in terms of graduate-intensity. The graduates have been trained in different areas of knowledge: some specialize more in scientific and technological knowledge, others more in administrative, managerial or sociolegal affairs.

<http://www.eurofound.europa.eu/emcc/publications/2005/ef0559en.pdf>

# KIBS: rapid growth in share of economy



From **European Competitiveness Report, 2011**

# How important are these services? Share of EU economy

Business services (NACE Divisions 72 and 74)  
Share of non-financial business economy, EU-27, 2004 (%) (1)

	No. of enterprises	Turnover	Value added	Employment
<b>Business services</b>	20.6	7.6	14.5	15.5
Computer services	2.6	1.6	3.0	2.1
Other business activities	18.0	6.0	11.5	13.5
Legal, accounting & management services	7.5	2.1	4.3	3.5
Architectural & engineering activities; technical testing & analysis	4.4	1.2	2.1	2.0
Advertising	1.0	0.7	0.7	0.7
Labour recruitment & provision of personnel	0.3	0.5	1.5	2.3
Other business services	4.8	1.5	2.9	5.0

Eurostat, 2007, European Business

**14.5% EU VA**

**15.5% EU business sector employment**

Presentation for NECTEC, Bangkok, August 2013



# Statistical Classification - Business Services Sector – NACE1

72	72.1	Computer and related activities	
		Hardware consultancy	
	72.10	Hardware consultancy	
	72.2	Software consultancy and supply	
	72.20	Software consultancy and supply	
	72.3	Data processing	
	72.30	Data processing	
	72.4	Database activities	
	72.40	Database activities	
	72.5	Maintenance and repair of office, accounting and computing machinery	
	72.50	Maintenance and repair of office, accounting and computing machinery	
72.6	Other computer related activities		
	72.60	Other computer related activities	
73		Research and development	
	73.1	Research and experimental development on natural sciences and engineering	
		73.10	Research and experimental development on natural sciences and engineering
	73.2	Research and experimental development on social sciences and humanities	
	73.20	Research and experimental development on social sciences and humanities	
74		Other business activities	
	74.1	Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	
		74.11	Legal activities
		74.12	Accounting, book-keeping and auditing activities; tax consultancy
		74.13	Market research and public opinion polling
		74.14	Business and management consultancy activities
		74.15	Management activities of holding companies
	74.2	Architectural and engineering activities and related technical consultancy	
		74.20	Architectural and engineering activities and related technical consultancy
	74.3	Technical testing and analysis	
		74.30	Technical testing and analysis
	74.4	Advertising	
		74.40	Advertising
	74.5	Labour recruitment and provision of personnel	
		74.50	Labour recruitment and provision of personnel
	74.6	Investigation and security activities	
	74.60	Investigation and security activities	
74.7	Industrial cleaning		
	74.70	Industrial cleaning	
74.8	Miscellaneous business activities n.e.c.		
	74.81	Photographic activities	
	74.82	Packaging activities	
	74.83	Secretarial and translation activities	
	74.84	Other business activities n.e.c.	

# Statistical Classification - Business Services Sector – NACE1

Section K		Real estate, renting and business activities	
71	71.1, .2	<i>Leasing &amp; renting</i>	• Renting of transport, construction equipment, office machinery
72	72.1 – 6	<b>Computer</b>	• Hardware consultancy • Software consultancy • Data processing • Database activities
73	73.1 - 2	<b>R&amp;D</b>	• Research and experimental development •...on natural sciences and engineering •...on social sciences and humanities
74	74.2 - 3	<b>Technical</b>	• Architectural activities • Engineering activities • Technical testing and analysis
	74.11- 12, 74.14	<b>Professional</b>	• Legal activities • Accounting & tax consultancy • Management consulting
	74.13, 74.4	<b>Marketing</b>	• Market research • Advertising
	74.5	<i>Labour recruitment</i>	• Labour recruitment and provision of personnel
	74.6 - 7	<i>Operational</i>	• Security activities • Industrial cleaning
	74.81 - 84	<i>Other</i>	• Secretarial and translation activities • Photography • Packing activities • Fairs & exhibitions

# Statistical Classification - Business Services Sector – NACE2

Section	Title	Divisions
A	Agriculture, forestry and fishing	01 – 03
B	Mining and quarrying	05 – 09
C	Manufacturing	10 – 33
D	Electricity, gas, steam and air conditioning supply	35
E	Water supply; sewerage, waste management and remediation activities	36 – 39
F	Construction	41 – 43
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	45 – 47
H	Transportation and storage	49 – 53
I	Accommodation and food service activities	55 – 56
J	Information and communication	58 – 63
K	Financial and insurance activities	64 – 66
L	Real estate activities	68
<hr style="border-top: 1px dashed black;"/>		
M	Professional, scientific and technical activities	69 – 75
N	Administrative and support service activities	77 – 82
<hr style="border-top: 1px dashed black;"/>		
O	Public administration and defence; compulsory social security	84
P	Education	85
Q	Human health and social work activities	86 – 88
R	Arts, entertainment and recreation	90 – 93
S	Other service activities	94 – 96
T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	97 – 98
U	Activities of extraterritorial organisations and bodies	99



# Professional, Scientific and Technical Services (M)

Division	Group	Class	
SECTION M — PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES			
69	69.1		Legal and accounting activities
			Legal activities
	69.2	69.10	Legal activities
		69.20	Accounting, bookkeeping and auditing activities; tax consultancy
70	70.1		Activities of head offices; management consultancy activities
			Activities of head offices
	70.2	70.10	Activities of head offices
		70.21	Management consultancy activities
		70.22	Public relations and communication activities
71	71.1		Business and other management consultancy activities
			Architectural and engineering activities; technical testing and analysis
			Architectural and engineering activities and related technical consultancy
	71.2	71.11	Architectural activities
		71.20	Engineering activities and related technical consultancy
72	72.1		Technical testing and analysis
			Scientific research and development
		72.11	Research and experimental development on natural sciences and engineering
		72.19	Research and experimental development on biotechnology
	72.2	72.20	Other research and experimental development on natural sciences and engineering
73	73.1		Research and experimental development on social sciences and humanities
			Advertising and market research
			Advertising
	73.2	73.11	Advertising agencies
		73.20	Media representation
74	74.1		Market research and public opinion polling
			Market research and public opinion polling
	74.2	74.10	Other professional, scientific and technical activities
		74.20	Specialised design activities
	74.3	74.30	Specialised design activities
		74.90	Photographic activities
75	75.0		Translation and interpretation activities
			Translation and interpretation activities
		Other professional, scientific and technical activities n.e.c.	
		Other professional, scientific and technical activities n.e.c.	
		Veterinary activities	
		Veterinary activities	
		Veterinary activities	

**LEGAL**

**ACCOUNTANCY**

**CONSULTANCY**

**ARCHITECTURE**

**ENGINEERING**

**R&D**

**ADVERTISING**

**MARKET RESEARCH, POLLING**

**DESIGN**

**PHOTOGRAPHY**

**TRANSLATION**

**OTHERS**

**VETERINARY**

Computer and IT services moved to section J  
61-telecomms  
62-computers  
63- info. services

# Administrative and Support Services (N)

Division	Group	Class	
<b>SECTION N — ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES</b>			
77	77.1		Rental and leasing activities
			Renting and leasing of motor vehicles
	77.2	77.11	Renting and leasing of cars and light motor vehicles
		77.12	Renting and leasing of trucks
	77.3	77.21	Renting and leasing of personal and household goods
		77.22	Renting and leasing of recreational and sports goods
		77.29	Renting of video tapes and disks
			Renting and leasing of other personal and household goods
		77.31	Renting and leasing of other machinery, equipment and tangible goods
		77.32	Renting and leasing of agricultural machinery and equipment
		77.33	Renting and leasing of construction and civil engineering machinery and equipment
	77.4	77.34	Renting and leasing of office machinery and equipment (including computers)
		77.35	Renting and leasing of water transport equipment
		77.39	Renting and leasing of air transport equipment
		Renting and leasing of other machinery, equipment and tangible goods n.e.c.	
		Leasing of intellectual property and similar products, except copyrighted works	
		Leasing of intellectual property and similar products, except copyrighted works	
		Leasing of intellectual property and similar products, except copyrighted works	
78	78.1		Employment activities
	78.10	Activities of employment placement agencies	
	78.2	Temporary employment agency activities	
	78.20	Temporary employment agency activities	
	78.3	Other human resources provision	
79	78.30	Other human resources provision	
	79.1		Travel agency, tour operator reservation service and related activities
	79.11	Travel agency and tour operator activities	
	79.12	Travel agency activities	
	79.9	Tour operator activities	
80	79.90	Other reservation service and related activities	
	80.1		Security and investigation activities
	80.10	Private security activities	
	80.2	Private security activities	
	80.20	Security systems service activities	
	80.3	Security systems service activities	
81	80.30	Investigation activities	
	81.1		Services to buildings and landscape activities
	81.10	Combined facilities support activities	
	81.2	Combined facilities support activities	
	81.21	Cleaning activities	
	81.22	General cleaning of buildings	
	81.29	Other building and industrial cleaning activities	
81.3	Other cleaning activities		
	81.30	Landscape service activities	
		Landscape service activities	

**RENTING, LEASING**

**EMPLOYMENT SERVICES**

**TRAVEL SERVICES**

**SECURITY SERVICES**

**FACILITIES SERVICES**

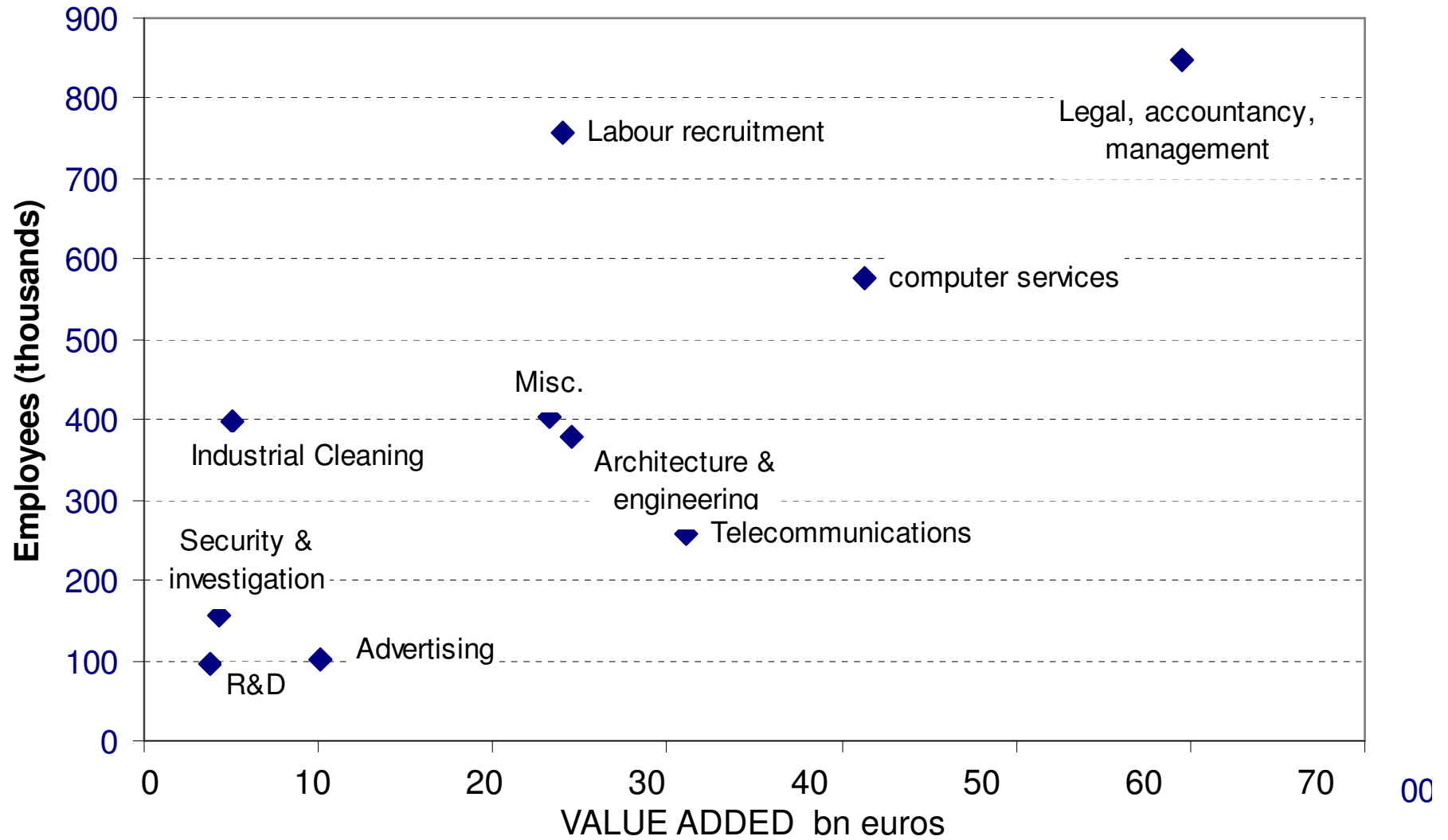
**CLEANING**

**LANDSCAPING**

Catering could have been here



# Relative Scale of various BS in the UK, 2000

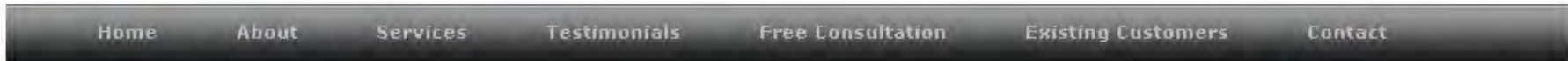


# Examples: Computer Services



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### Preformulation Studies

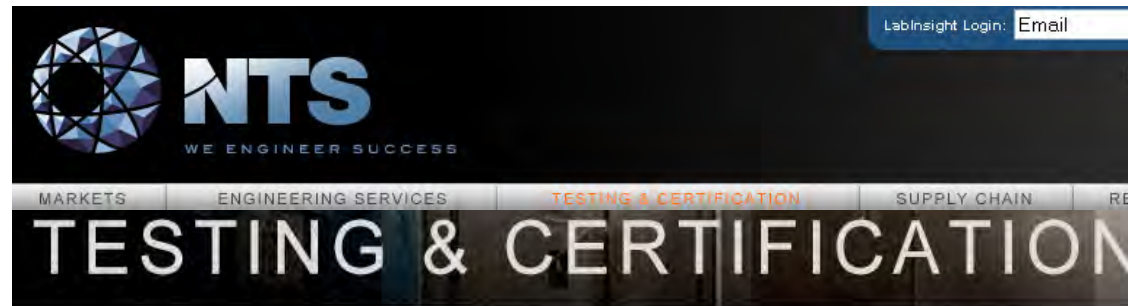
Comprehensive physico-chemical characterizations are provided for active pharmaceutical ingredients, with preformulation protocols designed to meet the requirements of your specific compound. Physical property evaluations may include microscopy, particle size analysis, crystallinity and crystal form identification, polymorphic behavior, thermal properties (melt transitions, desolvation, glass transition) and hygroscopicity. With respect to chemical characterization, solubility studies may be required in aqueous and non-aqueous solvents, along with pKa determination, partition coefficient and filter adsorption studies. Stability may involve solid state, solution and light exposure. Active and excipient compatibility studies are performed. Analytical reference standards for degradation products can be generated by preparative HPLC.

