



—— White paper ——

WINE SUSTAINABILITY

PAST, PRESENT,
FUTURE

SENSORY
CHARACTERIZATION
OF WINES
AS AN INTEGRAL
DIMENSION
OF SUSTAINABILITY



UNIONE ITALIANA VINI
— SINCE 1895 —

This white paper is the result of the works and debates that took place over the two days of the International Congress on wine sustainability organized within the 26th Edition of the SIMEL exhibition, in Milan on 3-4 November 2015. The purpose of this white paper is to stimulate thoughts and further debates to progress towards global sustainability in the wine value chain. The white paper is not meant to express consensus or to draw conclusions and it does not express the individual positions or beliefs of the people participating, speaking or organizing the congress.

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**Domenico Zonin***President of Unione Italiana Vini*

For the 2015 edition of SIMI, Unione Italiana Vini confirmed its commitment to build on the success of the previous edition and to continue to organize debates of global relevance. The congress was the natural sequel to the International Congress that was held during Simei 2013 (SUSTAINABLE VITICULTURE AND WINE PRODUCTION: STEPS AHEAD TOWARD A GLOBAL AND LOCAL CROSS-FERTILIZATION). This edition continued to develop and explore new solutions for wine sustainability and at the same time to advance in the state of the art by integrating an essential dimension of the concept, the one related to the use of sensory factors and their role in the sustainability matrix.

Every definition of Sustainability refers to a balance of socio-cultural, economic and environmental needs for today and tomorrow. Previous attempts to judge sustainability in wine production have left out or considered secondary the sensory quality aspects and their link with the social and cultural aspects. This has allowed wines that lack taste quality to claim sustainable labels.

Taste and its expression through the techniques of sensory analysis, is one very important indicator of sustainability. This sustainability dimension has always been considered implicit due to the general perception that any new product needs to be better than the previous one in all aspects. However, it is time that we made it explicit for sustainable wines that have certified sensory qualities. The need to include sensory factors in the short and long term evaluation of sustainability is not only relevant for trade but also for providing correct information for consumers. It also has a significant cultural relevance. The quality of a good wine is also given by traditions, cultural heritage and social life.

**Stefano Stefanucci***Sustainability Manager of Unione Italiana Vini*

The Congress was developed on these two different - but strictly connected - topics with the involvement of the most authoritative international experts and representatives of all stakeholder groups. Prominent personalities were invited to participate in two complementary Steering Committees, chaired by Professor Ettore Capri (Opera Research Centre- Università Cattolica del Sacro Cuore) and Anita Oberholster (Enology Department of Viticulture and Enology- UC Davis). Thanks to their support and participation we were able to advance our thinking and explore new horizons.

The interactions and constructive debates were aimed at defining a common approach that we can then communicate globally. Stakeholders from the entire wine value chain will be involved: farmers, service providers, operators of sustainability programmes, processors, retailers and the trade in general. Consumers were called to participate in this event that used modern techniques of interactive participation.

On different scales and from different angles, people are trying to build their own project around the theme of sustainability, to concretely translate a word that today is sometimes overused. Some initiatives have a global scope and are trying to overcome national boundaries, like those of OIV, FIVS, CEEV, and it is no coincidence that these were represented in the discussions.



Francesco Pavanello
General Manager of Unione Italiana Vini

The conclusions have been drawn up together with the congress audience who were invited to contribute. The main questions regarded the holistic definition of wine sustainability and how it relates to companies and product sustainability.

It is hard to imagine our daily social life style without good wine. All important events in our life are accompanied by the best wines: the wines we choose; the wines we like. Wine becomes an expression of each individual's personality. Hence its ranking from a consumer perspective cannot be reduced to computations of economic and environmental impacts. There is a subtler, more personal and more subjective aspect of what sustainable wine means for each one of us. Personal taste is very relevant to the definition of sustainable wine.

