

Data collecting system for social surveys (VVIS)

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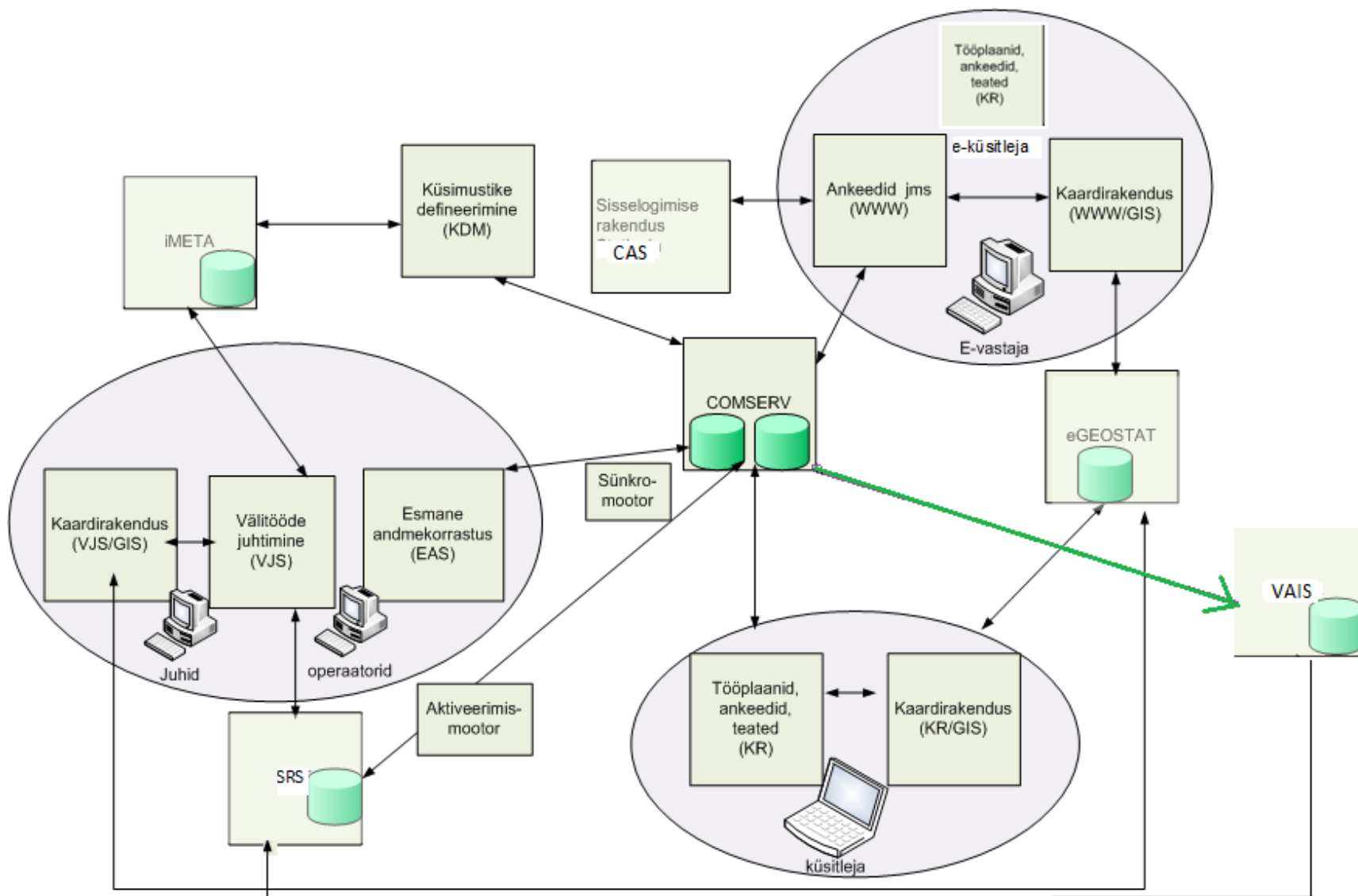


About VVIS system

- Purpose – to create universal system, which would be use for social surveys, agriculture survey and census
- VVIS – data collecting process and information system for supporting processes
- Internet based tool, which consists of related main and supporting applications
- For the first time VVIS was used in 2010 for Agriculture Census and then 2011 for “Population and Housing Census”(CAWI-CAPI)
- All social surveys from 2014

