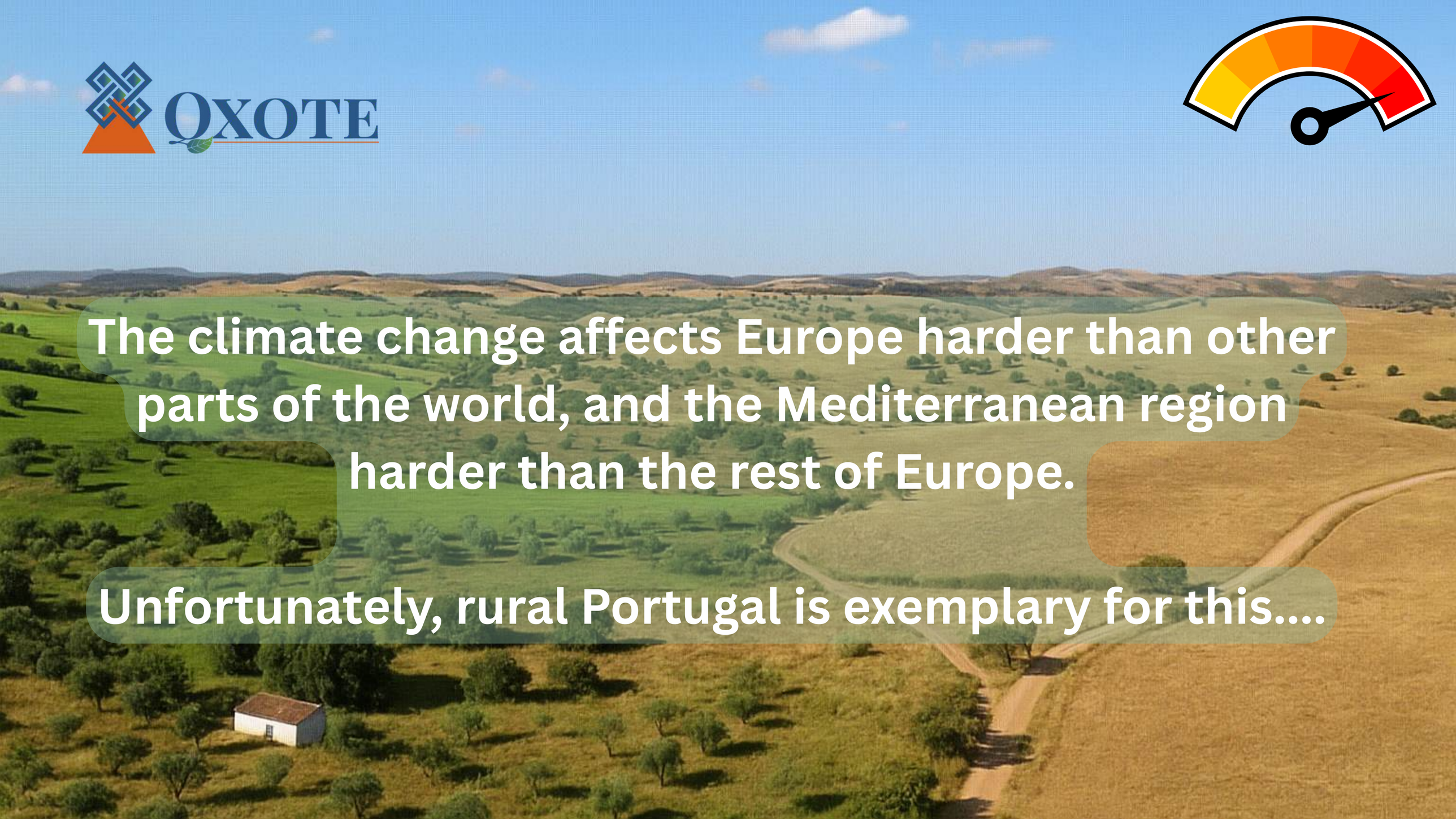
This is... SASIME

THE CHALLENGES
OUR MISSION
THE PROJECT
IMPACT
MARKET APPROACH
GET IN TOUCH


QXOTE
The climate change affects Europe harder than other parts of the world, and the Mediterranean region harder than the rest of Europe.
Unfortunately, rural Portugal is exemplary for this....