But what is the correct definition of good wine? And how do our senses affect the quality of a wine? Sensory analysis is often defined with somewhat romantic terminology. However, it is a scientific discipline that allows for an objective evaluation of wines through the senses. It is our duty as wine stakeholders to educate consumers about these objective evaluations to enable them to use them in their personal judgement on individual wine products. In doing so, we ensure that the long term sustainability of wine and its role in the social and cultural aspects of our lives is preserved.

This is probably the first global meeting considering the sensory quality of wines as a necessary dimension of the long term sustainability of wine. Taste and its expression through the techniques of sensory analysis, is one very important indicator of sustainability.

Our aim is to show the relevance of flavour and taste quality to the creation of sustainable wine, while assessing how these criteria can be scientifically measured. We seek to introduce the potential of communicating this aspect of sustainable wine in marketing individual wines and in the overall sustainability debate.

In conclusion, we hope to lay the foundations for a joint understanding of sensory analysis, a scientific discipline that may well become a key factor in the success of our companies in communicating sustainability.

Starting from the 25th edition of Simeì, held in November 2013, the Unione Italiana Vini, begun to organize the International Congress involving a series of high profile updating, informative and educational meetings on key issues in the wine sector. Prominent international speakers and personalities from the wine industry, the academic world and the press take part in the Congress.

Representing more than 500 Italian wine producers (that account for 70% of all Italian wine in export value), the UIV is the organizer of the most important international exhibition on wine technology (SIMEI), and editor of the weekly magazine "Il Corriere Vinicolo". It therefore has a natural vocation for facilitating relations and exchange of information. The organization of the International Congress further enhances the UIV role on the international wine scene.

Authors Acknowledgements

Ettore Capri President Scientific Committee
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Natasha Walker International facilitator
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The organizers of the International Congress on wine sustainability, within the 26th edition of the SIMEI exhibition, in Milano 3-4 November 2015 would like to acknowledge the contribution and to express their gratitude to the members of the scientific committees that have steered the congresses towards a global success as well as to the staff of the Unione Italiana Vini and OPERA Research Centre for the efforts they have put into the successful organization of the Congress and in the elaboration of this paper.

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We would also like to thank all the speakers and panelists: Allison Bonnett (International Wine Consultant), Jean-Claude Ruf (OIV), Ignacio Sanchez (EU/CEEV), Giuseppe Tasca d'Almerita (Tasca d'Almerita), Patricio Parra (Consortio Vinos de Chile), Marius Lambrechts (Distell), Romano De Vivo (Crop Protection Industry Association), Carol Karahadian (Starbuck), Jessica L. Ginger (The Sustainability Consortium), Mike Veseth (University Puget Sound), Vincenzo Russo (IULM University of Milan), Karissa Kruse (Sonoma County Winegrape Commission), Maurizio Bogoni (Tenute Ruffino), Patrizia La Trecchia (University of South Florida), Riccardo Guidetti (University of Milan), Lucia Ballelli (Italian Centre for Sensory Analysis) and all the members of the Stakeholder Discussion Group for their commitment to the works of the Congress, their proactive contributions and their spirit of compromise and dialog. The Stakeholder Discussion Group was constituted of around fifty highly esteemed and respected professionals from all areas of the wine value chain that have been asked to fully give their input in the Congress and to interact with the speakers.

INTRODUCTION AND SCOPE

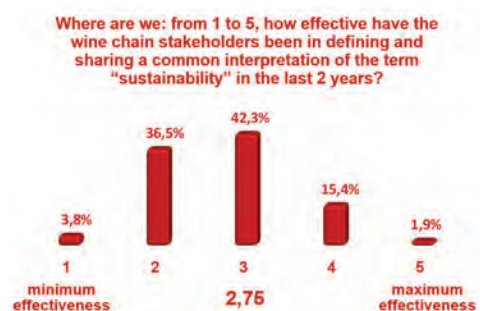
Why do we need a global congress on wine sustainability? Why should the industry be supporting and organizing it? These are legitimate questions about the need to congregate on defining the characteristics of sustainable wine. But the answers are not so difficult to find, since in the context of a changing world and the challenges it is facing, the wine value chain has understood that it needs to ensure a holistic approach to providing today's and tomorrow's consumers with sustainable wine.

