

Institut za poljoprivredu i  
turizam Poreč



Institute of Agriculture and  
Tourism **Poreč**

# THE STRATEGIC PLAN OF THE INSTITUTE OF AGRICULTURE AND TOURISM

---

For the period of 2013-2018

## CONTENTS

<b>INSTITUTE OF AGRICULTURE AND TOURISM .....</b>	<b>1</b>
<b>VISION.....</b>	<b>2</b>
<b>MISSION.....</b>	<b>2</b>
<b>OBJECTIVES .....</b>	<b>2</b>
<b>INTRODUCTION.....</b>	<b>3</b>
<b>ANALYSIS OF SCIENTIFIC RESOURCES AND POSITION OF THE INSTITUTE.....</b>	<b>3</b>
<b>OVERALL OBJECTIVE 1. ENHANCE THE SCIENTIFIC ACTIVITY, WITH PARTICULAR EMPHASIS ON APPLIED AND DEVELOPMENT RESEARCH AND KNOWLEDGE TRANSFER.....</b>	<b>7</b>
<i>Specific objective 1.1. Provide a higher level of quality of scientific work in the field of agriculture and tourism in rural areas.....</i>	<i>9</i>
<i>Specific objective 1.2. Realise an active role in the creation and implementation of public policies based on professional scientific results.....</i>	<i>9</i>
<b>INDICATOR OF RESULTS .....</b>	<b>11</b>
<b>OVERALL OBJECTIVE 2. ESTABLISH A STRONG SCIENTIFIC INFRASTRUCTURE AS AN ESSENTIAL ELEMENT IN CREATING A COMPLETE AND FUNCTIONAL AGRO-FOOD SYSTEM AND TOURISM IN RURAL AREAS .....</b>	<b>12</b>
<i>Specific objective 2.1. Provide a higher level of quality work by creating suitable infrastructure (accredited and certified laboratories, sensorial laboratory, collection plantations, field trials).....</i>	<i>12</i>
<i>Specific objective 2.2. Project coordination with other partners in order to make better use of research infrastructure .....</i>	<i>12</i>
<i>Specific objective 2.3. Establish a centre for the conservation of genetic resources of agricultural and other plants, with particular emphasis on grape vines, olives and vegetables .....</i>	<i>12</i>
<i>Specific objective 2.4. Establish a centre to support the development of tourism in rural areas.....</i>	<i>13</i>
<b>INDICATOR OF RESULTS .....</b>	<b>14</b>
<b>OVERALL OBJECTIVE 3. DEVELOPING HUMAN RESOURCES AND STRENGTHENING OF INTERNATIONAL COOPERATION .....</b>	<b>16</b>
<i>Specific objective 3.1. Encourage mobility and develop human resources in the Institute 16</i>	
<i>Specific objective 3.2. Encourage international cooperation and collaboration with industry.....</i>	<i>16</i>
<b>INDICATOR OF RESULTS .....</b>	<b>18</b>
<b>REFERENCES .....</b>	<b>19</b>