DESERTIFICATION

DEPOPULATION


POVERTY

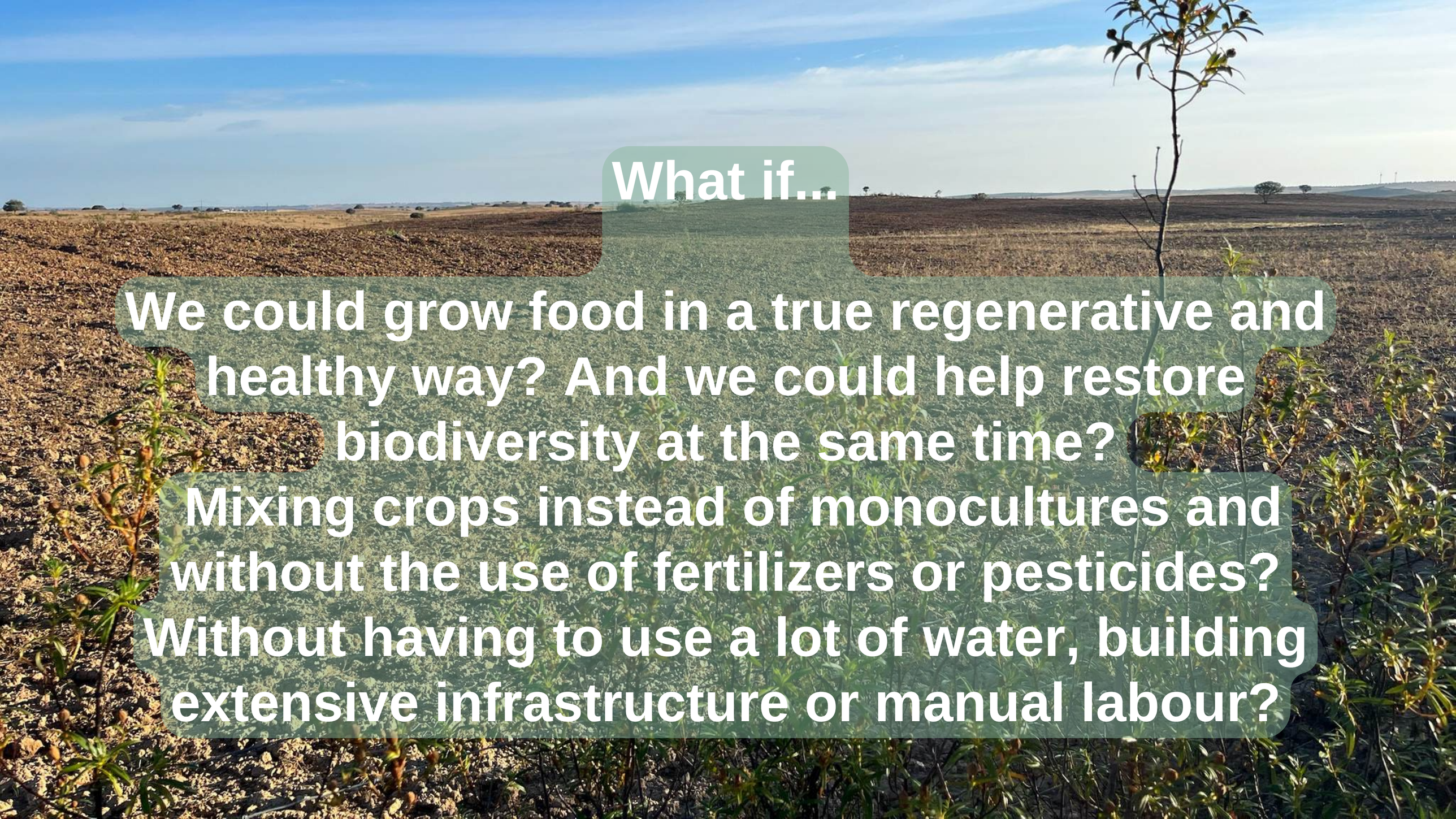
~~CHALLENGE?~~

OPPORTUNITY!

