



## Agricultural Policy Forum 2021

### ***Green Agenda for the Western Balkans: Commitments and Reality Check***

#### **Research, innovation and technology transfer in the Western Balkans**

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20 - 21 October 2021  
Vrnjacka Banja, Serbia



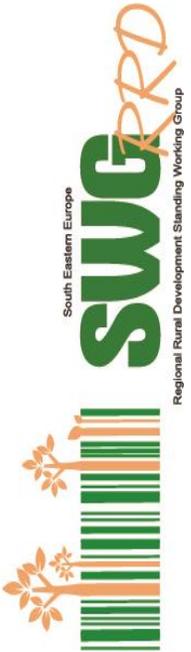
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# Project Details



- **Project title:** “Research, innovation and technology transfer in the agri-food sector in the Western Balkan countries: Phase II”
- **Contractor:** DG AGRI (**IPARD**) via Engage programme
- **Consortium:**
  - Wageningen Economic Research (WEcR)
  - Regional Rural Development Standing Working Group in South Eastern Europe (SWG)
- **Regional focus:** Albania, Bosnia and Herzegovina (BiH), North Macedonia, Kosovo, Montenegro, Serbia and some insights from Turkey
- **Duration:** 15 months (28 July 2020 – 1 November 2021)



# Aims and objectives

## Main aims of the project:

- to enhance research, innovation and technology transfer (RITT) in the agri-food sector in the Western Balkan countries
- to facilitate RITT capacities related to green and clean technologies in the context of its contribution to the EU's Green Agenda for the Western Balkans.

## Main objectives:

- to identify needs, capacities and gaps in RITT
- to contribute to RITT's enhancement
- to facilitate the participation of the WB research entities and networks to European projects and networks, particularly within Horizon 2020 or COST.



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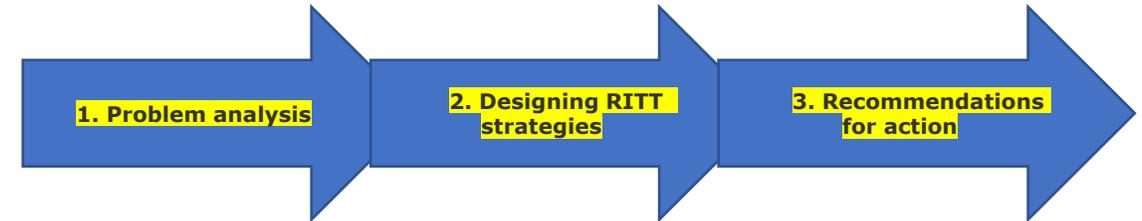


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# Methodology 1

The project followed a 3-step approach:



## Step 1: Problem Analysis

- Task 1: Development of the Methodology
- Task 2: Providing an assessment of the needs, capacities and gaps of different layers of the R&I system

## Step 2: Designing RITT Strategies

- Task 3: Innovation case studies, proposing improvements and facilitation

## Step 3: Recommendations for Action

Task 4+5: Derivation of policy recommendations (4) and Reporting (5)



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# Methodology 2



- Two theoretical and methodological concepts used:
  - AKIS
  - Innovation spiral
- Four methodological tools:
  - Questionnaire Interviews with WB AKIS actors
  - Case studies
  - Focus Group Meetings
  - Cross country meeting



