







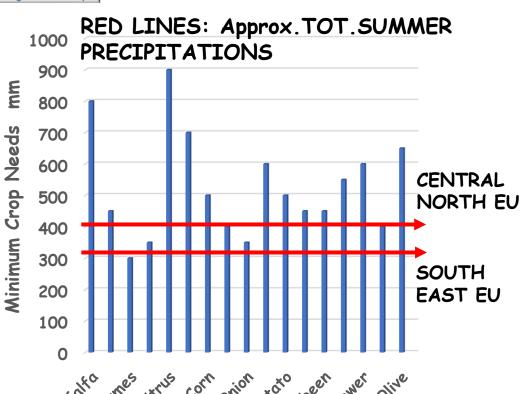






Irrigants d'Europe

IS IT IRRIGATION AVOIDABLE?



Irrigation is conceived in the imagination of laymen and policy makers as a means to increase productivity and profitability in favor of the farmer and to the detriment of the aquatic environment.

Irrigated agriculture today is an indispensable means to guarantee basic productivity for agricultural production.

Productions physiologically require a defined amount of water thus lacking rains, capillary rise, reserves in the soils, water must be provided by irrigation systems.

Else shall be lost strategic production, entire agroindustrial sectors and the rural social fabric that guards and governs the territories.

Whatever integrative & viable resource

is welcome



■ Minimum Crop Requirement mm













ADMINISTRATIVE/BUREOCRATIC LIMITATIONS

Member States are preparing to implement Reg. 741 differently

Administrations lack experience in the application of the «FIT FOR PURPOSES». Thereby, they are often not willing to leave the comfort zone represented by the precautionary principle and "threshold values", especially at the very local level.





Reporting rules to EU and to National Boards are still missing, they will influence the risk management structures

Monitoring the TWW target matrix (water, soil, biota, ecosystems): who will be in charge of what and who will pay for?

