

# IT impact in Chilean firms, the economy and everyday life: BIT Chile 2005's main results



**WIP**

World Internet Project Chile

**WIP annual meeting 2006**  
**Chinese Academy of Social Sciences, Beijing**  
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CAMARA DE COMERCIO DE SANTIAGO



# Scope of WIP/BIT Chile

Overall impact of IT & the Internet

**Business and Information  
Technology project  
(BIT):**

Impact of IT in:

Firms (BIT survey)  
The Economy (GNP analysis)  
Sectors (Case studies)

**World Internet Project  
(WIP):**

Impact of IT in:

everyday life  
(WIP survey)





# Workplan of WIP/BIT Chile 2003-2008

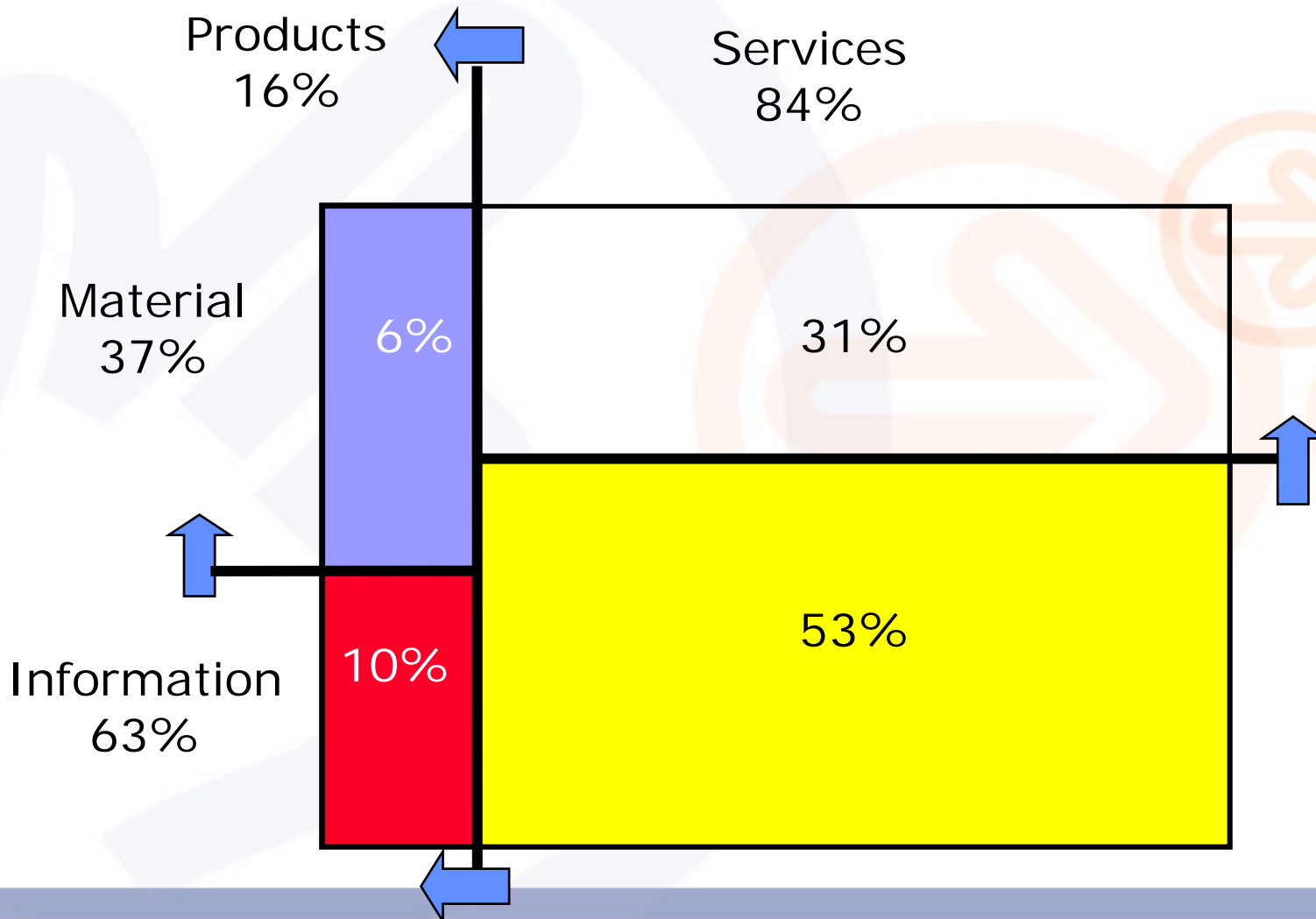
<b>BIT Chile chronogram</b>	<b>WIP Chile chronogram</b>
1st BIT survey 2005 1st BIT GNP Analysis*	1st WIP Chile survey 2003 2nd WIP Chile survey 2004 1st WIP/BIT case study 2005
2nd BIT survey 2007 2nd BIT GNP Analysis	3rd WIP Chile survey 2006* 2nd WIP/BIT case study
	4th WIP Chile Survey 2008 3rd WIP/BIT case study





