

Trace RICE



PRIMA-2019 AGROFOOD Virtual Synergy Meeting

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June 11, 2020

TRACING RICE AND VALORIZING SIDE STREAMS ALONG MEDITERRANEAN BLOCKCHAIN



TRACE-RICE with Grant n° 1934, (call 2019, section 1 Agrofood) is part of the PRIMA Programme supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



Instituto Nacional de
Investigação Agrária e
Veterinária, I.P.

INNOVATION ACTION PROJECT



TRACE-RICE targets the adoption of cost-efficient and environmentally safe tools for traceability, authenticity, contaminant mitigation and conversion of by-products to innovative rice base food produced in the Mediterranean.



Started on 1st July 2020, brings together public and private stakeholders across the Mediterranean for delivering innovative solutions for fraud and safety challenges in rice sector with an integrated full chain approach ('farm to fork') in 48 months.

RICE RELEVANCE & CHALLENGES

“ *The relevance of rice in the European diet has been increasing due to its fundamental role in modern and healthy diets. Most of the rice consumed in UE is grown in the Mediterranean countries.* ”



WORLD RICE PRESENCE

Rice world **production is 510 Mt**, provides 20% calories consumed



RICE CONSUMPTION

EU - 5.5 Kg/per capita/year
Worldwide -72.5 Kg/per capita/year



RICE IN MEDITERRANEAN

8 Mt in 2018, main producers are Egypt, Italy, Spain, Portugal



“ *The challenges is rice-based foods are highly prone to adulteration.* ”



RICE FRAUD

Fraudulent variety claims, 46% Basmati in UK is adulterated



RICE CONTAMINATION

Pesticides residues, mycotoxines

OBJECTIVES

TRACE-RICE is focused on providing the Mediterranean rice industry with:



Highly-efficient and affordable analytical and digital technologies that will facilitate fast traceability and authenticity control of rice varieties;



New nutritional and healthy tasty rice-based foods and high added-value products based on an interdisciplinary integrated chain-wide and circular economy approach.

