

# INTEGRATED VALUE CHAIN AND COOPERATION SCHEME FOR SMART VILLAGE PROJECTS

*Chernivtsi Region - Ukraine - Republic of Korea*

Working document for presentation and negotiations with partners

## 1. General Topic of the Document

Document topic: creation of an integrated Ukrainian-Korean Smart Village model in Chernivtsi Region, combining land preparation and restoration, pilot cultivation of winter onion, modern cold logistics and processing of fruit and vegetable products, as well as language and educational support for international cooperation.

The key idea is that each separate project has its own function, but together they form a single value chain: from land and cultivation to storage, processing, export, staff training and long-term regional development.

A special strategic direction is the formation of a raw-material and processing base for the production of onion ingredients, in particular for the Korean ramyeon market, as well as the creation of infrastructure for exporting Ukrainian fruit and vegetable products.

## 2. List of Projects in the Integrated Model

No.	Initiator	Project Name	Budget	Jobs	Role in the Chain
1	ASC "EKO PERSPEKTYVA"	EkoMulcher Bukovyny	560,000 \$	up to 10	Clearing land, old orchards, shrubs and overgrown areas to return them to productive use.
2	LLC VKF "Ekoprod"	AI-driven universal smart robotic fruit and vegetable warehouse	≈22,000,000 \$	40-60	Storage of more than 3,000 t, packaging, freezing, onion processing for Korean ramyeon, robotics and AI management.
3	PE Language College "Prioritet"	Language College 4.0	≈166,000 \$	12-20	Regional language hub for Korean-Ukrainian cooperation, staff training, language support and digital education.
4	PSP "Bukovyna-Foralberg"	Cultivation of winter onion as a raw material for noodles and as a product for the final consumer	250,000 \$	up to 20	Pilot cultivation of winter onion on 10-30 ha for Smart Village and for Ukrainian and Korean markets.

The total indicative budget of the four projects is approximately 22,976,000 US dollars. The expected social effect is the creation of up to 210 direct jobs, excluding seasonal employment, related logistics, service, agronomic support and indirect jobs in the region.

## 3. Information Cards of Participants

### 1. Agricultural Service Cooperative "EKO PERSPEKTYVA" (ASC)

Legal address	59312, Chernivtsi Region, Kitsman District, Shyshkiivtsi village, 5 Dushynskoho Street
Project name	EkoMulcher Bukovyny
Project topic	The enterprise proposes to implement an investment project for the purchase of a self-propelled mulcher and other necessary equipment for clearing agricultural land, old orchards, shrubs and overgrown land in Chernivtsi Region that is currently not being used for its intended purpose, in cooperation with Korean companies.

<b>Budget</b>	560,000 \$
<b>Manager</b>	Mariia Yuryivna Vizniuk, +38 (066) 909 52 54
<b>Number of jobs</b>	up to 10 jobs
<b>Appendices</b>	"EkoMulcher_bukovyny.pptx", "Information Card EkoMulcher.docx"
<b>Function in the integrated model</b>	land preparation and service clearing for agricultural production;

## 2. LLC VKF "Ekoprod"

<b>Legal address</b>	101 Tsentralna Street, Novoselytsia, Chernivtsi Region, Ukraine
<b>Project name</b>	AI-driven universal smart robotic fruit and vegetable warehouse
<b>Project topic</b>	AI-driven fruit and vegetable warehouse with a capacity of not less than 3,000 t, with packaging, freezing, onion processing for Korean ramyeon and a calendar-based utilization schedule. The project is being implemented in Chernivtsi Region in partnership within the framework of the Seoul Declaration.
<b>Budget</b>	approximately 22,000,000 \$
<b>Manager</b>	Mykhailo Oleksandrovykh Nikulin, +38 050 330 38 18
<b>Number of jobs</b>	from 40 to 60 jobs
<b>Appendices</b>	"Information Card Ekoprod.docx", "Warehouse Project.pptx"
<b>Function in the integrated model</b>	infrastructure for storage, processing, packaging, freezing and export;