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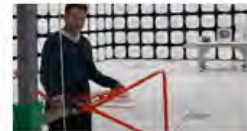
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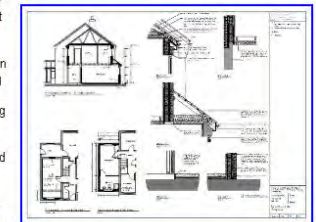
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### Links for business owners

Companies House:  
<http://www.companieshouse.gov.uk/>

Dept for Business Innovation & Skills:  
<http://www.bis.gov.uk/>

Business Link:  
<http://www.businesslink.gov.uk>

The Law Society:  
<http://www.lawsociety.org.uk/>

Solicitors Regulation Authority:  
<http://www.sra.org.uk/>

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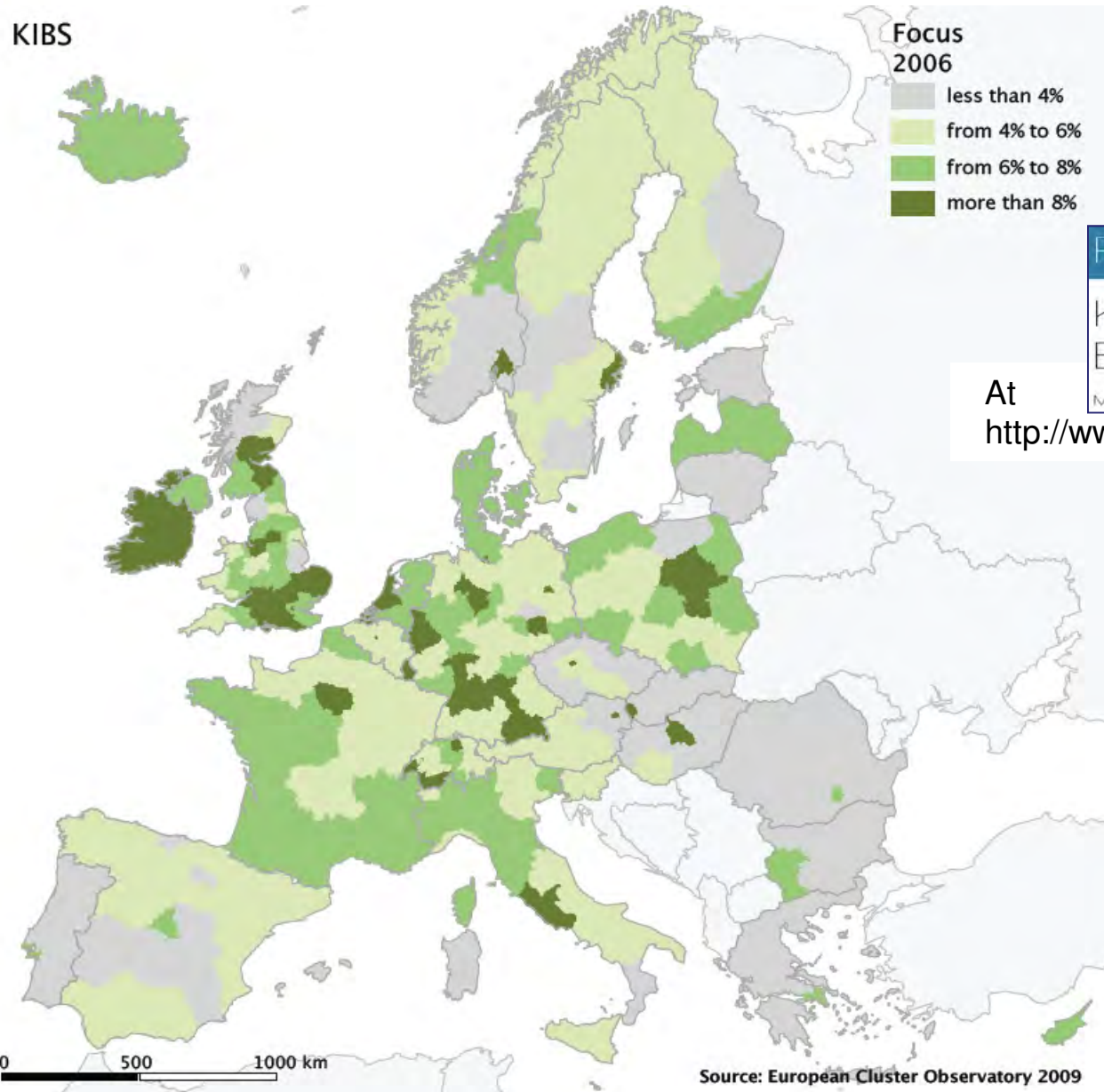
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# KIBS are spatially concentrated:

## KIBS (+FI) regional employment



Priority Sector Report

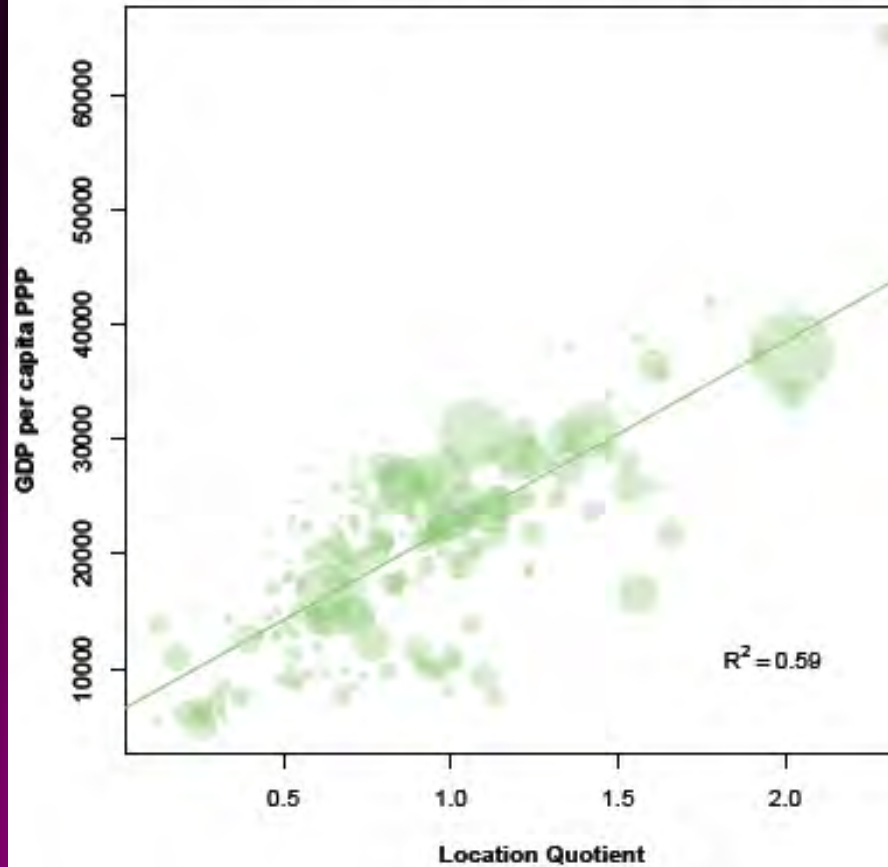
Knowledge Intensive Business Services

March 2009

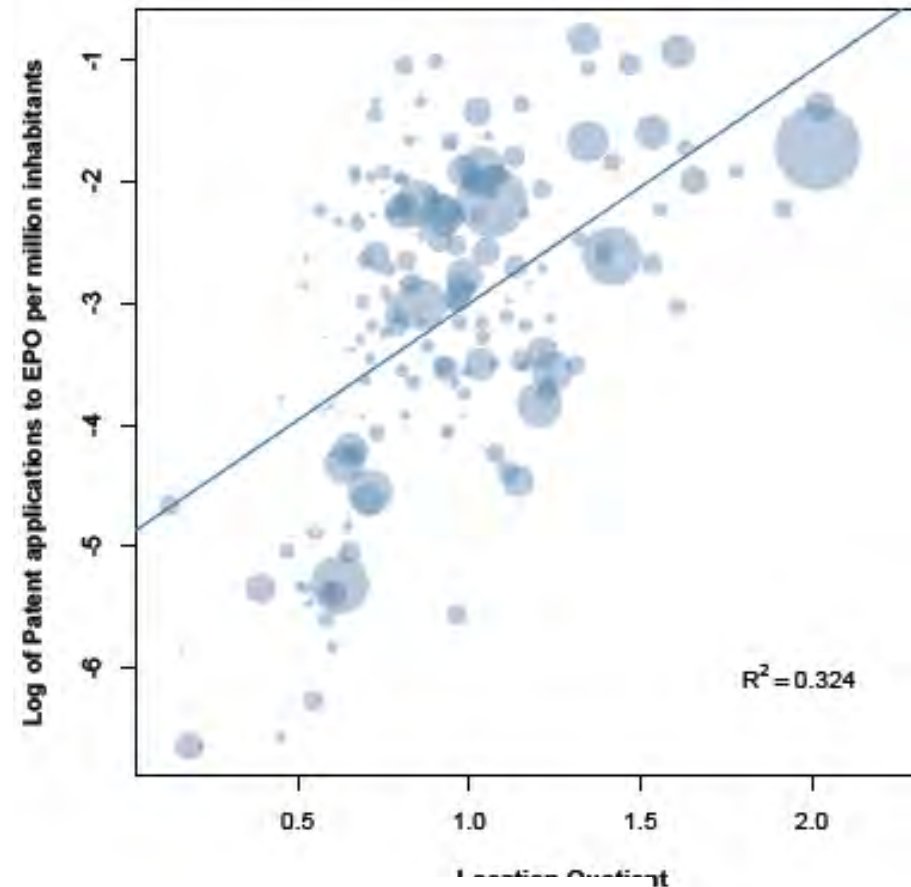
At <http://www.clusterobservatory.eu/index.html>

# European Cluster Observatory: relations between regional KIBS, Growth and Innovation

Knowledge Intensive Business Services



Knowledge Intensive Business Services



At <http://www.clusterobservatory.eu/index.html>

# Questions about KIBS

- ✚ What types of knowledge?
- ✚ What application of knowledge?
- ✚ What knowledge exchanges with clients?
- ✚ What roles in innovation?
- ✚ What functions in innovation systems?

# 3 Types of Knowledge

Knowledge may be of **internal** business processes and/ or of **external** environments (customers, regulators, suppliers, competitors, etc.)