VVIS and other systems

Data collection tools – VJS



Users – VVIS and related applications

Every user has a role and permissions to do specific tasks in certain application

- Related applications - iMETA, SRS, KDM, eGEOstat, VAIS users
- VJS administrator
- VJS users:
 - Field work team – field work manager, supervisor, interviewers
 - Primary data processing – ID code operators, address operators, encoders
 - Customer support: supervisor and consultants

VVIS environments

Live environment

- Live environment is product environment where data collecting process takes place

Prelive environment– identical to *Live*

- For recreation of errors identified in *Live* and testing of improvements
- For performing comprehensive testing after preparation of new version (year) of survey

Training environment- identical to *Live*

- For conducting of training sessions
- Familiarizing with survey materials by fieldwork team before start of fieldwork

Test environment

- For testing of new developments
- Not used for testing of survey content or validation checks

Methods – opportunities for fieldwork

- CAWI
- CAPI
- CATI
- CAWI - CATI
- CAWI - CAPI
- CATI - CAPI
- CAWI-CATI-CAPI

- we may use different methods for different or for the same fieldwork period for different surveys
- we may use different fieldwork teams or the same teams for all surveys
- since 2018 we have opportunity to turn back one of the preceding methods (if the respondent request) [VVIS and other systems](#)

Related systems

iMETA

- Meta-info about surveys
- Background survey information (displayed in the web)
- Classifiers used in questionnaires
- List of variables

SRS - Statistical database

- Sampling
- ERE - Import of sample

eGEOstat

- Maps
- Location info of buildings
- Hierarchy of district division

Related systems (2)

KDM

Questionnaire definition module (KDM system) - desktop application, created for definition of object model and creation of questionnaires used in VVIS system

- object model (data from iMeta, completed in KDMis)
- domains (from iMeta)
- questionnaire designing
- scripts

.

Related systems (3)

VAIS

- Template based data processing system - a collection of tools and technologies aimed at automating data processing

CAS- authentication system

- Users can log into the system using their ID card or Mobile-ID
- Additional options for login are through online banking systems and eesti.ee portal

Main applications of data collecting system (VVIS)

- Public web application (CAWI)
- Field work interviewers application
 - CATI application (online)
 - CAPI application (offline) with encrypted database
- Field work management system VJS
 - Data arrangement module (coding, identification of person, work with addresses)
 - Field work tracing system (supervisors)
 - Help-desk module

Data collection tools – VJS

Field work management system VJS

■ Sampled units list and map

- detailed info about sampled units
- contact info made by interviewer
- map shows location of buildings, where
- sample units locate and statuses

■ Overviews of field work progress

- by administrative units
- by fieldwork team structure
- by Interviewers
- by survey
- by periods (LFS – survey week)

Data collection tools – VJS (2)

Field work management system VJS

- **Surveys and rolls management by system admin**
- **Preparation of fieldwork**
 - Manage access and roles
 - Import sample data in to the system
 - Dividing sample units in the fieldwork hierarchy
 - Schedule and milestones (deadlines) for fieldwork organisation
 - Import sample data and questionnaires into the interviewers laptops

Data collection tool – interviewers applications

■ e-respondent application (CAWI)

- Authentication (ID card) and Questionnaire

■ Interviewers application (CAPI; CATI)

- Sample list and Questionnaires
- Work planning, subject contact scheduling
- Navigation between different surveys and questionnaires
- Overview of field work progress for interviewer
- Automatic software updates (distributed from central server)
- Map info for easier subject location and work planning (offline application)
- Communication with supervisor (messages)

Data collection tools - Data arrangement (EAS)

Data arrangement - identification of person, work with addresses, coding – operators

- **IOP** – personal ID operator
 - checks and improves invalid personal codes by using RR (Population register)
- **AOP** – address operator
 - checks and improves new invalid addresses, what has been entered by the interviewers
- **Encoder** - encodes the business areas, occupational activities, levels of education (using EHAK 2017v2; NACE Rev.2; ISCED; ISCO 08; ...)