Standards and certifications market acceptance is unknown









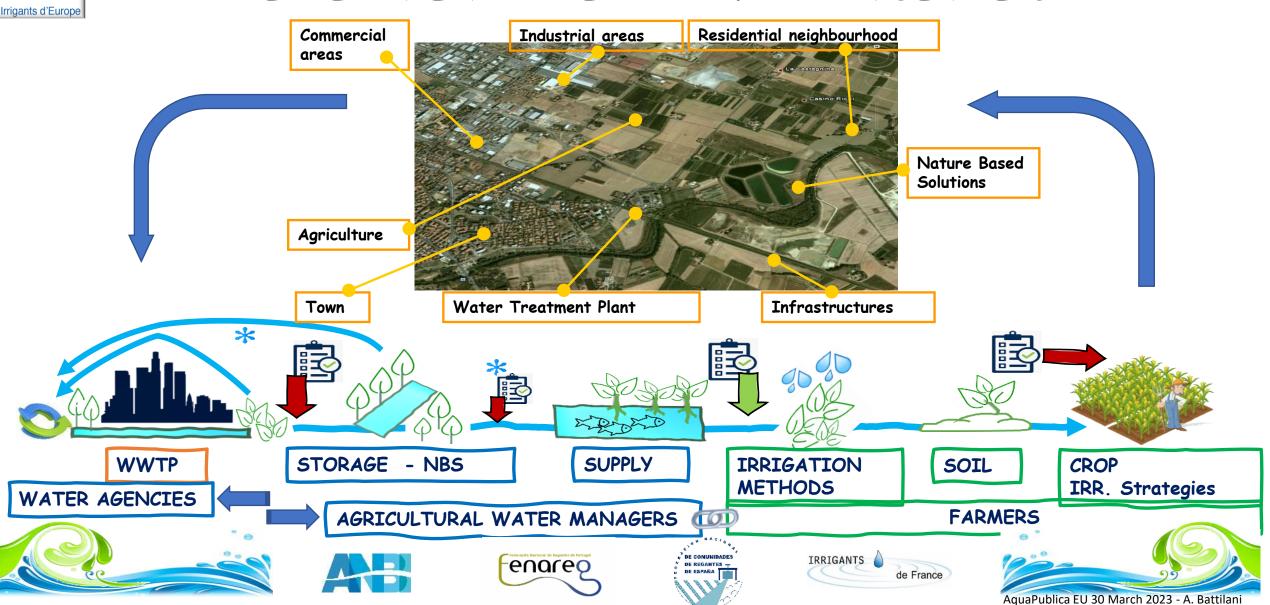






AVOID SIMPLIFICATIONS OF COMPLEXITY

REUSE SCHEMAS ARE PART OF A COMPLEX REALITY





TREATMENT UPGRADE

WASTEWATER IS NORMALLY TREATED TO A SECONDARY DEPURATION LEVEL. TERTIARY OR ADVANCED TERTIARY TREATMENTS ARE NOT FREQUENT.

Often disinfection is not applied mainly in small WWTP <2000 EI, and there are not effective barriers to Emerging Contaminants.

Direct and intentional uses do not benefit from dilution factors.

Upgrading will take decades and require significant investments: what about the transition phase? Is it risk management enough without parallel financing schemas?



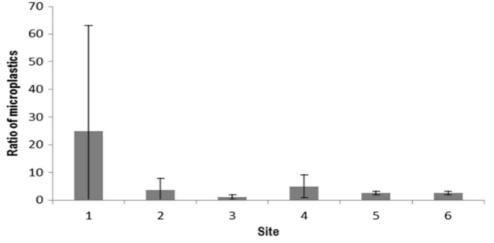




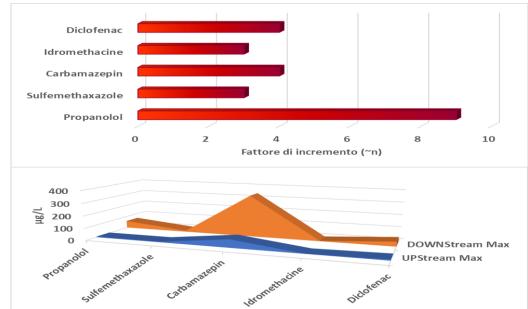








Paul Kay, et al, 2018. Wastewater treatment plants as a source of microplastics in river catchments. Environmental Science and Pollution Research DOI: 10.1007/s11356-018-2070-7



Author analysis from: J.L. Zhoua, et al, 2009.Pharmaceutical residues in wastewater treatment works effluents and their impact on receiving river water. Journal of Hazardous Materials 166:655–661; Darren Paul Grover, 2012, Emerging

Pollutants: Their Analysis, Occurrence and Removal in Aquatic Environments. http://sro.sussex.ac.uk/



TECHNOLOGICAL UPGRADE AND WWTP DIMENSION

The cost of the treatments needed to a real F4P may be too high

Too small a size of centralized treatment plants precludes the implementation of advanced treatment technologies

The culture of decentralized treatment is struggling to establish itself

Low-cost, high-efficiency technologies are not always available or sufficiently implemented















Trade Barriers: Communication/Information/Acceptance



The central theme of the "commercial barrier" that runs throughout the law in order to guarantee the producer from the impact of a distorted communication towards the consumer is gradually relegated to the background.

An effective education, information and capacity building campaign for all the actors directly or indirectly involved in the supply chain, including consumers and agri-food brokers, is essential.

The 2020-2023 period should have seen the launch of information campaigns. We are not aware of campaigns addressing operators in the food production chain, nor consumers.















FINANCIAL ASPECTS

We will have to deal with water pricing issues and a potentially insufficient offer in competition with other sectors.



Reuse is not rewarding the agricultural sector on the commodities market while rural society will be called upon to invest even more intensely than usual.

Reuse may generate direct and indirect resource costs increases for the irrigation sector. Incentives/funds for infrastructure modernization are largely insufficient. Often reuse is NOT or MARGINALLY included in the CAP's NSP or in the PNRR

Possible conflicts arising with WWTP managers as far they want to create new business through proprietary reuse systems of the aqueduct type where agricultural irrigation networks already exist.











THANKS FOR YOUR ATTENTION











