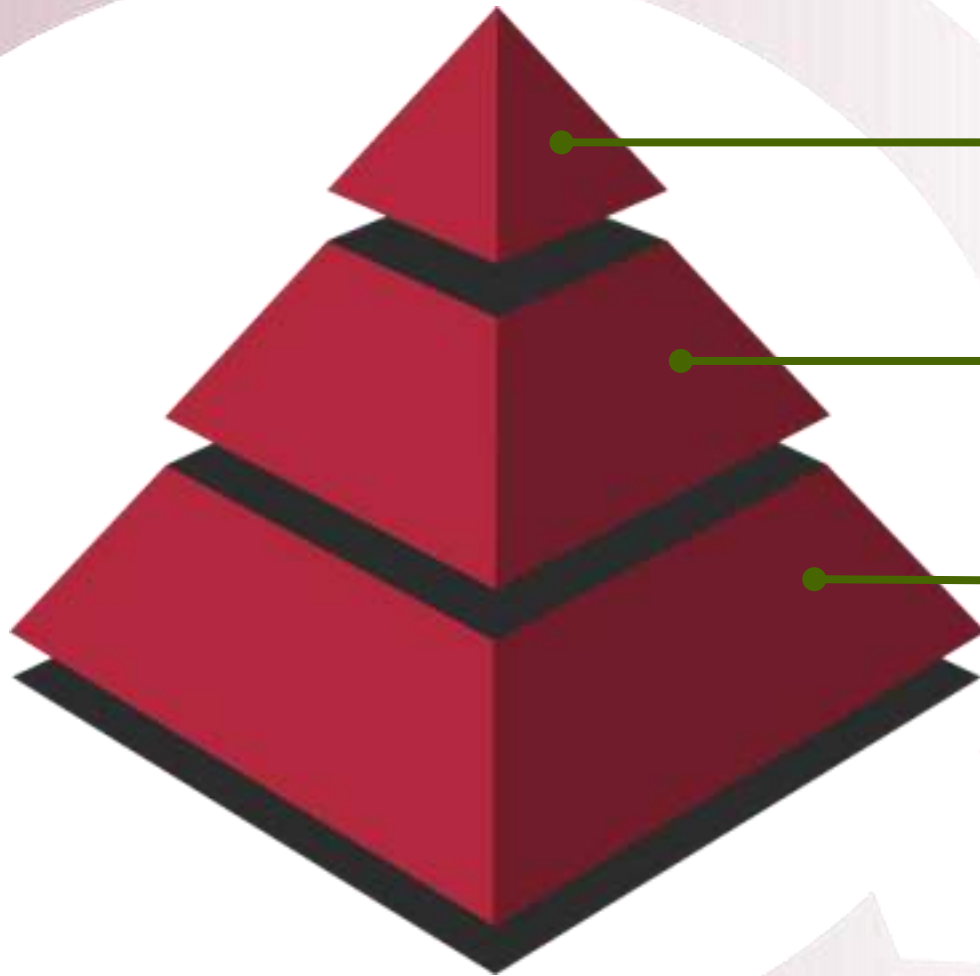




Caviro Extra:
Supply chain, Sustainability, Circular Economy
and Innovation

The largest Italian wine production chain



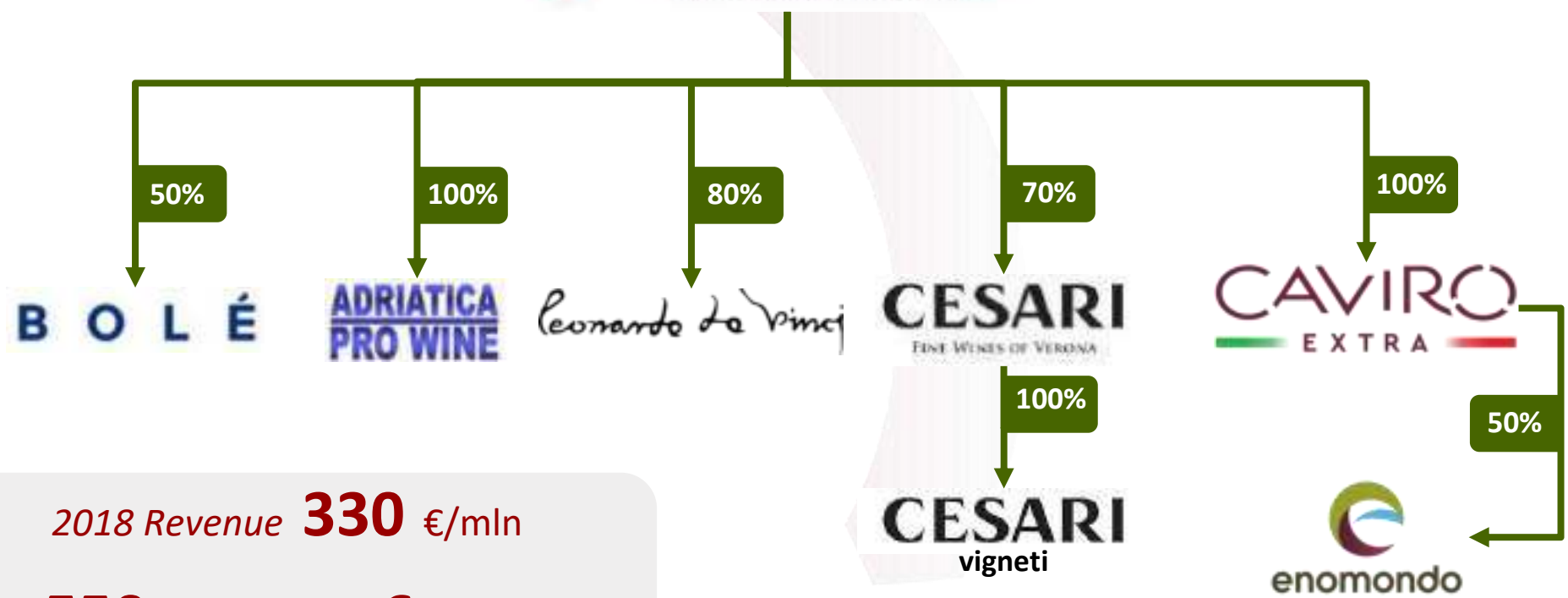
Agricultural Cooperative since 1966



29 Member Wineries

12.500 winegrower partners
in **8 regions**
10% of total Italian grapes
36.000 ha
86% of raw material from
winegrower partners

Caviro Group



2018 Revenue **330** €/mln
550 employees in **6** plants



Caviro Extra: Mission & Vision

NATURAL INGREDIENTS,
RENEWABLE ENERGY,
SUSTAINABLE INNOVATION

Caviro Extra leads innovation in the research and development of **quality ingredients** and high added value products deriving from the **enhancement of waste products** from the Italian agri-food industry.

Scale Economy – big volumes of materials

*100.000 t/y Marc
30.000 t/y lees*



Scale Economy – big and efficient plants



PETER FERDINAND DRUCKER

Caviro Extra - Business Units

EXTRA **Alcoli** 
ethyl alcohol of agricultural origin

EXTRA **Mosti ed Estratti** 
MCT e MCR, grape juices, pips, oenocyanin

EXTRA **Tartarica** 
natural tartaric acid

EXTRA **Eco-Energia** 
purification, biomethane, natural fertilizers

EXTRA Alcoli

ethyl alcohol of agricultural origin

The quality of **Caviro Extra alcohol**, which is **100% bio-based**, derives from its vinous origin, linked to **Gruppo Caviro's wine-making industry**



