

ABSTRACT OF STAGE 4

At the level of the Complex Project ***INNOVATIVE TECHNOLOGIES FOR IRRIGATION OF AGRICULTURAL CROPS IN ARID, SEMIARID AND SUBHUMID-DRY CLIMATE (SMARTIRRIG)***, stage 4, the planned activities were fully realized, the objectives degree of achievement being 100%.

The result indicators are: 1 final study to evaluate the efficiency of the innovative underground irrigation / fertigation technology; 1 final study to evaluate the efficiency of precision mobile irrigation; 1 final study to evaluate the impact of effluent on plants; 1 final study to evaluate the impact of the effluent on the soil; 1 final study to assess the potential risks to human health induced by the application of the technological solution; 1 experimental method; 3 articles accepted for publication in ISI indexed journal; ; 1 article published in BDI journal; 1 article submitted for evaluation for publication in the BDI indexed journal.

Within the ***component project 1 - Innovative technology for underground irrigation / fertilization of hoeing crops specific to arid areas***, the final study to evaluate the efficiency of the innovative underground irrigation / fertigation technology was elaborated; 1 article was accepted for publication in ISI Indexed Proceedings; 1 article was submitted for evaluation for publication in BDI Indexed Proceedings; participated in two salons of Research, Innovation and Invention where we won a Gold Medal and a Diploma of excellence.

Within the ***component project 2 - Innovative mobile system for powering irrigation and fertilization installations using photovoltaic and wind power***, the operation of the mobile supply system was tested under real operating conditions of the underground irrigation / fertilization installation.

Within the ***component project 3 - Innovative system for precision mobile irrigation of leguminous crops and hoeing plants***, the final study evaluating the efficiency of precision mobile irrigation was developed; participated in an International Invention Fair where a special prize was obtained.

Within the ***component project 4 - Innovative technological solutions for utilization of waste water for irrigation of energy crops***, the final study evaluating the impact of the effluent on plants and soil was developed; the final study was carried out to assess the potential risks to human health induced by the application of the technological solution; 2 articles were accepted for publication in ISI indexed journals.

Within the ***component project 5 - Innovative fertilization technology in fruit and vine plantations specific to arid and subhumid-dry climate***, the final experimentation of the fertigation equipment in real operating conditions was performed; an EPO patent application has been filed; 1 article was published in BDI indexed journal; an article was awarded by ASAS Bucharest with the Valentin Scripnic award.