



Transnational Movement to Support the **Sustainable Transition** towards a **Healthy & Eco-friendly Agri-Food System** through the Promotion of **MEDIET & its Lifestyle** in **Modern Society**.

Thematic Area 3-Food value chain

Topic 2.3.1-2022 (RIA) Enabling the transition to healthy and sustainable dietary behaviour



GERMANY



FRANCE



SPAIN



ITALY



University of Sfax

TUNISIA



LUXEMBOURG



Mohammed V University
Rabat, Morocco

MORROCO



ALGERIA

MEDIET4ALL Consortium:



Coordinating institution:

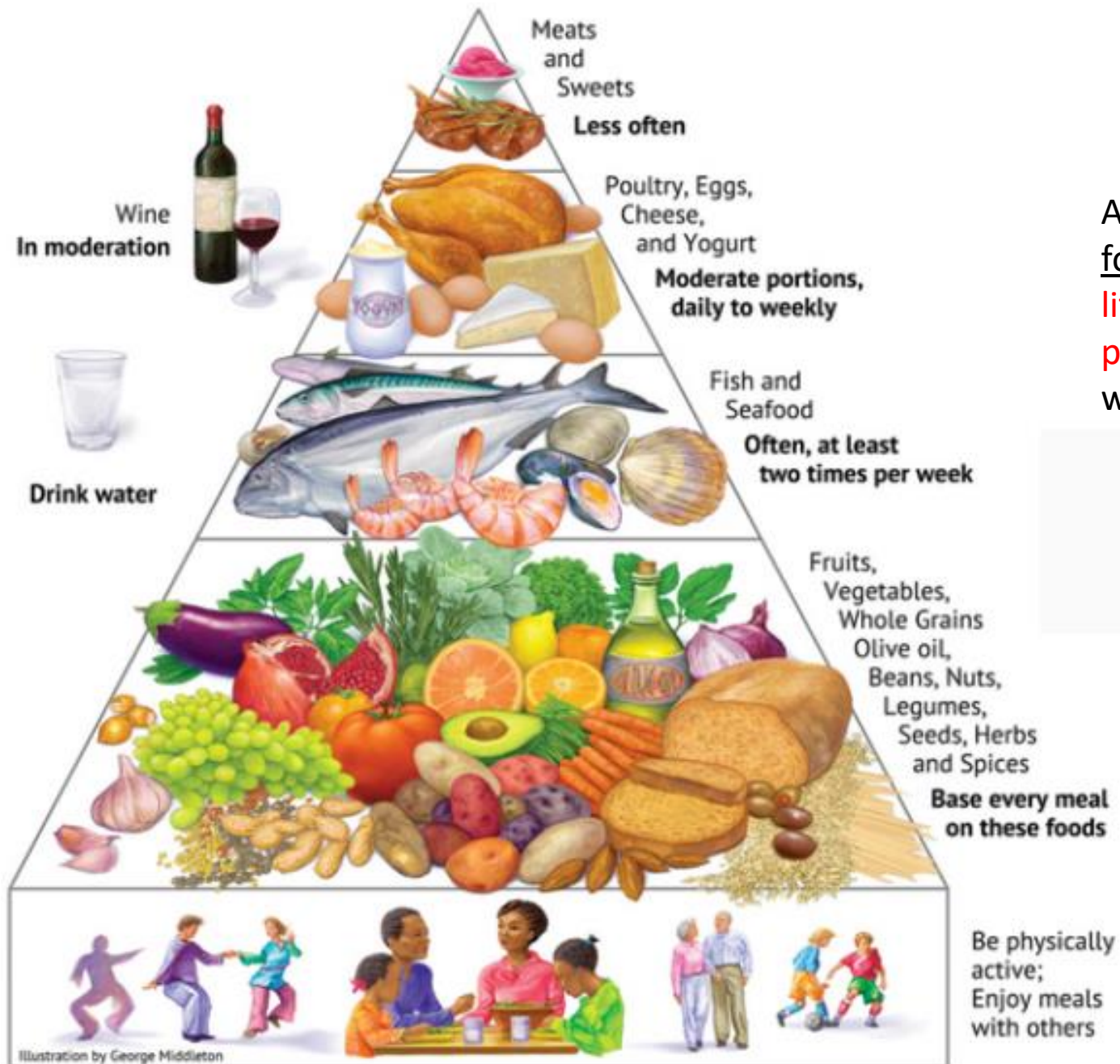
- **Germany:** **JGU**_Johannes-Gutenberg-Universität Mainz, Mainz, Deutschland
PI: Dr. Achraf Ammar

