

Quality analysis of the FADN results for Slovenia - second stage results

Kožar M.¹, Brečko J.¹, Erjavec E.², Jerič D.³, Kavčič S.², Moljk B.¹, Rednak M.¹, Volk T.¹, Zagorc B.¹, Žgajnar J.² (contact: maja.kozar@kis.si)

¹ Agricultural Institute of Slovenia

² Univ. of Ljubljana, Biotechnical Faculty, Dep. of Animal Science

³ Agricultural advisory service, Chamber of Agriculture and Forestry of Slovenia

25th PACIOLI Workshop Helsingør, October 1st-4th 2017

Outline of presentation

- Project recap
- Project results: Economic counseling to farmers
- Project results: Farm-level MP model
- Final activities and conclusions

Project recap

- Development of Holistic Model of Agricultural Holdings and Related Databases for Decision Making in Slovenian Agriculture⁴; state financed, duration 2014-2017; partners: Agricultural Institute of Slovenia, University of Ljubljana, Agricultural Advisory Service
- Key aim from the perspective of FADN data quality: systematic, indepth quality analysis of FADN data for Slovenia, recommendations to improve data quality & usability
- Quality of data as 'fitness for use'; not only accuracy, but a mixture of different components/dimensions
- Analysis by quality components adapted from EU guidelines for preparation of statistical quality reports (European Statistics Code of Practice, 2011; ESS Handbook for quality reports, 2015; Quality Assurance Framework of the European Statistical System, 2015)

Project recap – cont.

- 2-stage project from the perspective of FADN data quality
- First stage: quality analysis of Slovenian FADN from the organizational (operational) perspective
- **Second stage:** more in-depth analysis of basic FADN data (cross-checking with other databases, model)
 - <u>accessibility and clarity</u> (economic counseling to farms)
 - <u>accuracy and reliability</u>, <u>sound methodology</u> & <u>appropriate statistical</u> <u>procedures</u> (cross-checking of FADN data with other data, model) and
 - <u>relevance</u> (support to policy making, identify data needs of advisers and farms)
- Results presented today second stage results (2016-2017)

Project results: Economic counseling to farms based on FADN data (WP3)

- Data quality component: accessibility and clarity
- **Aim:** upgrading economic advisory work for Slovenian farmers (estimating income situation of farms); small interactive groups of farms (following Austrian good practice); learn by doing, improving feedback
- Dairy farms; prevailing agric. activity in Slovenia, reliable results in FADN
- Workshops with farmers; 2 pilot workshops per 2 regions (5-10 farms); not all farms in FADN; combined data sources (FADN, tax accountancy, <u>www.govedo.si</u>; farm estimates ...); years: 2015, 2016
- SEZAM: simple spreadsheet tool to estimate gross margins (income, fertility and quality, costs, feed, final calculation) & analyze economic situation of farms; farmers filled in their own data and interpret results; help of advisers / moderators; "corrected" gross margin (5-year average replacement rate)
- **Model results:** individual and group results discussed within the group; simple bench-marking (bottom 25%, average, top 25%); sharing results and best practice; comparing production efficiency, problem identification, errors in data

Selected screenshots of SEZAM tool – individual data and results (Jerič et al., 2017)

OCENA PRIHODKA	Enota	Vrednost	Vir podatkov	Opozorilo
Prodano mleko na leto (prodano mleko v mlekamo in domača prodaja)	kg	234.285	FADN - živalski proizvodi in storitve	
Poraba mleka na kmečkem gospodinjstvu na leto (lastna poraba v gospodinjstvu)	kg	360	FADN - živalski proizvodi in storitve ali ocena kmetije	
Povprečna poraba mleka za teleta (koliko eno tele spije mleka)	kg/tele	250	Ocena kmetije	
Skupna poraba mleka za teleta na leto	kg	11.000	Preračun - NE VPISUJ!	
Razlika med selekcijsko proizvodnjo mleka ter prodanim in porabljenim mlekom (izgube in drugo)	kg	25.082	Preračun - NE VPISUJ!	
Prodano in porabljeno mleko na kravo, na leto (dejanska proizvodnja mleka na kravo, tudi s porabo za teleta)	kg/kravo	6.007	Preračun - NE VPISUJ!	
Delež prodanega in porabljenega mleka glede na skupno prirejo mleka	%	90,7	Preračun - NE VPISUJ!	
Vrednost prodanega mleka na leto (prodano mleko v mekarno in domača prodaja)	EUR	90.393	FADN - živalski proizvodi in storitve	
Vrednost porabljenega mleka na kmečkem gospodinstvu na leto (lastna poraba v gospodinjstvu)	EUR	139	Preračun - NE VPISUJI	
Vrednost porabljenega mleka za teleta na leto	EUR	4.244	Preračun - NE VPISUJI	
Cena prodanega mleka na kg	EUR/kg	0,386	Preračun - NE VPISUJI	
Skupna vrednost proizvedenega mlekoma leto	EUR	94.776	Preračun - NE VPISUJ!	