*Technology/Technical Knowledge*

Computer Services  
Engineering Services

R&D

Industrial Process Design  
Technical Testing

Architecture

Industrial Product Design

Management Consultancy

Accountancy

Graphic Design

Market research  
Advertising

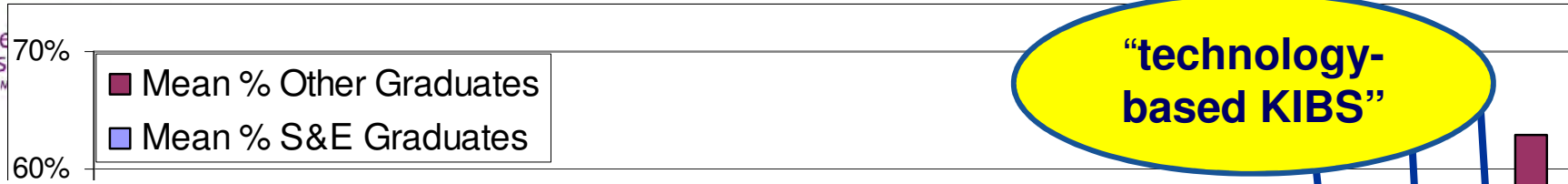
Legal Services

Impressionistic, but some scope for validating e.g. by graduate share of employment

*Creativity/Cultural Knowledge*

*Professional/Administrative Knowledge*



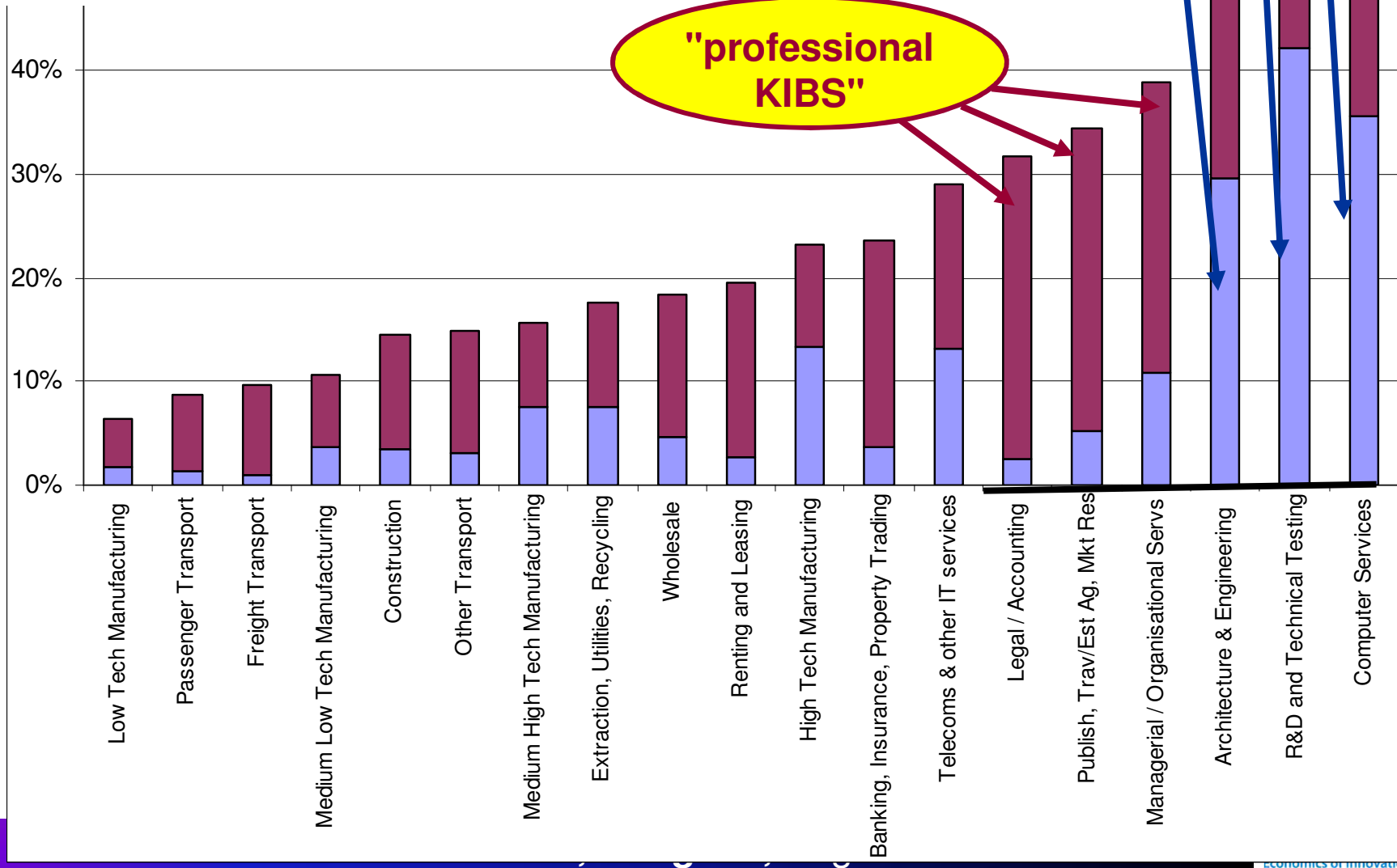


# KIBS Graduate-Intensity

**"technology-based KIBS"**

**"professional KIBS"**

CIS3 data, UK



# KIBS Professional Workers

✚ Evident that KIBS firms have high levels of high-qualified workers. Other data sources demonstrate that they are much more involved in problem-solving, learning, etc. than most other employees/sectors.\* Raises issues of:

✚ Retention

✚ Motivation and Governance

✚ Organising Collaboration across disciplines

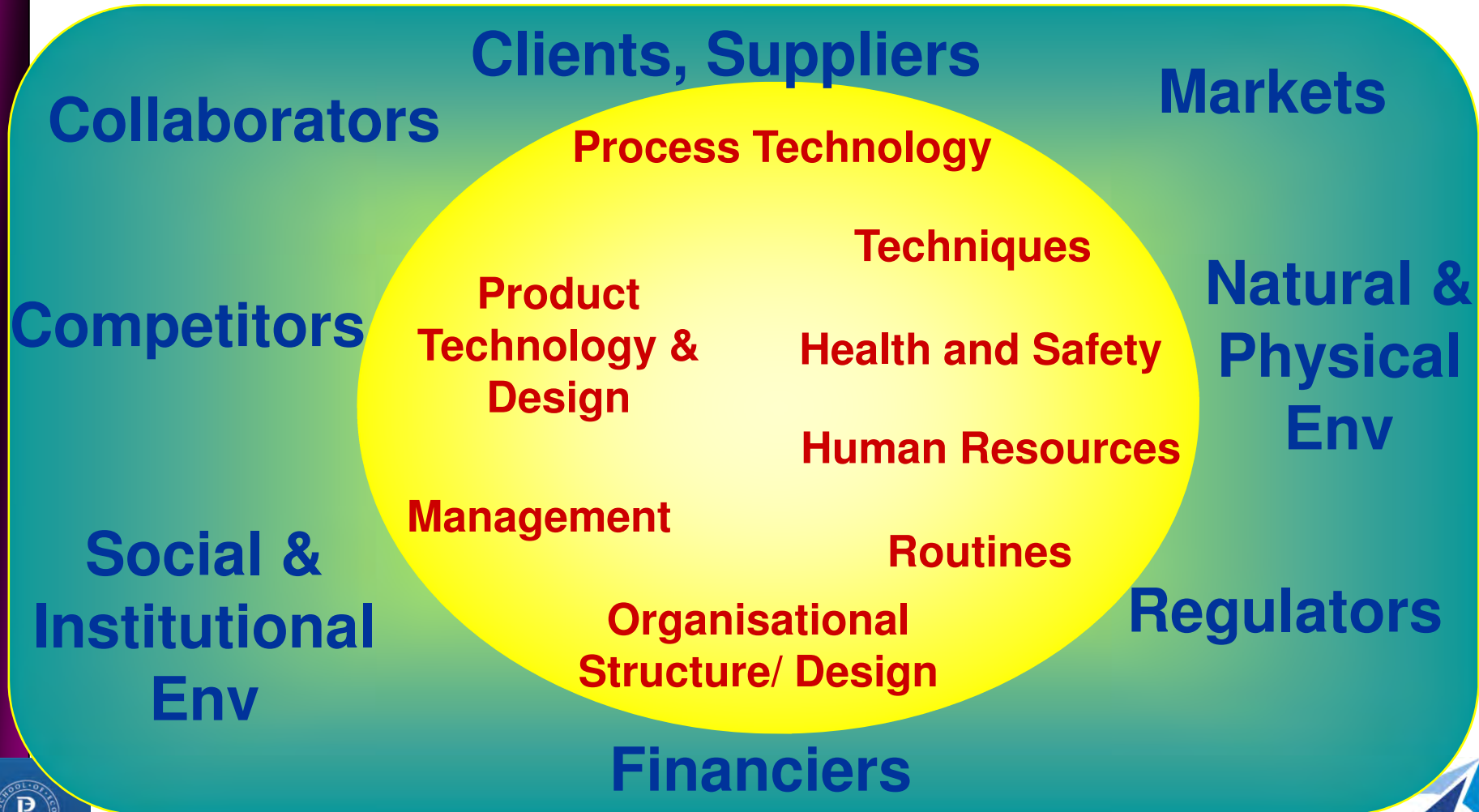
✚ Knowledge Exchange and Capture

✚ Cf. R. Dawson, 1999, **Developing Knowledge-Based Client Relationships: The Future of Professional Services**, Boston: Butterworth-Heinemann

✚ \* C Martinez-Fernandez, I Miles, T Weyman (eds) 2011, **The Knowledge Economy at Work: Skills and Innovation in Knowledge Intensive Service Activities**, Cheltenham, UK and Northampton, MA, USA: Edward Elgar

Presentation for NECTEC, Bangkok, August 2013

# Knowledge of what? Of business processes and their internal and external contexts –



# How are these sorts of Knowledge applied?

## Helping to Solve Business Problems (and find opportunities):

- Support for self-diagnosis
  - Diagnosis
  - Prescription
  - Configuration
- Implementation of Solutions

What's the background?

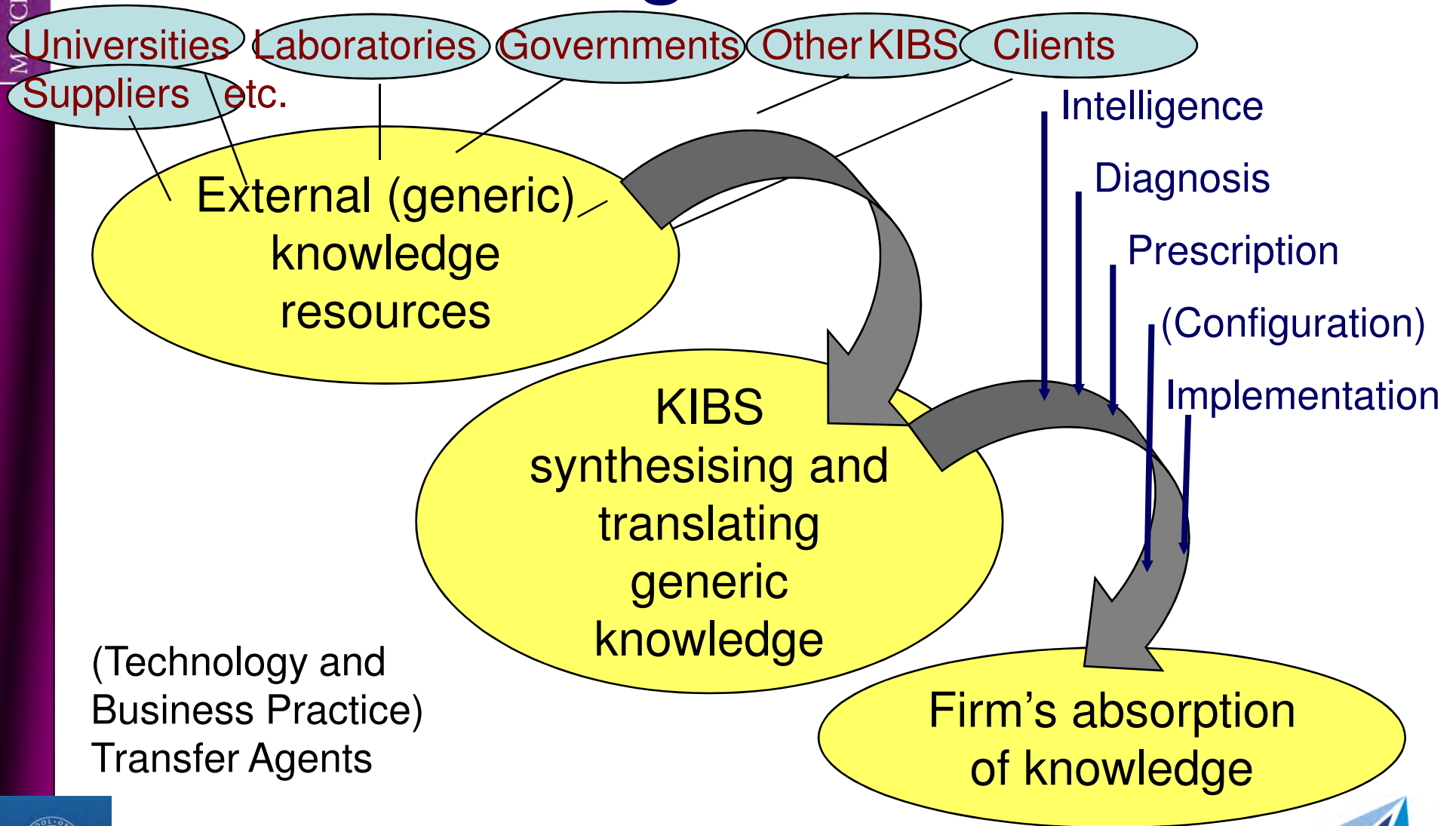
What's the problem?

What's the solution?

How to effect it?