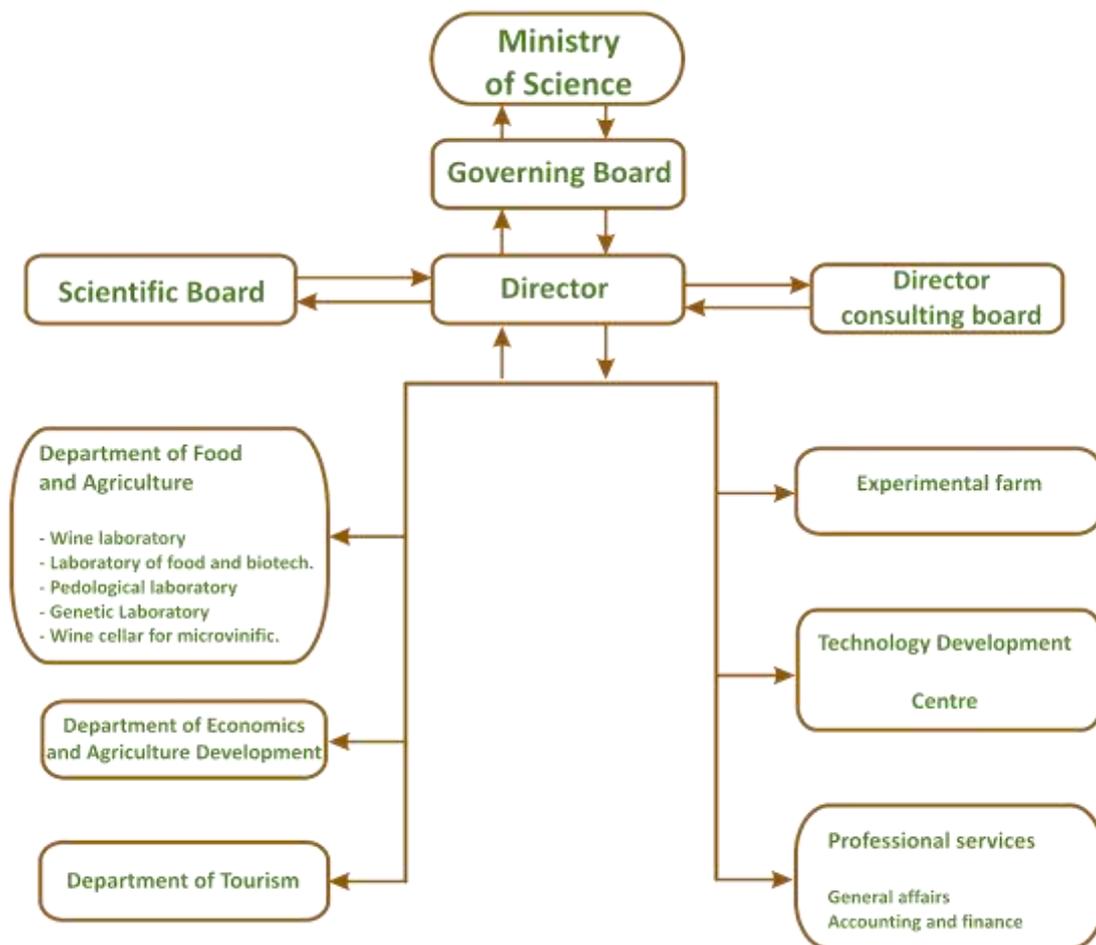
## INSTITUTE OF AGRICULTURE AND TOURISM

The Institute of Agriculture and Tourism in Poreč (in the following text “the Institute”) is a public scientific institute which operates in the frame of the Ministry of Science, Education and Sports of the Republic of Croatia.

During its history the Institute has changed names, content and levels of research. Referred to as “The Establishment” on 5<sup>th</sup> September 1874 the Istrian Parliament made a decision to establish a Provincial viticulture-pomology station (Stazione eno-pomologica provinciale) with headquarters in Poreč. The station began work in April 1875 on agricultural plots allotted in the suburbs of the city. The current name the Institute of Agriculture and Tourism dates from 1989 and in 1996 it became a public scientific institution.

Over its 138 years the basic commitment of the Institute has been to perform applied scientific research with the aim to solve actual problems in agriculture and to define points of rural space development. The human and material resources of the Institute are used to provide fast and high quality development of agriculture having in mind its importance in enhancing the economy, ecological and social features of the whole Mediterranean area. In the last 20 years the activities have been widened by research in the domain of tourism, especially in rural areas by which the Institute has managed to fit into the basic strategic economical directions of the region’s development.

Figure 1. Organisation of the Institute of Agriculture and Tourism



## VISION

We aim to be the leading scientific research and infrastructure institution in the fields of agriculture and tourism, both at the local and national levels. In addition we aim to be recognised within the international framework, contributing permanently to the lasting overall development of rural areas, biodiversity and natural and cultural values.

## MISSION

Learn and transfer knowledge through scientific research and professional activities in agriculture and tourism, in order to achieve sustainable development of rural areas.

## OBJECTIVES

**Overall objective 1. Enhance the scientific activity, with particular emphasis on applied and development research and knowledge transfer**

Specific objective 1.1. Provide a higher level of quality of scientific work in the field of agriculture and tourism in rural areas

Specific objective 1.2. Realise an active role in the creation and implementation of public policies based on professional scientific results

**Overall objective 2. Establish a strong scientific infrastructure as an essential element in creating a complete and functional agro-food system and tourism in rural areas**

Specific objective 2.1. Provide a higher level of quality work by creating a suitable infrastructure (accredited and certified laboratories, sensorial laboratory, collection plantations, and field trials)

Specific objective 2.2. Project coordination with other partners in order to make better use of research infrastructure

Specific objective 2.3. Establish a centre for the conservation of genetic resources of agricultural and other plants, with particular emphasis on grape vines, olives and vegetables

Specific objective 2.4. Establish a centre to support the development of tourism in rural areas

**Overall objective 3. Develop human resources and strengthening of international cooperation**

Specific objective 3.1. Encourage mobility and develop human resources in the Institute

Specific objective 3.2. Encourage international cooperation and collaboration with industry

## INTRODUCTION

Scientific research is an important prerequisite for the development which ensures the stability and quality of future society. There is a certain time-lag in which scientific research results become specific, recognisable and measurable for the economy and society in general. Therefore, in order to accomplish scientific programmes which are of strategic interest, the Croatian Government has founded scientific institutes (The Act on Scientific Activity and Higher Education, Official Gazette 45/09, article 25).