# US GNP composition, 1997

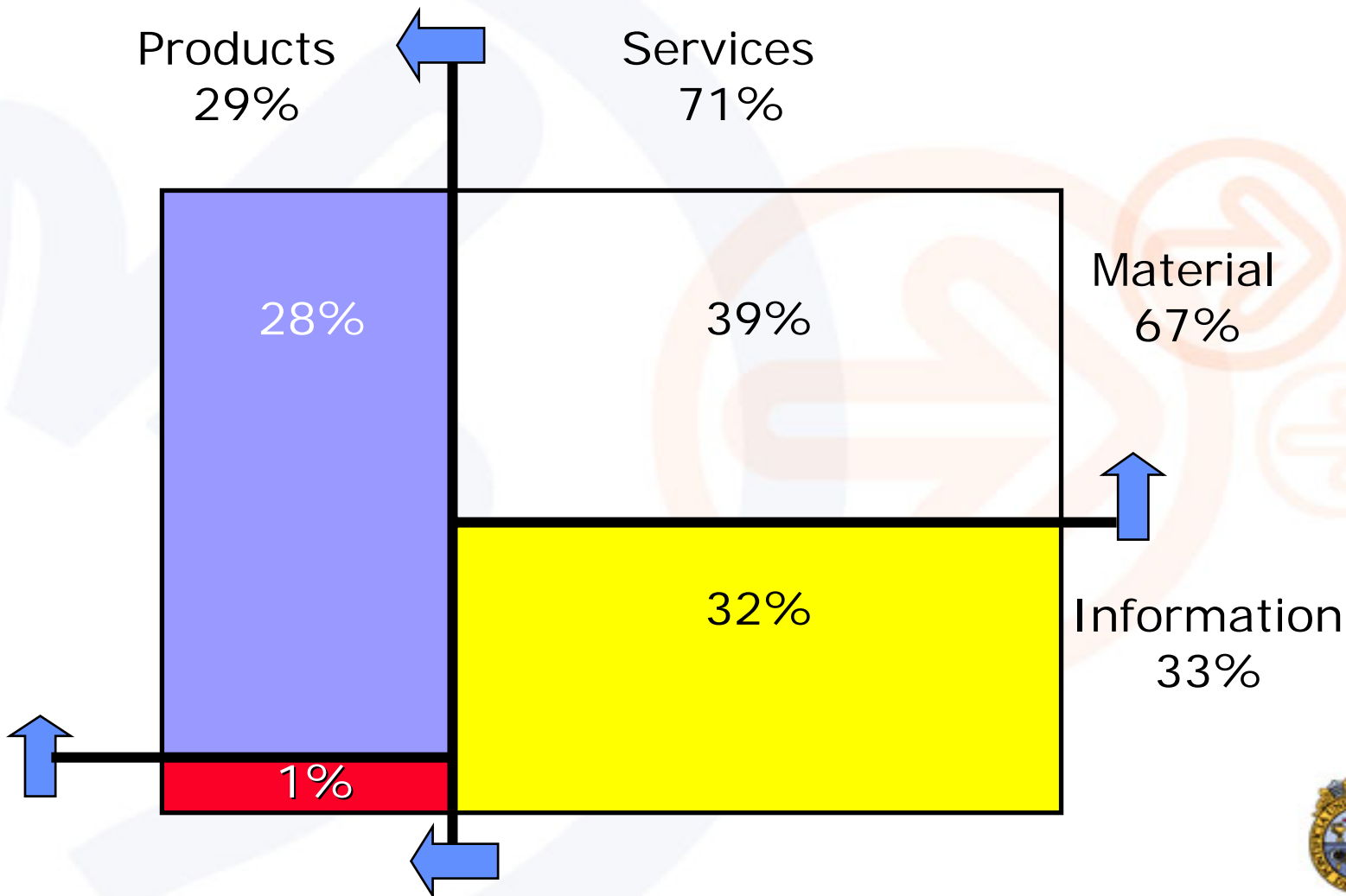
Source: Uday Karmarkar/BIT project





# Chile's GNP 2003\*

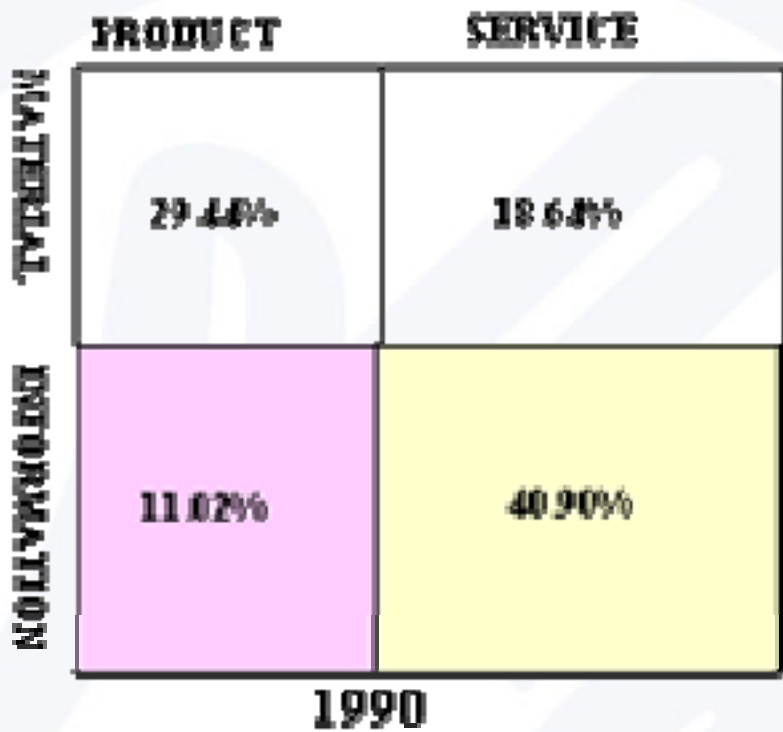
Source: CCS/Banco Central de Chile  
\*Preliminary data



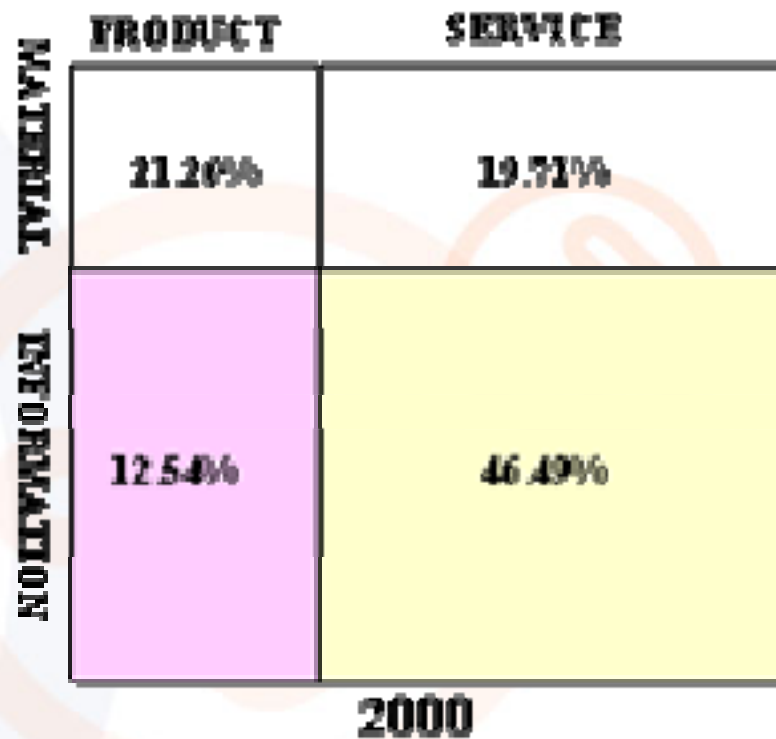


# GNP changes in S Korea

Source: Choi, Rhim & Park 2006 (BIT Korea)