QXOTE

Regeneration

THROUGH INNOVATION AND EDUCATION


What if...
We could grow food in a true regenerative and healthy way? And we could help restore biodiversity at the same time?
Mixing crops instead of monocultures and without the use of fertilizers or pesticides?
Without having to use a lot of water, building extensive infrastructure or manual labour?

SYSTEM OF

AUTONOMOUS

SMART

IRRIGATION FOR

MIXED-CROP

ENVIRONMENTS

SASIME

KEY FEATURES OF SASIME

- **Precision Irrigation: Flexible nozzles deliver water directly to each section, ensuring optimal hydration for every plant, in a mixed crop biodiverse environment.**
- **Adaptive Intelligence: Algorithm adjusts irrigation to the unique and changing water needs of mixed crops.**
- **Smart Data Integration: Combines real-time soil humidity and live weather data to optimize timing and efficiency.**
- **Solar-Powered Autonomy: Solar panels generate energy for the system while providing protective shade for crops.**
- **Self-Sustaining Water Supply: Advanced harvesting unit captures rain and air moisture, securing full water independence.**

THIS YEAR WE DEVELOPED THE FIRST ‘SMART FOODBEDS’

SCHOOLS

Yuverta Vocational (agriculture)
Aeres (Applied biology)
TechNova College (Software Dev)
Hanze University (Mech. Engineering)

STUDENTS

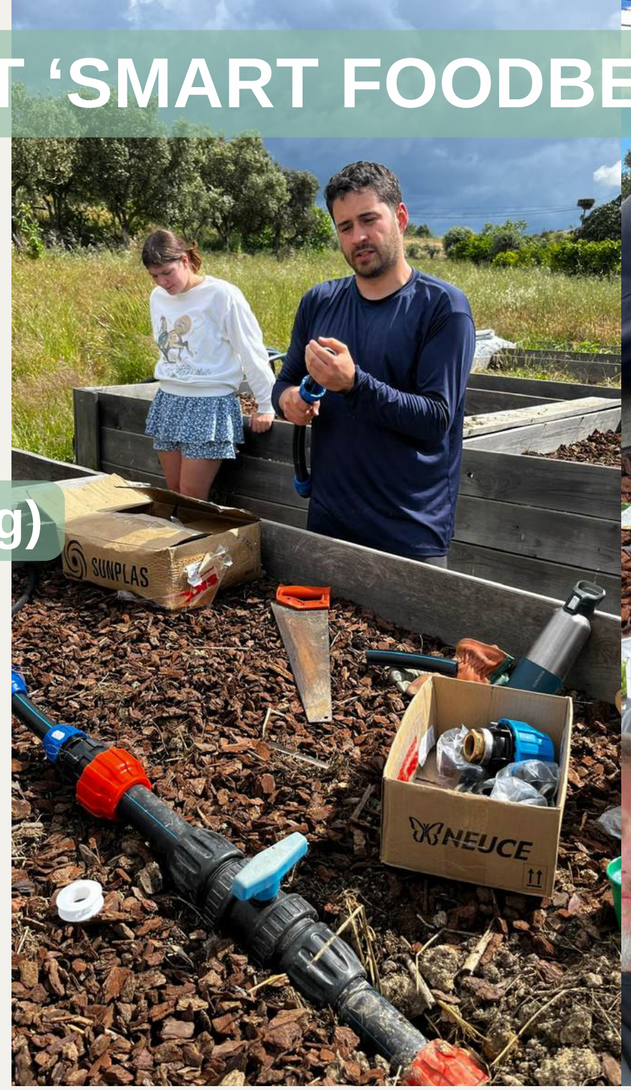
28 students and 3 Professor working for 4 Months on the concept