Developing a common understanding of what present and future sustainable wines should look like is an essential part of further developing the value chain and ensuring that consumers receive the value and the product they want. Sustainable long term economic growth for the value chain can only come through the incorporation of the concepts related to sustainable development, especially since 2015 was the year when the new Sustainable Development Goals have been defined and approved by governments of the United Nations.



The first International Congress under the title “Sustainable Viticulture and Wine production: Steps ahead toward a global and local cross-fertilization” was organized in Milan in November 2013 and saw the participation of more than 300 technician and experts from the institutions, the industry and stakeholders of the sector in an interactive discussion with the purpose of defining the global concept of sustainability in the wine chain. Main sustainability projects in the wine sector were presented and discussed.

The congress was the basis for the first Policy Paper, with the contribution of several stakeholders: “Vision on the sustainable future of our wine and vineyards”, that represents a fundamental conceptual document for the definition of the concept of sustainability in the wine sector and of some guidelines for its application.



The International Congress: Sustainable Viticulture and Wine Production has been designed to be highly interactive and to stimulate inputs from all categories of stakeholders participating. The Stakeholder Discussion Group (SDG) included around 50 experts of the wine value chain as well as academics and policy makers with relevant background and experience. Using interactive technology, they provided to the participants in real time their opinions on the main issues, structured around a number of key questions. The results presented in these charts were generated in this process.



Building on the success of that congress, for the 2015 edition, it was decided to focus on the matter of sustainability from two different but complementary points of view: the socio-economic and environmental sustainability, on one hand; and the sensory characteristics of wine as an integral dimension of sustainability, on the other.

For the first perspective the goal was to address the relevant aspects related to economic growth and ecological innovation in the value chains.

The congress has taken stock on the wine industry's progress and successes in increasing its ecological and economic sustainability. Relevant industry speakers were invited to share their experience and lessons learned. In the same time, the value chain was provoked to understand the need for change and to identify further efforts needed

Why do we need a global congress on wine sustainability? Developing a common understanding of what sustainable wines are is essential for developing the value chain and giving consumers the value and the product they want.

to become more sustainable.

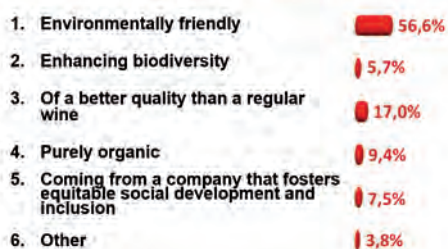
For the second angle on sustainability the goal was to find ways and means to measure the social and cultural quality and importance of wine for the society as an integral part of sustainability.

The focus on sensory analysis has given meaning to this objective by bringing back the consumer - integral with his/her preferences for

certain wine characteristics - into the picture when judging the long term sustainability of wines.

The congress has shown the relevance of sensory characteristics of a sustainable wine and how these can be scientifically measured so as to constitute objective criteria. Participants have also discovered the potential to communicate on sensory characteristics in marketing individual wines and in the overall sustainability debate.

Consumer's perception: when buying a "sustainable" wine, the consumer expects the wine to be...



STOCKTAKING ON THE PROGRESS WINE SUSTAINABILITY

Sustainability is found in the balance between the social, economic and environmental aspects. The wine value chain has expressed on numerous occasions a preference for defining sustainability as: a process that continuously seeks to ethically allocate scarce resources amongst competing social, economic and environmental needs by using the best available knowledge with due diligence and duty of care and, in particular, without compromising the life options of present and future generations.

It was the belief of the industry that to improve in sustainability the general objective should be to use the best available professional knowledge and scientific research to help viticulture, wine production and wine consumption to better balance the environmental, social and economic aspects. The implementation of these principles has become a common approach since the previous congress on wine sustainability and the balance between the social, economic and environmental aspects is sought in the majority of the sustainability approaches.