Partners:

- **Tunisia :** **UoSF**_University of Sfax
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- **France :** **UB**_Université Bourgogne AND **VITAGORA**
PI: Prof. Frédéric Debeaufort AND Ms. Eugénie Cornu
- **Spain :** **UV**_Universitat de València
PI: Ass. Prof. Amparo Gamero
- **Italy :** **UNIPA**_Università degli Studi di Palermo
PI: Ass. Prof. Paolo Inglese
- **Luxembourg :** **MT**_MICROTARIENS
PI: Mr. Björn Lorenzen
- **Morocco :** **ENA**_ National School of Agriculture in Meknes AND **FMPR**_ Faculty of Médecine and Pharmacy of Rabat
PI: Prof. Aadil Bajoub AND Prof. Ajal El Amine
- **Algeria:** **UMBB**_M'Hamed Bougara University of Bouverdes
PI: Ass. Prof. Lahiani Sadjia

Duration: 3 years, 01.06.2023 – 30.05.2026

Total Budget: ≈ 2.3 M Euro



As the **modern MEDIET pyramid** incorporates various food components and other **elements related to the lifestyle behaviors** (e.g., regular *physical exercise*) and **psychosocial and cultural traditions** (e.g., meals shared with family, friend/colleagues)



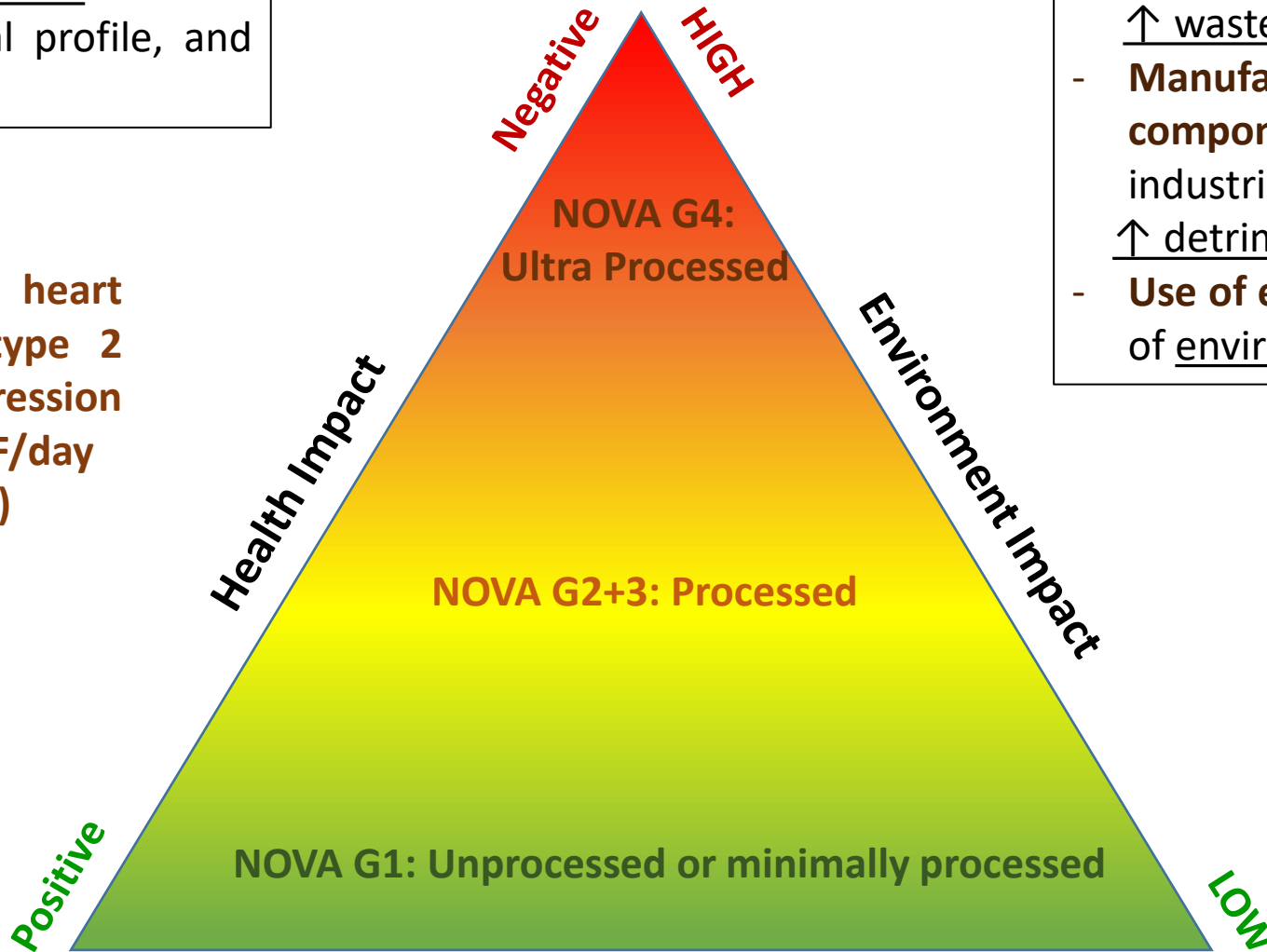
MEDIET4ALL's approaches/actions will not only focus on MEDfood, but also on **promoting the compatibility of MEDlifestyle principles to modern society**