CROWDFUNDED

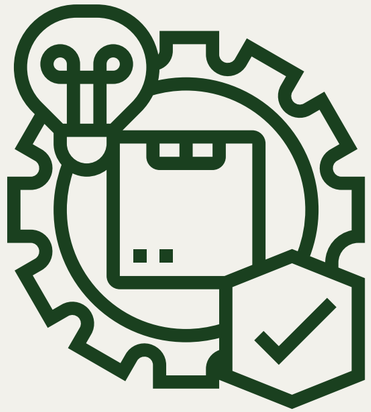
€ 5670
33 donations

DESIGN OF THE IRRIGATION ROBOT

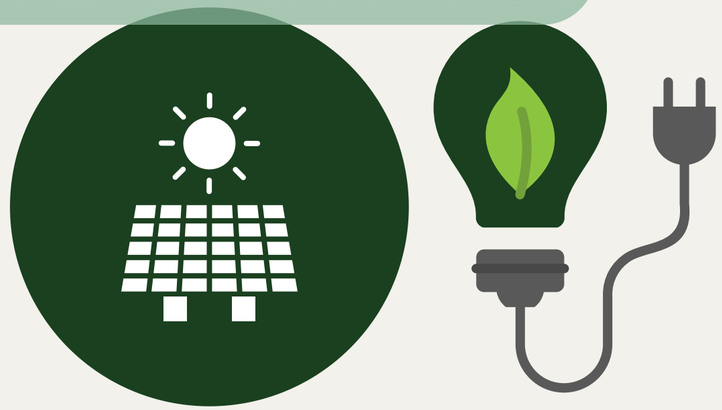
ICT INFRASTRUCTURE LORA NETWORK BETA ALGORITHM



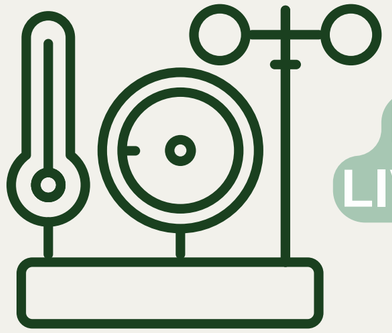
IN THE NEXT PHASE IN 2026, WE WANT TO:



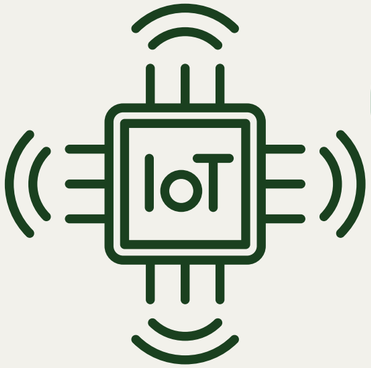
BUILD PROTOTYPE IRRIGATION ROBOT



ADD AUTONOMOUS WATER AND ELECTRICITY SUPPLY INTEGRATION



INTEGRATE LIVE WEATHER DATA



ADD VARIABLES AND FURTHER DEVELOP ALGORITHM

MONITOR EXTENSIVELY WATER USAGE AND CROP RESULTS

How can you help us make Sasime a reality?

Raising

€

FUNDS TO

Build the proto-type
Acquire key-components
Hosting and guidance of the team
System integration and adaptations
Year-round monitoring and project management.

Looking for

PARTNERS FOR

Setting up a joint venture
Market knowledge, support bringing SASIME to the market
Funding


IMPACT:
REPLICABLE, ACCESSIBLE AND
BIODIVERSE FOOD PRODUCTION
WITHOUT THE NEED OF
INFRASTRUCTURE
AND WITH EFFICIENT WATER USE

QXOTE Relevance

What we are trying to accomplish is crucial, because we can draw lessons from the developments in our region. What is occurring in our village and surrounding areas serves as a scenario for rural communities in many rural, semi-arid regions throughout Europe.