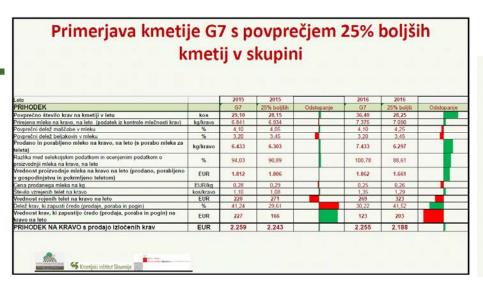
	Vrednost na kmetijo (EUR)	Vrednost na kravo (EUR)	Vrednost na kg mleka (EUR cent)	Delež %
POKRITJE	27.969	684	11,39	
Prihodki na kravo brez izločenih krav	101.226	2.476	41,21	
Stroški na kravo brez vrednosti telic	68.265	1.669	27,79	
Neto stroški obnove črede na kravo	7.022	172	2,86	
KORIGIRANO POKRITJE	25.940	634	10,56	

KONČNA KALKULACIJA	Kmetijsko gospodarstvo: Jože Novak										
	Podatki za leto: 2016										
	Vrednost na kmetijo (EUR)	Vrednost na kravo (EUR)	Vrednost na kg mleka (EUR cent)	Delež %							
PRIHODEK											
Povprečno število krav v letu	40,89										
Prodano in porabljeno mleko - količina (kg)	245.645	6.007									
Prodajna cena mleka (EUR/kg)	0,386										
Vrednost prodanega in porabljenega mleka	94.776	2.318	38,58	91,							
Vrednost telet	6.450	158	2,63	6,							
Vrednost izločenih živali	2.808	69	1,14	2,							
PRIHODEK SKUPAJ	104.034	2.544	42,35	100							

	Vrednost na kmetijo (EUR)	Vrednost na kravo (EUR)	Vrednost na kg mleka (EUR cent)	Delež %
SPREMENLJIVI STROŠKI	•			
Vrednost prevedenih telic	7.800	191	3,18	10,3
Kupljena koncentrirana krma	19.805	484	8,06	26,0
Kupljena voluminozna krma	1.248	31	0,51	1,6
Doma pridelana koncentrirana krma	0	0	0,00	0,0
Doma pridelana voluminozna krma	36.989	905	15,06	48,6
Skupaj stroški krme	58.042	1.419	23,63	76,3
Veterinarski stroški	1.618	40	0,66	2,1
Ostali posebni stroški živinoreje	5.689	139	2,32	7,5
Drugi stroški	2.916	71	1,19	3,8
SPREMENLJIVI STROŠKI SKUPAJ	76.065	1.860	30,97	100,0



Selected screenshots of SEZAM tool – benchmarking results (Jerič et al., 2017)



Medsebojna primerjava kazalcev kmetij v skupini

(Primer: Gorenjska 2016)