Impact on health and environment/ecosystem

More UPFs consumed (e.g., + 10%)
= intrinsically imbalanced diet with
suboptimal nutritional profile, and
high energy density



↑ risk of obesity, heart
disease (+11-12%), type 2
diabetes, cancer, depression
and mortality: (+1 UPF/day
-> +18% mortality risk)



- **Extended food supply chain (FSC)**
↑ waste, retail, transport, household use
- **Manufacturing** and use of large **variety of components** (e.g., food additives and industrial ingredients) with
↑ detrimental impacts on the environment
- **Use of extensive packaging**, a major source of environmental waste production



UPFs seems to have the most
harmful impact on health and
environment

Food Pyramide

Multicenter survey-based study

Understanding consumer behavior + identify MEDIET adherence and the influencing factors

MED-consumer Understanding

MEDIET4ALL Products

MedRecipes	MedPackage	MedDatabase
<ul style="list-style-type: none"> ✓ Modern ✓ Nutritional ✓ Minimally-processed 	<ul style="list-style-type: none"> ✓ Bio-Active ✓ Shelf-life ✓ Eco-friendly (use by-product) 	<ul style="list-style-type: none"> ▪ MedProducts ▪ Local producers ✓ Accessibility

MEDIET4ALL Campaigns

✓ **Awareness** ✓ **Marketing**

- **Traditional** (e.g., cooking class, promotional materials)
- **Technology-based** (digital advertising toolkits, m-apps, motivational serious-games, social media)
- ✓ **Country specific cultural adaptation**

✓ Stakeholders/consumer input: Farmers; MEDIET-products providers; canteens; restaurants; SMEs; family etc

MEDIET4ALL ICT-solutions

MEDIET4ALL Integrative-Platform		MEDIET4ALL SMART-Coach		
<ul style="list-style-type: none"> ▪ Products and Actions integration ▪ MEDIET Resilient Network ▪ MEDIET supply chains ▪ Products' price comparison ▪ Online MedProducts order 		<ul style="list-style-type: none"> ▪ Tailored MedLifestyle programs (MEDIET + physical/psychosocial) ▪ Intervention / Prevention ▪ Follow-up and adjustment ▪ Adherence and BMI monitoring 		
✓ Availability	✓ Farm to Fork	✓ Competitiveness	✓ Sustainability	✓ Health

Multicenter interventional case-study

Testing the acceptability and efficacy of MEDIET4ALL approaches and innovative solutions

Monitoring MEDIET adherence and impact on consumer's health (e.g., BMI)