The strategic directions for the development of the Institute for the period from 2013 to 2018 are presented in this document. They are based on strategic development directions passed by the Ministry of Science, Education and Sports of the Republic of Croatia in The Strategic Plan for the period from 2013 to 2018. The strategic directions focus on encouraging stronger networks of scientific institutions, development of human resources in science and innovation, encouraging mobility and international cooperation, and encouraging entrepreneurship based on innovation and high technology.

## ANALYSIS OF SCIENTIFIC RESOURCES AND POSITION OF THE INSTITUTE

The basic activity of the Institute includes applicable scientific research in agriculture and tourism as a part of scientific and technical projects related to viticulture, wine-making production, olive growing and production of olive oil, vegetable growing, agro-economy and tourism. There are also other activities conducted by the Institute which are encompassed in services provided by accredited laboratories (wine and food-biotechnology) or are the results of basic activity like physicochemical and sensory analysis of wine and olive oil, soil analysis, genetic analysis, consultation on production, business analysis, market research, investment and development studies in agriculture and tourism, consultation on management of manifestations and of human resources in tourism, professional lectures and seminars and professionally guided tastings of wine and olive oil.

Human resources are a basis for scientific research activities in the Institute. There are 44 employees in the Institute, 13 of whom are in scientific positions, eight of whom are employed as assistants and three of whom are in professional positions. Considering the structure of scientific positions, there are eight senior research associates, three research associates and two research advisors.

There are various organisational units in the Institute: Administrative Department (general, legal and human resources, accounting and finance), Department of Agriculture and Food (laboratory, mini-vinification cellar), Department of Economics and Agricultural Development, Department of Tourism, Technology Development Centre and Agricultural Experimental Farm.

The Institute is owner of land of a total area of 31.89 ha, of which 16.89 ha form the agricultural experimental farm according to the following structure: 3.83 ha of vineyards, 1.22 ha of olive groves, 0.26 ha of fig trees, 11.25 ha of arable land, 0.10 ha of protected areas, 0.14 ha of pastures, 0.09 ha of meadows, 2.45 ha of forest land and 12.55 ha of other land (yards, roads, parking lots, etc.).

Four laboratories operate within the Institute: Wine, Food Technology and Biotechnology, Genetic and Soil laboratory, in which scientific research and commercial work are carried out, focused on providing services in the field of physicochemical and sensory analysis of various agricultural and food products, soil and plant material. The importance of our laboratories originates from our own and independent analytical work which is focused on the valorisation of local products (wine, brandy, olive oil) and their protection. Laboratory equipment is relatively good and therefore work with modern instruments (GC/FID, GC/MS, HPLC/UV-Vis/RI, UV/Vis spectrophotometer, etc.) allows detailed chemical analyses and collection of data which are acceptable for publication in the influential international magazines in the relevant fields. The Wine Laboratory and Food Technology and Biotechnology Laboratory have the status of accredited laboratories according to the HRN EN

ISO/IEC 17025 standard. The Wine laboratory is authorised by the Ministry of Agriculture to carry out physicochemical analysis of must, wine, other grape and fruit wines and other products based on fruit wines for the release of these products on the market, while the Food Technology and Biotechnology Laboratory is accredited in the field of physicochemical and sensory analyses of olive oil for the purpose of official controls. Both laboratories are of special significance at the local and national levels as infrastructural elements in the operation, development and control of the market and improving of wine and olive oil quality.

The Institute also has its own panels for the sensory evaluation of wine and virgin olive oils that act as parts of the laboratories. The panel for sensory evaluation of virgin olive oil is on the List of professional panels and it is the only official panel in the Republic of Croatia, authorised by the Ministry of Agriculture to perform official controls of olive oil. The Committee for sensory tasting of wines consists of authorised certified sensory analysts, who are also members of the official Commission for the sensory evaluation of wines and other grape and wine products in the Republic of Croatia.

A well-equipped wine cellar “Minivinification”, thanks to the large number of small stainless steel barrels and the latest technological advances, allows the setting of a number of scientific experiments of winemaking with the appropriate number of repetitions, which is of great importance for the regional winery environment.

The Institute is the only institution in the Republic of Croatia and beyond, which cherishes a multidisciplinary approach to research which connects agriculture and tourism, the two being closely related, interdependent and inseparable sectors. It is well known that the quality, specificity, tradition and reputation of agro-food production and products in a particular geographic area can have a powerful impact on the development of tourism while, on the other hand, global trends in nutrition habits in tourism encourage changes in the structure and volume of agricultural production. The Institute's work is based on a study of all the aspects that can improve various segments in the chain from cultivation of raw materials to the sale of the finished product.