Podrobnejši prikaz glavnih kazalcev prihodka in stroškov

KAZAI FC	Povprečie		I	ndivid	ualni p	odatk	i (razv	rščen	о ро р	okritju	i)	
RAZALLC	INNEREC							G8	G7	G1	G3	G11
KORIGIRANO POKRITJE	EUR/kravo	458		97	170	187	349	419	614	662	806	82
Delež variabilnih stroškov v prohodkih	%	75	lilina	94	84	90	78	80	71	67	56	6
Prirejeno mleko (podatek iz kontrole mlečnosti)	kg/kravo	6865	dia	6826	3237	7244	6080	9285	7375	7559	6315	786
Prihodki brez izločenih krav	EUR/kravo	1825	a all lat	1677	1065	1800	1621	2133	2131	2031	1817	215
Vrednost proizvodnje mleka	EUR/kravo	1579		1439	739	1653	1351	1961	1862	1888	1464	185
Vrednost rojenih telet	EUR/kravo	246	dana da	238	326	146	270	172	269	143	352	29
Stroški skupaj (korigirano pokritje)	EUR/kravo	1367	Lidition	1579	896	1613	1272	1713	1517	1369	1011	133
Stroški skupaj (korigirano pokritje)	EUR/kg	0,22	III	0,26	0,29	0,24	0,23	0,21	0,20	0,18	0,18	0,1
Stroški krme na kg mleka	EUR/kg	0,14	Ind.	0,17	0,16	0,15	0,17	0,13	0,14	0,13	0,12	0,1
Stroški krme na kravo	EUR/kravo	916		1019	485	1018	945	1054	1041	968	655	106
Veterinarski stroški za rejo krav	EUR/kravo	58	date.	116	58	73	42	76	60	46	37	- 1
Skupaj vrednost ostalih stroškov za rejo krav	EUR/kravo	192	dada	234	307	163	153	275	183	162	138	11
Neto stroški obnove črede	EUR/kravo	201	r. I. Hiron	210	46	358	132	308	234	192	180	14

Primerjava kmetije G7 s povprečjem 25% boljših kmetij v skupini

ORIGIRANO POKRITJE NA KRAVO	EUR	608	821	0	614	814		
eto stroški obnove črede	EUR	122	182		234	162		
bnova črede (5 letno povprečje)	%	33,33	28,04		33,33	28,04		
troški brez vrednosti telic	EUR	1.302	1.075	200000	1.283	1.009		
rihodki brez izločenih krav	EUR	2.032	2.077		2.131	1.985		
OKRITJE NA KRAVO	EUR	390	727		378	672		
PREMENLJIVI STROŠKI NA KRAVO z obnovo črede	EUR	1.869	1.516	0	1.877	1.516		
troški obnove črede na kravo	EUR	567	442		593	507		
rednost telice (nakup)	EUR/kos	1.100	1.250		1.200	1.250		
bnova črede	%	51,55	35,34		49,45	40,57		
rednost ostalih stroškov za rejo krav na kravo	EUR	78	67		82	59		
rednost ostalih posebnih stroškov za rejo krav na kravo	EUR	100	121		101	66		
eterinarski stroški za rejo krav na kravo	EUR	89	23	3	60	26	0.0000	
kupaj stroški krme na kravo	EUR	1.035	864		1.041	858		
oma pridelana voluminozna krma za krave na kravo	EUR	359	467		366	444		
oma pridelana koncentrirana krma za krave na kravo	EUR	17	5	2	18	11		
upljena voluminozna krma za krave na kravo	EUR	6	1	9	2	14	100	
upljena koncentrirana krma za krave na kravo	EUR	653	391	1	654	389		
CENA STROŠKOV		G7	25% boljših	Odstopanje	G7	25% boljši	Odstopanje	
		2015	2015		2016	2016		

Medsebojna primerjava kazalcev kmetij v skupini (Primer: Gorenjska 2016) Zbirni prikaz kazalcev prihodka in stroškov