Initiatives exist at national and international level to promote a common approach to sustainability since harmonization was perceived as the key to ensure a multiplier effect and generate positive sustainability outputs. For example, the OIV has put forward a set of principles for sustainable viti-viniculture which build on the need to maintain the



Building a path to sustainability creates opportunities for the value chain. Equally, challenges are present at every step of the way

above mentioned equilibrium between social, economic and environmental aspects.

It has become clear since the last edition of the International Congress that building a path to sustainability creates opportunities for the value chain: new products and markets are being developed; better use of the limited resources available for production; new technical solutions; etc. All of these create new business opportunities and adaptations are necessary, including by altering or completely changing various business models.

Equally, challenges are present at every step of the way: economic viability new business activities; the lack of enabling policy frameworks or clear frameworks for the business development; efficient and credible communication to consumers/society on the progress made in sustainability. However, the value chain is able to overcome such challenges through: innovation; stakeholder involvement; valorization of public goods; developing new business models.





A HOLISTIC VIEW ON SUSTAINABILITY

A holistic view on sustainability is to be based on the addressing the three pillars of sustainability in equilibrium throughout the value chain. When looking at the social pillar in addition to aspect related to labour conditions and fair remuneration of work, a solid sustainable approach needs to take into account preferences of the consumers and how the products meet those preferences as well as how the product responds to various cultural and social requirements. A sustainable wine will fit with those characteristics and will enhance the consumers experience by contributing to preserving values and cultural heritage. The environmental pillar of sustainability will produce a positive result for the society if addressed equally throughout the entire value chain. Commitments to enhance and improve the footprint on wine production on biodiversity, water consumption, GHG emissions or other essential environmental indicators have to be upheld in the entire value chain from viticulture to vinification and

then throughout packaging, transport and consumption. Each individual actor in the value chain has a role to play in improving on these essential indicators, but also in animating the other stakeholders and in communicating the results to the public.

Sound strategies to take advantage of the new business opportunities created by the move to a sustainable production and consumption model, are viable and acceptable only if they produce economic effects for the business actors. Increased profits, cost savings and ensuring long-term viability of the business are sine qua non conditions for the implementation of such strategies.

COMMUNICATING ON SUSTAINABILITY

Communicating progress made towards sustainable products is as important as the efforts made by the stakeholders to achieve such progress. The main message the value chain wishes to put forward is that all stakeholders are concerned and try to find solutions to have healthier environment, stronger communities and vibrant businesses.

The credibility of such a message and the claims made by stakeholders needs to be supported by data. Hence, there were developed a variety of criteria and evaluation schemes to generate the appropriate data. The challenge is to ensure a sufficient level of harmonisation of these schemes so that the consumer can receive comparable and credible information. Proliferation of certification schemes and criteria without the appropriate level of harmonisation will reduce their individual credibility and will further confuse consumers rather than helping them make an informed choice.

Of the following: which is the most important success factor to achieve recognition for sustainable practice in viticulture and wine production?

1. Clear messages from industry to policy makers	2,0%
2. Monitoring and transparency	19,6%
3. Supportive policy framework	2,0%
4. Active deliberation with critical stakeholders	2,0%
5. Valid science base	9,8%
6. Certification	23,5%
7. Advertising	3,9%
8. International collaboration amongst the wine industry	3,9%
9. Consumer education	33,3%

OUTSTANDING ISSUES IN PROGRESSING TO SUSTAINABILITY

How are we currently successfully contributing to sustainable viticulture? What is current good practice achieving towards this holistic approach and how is it achieved? Where are we weak/where are the gaps in what we're doing? What are our next steps? These are all questions that are intensely debated by stakeholder in the value chain. The main areas of concern and where further development is needed can be summarized as bellow:

1. Sustainability infrastructures

Ensuring the infrastructure for a sustainable wine value chain is a complex challenge since it involves managing and influencing all those external factors that create a positive environment to develop a sustainable business case. It starts from focusing the research and innovation efforts to providing solutions to the sustainability challenges and it continues all the way to creating stakeholder dialog structures where sustainability issues can be discussed and agreed.