In order to determine the current situation and plan future directions of the Institute, a SWOT analysis has been made on which this document is based (Table 1).

**Table 1. SWOT analysis of scientific and research activities in the Institute:**

<i><b>STRENGTHS</b></i>	<i><b>WEAKNESSES</b></i>
<ul style="list-style-type: none"> <li>➤ Century-old tradition of research activity and prominent role in agricultural development at local, regional and national levels,</li> <li>➤ Large proportion of scientists with higher research degrees and adequate competence,</li> <li>➤ Significant increase in young scientists (PhD),</li> <li>➤ Good infrastructural facilities and laboratory equipment, research facilities and permanent collection plantations of native species (vines, olives, figs),</li> <li>➤ Accredited and authorised laboratories for physical, chemical and sensory analysis of wine and olive oil,</li> <li>➤ Large own experimental agricultural areas,</li> <li>➤ Interdisciplinary structure of scholars and scientists in the fields of biotechnological, social and technical sciences and in the subfields of agriculture, food technology, biotechnology, economics, architecture and urban planning,</li> <li>➤ Experience in the development and management of economic, development and investment projects in agriculture, hunting and tourism in rural areas,</li> <li>➤ Experience in creating spatial planning documents at a municipal level,</li> <li>➤ The ability to create interdisciplinary teams within institutions (agriculture, economics, urban planning).</li> </ul>	<ul style="list-style-type: none"> <li>➤ -Difficult process of creating new jobs and scientific advancement to senior scientist jobs,</li> <li>➤ -Difficulty in getting new research assistants,</li> <li>➤ -Insufficient representation of some scientists in different specialties,</li> <li>➤ -High cost of equipping and maintaining laboratories,</li> <li>➤ -Lack of experience and their own financial resources necessary for securing international projects,</li> <li>➤ -Failure to attract renowned scholars from home and abroad.</li> </ul>
<i><b>POSSIBILITIES</b></i>	<i><b>THREATS</b></i>

- Determinants of European and Croatian policies which set as basic priorities the improvement of the quality and safety of agricultural products,
- Agriculture and tourism are the economic sectors of strategic interest and importance to the development of the country and the region in which the Institute operates,
- The vicinity of the western developed regions increases the possibilities of application and implementation of projects within the transboundary framework,
- Enhanced development by insertion into EU research schemes,
- Consolidation of education role by inclusion in existing academic programmes,
- Possibilities of modern informatics technologies in knowledge transfer and research results,
- Collaboration with stakeholders in regional agriculture, nutrition and tourism sectors,
- Our huge national potential lies in the production of agro-food products with higher added value,
- Implementation of procedures for the protection of autochthonous and genuine agricultural products creates opportunities for marketing preparation for the placement of these products through tourism and hospitality,
- Cooperation with established producers of agro-food products, primarily winegrowers, winemakers, olive and vegetable growers, who seek continuous improvement of production and technological processes.

- The role of science and research is inadequately recognised and employed in the advancement of society,
- Insufficient funds for scientific research,
- The lack of free work positions for young scientists and, in recent times, a very complicated process for their employment,
- Loss or decreased autonomy in development directions decision making,
- Merging with incompatible and unrelated institutions and organisations,
- Loss of legal entity status and autonomy in the management of funds and property,
- Loss of autonomy in the organisation of the scientific work and in the execution of infrastructure and other work for the market,
- Unstable surroundings conditioned by announcements of changes in public scientific institutions,
- Slowness and uncertainty in the adoption of legislation regulating scientific activity.

## Overall objective 1. Enhance the scientific activity, with particular emphasis on applied and development research and knowledge transfer

The realisation of scientific research and application of achieved results represents the main task of the Institute. The fulfilment of these tasks enables the Institute the role of a precursor to development of strategic industries in the surrounding economy, such as agriculture, food industry and tourism. They imply a more considerate transfer of knowledge, gathered in the Institute, to the regional and national economic flows, in order to meet the challenges of sustainable economic and social growth and environmental protection in a timely manner. It is very important to develop a strong cooperation with Croatian and international institutes and organisations for the quality accomplishment of set tasks. This implies continuous scientific and expert training of staff according to their specialties and the transfer of contemporary scientific achievements in the Institute's scientific and research fields.

