FEEDNEEDS: THE ITALIAN AND THE ITALIAN VS. SERBIAN RESULTS COMPARISON

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ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future
ITALIAN & SERBIAN
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

Company Profile

- **Owner profile:***
  - Median age: 52 years
  - Standard deviation: 3.2

- **Dimension:**
  - 29% family company
  - 71% small or middle dimension company
  - 0% big dimension company & multinational corporation

- **Employees number:**
  - Growing: 29%
  - Stable: 57%
  - Decrease: 14%

- **Year of foundation:**
  - Median: 1984
  - Standard deviation: 35.3

- **Number of employees:**
  - Median: 56
  - Standard deviation: 78
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

Production

Categories/intended for

Supplements 20%
Poultry 27%
Pig 40%
Dairy cow 60%
Beef 60%
Other 67%
medicated feed 27%

Based on

Raw material 93%
Premixes 40%
Finished products of third parties 7%
other 7%
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

Feed Additives

- Vitamins and microelements: 73%
- Antioxidants: 47%
- Flavouring: 53%
- Emulsifiers, stabilizers, etc.: 33%
- Pigments: 33%
- Preservatives: 47%
- Binders: 53%
- Acidity Regulators: 47%
- Enzyme: 40%
- Probiotics, yeast: 47%
ITALIAN RESULTS

Overview of the company

Analysis for quality control

- NO: 0%
- YES, internal analysis: 27%
- YES, external analysis: 33%
- YES, BOTH: 40%

R&D in the past

R&D in the future

HACCP: 100%

Technological level

- low*: 38%
- middle: 31%
- high: 31%

i.e. feed plant structure, equipment, etc.
Low= basic
Middle= normal structure (mixer, mill..)
High= very well equipped feed plan
ITALIAN RESULTS

Overview of the company

R&D in the past

- 53% No
- 27% Yes, using external resources (money and personnel)
- 13% Yes, using external and internal resources
- 7% Yes, using internal resources (money and personnel)

Areas of interest

- Procurement of raw materials: 25%
- Product design: 25%
- Industrial processing: 75%
- Packaging (especially pet food or other): 38%
- Marketing and Advertising: 31%
- Nutritional content of the product: 56%
- Company organization: 50%

Projects number

- Completed: 3
- In progress: 1,5
- Failed or unsuccessful: 0
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

Expansion of production:
- 31% expansion of production (yes)
- 69% expansion of production (no)

Main activity:
- Radical product innovations: 18%
- Radical process innovations: 27%
- Radical innovations of organization: 36%
- Product improvement: 82%
- Process improvement: 64%
- Other: 0%

Topics:
- New products: 56%
- New suppliers: 19%
- New market: 63%
- New technologies: 38%
- Packaging: 13%
- Other: 0%

Budget:
- No budget (56%)
- Yes, informal activities designed to innovation (19%)

No, but there are, however, informal activities designed to innovation (25%)
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

What are the main aims of innovation activities?

- Improve quality: 88%
- Decrease energy consumption: 63%
- Comply with regulations: 6%
- Cost reduction: 56%
- Reduced environmental impact: 38%
- Improve profit: 19%
- Ethical issues: 13%
- Security: 31%
- Satisfy a growing market demand: 44%
- Distribution requirements: 6%
- Enter in new markets: 69%
- Personal orientation of owner towards innovation: 19%
- Improve market position: 50%
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

What are the most important sources of innovation for your business?

- Your R&D: 81%
- Competitors: 13%
- The associations: 6%
- University/public institutions: 13%
- The suppliers (raw materials and machinery): 44%
- Customers: 50%
- Internet: 13%
- Advisors: 13%
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

What are the main difficulties to your innovation activities?

- Lack of new ideas: 0%
- Lack of technical knowledge: 13%
- Lack of innovation opportunities: 6%
- High cost for innovation: 50%
- Organizational problems: 13%
- Lack of government incentives: 25%
- Regulations too restrictive: 44%
- Paper work Burocracy: 63%
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

Research areas in which your company work:

- Food and Health: 10
- Quality and Feed Production: 10
- Feed/Feed Safety: 9
- Sustainable Production: 7.5
- Control of chain production / management of the production chain: 8
- Communication/Education and Technology transfer: 8
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the MIDDLE TERM future

FIELDS

- Research and development of new product: 88%
- Extension/upgrade of the production line: 63%
- New production technologies: 56%
- Control of production processes: 56%
- Compliance with legislative requirements: 13%
- Advertisement: 25%
- Transport systems: 6%
- Safety of installations/system: 44%
ITALIAN RESULTS

Overview of the company

R&D in the past

R&D in the future

R&D in the MIDDLE TERM future

SECTORS

Dairy cow: 69%
Beef cattle: 38%
Pigs: 31%
Poultry: 19%
Pet: 56%
Other species: 19%
ITALIAN & SERBIAN

Comparison
ITALIAN & SERBIAN

Overview of the company

R&D in the past

R&D in the future

Company Profile

year of foundation

<table>
<thead>
<tr>
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<th>median</th>
<th>σ</th>
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<tr>
<td>1984</td>
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<td>2000</td>
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number of employees

