



This project is part of the PRIMA Programme supported by the European Union



INTEL-IRRIS

Intelligent Irrigation System for Low-cost Autonomous Water Control in Small-scale Agriculture

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FUTURE4PRIMA – PRIMA2BUSINESS
Pitching Contest Final Event
June 24th, 2025



INTEL-IRRIS

Intelligent Irrigation System for Low-cost Autonomous Water Control
in Small-scale Agriculture

INTELLIGENT IRRIGATION IN-THE-BOX



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Intel-Irris



FUTURE4PRIMA

OPEN TO NEW MARKET
OPPORTUNITIES



SMALLHOLDER FARMERS IN THE WORLD

5 OF EVERY 6 FARMS IN THE WORLD ARE LESS THAN 2 HA

CLIMATE CHANGE WITH EXTREME HOT EVENTS INCREASES WATER SCARCITY EVERY DROP COUNTS!



SMALLHOLDERS WILL BE FIRST TO BE SEVERELY HIT BY CLIMATE CHANGE!



**FACING WITH
CLIMATE CHANGE ?**

THEY WILL NEED TO ADAPT AND
MANAGE MORE EFFICIENTLY
THE WATER RESOURCE

ONLY ABOUT 20% OF
AGRICULTURE LAND ARE
IRRIGATED → **GROWING MARKET**

THEY WILL NEED MORE
EFFICIENT IRRIGATION
SYSTEMS, **MORE TECHNOLOGY**



**ARE
SMALLHOLDER
FARMERS READY
FOR
TECHNOLOGY ?**

YES!

INTERNATIONAL PROGRAMS
HAVE **RAISED AWARENESS** AND
INTEREST IN THE LAST DECADE

MORE PRODUCTIVITY & **INCOME**,
OPTIMIZE RESOURCE USE,
INCREASED RESILIENCE, ...



**600 MILLIONS
SMALLHOLDERS
IN THE WORLD !**

**DON'T MISS THE
MARKET
OPPORTUNITY !**



SMALL FARM SIZE ALLOWS FOR
IRRIGATED SCHEMES

**DEMAND FOR SMART IRRIGATION
SYSTEMS WILL EXPLODE!**

GOVERNMENTS & NGOs ARE
READY TO PROVIDE SUBSIDIES
TO INCREASE ADOPTION



ARE
SMALLHOLDER
FARMERS READY
FOR
TECHNOLOGY ?

YES...
BUT

EXISTING SOLUTIONS ARE
NOT SUFFICIENTLY ADAPTED
TO THE SMALLHOLDER
FARMER COMMUNITIES



DEVELOPED SOLUTIONS CAN NOT BE USED BY FARMERS

SYSTEMS RELIES TOO MUCH ON INTERNET SERVERS, NOT AUTONOMOUS ENOUGH

ADOPTION WILL BE LOW AND REPUTATION OF THE COMPANY WILL BE IMPAIRED



A DECADE OF R&D PROJECTS
WITH SMALLHOLDER FARMER
COMMUNITIES AND LARGE-
SCALE PILOTING PROGRAMS

A DEEP UNDERSTANDING OF
BARRIERS (TECH-SOCIO-ECO)
AND SYNERGIES BETWEEN
LOCAL ACTORS



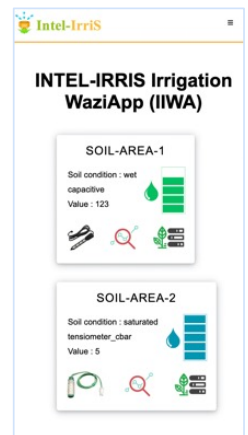
COST-EFFECTIVE INTELLIGENT IRRIGATION IN-THE-BOX APPROACH

INTELLIGENT IRRIGATION IN-THE-BOX



Small-scale Farms, Smallholder Farmers

FULL EDGE MODE





**DON'T WASTE
TIME !**

**DON'T RISK
FAILURE !**

1

TECHNOLOGY TRANSFER

→ OUR TEAM CAN PROVIDE CAPACITY-BUILDING AND SUPPORT TO DESIGN & DEVELOP COST-EFFICIENT SENSING SOLUTIONS

2

LICENSING

→ ONE OFF-PAYMENT TO USE DEVELOPED SOFTWARE CODE FOR COMMERCIAL USE



**DIVERSIFY YOUR
REVENUE MODEL**

**NOT ONLY SELLING
HARDWARE !**

FARMERS WILL NEED ADDITIONAL
INSTALLATION, ADVISORY & MAINTENANCE
SERVICES

COST-EFFECTIVE, OPEN & ADAPTED
SOLUTIONS **INCREASE ADOPTION & TRUST**

WITH OPEN SOLUTIONS, OTHER SENSORS
CAN BE INCREMENTALLY INTEGRATED TO
FURTHER IMPROVE THE SYSTEM

WITH TRUST, **LONG-TERM COMMERCIAL**
RELATIONSHIP CAN BE ESTABLISHED



ROADMAP AND TIMELINE (ESTIMATION)

LICENSING AGREEMENTS

→ 3 - 6 MONTHS



15 - 24 MONTHS

CURRENT
TRL7

TECHNOLOGY
VALIDATION

DEVELOPMENT &
INTEGRATION

MARKET
TRL8

TECHNOLOGY VALIDATION

→ 3 - 6 MONTHS

PRODUCT DEVELOPMENT, INTEGRATION & MARKET ENTRY

→ 12 - 18 MONTHS

PRIMA
IN THE MEDITERRANEAN AREA

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Intel-IrriS

FUTURE4PRIMA

MEET OUR TEAM



UNIVERSITY OF PAU
PROF. C. PHAM



WAZIUP e.V.
DR A. RAHIM



UNIVERSITY OF ORAN 1
PROF. B. KECHAR



IRD
DR C. HARTMANN



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AGRICULTURAL UNIVERSITY OF ATHENS

AGRICULTURE U. ATHENS
PROF. T. BARTZANAS



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Abdelhamid Ibn Badis
MOSTAGANEM

UNIVERSITY MOSTAGANEM
PROF. M. BENKHELIFA



INRA MOROCCO
PROF. T. BENABDELOUHAB
DR A. EL ASSAQUI

SENSING SYSTEMS,
ELECTRONIC DESIGN,
EMBEDDED SYSTEMS,
WIRELESS COMMUNICATIONS,
DIGITAL PLATFORMS, AI, EDGE
COMPUTING

AGRONOMISTS, SOIL
SPECIALISTS, SENSOR
CALIBRATION, AGRICULTURAL
KNOWLEDGE

PILOTING, SYNERGIES
WITH LOCAL ACTORS,
STAKEHOLDERS &
POLICY-MAKERS



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