It is extremely important that the goods and services needed for sustainable viticulture are available and economically viable to those ready to engage and implement sound production processes. Hence the stakeholders, including input providers and research organizations, need to be involved to set priorities together with partners from the wine value chain for the provision of such goods and services.

Metrics of sustainability are important and claims of sustainable practices become more and more frequent without the certainty of what these claims mean. Steps need to be taken in the future to ensure comparable metrics models and to build a common understanding on the what does constitute a minimum level one company should achieve to claim recognition of its sustainable practices.

2. Water Management in viticulture

Water management is major challenge for viticulture once drought and water supply shortages become more and more frequent in certain areas. Proper management of water resources is one of the key performance indicators for viticulture industry. However, not only the water use quantity is important but also the impact on water quality.



Agronomic methods are available to improve soil water balance (i.e. soil preparation before planting; choice of proper rootstock; soil management / cover crops) as well as methods to evaluate and manage water footprint in the vineyard.

But there are challenges also in terms of knowledge in the varietal response to irrigation or better soil management methods for steep slopes; hence the need for better and specialized extension services to guide proper soil and

Sustainability is a balance of socio-cultural, economic and environmental needs of today and tomorrow, which of the following elements needs to be given special attention now and considered further in a sustainability balance?

1. Water	23,5%
2. Energy	9,8%
3. Biodiversity	13,7%
4. Economic pillar	15,7%
5. Ethics	23,5%
6. Taste and quality	3,9%
7. Infrastructure	7,8%
8. Other	2,0%

water management. Various solutions are available to save water or to ensure lower water pollution level, however further investment is needed to make these solutions more easily accessible, including the necessary knowledge to use them, and make them more cost attractive.

3. Water use in vinification

Vinification processes add additional pressure on water resources issue. Again, various solutions with different degrees of applicability are available and their use depends on the specific environmental and production conditions. However, it seems that stakeholders need to be more aware about this issue and to understand what strategies can be employed to reduce such pressures. Education and training on strategies to reduce water consumption are necessary so as to improve the water footprint of the value chain.

4. Biodiversity

Biodiversity conservation and enhancement represents a complex challenge for the wine value chain. There is no one-fits-all solution since the good practices in biodiversity enhancement depend on local conditions and the local approach to biodiversity as regards species and ecosystems.

The wine value chain should take up on the opportunity to contribute to the societal objective to protect biodiversity. In order to achieve such a positive contribution, investment should be directed to more research, education, training at local level in pragmatic solutions that viticulturists can employ to protect and enhance biodiversity.

Consumers also need to be informed and trained to judge properly and objectively efforts to protect biodiversity. Especially for targets like biodiversity there is a huge potential to achieve positive effect through multi-stakeholder collaboration (academic, soil lab, economic/financial parties, etc). Acting on biodiversity needs

A sustainable wine should not be judged exclusively on the arithmetic of environmental or social impact indicators. It should be able to exhibit sensory characteristics that match consumer preferences and respond to their consumption needs.



to take into account also scenario planning for climate change events and their effect on diversity.

5. Social aspects of sustainability

Building sustainability having in mind the social pillar has its challenges too. The common themes are related to working conditions, gender equality, remuneration or sharing the profits with local communities. However the concept of the socially sustainable wine value chain should also comprise aspects related to conserving traditions, culture, landscapes and building communities.

There is an acute lack of proper indicators with relevance to product or processes

scale and even when these exist, the challenge of applying them comes from different starting points (cultural and legal) and the lack of common understanding of what does it mean a socially sustainable value chain.

Hence it is paramount that the wine sector works on defining common indicators for social sustainability and spells out measures that can be implemented to make improvements in these areas.