FOOD

Neutral Alcohol (min 96°)
alcoholic beverages, flavourings, essences, baking



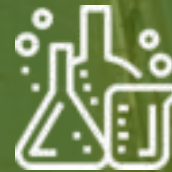
PHARMACEUTICAL

Ethyl Alcohol
Excipient, denaturant, solvent and etherifier.



COSMETICS

Ethyl Alcohol
Perfumes, hair lacquer, mouth washes, and generic cosmetics.



INDUSTRIAL CHEMISTRY

Ethyl Alcohol
solvent for grease, resins, esters, organic substances, varnishes for the preparation of inks



DOMESTIC USE

Denatured Alcohol
common usage in domestic detergents.



ENERGY

Bioethanol
natural heating fuel for bio-stoves, fuel for the transport sector

EXTRA Mosti ed Estratti

MCT e MCR, grape juices, pips, oenocyanin

All the ingredients for a **high-quality industry**
from **grape pressing**



FOOD

Mosto Concentrato Rettificato and Oenocyanin (E163)

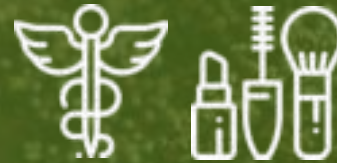
yoghurt, ice cream, desserts,
drinks, fruit juices, baking
products



OENOLOGY VINEGARS

Mosto Concentrato Tradizionale Mosto Cotto

production of high quality still
and sparkling wines
Balsamic vinegar Modena IGP



PARAPHARMACEUTICALS COSMETICS

Polyphenols

From a selection of fresh **unfermented marc**, the seeds are extracted, so that they can then be used to extract **polyphenols, which are natural antioxidants**, used in many sectors as fundamental ingredients of innovative products.