→ **MEDIET4ALL ACTIONS**
Behavioural change

→ **Collaborative Research**
Guidelines & Best Practices



All-Age

Fishery and Aquaculture

Aquaculture: new species



New Processing, smart packaging, valorization of by products



Quality along the value-chain

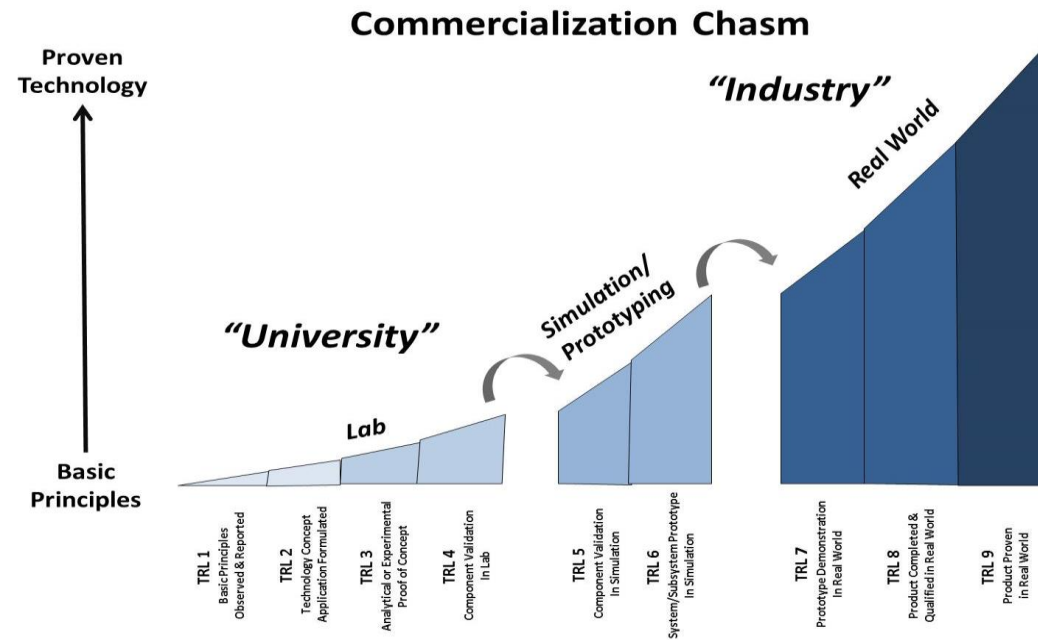


Microalgae cultivation from pilot to industrial scale



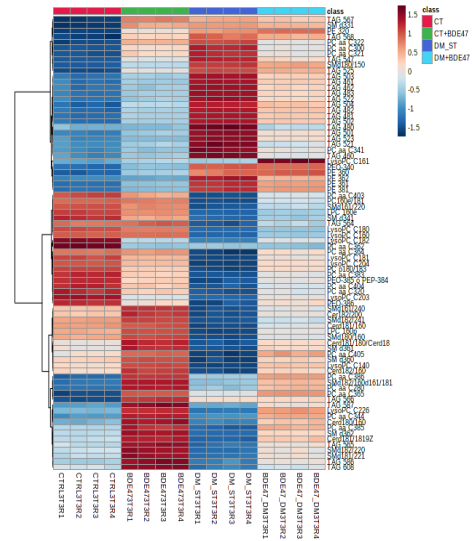
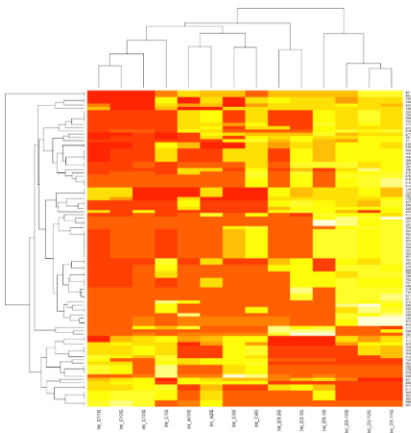
SUPPORT FOR INDUSTRIAL RESEARCH AND EXPERIMENTAL DEVELOPMENT APPLIED TO THE BLUE-ECONOMY

1. Capitalizing research results
2. Maximize the effects on the economic-productive system level
3. Turning investments into profit
4. Respecting environmental sustainability