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<tr>
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<th>median</th>
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<td>56</td>
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<tr>
<td>44</td>
<td>55</td>
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Owner profile

age

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<th>median</th>
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<tbody>
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</tr>
<tr>
<td>50</td>
<td>14</td>
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</tbody>
</table>
**Overview of the company**

**R&D in the past**

**R&D in the future**

**Production**

**Categories/intended for**
- Supplements: 20% [Supplements]
- Poultry: 27% [Poultry]
- Pig: 40% [Pig]
- Dairy cow: 60% [Dairy cow]
- Beef: 60% [Beef]
- Other: 64% [Other]
- Medicated feed: 27% [Medicated feed]

**Based on**
- Raw material: 93% [Raw material]
- Premixes: 40% [Premixes]
- Finished products of third parties: 27% [Finished products of third parties]
- Other: 7% [Other]
ITALIAN & SERBIAN

Overview of the company

R&D in the past

R&D in the future

Feed Additives

Vitamins and microelements
Antioxidants
Flavouring
Emulsifiers, stabilizers, etc.
Pigments
Preservatives
Binders
Acidity Regulators
Enzyme
Probiotics, yeast

7% yes, 93% no
100% yes, 0% no

73% Vitamins and microelements
91% Antioxidants
53% Flavouring
33% Emulsifiers, stabilizers, etc.
33% Pigments
47% Preservatives
53% Binders
47% Acidity Regulators
82% Enzyme
82% Probiotics, yeast
**Analysis for quality control**

- NO: 40%
- YES, internal analysis: 27%
- YES, external analysis: 33%
- YES, BOTH: 0%

**HACCP**

- NO: 0%
- YES, internal analysis: 46%
- YES, external analysis: 36%
- YES, BOTH: 0%

**Technological level**

- low*: 31%
- middle: 31%
- high: 38%

i.e. feed plant structure, equipment, etc.
- Low= basic
- Middle= normal structure (mixer, mill..)
- High= very well equipped feed plan
Overview of the company

R&D in the past

Areas

- Procurement of raw materials: 25% IT, 27% SR
- Product design: 25% IT, 64% SR
- Industrial processing: 18% IT, 75% SR
- Packaging (especially pet food or other): 38% IT, 27% SR
- Marketing and Advertising: 31% IT, 45% SR
- Nutritional content of the product: 45% IT, 45% SR
- Company organization: 50% IT, 36% SR

R&D in the future
R&D in the past

Projects number

- Completed
  - Italy: 3 projects
  - Serbia: 2 projects

- In progress
  - Italy: 1.5 projects
  - Serbia: 2 projects

- Failed or unsuccessful
  - Italy: 0 projects
  - Serbia: 0 projects

Overview of the company

R&D in the past

R&D in the future
### Overview of the company

<table>
<thead>
<tr>
<th>New products</th>
<th>New suppliers</th>
<th>New market/trade</th>
<th>New technologies</th>
<th>Packaging (e.g. for petfood)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>56%</td>
<td>19%</td>
<td>63%</td>
<td>82%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>64%</td>
<td>9%</td>
<td></td>
<td></td>
<td>27%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### R&D in the past

- Overview of the company
- R&D in the past
- R&D in the future

### R&D in the NEXT future

#### Action for production improvement

- New products: 56% (NO), 64% (yes)
- New suppliers: 19% (NO), 9% (yes)
- New market/trade: 63% (NO), 82% (yes)
- New technologies: 82% (NO), 38% (yes)
- Packaging (e.g. for petfood): 13% (NO), 27% (yes)
- Other: 0% (NO), 0% (yes)
Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

Focused on

- Radical product innovations: 18% (NO), 27% (yes)
- Radical process innovations: 14% (NO), 29% (yes)
- Radical innovations of organization: 36% (NO), 14% (yes)
- Product improvement: 82% (NO), 71% (yes)
- Process improvement: 64% (NO), 57% (yes)
- Other: 0% (NO), 0% (yes)

No, but there are, however, informal activities designed to innovation: 56% (NO), 25% (yes)

No, but there are, however, informal activities designed to innovation: 64% (NO), 18% (yes)

ITELIAN & SERBIAN

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

Focused on

- Radical product innovations: 18% (NO), 27% (yes)
- Radical process innovations: 14% (NO), 29% (yes)
- Radical innovations of organization: 36% (NO), 14% (yes)
- Product improvement: 82% (NO), 71% (yes)
- Process improvement: 64% (NO), 57% (yes)
- Other: 0% (NO), 0% (yes)

No, but there are, however, informal activities designed to innovation: 56% (NO), 25% (yes)

No, but there are, however, informal activities designed to innovation: 64% (NO), 18% (yes)
Aims of innovation

Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

Aims of innovation
R&D in the NEXT future

Sources of innovation for your business

- Your R&D: 81%
- Competitors: 55%
- The associations: 13%
- University / public institutions: 13%
- The suppliers (raw materials and machinery): 44%
- Customers: 91%
- Internet: 13%
- Advisors: 13%
Difficulties to your innovation