KAZALEC		- I	ndivid	ualni p	odatk	i (razv	rščen	о ро р	okritju)		
KAZALEC		Povprečje skupine		G6	G2	G9	G4	G8	G7	G1	G3	G11
KORIGIRANO POKRITJE	EUR/kravo	458	111	97	170	187	349	419	614	662	806	822
Delež variabilnih stroškov v prohodkih	%	75	libro	94	84	90	78	80	71	67	56	62
Prirejeno mleko (podatek iz kontrole mlečnosti)	kg/kravo	6865		6826	3237	7244	6080	9285	7375	7559	6315	7865
Prihodki brez izločenih krav	EUR/kravo	1825	and the	1677	1065	1800	1621	2133	2131	2031	1817	2153
Vrednost proizvodnje mleka	EUR/kravo	1579	r. Idlibil	1439	739	1653	1351	1961	1862	1888	1464	1858
Prodano in porabljeno mleko	kg/kravo	6348	e, adillar	6002	3098	6714	5538	8161	7433	7590	5480	7114
Prodano in porabljeno/Prirejeno(kontrola mleč.)	%	93	atmall.	88	96	93	91	88	101	100	87	90
Cena prodanega mleka na kg	EUR/kg	0,25		0,24	0,24	0,25	0,24	0,24	0,25	0,25	0,27	0,26
Vrednost rojenih telet	EUR/kravo	246	dara di	238	326	146	270	172	269	143	352	294
Število vzrejenih telet na kravo	glav/kravo	1,17	Jan Lie	0,95	1,30	0,98	1,23	1,15	1,35	0,95	1,41	1,18
Cena telet	EUR/tele	211	Haradi	250	250	150	220	150	200	150	250	250
Stroški skupaj (korigirano pokritje)	EUR/kravo	1367	Lidio	1579	896	1613	1272	1713	1517	1369	1011	1331
Stroški skupaj (korigirano pokritje)	EUR/kg	0,22	thu	0,26	0,29	0,24	0,23	0,21	0,20	0,18	0,18	0,19
Stroški krme na kg mleka	EUR/kg	0,14	listas	0,17	0,16	0,15	0,17	0,13	0,14	0,13	0,12	0,15
Delež stroškov krme v skupnih stroških	%	67	e al articl	65	54	63	74	62	69	71	65	80
Delež stroškov močne krme v stroških krme	%	49	1,0000	46	6	50	45	56		58	34	55
Poraba krme v primerjavi z normativom - NEL	%	106	lanta da	129	100	111	110	83	96	113	100	109
Poraba krme v primerjavi z normativom - BELJ.	%	110	d	117	137	111	118	101	106	97	102	103
Stroški krme na kravo	EUR/kravo	916	Lillia	1019	485	1018	945	1054	1041	968	655	1061
Veterinarski stroški za rejo krav	EUR/kravo	58	haana.	116	58	73	42	76	60	46	37	14
Skupaj vrednost ostalih stroškov za rejo krav	EUR/kravo	192	d.d.	234	307	163	153	275	183	162	138	111
Neto stroški obnove črede	EUR/kravo	201	r.I.Hima	210	46	358	132	308	234	192	180	144
Obnova črede (5 letno povprečje)	%	28,6	addinal	31	24	36	18	33	33	26	23	34
Vrednost prevedene telice	EUR/glavo	1222	Londo	1300	1100	1200	1200	1200		1300	1200	1300
Vrednost izločene krave	EUR/glavo	506	Haratal	806	904	239	480	275	409	670	287	754



Project results: Economic counseling to farms based on FADN data (WP3) – some lessons learned

- Evidence-based, custom-made counseling, group discussions: novelty for
 Slovenia; high demand for this form of counseling, good response (trust) from farmers; learning curve for both, farmers and advisers
- Successful pilot testing of discussion groups of farmers and the tool; very flexible to spread to other regions, sectors (e.g. cereals, cattle meat, ...)
- FADN: good starting point for discussion groups; increasing the use of data,
 improving clarity and accessibility of FADN results for farmers
- **FADN data quality:** some problems identified ("quality" of data collectors, errors in data, codes, etc.), recommendations (additional instructions and prepared info, additional data collecting for better estimates (e.g., feed Q)
- **Future plans:** more discussion groups, upgrade the tool (fixed costs, other sectors, cloud technology), education of moderators/advisers
- **Key recommendations:** work on databases (interoperability, ...), education of moderators/advisers (improve specialization, motivation), stable financing (reorganization, participation of farmers, RDP: co-operation, ...)