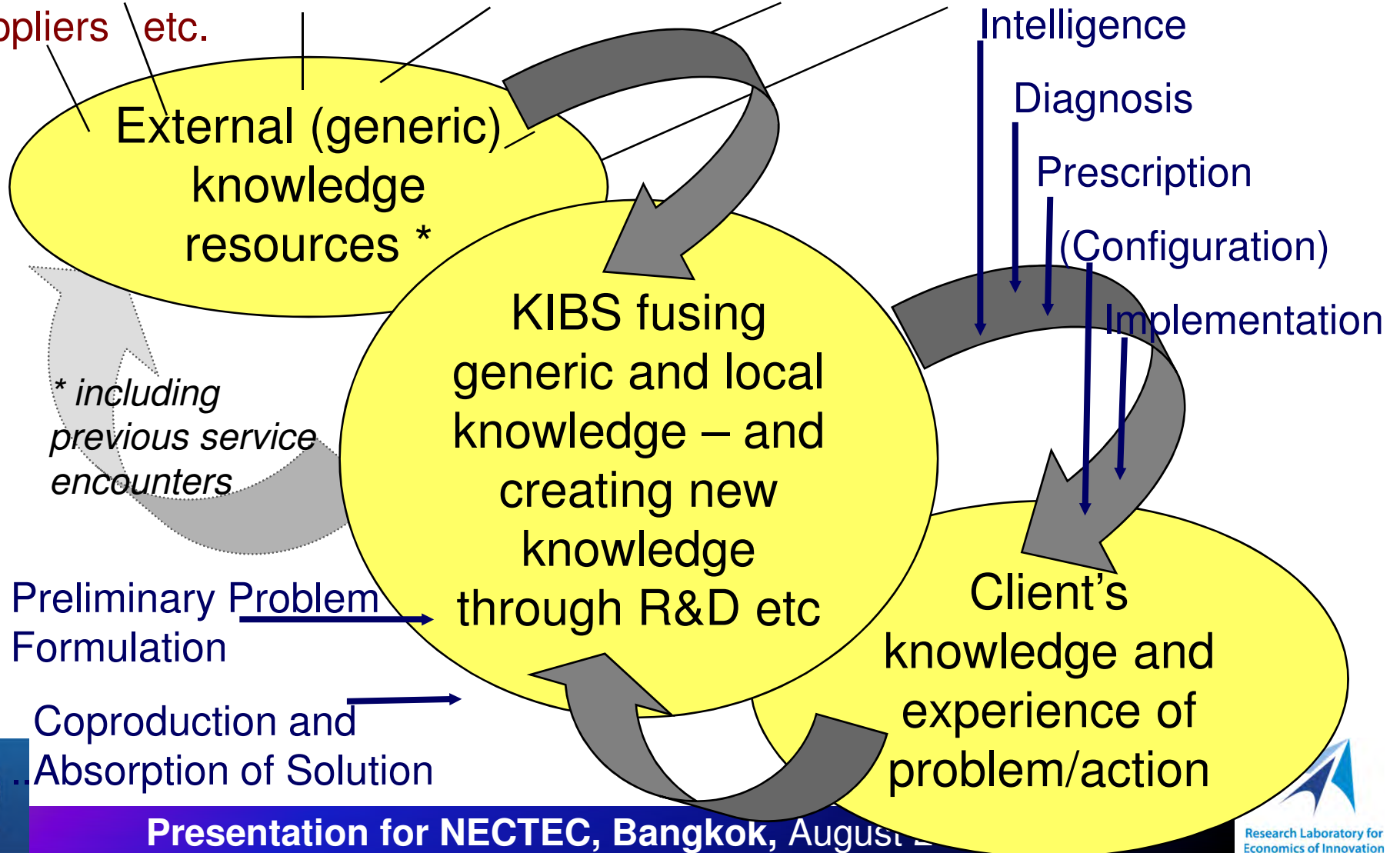
Putting it into practice

# KIBS are often viewed as Knowledge Intermediators



# But KIBS are more active, and the process is more interactive

Universities Laboratories Governments Other KIBS Clients Suppliers etc.



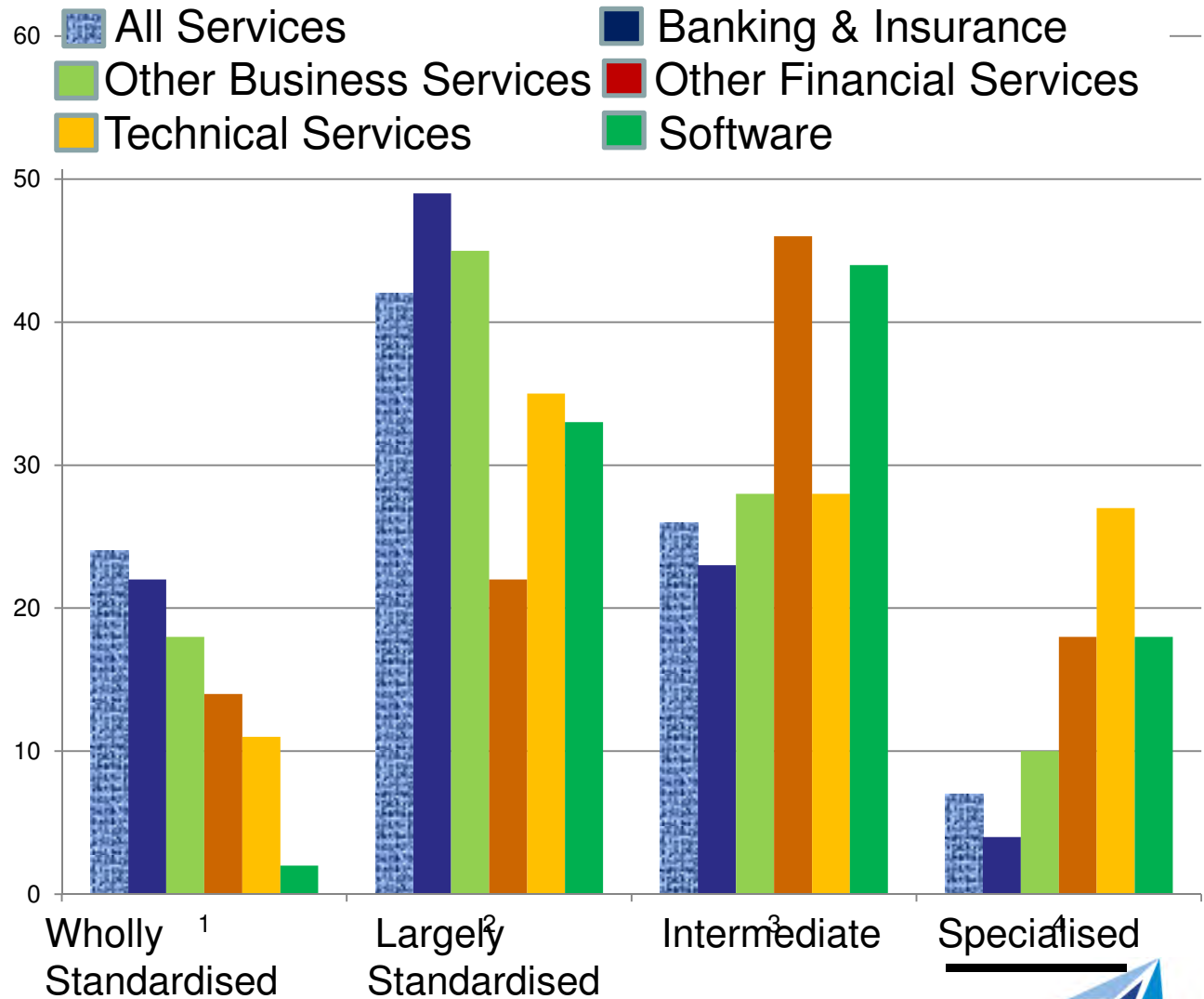
# Three perspectives

- ✚ The service product: is it standardised or customised?
  - ✚ The service relationship: how far is it hands-off and contractual, how far interactive?
  - ✚ The service process: is it production or coproduction?
- ✚ These are all liable to vary across country, sector, and time

# Hipp - German Survey (mid 1990s)

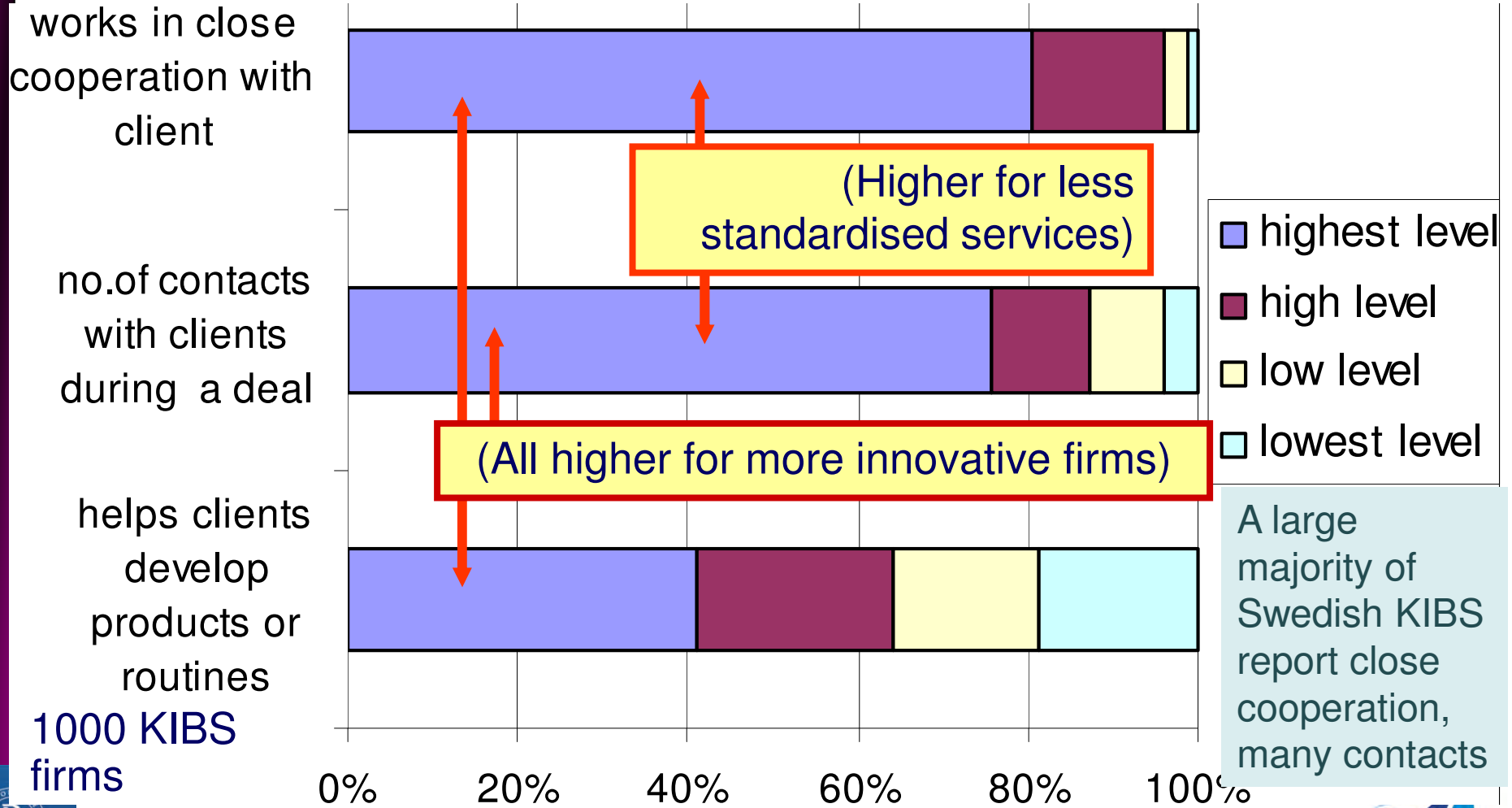
Services vary in standardisation ... some more designed for clients... especially in KIBS

Surprisingly low levels of specialisation – may depend on question – cf Nahlinder





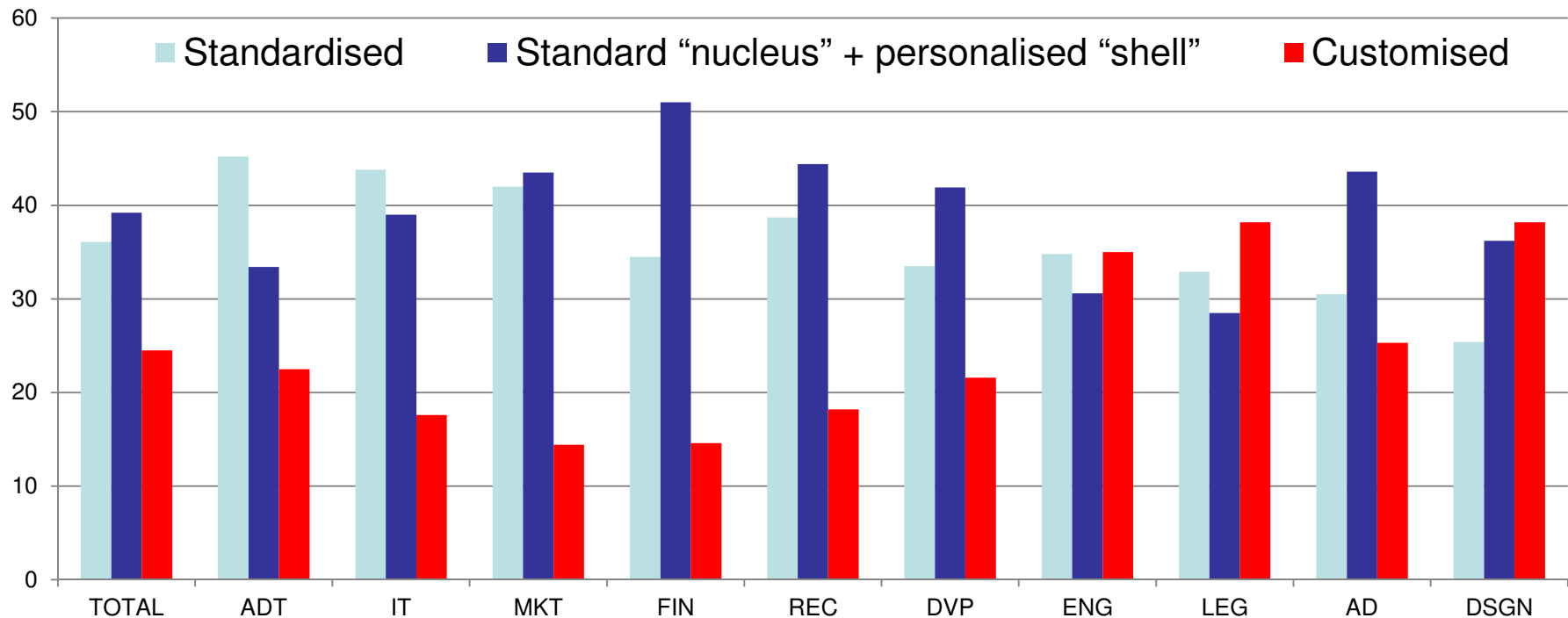
# An effort to assess interaction, from KIBS' perspective: Swedish KIBS Survey (Nählinder)



