

DELIVERABLE D.T1.3.2

SWOT ANALYSIS TO HIGHLIGHT CRITICALITIES
AND ASSET IN PRECISION FARMING UPTAKE

Slovenia

Version 1
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1. SWOT analysis - Slovenia¹

1.1. General Information

In the framework of the Interreg Transform 4.0 project, SWOT analysis was made and four aspects - strengths, weaknesses, opportunities and dangers - were taken into account. The purpose of the analysis is to make the necessary strategic decisions, precisely where to focus precision agriculture, which areas of precision agriculture need to be strengthened. First we delineated the strengths/weaknesses and opportunities/dangers of precision agriculture. The first two aspects are related to internal factors, the other two to external factors. The main difference is that in the internal factors we have an impact that we can adapt, develop or otherwise act. In internal factors, we are in the area of our own influence. Opportunities / dangers refer to external factors that are unaffected and cannot directly do anything on our own, other than to adjust internal properties.

The SWOT analysis was conducted on the basis of a survey of 40 respondents (27 males, 13 females, with age structure: 20-29 years, 13 respondents; 30-39 years, 3 respondents; 40-49 years, 5 respondents; 50-59 years, 6 respondents; education: 5 respondents-high school, 35 respondents-university education). According to the Slovenian regions there are 28 respondents from the Podravska region, 3 from the Savinjska region, 1 from the Primorje-Notranjska region, 2 from the Obalno-kraška region, 1 from the Southeast region and 4 from the Goriška region. 87% of the respondents described the survey as appropriate (25%), good (25%) or excellent (37.5%). 80% of respondents believe that more effort should be put into promoting PK at the national level (Agricultural Policy Instruments, followed by Education and Counseling with 70% and R&D with 62.5%).

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1.2. SWOT Overview

Positive	Negative
Strengths <ul style="list-style-type: none"> - product quality (upgrade of existing PA technologies), - savings (fuel, seeds, reduced consumption of pesticides...), - simplification of work process documentation, - relieving the user (less workload for operators, better work quality, better traceability of work processes), - awareness of the potential of PA technologies in the near future. 	Weaknesses <ul style="list-style-type: none"> - lack of knowledge and skills (potentially too complex or too reliable technology), - poor access to PA information (farm users lack PA skills and knowledge), - the current price of PA products on the market, - maintenance costs, - the Common Agricultural Policy of the PRP 2014-2020 does not indirectly subsidize the sustainable development of the PA.
Opportunities <ul style="list-style-type: none"> - opening new markets for PA (purchase of PA technologies), - changes in government policy, - new sales channels, - new PA services (use of satellite data, selective fertilization and spraying technology and support for farmer data management), - development of PA in agricultural sectors (forestry, fruit-growing, viticulture, vegetable production), - education and counseling in different areas of PA (workshops), - new opportunities for different fields of application of PA applications on agricultural holdings. 	Threats <ul style="list-style-type: none"> - reliability of PA technologies (risk of using robots or drones in agriculture), - excessive initial investment in the use of PA according to the size of agricultural holdings (the proportion of respondents who consider PA irrelevant to their farm or who care about them is relatively high), - compatibility of different PA systems, - availability of PA services that will be available in the Slovenia, - current offer and services in PA, - beneficiaries in the PA, see only the source of income in terms of the use of subsidies.

1.3. Strengths

Positive features are reflected in successful brands and new PK prototypes. Great opportunities lie in the higher quality of products that will be enhanced by the upgrading of existing PK technologies. With the using new technologies users save fuel and seeds. The use of pesticides is reduced, which makes a lower risk to the environment. There will also be very big savings in the working time, that means more time for other activities and education. Administration will be greatly reduced as work documentation will be simplified. Workers and users will be relieved, because they will experience less stress. Less workload for operators of work processes will lead to better quality work and better guidance of work processes. There is also great potential in acceptance the potential of PK technology in the near future.

1.4. Weaknesses

Weaknesses are mainly due to the lack of knowledge and skills of our farmers and users on one hand and to potentially too complex and not reliable technology on the other. Poor access to PK information is also present. Farm users do not have enough skills and knowledge in the field of agriculture, which should be obtained in training in the near future. The current price of PK products on the market is high and, as a result, the products are not readily available to customers. The cost of maintaining advanced technology is high, especially if smart devices are used with the lack of knowledge. The weakness is reflected in the



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common agricultural policy of the RDP 2014-2020, which does not indirectly subsidize the sustainable development of the PK.

1.5. Opportunities

There are many opportunities for good PA involvement and overall success for users and service providers. The greatest potential is in the opening of new markets for PK and the extension of new PK technologies. Changes in government policy and the realization that these are technologies of the future are very likely to occur in the future. New sales channels and new PK services are being opened, using satellite data, selective fertilization and spraying technologies, and support for agricultural data management. The development of PK in the forestry, fruit-growing, viticulture and vegetable industries has only just begun and will become increasingly important. There will be a great deal of training in various areas of PK, including in the form of workshops and practical demonstrations. In many areas, new opportunities are opening for different areas of PA use on farms.

1.6. Threats

Possible dangers are present in many factors that can affect success. Problems may be reflected in the reliability of PK technologies and the associated risks of using robots or drones in agriculture. The start-up investment for the use of PKs in relation to the size of agricultural holdings is high. The proportion of respondents who say that PK does not find it important or not interested in their farm is relatively large. There are also some uncertainties and questions about the compatibility of the various PK systems. The availability of PK services in the Republic of Slovenia is relatively small and the existing network has not yet been established. Current offerings and services in PK are small and users do not yet know about them. Certain users in the PK see only a source of income in terms of the bonuses they could receive.