Project results: "Model calculations" and farm-level MP model (WP4, WP5)

- Data quality comp.: accuracy & reliability, sound meth. & appr. stat. procedures
- **Aim:** develop a tool for comprehensive assessment of economic parameters at the farm-level (different farm types); cross-check quality of (key) FADN data
- Farm-level, MP model developed: farm built from different activities; feed ration and fertilizer modules (balances); activities based on "model calculations" by AIS; normative calculations of specific agricultural products/activities; representative of rational production methods at certain standard normatives for Slovenia (currently around 100 different activities; crop/animal, conventional/organic, outdoor/indoor, different harvesting methods: http://www.kis.si/en/Model Calculations OEK)
- Model calculations are spreadsheet tools for cost estimation; final result: total production costs per product unit ("own price") at the level of specific activity; costs included: VS, depreciation, labour costs, costs of capital
- Model calculations in the project model: standardized activities ("standard" crops, animals) and some selected vegetables included; all calculations extensively updated (data, methods) and remodeled to uniform design

Screenshot of selected crop model calculation by AIS (Zagorc et al., 2017)

4	Α	В	С	D	E	F	G	Н	1	J	K	L	M	N	0	Р	Q	R	
1	1					stroji	pridelek												
2	2	Mesec obračuna	915-716	162	Intenzivnos	s 1													
3		VNOS																	Osn
4	4	ime kalkulacije	Pšenica		katastrska ku							t gl. pridelka			PRID. R.	RAZMERE			ref. p
5	5	šifre	ime	zbir	cenik	pridelek	vzporedni l		bruto prid r	na njivi (tr			delež pride	elka	velikost		1.	\	št. pr
6	6	glavni pridelek	Pšenica	psenica	psensta	7000		7.008	7.151		1	100	100		oddalj.	<u> </u>	1,	\	km p
7	7	str1			slama	3500		3.504		1	<mark>1</mark>	0	0		nagib	1	1.	\	km p
8	_	str2		i					No.	1	<mark>1</mark> III	0	0			povr. kultu	1,	\	skupa
9		str3													odd. me	ed parcelar	0,5	V	skupa
10		str4																	
11		organska gnojila	1	Ļ	Ļ			*											
12				SS sprav.			ME :	ŠV	PSB										NEL/
13		psenica	2	2 85,9	9 86,0	\													
14	14																		
15	15						L		gnoj. funk	ксіја					×		0.0=::::	1	
16	16	1	N	Р			oristek hranil	4	kriterij	Y							POSTAVKE	1	
17	17	7.151	197,4					1								oiz. proces	-9	1	trajan
18		zrnje+slama B	0,028	0,012	2 0,020	1,20	1,05	1,00	0	Y						roiz. proce	y	\	
19	19									$\qquad \qquad +$					zaloga		0,5	'	
20		zrnje+slama A	0,032		,	1,20	1,05	1,00	1	V					st. real.	+	1	y	
21	21		-6,00E-13			1													
22		stara gnojilna	156,15	5 96,08	97,86	V			2	١						at. za lastr	1	\	
23	23															e obv dej(d	Q	1	
24		GNOJENJE MODUL													obračun	n davka na	1	\	
25		Gnojenje z dom. org	ղ. gnoj. (1=d.	la O	DODATNI VI	NOSI				1									
26	26				<u></u>										osnova p	orispevki		1	
27	27	Enaka domača org. gr	mojila, količin <mark>a</mark>	€ O	Seme	200	200	300	<i>_</i>						ddv			1	
28	28	količina		\		1	<u> </u>		i							S (% kred	0	1	
29	29	F pokritja	1		Sušenje na r	anan <mark>a</mark>	1		I							Ob S (% kre	0	1	
30	30	Različna domača org.	(gnojila, doloc	ç O	Slama (1=da	1	1		I							i presežek	1,	V	
31	31	količina		\i	Teža bale	10	1		i						ZAVARO				zavai
32	32		1	i		L1	!								zavpsen		3,984		pridel
33	33	Določeno domače org	<mark>a. gnojilo, dol</mark> o	¢ 0	V	l1	1		I						psensta		1050		
34	34	količina		\i		l1	1		I										
35	35					l1	1		I										
36	36			1		I	!		I						zav zgra	1 <u>d.</u>	0,199	1	zgrad
37	37	Izkoristek	organska			1	1		I			L	OSNOVN	A SREDST	VA				osno
4 4)	NABOR tsil ser	eno / senoNB	B2 / senoN2	2 / senoNHZ	72 / senol	32 / seno2	2 senoH.	Z2 / tsilNi	IB2 / tsill	silN2 / tsilE	ilB2 / tsil2	silkor	psenica	pasaN pa	asa / koru.	za /jecmen	T / jec	cmen1