The effects of climate change and biodiversity loss are felt in numerous locations, and our region, unfortunately, finds itself at the forefront of these challenges.

Let’s turn this situation around and make it a beacon of active hope and positive change instead!

United Nations
Convention to Combat Desertification

Telephone: + 49 (0) 228 815 2800
Fax: + 49 (0) 228 815 2898/99
Email: secretariat@unccd.int

Date: 29 September 2025

Dear Johannes Willem Eduard Lodders,

We acknowledge receipt of the required documentation for the accreditation of QXote as observer to the Conference of the Parties to the United Nations Convention to Combat Desertification.

After careful review of the documents presented by your organization we have the pleasure to inform you that the UNCCD secretariat will submit your request to the consideration of the forthcoming Conference of the Parties, which will be held in Ulaanbaatar, Mongolia, from 17 to 28 August 2026.

On the basis of this, QXote can be considered as provisionally accredited organization, pending a final decision to be taken by Parties during COP17 according to the provisions contained in paragraph 7 article 22 of the Convention and Rules 6 and 7 of the rules of procedure of the COP, adopted by decision 1/COP.1.

Please check regular information on the UNCCD on https://www.unccd.int and with your representative of the UNCCD CSO panel https://www.unccd.int/convention/partners/civil-society-organizations/civil-society-organizations-panel

We encourage you to continue to be involved in the UNCCD implementation and kindly ask you to keep the secretariat informed on your activities.

Please do not hesitate to contact us if you need further guidance on this important matter.

Sincerely,

Marcos Montoiro
External Relations Officer

Johannes Willem Eduard Lodders
QXote
Portugal

Email: hans@qxote.com.pt

Cc: info@qxote.com.pt

Postal Address: PO Box 260129, 53153 Bonn, Germany
UN Campus, Platz der Vereinten Nationen 1, D-53113 Bonn, Germany

1 www.unccd.int

QXote has been pre-acknowledged by the United Nations (UNCCD), as an organization combatting desertification. The second organization in Portugal to be recognized as such!

Advantages for end-users

SASIME allows end-users to:

- **Grow food everywhere in dry, and remote ares, or areas without easy access to water and electricity**
- **Oversee and water their crops automatically, knowing they receive the right amount of water at the right time**
- **Minimize maintenance and management, because the mixing of plants makes the crop grow more resilient, biologically deterring weeds and harmful insects**
- **Seasonal harvesting during many months, using the crops diversity for continuous production**
- **Achieve higher yield during the whole year without adding fertilizers or pesticides (phase 1 demonstrated 12 x more production in multi-crop beds)**
- **Know they are growing healthy food, while increasing biodiversity and a fertile soil.**

Market approach

We regard SASIME as a replicable and educational concept. Our current vision on the market is not to sell SASIME as a turn-key robot, but as an adaptable construction.

Customers will receive the components (flexible nozzle, solar powered water harvesting, smart sensors) to build the structure fitting to their own needs and dimensions.

QXote and partners will develop and sell the extensive instructions and educational materials, for growing the food sustainably (which mix of crops), as well as building the robot.

The intention is to sell the algorithm as a service, as well as construction and system integration services, if needed.

Market approach will be mainly B2B:

- **municipalities, in sparsely populated areas**
- **schools, for their school garden**
- **companies, for their employees**
- **farmers, developing sections for home growth and developing more biodiverse food systems**

GET IN TOUCH!

Sunamita Costa Ph.D.
COO & Co-Founder

sunamita@qxote.com.pt

+351 960 378 832

QXOTE
Regenerative Living & Learning

Johannes Lodders MA
CEO & Co-Founder

hans@qxote.com.pt

+31 620 394 892

www.qxote.com

instagram.com/qxotept

linkedin.com/company/qxote