

Preliminary Program

6 March 2026

ENG2WINE: Industry Challenges and Innovative Engineering Solutions

March 22 - 26, 2026

Porto, Portugal

Conference Co-Chairs

David E. Block
University of California Davis, USA

Dominik Durner
University of Applied Sciences Kaiserslautern, Germany

Dimple K Kundiyana
Gallo, USA



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Sunday, March 22, 2026

16:30 – 18:00	Conference check in (Ballroom foyer)
18:00 – 19:00	Welcome reception
19:00 – 21:30	Dinner

NOTES

- *Technical Sessions will be in Ballroom I. Poster sessions will be in Ballroom II.*
- *Speakers will be available for additional discussion at the poster session on the day of their presentation.*
- *Meals will be in TBA.*
- *The ECI office is in Ballroom II.*
- *Audiotaping, videotaping and photography of presentations are prohibited.*
- *Speakers – Please have your presentation loaded onto the conference computer prior to the session start (preferably the day before).*
- *Speakers – Please leave at least 3 minutes for questions. Extended discussion will take place at the poster session*
- *Please do not smoke at any conference functions.*
- *Turn your cellular telephones to vibrate or off during technical sessions.*

Monday March 23, 2026

- 07:00 – 08:30 Breakfast buffet
- 08:30 – 08:45 Opening Remarks
- 08:45 – 09:15 **Keynote 1**
TITLE (TBA)
António Graça, Sogrape Vinhos, Portugal
- Session 1: VIT2Eng**
Session Chairs: TBD
- 09:15 – 09:30 **1110 Controlled irrigation with artificial intelligence for improving vineyard crop quality and productivity**
Daniel Ruiz Beamonte, CIRCE, UPC, Spain
- 9:30 – 9:45 **P109 Hyperspectral phenolics: Exploring the covariation between leaf and berry reflectance and berry chemistry**
Alexandra Basquette, UC Davis, USA
- Session 2: WINE2Eng**
Session Chairs: TBD
- 9:45 – 10:00 **134 Optimizing alcoholic fermentation through automated nutrient management and liquid yeast derivatives**
Maryam Ehsani, Fermentis, USA
- 10:00 – 10:15 **121 Impact of fermentation redox management on polyfunctional thiols in model wine**
Julian Döbler, Weincampus, Germany
- 10:15 – 10:45 Coffee Break
- 10:45 – 11:00 **105 From spectrum to signature: Toward port wine authentication with AI**
António Ferreira, ESB-UCP CSP, Portugal
- 11:00 – 11:15 **108 Climate change - Red wines in Germany are taking advantage**
Herbert Klapperich, TU BAF/CiF e. V., Germany
- 11:15 – 11:30 **131 Predicting free SO₂ in white wines with portable cyclic voltammetry for smarter SO₂ management**
Leonardo Vanzo, University of Verona, Italy
- 11:30 – 11:45 **P102 Exploring green-labeled wine produced by non-saccharomyces yeasts: Validation by photonics and metabolomic approaches using SPME-GC-MS**
Diana Pinto, Universidade Católica Portuguesa, Portugal
- 11:45 – 12:00 **120 Impacts of vineyard site and fermentation temperature on phenolics extraction of cabernet sauvignon wines**
Ron Runnebaum, UC Davis, USA

Monday March 23, 2026 (continued)

12:00 – 13:30 Lunch

14:15 Meet promptly in lobby to board bus for visit to Cork Supply

14:30 – 17:30 **Visit to Cork Supply**

From the forest to the bottle, Cork Supply, a Certified B Corporation, is committed to the UN's Sustainable Development Goals by harvesting premium corks for the future. They have a specialized team of forestry professionals who work with producers from the main cork forest regions to implement advanced forest management programs. They focus on mitigating and adapting to climate change, the protection of biodiversity and ecosystems as well as pollution prevention. Founded in 1981 in California by Jochen Michalski, the company has expanded worldwide and offers a full range of cork-based enclosures of the highest quality.

17:30 – 19:00 **Visit to the Niepoort Cellars**

Short walking distance from the Hilton Porto Gaia Hotel. With more than 150 years dedicated to Port wine, the Niepoort cellars are the guardians of knowledge that has been passed from generation to generation. This exclusive tour will bring conference participants to an authentic experience – from the cobwebs to the constant aroma of port, we will be on a journey through the Niepoort temple, stopping by the small lab (“casinha”) and ending in the sample room.