Screenshot of selected animal model calculation by AIS (Moljk et al., 2017)

																	•				
al	Α	В	С	D	E	F	G	Н	- 1	J	K	L	M	N	0	P	Q	R	S	Т	U
1	1							kontrola		LC		LC2									
2	2	Mesec obračuna	2016	161						1,676		1,563									
3	3																				
4	4	Ime kalkulacije	plemensk	e telice dojilje								st gl. pride					HODIŠČ <i>i</i>	4			
5	5	šifre	ime	zbir		pridelek						delež ce			zač.teža		280				
6	6	Glavni pridelek	pteldoj	pteldoj	pitel	550				da=1/ne		100	100		kon.teža		550				
7	7	Str1				0					II	0	0		prirast/d		0,6				
8	8	str2								0	Ш	0	0			ža v pitar	nju				
9	9	str3													teža ob i					plemens	
10	10	str4													teža ob p					cena	F
11	11	HI gnoj	gnojevka	132	gnojevka	13073	obračun	gnojevke	0	Qizr					del dom	tel			nabavna	0,00	
12	12																		prodajna	0,00	
13	13	DODATNI VNOSI	- POSEBNO	STI POSAME	ZNIH PR	IDELKO	V														
14	14	vel.črede														je(1trav,1	_				
15	15		zimsko	letno	skupaj										vel sum		1	_			
16		st živali	30,0														POSTAVK	E			
17		dni	252	197,777778	450											. procesa			trajanje (450	
18		tip reje														oiz. proce					
19		Tip hleva													zaloga		0				
20	20	let krmlj.													st real		1,0				
21	21																				
22	22	POGOJ za izbor kr	mnega obro	ka (ročni=1/Li	P=0)	1															
23	23															ednotenj:	0				
24	24				450										davek d	obv dej(0				
25	25				272,22																
26	26	telitev	23.1.2009		722,22	23,757															
27	27	konec telice	15.1.2011														_				
28	28															6 (% kred					
29	29															S(% kred	0				
30	30														post pres		1				
31	31														ZAVARO					anje	
32	32														Prid ime		zavmpg		prid	49,36	49,36
33	33														stopnja		4,25		zgradbe		
34	34														osn čred	a ime			Osnovna	0,00	- 0
35	35														stopnja		0		zavz	0,20	9,87
36	36														zav zgra	d.	0,199		zavmpgl		0
37	37												OSNOV							sredstv	
38	38														Q/ha(gl)	Q/tono				nab vrec	
39	39													hlevmp			0,0031			3856,71	3856,7
40	40												310	oprmpgi	DOKS		0		0,0	0,00	0
41	41																		0,0	0,00	0
42	42																		0,0	0,00	0
43	43																		0,0	0,00	0
44	44																		0,0	0,00	
45	45																				
46	46									B 11 (B)											
47	47										SUBVE								subveno		
48	48									obdav s					l /kg r.ma	ime ma	skupina			Q enot	
49	49									0		0	0						0,000	0	0
50	50									0		0	0						0,00	0	0,00
51	51											0	0						0,000	0	0
52	52											0	0						0,000	0	0
53	53											0	0	_	_				0,000		0
54	54											0	0	0	0				0,000	0	0
55	55																				
56	56																		obračun		0
57	57																		osnova z	a odmer	0,0

