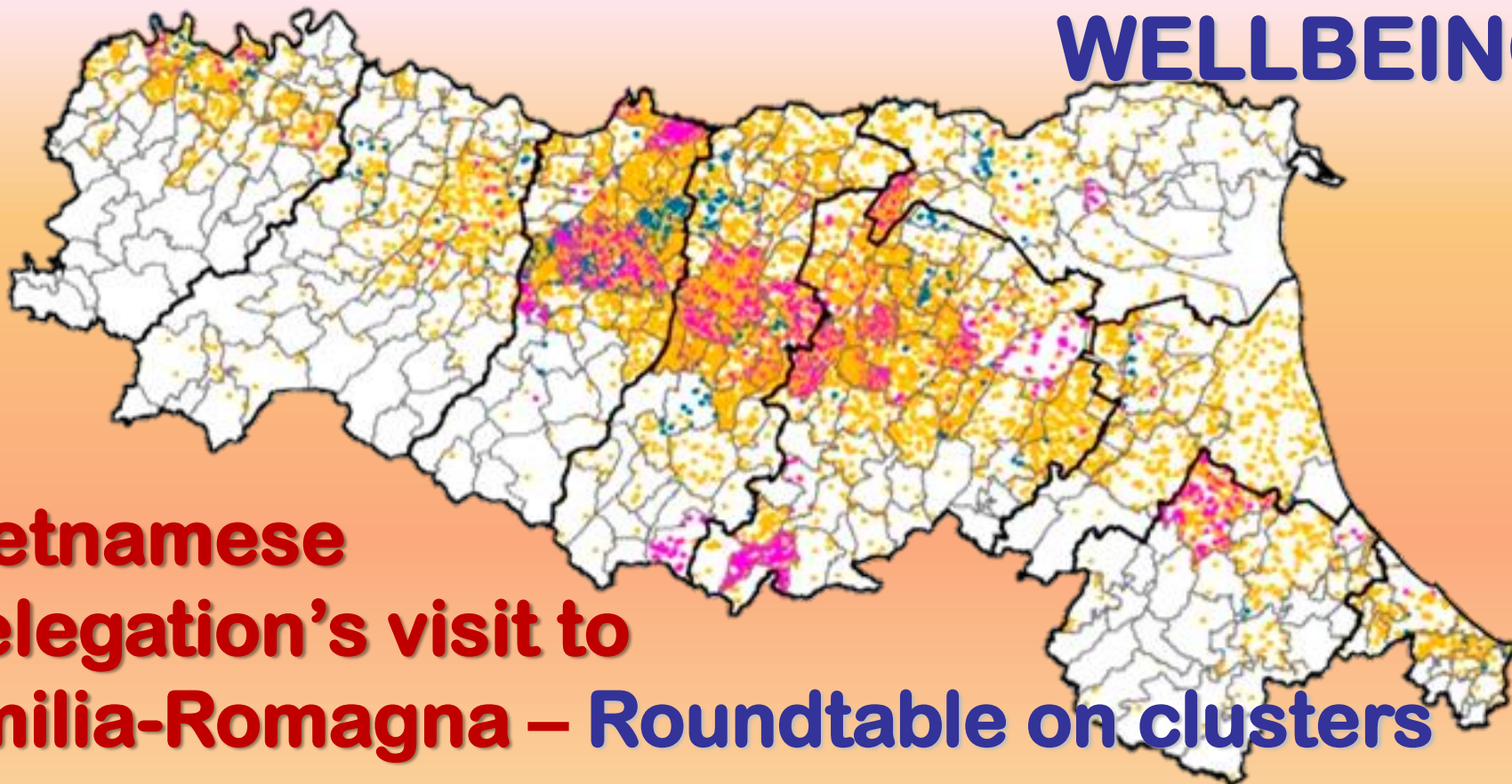


HOW TO MONITOR CLUSTERS' ECONOMIC WELLBEING



**Vietnamese
Delegation's visit to
Emilia-Romagna – Roundtable on clusters**

Bologna, 7th of September 2015

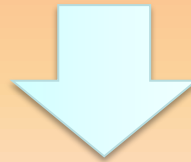
What a cluster is

The definition of clusters:

Traditionally, we talk about **clusters** when a **large number** of businesses operating in the same **sector** (or in correlated ones) are grouped in relatively **small areas**;

The large majority of these businesses are **small-sized** (less than 10 employees);

So they (were used to) generate monocultural **areas** in which every company has a **low level of vertical integration**;