Data collection tools - VJS

Possibilities and functionalities to manage and supervise the fieldwork assignment - supervisor:

- monitor and control contacts made by interviewers
- monitor Interviewers progress in fieldwork
- monitor and control soft errors in questionnaires made by Interviewers
- send not correct non-responses or questionnaires back to Interviewers
- during the fieldwork divide sample units between Interviewers

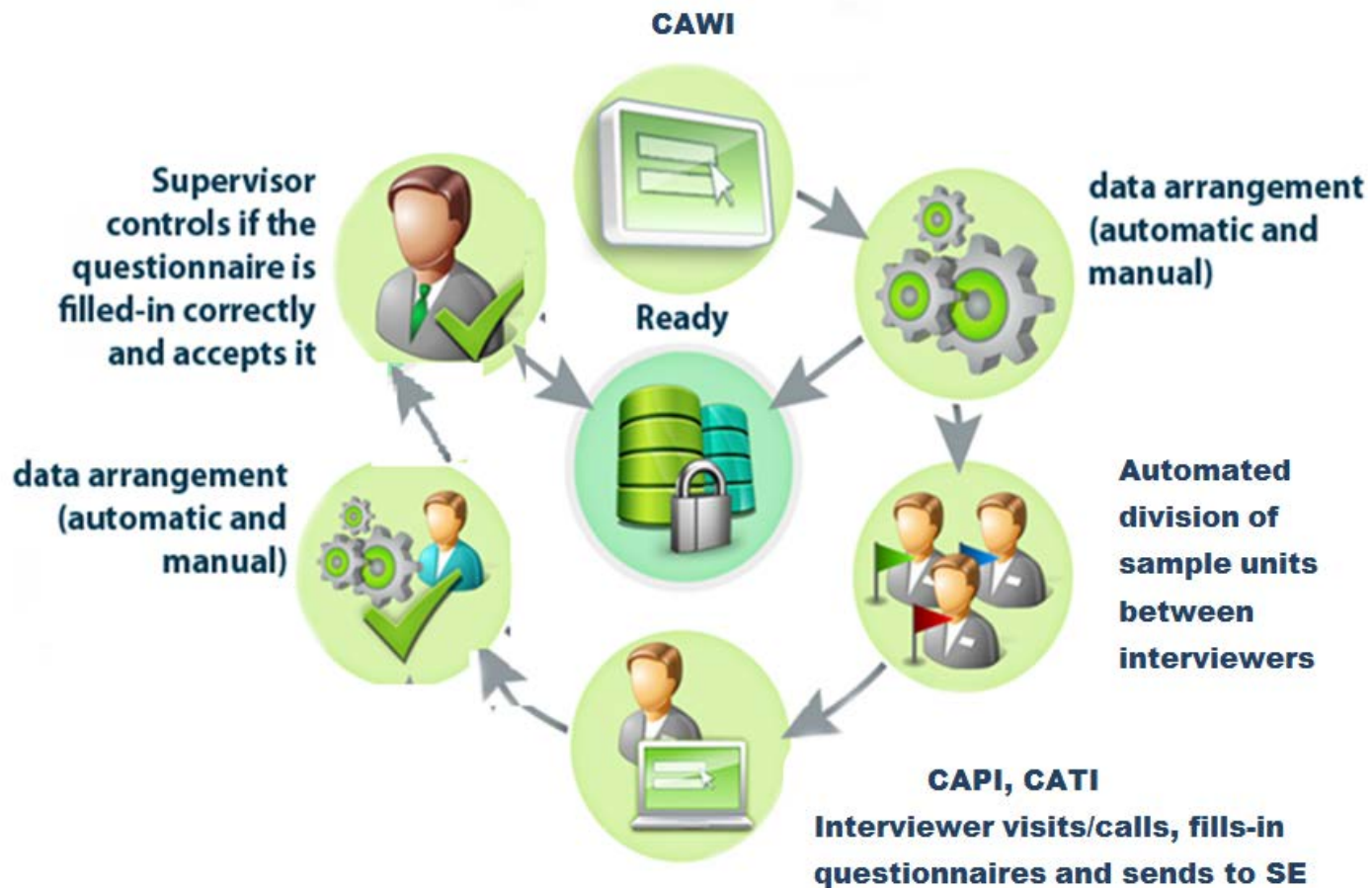
Data collection tools – VJS (2)