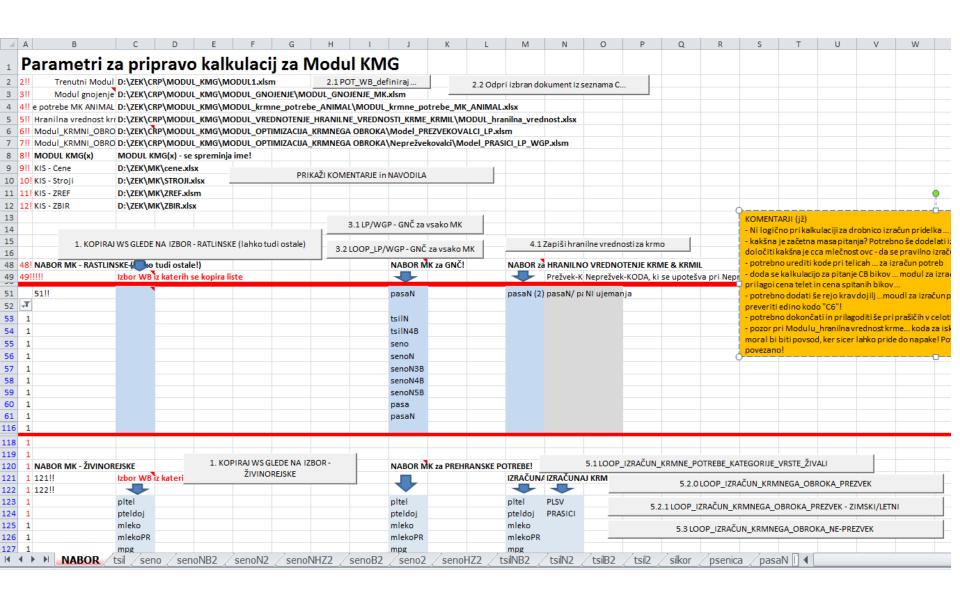
WP4 and WP5: "Model calculations" and farm-level model (MP) – cont.

- **Farm-level, MP model:** LP, GP, WGP, WGP+PF, QP...
- Modular structure:
 - **Module 1:** feeds in a total set of all possible activities (model calculations), calculates the feed ration and balances fertilizers
 - Farm module: builds a farm, based on farm's data (areas, number of animals, etc.) and performs calculations (adapts model calculations); final result: (gross) margin at farm level
- **Programmed in Excel VBA; flexible and easily upgradable** in terms of adding different activities (building different farm types), choosing MP method or analytical focus/topic; also enables feed ratios by season;

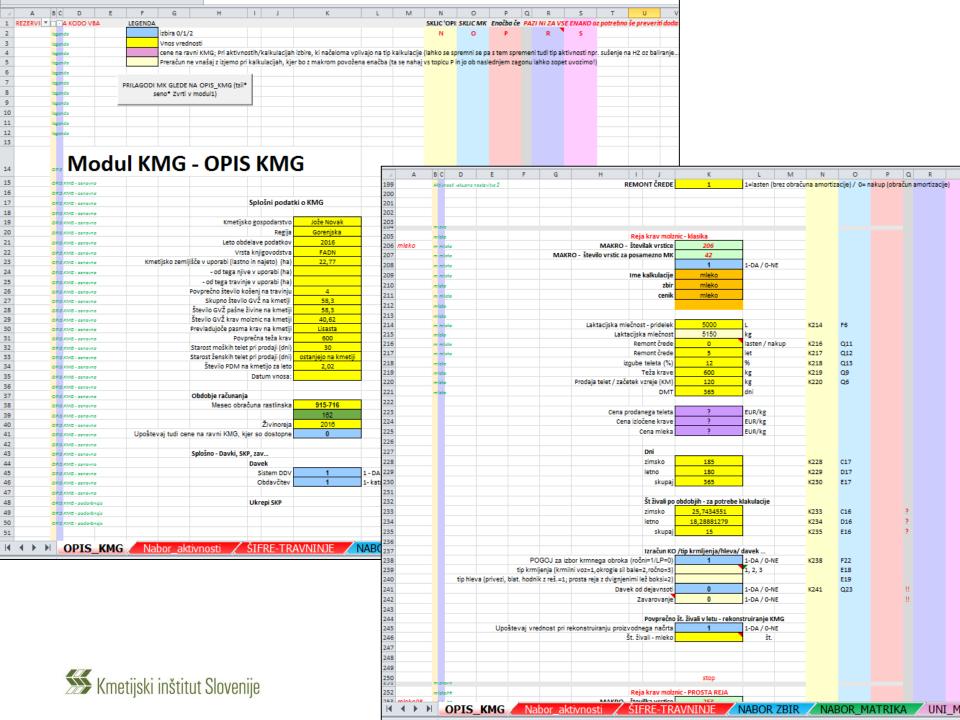
WP4 and WP5: "Model calculations" and farm-level model (MP) – cont.

