How can we improve food production and safety through an open approach?

Nikos Manouselis, CEO Agroknow

Big & heterogeneous data flows in agri-food value chains

Nikos Manouselis, CEO Agroknow
Why am I here?
We find, connect and deliver agriculture & food information worldwide.

(for almost 10 years)
Nikos Manouselis
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Agroknow • Agricultural University of Athens
Greece • 500+ &

CEO
Envisioning a global data ecosystem for agriculture and food

Agroknow
Jul 2007 – Present
Athens, Greece and Leuven, Belgium

Leading the company to deliver its mission to find, connect & deliver agriculture and food information worldwide. Strategically positioning Agroknow as a global leader in addressing challenges related to the management, sharing and discovery of agricultural data. Making sure that all employees in the company have the right expertise, responsibility and flexibility to exceptionally support organisations, make online applications, and lead the development of international data infrastructures.
Data should flow
Tallinn – After a widening scandal in 45 countries involving eggs contaminated with the insecticide fipronil, agriculture ministers from European Union member states want to improve “the exchange of information,” they said after a meeting Tuesday.

Tarmo Tamm, Estonia’s minister for rural affairs, which currently holds the EU’s rotating presidency, said better cooperation was needed “to resolve these kinds of crisis situations faster and more efficiently.”

**Need for information exchange**

Fipronil is banned under EU law for use on animals destined for human consumption. Its discovery in eggs in recent months prompted questions about the efficacy and speed of information sharing in the EU.

German Agriculture Minister Christian Schmidt said it was necessary for all EU member states to have the same standards when it comes to sharing information.
The Problem of Vendor Lock-in For Ag

By Jason Tatge

We’re at an inflection point in our industry, where precision ag techniques are taking off, the value of field data is being realized, and the fight for ownership is coming to a head. As big vendors take their seat at the table, farmers are at risk of losing control.
R&I for future-proofing food data value chains

Food Production

Processing

Packaging

Food Systems

Waste Streams

Healthy People

Distribution

Logistics

The way food is produced and how it affects our health, wellbeing and the environment.
Data flows across the chains (a lot)
An example: R&I powered by grapes
Extremely large & heterogeneous data flows

Grapevine & vineyard R&D
- Cultivating & testing grape varieties in experimental vineyards
- Producing grapes for winemaking

Production vineyards
- Measuring + analyzing properties / behavior of grape varieties
- Processing grapes/juice to distill phenolic extract for natural cosmetics
- Processing grapes/juice to produce grape juice for food

Winery facilities
- Aging & Bottling
- Producing grapes for raisins
- Producing grapes for other products

Processing factories / facilities
- Drying grapes for raisins
- Packaging etc.

Processing factories & Chemistry laboratories
- Producing grapes for winemaking

SALES Distribution to EU + global markets
Extremely large & heterogeneous data flows

- **Grapevine & vineyard R&D**
  - Cultivating & testing grape varieties in experimental vineyards
  - Measuring + analyzing properties / behavior of grape varieties

- **Production vineyards**
  - Winery facilities
  - Processing factories / facilities

- **Processing factories & Chemistry laboratories**
  - Measuring + analyzing properties / behavior of grape varieties

- **SALES Distribution**
  - to EU + global markets

- **Packaging etc.**

- **DECISION: RAW MATERIAL + PRODUCTS SELECTION**
  - Producing grapes for winemaking

- **DECISION: EFFICIENT MANAGEMENT OF VINEYARD**

- **DECISION: PRODUCT QUALITY CONTROL & ASSURANCE**
  - Drying grapes for raisins
  - Processing grapes for other products
  - Producing grape juice for food

- **DECISION: SELECTION OF RAW MATERIALS & EXTRACTS AS SIDE PRODUCTS**

- **DECISION: BRAND DEVELOPMENT & STORYTELLING**

- **DECISION: INFORMING CONSUMER CHOICE**
  - ...and many other critical decisions powered by data
Penteskoufi White Dry Wine

Kotsifali Family

From grapes of the Kotsifali Vineyard. The average annual temperature in this vineyard is 64.9°F (18.2°C). The warmest month, on average, is July with an average temperature of 81°F (27.2°C). The coolest month is January with an average temperature of 59.4°F (15.2°C). The average annual precipitation in this vineyard is 16.1" (409.9 mm). The wettest month is February with an average of 2.4" (61 mm) of precipitation. The driest month is July with an average of 0.2" (5.1 mm) of precipitation. In terms of liquid precipitation, there are an average of 73.3 days of rain, with the most rain occurring in February with 10.9 days of rain, and the least rain occurring in August with 1.9 days of rain.
Potential of Antioxidant Capacity of unexploited rare native Greek grapevine varieties

Grape skins and seeds are sources of various characterized by a large number of indigen to assess the polyphenolic content of seven (Spetsi) using high performance liquid chromatography.

**Dataset**

Phenolic data from rare Greek grapevine varieties

This dataset contains assessment data regarding the polyphenolic content of seven red native Greek grapevine varieties (Kolliniatiko, Bekari, Bakouri, Koountoua mavi, Doubrena mavi, Thrapse, and Mavro Spetsi) using high performance liquid chromatography.
APIVITA Wine Elixir: Anti-Wrinkle and Firming Rich Texture Face Cream

Combination of Natural Ingredients

In the WINE ELIXIR line, APIVITA uses two natural ingredients that work together, through different biological paths each, in order to secure the production of good quality collagen. In particular:

Red wine

Red wine has strong antioxidant and anti-aging properties. It is rich in polyphenols and especially resveratrol, which stimulates the synthesis of SIRT-1 proteins and prolongs the life cycle of skin cells. It fights free radicals, detoxifies, purifies and softens the skin through its strong antioxidant, antimicrobial and anti-inflammatory properties.

Green Tea: A Natural Infusion Base

APIVITA replaces water with natural organic infusions that give its products mainly antioxidant attributes. Given that most cosmetics’ water content exceeds 70%, APIVITA products are antioxidant-rich in their base. The effectiveness of the infusions selected in each case is proven through scientific methods. The antioxidant action of the infusions is measured through the FRAP method, while their capacity to eliminate free radicals through the DPPH method. Organic green tea, which serves as the basis of many products, has been selected as it is rich in polyphenols, has a great antioxidant effect along with anti-septic, anti-irritant and anti-inflammatory attributes, all contributing in the rejuvenation and hydration of the skin. Over the past few years, APIVITA has been studying and using infusions from Greek medicinal herbs with well-proven, exceptional antioxidant effects, such as the organic Greek mountain tea.
What’s next?
Explore trusted data flows
Showing 4644 Red Wines between €7 - €30 rated above 3.5 stars

Your Location

Sign up or log in to change your location settings.

Wine Types

Red  White  Sparkling  Rosé  Dessert  Port

Price Range

€7  €30

Tiago Cabaço
blog 2013

Portugal  Alentejo

Average Rating: 4.6  178 ratings
Average Price: €13.37

This wine is available from 1 online merchant

View Shops

Herdade da Maroteira
Cem Reis Reserva Syrah 2015

Portugal  Alentejo

Average Rating: 4.5  404 ratings
Average Price: €24.50

This wine is available from 1 online merchant

View Shops
Disrupt traditional chains
Grape protection you have not experienced – YET!

We combined our scientific experiences in grape diseases with leading edge technologies to bring viticulturists the next generation of grapevine protection solution.
Develop the data ecosystem
“Agriculture would benefit hugely from a common data ecosystem. Produced and used by diverse stakeholders...a shared global data space would help build the infrastructures that will propel the industry forward.”
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Thank you

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