Focal points of the scientific and research activities of the Institute, within the scientific activity in the future period, can be described by the following terms:

- a) The characteristics/evaluation of data and preservation of indigenous gene pool of agricultural plants and their products, and the development of new varieties
- b) Optimisation of traditional and the development of new technologies and transfer of knowledge
- c) Sustainable management of ecosystems in the Karst areas
- d) Sustainable agricultural production, environmental protection and space planning
- e) Increase the competitiveness of domestic agriculture
- f) Tourism in rural and other areas

### *a) The characteristics/evaluation data and preservation of the indigenous gene pool of agricultural plants and their products, and the development of new varieties*

Thanks to favourable climatic and soil conditions, as well as the long tradition of farming in the Mediterranean area, all belonging to the unique ecological population, there are a large number of breeding agricultural plants, ancient indigenous and domesticated varieties of agricultural crops. There are a certain number of these, originally created by natural selection and by choice of domestic peasants, so that they are adapted to the present growing conditions. Modern conventional agriculture, using high-yielding cultivars, gradually suppresses the production of indigenous genotypes. In this way, irrevocable loss of genetic stock and biodiversity occur, indirectly reducing the economic potential of this area. Despite a long tradition of manufacturing and high quality, indigenous products (wine, olive oil, etc.) are only partially evaluated and there is considerable space left for upgrading through defining and highlighting their specific features and diversity as a value added opportunity by which they would be identifiable and competitive in the domestic and foreign markets. That is the reason why work on the preservation of the gene pool is one of the fundamental determinants of the scientific activities of the Institute. Achievement of these goals will be considered by maintaining the existing and constructing new collections of vines, olives and fig trees, and on-going work on gathering, collecting and evaluating the most important agricultural species of fruits and vegetables, as well as various aromatic and medicinal plants.

New requirements for agricultural production sustainable development and market demands necessarily lead to the creation of varieties adapted to the new conditions of agricultural management. The Institute will undertake an active role in these processes.

#### *b) Optimisation of traditional and the development of new technologies and transfer of knowledge*

The permanent mission of the Institute is the optimisation of modern technology taking into account local, indigenous specific cultivation of crops and the production of agri-food products. Sustainable food production is a way for building competitiveness able to move towards achieving sustainable development, taking into account the specific environmental, socio-economic and cultural issues of the Mediterranean area. By selection and building technology adapted to the potentiality of some indigenous cultures, or varieties, we can significantly affect the quality improvement and obtain identifiable, typical premium products prominent in specific features as well as greater product diversification in future production. The process includes transfer of knowledge and technological, organisational, economic and marketing assistance to the development of farming with an emphasis on sustainable management methods.

#### *c) Sustainable management of ecosystems in the Karst areas*

Soil, water and air are the main sources of food production and their sustainable management is a precondition in the long term development of any area. Due to the use of large quantities of production inputs in conventional agriculture, there is a risk of contamination of space with harmful chemical substances; Karst areas are especially sensitive to this. Therefore it is, in this area, along with the development of agriculture, necessary to find such technological solutions that will, along with the achievement of economically viable returns, take care of the environment and human health, as well as conservation of groundwater in the Karst areas. It can also be assumed that agricultural production development combined with the ordering of the agricultural market could additionally ensure the preservation of people in rural areas and their further economic development.

#### *d) Sustainable agricultural production, environmental protection and space planning*

A sustainable system of food production is probably one of the development models which can ensure profitable agricultural production by preserving the environment, especially preventing the risks of reducing the soil and water quality as well as loss of natural biodiversity. The success of this production needs a broad knowledge and expertise from a range of various disciplines (technology, nutrition, plant protection, etc.), so it is probably the most challenging approach to production. Development of methods and procedures in sustainable production also imply approaching food producers who contribute, in that way, to economic sustainability of production, but also to environmental preservation. Successful methods require an interdisciplinary approach to problem solving. Of great importance for the Institute is research on organic production for the purposes of providing scientific support to groups of producers who opt for this production system.

#### *e) Increase the competitiveness of domestic agriculture*

Continuous monitoring of the social and agro-economic characteristics of farms is necessary in terms of increasing the competitiveness of domestic agriculture and its sustainability. The concept of sustainable development in rural economies is particularly marked in the Mediterranean region of Croatia considering the pronounced fragmentation of rural family possessions and the specific environmental conditions of agricultural production including relief, soil and water, which are also the most common limiting factors of yield intensification. Research of economic considerations aimed at the following: enhancing the efficiency of resources in use, improvement of the production structure of farms and the agro-food system, advancement of the production structure of farms and the agro-food system, stimulating conjuncture of local agro-food products, diversification of activities and increased earning power and income on farms, development and management of agricultural investment and more.