EXTRA Tartarica

natural tartaric acid

Natural Tartaric Acid: from baby food to its use in the construction industry through caviro's direct production chain



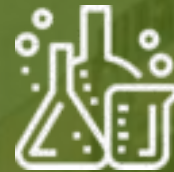
FOOD

Acidifying substance and natural preservative, emulsifier in industrial baking products



PHARMACEUTICAL

Excipient and adjuvant of the active substances, used in syrups, capsules, effervescent powders...



CHEMICALS

It is used in cosmetics, for the production of cremes, powders, production of surfactants, electronic devices, and used in printing.



CONSTRUCTION

For the production of plaster and cements for renderings.

EXTRA Eco-Energia

purification, biomethane, natural fertilizers



Renewable Energy and Advanced Biomethane for the transport industry



AGRI-FOOD LIQUID WASTE RECOVERY

Leader in Italy
for the recovery of waste
water from agri-food
industry



ENERGY FROM RENEWABLE SOURCES

Xo-generated power supply
system producing
109.000.000 KWh
Thermal: **114.000 MWh**



BIOGAS

Produced Biogas
15.500.000 Nm³



BIOMETHANE

Production capacity
12.000.000 Nm³
corresponding to fuel
for **18.000 vehicles**
per year *

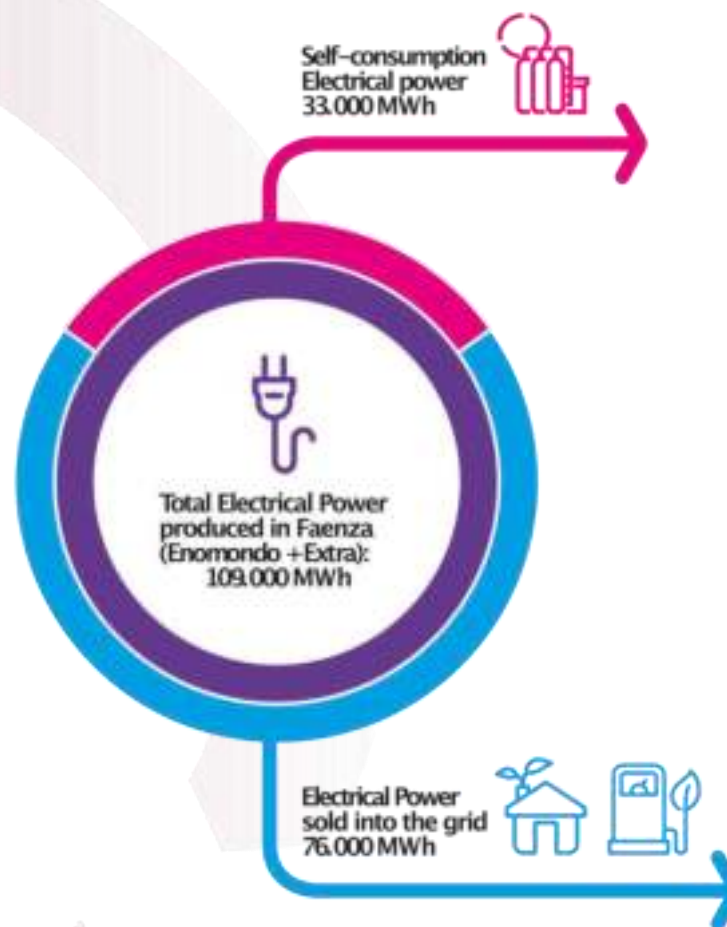


FERTILIZER

18.400 t
Fertilizer
production

*small car (1.400cc)
consumption 1 mc = 17 km
Source QUATTRRUOTE
11.200 km/year Source Facile.it