# Doroshenko's Russian data

Sample is of leading KIBS, so picture may differ for smaller, more local firms

"What share of your sales value in 2010 falls into each of these categories?" (mean shares)



AD = Advertising; MKT = Marketing services; ADT = Audit; IT = Information technology services; REC = Recruitment services; ENG = Engineering services; FIN = Financial advice services; LEG = Legal advice services; DVP = Property development services; DSGN = Business design

# Innovation and Replication

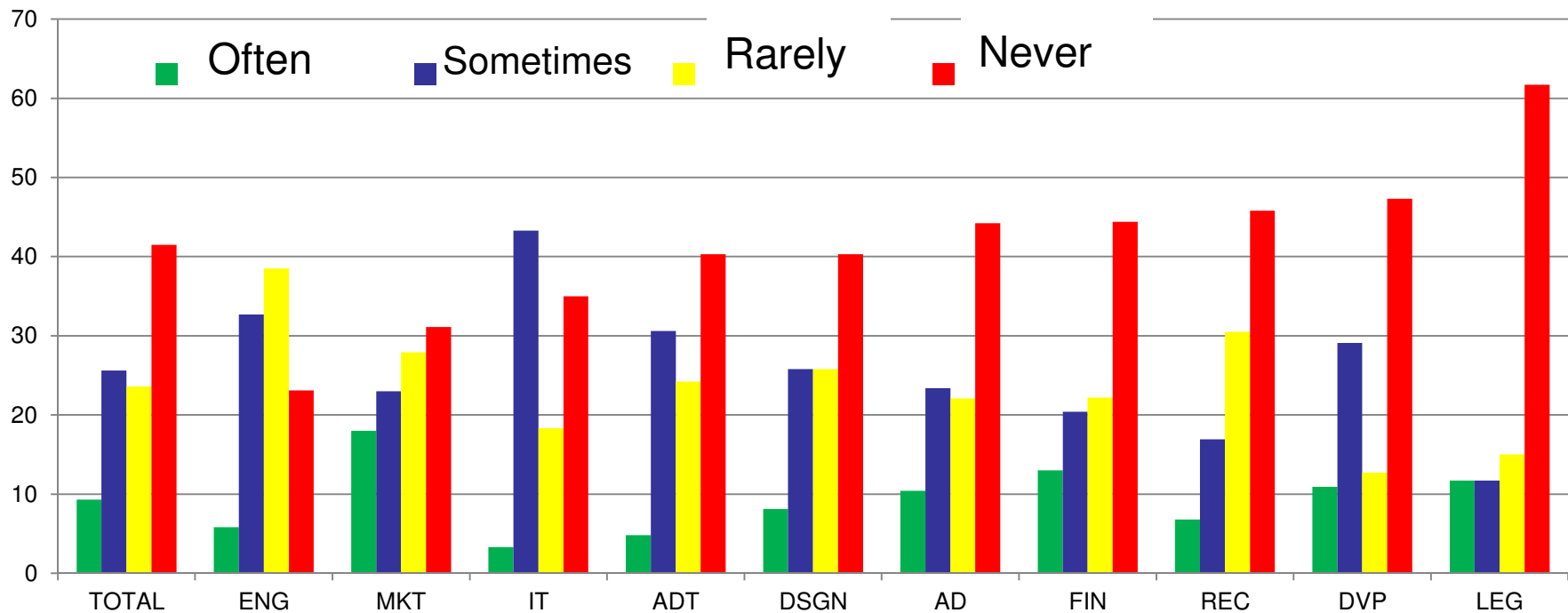
Marina Doroshenko, Ian Miles, Dmitri Vinogradov

“Knowledge Intensive Business Services as Generators of Innovations”

HSE Basic Research Program Working Papers STI Series no 12

<http://www.hse.ru/data/2013/06/20/1286847819/12STI2013.pdf>

"How often do you manage to supply service innovation which you co-created with one customer, to other customers ?



# Exploring Standardisation

How Knowledge-Intensive Business Services Upgrade their Customers: Evidence from Russia

Marina E. Doroshenko

in E. Di Maria, R. Grandinetti, & B. Di Bernardo (eds) 2012 **Exploring Knowledge-Intensive Business Services** London, Palgrave

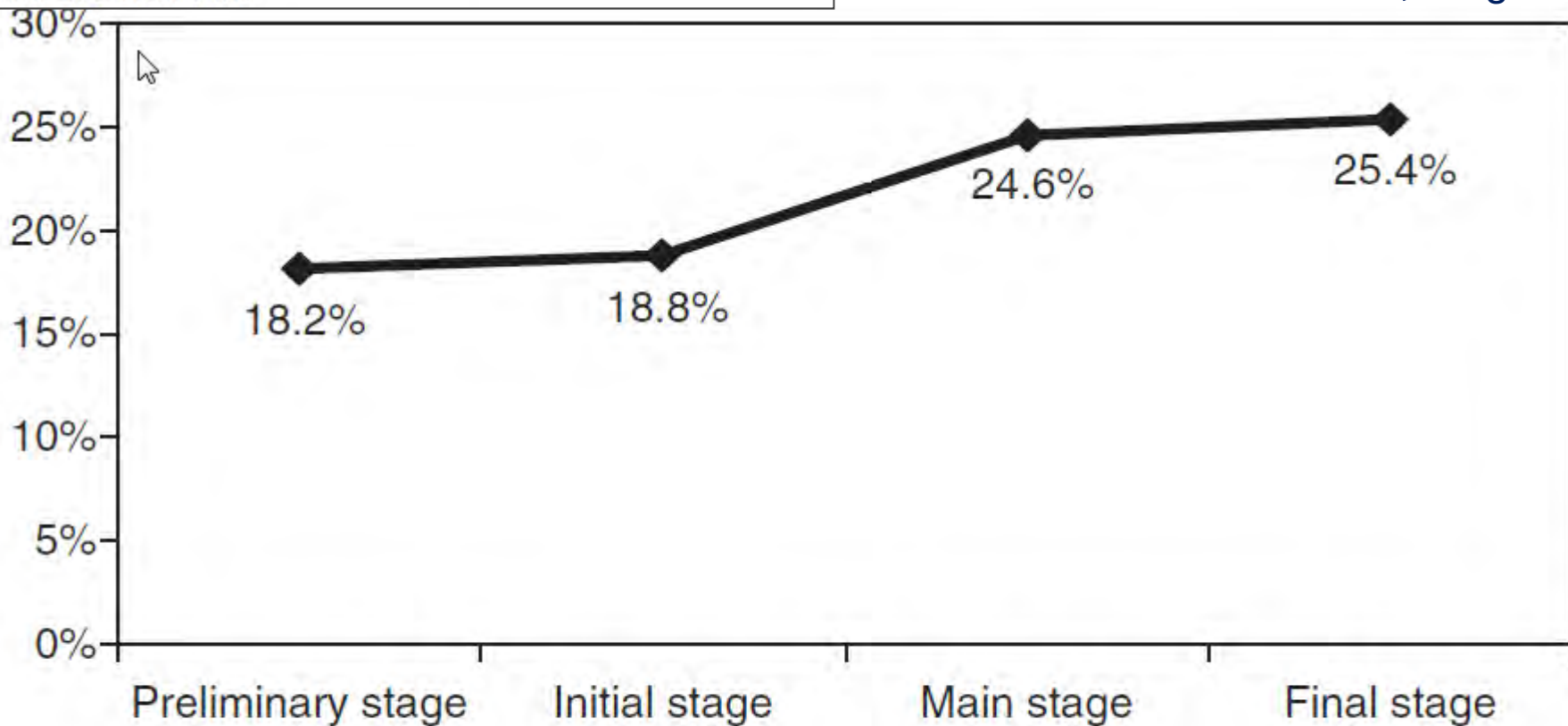


Figure 4.3 The fraction of absolutely standard activities at different stages of KIBS production

# Doroshenko - KIBS and coproduction

Table 4.1 Co-production of KIBS in Russia

KIBS sector	Number of firms	%	Level of co-production (means)
Marketing services	62	9.5	6.3
Services in advertising	71	10.9	5.6
Auditing services	65	10.0	5.6
IT-services	64	9.8	6.5
Engineering services	62	9.5	5.7
Recruitment services	61	9.3	6.2
Business design	70	10.7	6.1
Property development services	70	10.7	5.2
Financial advice services	70	10.7	7.0
Legal advice services	58	8.9	6.4
Total	653	100.0	6.1

# Doroshenko - Russian Survey

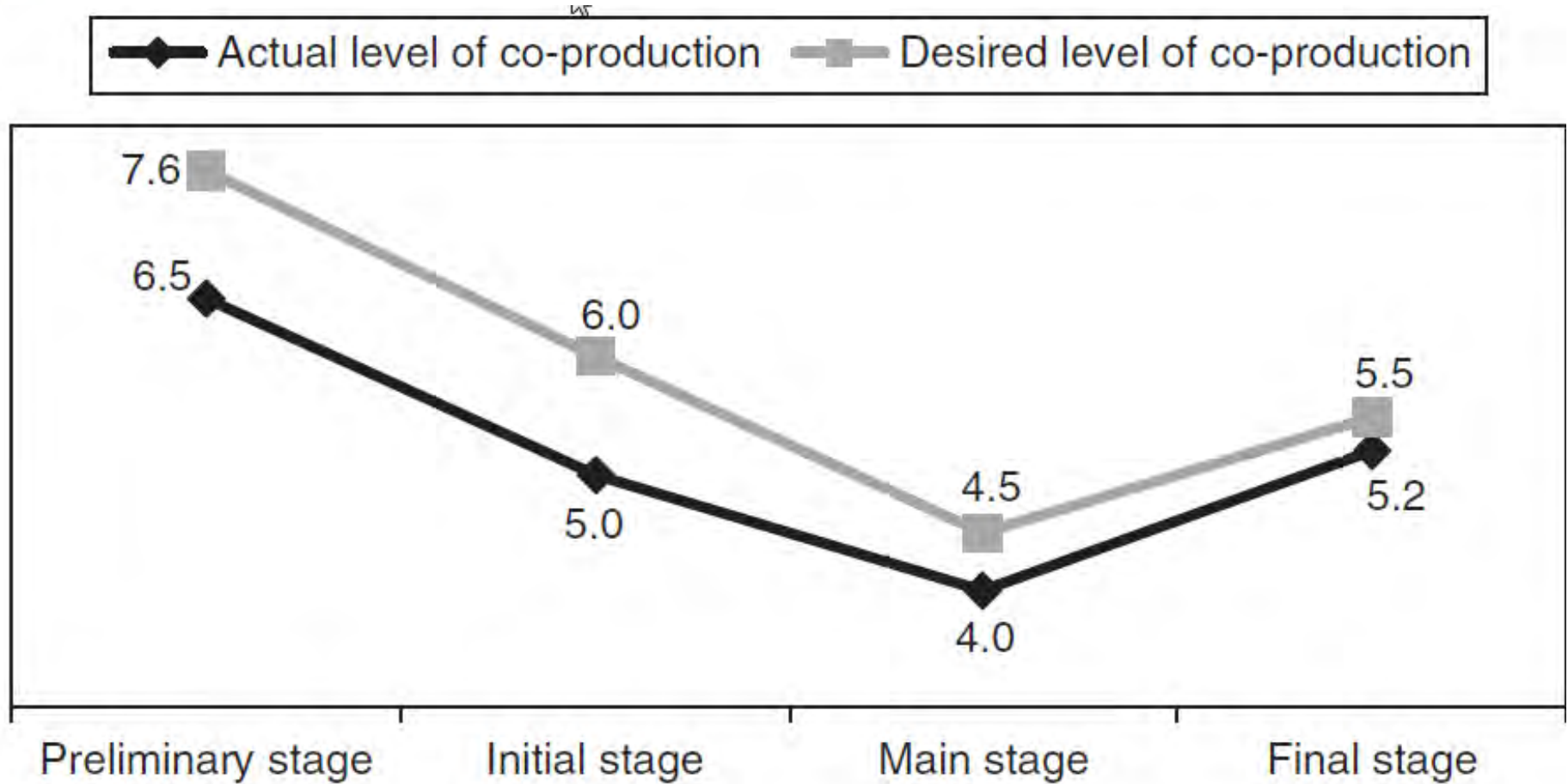


Figure 4.2 Actual vs. desired level of KIBS co-production

# What sort of business relationship is this?

- ✚ So the product may be more or less standardised, the interaction more or less intensive, the results more or less coproduced – but often more so than most industries.
- ✚ Tordoir distinguishes: jobbing, sparring (and sales) relations
- ✚ How far is the problem defined?
- ✚ What is the scope for learning and innovation?

P P Tordoir, 1996, **The Professional Knowledge Economy: The Management and Integration of Professional Services in Business Organizations**, Dordrecht, Kluwer

# KIBS- Clients Relations

✚ **Gallouj, Satzger:** Client Strategies for Procurement and Managing Relationships – selecting KIBS/ specifying services

C Gallouj, 1997, “Asymmetry of information and the service relationship: selection and evaluation of the service provider”, **International Journal of Service Industry Management**,. 8 (1) pp. 42-64.