*f) Tourism in rural and other areas*

The rural areas of the Mediterranean consist of an ecological dimension already preserved as a valuable natural environment and that can be better valorised through sustainable development of different forms of selective tourism, agricultural production and other compatible activities. The comparative advantages for the development of sustainable tourism in rural areas are: nearness of the western origin market, the proximity of the sea, ecological preservation, still poor development, and significant potential for the production and marketing of local food products, products with protected geographical origin and designation of origin, rich cultural and historical heritage and good transport links. Their geographic location, as a resource, contributes to sustainable tourism development. Tourism development in rural areas and its active linking to the coastal area tourism, has to find a model that will contribute to the development of complementary economic activities, with a special focus on agriculture and the production of high quality authentic food and drinks, and their placement within the facilities of local tourism supply, or so called: wine trails, olive oil trails, at fairs, markets and exchanges. Such a development of sustainable tourism is expected to eventually increase the multiplicative effects of activities involved in the tourism offer of rural areas. Creation and development, together with management in the following stages of the tourism product on rural and other areas, represents a very interesting research area, both at the domestic and international levels. It offers a large research area for providing scientific and applicable contribution by the Institute and its researchers.

---

*Specific objective 1.1. Provide a higher level of quality of scientific work in the field of agriculture and tourism in rural areas*

Bearing in mind the current natural, social and economic aspects of the environment in which it operates, the regional characteristics of agricultural production and tourism, and the necessity for continuous development of technology, the following scientific directions in the research work of the Institute have been defined: viticulture, oenology, olive growing and olive oil, vegetable crops, agricultural economics, tourism in rural areas, rural development and ecology. Taking into account the current trends, the rapid flow of information, mobility of scientists, new knowledge and interdisciplinary approach that characterises the science of today, the Institute will be open to ideas through the development of other directions of research in the field of biotechnical sciences and social sciences at the Institute.

Scientific research of every scientific specialty will be conducted within the strategic goals of the work of scientific research for the next period, taking into account the specificity of the cadre and infrastructural potential of each scientific specialty.

---

*Specific objective 1.2. Realise an active role in the creation and implementation of public policies based on professional scientific results*

In the planned period the Institute will be involved more actively in the creation and implementation of public professional policy on the basis of knowledge at its disposal in a way that it will be included in the development of local, regional and national development programmes. The results of scientific work must be fully and quickly available to the public and the Institute will present its knowledge actively and in a timely manner at the events that create and carry out the public professional policy.

The way to achieve the general and specific objectives:

- Continuous investment in education of the scientific and technical personnel
- Encouraging publication in journals ranked in WOS with a higher impact factor
- Registration for national and international competitions
- Improving the scientific and research infrastructure by purchasing new capital equipment and retrofitting of existing laboratories, test facilities and field trials
- Launching a scientific and professional journal
- Optimisation of the organisation with the aim of effective management of human resources and material goods
- Encouraging scientific research in accordance with the needs of economic and social development

## INDICATOR OF RESULTS

Overall objective 1. Enhance the scientific activity, with particular emphasis on applied and development research and knowledge transfer

	<b>Indicator of results</b>	<b>Unit</b>	<b>Basic value</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Specific objective 1.1. Provide a higher level of quality of scientific work in the field of agriculture and tourism in rural areas	Total number of scientists	Number	13	15	16	17	18	19	20
	Total number of scientific projects	Number (cumulative)	5	5	6	6	7	7	8
	Total number of published papers indexed in Web of Science	Number	11	13	15	17	19	21	23
	Total number of other scientific and professional papers	Number	36	40	42	45	47	50	55
Specific objective 1.2. Realise an active role in the creation and implementation of public policies based on professional scientific results	Signed agreements on cooperation with other institutions and organisations	Number (cumulative)	16	19	21	22	23	24	25
	Popularisation of science (number of activities - appearances in the media, lectures at events, etc.)	Number	15	25	30	35	40	45	55
	Number of national committees which involve employees of the Institute	Number (cumulative)	1	11	12	13	14	15	16
	Number of studies and strategies made at local and national levels	Number	2	6	8	8	9	10	10

## Overall objective 2. Establish a strong scientific infrastructure as an essential element in creating a complete and functional agro-food system and tourism in rural areas

The strengthening of the human and material base of the Institute will be continued through the organisational units in order to establish the Institute as a national research centre of excellence in the areas of agriculture and tourism, and to transfer the knowledge and research results to the economy and society as a whole. Agriculture and tourism, as key strategic industries in this region, cannot be successfully developed in the long-term if there is no adequate scientific and technical background. Consequently, the development of the Institute continues to remain focused on biotechnical and social areas of research.

*Specific objective 2.1. Provide a higher level of quality work by creating suitable infrastructure (accredited and certified laboratories, sensorial laboratory, collection plantations, field trials)*

The expansion of the material basis of the Institute comes from plans to build a new main building with laboratories and additional facilities, which is subject to comprehensive planning and urban preparation. In addition, the existing facilities and equipment will be continuously modernised, in accordance with the available budget.

