





# ESAC MAIZE COLLECTION COIMBRA, PORTUGAL

Pedro Mendes-Moreira – ESAC-IPC André Pereira – ESAC- IPC

EVA Maize – Malanirs Kickoff 27 February, 2025 Bergamo, Italy



# **PUC - ESAC**

- PUC-ESAC is a non-profit higher education, public institution.
- It comprises six teaching facilities covering a range of fields of study: from agriculture and environment, education, communication, tourism, arts, management, and accounting and marketing, to health and engineering, one of them is Coimbra Agriculture School (ESAC).



• Venue - Eucarpia 2025

EUCARPIA EUCARPIA ONFERENCE

on breeding to meet environmental & societal challenges

**26 - 28** 

MAY 2025 PORTUGAL

Instituto Politécnico

de Coimbra - ESAC

Polytechnic University DickeSeeding EUCARPIA of Colimbra

# **Projeto VASO**

#### VASO 2.0 - Since 1984



To respect local culture promoting the selection and breeding of genetic resources increasing the yield, maintaining the quality. To keep germplasm evolving with time!

Our main fields are in farmers fields







#### **VASO 2.0** Connecting

Transdisciplinarity, multi-actor

Valorization of Genetic Resources and beyond

Issues and challenges







#### Motivation – Not Forget and replace, Evolve and Valorise



Portuguese OPV **exhibited significant higher protein, lower amylose contents and lower viscosity profiles than commercial hybrids varieties** Vaz Patto *et al.* (2009)

# **Evaluation and selection trials on Caldeirão maize (organic production area)**





# Phenotyping, characterisation and agronomic evaluation - germplasm regeneration and conservation









Agronomic and collaborative trials on Succession Agroforestry Systems (SAFS)











### **Breeding collection**







# LiveSeeding

To reach the "100 % organic seed target by 2036", LIVESEEDING strives to:

Increase and optimize **crop diversity** to be used in organic farming systems

Increase **transparency** of the organic seed market

Advance pre- and post- registration **cultivar testing** dedicated to organic farming

Increase supply of organic seed

Main objective of LIVESEEDING project is to foster the growth of the organic sector and transition towards more sustainable local food systems by delivering high quality organic seed of diverse cultivars adjusted to organic farming for a wide range of crops.

#### DERROGAÇÕES ATÉ 2036

Ensure efficient scaling out and scaling up of organic seed and breeding initiatives

Promote **competitiveness** of the organic seed and breeding sector

**Capacity building** and participatory knowledge creation from seed to plate

Promote **organic breeding** supported by value chain partners and society





# Living Lab Maize.Pt



Escola Superior Agrária Politécnico de Coimbra



- Pedro Mendes-Moreira,
- André Pereira,
- Isabel Dinis





Funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI or UKRI.





# Living Lab Maize.Pt\_Who?

• The partners:



Politécnico de Coimbra

Ader-Sousa

cooperativa agrícola de Lousada











# LL The Sousa Valey Region (VASO)





# Living Lab Maize.Pt\_What?

## Composites: SinPre, Acores

Improved populations: Pigarro, Amiudo, Castro Verde, Verdial, Verdial de Aperrela

Farmers' populations: more than 10



# Living Lab Maize.Pt\_Why?

- Traditional varieties are still being done generally for farmers that kept their traditions and like to eat a good maize bread. However, the price paid for their maize is very low.
- The standard maize bread in the supermarket has generally low quality but cheaper.
- There are people that search for quality and are willing to pay for a good maize bread and maize flour
- There is a need to make strong links between the actors from the seed to the plate
- Organic is a way to valorise and transition is very needed (e.g. DIVULGAR BIO)



# #17 Living Lab Maize.Pt\_When?

2023-09-19 Farmers Fields Trials 2023-25 Marketing maize flour and organizing the process from seed to maize flour or bread



#### 2022-03-15 COPAGRI VASO, What is a trial?, ecomics

- Pedro Mendes Moreira
- André Reis Pereira
- Isabel Dinis





#### #17 Living Lab Maize.Pt\_Events and comunication

# Reunião Rede em ação

Encontro com as variedades tradicionais de milho nos campos da ESAC

#### 19 de setembro de 2023

Inscrições: https://forms.gle/dviCCHoRAda3Sb7g5

PORTUGUESA PRR

#### www.recuperarportugal.gov.pt

Financiado pela Unido Europeia

Projeto PRR-C05-I03-i-000161 LA 1.3 - Dieta Mediterránica Projeto PRR-E05-I03-I-000161 LA 1.4 - Comunicação MEDIDA 12 - ALIMENTAÇÃO SUSTENTÁVEL



unded by the European Union, the Swiss State Secretariat for ducation, Research and Innovation (SERI) and UK Research and





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Desenvolvimento de Cadesas de Valur de Cereais Iradicionais para uma Alimentação Sastentivel em Portogal

Local:

Ovil e Caldeirão da Escola Superior Agrária de Coimbra https://goo.gl/maps/geQKGzLBzRTdgHcm9 GPS: 40.216894, -8.450921 Coimbra

Programa

Cofee Break

12:30 Almoco

14:00 Reuniões

17:00 Encerramento

10:00 Receção na parcela de Agricultura Biológica da ESAC "Caldeirão"

Ensaio de variedades tradicionais de milho na ESAC - Origem do germoplasma e práticas culturais

Introdução ao projeto CERTRA - Luís Dias (IPB-ESAB)

Projeto CERTRA e LIVESEEDING - Pedro Mendes Moreira (IPC-ESAC)

Mesa redonda Multiator - Questões que preocupam a fileira

- Avaliação das variedades em campo

Organizadores: Pedro Mendes Moreira (IPC) pmmiesacpt André Reis Pereira (IPO) Daniela Valente Simões dos Santos (IPC) Isabel Dinis (IPC)

Adelaide Perdigão (NOP) biodevelopervineworganicplanet.eu







# **Expectations from EVA Maize/Malanirs**

- Expectations and constraints for Malanirs from researchers' perspective (material, traits, conditions of operation)
- Interest and capacity to be involved in NIRS evaluation (do you have a NIRS device and experience to do biochemical analysis on grains?)
- Ways to cooperate/experience with PPP



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# Thank you for you attention