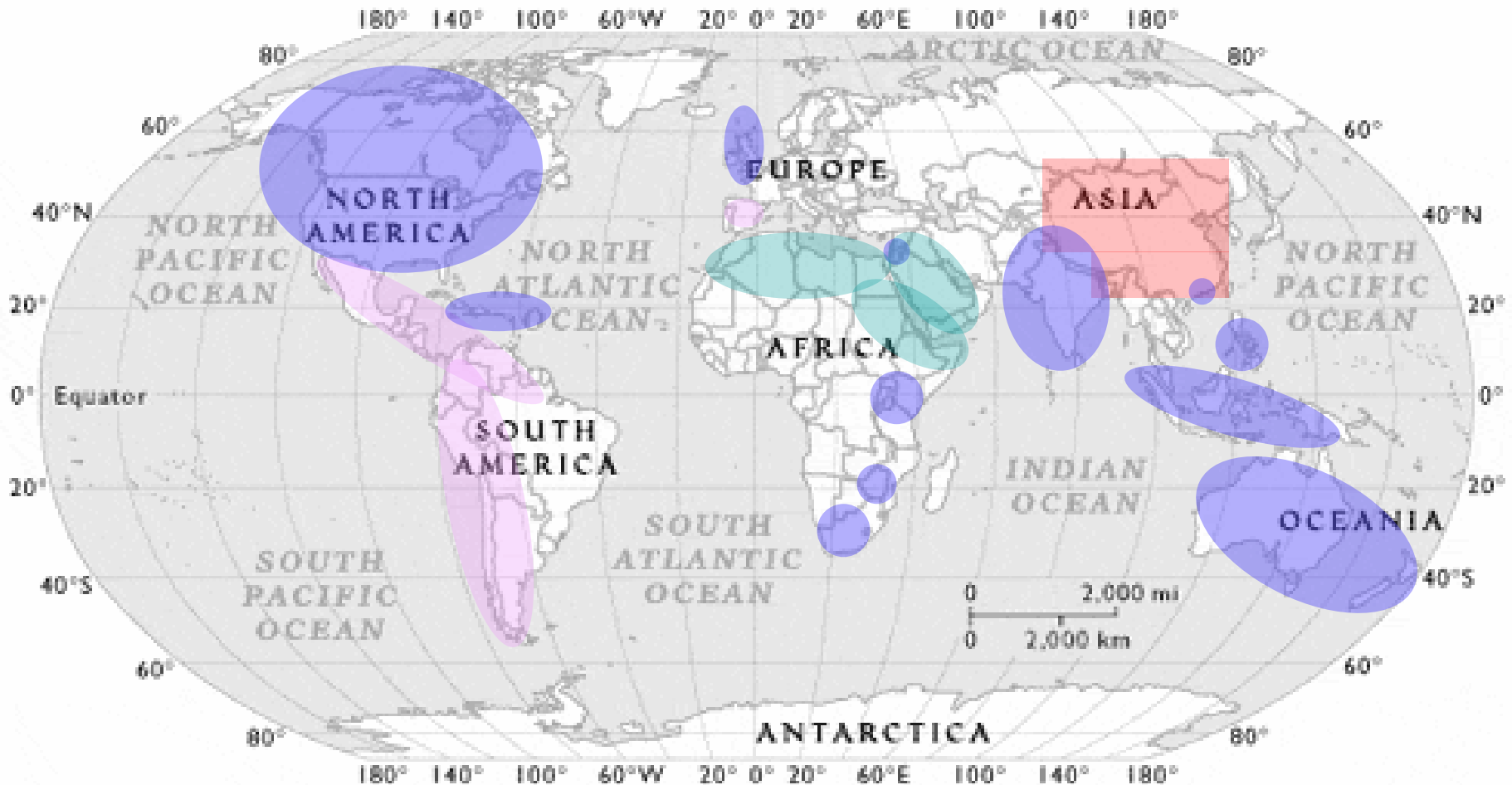


MATERIAL INFORMATION





# English / Spanish Arabic & Chinese Language Footprints



Source: Uday Karmarkar, BIT-USA



## **BIT Chile 2005 survey to firms:**

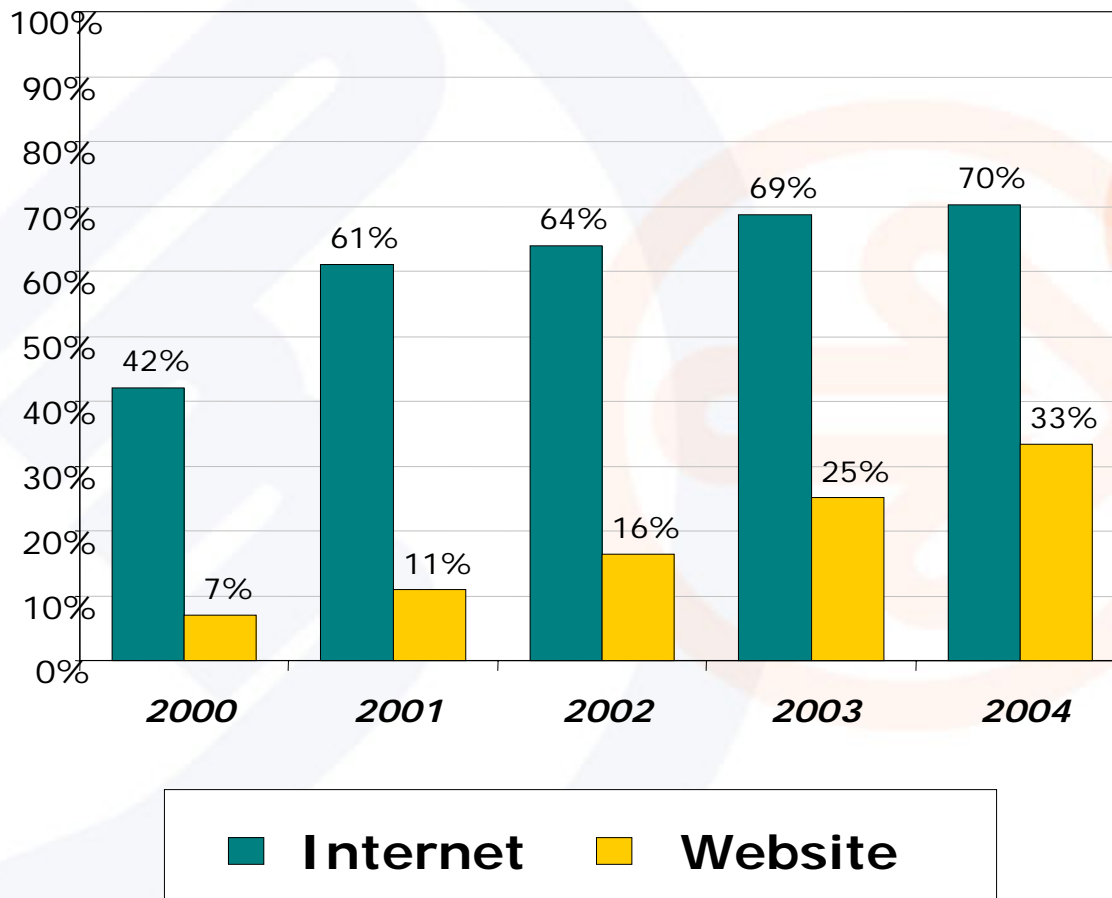
### **1. Adoption and impact on business results**





