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Regional Expert advisory Working Group (REAWG)
On Agricultural Knowledge and Innovation Systems (AKIS)
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MONTENEGRO: AKIS roadmap draft

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MNE AKIS in a nutshell

- Many stakeholders/players are involved
- Lack of coordination of the key players
- Connections among the key players are very weak
- No clear role of the main stakeholders
- Top-down approach is dominant
- Financial support for AKIS is unstable

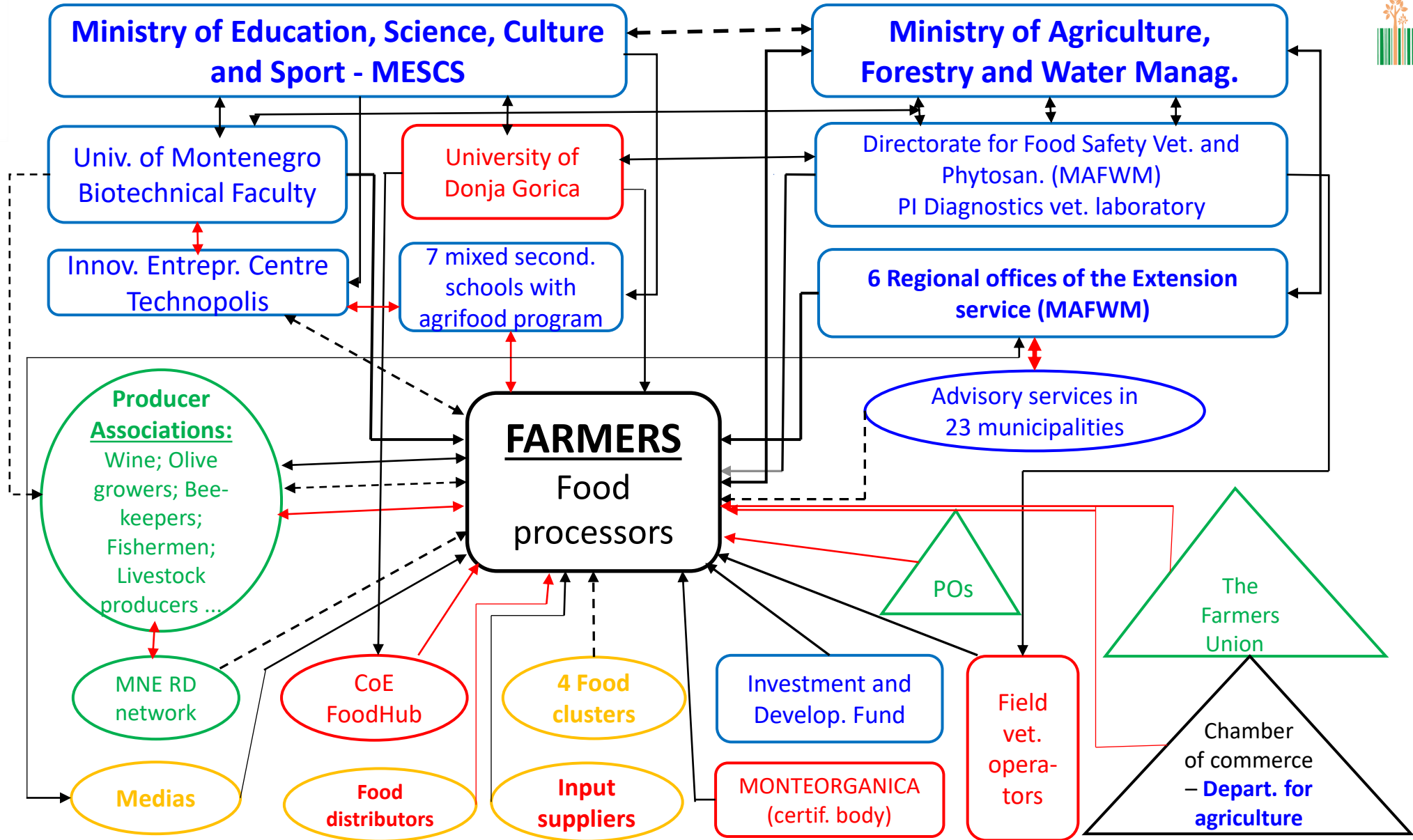


The map of the AKIS players

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AKIS MAP IN MONTENERO

Legend/meanings of the shapes, colours and line types:

- By **quadrangles** are presented existent AKIS players that have sufficient capacity to function properly;
- by **circles** are presented existent AKIS players that do not have sufficient capacity to function properly;
- by **triangles** are presented non-existent AKIS players that are critical for the AKIS system to function properly;
- **blue** colour represents institutions from the public sector;
- **red** colour represents organizations from the private sector;
- **green** colour represents stakeholders from NGO sector;
- **yellow** colour represents other organizations/stakeholders;
- **full black** line represents a functional relationship between AKIS players;
- *dashed* black line represents partially functional relationship between AKIS players;
- **full red** line represents a non-existent, but necessary relationship between AKIS players.