## 3. PE Language College "Prioritet"

<b>Legal address</b>	Legal address: 7 Pivdenna Kiltseva Street, Apt. 26, Chernivtsi, Ukraine, 58013. Actual address: 187 Holovna Street, Chernivtsi, Ukraine, 58013
<b>Project name</b>	Language College 4.0
<b>Project topic</b>	Practical implementation of the Seoul Declaration: creation of the regional language hub "Language College 4.0" in Chernivtsi for language, digital, professional and inclusive staff training.
<b>Budget</b>	approximately 166,000 \$
<b>Manager</b>	Tetiana Ivanivna Kryzhanovska, +38 050 528 75 30
<b>Number of jobs</b>	from 12 to 20 jobs
<b>Appendices</b>	"Information Letter Prioritet.docx", "Prioritet_presentation.pptx"
<b>Function in the integrated model</b>	human resources, language, translation and educational support for Ukrainian-Korean cooperation;

## 4. PSP "Bukovyna-Foralberg"

<b>Legal address</b>	59312, Chernivtsi Region, Kitsman District, Shyshkivtsi village, 5 Dushynskoho Street
<b>Project name</b>	Cultivation of winter onion as raw material for noodles and as a product for the final consumer
<b>Project topic</b>	Pilot cultivation of winter onion on the lands of PSP "Bukovyna-Foralberg" for the Ukrainian-Korean Smart Village project, with further orientation toward the Korean market and onion processing for ramyeon production.
<b>Budget</b>	250,000 \$
<b>Manager</b>	Yurii Vasilovich Vizniuk, +38 050 338 25 35
<b>Number of jobs</b>	up to 20 jobs
<b>Appendices</b>	appendices are being prepared separately
<b>Function in the integrated model</b>	production of the basic raw material - winter onion - for the domestic market, export and processing.

## 4. Value Chain

The integrated value chain begins not with the warehouse and not with export, but with preparation of the land resource. Clearing and returning land into use creates the basis for cultivating winter onion and other fruit and vegetable crops. The grown products then enter a modern robotic warehouse, where they undergo

quality control, cooling, storage, sorting, packaging, freezing or processing. This is the stage where the main added value is formed.

The final level of the chain is product sales on the Ukrainian, European and Korean markets. For the Korean direction, onion as a raw material for processing into ramyeon ingredients is of special importance. The educational block "Language College 4.0" provides human resources, language and communication support for this cooperation.