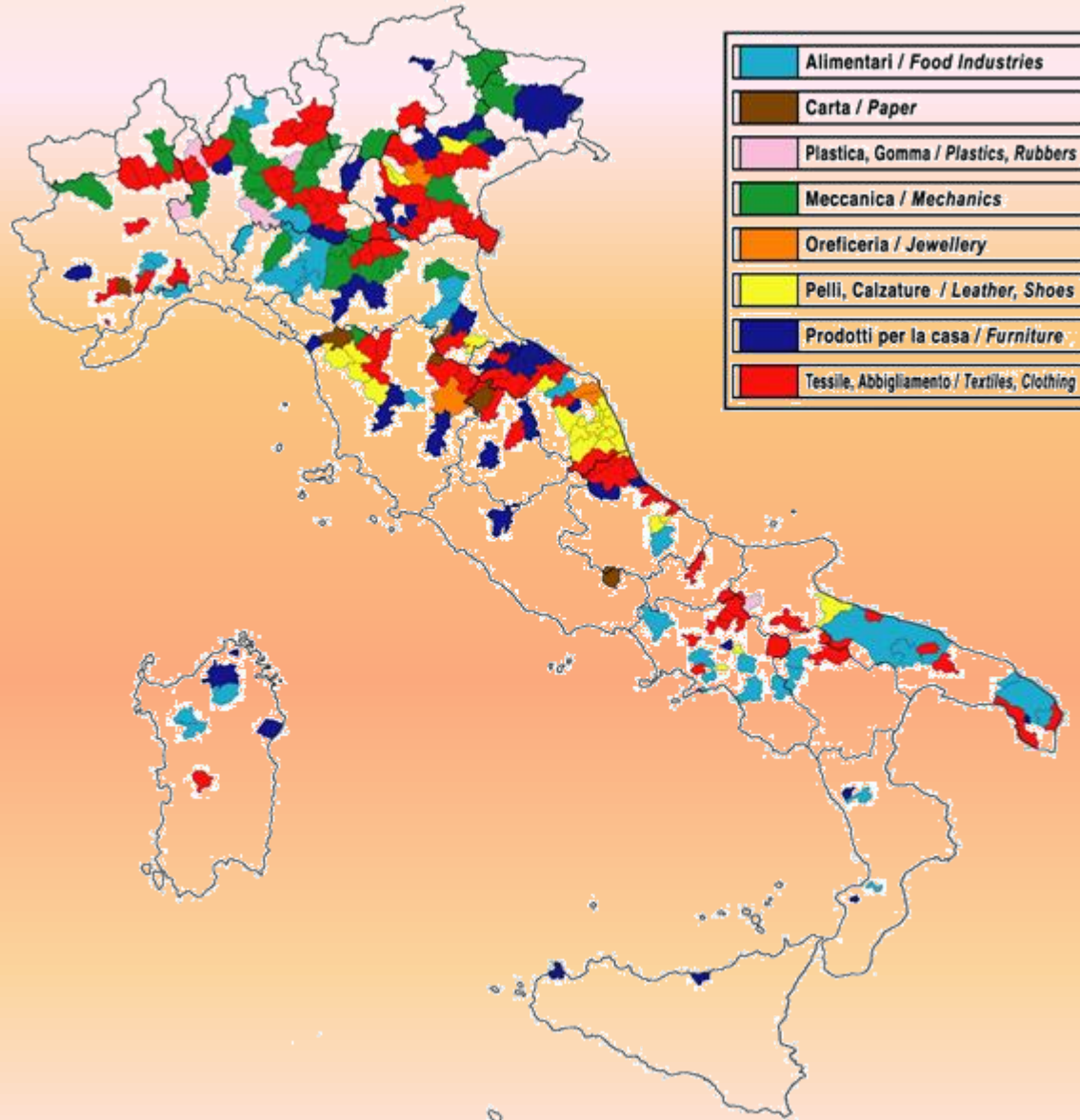


Our experience

The development of this organization dates back to 1960s and 1970s and is due to:

- 1) The development of **trade union power** since 1960s → their power is limited to those firms with more than 15 employees: a twofold labor market;
- 2) The reduction of the importance of economies of scale in favor of the importance of **customization** (short series of production) + the increasing importance of **flexibility** + the importance of **agglomeration economies** (for innovation, incremental in specific – Marshallian economies) + the importance of knowledge that **can't be codified**;
- 3) The **cultural environment**: “it's better to be the head of a little under-capitalized company than a manager of a multinational”. This was the prevailing mood those days;

Italian clusters according to ISTAT



Generally recognized clusters ER

Food:

Castel San Giovanni 

Busseto 

Fornovo di Taro 


Langhirano 

Parma 

Faenza 

Lugo 

Mechanics:

Fiorenzuola d'Arda 

Guastalla 

Reggio Emilia 

Modena 

Argenta 


Cento 

Clothing:

Correggio 

Carpi 

Mirandola 

Santa Sofia 

Leathers and shoes:

Mercato Saraceno 


Press-Printing:

Rocca San Casciano 

Furnishings:

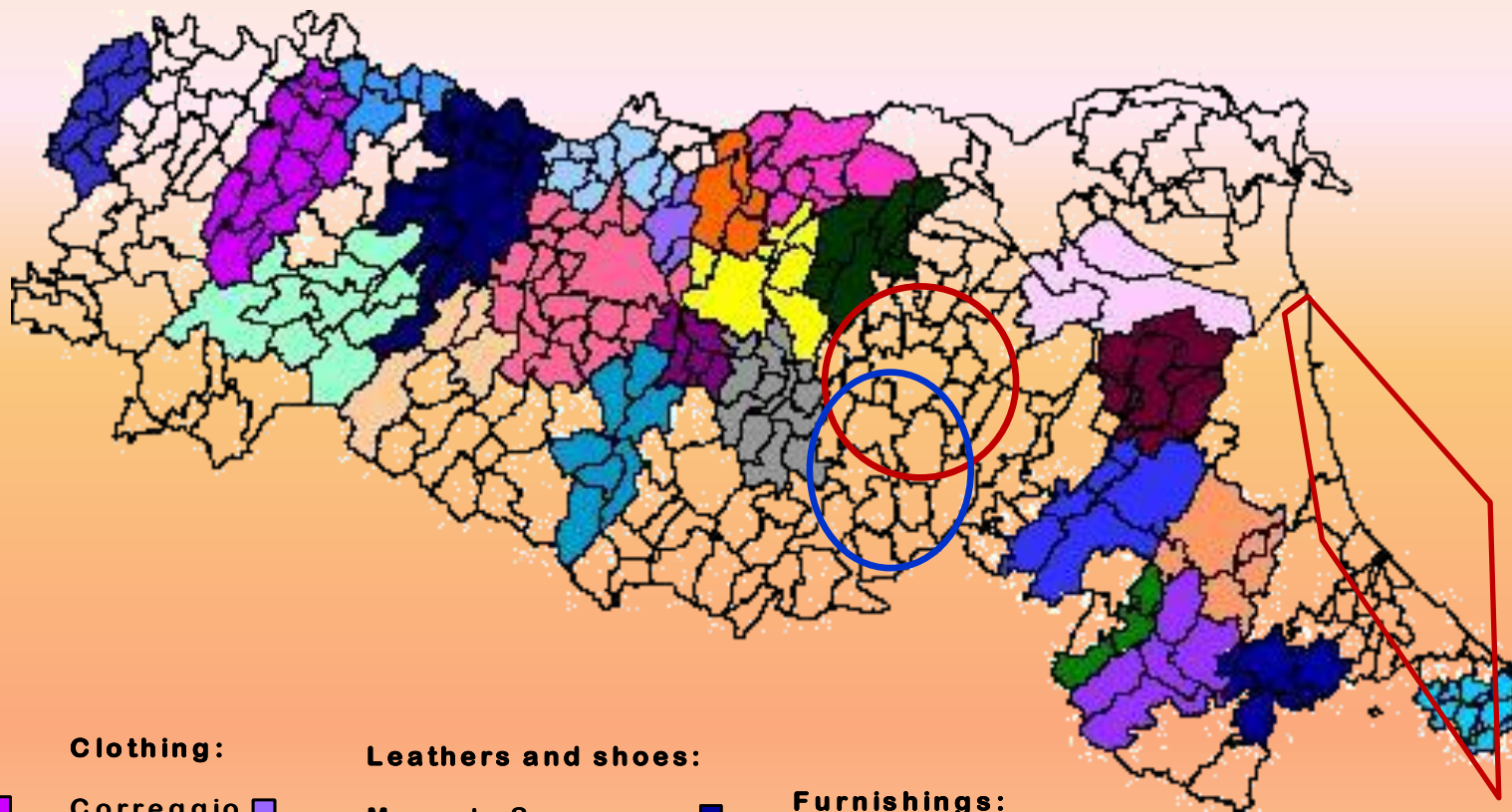
Castellarano 

Sassuolo 

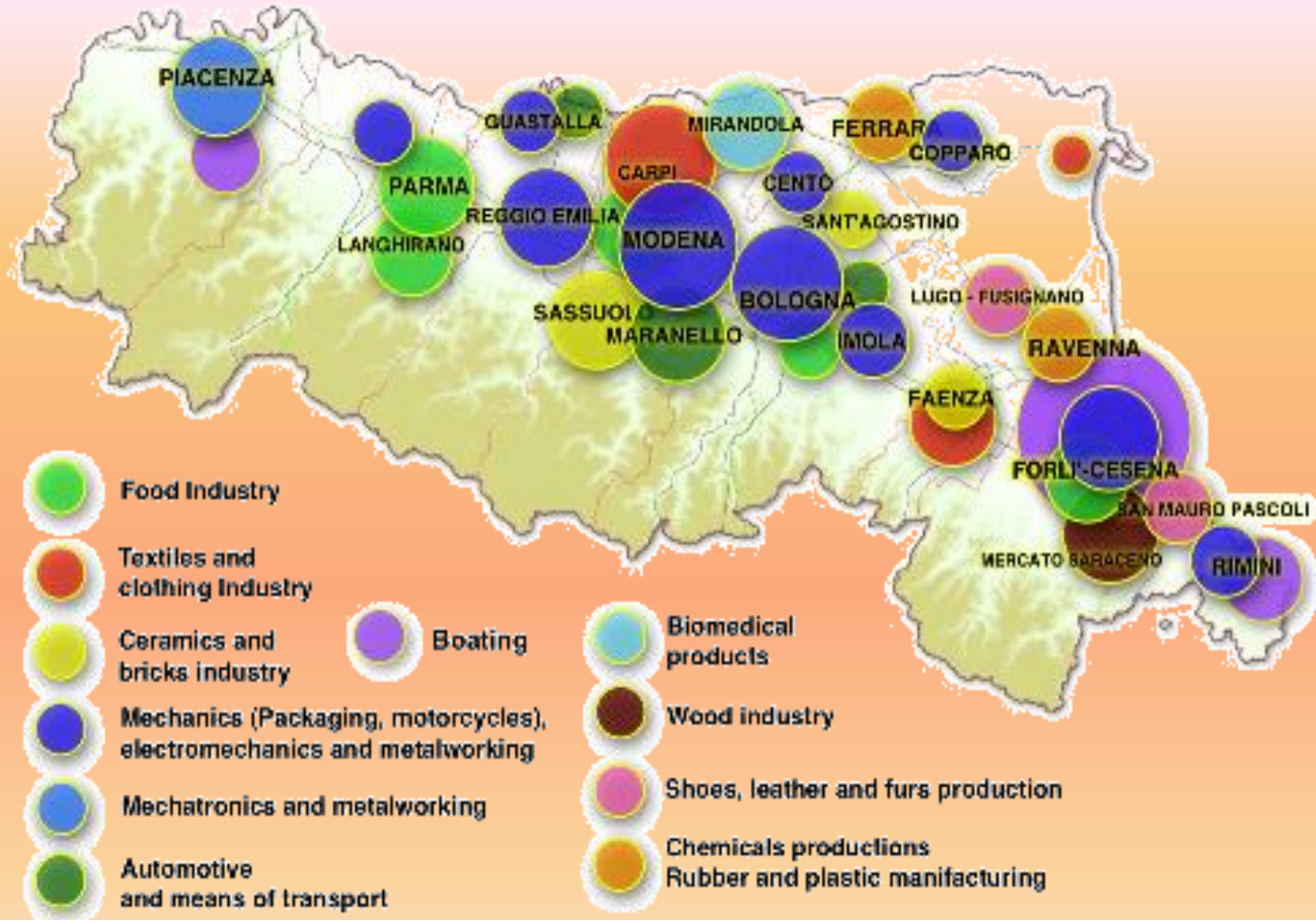
Vignola 

Forlì 

Morciano di Romagna 



Main industrial clusters Emilia-Romagna



Data sets



BIG DATA

Data-sets:

Business
register

Import - export

Import - export

Balance sheet
IT

Balance sheet
World

Shareholding

Trade marks

Smal - ER

Sample analysis
On regular basis

Data available:

Data of all Italian firms

Import – export data for every Italian province

Import – export data for all countries about 5.000 products

Balance sheets for all Italian (joint-stock) firms

Balance sheets for more than 100 millions firms of the world

Shareholding about firms from all over the world

Trade marks and patents

Social security contribution info for every employee

Short term monitoring, credit supply, innovation & ICT,
internationalization

Monitor the economic wellbeing of clusters



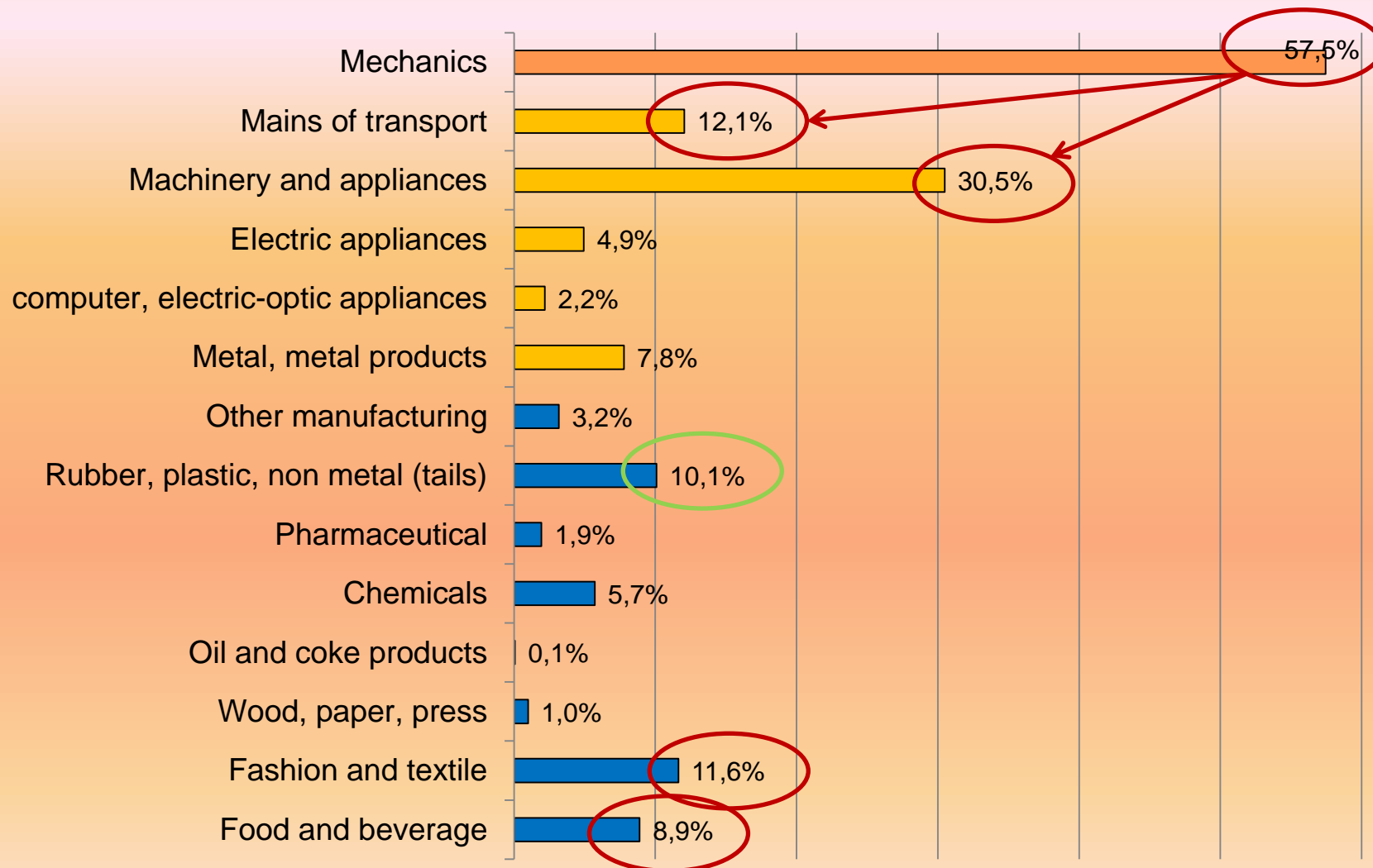
Manufacturing employment Weight of manufacturing sectors

2014 (last full year available)

	2008	2009	2010	2011	2012	2013	2014	Weight 2014
Food and beverage	58.935	59.080	59.094	59.879	60.500	60.723	61.292	13,3%
Fashion and textile	48.319	45.690	43.438	43.889	42.757	40.870	39.821	8,7%
Wood, paper, press	31.231	29.822	28.670	28.067	27.279	26.259	25.230	5,5%
Oil and coke products	1.052	988	946	1.008	962	946	948	0,2%
Chemicals	13.556	13.406	13.240	13.343	13.376	13.205	13.196	2,9%
Pharmaceuticals	3.028	3.058	3.093	3.136	3.264	3.406	3.551	0,8%
Rubber, plastic, non metallic (tiles)	62.852	58.909	55.313	54.016	52.953	51.680	50.406	11,0%
<i>Metal, metal products</i>	<i>102.193</i>	<i>94.527</i>	<i>90.022</i>	<i>91.054</i>	<i>89.145</i>	<i>87.928</i>	<i>87.150</i>	<i>19,0%</i>
<i>Computer, electric, optic appliances</i>	<i>13.735</i>	<i>13.489</i>	<i>12.981</i>	<i>12.997</i>	<i>12.882</i>	<i>13.018</i>	<i>13.101</i>	<i>2,8%</i>
<i>Machinert and appliances</i>	<i>121.652</i>	<i>118.375</i>	<i>113.583</i>	<i>113.767</i>	<i>113.015</i>	<i>112.395</i>	<i>112.764</i>	<i>24,5%</i>
<i>Mains of transport</i>	<i>20.637</i>	<i>20.218</i>	<i>19.651</i>	<i>19.028</i>	<i>18.644</i>	<i>18.151</i>	<i>18.111</i>	<i>3,9%</i>
<i>MECHANICS</i>	<i>258.217</i>	<i>246.609</i>	<i>236.237</i>	<i>236.846</i>	<i>233.686</i>	<i>231.492</i>	<i>231.126</i>	<i>50,3%</i>
Forniture	11.661	11.079	10.724	10.246	9.897	9.508	9.122	2,0%
Other manufacturing	13.454	13.172	12.883	13.098	12.852	12.482	12.057	2,6%
Installation of machinery	11.151	11.042	11.240	11.949	12.375	12.622	12.960	2,8%
Total manufacturing	513.459	492.883	474.879	475.478	469.902	463.195	459.710	28,8%
Total private sector	1.661.138	1.638.798	1.616.762	1.637.784	1.636.961	1.606.578	1.596.364	80,1%