fully bottom-up

TRL - Technological readiness level



TRL7 NEW PACKAGING E SMART PACKAGING ON TRADITIONAL FARMED SPECIES: SEABREAM AND SEABASS



TRL7 NEW PACKAGING E SMART PACKAGING ON NEW FARMED SPECIES: COLD SMOKING ON MEAGRE

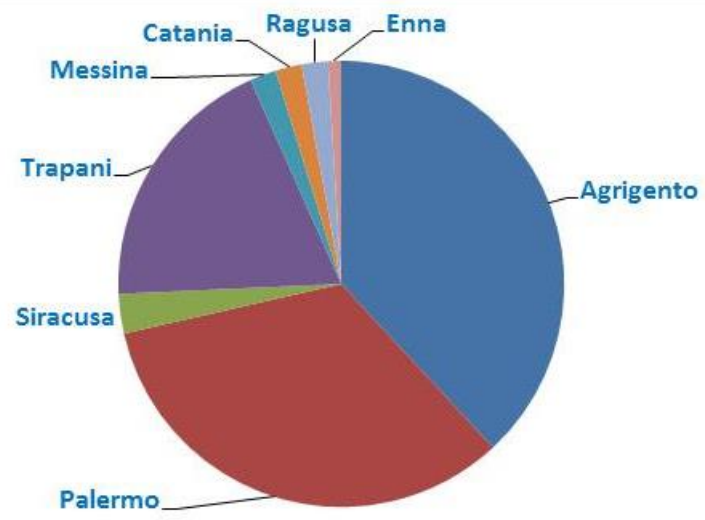


Quality and shelf-life

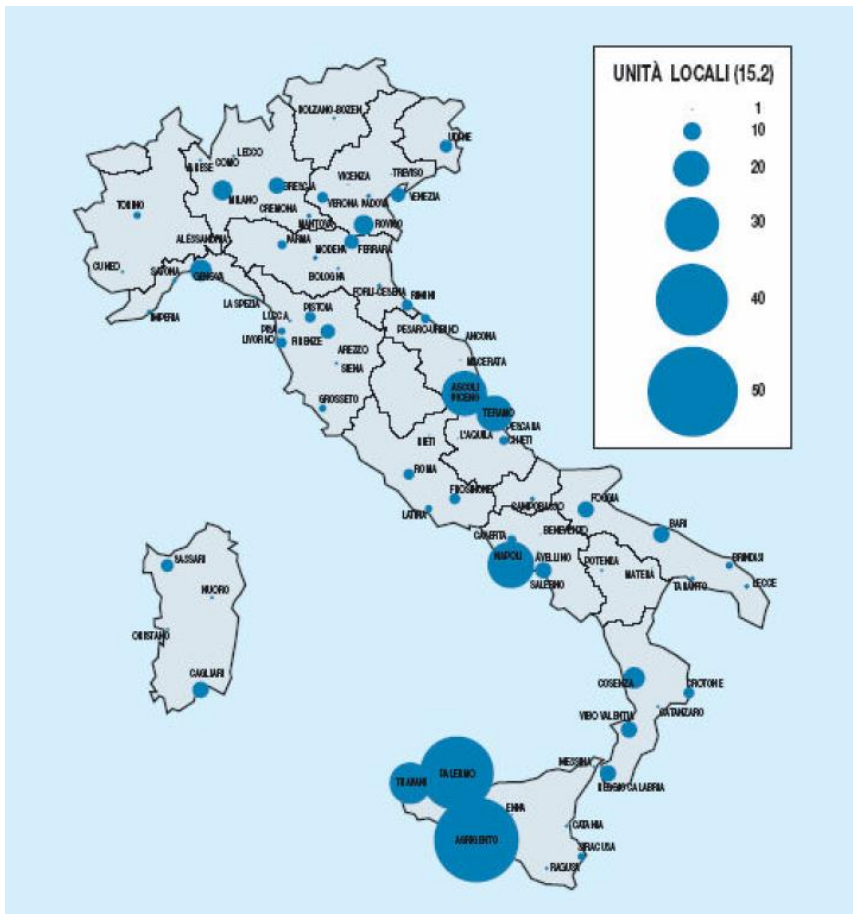


**FROM LAB
SCALE TO
CONSUMER
TEST**

Italian Fish processing industries



Sicilian fish processing industry



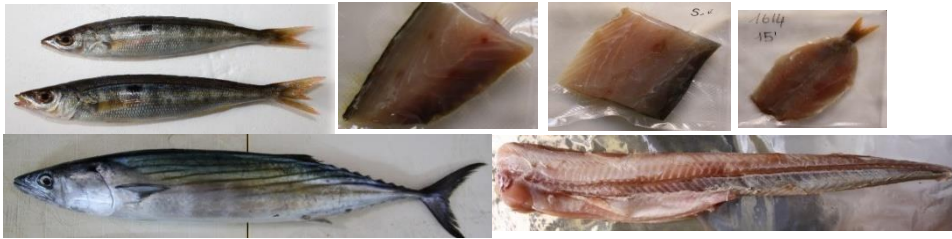
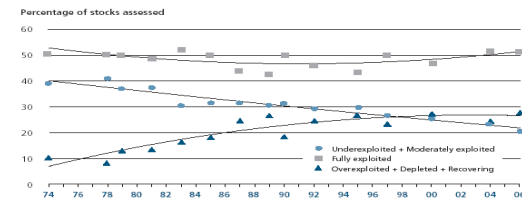
>35% in Sicily