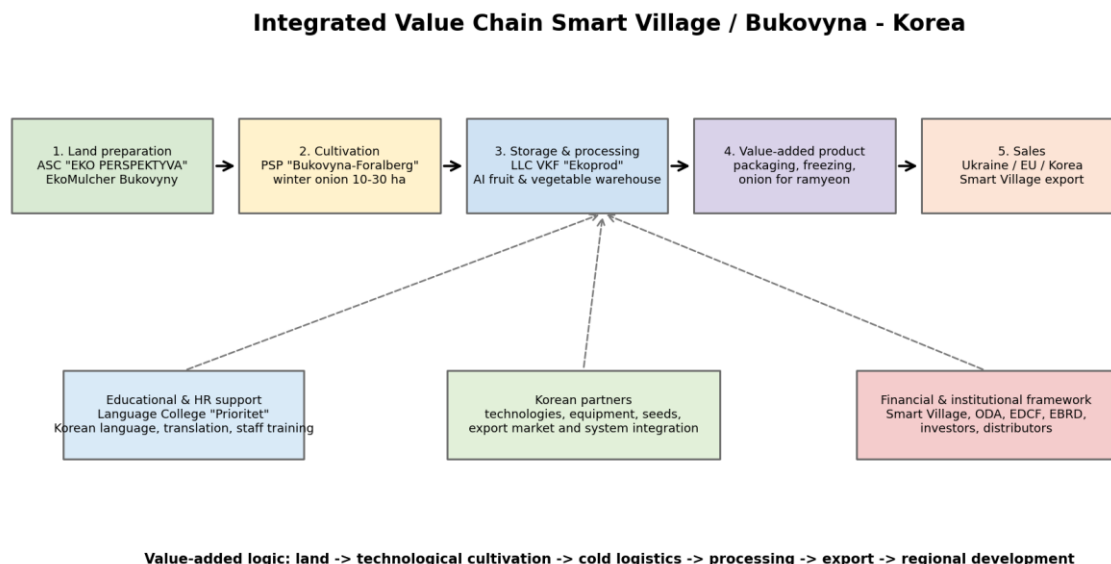


Figure 1. Value chain of the integrated Smart Village model

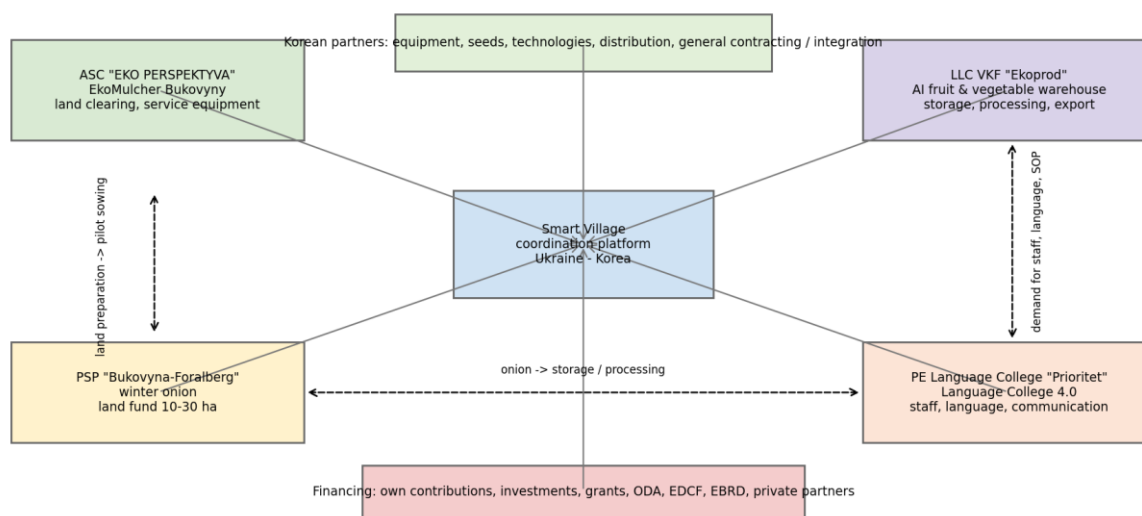
## 5. Explanation of Value-Added Stages

Stage	Function	Performer	What happens	Where value is added
Stage 1	Land preparation	ASC "EKO PERSPEKTYVA"	clearing plots, old orchards, shrubs, preparing land for economic use	return of land into use, service provision, formation of a base for production
Stage 2	Cultivation of winter onion	PSP "Bukovyna-Foralberg"	establishing pilot areas of 10-30 ha, cultivation, agronomic support, harvesting	raw material for the domestic market, processing and export
Stage 3	Storage and quality stabilization	LLC VKF "Ekoprod"	cooling, temperature and humidity control, sorting and quality preservation	lower losses, ability to sell not immediately after harvest but during better market periods
Stage 4	Processing and packaging	LLC VKF "Ekoprod"	packaging, freezing, onion processing, preparation of ingredients for ramyeon	significant product price growth due to added processing
Stage 5	Export and sales	all partners + Korean companies	contract cultivation, distribution, sales in Ukraine, the EU and Korea	foreign-currency revenue, long-term contracts, integration into international supply chains
Stage 6	Staff and communication	PE Language College "Prioritet"	staff training, Korean language, translation, business communication, digital skills	reduction of communication barriers and improvement of the quality of international cooperation

## 6. Cooperation Scheme Between Projects

The cooperation of the four projects is based on the principle of functional distribution. Each participant is responsible for a separate part of the system, but the result emerges only through coordination via the common Smart Village platform.

## Cooperation Scheme of Four Projects within Smart Village



**Conclusion: each project performs a separate function, but the economic effect emerges through their interaction.**

Figure 2. Organizational scheme of project cooperation

## 7. Participant Interaction Matrix

Participant link	Subject of cooperation	Expected result	Practical action
EkoMulcher -> Bukovyna-Foralberg	land preparation for crops	high-quality and suitable areas for winter onion	clearing, mulching, site preparation
Bukovyna-Foralberg -> Ekoprod	supply of onion as raw material	stable loading of storage and processing capacities	contract cultivation and delivery schedule
Ekoprod -> Korean market	processing, packaging, freezing, onion ingredients for ramyeon	product with higher added value	contracts with Korean manufacturers / distributors
Prioritet -> all projects	language, educational and translation support	better communication with Korean partners	Korean language, technical terminology, negotiation support
Korean companies -> all projects	equipment, technologies, seeds, integration, markets	technology transfer and access to new sales channels	memoranda, contracts, pilot deliveries
Smart Village -> region	joint coordination and financing	cluster development of Chernivtsi Region	roadmap, pilots, scaling

## 8. Economic Logic of the Integrated System

The economic logic lies in the transition from selling raw materials to selling products with higher added value. For example, onion can be sold as fresh produce, but much greater potential arises when it undergoes storage, calibration, packaging, drying, freezing or processing into ingredients for the food industry.

