

Elevating Agriculture Knowledge and Innovation System (AKIS) in the Republic of North Macedonia

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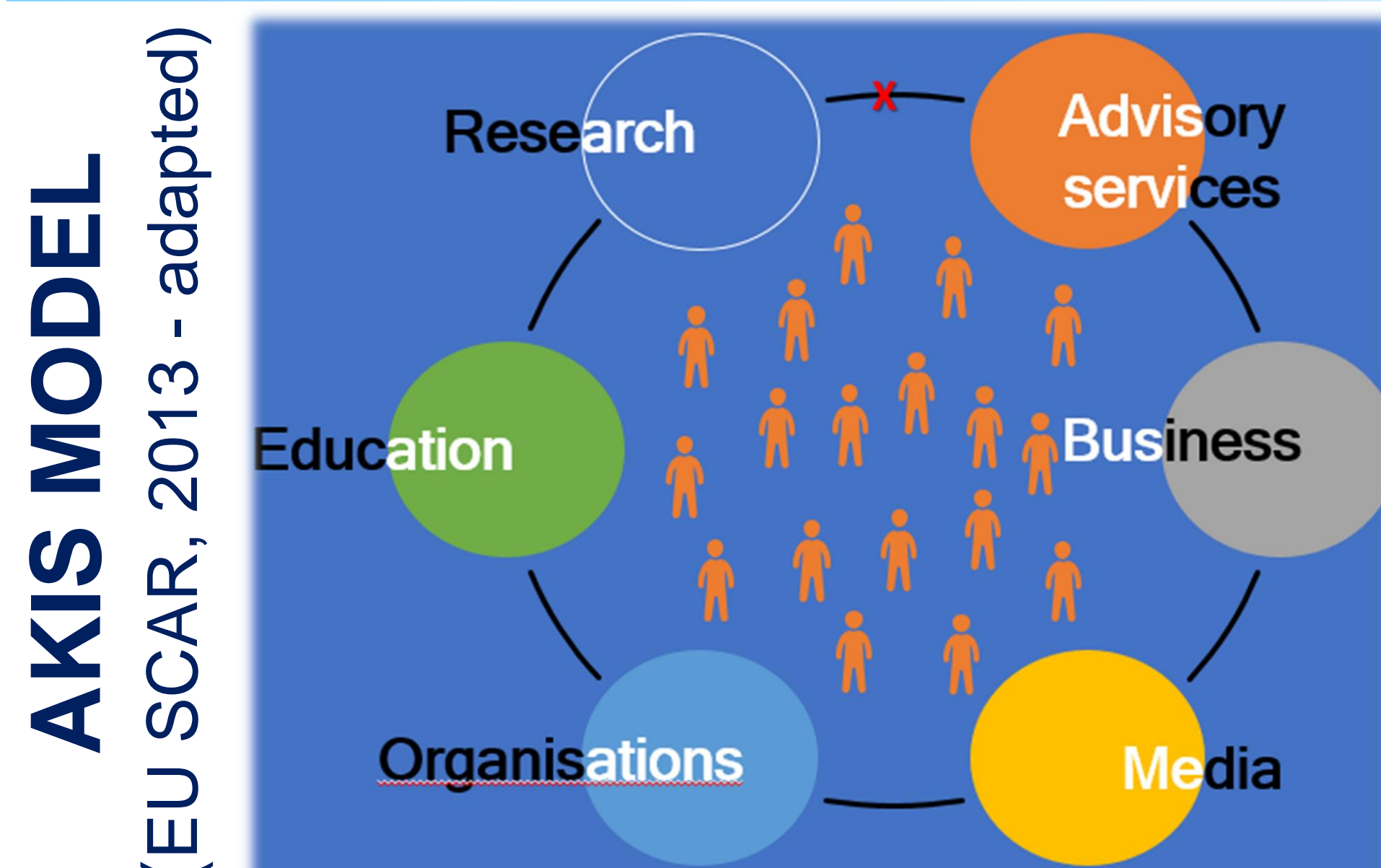
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Introduction

Agricultural Knowledge and Innovation Systems (AKIS) encompass the framework for sharing knowledge and supporting innovation services in rural areas. The components of AKIS are diverse actors from public, private, and charitable sectors, all linked to agriculture. Farm advisory services are an essential component of AKIS. AKIS describes the origins and mechanisms behind agricultural knowledge formation and dissemination, particularly concerning innovations in the agricultural sector. The final objective of the system is to equip farmers with the means to address challenges around food security, efficient resource utilization, and climate change.