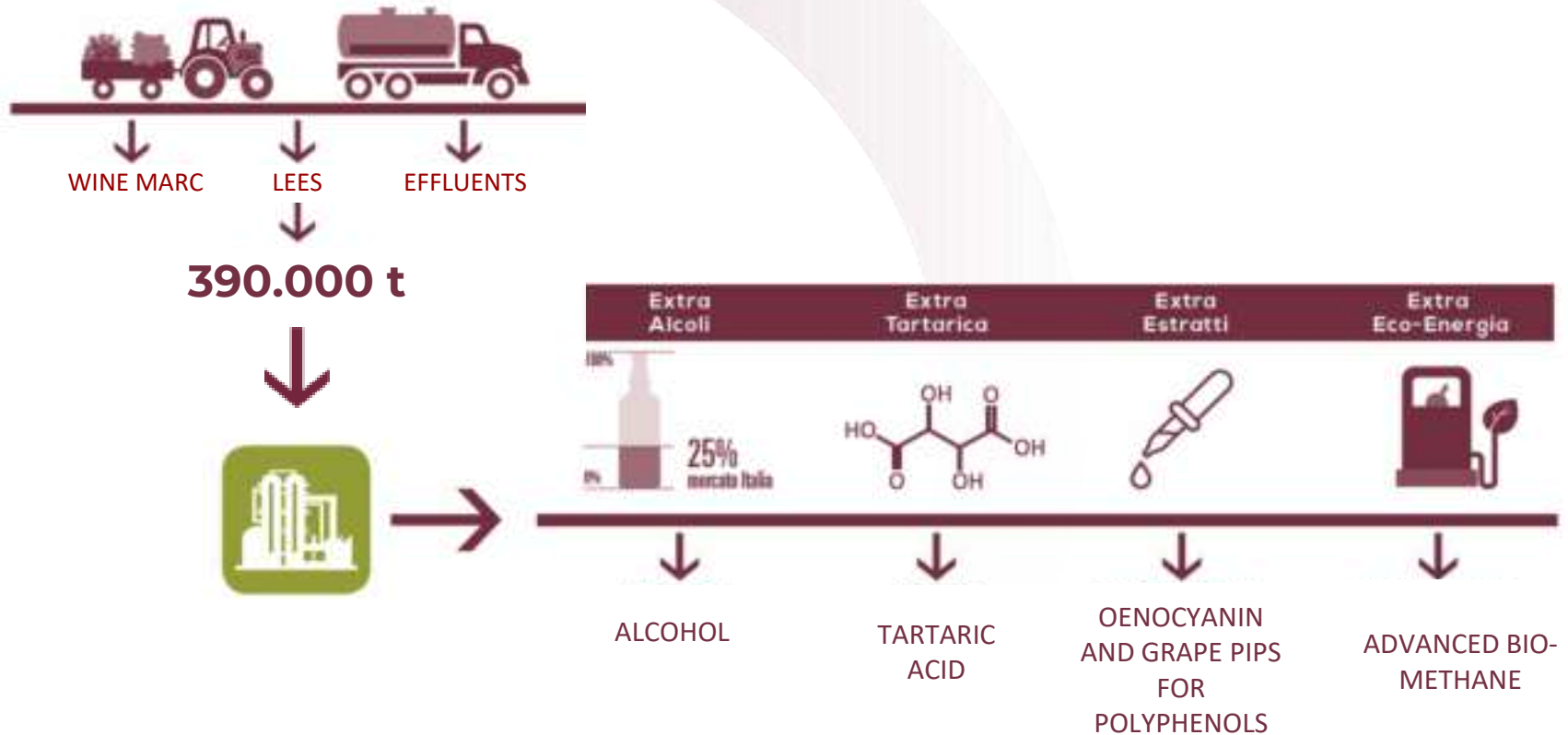
Value from waste: electric energy



Guarantee of origin:

65% of energy fed to the grid has been certified as renewable

Caviro Extra in summary



Enomondo in summary



170.000 t



ELECTRIC POWER
84.000 MWh



THERMAL ENERGY
114.000 MWh

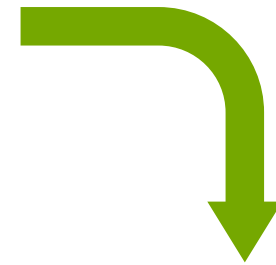
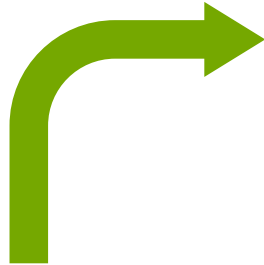