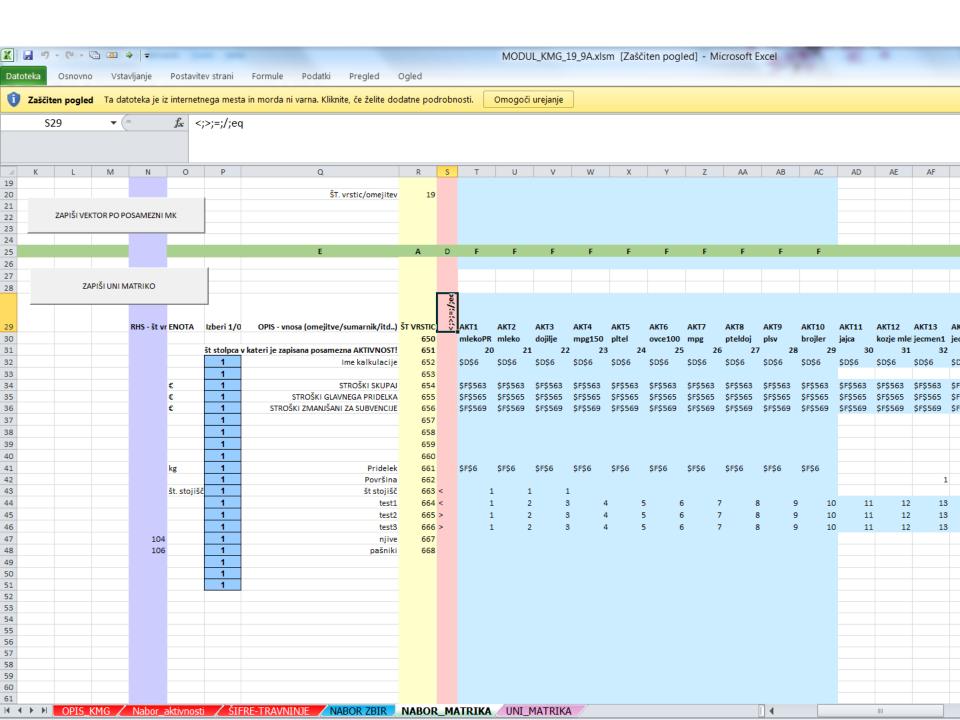
- Model enables wide range of analysis: quick or comprehensive (scenarios, benchmarking, risk and other farm management topics...)
- Within this project: quick test of farm efficiency analysis and crosschecking of FADN data with other data; data of farms from discussion groups
- FADN quality components: accuracy and reliability, sound methodology and appropriate statistical procedures, only selected topics; eg., labour input, valuation of assets)
- Future activities (new project, already started): use the model for the impact analysis of different scenarios of CAP post 2020 at the farm-level (different farm types);

Selected screenshots of farm-level MP model (Žgajnar, 2017)









Final activities and conclusions

- A lot was done in the 2nd stage of project!
- Currently finishing activities & plans for public presentation of project results
- Accessibility and clarity: engaging farmers through new/improved ways of feedback and counseling; modelling tool for collecting data from farms and interpreting economic results
- Accuracy and reliability, sound methodology & appropriate stat. procedures: final activities in progress: model testing on the data of farms from discussion groups (dairy farms type) and cross-checking of FADN data with the model (selected topics)
- **Relevance:** discussion with stakeholders (identify key users of FADN data in Slovenia and their data needs, how to better support policy making with FADN)
- Good inter-institutional co-operation of the whole FADN network helps!

Thank you for your attention!

Contact: maja.kozar@kis.si