KSRI (Satzger et al), 2009, **Knowledge Intensive Services Procurement Strategy**, KSRI, KIT, at <http://www.ksri.kit.edu/Upload/Publications/70765f4b-10cc-4ce4-b874-04c3016ad158.pdf>

✚ **Bettencourt:** KIBS specifying client responsibilities for effective coproduction

- ✚ communication openness,
- ✚ shared problem solving,
- ✚ tolerance, accommodation,
- ✚ advocacy,
- ✚ involvement in project governance
- ✚ personal dedication

Bettencourt et al, 2002, “Client Co-Production in Knowledge-Intensive Business Services” **California Management Review**, Vol. 44, Issue 4



# Knowledge Intensive Services Procurement Strategy

Results of empirical research into current  
practice and implications for organizations

Karlsruhe Institute of Technology (KIT)  
Kaiserstr. 12  
76131 Karlsruhe

November 2009

[www.kit.edu](http://www.kit.edu)

**Prof. Dr. Gerhard Satzger**  
[gerhard.satzger@kit.edu](mailto:gerhard.satzger@kit.edu)  
**Peter Schulteß**  
[peter.schultess@kit.edu](mailto:peter.schultess@kit.edu)  
**Andreas Neus**  
[andreas.neus@kit.edu](mailto:andreas.neus@kit.edu)



## Knowledge Intensive Services Procurement Strategy

Results of empirical research into current  
practice and implications for organizations

KARLSRUHE SERVICE RESEARCH INSTITUTE (KSRI)

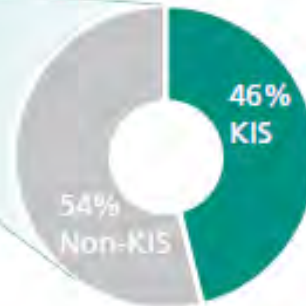


# KIT: Information Asymmetries

total procurement volume



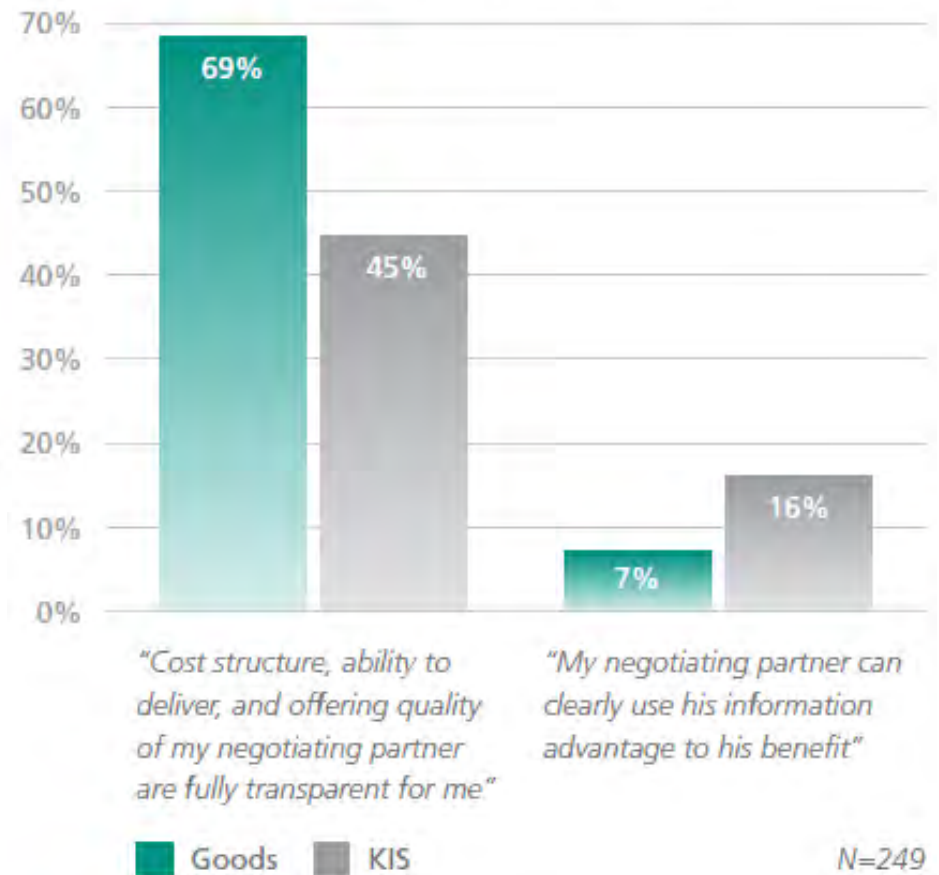
service procurement volume



10.6% of the overall purchase volume are KIS

N=235

Procurement manager perception of bargaining position



N=249

# KIT: Six Issues in Procurement



## Strategy

- General strategy of procurement with regard to KIS
- Alignment of business and procurement strategy
- Strategic goals which procurement is expected to achieve



## Methods

- Contract types (time & material, fixed-price, risk-profit-sharing)
- Managing different KIS types
- Evaluation of providers



## Organization

- Organization and measurement of procurement
- Governance and Key Performance Indicators (KPIs)
- Roles which procurement and line of business fulfill



## Processes

- Communication between business unit and procurement
- Definition of need & scope, identifying service providers
- Quality and feedback process between procurement and line of business



## Tools

- Contract and procurement management tools
- Reporting infrastructure and databases
- Formal quality reviews and benchmarking tools



## Culture

- Expectations and perceived identity of procurement and line of business
- Culture and language factors in communicating with service providers
- Organizational culture and informal feedback



## Strategy

1. Develop a systematic strategy to learn more about the provider's scoping and his price structure in order to improve the bargaining position when procuring KIS while reducing the likelihood of procuring a troubled project by misguided price pressure.
2. Build up skills specific to KIS procured to provide a focal point within the procurement function and facilitate negotiation and communication with the line of business and service provider.
3. Re-evaluate the partnering strategy and main requirements of KIS providers, allowing for KIS-specific needs to be different from general procurement.



## Methods

1. Use formalized feedback to ensure effective purchasing and line of business communication quality also in late project steps and after conclusion of the project.
2. Leverage the experience of line of business and procurement to design and apply new types of contracts like risk-profit-sharing.
3. Design a framework for KIS categories and provide guidance with regard to contract type and success measurements.
4. Close the "quality measurement gap" – that procurement believes measurement of project success occurs more frequently than line of business knows it happens.



## Organization

1. Measure and track project success by using indicators tailored to services and use this when rating the procurement function's performance in addition to their existing KPIs.
2. Better integrate procurement and line of business know-how and perspectives by rotation, cross-mentoring or seeding topical communities.



## Processes

1. Examine the existing procurement process with regard to KIS-specific requirements and set up a mandatory quality feedback step from the project manager to procurement, to ensure the organization learns from past projects.
2. Re-balance the trade-off between structure and flexibility in your processes and ensure this trade-off is tailored to the requirements of KIS procurement.



## Tools

1. Provide the procurement department with the tools required to gain transparency over the different KIS procurement categories, contracts, partners, and project successes, to improve transparency of the KIS project portfolio throughout the organization.
2. Ensure that the IT-supported workflow between line of business and procurement adequately reflects the requirements of KIS and allows for a joint, step-by-step refinement of requirements, not "one-shot".
3. Review where the current procurement process may be too "tool-heavy" for KIS procurement: Business and procurement should not only be communicating via an application.



## Culture

1. Provide a context and mechanism for line of business and procurement employees to share their experience within the procurement process.
2. Gain a realistic impression of potential conflicts in the supplier relationship to better manage disputes between line of business, procurement and the provider of KIS and to create a joint vision of project success in terms of time, budget and quality between these parties.
3. Align mutual expectations and expertise, and develop a joint language and understanding to improve efficiency and effectiveness.

# Another Note on Asymmetry

- ✚ Doroshenko found that for almost all classes of KIBS, Russian KIBS users thought that a higher share of the services obtained were standardised than did the producers (55% compared to 47% overall). (IT and advertising were exceptions)
- ✚ More experienced users were less prone to see services are standardised, and (arguably) more willing to engage in coproduction.

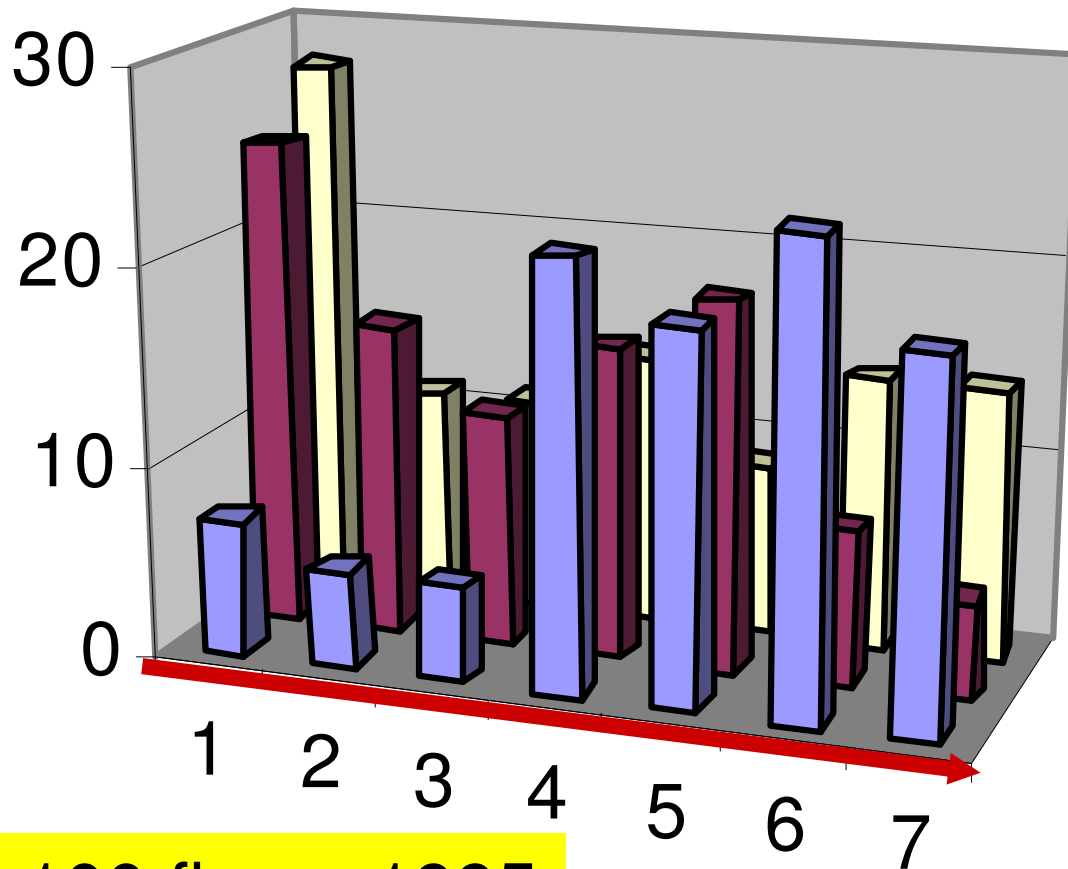
# KIBS and Innovation

## ✚ KIBS as Innovators

- ✚ Community Innovation Surveys show that KIBS and financial services report high levels of product, process innovation compared to other services, and T-KIBS are often higher than most manufacturing.

## ✚ KIBS as supporting innovation in clients – views from both sides

# UK environmental services



## Orientation to technology

- help clients choose
- help clients develop
- develop for clients

100 firms, 1995

# Hipp - German Survey

- ✚ **Half** the innovating service firms thought their innovations **positively impacted client performance/productivity** – 16% “very important” productivity, 13% on performance.
- ✚ Only 1/3 of the firms supplying standardised solutions, however.
- ✚ As many as 4/5 of software firms
- ✚ And only 2/5 of financial firms
- ✚ Service innovation > organisational innovation (but impact here also reported)

