



**SISTEMI INNOVATIVI PER  
L'OTTIMIZZAZIONE DEI PROCESSI  
DI PRODUZIONE NELLE PMI DEL  
SETTORE MOBILIERO**

**2 Ottobre 2008**

**Facoltà di Ingegneria**

**Università Politecnica delle Marche**

## **Ricerca e innovazione nei sistemi di PMI**

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# The new challenges

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- Changing the innovation model of existing firms from “**innovation without research**” to “**R&D based activities**”
- Moving from traditional industries to medium-tech industries and high-tech clusters



## Formal R&D activity

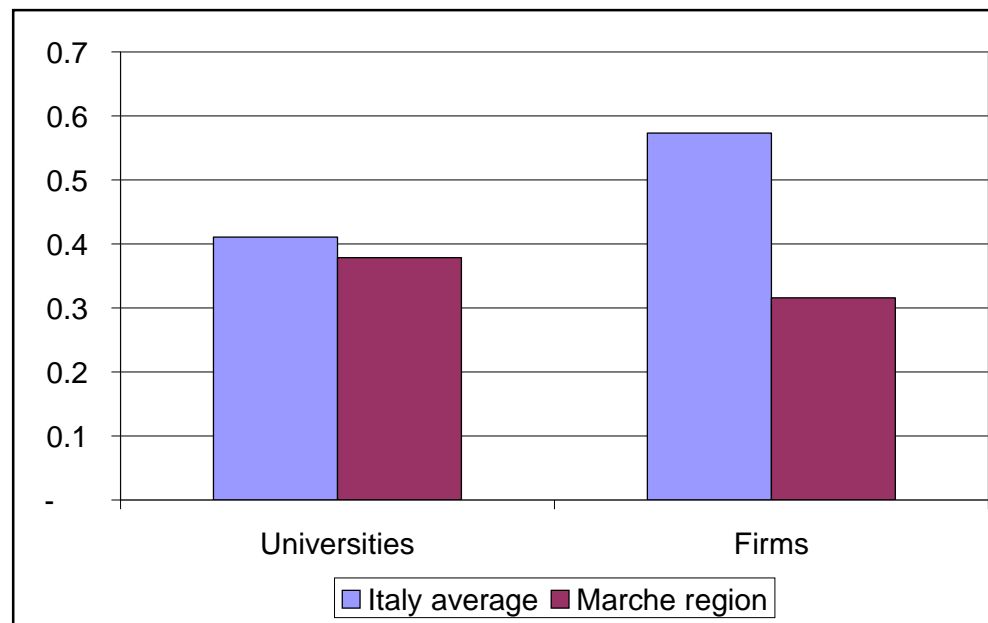
	FP3, FP4, FP5 Projects per 10000 residents	R&D on GDP (2003)
<b>Italy average</b>	<b>3.62</b>	<b>1.21</b>
Lombardia	4.96	1.30
Veneto	2.42	0.76
Emilia Romagna	4.35	1.31
Toscana	6.00	1.21
Umbria	3.22	0.92
<b>Marche</b>	<b>1.86</b>	<b>0.74</b>



# Industry innovative activity

Given the prevalence of traditional industries and small firms there is a lack of formal R&D activities in the private sector

## R&D expenditure as % of GPD in 2003



Source: ISTAT



# Oppourtunities: 1. Technology

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The development of new technologies (ICT, new materials, nanotechnologies, etc.) are less 'sector specific' than in the past

There are no 'high-tech' and 'low tech' sectors but 'high-tech' and 'low tech' firms



# Research in the Marche region

## Full time researchers and professors in universities by networking potentiality with firms in R&D activities - 2008

	Politecnica delle Marche	Urbino	Macerata	Camerino	Totale
High (Engineering, etc.)	265	70	7	129	471
Medium (Mathematics, etc)	264	163	73	125	625
Low (Humanities)	14	221	235	32	502
Totale	543	454	315	286	1.598



# The industry-university gap in R&D

**Basic  
research**

**Time and fund gap**

**Market**

**University**

**Firms**

**Universities tend to  
exit too early**

**Firms tend to enter  
too late**