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Fruit Logistica – fruit and vegetables as innovative products

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Discussions on the future Common Agricultural Policy (CAP) after 2020 have long been under way and from all debates held so far on the subject it becomes clear that the budget for this policy will be significantly reduced compared to the current one, which amounts to a total of over EUR 408 billion. To be completely precise, at present 38% of the total EU budget is allocated to agriculture. An enormous sum which, depending on the percentage of reduction, will strongly affect all participants in the agricultural sector, including consumers.

The restriction of the financial flow to the agricultural sector is only one side of the global problem of food security; far more worrying is the fact that approximately 45% of the arable agricultural land in the EU is of

deteriorated soil quality, and another 40% of the land that produces Europe's food is contaminated with pesticides or is unsuitable for use.

Producing more while protecting the environment and ensuring a high standard of living for farmers, especially in the era of profit at any cost, is a task impossible even for illusionists. Precisely under the motto "producing more from less", in 2012 within the framework of the CAP the new measure – the European Innovation Partnership (EIP) – was launched, the objective of which is to create a competitive and sustainable agricultural and forestry sector. According to the strategists of this increasingly popular measure, the leading role is assigned to science, both at European and at regional level. For modern agriculture to be successful, it needs to build close links with the scientific community, which in turn promises high efficiency despite natural and financial cataclysms. And the building of bridges between research, farmers, enterprises, forest holdings, the food industry and other organizations sooner or later leads to the emergence of innovations.

Innovation as a key instrument for successful agriculture should not be understood as an invention with a revolutionary meaning, but rather as a new way of working in already existing farms and with specific agricultural products. The adaptation of established approaches and practices to new circumstances can also be perceived as innovative development, for example in rural areas. The use of new ideas based on science and technology in an already familiar environment inevitably leads to the creation of jobs or other applications of already well-known products. In fact, the modern term "innovation" was introduced by the Austrian economist Joseph Schumpeter at the beginning of the 20th century. He considers innovations as "the creation of new combinations" or changes in the development of the market and production. According to Schumpeter, the concept of "innovation" is understood as a change aimed at introducing and using new types of consumer goods, means of production and transport, and markets. The final result of the process is the creation of a new product, service, process or form of organization.

The field of agriculture, where the innovation approach is attempting to enter, is a minefield. On the one hand, the agricultural sector is known for its conservatism and slow decision-making, especially when it comes to national policy. On the other hand, there is still no finally adopted legislation, to which one can safely add the different interpretations of the concept of "innovation". In this sense, projects oriented under this measure under the common denominator of the RDP still have no clear future and are subject to scepticism on the part of farmers. In Bulgaria, for the first time in this programming period, Measure 16.1 for innovation "Support for the establishment and operation of operational groups within the EIP" will be opened from 1 November to 15 December 2017. And while in our country this measure is yet to be introduced, in Europe some of the leading

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agricultural countries have been competing for years in creating an innovative and dynamic image of the agricultural sector.

Fruit Logistica, the international exhibition where fruit and vegetable producers synchronize their watches

There is nothing impossible in the fruit and vegetable sector; this is precisely what the international exhibition Fruit Logistica, which has been held for half a century in the capital of Germany, demonstrates every year. During the three days of the well-known fair in 2017, a 5% increase in visitors was recorded. This equals 75,000 guests and 130 countries – exhibitors from all over the world. The FLIA (Fruit Logistica Innovation Award) once again attracted attention at this year's anniversary edition of Fruit Logistica. It rewards innovative products and solutions in the fruit and vegetable sector, and leading global companies in the field of crop production often win the prize. In 2008 first place was awarded to Nunhems – Bayer for their indeterminate oval tomato variety Intense TM, developed in the Netherlands. Only 4 years later Syngenta won a gold medal for its pepper variety Paprika Angello, a sweet seedless mini pepper.

Over the past 13 years, the Berlin award has established itself as the most prestigious innovation prize in the international fresh produce industry.

The contenders in 2017 were again carefully selected and presented at the international fruit and vegetable fair. The innovative products combine prospects for development, care for the environment and a striving to adapt to the major fruit and vegetable markets. It is interesting that in this competition the winner is chosen by the visitors, who have the opportunity to get acquainted in person with the bold and sometimes eccentric solutions of the agricultural sector – fruit and vegetables.

Tomato bag

No, this is not a magic bag for producing tomatoes, but an ordinary plastic bag (the plastic in this case is 100% degradable) filled with organic substrate for growing greenhouse vegetables. The Belgians aim to limit the use of mineral fertilizers and pesticides.

Yellow – the colour of taste

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The new apple variety – Shinano Gold – is a cross between the Japanese apple Senshu and Golden Delicious. In the course of breeding, the Italians created a variety that preserves the large and yellow fruits of the Golden Delicious apple, popular worldwide for its juicy and sweet fruits. The main problem of the Golden Delicious apple is its susceptibility to damage during transport. Italian breeders used this drawback to create, with the help of the Japanese variety Shinano Gold, a new apple variety – yello. Now, in addition to its taste qualities inherited from European varieties, yello is endowed with proverbial Japanese resistance to transport damage.

Vegetable spaghetti

Once again the Italians, who certainly know how to be different and innovative, launched on the market in 2016 a machine that turns vegetables such as carrots, courgettes and sweet potatoes into pasta of different shapes and sizes. In this way, the creators of this equipment seek to meet consumers' need for healthy, easy and quick-to-prepare foods.

Seedless watermelon with extended shelf life

The new seedless watermelon variety Crisp Fresh Watermelon is the work of a breeding team of experts from Syngenta, France. The genetic characteristics of the variety include a lower water content and an extended shelf life (of the already cut fruit) of up to 10 days. Watermelons of this variety have an elongated shape, dark green stripes on the rind and dark red flesh. They usually weigh from 5 to 7 kg. A pleasant light snack for everyone who is constantly on the move.

Monkey nuts

"Pili" nuts come from the Philippines. Like all nuts, they are extremely beneficial, possessing high nutritional value and high levels of vitamin E. But there is one significant difficulty that also makes them so attractive – reaching the kernel itself is almost impossible because of the extremely thick and strong shell. And here comes German innovative thinking – a technology of precisely calculated cuts in the shell that make cracking easier. In addition, importers sell the packages with a gift – a special stainless-steel nutcracker. Thus, monkey nuts become real entertainment for the whole family.

Freshly cut lettuce

This year's winner of the FLIA (Fruit Logistica Innovation Award) is the European breeding company Rijk Zwaan. The Dutch team has developed a new generation of salads, Knox™, whose cut edges do not change colour as

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a result of oxidation. Thus, the salads created in this way extend their shelf life by two days and do not need to be vacuum packed. The longer shelf life allows retailers to optimize their storage capacity, avoid the unpleasant smell when opening vacuum packs and drastically reduce the amount of waste.