# Doroshenko – effects on users, as seen by both sides

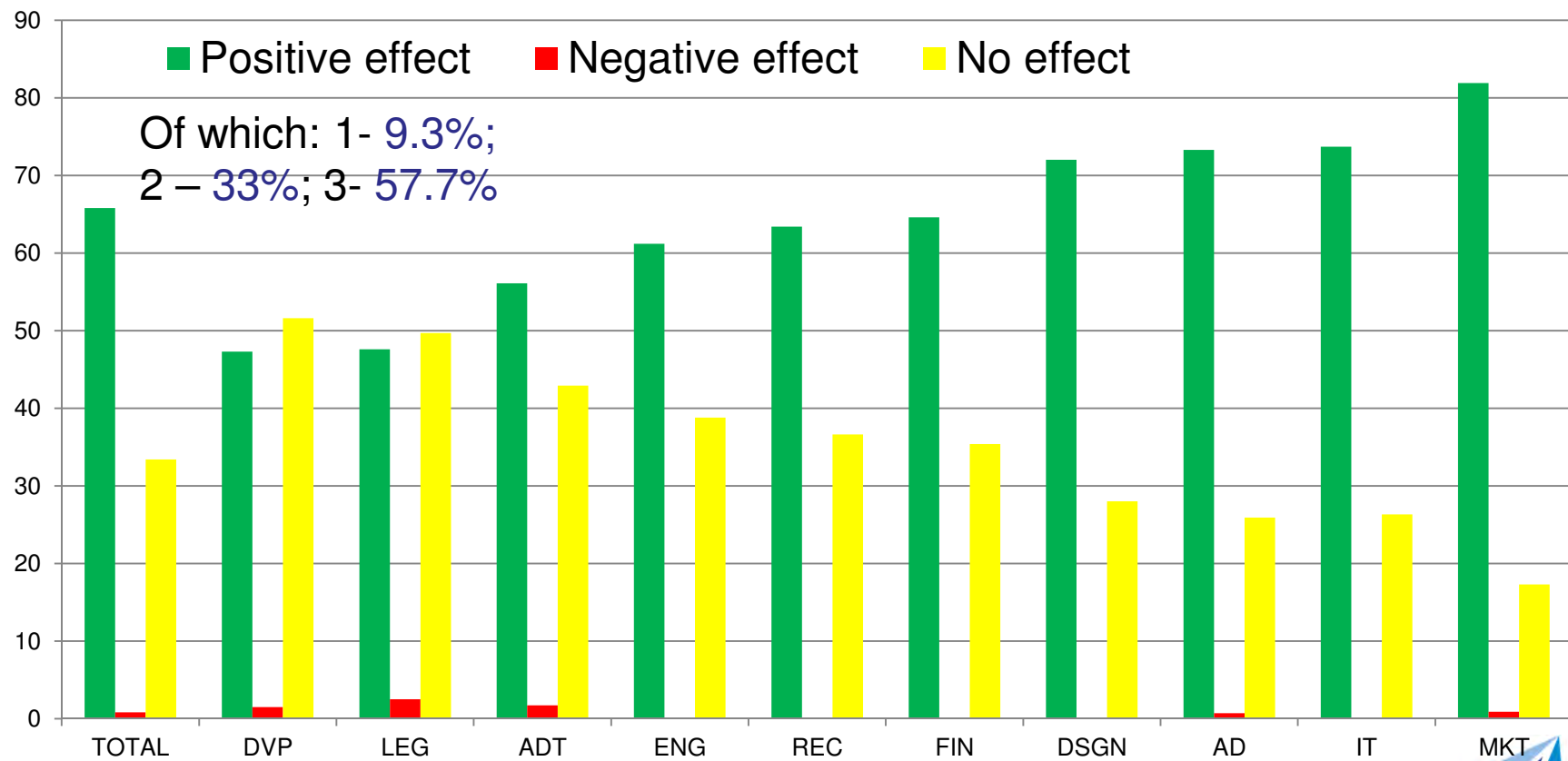
*Table 4.4* Increase of customer's expertise due to co-production

Share of customers who become smarter due to co-production (%)	As seen by producers	As seen by customers
Total	51.8	75.8
Services in advertising	48.3	85.2
Marketing services	38.8	84.8
IT-services	48.3	63.4
Auditing services	59.2	85.2
Recruitment services	39.3	77.8
Engineering services	54.6	74.9
Legal advice services	64.6	79.6
Business design	50.0	90.3
Property development services	58.1	45.6
Financial advice services	56.7	66.7



# Doroshenko – User views of effects on their innovativeness

"Please, estimate the impact of the particular KIBS consumption on your own propensity to innovate"

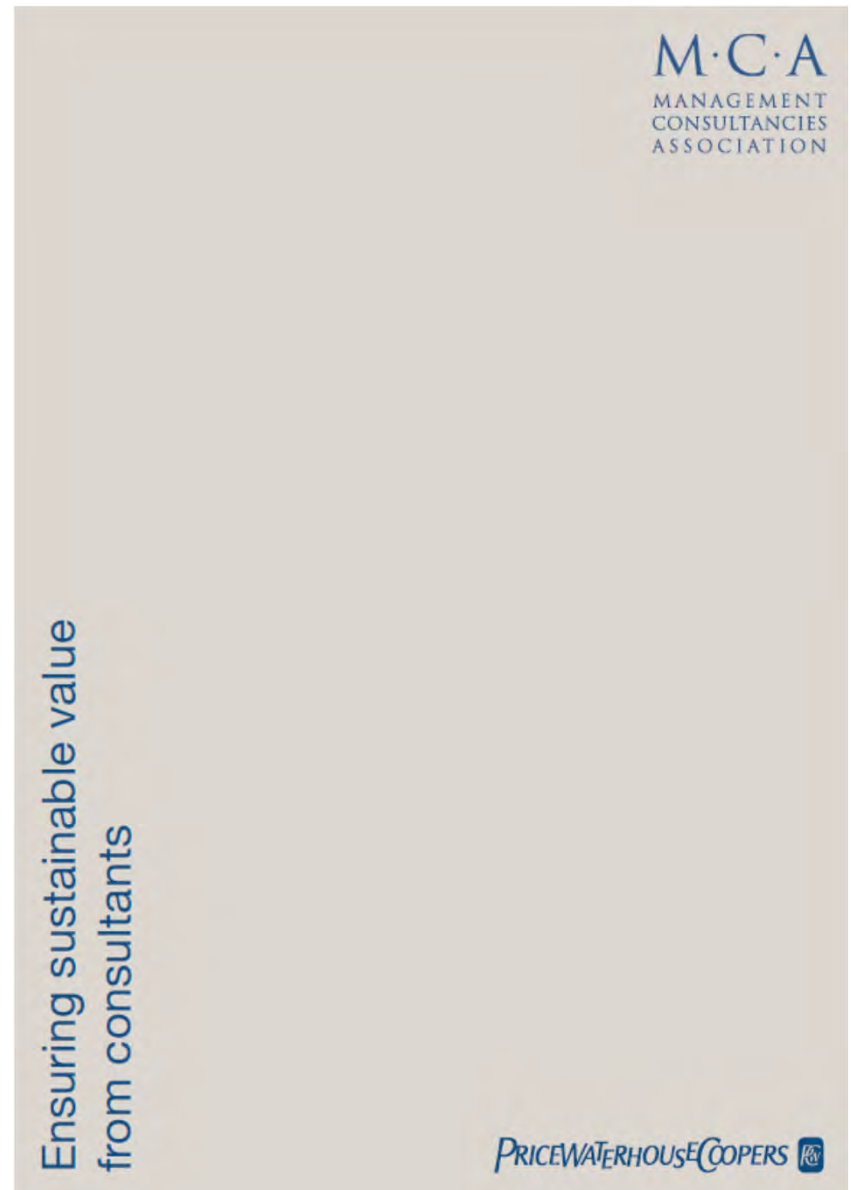


# UK User's Views

PWC study of consultants' clients 2006

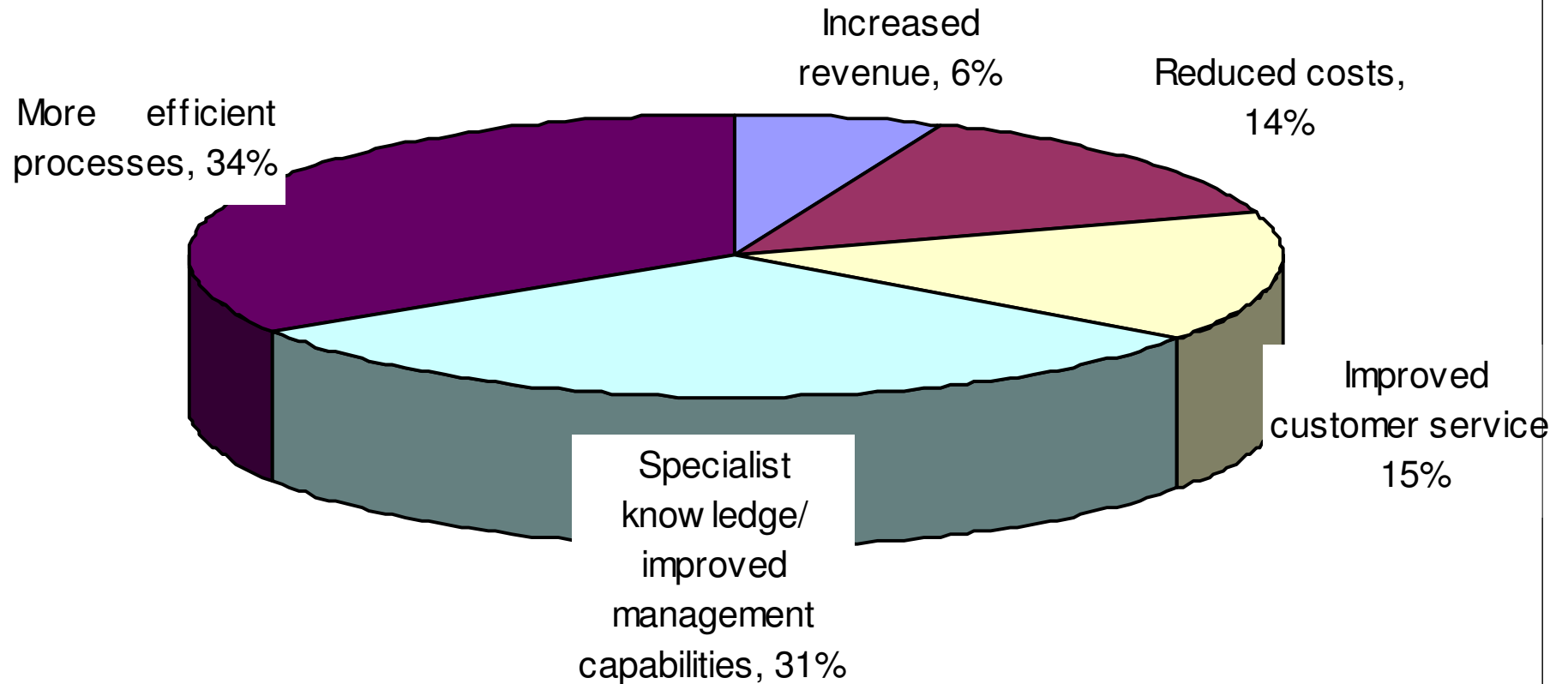
[http://www.wwyltc.com/  
Ensuring-sustainable-  
value-from-  
consultants.pdf](http://www.wwyltc.com/Ensuring-sustainable-value-from-consultants.pdf)

180 clients, large range of consultancy services – 36% completely satisfied, 50% partially satisfied, 14% not at all.



# User's View of Benefits –

PWC 2006



# Interactive Innovation

**Knowledge of environments & technologies; scientific & engineering principles; innovation-relevant market conditions, regulations, laws**

**Better understanding of problem, ways of measuring and monitoring**

**Reduced risk in defining solution; introduction of new types of solution**

**Easier learning and application of experience in combining processes**

**Saving resources that can be applied to core products, processes - & other goals**

Intelligence

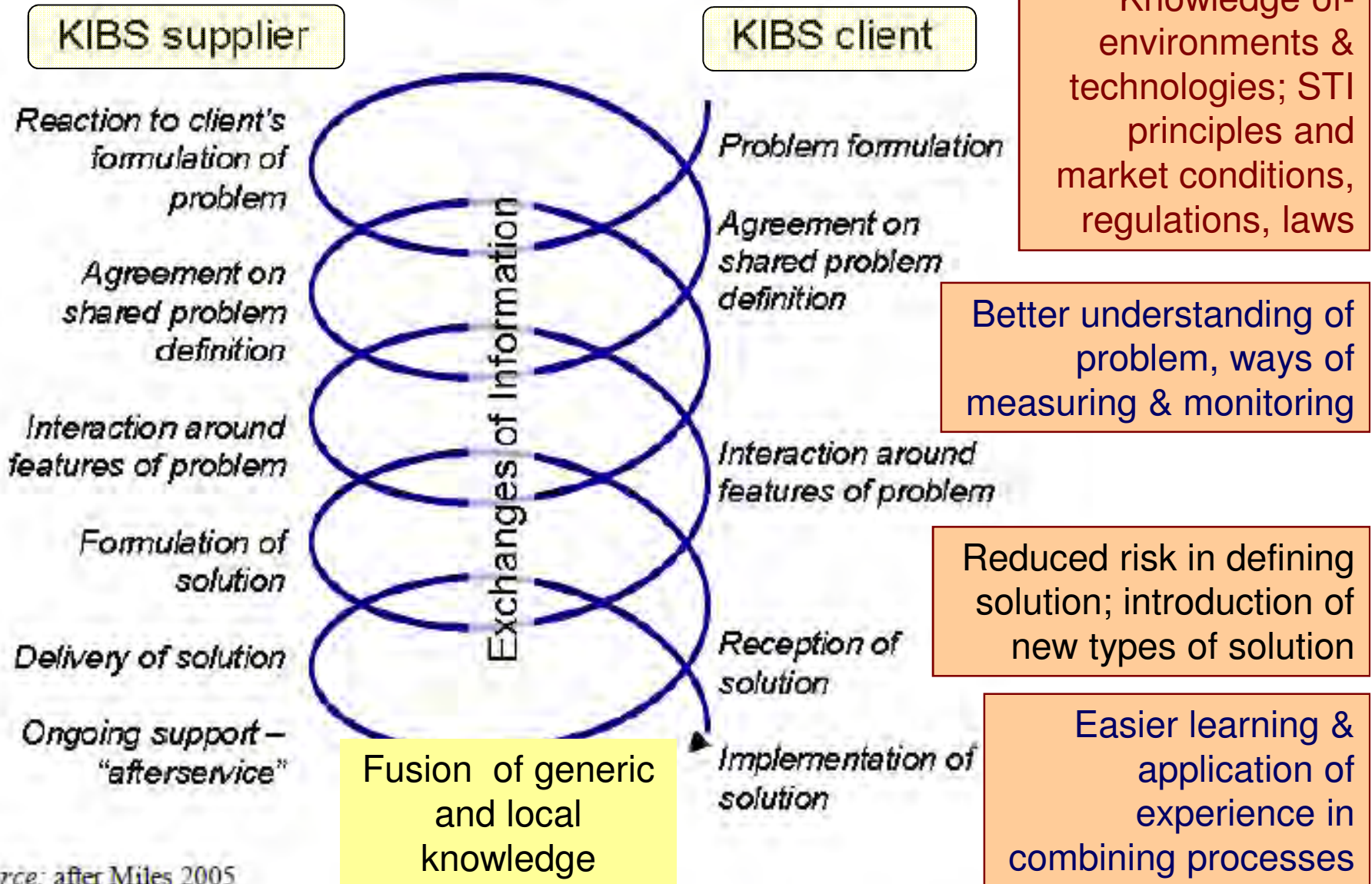
Diagnosis

Prescription

Configuration

Implementation

# Relations with Clients – Exchange and Innovation



# Implications for Innovation

- ✚ Use of KIBS should free up resources, and enhance flexibility
- ✚ KIBS are specialists - in acquiring, possessing and communicating knowledge. *Alternative to labour mobility.*
- ✚ Able to draw on generalised knowledge from other firms and sectors. FUSION – and some creation of knowledge
- ✚ Less wedded to heritage, organisational rigidities, factions
- ✚ But may have their own path dependency (e.g. some may not foster move to cleaner technology?)