# % of Chilean firms connected to the internet and with a website

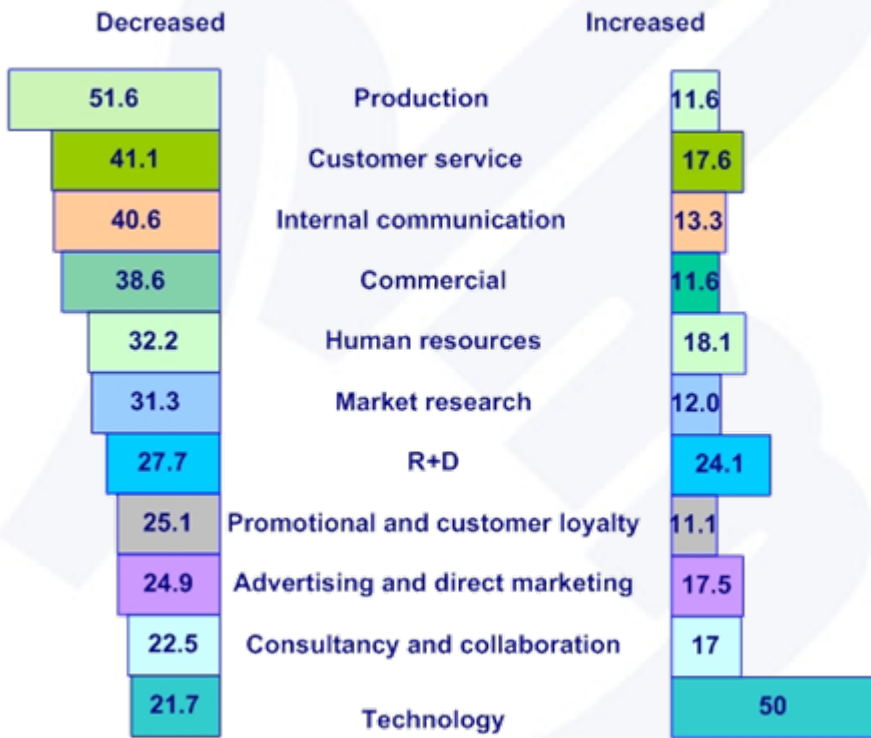
Source: Digital Economy Report 2004, CCS





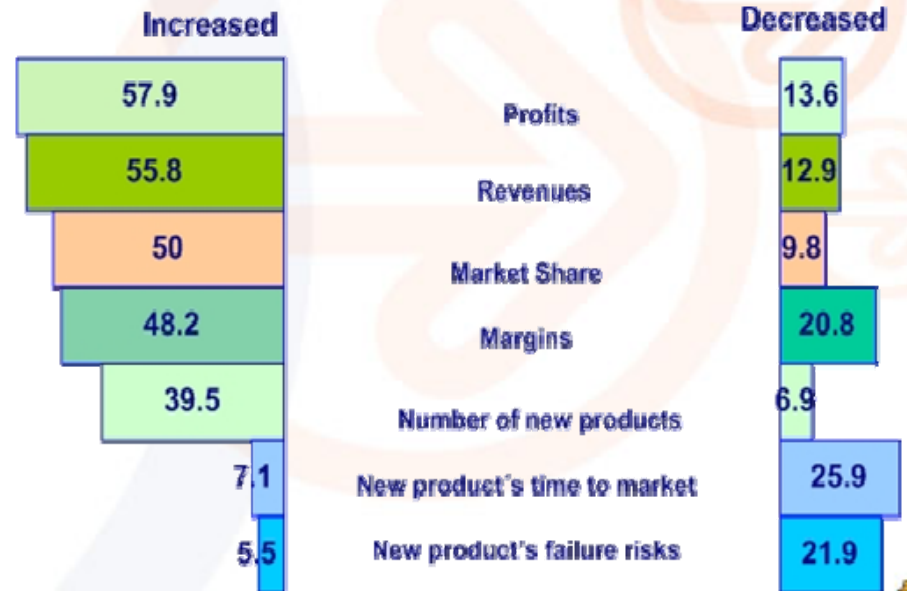
# IT impact on business results (cost and financial indicators)

## Business Results: Costs



Source: BIT Chile, PUC-CCS

## Business Results: Financials Indicators



Source: BIT Chile, PUC-CCS

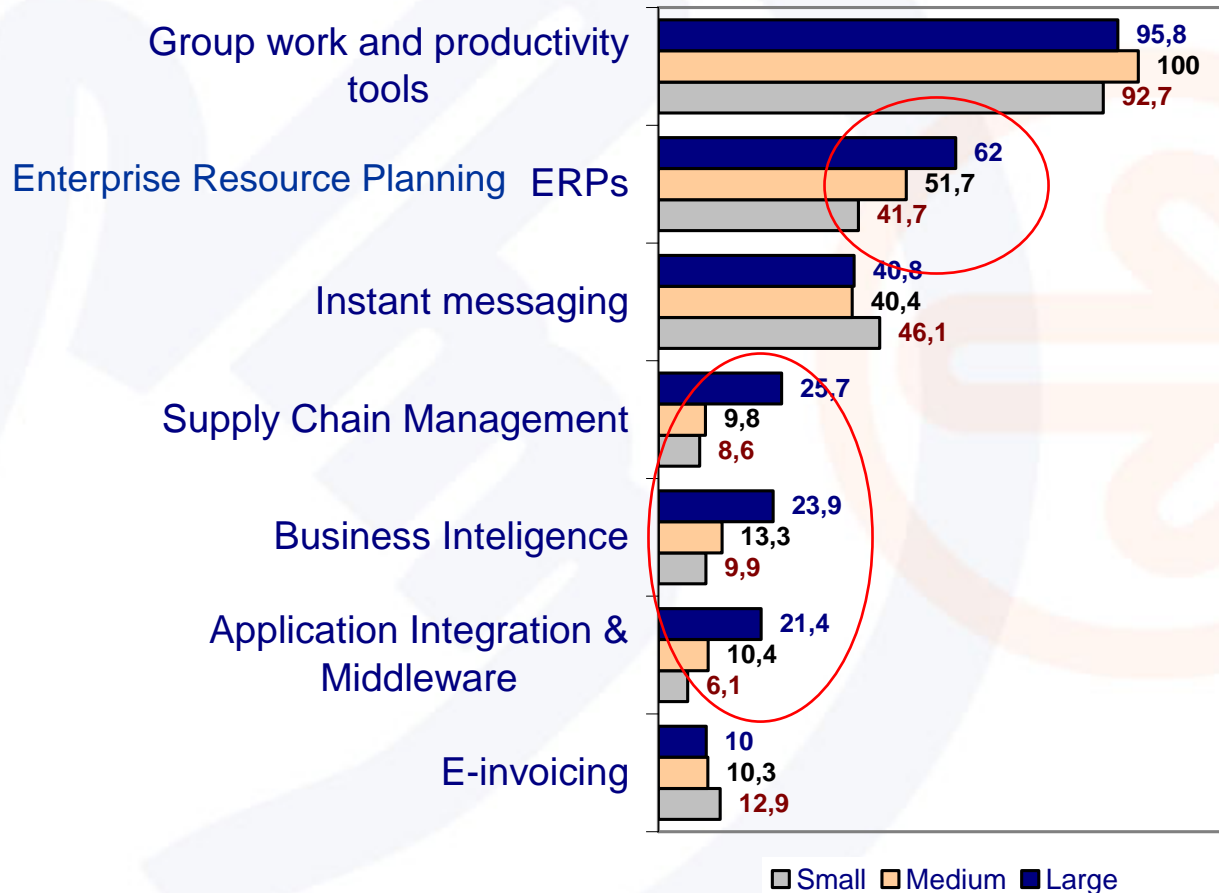




# Technology adoption trends by firm size

Software technologies (%)

Digital divide:  
As IT become more sophisticated, the larger the difference between SMEs and big firms