PROCESSING LOW VALUE SPECIES belonging to low trophic level

reduction of fishery efforts
valorization-diversification-competitiveness

Global trends in the state of world marine stocks since 1974



Production of Functional foods by modulating

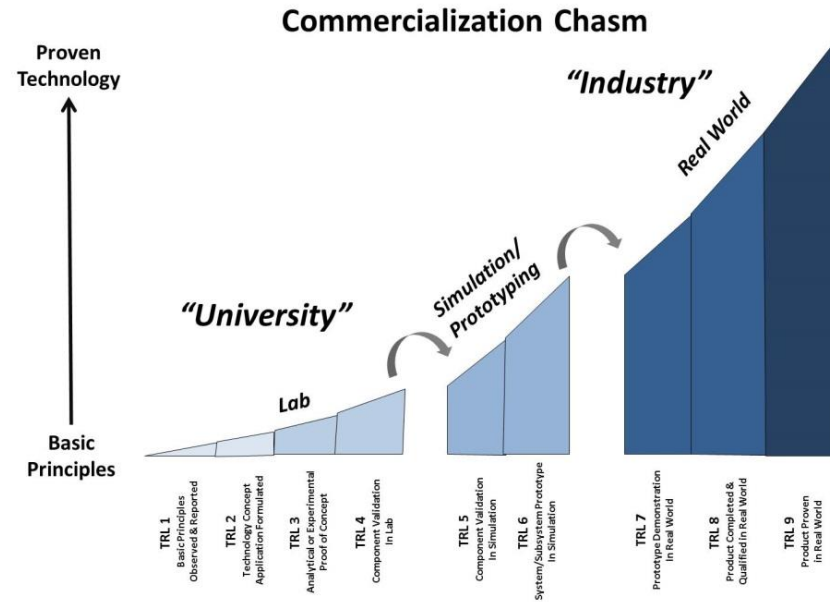
- Omega 3
- Low Na content
- antioxidants

TRL 8- industrial development

I.T.T.I.I.Lab
Industria Trapanese Trasformazione Ittica Innovation Lab



G.A.C.



FROM SIMULATED TO REAL WORLD



SMart & ACtive Keen labels for visual food spoilage detection (SMAcK)

commercialization

valorization of
by-products



extraction of bioactive
compounds



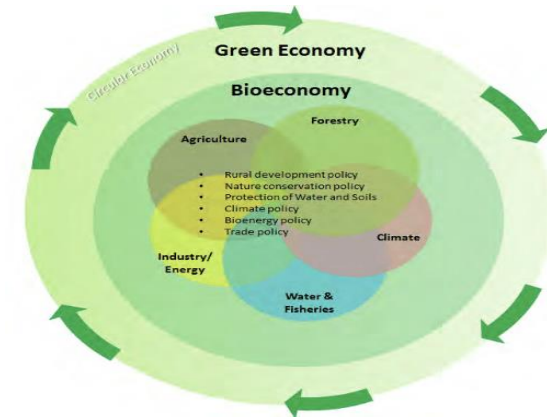
BY-CATCH 8%



**FISHERY
PROCESSING
→ 25-55%**



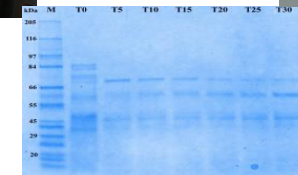
**ACQUACULTURE
PROCESSING 45/60%**



Marine Biotechnology research priorities: FOOD

ZERO WASTE - fisheries and aquaculture

**Phase 1- Extraction of fish oils and carotenoids from fish and shrimps by-products
(almost 40% of the production)**



Procedures and products innovative



PATENTS



REGIONE SICILIANA
Assessorato all'Agricoltura,
dello Sviluppo Rurale
e della Pesca Mediterranea
DIPARTIMENTO DELLA PESCA
MEDITERRANEA



- Fish meal
- hydrolysed
- collagen
- Carotenoids
- Chitin/chitosan
- Antioxidants



Extraction



Separation



Transesterification



Molecular distillation (40x)