6. Economical Sustainability

Being able to make a business case for any sustainability project is still the main challenge in implementation. However, with changing consumer preferences and with business models taking up more and more responsible production processes this becomes more accessible than in the past. The driver here is still the consumer; hence there is a need for developing a common concept of sustainability to improve consumers understanding and to educate their behavior on the market.

On the other hand, investing in sustainable practices takes up important resources and usually the return on investment becomes relevant over long periods of time, especially for environmentally and socially relevant measures. Hence businesses, need to dispose of stronger tools to analyze the impact of social and environmental investment so as to be able to set priorities.

7. Using sensory characteristics of wine as a marker for sustainability

A sustainable wine should not be judged exclusively on the arithmetic of environmental or social impact indicators.

A sustainable wine should be able to exhibit sensory

characteristics that match consumer preferences and respond to their consumption needs. Educating consumers in using sensory characterization of wines helps identifying their preferences and generates a market behavior that is understandable for the value chain.



SENSORIAL CHARACTERISATION OF WINES AN INTEGRAL PART OF SUSTAINABILITY

SENSORY SCIENCE AND SUSTAINABILITY

In the debate on the sustainability one of the major questions posed was about the involvement of consumers in the process. Is it enough if the consumers contribute to the discussion only through asking for products that respond to their environmental and social fairness values? The answer was no, just as the industry needs to have a holistic approach on sustainability, similarly consumers need to judge sustainable wines holistically, meaning by considering the sensory characteristics together with other sustainability attributes.

The sensory analysis science has in its toolbox a number of methodologies and techniques that can be used in the wine production process and can influence technological choices by the producers so as address certain sustainability characteristics. To mention just a few, the sensory analysis techniques can rely on:

- **Difference Tests** – to find robust answers to precise questions about what influences the characteristics of certain wines
- **Descriptive Analysis** – based on the expertise of trained judges and calibration through sensory standards is able to provide an objective evaluation. This methodology also uses statistical analysis to exclude insignificant results. A descriptive analysis is an objective evaluation

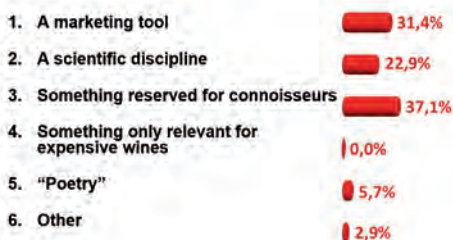
as opposed to the subjective quality assessment of wines and it can create correlations between certain aspects of grape production (like: soil, climate, etc) and the final wine products.

- **Time related methods** – describing in dynamic terms the sensory characteristics of the product which results in making a sensory video instead of just a snapshot.
- **Assessing Quality** – approach used to study correlation between sensory traits and consumer preferences.
- **Preference Mapping** – combines quality assessment with consumer preferences to identify the flavours of preferred wines; market segments or other factors influencing purchase.

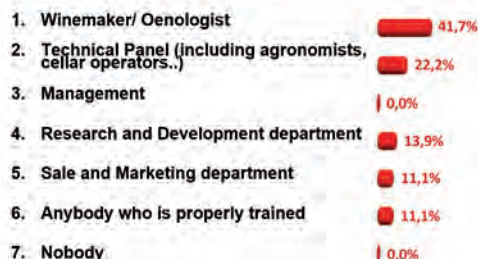
Sensory evaluation serves sustainability as it helps to characterize and market regional terroir driven wines, hence contributing to preserving their specificity and their market. It also contributes to improve wine styles by using superior or more sustainable viticulture and oenological techniques.