Export: Weight of economic sectors (manufacturing)

2014 (last full year available)



Using big-data: the broader picture

Ceramic-ales in Italy

- We can also use **national data** to make **international comparison** relevant
- The large majority of companies operating in this sector are located in Emilia-Romagna
- Comparing internationally makes clear the real size of clusters operating in a territory

Italian ceramic tales sector: international comparison

World weight of Italian companies:

Weight of Italian companies operating in the sector	29%
Weight of turnover of Italian companies	18%

Innovation capabilities:

Weight of Italian companies with registered patent:	35%
Weight of Italian registered patent:	15%
Weight of Italian companies with registered trade mark:	32%
Weight of Italian registered trade mark:	12%

Internationalization capabilities:

Weight of Italian owned foreign branch (to the total foreign owned branch in the world):	29%
Weight of companies with a foreign branch:	36%

LONG RUN

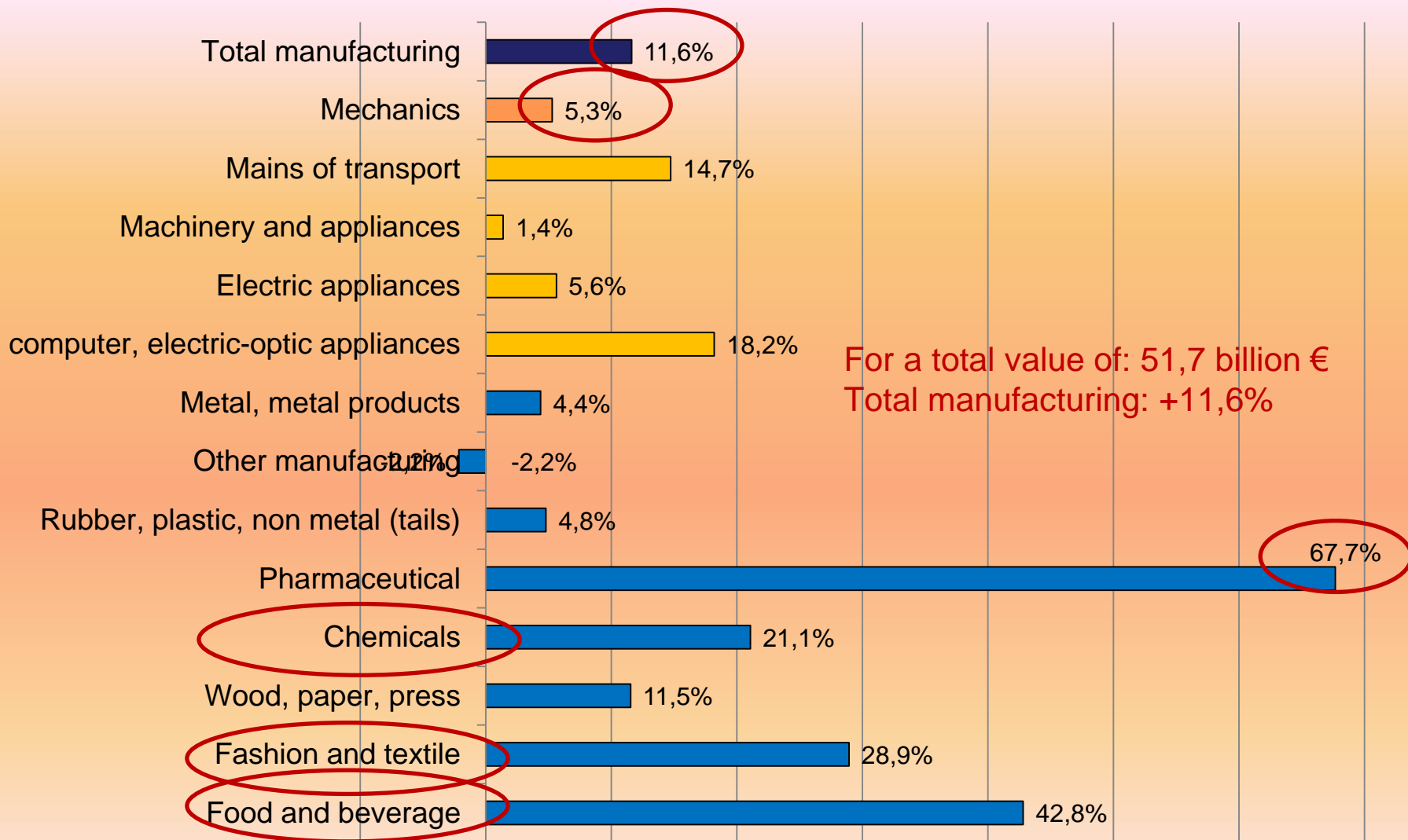
Employment: 2008 - 2014

Performance of economic sectors (manufacturing)

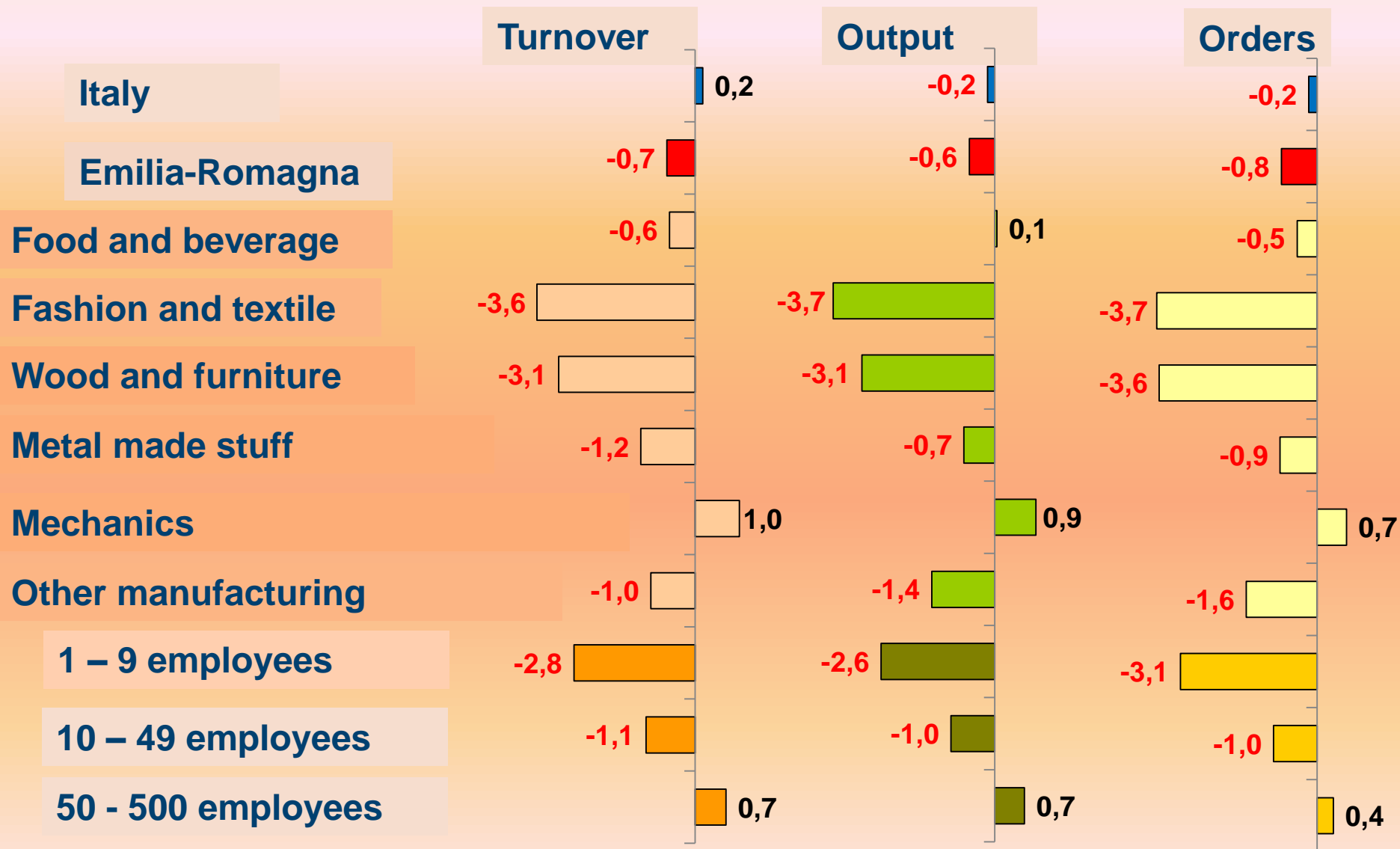
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Total manufacturing	513.459	492.883	474.879	475.478	469.902	463.195	459.710	28,8%	-10,5%
Total private sector	1.661.138	1.638.798	1.616.762	1.637.784	1.636.961	1.606.578	1.596.364	80,1%	-3,9%