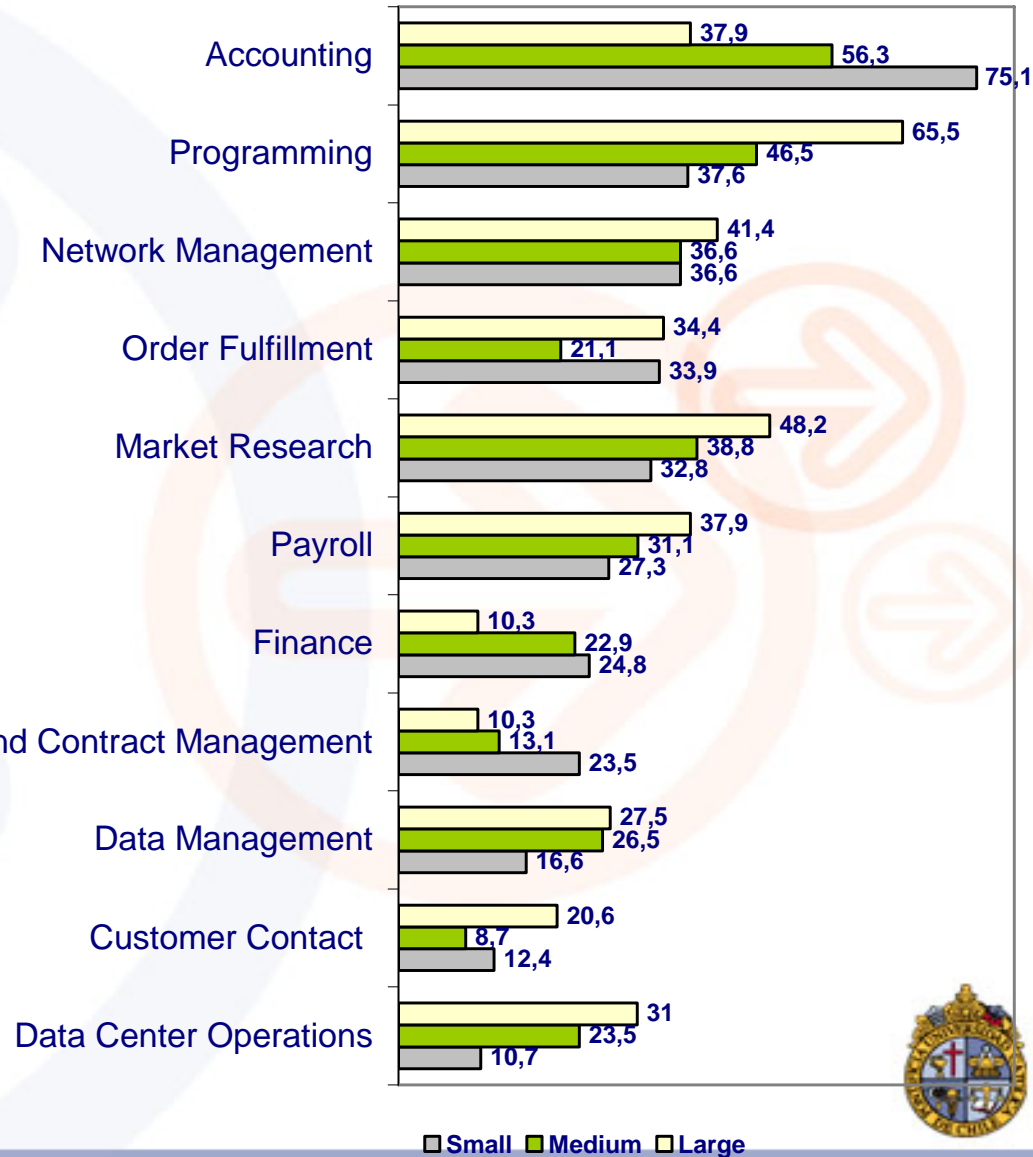
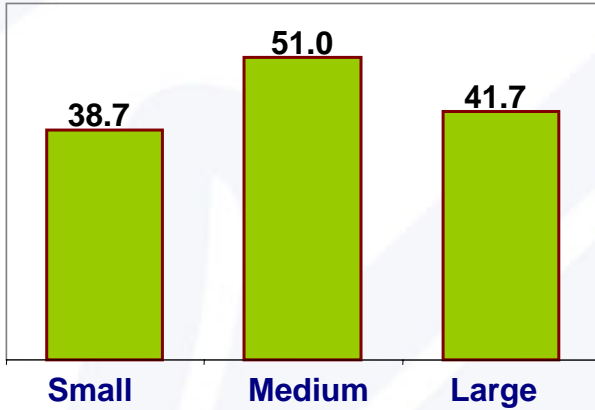
## 2. Outsourcing





# BPO (by firm size)

Have you outsourced any of your business processes?  
(mean = 39%)