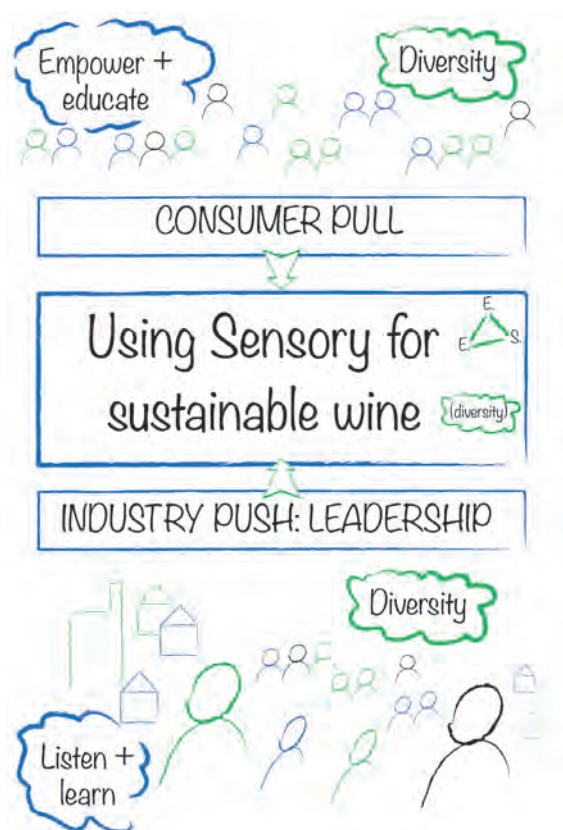
From the perspective of the relation with consumers, it helps create a common vocabulary to understand wine perception and quality and hence to produce successful wines by identifying the needs of consumers and implement the drivers of their preferences.

In few words, how is sensory analysis perceived by the consumers?



Who do you think is currently performing sensory analysis in wine companies?





USE OF THE SENSORY TOOLBOX BY INDUSTRY

The sensory evaluation toolbox is already in use by the industry to test and track consumer preferences and to adapt the products according to market preferences. The results of descriptive analysis are then used in the entire production chain to influence the decision making process from grape/wine research to cultivating the right varieties and then monitor the product characteristics and communicate these appropriately to the consumers. However sensory profiling is not useful only for communicating outside the company, clear quantitative and qualitative information about the products are needed also inside the company, especially for large companies. A common language is critical for effective communication within an organization, but language development does not happen in a vacuum but is a collaborative effort between sensory and production experts. Sensory evaluation is used for documenting quality and product changes. Using scientifically approved methods to evaluate sensory characteristics of a wine product provides a factual

objective opinion rather than an individual subjective one, which creates the premises for making a product that is more successful on the market. Therefore identifying wine attributes is critical to product differentiation and quality, but many challenges remain in how to define such attributes to ensure their meaning is the same for all or in how to establish ranges for each attribute to ensure individual wine character and identity is maintained.

When looking at the sensory characteristics that define preferred wines in various regions of the world (i.e. Europe, Canada, China, US, South America) these vary according to local factors like climate, culture, culinary traditions, beliefs, values, etc. However, a general profile can be defined and this has relevance for building a sustainable approach.

Sensory Analysis helps consumers and producers to have a common understanding of the regional wine profiles. It translates characteristics of the end products into meaningful references for the value chain. However there is threat that using in excess sensory characterization would lead to reducing product diversity by focusing on the same product characteristics. Here the value chain has the responsibility to act so as to ensure a diversity of products that would satisfy various consumer needs and preferences.

Each market has its own peculiarities, but is there a common "sensory factor" that can mean the difference between success and failure on a global level? If so, which one would you pick from the following list?

- | | |
|---------------------------------------|---|
| 1. Taste / aftertaste | <div style="width: 40%;"></div> 40,0% |
| 2. Sight / appearance | <div style="width: 12.5%;"></div> 12,5% |
| 3. Nose / aromatic bouquet | <div style="width: 15%;"></div> 15,0% |
| 4. This sensory factor does not exist | <div style="width: 32.5%;"></div> 32,5% |

FINAL CONSIDERATIONS

1

Majority of the stakeholders stand behind the concept of sustainability as being the dynamic balance between the social, environmental and economic aspects of wine production value chain.

