



# Comparison of voluntary certificates as promoters of sustainability in wine industry



UNIVERSITAT  
POLITÈCNICA  
DE VALÈNCIA

Teresa Latorre Carrascosa<sup>1</sup>, Raúl Compés López<sup>2</sup>, Victor Martinez-Gomez<sup>1</sup>

<sup>1</sup> Universitat Politècnica de València (UPV), Department of Economics and Social Sciences (DECS). Camino de Vera s/n, 46022, Valencia, Spain

<sup>2</sup> Mediterranean Agronomic Institute of Zaragoza (CIHEAM-Zaragoza). Av. Montañana 1005, 50059, Zaragoza, Spain



CIHEAM  
ZARAGOZA

## 1. Introduction

- Climate change is modifying human activities, including viticulture.
- Grape and wine production is extremely sensitive to environmental conditions.
- Need to adapt to new climate conditions and reduce GHG emissions.
- Need to achieve the Sustainable Development Goals (SDGs).
- As a result, numerous projects (programmes, standards, certifications, etc.) are emerging in the wine industry, making it difficult to compare and understand for both, producers and consumers.
- Growing interest in sustainability and investment in sustainable business, many involved in certification and labeling.

## 2. Aims and Method

Analyze the role of wine sustainability certifications to respond to environmental demands, specifically as a tool to help wineries voluntarily implement mitigation and sustainability strategies.

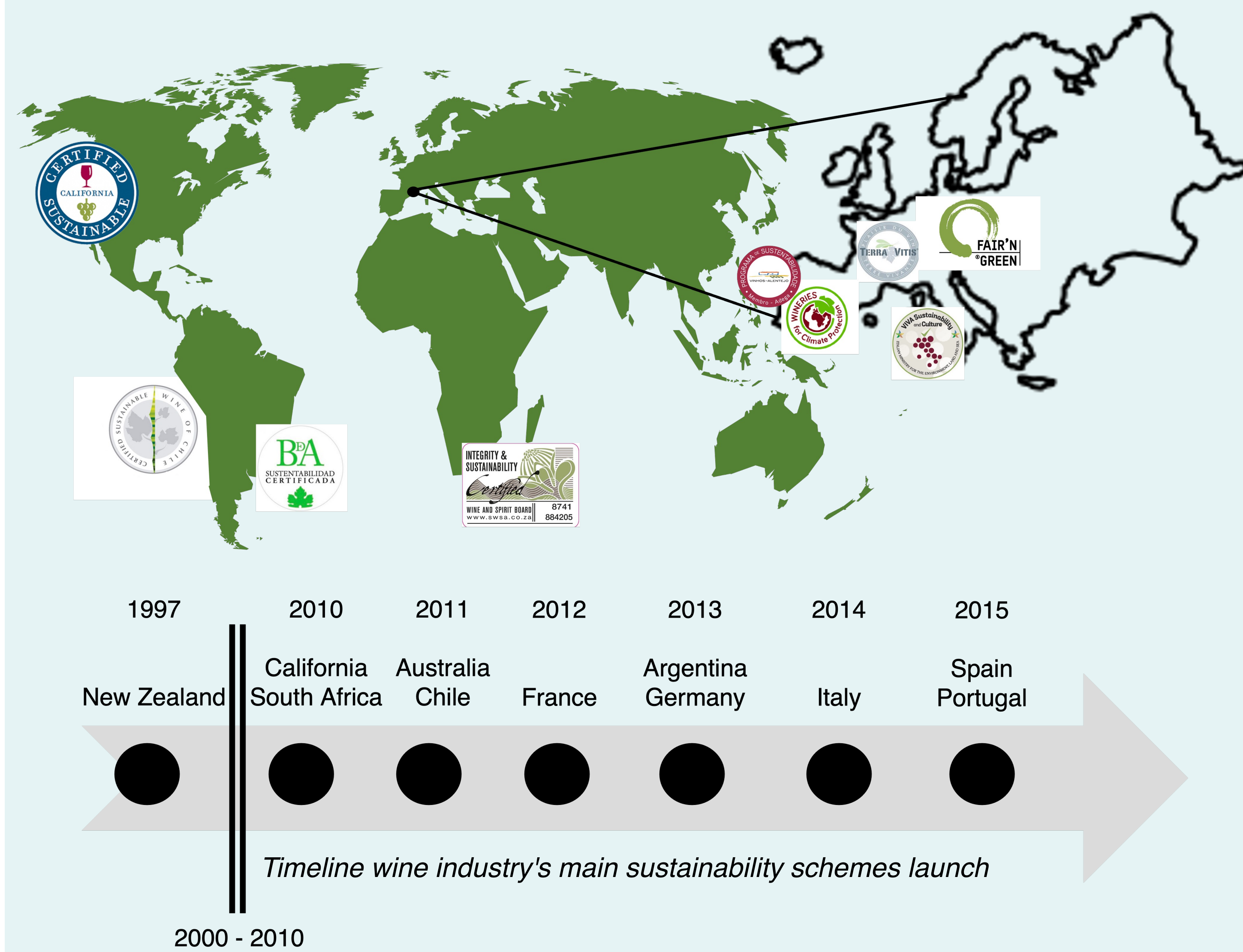
1. Identify the most important environmental and sustainability certificates in the wine industry and their main characteristics.
2. Determine the most ambitious and effective ones to create a significant change in the wine industry, in terms of sustainability.