*Specific objective 2.2. Project coordination with other partners in order to make better use of research infrastructure*

Based on the actual Strategic Plan of the Ministry of Science, Education and Sports, the application of joint scientific research projects and collaborative programmes of the European Union with other research institutions and centres of excellence that cover the same scientific research areas will be encouraged, in order to better and more rationally utilise the research equipment.

*Specific objective 2.3. Establish a centre for the conservation of genetic resources of agricultural and other plants, with particular emphasis on grape vines, olives and vegetables*

Owing to favourable climatic and soil conditions, as well as the long tradition of cultivation in the Mediterranean area there is an abundant eco population of agricultural plants and ancient indigenous and domesticated varieties of agricultural crops. Since the main aim of the Institute is to deal with scientific research in the field of agriculture, we believe that it is important to form a Centre for the conservation of these plant resources. During the following period we plan to establish a Centre for the conservation of genetic resources of cultivated plants, which includes further expansion of the present Institute's collection plantations of perennial crops (grapevines, olives, figs, almonds, pyrethrum, etc.), and the collection of seeds and regeneration of indigenous vegetable, aromatic and curative plants. Moreover, according to market demand, it will be seeking to create new varieties adapted to the new ecological conditions of management.

*Specific objective 2.4. Establish a centre to support the development of tourism in rural areas*

One of the goals of the Institute is to bring knowledge gained by scientific research in the field of tourism, especially tourism in rural areas, in an acceptable way, to the end users. In order to achieve this goal, we plan to arrange a part of the wine cellar so as to preserve the Institute's rich historical collection and to appropriately present this collection to the public. This area would also be used as a Centre for education and support in the field of tourism in rural areas.

Ways to achieve the general and specific objectives:

- Reconstruction of the building of the Institute with supporting services
- Maintenance and upgrading of existing equipment
- Purchase of new capital equipment and equipping existing laboratories
- Maintenance of the vine and olive collection field and fields of other perennial crops and planting new ones
- Regular maintenance and upgrading of existing research facilities ("minivinification" and small size olive mill)
- Construction of greenhouses
- Construction of irrigation systems on experimental areas
- Fencing of the Institute's estates
- Encouraging better use of scientific infrastructure through increased collaboration with other institutions in the country and the world in areas of common scientific interest
- Investment and continuous upgrading of IT infrastructure
- Making of a detailed plan for disposition of the agricultural land of the Institute
- Conduction of sensory analyses (tasting) of agro-food products (wine, olive oil, grape marc distillate, honey, etc.)
- Establishment of a permanent collection of traditional Istrian objects
- Building of a wine cellar with wines of Istria
- The organisation of a scientific, educational, and promotional centre with defined thematic units

## INDICATOR OF RESULTS

Overall objective 2. Establish a strong scientific infrastructure as an essential element in creating a complete and functional agro-food system and tourism in rural areas

	Indicator of results	Unit	Basic value	2013	2014	2015	2016	2017	2018
Specific objective 2.1. Provide a higher level of quality work by creating suitable infrastructure (accredited and certified laboratories, sensorial laboratory, collection plantations, field trials)	Increase of experimental area for perennial crops	Crop surface (ha)	3.10	3.33	3.80	3.80	4.25	4.25	5.10
	Number of contracts for performing scientific and professional activities on the market	Number (cumulative)	12	20	22	24	25	26	27
	Share of income from providing services on the market in total income	Share (%)	15	20	25	30	35	40	45
	Number of accredited and licensed laboratories	Number (cumulative)	2	2	2	2	3	3	3
	Number of accredited methods	Number (cumulative)	28	28	28	30	30	32	32
	Number of laboratory services	Number (cumulative)	84	84	89	93	96	100	103
Specific objective 2.2. Project coordination with other partners in order to make better use of research infrastructure	Number of research projects with other subjects	Number (cumulative)	2	2	4	6	10	12	15

Specific objective 2.3. Establish a centre for the conservation of genetic resources of agricultural and other plants, with particular emphasis on grape vines, olives and vegetables	To establish and organise the work of the centre for the conservation of genetic resources of agricultural and other plants	Number (cumulative)	0	0	0	1	1	1	1
Specific objective 2.4. Establish a centre to support the development of tourism in rural areas	To establish and organise the work of a support centre for tourism development in rural areas	Number (cumulative)	0	0	1	1	1	1	1

### Overall objective 3. Developing human resources and strengthening of international cooperation

A high quality science system that is capable to develop and launch innovative technologies and processes is based on competent and competitive human resources, which are characterised by intellectual curiosity, creativity, knowledge and motivation.