Enrichment + SFE

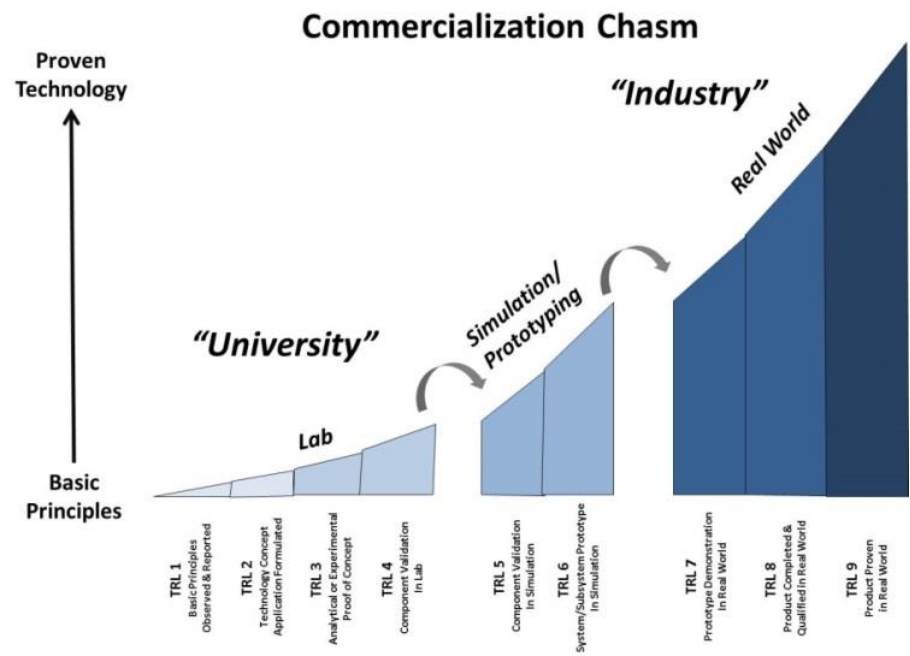


CENTRO DI
COMPETENZA
DISTRETTUALE

coMedicAir



industrial development



Biotechnologie Marine Vecteur d'Innovation & Qualité



Oro di Sicilia

Procedures, protocols and manuals for transfer to the platform



**Egadi Cosmesi
Cabassi Giuriati**

Agreements for companies

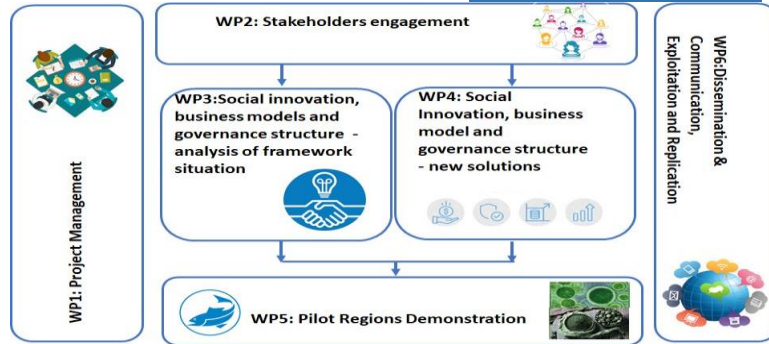


La Bottarga Di Tonno Group Srl



HORIZON-CL6-2021-GOVERNANCE-01-09: Revitalisation of European local communities with innovative bio-based business models and social innovation

BlueRev- Revitalisation of European local communities with innovative business models and social innovation in the blue bio-based



HORIZON-CL6-2021-GOVERNANCE-01-08

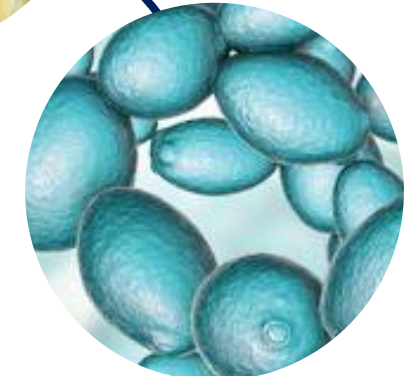
“Better understanding and intensified engagement in bio-based systems with fostering training and skills development - ENGAGE4BIO”



- social engagement,
- local specificities (marine resources and social specificities);
- implementation of sustainable bio-based value chains
- social innovation inclusion of marginalised groups



Mediet4all
Embracing the power of the
Mediterranean Diet and Lifestyle



forthem.

geolive



Università
degli Studi
di Palermo



Davide Alongi
PhD



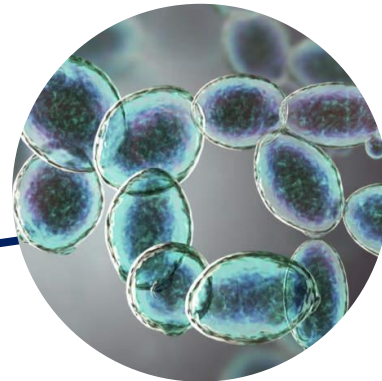
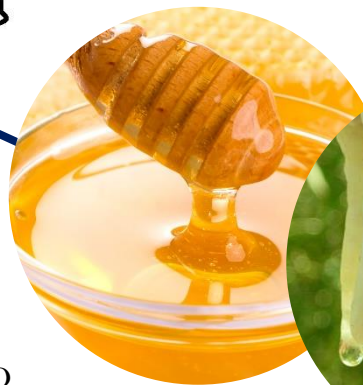
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AZIENDA AGRICOLA
G. MILAZZO
TERRE DELLA BARONIA