- Lack of new ideas: 0%
- Lack of technical knowledge: 0%
- Lack of innovation opportunities: 6%
- High cost for innovation: 50%
- Organizational problems: 13%
- Lack of government incentives: 45%
- Regulations too restrictive: 44%
- Paper work: 63%
- Burocracy: 36%
Overview of the company

R&D in the past

R&D in the future

R&D in the NEXT future

Sector in which your company work

<table>
<thead>
<tr>
<th>Sector</th>
<th>ITA</th>
<th>SRL</th>
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</thead>
<tbody>
<tr>
<td>Food and Health</td>
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<td>10</td>
</tr>
<tr>
<td>Quality and Feed Production</td>
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<td>10</td>
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<tr>
<td>Feed/Food Safety</td>
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<td>10</td>
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<tr>
<td>Sustainable Production</td>
<td>9.5</td>
<td>9</td>
</tr>
<tr>
<td>Control of Chain Production</td>
<td>8.5</td>
<td>10</td>
</tr>
<tr>
<td>Communication/Education</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>
R&D in the MIDDLE TERM future

**Investment areas**

- Research and development of new product: 88%
- Extension/upgrade of the production line: 63%
- New production technologies: 56%
- Control of production processes: 56%
- Compliance with legislative requirements: 33%
- Advertisement: 25%
- Transport systems: 33%
- Safety of installations/system: 33%
Overview of the company

R&D in the past

R&D in the future

**R&D in the MIDDLE TERM future**

Sectors in which you will invest

- **Dairy cow**: 69%
- **Beef cattle**: 38%
- **Pigs**: 55%
- **Poultry**: 64%
- **Pet**: 56%
- **Other species**: 18%
### SUMMARY 1/2

<table>
<thead>
<tr>
<th>Item</th>
<th>Italy</th>
<th>Serbia</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>Older, ± gender balance</td>
<td>Younger, -gender balance</td>
<td>RS: female in key position</td>
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<tr>
<td>Production type/animal categories</td>
<td>+++Ruminants</td>
<td>+++Pig and poultry</td>
<td>Dep. On type of farm</td>
</tr>
<tr>
<td>Feed additives used</td>
<td>+++Min-Vit premix, +flavouring</td>
<td>+++Min-Vit premix</td>
<td>Falovouring is complex category</td>
</tr>
<tr>
<td>Technological level</td>
<td>Low, middle, high all represented</td>
<td>middle</td>
<td>Type of production</td>
</tr>
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</table>
## SUMMARY 2/2

<table>
<thead>
<tr>
<th>Item</th>
<th>Italy</th>
<th>Serbia</th>
<th>Note</th>
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<tbody>
<tr>
<td>R&amp;D in the past</td>
<td>acceptable</td>
<td>lower</td>
<td>Linked to company age</td>
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<tr>
<td>R&amp;D areas</td>
<td>Industrial processing</td>
<td>Products development</td>
<td>Mature vs growing market</td>
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<td>Driving forces</td>
<td>Internal R&amp;D support</td>
<td>Customer, market</td>
<td>Mature vs growing market</td>
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<tr>
<td>Difficulties</td>
<td>Paper work</td>
<td>organization</td>
<td>no lack in ideas for both IT and RS</td>
</tr>
</tbody>
</table>

Of note: presented data are based on about 30 questionnaires which provided 783 records.
LAST BUT NOT LEAST
Healthy food attitudes surveyed

Americans' attitudes about healthfulness of food purchases and consumption signal a move “in the right direction.”

By CHERYL DAY

HEALTHFULNESS is closing in on taste and price this year among the leading priorities for consumers when making food and beverage purchasing decisions, according to the International Food Information Council (IFIC) Foundation’s 2014 Food & Health Survey: Consumer Attitudes Toward Food Safety, Nutrition & Health.

Ten consumers have given at least a little consideration to the healthfulness of foods and beverages, and half have given it a considerable amount of thought.

Interestingly, younger consumers often rank convenience as an influencing determinant when purchasing food and beverage items; however, the importance of this factor decreased from 56% to 51% in one year.

In general, Americans believe that a healthy diet is a significant priority in life. Although spending time with loved ones is more important than eating healthy, 40% feel that consuming healthy foods and beverages is more imperative than having an active social life. Additionally, participants noted that a healthy diet is equally as vital as exercising, minimizing stress, being in a strong financial situation and having a successful career.

Four out of five said eating smaller portions is their weight management method.

1. How much of an impact do the following have on your decision to buy foods and beverages?

   - Taste
   - Price
   - Healthfulness
   - Convenience
   - Portion size

2. Which one of these sources would you trust the most to provide accurate information?
FEED = FOOD

1. How much of an impact do the following have on your decision to buy foods and beverages? (% rating 4 to 5 on a 5-point scale, from “no impact” to “a great impact”)

- Taste
- Price
- Healthfulness
- Convenience
- Sustainability

Arrows indicate significant (.95 level) differences vs. 2013.
THANKS
ABOUT ME

I’m a MEDICAL ARTIST

Would you like to know more about me and my activity? Let's visit my website!

Do you have any questions? Please, contact me

mail: serena.ghezzi@sciencedrawgraphic.it

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Serena Ghezzi