DELIVER SOLUTIONS



1

AUTHENTICITY TOOLS

DNA-based , predictive models using machine learning strategies

2

DECREASE CHEMICALS

Biobased insect repellents, active packaging technologies

3

INNOVATIVE FOOD AND BEVERAGES

Integrate rice by-products in bakery ingredients

4

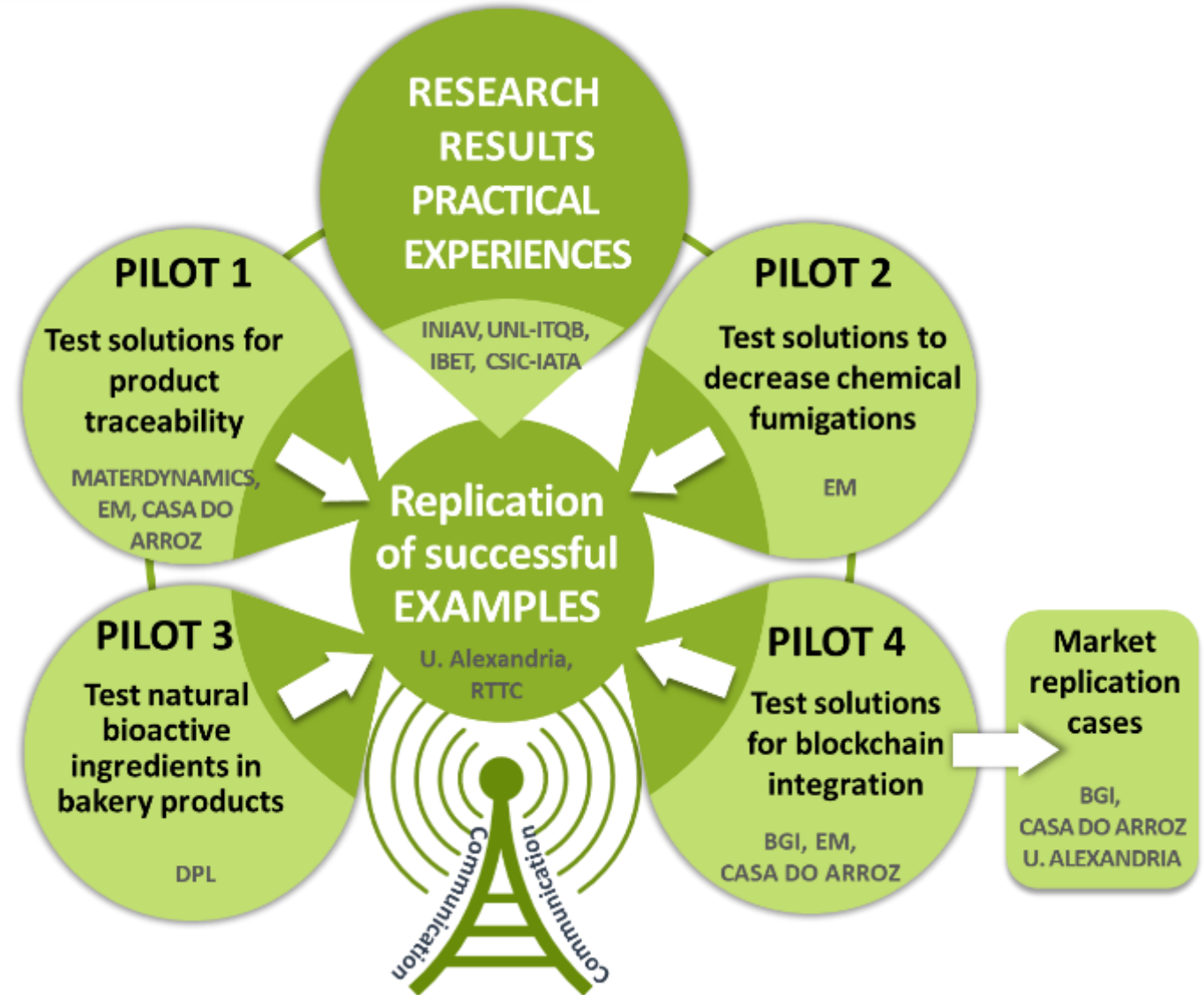
BLOCKCHAIN AND RFID TECHNOLOGIES

RFID tags for wireless and real time supply chain integration

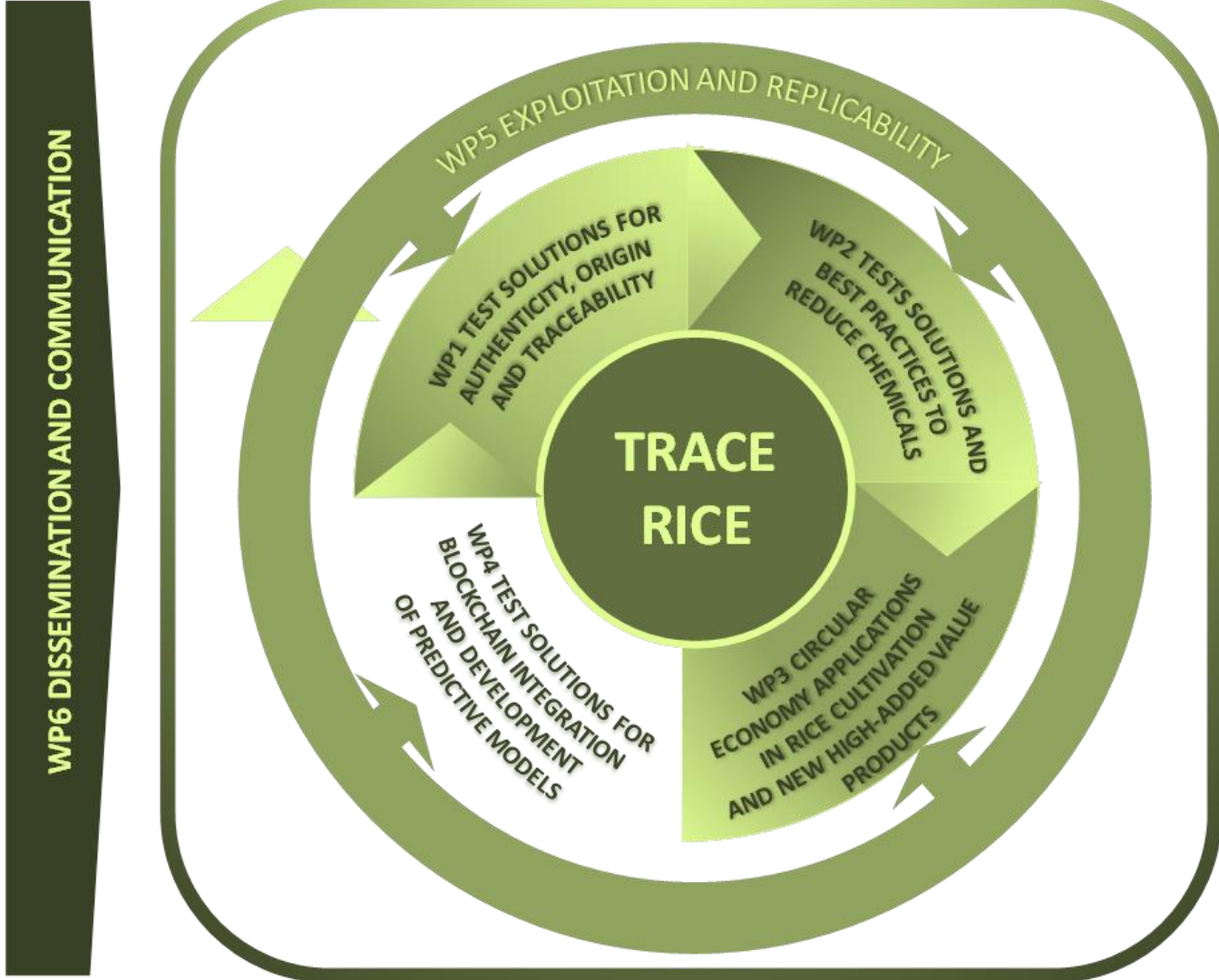
APPROACH

Demonstration and validation activities will be developed by 4 main pilot and 3 market replication cases, starting the technological developments at prototype scale (TRL3-5) and will move to validation/production stages (TRL7-8).

Digital platform and consumer-centric mobile application will be provided for free information on rice traceability and authenticity.



Workplan & budget



TOTAL BUDGET: €1.802.080

Maximum PRIMA (H2020) subsidy: €1.599.556, of which € 472.555 for SMEs

EXPECTED IMPACTS

ENVIRONMENTAL

1

Support contaminant mitigation by promoting the reduction of the use of chemicals.

2

Reduce fossil fuels consumption by using blockchain technologies.

3

Support the goals of the EU biodiversity strategy by the valorization and genetic characterization of adapted varieties and integration of datasets in a network database.

EXPECTED IMPACTS

ECONOMIC

1

Foster the Mediterranean rice commercialization in international markets by the mitigation of rice fraud.

2

Adopt measures to reduce the extreme volatility of prices of rice based foods in the market and facilitate timely access to information thanks to blockchain technologies.

3

Introduce new business model for a technologically stagnant sector.

4

Improve the competitiveness of local producers and SMEs by fostering interaction between scientific and entrepreneurial stakeholders.

EXPECTED IMPACTS

SOCIAL

1

Improve the quality of life of consumers by improving the rice quality control and offering healthier and safer products by upholding quality.