Aim

The aim of this poster presentation is to elucidate the configuration of AKIS within the Republic of North Macedonia to better understand who produces and exchanges agricultural knowledge and innovation, as well as to present the missing structures and linkages leading to a more efficient and effective national AKIS. In addition, the poster presents which strategic policies are needed for a functional national AKIS, and what steps have been undertaken in tackling this issue.



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The opinions expressed here are ours only.

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Current/missing AKIS components, and development levels

PRIVATE SECTOR	FARMER-BASED ORGANIZATIONS	PUBLIC SECTOR	RESEARCH & EDUCATION	MEDIA
Farmers	Farmers associations	Ministry (Agriculture)	Universities /Faculties	Journals for farmers
Agri-food companies	Rural develop. federation	Ministry (Economy)	Research Institutes	TV shows for farmers
Input suppliers	Cooperatives	Ministry (Education/Science)	Secondary schools	Web-based portals for farmers
Retailers	Cooperative associations	Advisory Service	Experimental Farms	Social media by and for farmers
Clusters	LAGs	Payment Agency	Innovation Centers	Existing actor with sufficient capacity
Business incubators	Monitor farms	Innovation Fund	Science Parks	Existing actor with insufficient capacity
Private advisors	OTHER	Regional Development Centers	Centers of Excellence	Missing actor
Consultants	Coordination body	Municipalities		
	Intergovern. organization	Industrial Zones		
	Donors	Advisory Training Center: Certification		

Proposed strategic steps toward functional AKIS

- 01 Formalization of certain AKIS components**
 - Laws and by-laws
 - Strategy
- 02 Strengthen capacities of AKIS**
 - Advisory services
 - Research and Education
 - Public institutions
 - Farmer-based organization
- 03 Introduce new structures in AKIS**
 - Private advisory services
 - Business incubators
 - Innovation centers
- 04 Create functional relationships within AKIS**
 - Coordination Body
 - Groups of farmer-led interactive innovation

Conclusions

The establishment of a functional national AKIS is very important for increasing the profitability of agriculture and the sustainability of rural areas in the country. There is no consensus in the literature on what a functional AKIS should be like. Some authors criticize the fragmentation and lack of integration, while others claim that diversity is beneficial, leading to greater flexibility in knowledge provision and exchange. There is no universal AKIS model

that could be followed. However, AKIS should be centered around farmers as key actors in the system, and obviously, tailored to the national circumstances.

Major steps were already undertaken in the country to create a functional AKIS, especially in setting up a new Law of advisory services and providing a legal framework for formalizing the status of private advisors, and introducing regular training of advisors leading to their certification. AKIS should be further enhanced and put in the top priorities of the national policies.

Literature cited

- EU SCAR, 2013, Agricultural Knowledge and Innovation Systems Towards 2020 - An Orientation Paper on Linking Innovation and Research. European Commission, Brussels (Be), http://ec.europa.eu/research/agriculture/scar/groups_en.htm.
- Gjoshevski, D., Simonovska, A., Tuna, E., 2022, A Roadmap for AKIS Development: North Macedonia. SWG, Skopje (Mkd).
- Gjoshevski, D., Simonovska, A., Tuna, E., 2021, Research, Innovation and Technology Transfer: North Macedonia. SWG, Skopje (Mkd).
- Gjoshevski, D., Simonovska, A., Tuna, E., 2020, Study

on the Research, Innovation and Technology Transfer Capacities in the Context of the EU Approximation Process in the Pre-Accession Countries: North Macedonia, SWG Skopje (Mkd).

Kasimis, C., Zhllima, E., Bajramovic, S., Vasko, Z., Miftari, I., Markovic, M., Gjosevski, D., Simonovska, A., Tuna, E., Kondic-Spika, A. and Marjanovic Jeromela, A. 2022. Enabling Functional and Integrated AKIS Systems in Western Balkans. SWG, Skopje (Mkd).

Knierim, A., Boenning, K., Caggiano, M., Cristóvão, A., Dirimanova, V., Koehnen, T., Labarthe, P., Prager, K., 2015, The AKIS Concept and its Relevance in Selected EU Member States. Outlook on Agriculture, 44(1): 29-36, <https://doi.org/10.5367/oa.2015.0194>.