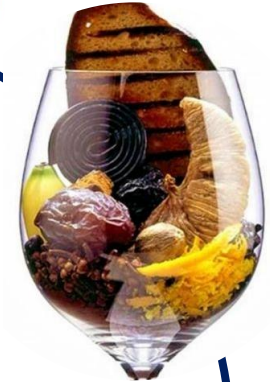


Valentina Craparo
PhD

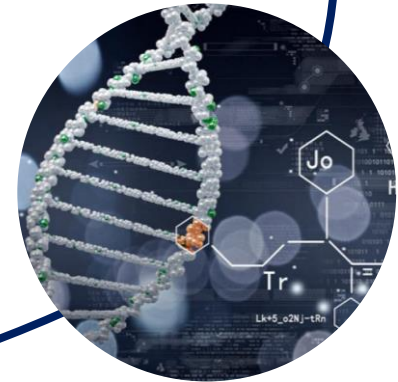


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Vincenzo Naselli
PhD



Azzurra Vella
PhD



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Antonino Pirrone
PhD



i-Tek
Food & Beverage Equipment

DI BELLA
COLOMBA BIANCA



NAVARRA



LALLEMAND

EURIS



CANTINA COLLI EUGANEI
dal 1949



CARUSO & MININI

HTS

Università degli Studi di Palermo

CANTINE EUROPA



MARSALBOTT

Laboratori C.A.D.A.

geolive



CANTINE SETTESOLI



Canicatti

AZIENDA AGRICOLA G. MILAZZO
TERRE DELLA BARONIA



CASA GRAZIA



Ori di Sicilia
Bongiovanni



Bongiovanni



Italiacamp

BORGOMOLINO
Vigne & Vini



CANTINE DE LUCA



Ministry of Agriculture, Food Sovereignty and Forests - Supply Chain and District Contracts (5th call) project:
'White Wine Identity: new horizons for an integrated and sustainable development of the Italian white wine supply chain'

Direct Companies



Indirect Companies



Cantine Settesoli
 6000 ha
 1035 ha Bio
 18 740 mln bottles/year

Cantine Colomba Bianca
 6900 ha
 1800 ha Bio
 2 800 mln bottles/year





Ministry of Agriculture, Food Sovereignty and Forests - Supply Chain and District Contracts (5th call) project: 'Table Olive Sustainable Chain'

Direct Companies

Barruzza Paolo Azienda Agricola Guarisco Salvatore
 Vaccaro Giovambattista

Le contrade società agricola Triolo Giuseppe Giacinto



Indirect Companies

OP Terra degli ulivi

- Geolive Belice
5000 tons olive/year



Industrial Application

Ministry of Enterprise and Made in Italy – Horizon 2020 – PON I&C 2014-2020 Asse 1. Az. 1.1.3.

Integrated approach for the development of innovative products in the leading sectors of the Sicilian agri-food industry

Cantine Europa s.c.a.
6000 ha



Lable realized by students of
Department of Architecture
UNIPA

Industrial Application

Private Funding

- Az. Agr. G Milazzo – Terre della Baronía
- Az. Agr. Di Bella



Industrial Application

Project

Department of Productive Activities - Regione Sicilia

POFESR Sicilia 2014 – 2020 – Az. 1.3.2. Living Lab Nebrodi

- Birra Epica snc



Lable realized by students of
Department of Architecture
UNIPA





15 Industrial PhDs

65 Scholarships

15 Research grants

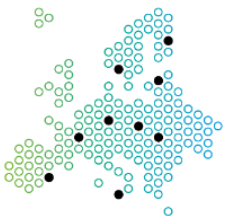
6 years -

€ 9.713.000,00

€ 4.757.000,00

€ 1.482.000,00

A few numbers



Supply Chain Contracts

V Bando – MASAF

10 wineries

6 process industries

4 service providers

4 distributors

***Universities - Research
Institutions***

49.950.000,00- wine project

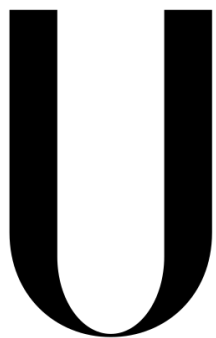
19.850.000,00- olive project



THE NETWORK



forthem.



LISBOA

UNIVERSIDADE DE LISBOA



Università degli Studi di Palermo





Thank you

*Concetta Maria Messina
Nicola Francesca
University of Palermo*



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