Possibilities and functionalities to manage and supervise the fieldwork assignment - supervisor:

- send messages to Interviewers
- open of defined requests from database (different special overviews)
- manage split-offs by EU-SILC
- accept Interviewers non-responses
- monitor the working time of the interviewers

Some examples of overviews are at the end of presentation

Data collection process



Data collection tools- VJS

Automatic functionalities to manage the fieldwork assignment:

- send sample units with changed addresses automatically to a new Interviewer
- accept questionnaires and automatically send these to data processing
- measure the working time of the interviewers
 - time spent on planning;
 - time spent on contacts;
 - time spent on interviews;
 - total time in one specific day or period /week, month etc)

Data collection tools- VJS (7)

Automatic functionalities to manage the fieldwork assignment:

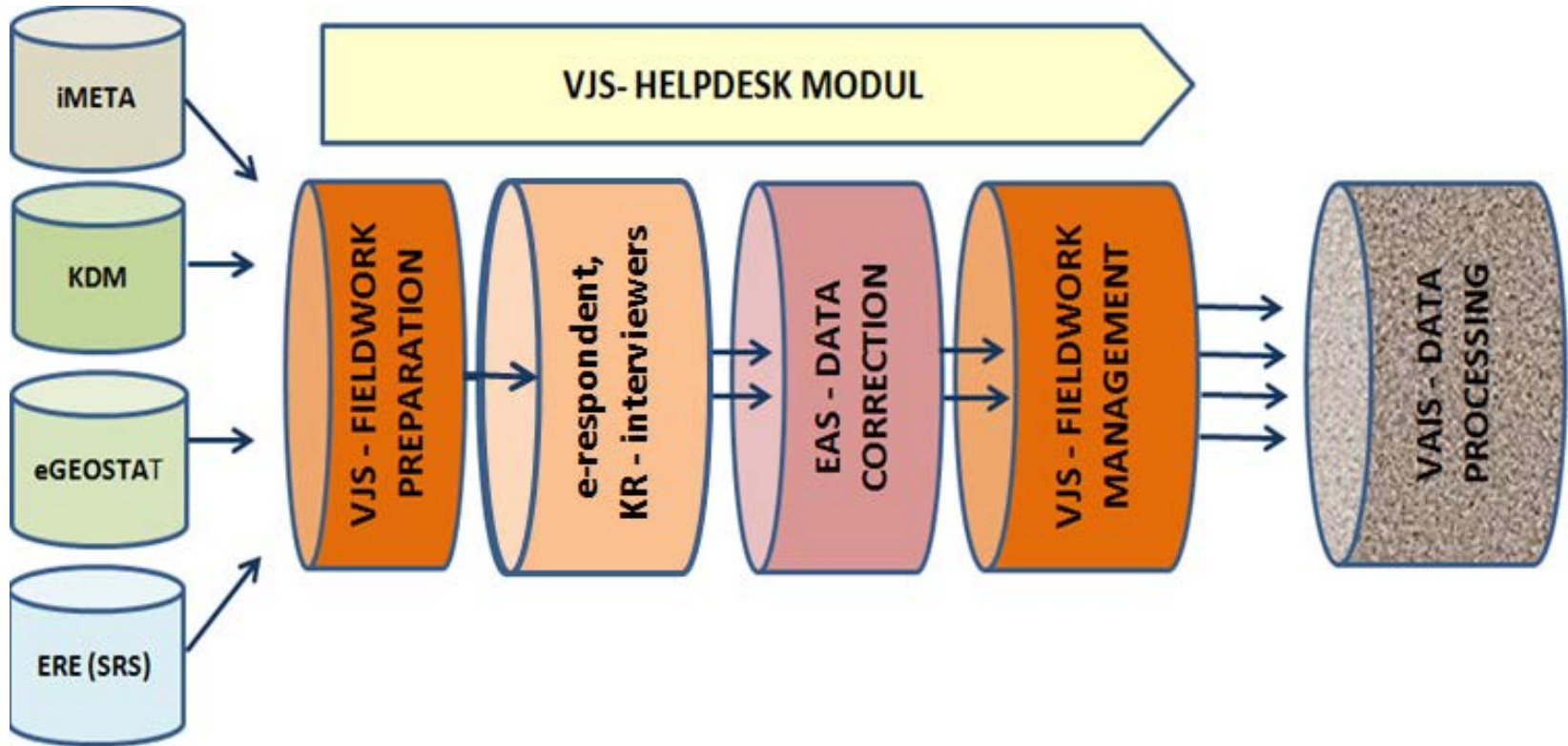
- Sends automatic notifications about activity in system (e.g. new address sent to the interviewer, added role for user ...)
- Summaries for interviewers payment - suitable as accounting documents for interviewers salaries and driving compensation, as:
 - Work turn over statements – number of questionnaires and non-responses in different surveys, prices, totals
 - Mileage reports for reimbursement of employee private car usage – route + mileage to and from contacts/ use of public transport