19:00 – 20:30 Dinner

20:30 – 22:30 Poster Session / Social Networking

Tuesday March 24, 2026

- 07:00 – 08:30 Breakfast buffet
- 08:30 – 09:00 **Keynote 2**
From nature to performance: Exploring and harnessing yeast biodiversity to unlock next generation fermentation for a changing wine world
Jessica Noble, Lallemand SAS, France
- Session 3: PKG2Eng**
Session Chairs: TBD
- 09:00 – 09:15 **109 "Wine goes underground" - Experiences with storage facilities in shallow caverns**
Herbert Klapperich, TU BAF/CiF e. V., Germany
- 09:15 – 09:30 **106 Oxygen management in wine: Deep learning and imaging-based control of cork oxygen transmission rate**
António Ferreira, CSP, ESB-UCP, Portugal
- 09:30 – 09:45 **130 Predictive modeling of must and wine oxidation based on electrochemical data**
Leonardo Vanzo, University of Verona, Italy
- 09:45 – 10:00 **138 Benefits of utilizing oxidation-reduction potential (ORP) sensing technology for improved fermentation control in production winemaking**
Harve' Straub, Hamilton Company, Switzerland
- 10:00 – 10:15 **137 Innovative CO₂ management and sustainable recovery technologies for the beverage industry**
Miguel Villena Reyes, Tomsa Destil, Spain
- 10:15 – 10:30 **136 Innovations in no/lo alcohol beverage production and ClearAlc technology**
Janos Radvanyi, Bevzero, USA
- 10:30 – 10:45 **104 Production ready processing pipeline for generating 3D digital twin representation of natural cork bottle stoppers**
André Perrotta, Instituto Pedro Nunes, Portugal
- 11:00 – 11:30 Light Stand-up Lunch
- 11:45 – 19:00 **Excursion – Douro Valley and Niepoort Douro Estate**

Bus ride with guide of approximately 1.5 hours. Having first appeared in historical records in 1756, Quinta de Napoles is one of the oldest wine estates in the Douro wine region and enjoys ideal conditions for producing Douro DOC wines which are fresh, elegant, with extraordinarily complex aromatic profiles. Under fifth-generation leader, Dirk Niepoort, the estate comprises 15 hectares of North-facing vineyards, situated at altitudes between 80 and 250 meters above sea level, on the left bank of the Tedo River. They focus on indigenous grape varieties, sustainable practices, and memorable wines. Dirk Niepoort is

Tuesday March 24, 2026 (continued)

(Excursion description continued)

known for a minimal-intervention approach, often using traditional lagares (stone tanks) for foot-trodden grapes. Wine tasting included.

19:00 – 20:30

Dinner

20:30 – 22:30

Poster Session / Social Networking

Wednesday March 25, 2026

- 07:00 – 08:30 Breakfast buffet
- 08:30 – 09:00 **Keynote 3**
Sustainability from grape to glass: European and US-American perspectives
David E. Block, University of California Davis, USA; and Dominik Durner, Hochschule Kaiserslautern, Germany
- Session 4: INNOV2Eng**
Session Chairs: TBD
- 09:00 – 09:15 **126 Simulated moving bed – A novel technology for preferential separation of sugars for low alcohol wine and grape sugar concentrations manufacturing**
Dimple Kundiyana, Gallo, USA
- 09:15 – 09:30 **122 Glycolipids as a novel method to arrest alcoholic fermentation for obtaining wines with residual sugar**
Nicola Rossi, Weincampus Neustadt, Germany
- 09:30 – 09:45 **135 Extraction of the maximum potential of the grape by ultrasound**
David Mendoza, Agrovin, Spain
- 09:45 – 10:00 **123 Comparison of the principal production methods for dealcoholized wine based on analytical parameters**
Lorenzo Italiano, Hochschule Geisenheim University, Germany
- 10:00 – 10:15 **103 Wine remediation: Selective adsorption of free volatile phenols in smoke-tainted wines**
Connor Patton, UC Davis, USA
- 10:15 – 10:45 Coffee Break
- Session 5: VALADD2Eng**
Session Chairs: TBD
- 10:45 – 11:00 **102 Recovery of biomolecules from winemaking by-products: A path towards circular economy in the wine industry**
Maria Norberta de Pinho, Universidade de Lisboa, Portugal
- 11:00 – 11:15 **116 Clean-in-Place (CIP) implementation in wineries to reduce water and chemical use**
Brooke Fanale, UC Davis, USA
- 11:15 – 11:30 **111 A wireless sensor network architecture for monitoring water usage in wineries**
James Nelson, UC Davis, USA
- 11:30 – 11:45 **127 Generation of clean hydrogen using winery waste via microbial electrolysis**
Alex Lewis, Electro-Active Technologies, Inc., USA

Wednesday March 25, 2026 (continued)

11:45 – 12:00 **124 Technological integration of CO₂ recovery and aroma valorization for sustainable operations in small and medium wineries**
Felipe Salinas Bonich, Geisenheim University, Germany

12:00 – 13:30 Lunch

Session 6: OTHER2Eng

Session Chairs: TBD

13:30 – 13:45 **132 In Vino Veritas: Teaching wine appreciation to MIT engineers for 3 decades**
Linn Hobbs, Massachusetts Institute of Technology, USA

13:45 – 14:00 **133 From reactive to predictive: Preventing failures through engineering and non-destructive testing**
Joshua Jackson, US Corrosion Services, USA

14:00 – 15:00 Poster Session

15:30 – 19:00 **Visit to Taylor Fladgate and World of Wines (WOW)**

Promptly meet at the hotel lobby where a WOW representative will accompany the group on a short walk to WOW. Half the group will visit Taylor's Port Wine Cellar and experience a Port Wine and Chocolate Tasting, while the other half of the group will visit the Wine Experience Museum. The groups will then swap. Taylor Fladgate, now in its fourth century, recently renovated its 300-year-old cellars to incorporate a modern and innovative museum. There will be free time to experience the World of Wines area in Vila Nova de Gaia – the largest cultural district in the world dedicated to wine.

19:30 – 22:00 Conference Banquet

Thursday March 26, 2026

07:00 – 10:00 Breakfast buffet
 Departures