The project "EkoMulcher Bukovyny" reduces the entry barrier for agricultural production because it helps return neglected land into use. PSP "Bukovyna-Foralberg" creates the basic raw material. LLC VKF "Ekoprod" transforms this raw material into a stable marketable product suitable for Ukrainian and international markets. PE Language College "Prioritet" provides human capital and the ability to work with Korean partners.

Indicator	Value	Comment	Strategic effect
Total portfolio budget	≈22,472,000 \$	sum of the four declared projects	formation of a full cycle from land to export
Largest infrastructure component	≈22,000,000 \$	AI fruit and vegetable warehouse of LLC VKF "Ekoprod"	basis for storage, processing and market access
Pilot raw-material production	250,000 \$	PSP "Bukovyna-Foralberg"	cultivation of winter onion for Smart Village
Land service	560,000 \$	ASC "EKO PERSPEKTYVA"	preparation of land for agricultural use
Educational block	≈166,000 \$	PE Language College "Prioritet"	staff training and communication bridge with Korea
Jobs	up to 110	direct jobs across four projects	growth of employment and competencies in the region

## 9. Recommended Cooperation Management Model

For practical implementation, it is advisable to create a Smart Village coordination working group including representatives of all four initiators, Korean partners, potential investors, technical integrators and distributors.

- Coordination council: adopts strategic decisions, approves the roadmap, controls implementation of stages.
- Technical block: responsible for equipment, agrotechnologies, robotics, cold logistics and energy solutions.
- Agricultural block: plans crops, agronomic support, harvest schedule and quality of raw materials.
- Commercial block: prepares contracts with buyers, distributors, Korean companies and export partners.
- Educational and communication block: provides translation, staff training, Korean language and professional training.

## 10. Project Integration Roadmap

Stage	Period	Main actions	Expected result
1	0-3 months	signing memoranda, clarifying land plots, technical audit, final partnership structure	launch of the coordination platform
2	3-6 months	land preparation, purchase of mulching equipment, agronomic preparation of pilot areas	readiness for pilot cultivation
3	6-12 months	planting winter onion crops, staff training, negotiations with Korean buyers	first production cycle
4	12-24 months	deployment of the fruit and vegetable warehouse, launch of sorting, packaging, storage and processing	value-added infrastructure
5	24-36 months	scaling of cultivated areas, contract cultivation, entry into Korea and the EU, development of the educational hub	fully operational Smart Village cluster

## 11. Expected Result for Chernivtsi Region

As a result of the implementation of the project portfolio, Chernivtsi Region can receive not isolated businesses, but an interconnected regional ecosystem. It will combine land services, agricultural production, a high-tech warehouse, processing, export, education and international partnership.

- Return of neglected or insufficiently efficiently used land into productive use.
- Launch of pilot winter onion production for the Ukrainian and Korean markets.
- Creation of modern infrastructure for storage and processing of fruit and vegetable products.
- Formation of a specialized direction: onion as a raw material for ramyeon and the Korean food industry.
- Creation of up to 110 direct jobs and additional seasonal employment.
- Strengthening Ukrainian-Korean cooperation through practical projects, not only declarations.

## 12. Conclusion

The proposed model shows that the four projects can operate as one system. "EkoMulcher Bukovyny" creates the land foundation, "Bukovyna-Foralberg" forms the raw-material base, "Ekoprod" provides processing and export infrastructure, and "Language College 4.0" supports international communication and staff training.

Within Smart Village, this cooperation creates a full value chain: from land and harvest to a high-tech product, export, jobs and long-term regional development. It is the integration of these projects that makes the portfolio stronger than the sum of its individual parts.