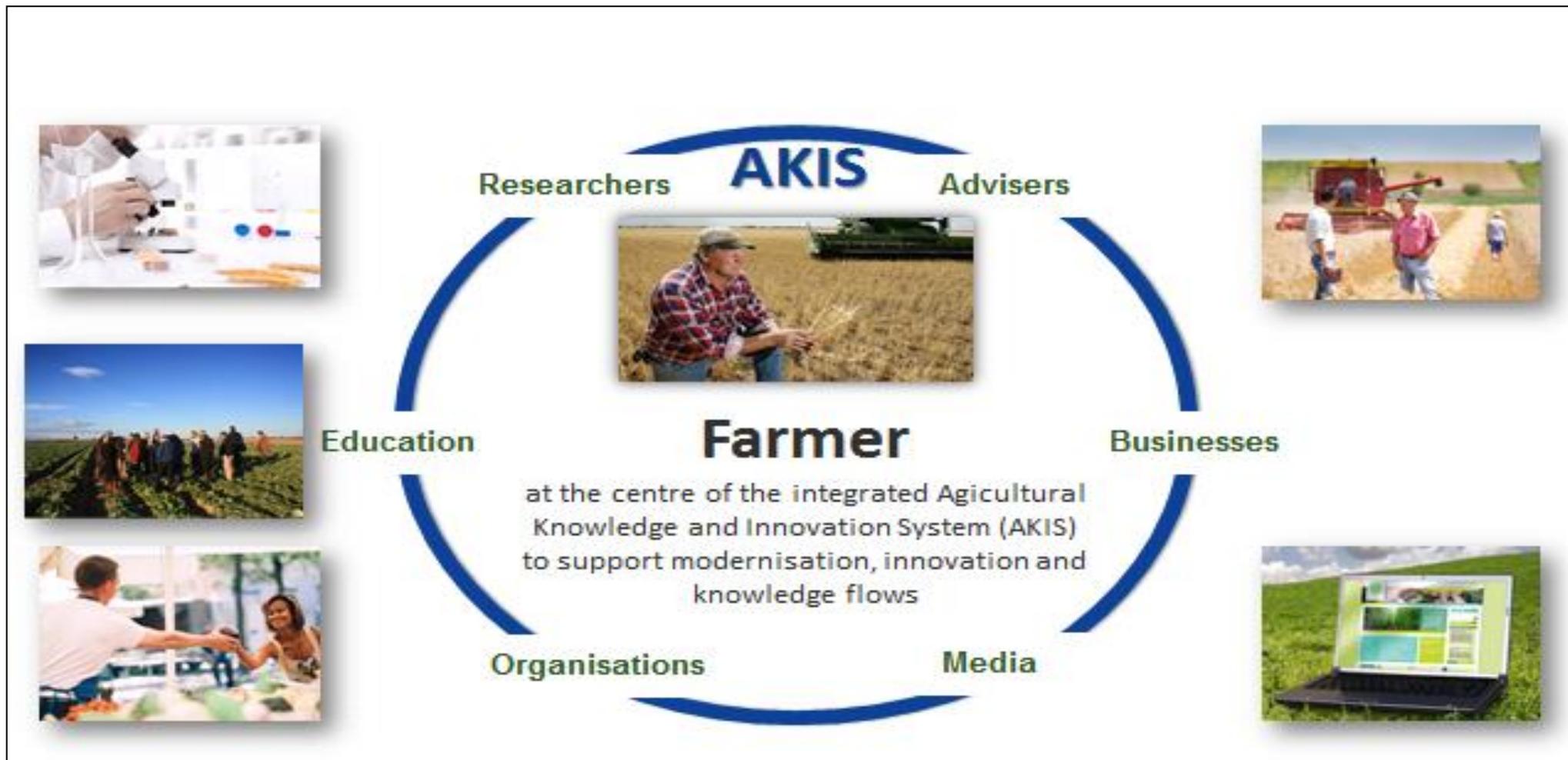
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# Theoretical concepts 1: AKIS



# Theoretical concepts 2: *AKIS*

- **AKIS** is a useful concept to describe:
  - a system of innovation, with emphasis on all actors and organisations involved,
  - the links and interactions between them,
  - the institutional infrastructure with incentives and financial mechanisms.

*In other words,*

***AKIS is:***

***the combined organisation  
and knowledge flows between actors,  
organisations and institutions who use  
and produce knowledge for  
agriculture and interrelated fields***

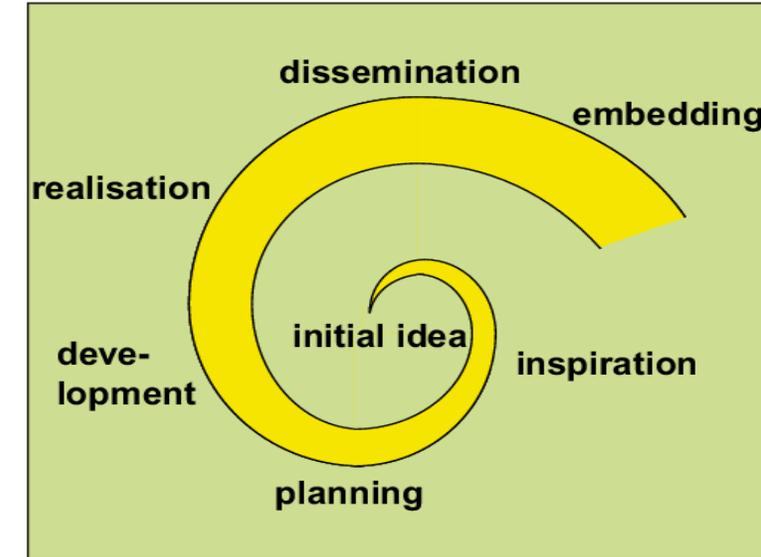


# Theoretical concepts 3: *the innovation spiral*

Three are the **key phases** of the **spiral of innovation**:

- **invention**: formation of new ideas
- **innovation**: conversion of new ideas into practical applications
- **diffusion**: the spread of new applications across the potential users

Each phase of the spiral prioritises other activities and involves other actors. The idea usually starts-off small and spreads involving more actors as the process of innovation progresses.