COMPOST
18.400 t

Caviro Circular Economy



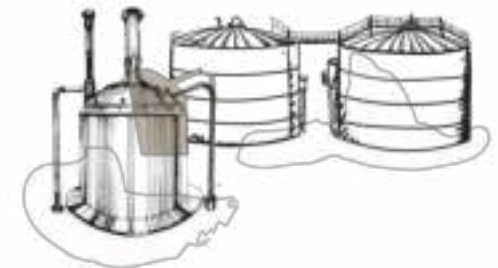
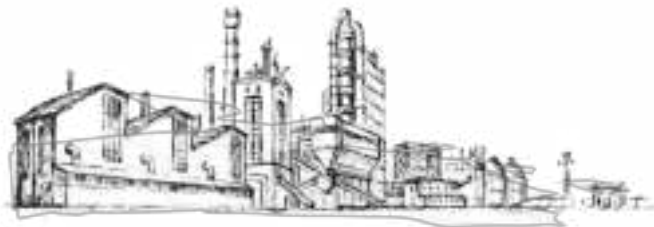
We exploit the wins of our winogrower partners



enomondo

IL CIRCOLO VERDE DELL'ENERGIA

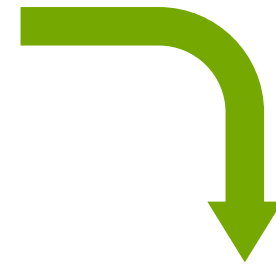
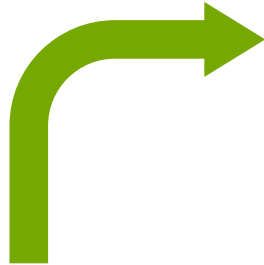
we specialise in the management of biomass plants



we develop the sub-products of the agri-food industry



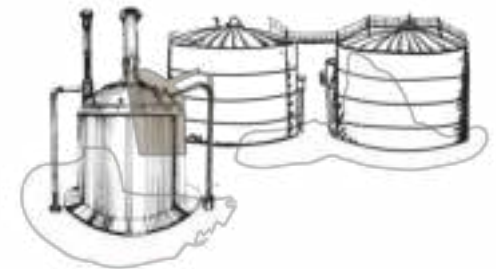
Caviro Circular Economy



enomondo

IL CIRCOLO VERDE DELL'ENERGIA

we specialise in the management of biomass plants



CAVIRO
EXTRA

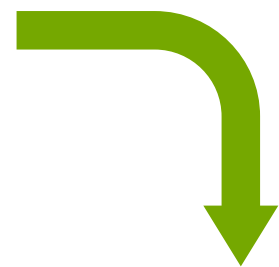
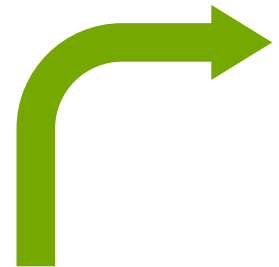
we develop the sub-products of the agri-food industry

CAVIRO
EXTRA

Caviro Circular Economy



We exploit the wins of our winogrower partners



PHARMACEUTICAL, FOOD AND AGRONOMIC PRODUCTS

CAVIRO EXTRA

recuperiamo i sottoprodotti delle filiere agroalimentari

BIOMETHANE

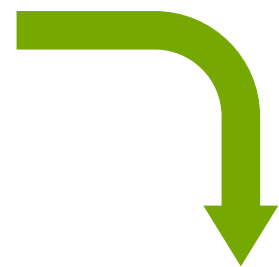
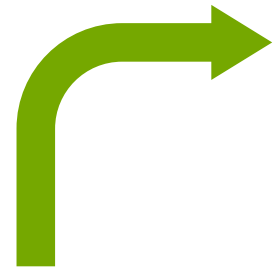
enomondo
IL CIRCOLO VERDE DELL'ENERGIA
we specialise in the management of biomass plants



Caviro Circular Economy



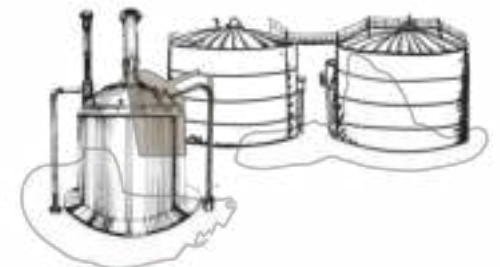
We exploit the wine of our winegrower partners



enomondo
IL SERVIZIO VERDE DELL'ENERGIA
siamo qui per le gestioni impianti a biomassa