2

The importance of communication on sustainability is one issue that emerged from the stakeholders' contributions in addition to the discussions on how to advance the sustainability in wine production. Discussions eluded to several aspects linked to communication, like the need to develop the right metrics for sustainability capturing and measuring impact. Identification of target groups to communicate sustainability and adjustment of the messages for each of these groups is again a concern for the industry. Consumers need clear messages and simple criteria if we would like them to make a choice also taking into account sustainability performance. Proliferation of certification schemes without transparent evaluation procedures erodes consumer confidence in sustainability claims.

3

Sustainability is context specific and generally it needs to be judged in the regional or local context – production site specific; product category specific and cultural and social context specific – however, there is a global dimension, common to all regions and these aspects need to be subject to agreement and harmonization.

4

Ethical aspects play an important role in building

sustainability so as to achieve a balance in environmental, economic and social terms.

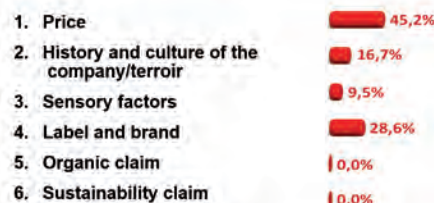
5

Sensory analysis as a tool to contribute to the sustainability characterization of wine, has the merit of bringing the consumer back into the picture. It helps to close the cycle and provides the consumer the opportunity to influence the decisions taken to achieve sustainability so these do not jeopardize the sensory characteristics of the wine. Hence it stimulates a virtuous cycle where sustainability decisions in the wine value chain also provide a product with the right sensory characteristics.

6

Who are the people that need to judge a wine in the production process? Opening the use of sensory analysis as tool to anybody that is properly trained is bringing the subjective perspective allowing to produce wines that are closer to consumer preference. Equally performing systematic consumer preference studies allows taking into account their sensorial preferences. Experience accumulated in other areas (coffee, tea, etc.) can be transferred to wine products.

What is the most important feature that influences the consumer in choosing a wine today?



7

Why do we need sensory characterization as part of the sustainability evaluation?

Using sensory analysis creates an objective structure to evaluate a wine product, it helps building a vocabulary for the dialog between the businesses and the end consumers. This does not however dilute the responsibility of the wine industry to produce a diversity of wines, identification of consumer preference on certain sensory criteria should not lead to uniform products.

8

Since the final preference for wine is very much subjective is it important to understand how consumers judge a good wine? The choice of the product by the consumers is a complex process that depends on a series of subjective factors before considering the sensory characteristics, like cultural and culinary habits, climatic conditions, quantity consumed etc. However, it is important to understand the trigger factor from where the decision tree is built by the consumer and to take it into account. For example, the decision process and factors are very different if the consumers have the possibility to taste the product or not.



Sensory evaluation serves sustainability as it helps to characterize wines and to improve viticulture and oenological techniques. For consumers, it creates a common vocabulary to understand wine perception and quality preferences.

9

What is the role of sensory analysis as a tool?

Sensory analysis does not judge if a wine is good or bad, but it is about judging if it is the right wine for the individual and/or a group of consumers, hence contributing to the long term sustainability of the product including through contribution to the socio-cultural wellbeing of the consumers as well as preservation of traditions and heritage.

10

Why do we need to train our sensorial abilities

so as to be able to build own opinions that could be different from the main consumerism trends? It is because there is a long life opinion of anthropologists and sociologists: the wine and its convivium is the best workshop for philosophy and social development. Like in ancient times, when people participate in symposia to building an environment for the social development, today addressing the sustainability and training human senses and perceptions creates the modern opportunity for networking and education. Hence the wine needs to preserve its social role of stimulating opinions, preferences and above all human interaction.



INTERNATIONAL
CONGRESS

SIMEI

International Enological and Bottling
Equipment Exhibition
Milan, Italy

INTERNATIONAL CONGRESSES

3rd November 2015

“SUSTAINABILITY AS A TRIBUTE TO WINE QUALITY”

4th November 2015

“DISCOVER THE SENSORY FACTORS”



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