# Conclusions and recommendations



Conclusions and recommendations that follow, were developed and enriched along the various progress stages of the empirical research.

- They are broadly grouped around four large thematic areas:
  - Financial support and instruments
  - Regulatory and legislative framework
  - External factors and relations
  - Interaction and governance
- Particular national references are provided only in the main text of the final report.



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# Concluding remarks 1



- Different historical, political and economic developments have shaped the **levels of policy awareness** on the importance of agri-food RITT amongst WBCs.
- **Weak financial support** and lack of flexible funding instruments are considered substantive barrier for RITT enhancement.
- **Research and education** organisations involved in agri-food RITT are not supported with **satisfactory infrastructures**, their personnel lack appropriate reward system, are weakly encouraged and poorly interconnected.



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# Concluding remarks 2



- **Cooperation and interaction are weak and short term** with negative implications for RITT, for capacity building and for the attraction of funding.
- The strategic, **regulatory and policy framework of RITT components** are only **partly formulated**, with **low effectiveness of law enforcement, policy implementation and coordination.**



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# Concluding remarks 3



- **AKIS is not a formalized system** neither can it be defined as an entity in the various WB countries.
- **AKIS functions as a weak 'structure' of various fragmented, disconnected and non-coordinated subsystems.**



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# Concluding remarks 4



- **Farmers**, mostly holders of small size fragmented farms with low level of cooperative/collective organisation and representation, **remain a weak link in the AKIS structure** despite their central placement in the theoretical concept.
- With the exception of extension, research, education and input suppliers, the majority of the remainder **component parts of the AKIS structure are either missing or have a weak presence.**
- **Extension services** –a key component of AKIS - are **defined by different levels of formalization and organisational composition.** They are mostly public but recently private services have sprang out too.



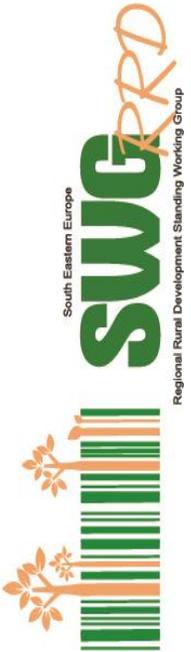
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# Concluding remarks 5



- **External factors** like the EU, IPARD, Horizon and other international programmes **act positively on RITT enhancement.**
- **IPARD programme speeds up RITT** in the agri-food sector, but **more targeted measures and selection criteria** connected to RITT are considered necessary.
- **Speeding up EU accession process** is expected to improve the environment of policy implementation.
- The **spiral of innovation** needs a functioning AKIS structure and institutional interventions at the critical phases of development and realization.



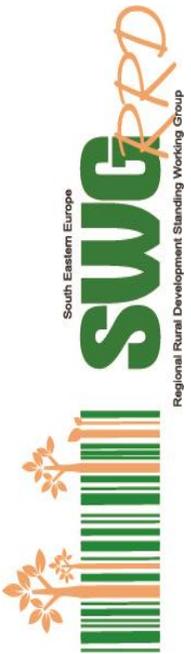
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# Concluding remarks 6



- Awareness for and use of **green and clean technologies** are relatively low. **High costs of adoption, low profit motivation and long-term duration of investment depreciation** are considered as key obstacles.
- The level of **governance arrangements for RITT is low**, with deficiencies of coordination and communication.
- The **modes of governance are mostly regulatory**, rather than market-responsive, and not satisfactorily effective in supporting RITT.



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# Recommendations 1

Recommendations present **strong thematic country convergences** in the:

- **Improvement of financial support to RITT - corresponding infrastructures and human resources and the establishment of innovation funding structures and financial instruments.**

Specifically, through:

- increased budget funding
- prioritisation of research needs, re-orientation and rationalisation of project funding



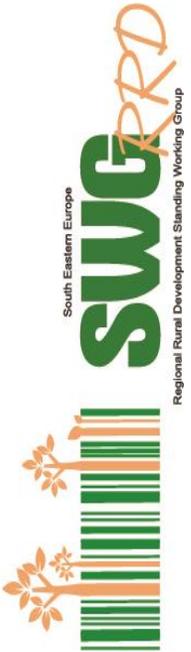
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# Recommendations 2



- adoption and coordination of an inter-ministerial model of cooperation to avoid double-funding of similar thematic area projects
- development of new financial instruments involving commercial banks and national development banks with the support of IPARD III funds (in line with the establishment of the Guarantee Funds with EIF in the context of the EU Rural Development programmes)