## 3. Results

### 3.1 International wine sustainability certifications

The wine supply chain contributes about **0.3% of total global GHG emissions** (Ruggani *et al.*, 2013). Consequently, wine sector is trying to reduce GHG emissions, among other tools, through specific certification.

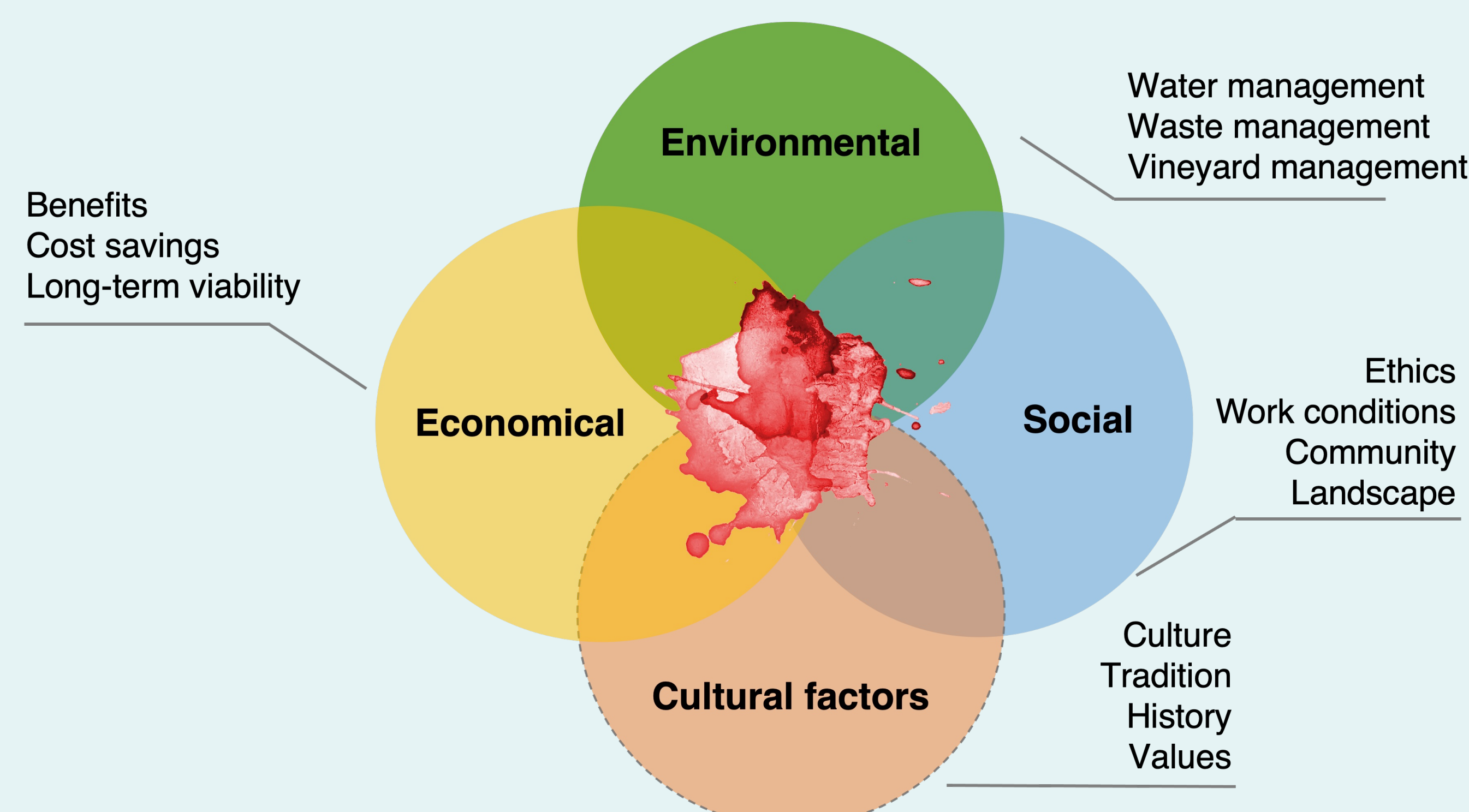


## 4. Conclusions

- Parallel to the growth of other certifications such as organic or biodynamic, national and regional private sustainability standards have been created.
- Until recently, this expansion of sustainability certificates in the wine sector has been more evident in the 'New World' producer countries than in Europe, where advances in sustainability are more linked to public regulations or individual initiatives, rather than to the creation of standardized programs at national level.
- The "New World" programmes have been successful in attracting a large number of participants and incorporating educational objectives for their members; however, they are more flexible in terms of the requirements and measures implemented. It contrasts to the European certifications, which have more ambitious targets, especially in terms of emission reductions.
- In addition, all certificates use different management tools, questionnaires, and checklists to assess the level of sustainability, which makes complex their comparison.
- Regarding this, parallel to the work and definitions of the International Organisation of Vine and Wine (OIV), independent alliances and coalitions have been created, such as the Sustainable Wine Roundtable (SWR), to promote clarity and consensus by developing a global reference standard for sustainability.
- To summarize, these certificates provide with guidelines and tools to promote and implement sustainability strategies in the wine sector.
- Nevertheless, the analysis allows to show the limitations of voluntary certifications to attract a large number of companies. Hence, transforming the sustainability goals into effective strategies for the agri-food sector is still an undergoing challenge.