#### *Specific objective 3.1. Encourage mobility and develop human resources in the Institute*

We will continuously work towards professional, scientific and cognitive specialisation of the existing scientific and expert personnel, attracting and initiating permanent collaboration with eminent scientists from the country and abroad, as well as hiring new scientists and experts. The objective of the Institute is to increase the number of scientific job positions in order to continue to perform the role of a public research institute, not only in quantitative terms but by keeping in focus the qualifications and expertise of potential employees, as well as their compatibility with the values promoted by the Institute. In the interests of strengthening the human dimension of the Institute, the mobility of researchers will be encouraged, particularly that of young research fellows through additional international specialisation, with the support of programmes provided by the Ministry of Science, Education and Sports, the Agency for Mobility and EU Programmes, and EURAXESS centre.

#### *Specific objective 3.2. Encouraging international cooperation and collaboration with industry*

Following the accession of the Republic of Croatia to the European Union, even more opportunities for participation in the European scientific research areas will open up. Accordingly, the submission of projects in the European research framework programmes funding within the Seventh Framework Programme of the European Community for Research and Technological Development (FP7), as well as Horizon 2020 - The EU Framework Programme for Research and Innovation, will be encouraged. With the support of the relevant institutions, it will be encouraged to continue to host foreign scientists to work on research projects at the Institute, in accordance with prescribed procedures and regulations.

Ways to achieve the general and specific objectives:

- Generation of new scientific and expert (technical) workplaces,
- Attraction of already recognised scientists to work at the Institute,
- Advancement in positions on a regular basis,
- Successful and timely preparation of doctoral theses,
- Encouraging visits for doctoral studies to internationally recognised institutions,
- Encouraging shorter and longer training in internationally recognised institutions,
- Encouraging mobility of scientists and international cooperation,
- Encouraging all employees for training and further education within their working fields,

- Encouraging the presentation of individual ideas as well as encouraging teamwork,
- Participation in relevant international conferences,
- Participation in the organisation and holding of meetings and workshops with international character,
- Encouraging employees to leave for shorter and longer specialisation abroad,
- Applying of joint projects in collaboration with recognised international research institutions,
- Applying for project tenders that strengthen links with the industry,
- Significant involvement in transitional economic trends and in the creation of development programmes at all national levels,
- Encouraging Institute's employees to strengthen links between the Institute and industry,
- Organisation of "Days of Open Doors" of the Institute and introduction of businessmen to the activities of the Institute,
- Involvement of the Institute as a destination for tourist tours (wine and olive oil tasting, harvest of agricultural products).

## INDICATOR OF RESULTS

Overall objective 3. Developing human resources and strengthening of international cooperation

	<b>Indicator of results</b>	<b>Unit</b>	<b>Basic value</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Specific objective 3.1. Encourage mobility and develop human resources in the Institute	Total number of young researchers	Number	8	8	8	8	8	8	8
	New PhDs	Number	2	3	1	2	1	1	1
	Number of researchers who have spent at least one month in foreign institutions during year	Number	0	2	2	2	2	2	3
	Number of incoming mobility	Number	1	1	1	1	1	1	1
	Total number of professional associates	Number	3	3	4	4	4	5	5
	Total number of technical associates	Number	6	6	6	6	7	7	7
Specific objective 3.2. Encouraging international cooperation and collaboration with industry	Number of research projects with other institutions, economy and local communities	Number	2	2	4	6	8	10	12
	Number of international projects	Number	1	3	5	5	6	7	8
	Number of contracted domestic projects	Number	2	6	8	10	12	14	16

## REFERENCES

1. Strategic plan for the period 2013-2015. Republic of Croatia, Ministry of Science, Education and Sports. Zagreb, 2012.
2. Strategic plan of scientific-research development activities of the Institute of Agriculture and Tourism for the period of 2013-2015.
3. Strategic programme for rural development of Istrian County (2008-2013), Istrian County, 2008.
4. Statute of Institute of Agriculture and Tourism (Consolidated version from 30<sup>th</sup> July 2012).
5. Regulation on internal structure of Institute of Agriculture and Tourism from 11<sup>th</sup> December 2008.
6. Self-evaluation form for re-accreditation of scientific organisations (05.07.2010).
7. Detailed area plan for Institute of Agriculture and Tourism published in the official gazette of City of Poreč number 1/11 author: dr.sc. Amorino Poropat, dipl.ing.arh.
8. Conceptual architectonic-urbanistic design of Institute of Agriculture and Tourism, authors: Dubravko Tumpić, dipl.ing.arh., Dino Prašljević, dipl.ing.arh., Maj Juvanec, dipl.ing.arh.