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# Recommendations 3



- **Finalization of pending regulatory, legislative framework** for RITT - related strategies and policies like:
  - the finalization of the Smart Specialization Strategies
  - the legislative and regulatory formalization of AKIS
  - the formalization of the extension services and their integration in AKIS.
    - in particular, the definition of roles for the extensionists and the involvement of human capacity building and certification to improve the credibility of the system



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# Recommendations 4

- **Upgrading of both formal and non-formal educational programmes to raise awareness and knowledge-based research and innovation.**

Specifically:

- include practical classes in the field of agriculture and food technologies in both secondary and tertiary levels
- align educational programmes with the needs of production and market



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# Recommendations 5



- complement formal education with lifelong learning and training
- introduce non-formal vocational training programmes
- support the establishment of innovation hubs and technology incubators in the line of the Erasmus initiative “Theory to Practice centres for innovation and employment” (T2P)



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# Recommendations 6

- **Upgrading of the governance environment** of RITT reducing bureaucracy and establishing the appropriate institutions and decision-making bodies.
- With regards to **external and international factors** for RITT enhancement, it is recommended to:
  - widen and deepen collaboration with international education and research organisations
  - introduce an institutional EU programme for knowledge and experience sharing with WB research and educational institutions
  - request EU financing of European institutes for the dissemination of knowledge and innovation to farmers and other actors along the value chain, in partnership with the WB institutes and organisations



# Recommendations 7



- **With regards to IPARD:**
  - request for an improvement of IPARD funding
  - implementation of RITT - related measures like “Cooperation for Innovation and Knowledge Transfer” in IPARD III
  - improved targeting of existing measures towards innovation and technology development
  - undertake all the necessary initiatives to meet the required conditions for the activation of IPARD funds for all RITT actors in BiH
- For the facilitation of RITT capacities related to green and clean technologies it is proposed to **support the introduction of various forms of renewable energy sources** to replace fossil fuel.



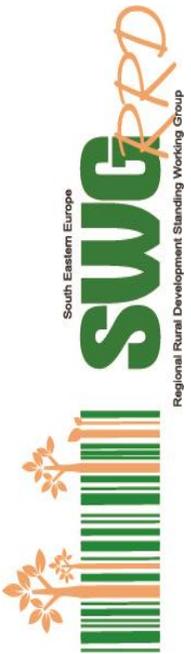
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# Action recommendations 1



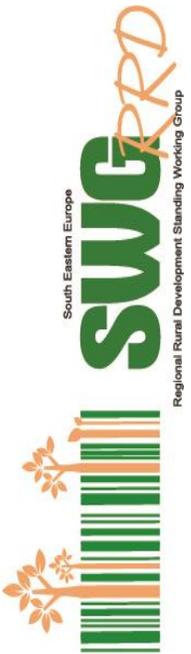
- The connection of existing IPARD **measures of farm modernization, processing and marketing schemes** with selection/evaluation criteria to support the adoption of green and clean innovation and technology.
- The activation of the proposed IPARD measure “**Cooperation for Innovation and Knowledge Transfer**” to create the missing culture of cooperation, networking, and interaction for the dissemination of research and innovation.
- The **creation of training opportunities:**
  - to improve farmers’ knowledge of modern/innovative and digital agriculture
  - to provide knowledge of farm management and business planning



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# Action recommendations 2



- The establishment of **Agri-food Centres of Innovation and Entrepreneurship** involving University/Research Institutions, Regional authorities, Farm organizations and the private sector.
- The enhancement of **internet broadband connectivity** in rural areas to facilitate farm digitalisation.
- The introduction of a specific measure with incentives targeting at the **demographic renewal of farming population** for the modernisation and transformation of the sector along the value chain.

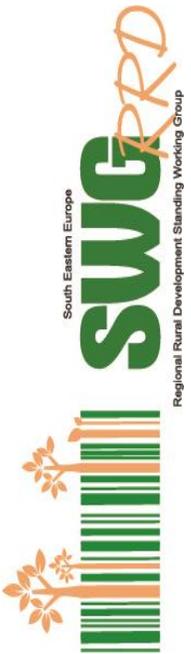


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# Action recommendations 3

- The encouragement of the **creation of farmers organizations** to serve as farmer support groups and shared knowledge centres.
- The creation of the conditions for **easy access to low cost credit provision for start-ups** in the agri-food sector.
- The introduction and/or improvement of regulatory/policy measures related to **easing access to land** through inheritance, purchase or tenancy.
- The **establishment of a regional structure** for regular exchange and consultation on RITT in the context of the Common Regional Market.



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