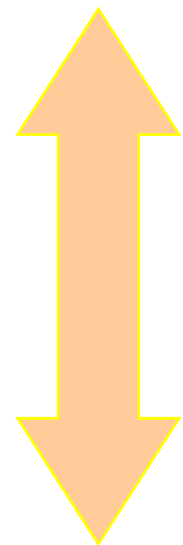
# KIBS in Innovation Systems

- ✚ Usually commentators talk of “triple helix” – government, industry, public research (Universities); some suggestions of introducing users etc to make quadruple helix.
- ✚ Alongside public research and research within industry, much knowledge is generated and intermediated by KIBS, through R&D and other means.

# Practical issues and research questions – often with challenges for measurement

Client side

- ✚ “Absorption capacity” – what capabilities and practices clients need to effectively select KIBS, define problems, use solutions?
- ✚ “Organisational amnesia” – how can they cope with loss of memory when activities outsourced?
- ✚ Knowledge management (a) capture of new learning; (b) across organisational boundaries; (c) across professions?
- ✚ Standard solutions vs. sensitivity to organisational culture, national circumstances, etc.
- ✚ Professionalism: avoidance of “capture”, of collusion with clients and/or suppliers, of conflicts of interest
- ✚ Methods for maintaining and demonstrating quality control, addressing information asymmetries
- ✚ Retention and motivation of experts



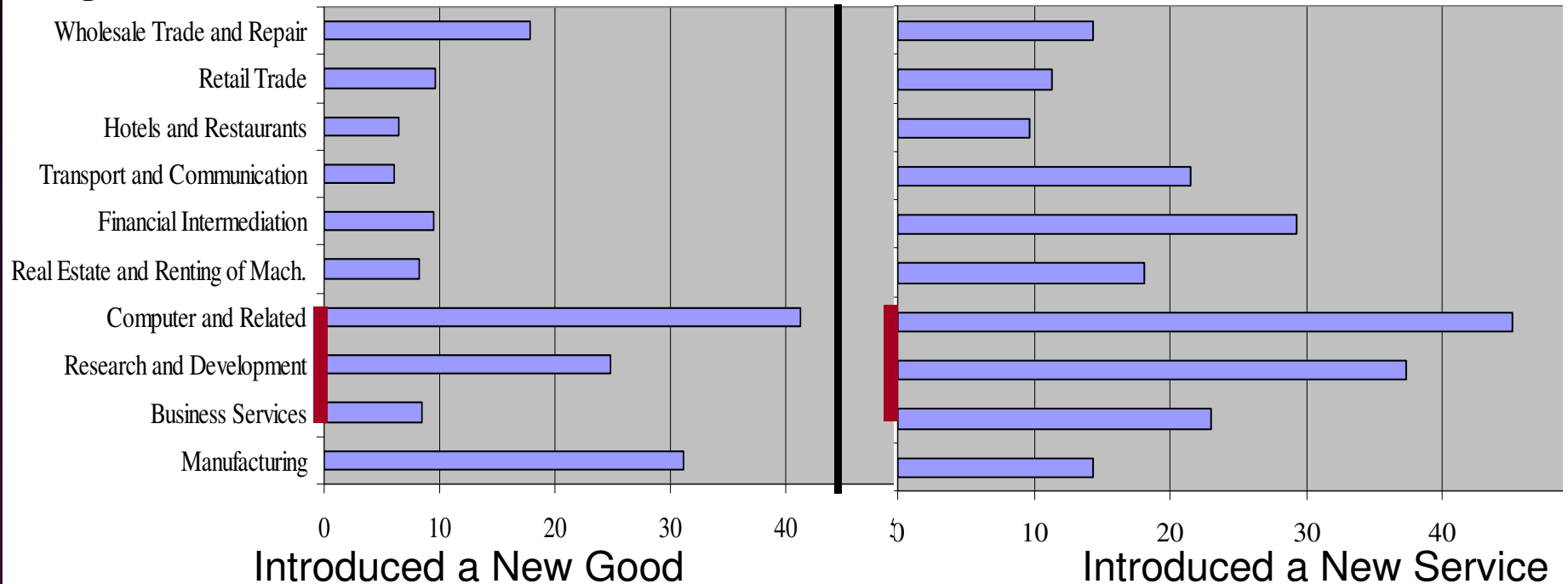
KIBS side



# End of Presentation

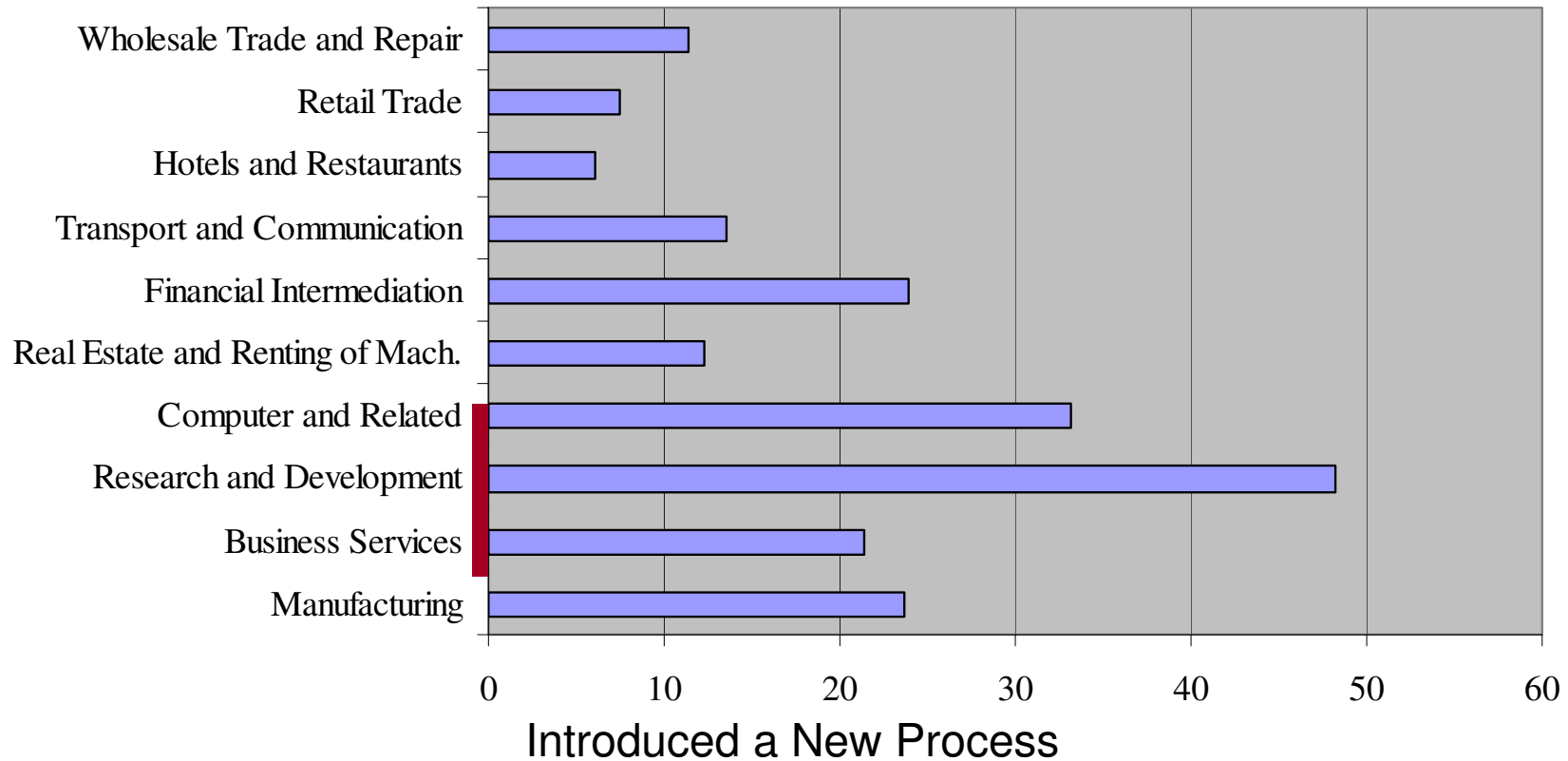
# KIBS are often particularly innovative - UK CIS4 data

UK CIS4 data: “Understanding Hidden Innovation: Services in the UK “ Programme on Regional Innovation, Cambridge-MIT Institute 2008 report to NESTA



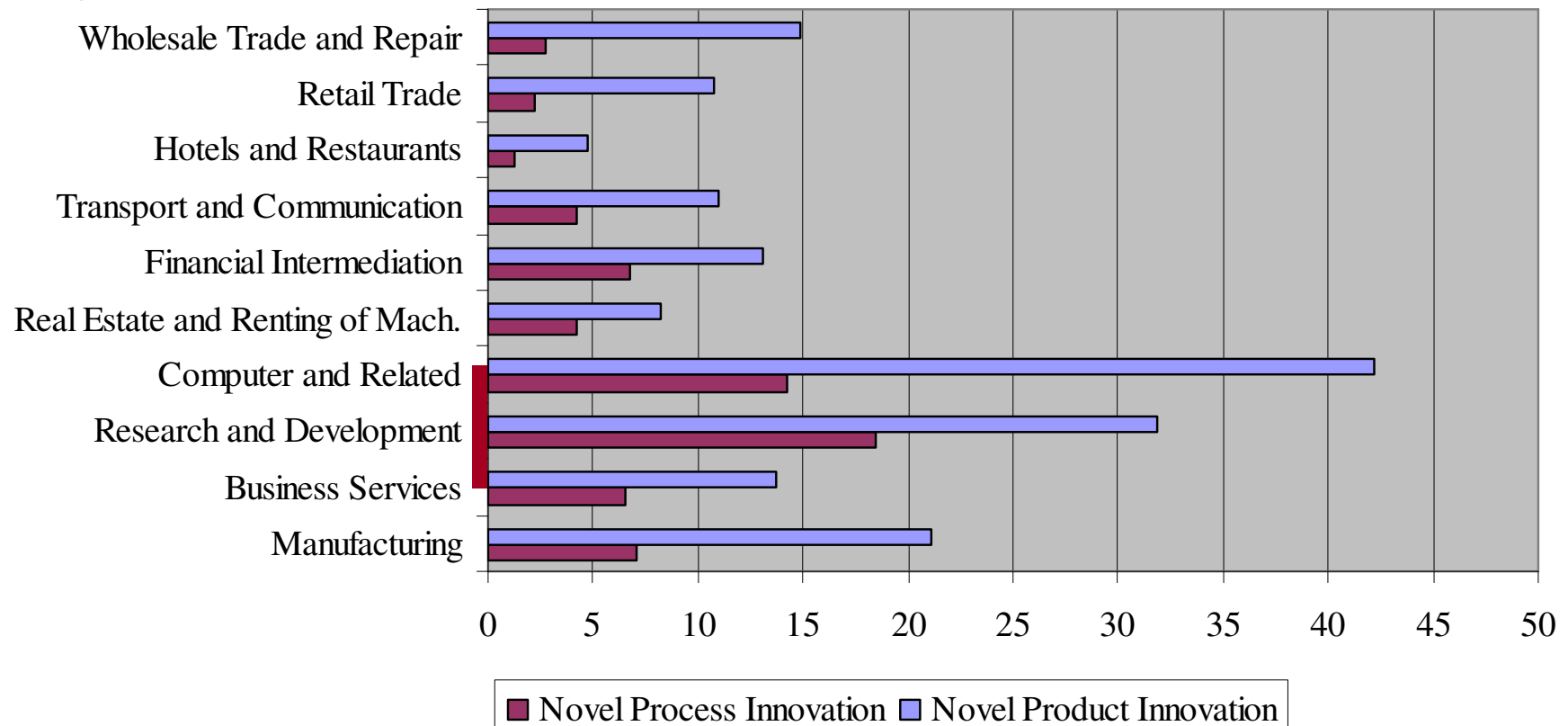
# KIBS are often particularly innovative 2 - UK CIS4 data

UK CIS4 data: “Understanding Hidden Innovation: Services in the UK “ Programme on Regional Innovation, Cambridge-MIT Institute 2008 report to NESTA



# KIBS are often particularly innovative 4 - UK CIS4 data

UK CIS4 data: “Understanding Hidden Innovation: Services in the UK “ Programme on Regional Innovation, Cambridge-MIT Institute 2008 report to NESTA



NOVEL Innovation: new to market or industry

Presentation for NECTEC, Bangkok, August 2013

# KIBS are often particularly innovative 5 - UK CIS4 data