2

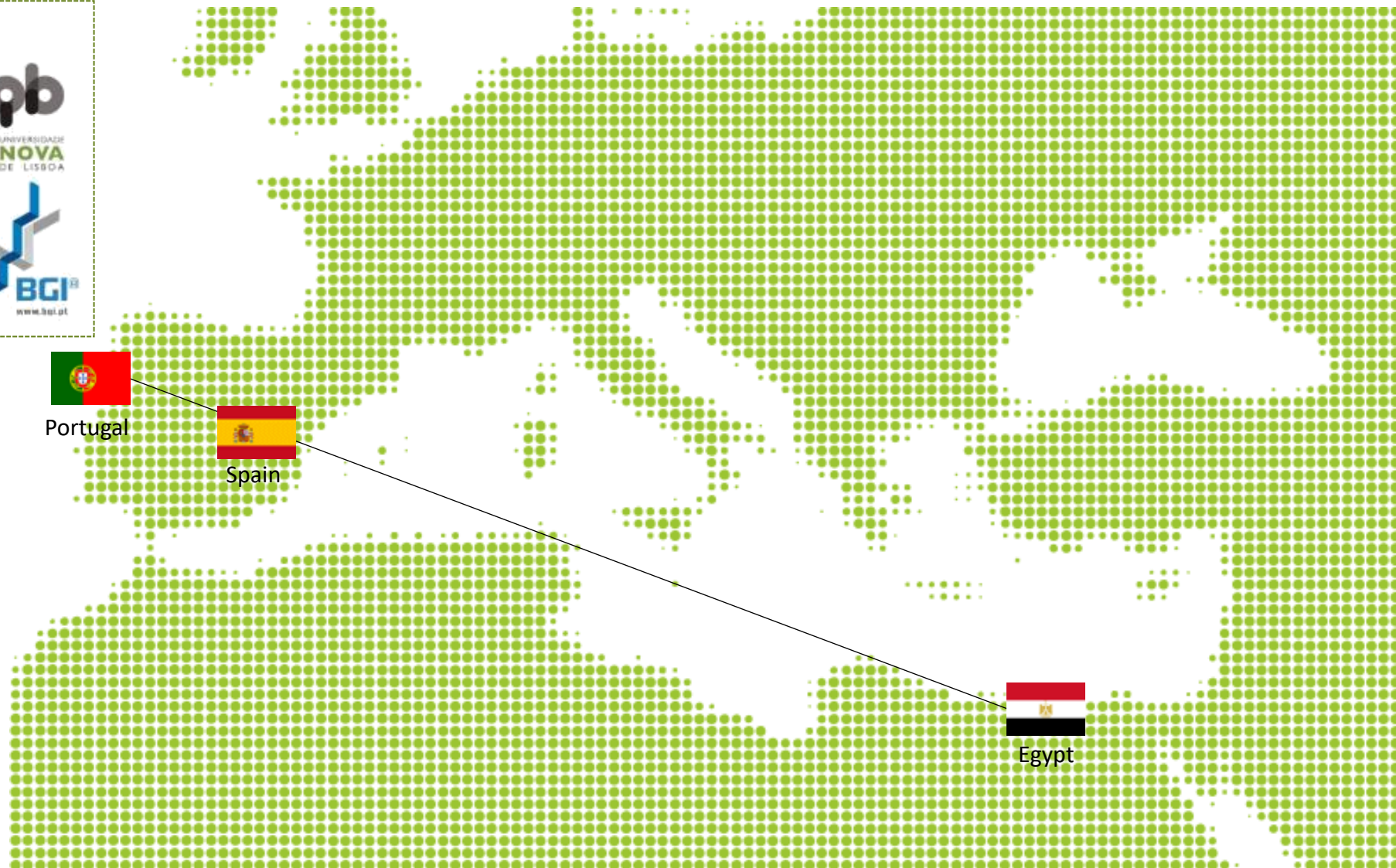
Obtain new high added value products and contribute to food diversity, promoting Mediterranean cultural heritage and boosting the circular economy.

3

Increase the confidence and producer-consumer engagement in Mediterranean foods.

Trace-Rice Consortium



Portugal



Spain



Egypt

thank you!

Trac
RIC

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