LONG RUN: Export: 2008 - 2014

Performance of economic sectors (manufacturing)



SHORT RUN: Three-month sample analysis



Using big-data: the broader picture

Ceramic-tales in Italy

Active business: short-run / long-run

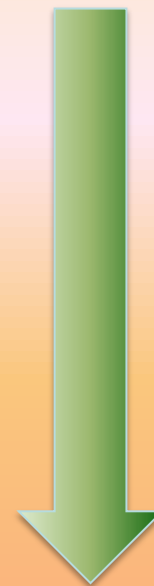
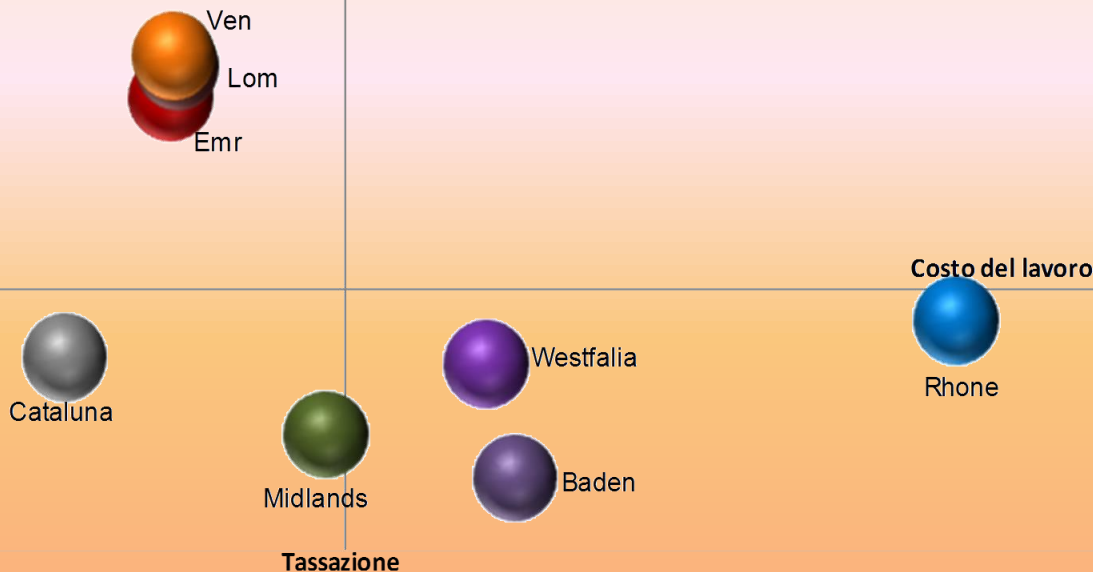
Number of employees: short-run / long-run

Turnover: short-run / long-run

Income & Investment: short-run / long-run

Foreign trade: short-run / long-run

Big-data: a wider use of data



And getting out of sectors with economic analysis: the resilient companies

	<i>Dim. media</i>	<i>Pro- duttiv.</i>	<i>Costo lavoro</i>	<i>Tassa- zione</i>	<i>Trend 5 anni</i>	<i>Imp.a rischio</i>	<i>Net- work</i>	<i>Attrat- tività</i>	<i>Inter- nazio.</i>	<i>Apert. Estero</i>	<i>Inno- vaz</i>
<i>Baden-W..</i>	Green	Green	Red	Green	Green	Red	Green	Green	Green	Green	Green
<i>Nordrh-W.</i>	Green	Green	Red	Green	Green	Red	Green	Green	Yellow	Green	Green
<i>Cataluna</i>	Red	Red	Yellow	Green	Red	Green	Red	Yellow	Red	Red	Red
<i>Rhone-Alp.</i>	Red	Red	Red	Yellow	Yellow	Yellow	Red	Yellow	Red	Yellow	Red
<i>W.Midlands</i>	Green	Green	Yellow	Green	Green	Red	Green	Green	Yellow	Green	Green
<i>Emilia-Rom.</i>	Red	Yellow	Yellow	Red	Yellow	Green	Yellow	Red	Yellow	Red	Yellow
<i>Lombardia</i>	Yellow	Green	Yellow	Red	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow
<i>Veneto</i>	Red	Yellow	Green	Red	Yellow	Green	Yellow	Red	Yellow	Red	Yellow