Breeding, consumers and market issues; main evolutions in the vine and wine industry

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1. Social and Market science never ceased to support wine industry, along with plant sciences;

   Both sciences have evolved in accordance with new issues along the recent history of the vine and wine sector

2. As Plant Breeding is living a great revolution these days, social sciences also are showing big changes: methods become more efficient ... as consumers get harder to define!

3. New methods in social science are preparing better sharing of results and appropriation by industry
TWO great fields in social and market sciences:

1/ Economics ---------------------- Knowledge, Analysis, Law
   Sociology
   Economics
   Anthropology
   Regulation and laws
   History etc...

2/ Management sciences ------------ Knowledge & Action
   (on consumers, organizations, etc.)
   Marketing,
   Strategy,
   Finance
   Human resource management, etc.
French wine consumption in France XIX and XX centuries: A growing demand

1/ The era of vine development (1850-1905)

Social and Market Sciences

History

Law: Griffe Law (1889)
Wine = fermented grapes must
No Marketing issues!

Sciences, Techniques and Breeding

Mildew, Powdery Mildew, Phylloxera

Rootstock and grafts
2/ Post Phylloxera Crisis and Solutions (1905-1935)

Social and Market Sciences
- Law: no watering and aromas,
- Repression of frauds (1907)
- Appellations of Origin (1919)

Economics:
- Price Elasticity of Vine Production / price

Sciences, Techniques and Breeding
- Mildew, Powdery Mildew,
- Adapting: Rootstocks to terroirs / Rootstocks to grafts

Cooperative economy
- Direct producers
3/ The (1935-1990) period: the definition of wine ‘quality’ based on terroirs

**WINE APPELLATION of ORIGIN**
- Define the specification, limits and protection of AO

**TABLE WINE**
- Regulation: protect prices depending on supply and demand
- Direct producer hybrids forbidden

**Sciences, Techniques and Breeding**
- Creation of intra-specific varieties
- Clonal selection
- Disease-free plants

**Social and Market Sciences**
- No Marketing!
- Regulation in France and then in Europe (> 1970)
- Competitive strategies: Production costs, Companies concentration
4/ Globalisation and the advent of marketing (1990-2010)

**Social and Market Sciences**
- Economics: tariff and non-tariff trade barriers
- WTO versus OIV
- Economic impacts of mechanization, mechanical harvesting

**Marketing:**
- Consumer behavior
- Distribution channels
- Communication / health

**Sciences, Techniques and Breeding**
- Terroir effects
- Hydric Stress effects
- Genetic history of varieties
- Genes and grapes maturity

**Graph:**
- AUSTRALIA (en 10^6 hl)
- Values: 1.71, 1.98, 2.16, 3.11, 3.77

**Footnote:**
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5/ (2010- ...) big challenges bring great innovations

Social and Market Sciences

Economics: Experimental economics

Marketing: new tendencies

Sustainability

Post-normal science

Participative approach

Sciences, Techniques and Breeding

Diseases Resistant varieties
Drought Resistant varieties
Genetic determinism of phenologic stages
Genetics and market science to face main challenges together in the wine sector

• Market globalisation
  – New plants for new terroirs / new diseases
  – New consumer profiles to study and conquer

• Demand for Sustainability
  – Resistant plants
  – Acceptability of genetic changes by stakeholders

• Adaptation to climate change
  – Adapting plants to drought
  – Consumers acceptance of new tastes, or new origins
« Post-normal » science - Participative approach

Sharing innovations and implement them in the industry / in the society

- Resistant varieties : Obstacles and controversies

- Climate Change : cases for inter-disciplinary workshops among researchers and dialogues with professionals and stakeholders

- Hackathons and various interdisciplinary forums organised
Thank you for your attention