SWOT of AKIS in Montenegro

STRENGTHS

- Diversified and heterogeneous agriculture and related food industries provide a wide base for AKIS
- MNE as a small country is in advantage to organise and connect the main stakeholders in AKIS
- Well-equipped labs, the experimental fields provide a ground for practical transfer of knowledge
- Extension services in plant and livestock production have gained experience in linear knowledge transfer to the farmers
- The Ministries (MAFWM, MESCS and Min. of Economic Development-MED) are trying to provide legal and strategic frame for key components of AKIS
- Easy communication with public medias

SWOT of AKIS in Montenegro

WEAKNESSES

- Small fragmented farms are not interested in knowledge transfer and innovations
- Many family farmers are ageing and they are not interested in changing traditional way of production
- On-farm advisory service is rather weak
- Top-down approach in the whole AKIS system dominates
- The farmer community is not enough familiar with AKIS system and its possibilities
- Communications between actors in **food value chains are rather poor**
- Knowledge transfer from researchers to the farmers is very weak due to lack of researchers interest in the practical technological solutions
- Trainings of the advisors are mainly focused on the implementation of agripolicy measures
- Low level of digitalisation of primary sector in agriculture.
- Generally, proactive role in adoption of the new technologies and innovations is rather poor
- **Official advisory service is becoming a part of administration – thus RITT is diminishing**
- Poor state financial support for RITT

SWOT of AKIS

OPPORTUNITIES

- Fast modernization of agriculture and food production generally
- Implementation of the strategic state documents, particularly Smart Specialization Strategy, gives a wide range of possibilities for AKIS
- Young people with higher education enter to agricultural activities as their own business
- EU accession in agriculture opens a wide range of the possibilities
- The national and international research projects are more directed to the industry what opening new possibilities for AKIS
- Integrated education, research and advisory system can be reestablished

SWOT of AKIS

THREATS

- Migration of young people from the countryside to the cities causes many negative trends and consequently lack of interest in RITT
- Poor public perception of agricultural studies, instability of funding and insufficient investment in science and scientific infrastructure
- Insufficient respect of the importance of knowledge and innovations in development of agriculture and food sector
- Short-term instead of long-term visions of businessmen in the food sector
- Inertness of businesses in terms of financial contribution and participation in scientific projects
- Difficulties in attracting young candidates for research in agricultural sciences

AKIS roadmap

Priority 1: The functional AKIS with holistic approach is needed

WHAT	<ul style="list-style-type: none">✓ Strategic and program documents, with detailed action plan for AKIS have to be developed✓ Adopt a National Partnership Programme of all AKIS' related organisations✓ Legal frame has to be completed, with rules for the public and private, local/national advisory service✓ Research and innovation infrastructure to be completed✓ Forming of the AKIS Coordination body✓ Active role of the stakeholders in the implementation✓ Clear financial rules for support and stable state financial support for AKIS✓ Reporting, evaluation and control practices is the essential
WHO	<ul style="list-style-type: none">▪ The ministries: MAFWM; MESCS and MED (Fund for innovations) in close collaboration with the key stakeholders, supported by SWG RRD
HOW	<ul style="list-style-type: none">• Permanent dialogue of academia with decision makers

AKIS roadmap

Priority 2: Link of research and farming sector needs to be reinforced

WHAT	<ul style="list-style-type: none">✓ Horizon Europe and other funds for the multi-actor projects, with focus on cross-thematic and transdisciplinary approach✓ Innovations projects and activities with stronger involvement of young educated✓ Smart specialisation strategy full implementation✓ Close synergy between HE and IPARD is needed✓ Design a specific fund for after-project communication of innovative projects✓ Researchers have to share their work with practice, to work interactive
WHO	<ul style="list-style-type: none">▪ The ministries (MED; MAFWM; MESCS) in close collaboration with the academia
HOW	<ul style="list-style-type: none">• Innovation support service – Innovation hub• Back office for advisors - Knowledge hub with specialist advisors• Regular face-to-face exchange thematic events and meetings between research, farmers and advisors• Fully functional farmers' organization, food clusters, techno and science parks etc.