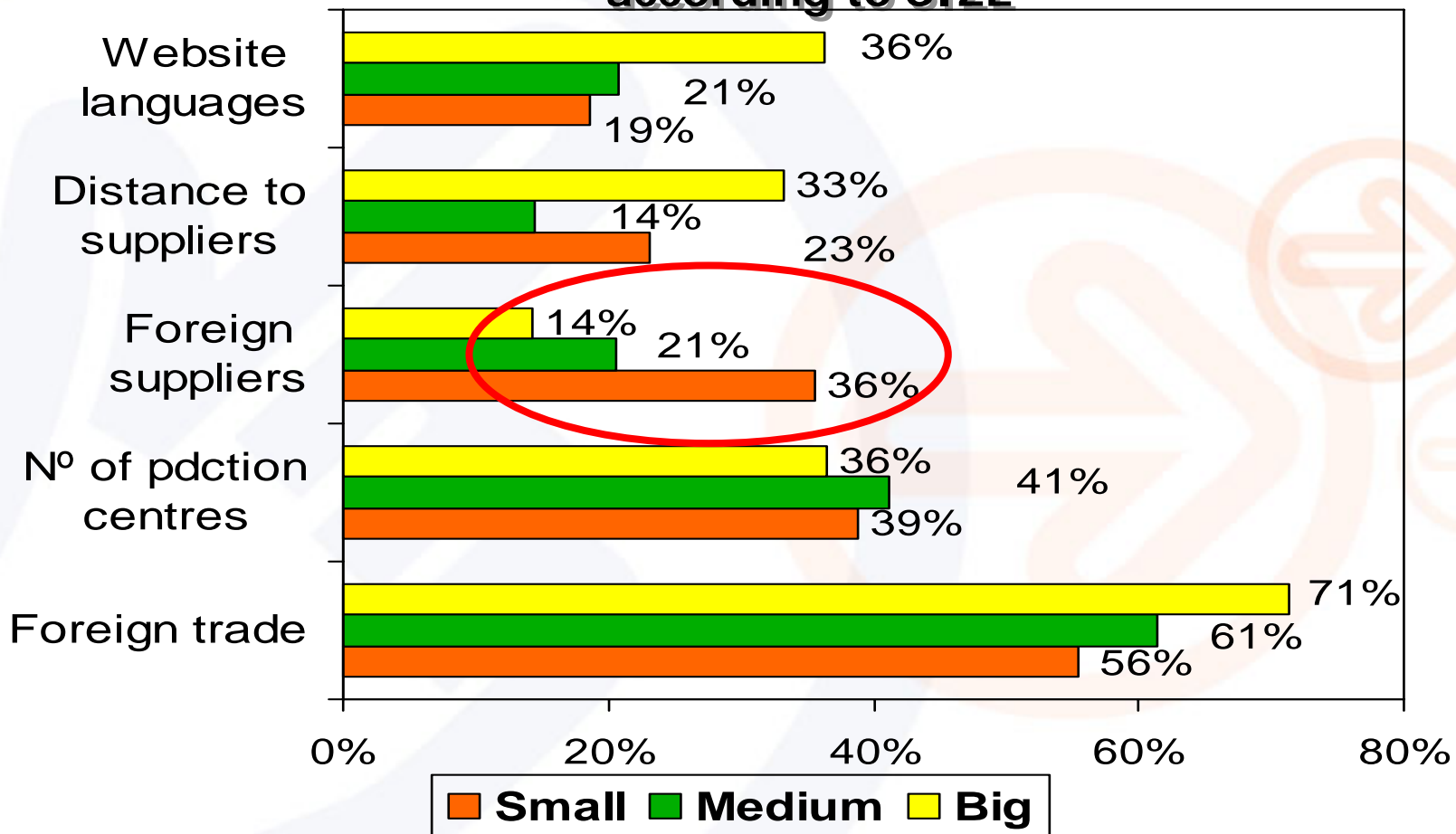
### **3. Globalisation**





# Globalising trends, 1 % of firms that increased/somewhat increased...

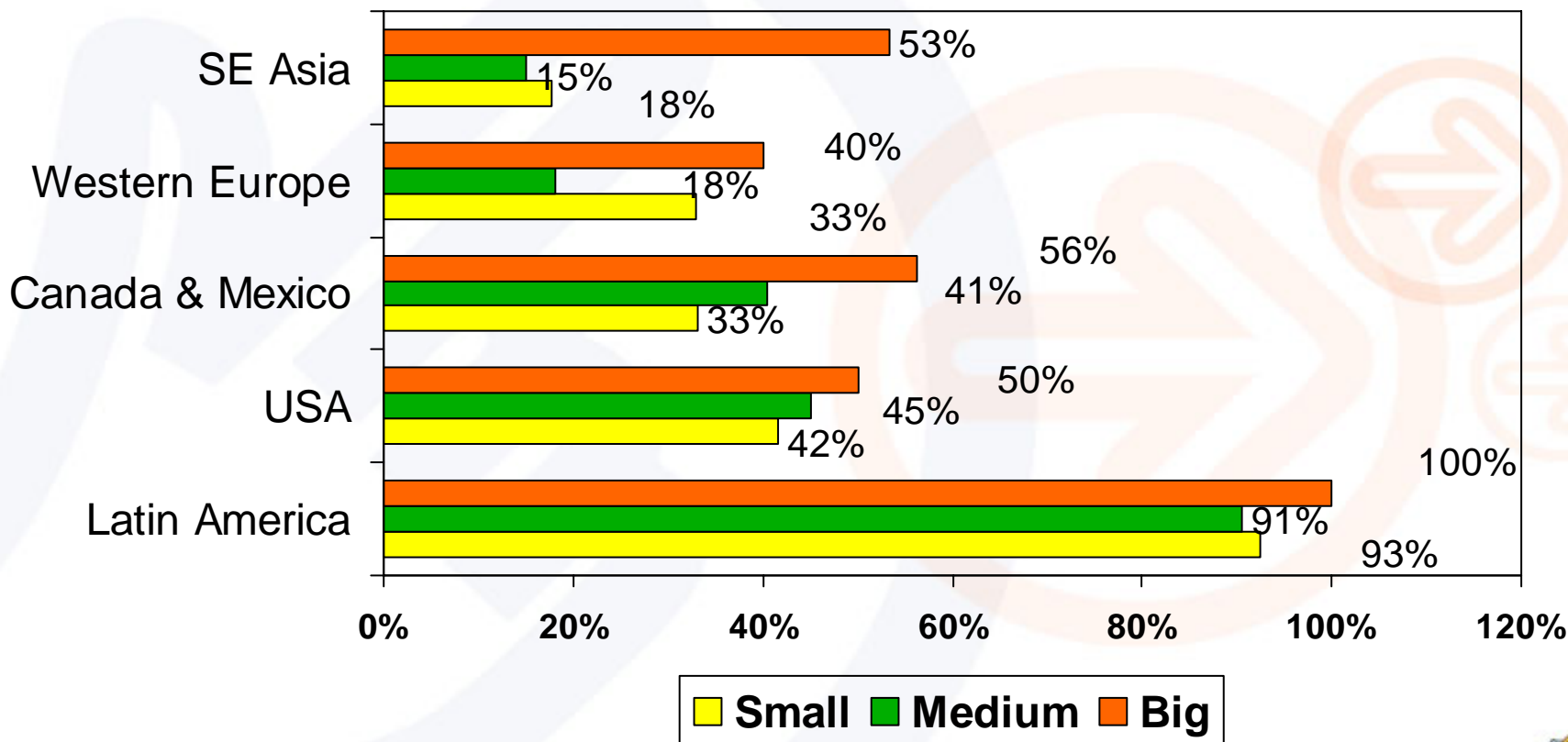
according to SIZE





# Globalisation regions

## % firms operating in/will operate in next 3 years according to SIZE





## 4. Case study





## Case study: comparison of BIT applied to schools in contrast to BIT survey in the USA

	<b>BIT USA 2003/04</b>	<b>Case study Chile 2005 (Pérez 2005)</b>
Flatter organisation	Growing	No
Management control span	Higher	Higher
Outsourcing	Limited	None
Website	Informs, increasingly for transactions	Informs only
Usage of IT for contact, feedback, and analysis of clients	Growing	None





# Main organisational traits of typical Latin American firms

(Rodriguez, 2001):

- Based on the *latifundio* (huge estate or farm)
- Extensive & inefficient exploitation of resources
- Paternalistic relationships between manager and employee in which
  - the employee receives protection in exchange for loyalty
  - mutual distrust
  - relying on informal communications networks.
- Non-meritocratic, hierarchical structures in which employees show low levels of responsibility and initiative.
- Little consideration of clients and competitors
  
- Bigger firms in Chile show more “modern” traits, whereas SMEs are more traditional
- Bigger firms account for 90% of GNP, whereas SMEs account for 80% of jobs