COMPOST AND FERTILISERS

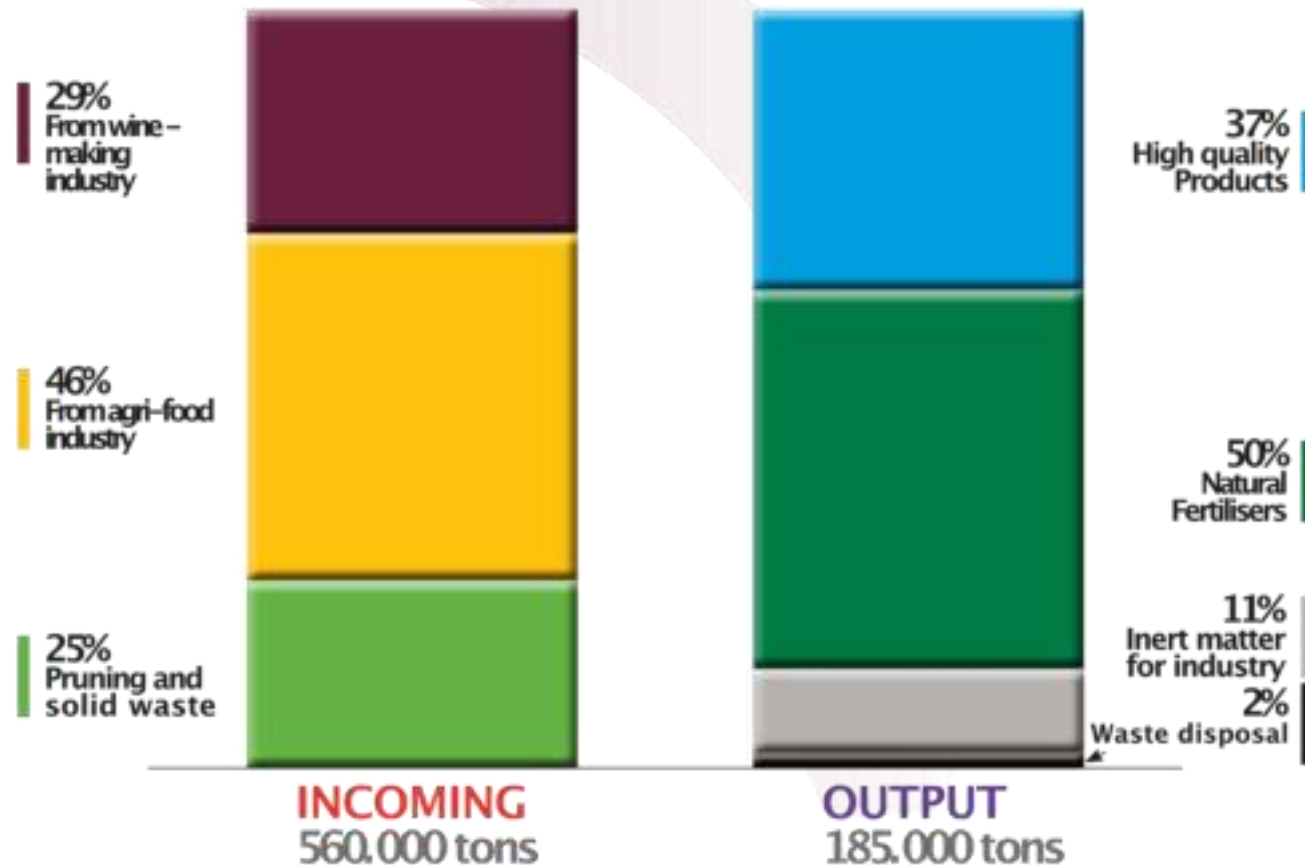
ENERGY



we develop the sub-products of the agri-food industry



Caviro Extra and Enomondo 2018: generate value from waste



Innovation

Caviro Extra and continuous innovation



*Innovation is the specific instrument of entrepreneurship.
The act that endows resources with a new capacity to create wealth.*

PETER FERDINAND DRUCKER

Advanced Bio-Methane and Bio fuels



BIOMETHANE

Production capacity
12.000.000 Nm³
advanced bio-
methane, without
fossil hydrocarbons



ACF / Sludge project



ACF / Sludge

The objective is the **constant increase** in the amount of **organic substance returned to the soil** in the form of compost and fertilizers



Water footprint reduction



Water Footprint

Reduction of groundwater use thanks to cutting-edge technologies in water recovery from industrial cycle

**Nothing is destroyed
everything is transformed**

CAVIRO
EXTRA



Thank you.