AKIS roadmap

Priority 3: Providing Extension/Advisory service in agriculture being fully functional and meet farmers' needs

WHAT	<ul style="list-style-type: none">✓ Linear knowledge transfer should be extended and strengthened✓ Advisors acting as innovation facilitators, capturing needs and sharing outcomes advisors' trainings, especially on innovative techniques and soft skills✓ The whole value chain approach, bio-based chains, dialogue with society✓ Involvement of private advisors: not only training but other information flows✓ To form country wide advisory networks to share generated knowledge after visits abroad✓ Simplify administration and avoid dense control systems, instead develop indicator of quantitative monitoring
WHO	<ul style="list-style-type: none">➤ MAFWM in close collaboration with the key stakeholders
HOW	<ul style="list-style-type: none">➤ National thematic networks, interlinking of the actors and meetings on regular basis between research, farmers and advisors, different forms and methods of advisory work (individual and group advice, discussion groups, provide training, workshops, demonstration, etc.)

AKIS roadmap

Priority 4: Capacity building of the key AKIS players

WHAT	<ul style="list-style-type: none">✓ Regular education, trainings, lifelong learning accessible to advisors and farmers✓ Regular winter and summer educational events (schools on spot and demo trainings etc)✓ Advisors acting as innovation facilitators, capturing needs and sharing outcomes✓ advisors' training✓ International cooperation providing the adoption of good practices✓ Support advisors' placements in experimental research centres and training facilities,✓ Support advisors' methodological and social competences of advisors✓ Educating and training AKIS 'system-oriented' advisers.✓ Mandatory education for young farmers✓ Establishing advisory Licensing Program✓ ...
WHO	<ul style="list-style-type: none">▪ MAFWM and MESC in a close collaboration with the key stakeholders
HOW	<ul style="list-style-type: none">• Different forms and methods of advisory work (individual advices, group advice, discussion groups, provide training, workshops, demonstration, etc.)

AKIS roadmap

Priority 5: Digitalisation of the agriculture

WHAT	<ul style="list-style-type: none">✓ Interlink all public data to enable additional services, GIS/LPIS based layers combining: soil, animal welfare, spreading harmful organisms, irrigation needs✓ Organize training on digital skills for advisors, farmers etc.✓ Build knowledge that are interactive and quality checked, and use common standards as much as possible✓ Set up platforms to discuss how to manage the digital transition✓ Share digital advisory tools, reducing the maintenance cost
WHO	<ul style="list-style-type: none">▪ The ministries: MAFWM and MED in close collaboration with the key stakeholders
HOW	<ul style="list-style-type: none">• Support digitization of advisory work by MAFWM: newly established Fund for innovations to support maintenance cost of an IT knowledge platform etc.• Workshops, Education campaigns, Trainings

AKIS roadmap

Priority 6: Public awareness raising on the importance of AKIS in agrifood sector

WHAT	<ul style="list-style-type: none">✓ Networks for informal knowledge exchange✓ Medias electronic and written – to improve coverage of agricultural issues by mass media and put agri-innovation in the spotlight✓ Ensure better quality information about farming issues✓ Infrastructure for promoting knowledge exchange among researchers, advisers and practice✓ Ensure a substantial budget for communication and dissemination of research and innovations
WHO	<ul style="list-style-type: none">▪ The ministries: MAFWM; MESC and MED in close collaboration with the key stakeholders
HOW	<ul style="list-style-type: none">• Organize cross-border visits for specific actors (advisors, farmers' groups etc)• Demonstration; medias, videos and youtube...

Instead of a conclusion



- Many players involved, lack of coordination, weak connection among the key players, no clear role of the main stakeholders, top-down approach dominates – altogether give the obvious result: the farmers do not receive appropriate knowledge and innovations
- **The key challenges are:**
 - HOW to harmonize/integrate the policies at the state level: agricultural and research policy? HOW should researchers and advisors work together?
- **Open issues**
 - What is about AKIS in the line sectors: the processing industry? the forestry sector? agrotourism and local small manufactures/crafts/artisians?
- *Last but not least, how could SWG RRD, as the main regional coordinator for the implementation of the Action plan of GAWB, act to improve the situation with the AKIS in WB countries?*

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Thank you for your attention!