### 3.2 Comparison of wine sustainability certifications

#### What is sustainability in the wine industry?



#### What do these certificates have in common?

Wine Sustainability Certifications	Environmental	Economical	Social
California (CCSW)	•	•	
Chile (CSWC)	•	•	•
Argentina	•		•
South Africa (IPW)	•		•
Australia (Entwine - SWA)	•		
New Zealand (SWNZ)	•		
Germany (FAIR'N GREEN)	•	•	•
France (Terra Vitis)	•	•	•
Italy (VIVA)	•	•	•
Spain (WfCP)	•		
Alentejo, Portugal (WASP)	•	•	•

Even though in their origins they were very different, a **certain convergence is taking place in the last years, particularly in their environmental dimension:**

- Water management
- Waste management
- Energy efficiency
- Greenhouse Gas Emissions
- Use of agrochemical products
- Ecosystem impacts

#### Different approaches: general content and structure of certificates

- Developed through a system of partnerships and collaboration agreements between numerous private and public actors.
- Engaged in a continuous process of improvement.

	California Sustainable Winegrowing	Sustainable Wine of Chile	Bodegas de Argentina Certified Sustainability	Integrated Production of Wine (IPW)	Entwine Australia (Sustainable Winegrowing Australia)	Sustainable Winegrowing New Zealand (SWNZ)	FAIR'N GREEN	Terra Vitis	VIVA Sustainability	Wineries for Climate Protection (WfCP)	Wines of Alentejo Sustainability Programme (WASP)
Country	California	Chile	Argentina	South Africa	Australia	New Zealand	Germany	France	Italy	Spain	Portugal
Organization behind the certification	California Sustainable Winegrowing Alliance (CSWA)	Wines of Chile Association	Asociación Bodegas de Argentina	Wine and Spirit Board (WSB)	Winemakers Federation of Australia (WFA)	New Zealand Winegrowers Association	Athenga GmbH (Consultancy)	National Federation Terra Vitis	Italian Ministry of Environment, Land and Sea	Spanish Wine Federation (FEV)	The Alentejo Regional Wine Growing Commission
Scope	Regional	National	National	National	National	National	National	National	National	National	Regional
Year of programme establishment	2003	2009	2013	1998	2009	1997	2013	1998	2011	2011	2015
Year of certification establishment	2010	2011	2015	2010	2019	2000	2013	2012	2014	2015	NA
Certification for vineyard / winery	Both	Both	Both	Both	Vineyards	Both	Wineries	Wineries	Wineries	Wineries	Vineyards
Public / Private	Public	Public	Public	Public	Public-Private	Public-Private	Private	Private	Public	Private	Public
Number of members / vineyards	2.402 vineyards and 178 wineries	79 total Vineyards + wineries	Not available	3000 members	119 members	1.918 vineyards and 254 wineries	30 Wineries	500 wineries	25 wineries	44 Wineries (2021)	411 members
Area of certified vineyard (Ha)	82.902 Ha Aprox. (2021)	-	-	98.000 Ha Aprox.	2.929 Ha Aprox.	35.558 Ha Aprox.	-	1.1000 Ha Aprox.	-	-	9.043 Ha Aprox.

## References

- Latorre, T. (2020). Estrategias de mitigación y sostenibilidad en el sector vitivinícola. El papel de las certificaciones voluntarias. Tesis Fin de Master. Valencia: Universitat Politècnica de València.
- Mariani, A. and Vastola A. (2015). "Sustainable Winegrowing: Current Perspectives." International Journal of Wine Research 7 (1): 37–48. <https://doi.org/10.2147/IJWR.S68003>.
- Pomarici, E., & Vecchio R. (2019). "Will Sustainability Shape the Future Wine Market?" Wine Economics and Policy 8 (1): 1–4. <https://doi.org/10.1016/j.wep.2019.05.001>.
- Rugani, B., Vázquez-Rowe I., Benedetto G. & Benetto E. (2013). "A Comprehensive Review of Carbon Footprint Analysis as an Extended Environmental Indicator in the Wine Sector." Journal of Cleaner Production 54: 61–77. <https://doi.org/10.1016/j.jclepro.2013.04.036>.
- Santiago-Brown, I., Metcalfe A., Jerram C., and Collins C. (2014). "Transnational Comparison of Sustainability Assessment Programs for Viticulture and a Case-Study on Programs' Engagement Processes." Sustainability (Switzerland) 6 (4): 2031–66. <https://doi.org/10.3390/su6042031>.