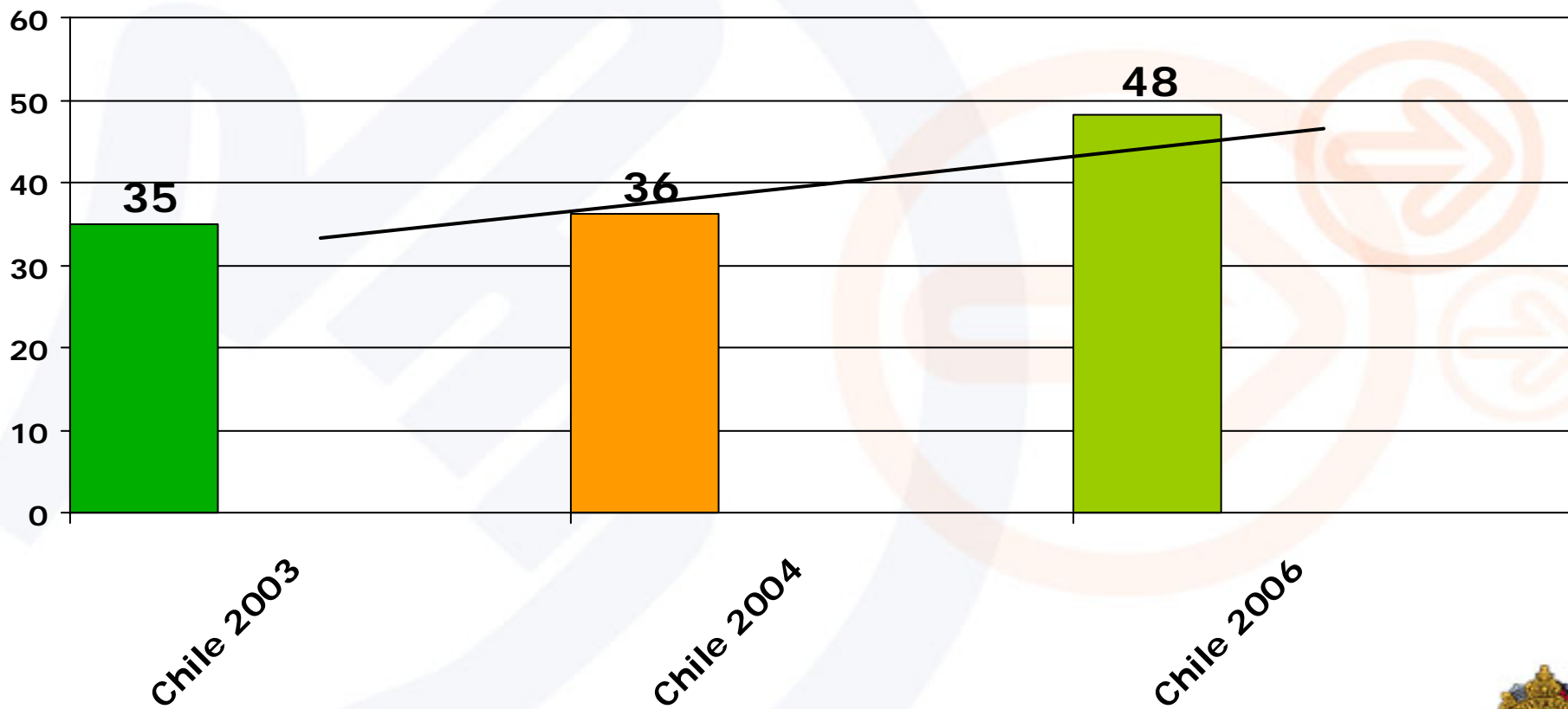
## WIP Chile data





# Internet users in Chile 2003-2006

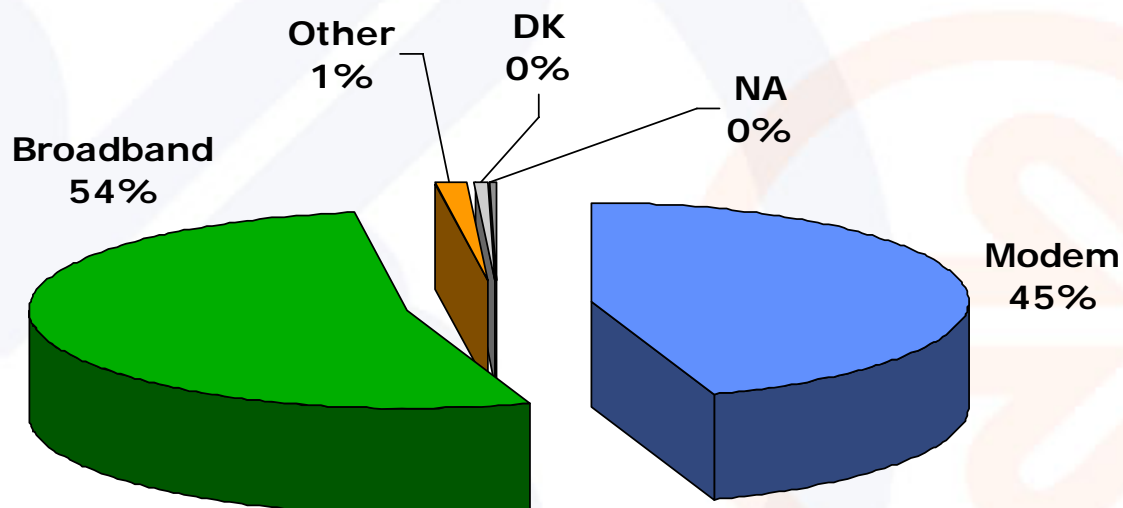
Source: www.wipchile.cl



2006 data: ABC1C2=73.35 C3=48.66 D=31.4 TOTAL 48.20



# % users according to type of home connections 2004



**Broadband penetration according to income level:**

**ABC1C2: 73,4%**

**C3: 46,2%**

**D: 21,4%**



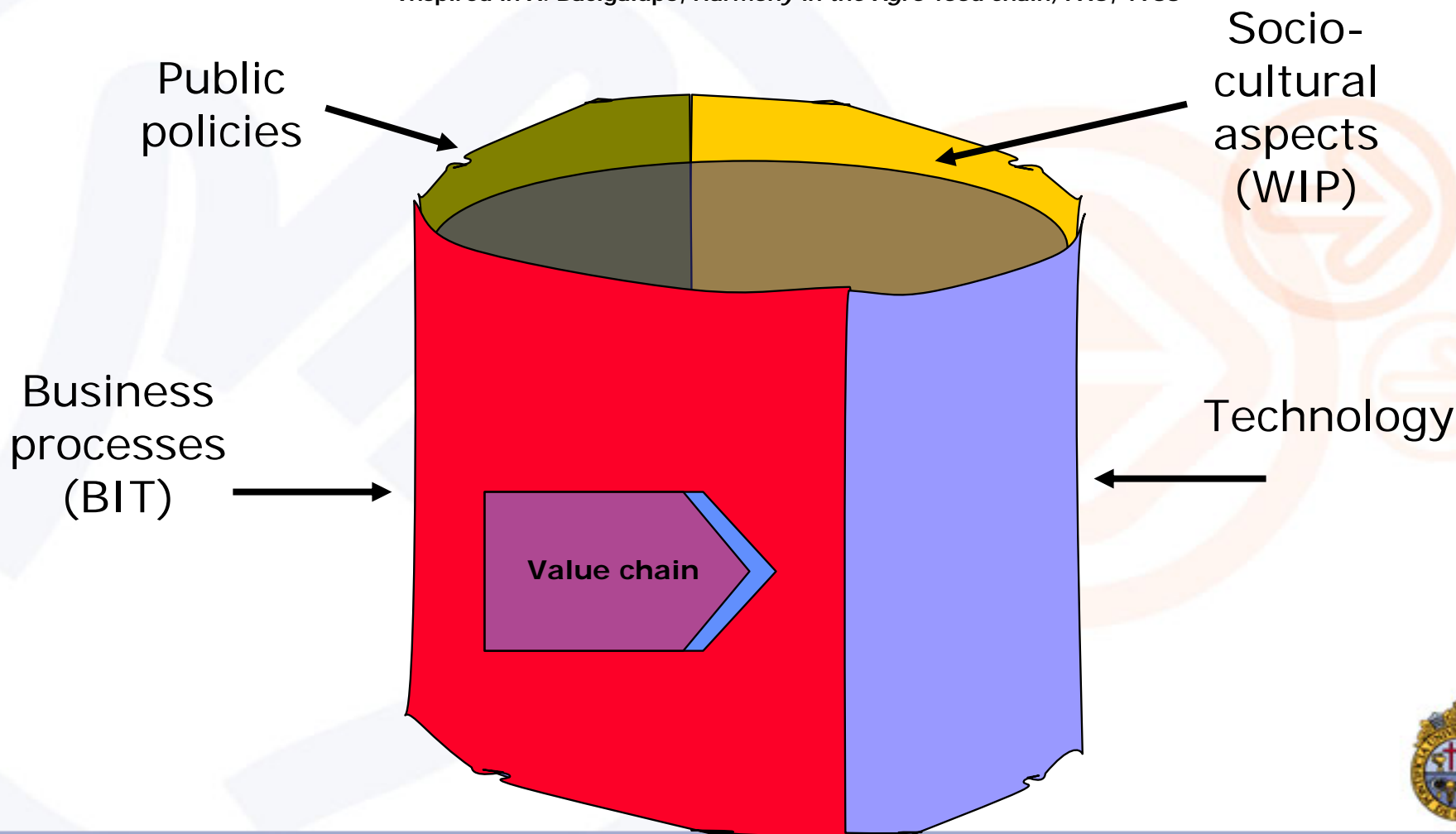


**Conclusion:**  
**THE NEED TO HARMONISE FACTORS**



## Integral development and the need to harmonise factors: the sides of a water tank

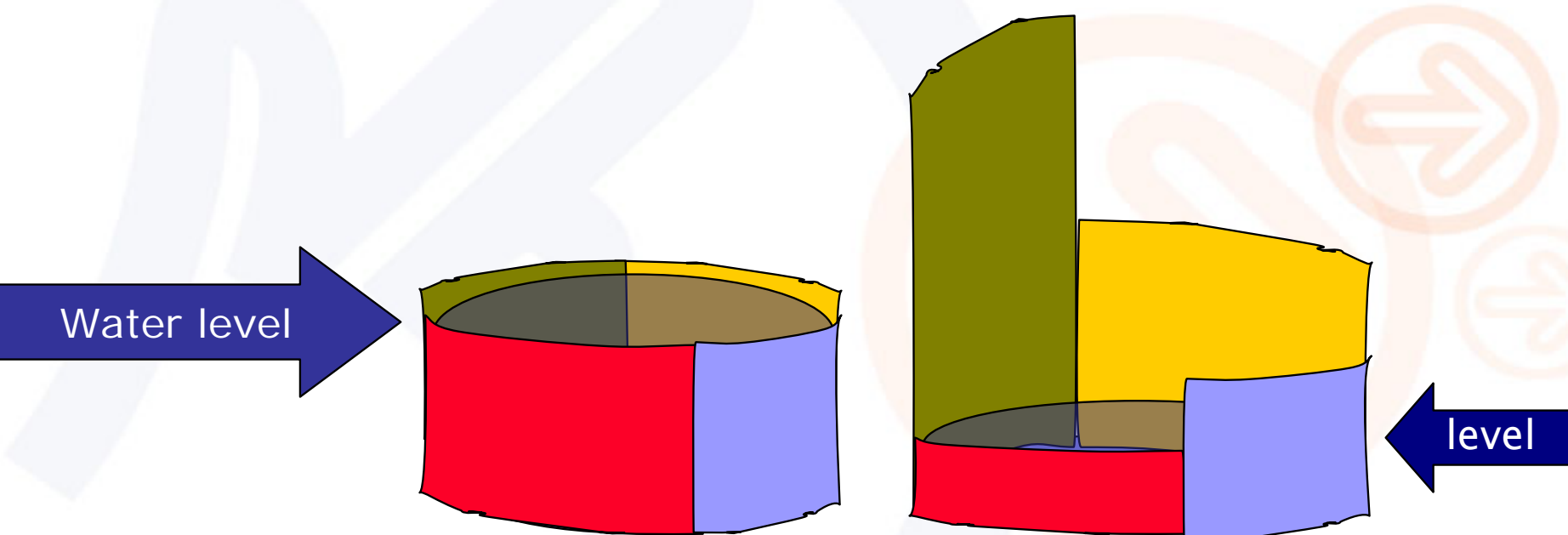
Inspired in A. Bacigalupo, *Harmony in the Agro-food chain*, FAO, 1988





# Sustained unequal developments are wasted

Inspired in A. Bacigalupo, *Harmony in the Agro-food chain*, FAO, 1988





# BIT Chile 2005's main conclusions

- Chilean firms report higher profitability and income due to IT than Spain and the USA, yet that may be caused by their relatively earlier stage of technological adoption;
- Reported job cuts due to outsourcing, offshoring, and process automation are lower than in Spain and the USA, although this may change in the future;
- The divide between small and big firms grows as IT becomes more sophisticated. SMEs have good basic infrastructure, but lag far behind than the bigger ones in more advanced technologies. So the latter sub-utilize these tools because of the lack of network economies.
- Latin America is by far the most relevant region in terms of foreign operations for globalised Chilean firms, despite the importance of other areas around the world as well; and
- Technological development should be harmonised with the main socio-cultural and political variables surrounding businesses studied by the complementary World Internet Project, WIP-Chile, executed by the same multi-disciplinary research team as BIT.





## **METHODOLOGY & CREDITS**





## Methodology of the BIT Chile 2005 survey

- Bi-annual face-to-face survey of CEOs in SMEs and CIOs of big firms in 2005 and 2007.
- Universe: representative sample of 301 firms in Chile's Metropolitan Region according to size (small, medium, big) and sector (services and manufacturing) with at least one computer connected to the internet. Each firm determined the sector to which it belonged.
- Selected cases were weighted for size and sector according to data from SERPLAC Metropolitana, the relevant government body.
- Field work: September to November 2005.
- The latest available BIT reports from USA and Spain were used for the international comparison ( see Kamarkar & Mangal, 2004; and Sieber & Valor, 2005, respectively).
- BIT complements WIP (World Internet Project) in Chile. WIP analyses the everyday use of the internet and other ITs, and is a sociological/communications study. WIP Chile surveys have been done in 2003 and 2004. Two other surveys are planned for 2006 and 2008.





# BIT / WIP Chile team

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**Dr. Marcos Sepúlveda** School of Engineering UC

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