Data collection tools – VJS

Help desk module (Users - helpdesk consultants and helpdesk supervisor)

- Send notification letters (by e-mail)
- Entering contact information from respondents
- Opening questionnaires by filling CAWI respondent at the time of answering to help if needed

Data collection process (2)



Thank You!

DISPLAY EXAMPLES

Creation of study object, configuration of methodology, field work hierarchy

Koondvaade Teated Vaatlus **Vaatluse järk** Tooplaan

Arvateht - Järgu üldvaade

ETEU 2013 01 - Vaatluse järku üldvaade

JÄRGU PÕHIANDMED

Järgu number: **1**
 Vaatluse järku algkuupäev: **01.10.2013**
 Vaatluse järku lõppkuupäev: **31.10.2013**
 Andmekorrasuse lõppkuupäev: **30.11.2013**
 *Arhiveeritud: Ei
 *Järgu eeskirjad EREs: Ei
 *Valimi suurus: **171**
 Järgu uuringumoment:

STRUKTUURJAOTUS

Kogu Eesti (1)
 Regioon (5)
 Jaoskond (66)

← General information
← Field work hierarchy

EESKIRI

Kusitusviis	Algkuupäev	Lõppkuupäev	Nihutamine lubatud?
CAWI	01.10.2013	07.10.2013	..
CAPI	08.10.2013	31.10.2013	

← Field work methods

KVALITEEDINÄITAJAD

#	Tähtaeg	Tunnus (%)	Valimi suurus
1	07.10.2013	10.0	17
2	15.10.2013	50.0	86
3	20.10.2013	70.0	120
4	27.10.2013	100.0	171

← Field work milestones

Sampled units list

(Supervisors display)

Avalaht - Andmeobjektide nimekiri

ETEU 2014 02 - Andmeobjektide nimekiri

Andmeobjekt:
 Küsitaja:
 Olek:
 Olek ootab:

▼ Laiendatud filter

Märgista kõik | Eemalda märgistused

Näita kaardil

Kinnita andmeobjektid

Eemalda küsitaja

Muuda küsitaja

<input type="checkbox"/>	<u>Andmeobjekt</u>	<u>Jaoskond</u>	<u>Address</u>	<u>Küsitaja</u>	<u>Olek</u>	<u>Oleku muutuse kuupäev</u>	<u>Ootele pannud</u>
<input type="checkbox"/>	10000999342	6/66	Harju maakond, Paldiski linn, Paldiski linn, Tikri tänav 12a	kysitleja 0034	Lõpetatud	13.11.2014	
<input type="checkbox"/>	10000999341	6/66	Harju maakond, Paldiski linn, Paldiski linn, Põhja tänav 4	kysitleja 0034	Lõpetatud (Aadress muutunud)	13.11.2014	
<input type="checkbox"/>	10000999340	6/66	Harju maakond, Paldiski linn, Paldiski linn, Sadama tänav 17-2	kysitleja 0034	Lõpetatud (Kõik)		
<input type="checkbox"/>	10000999339	6/66	Harju maakond, Paldiski linn, Paldiski linn, Tikri tänav 4	kysitleja 0034	Lõpetatud (Aadress muutunud)	14.11.2014	
<input type="checkbox"/>	10000999343	6/66	Harju maakond, Paldiski linn, Paldiski linn, Pargi tänav 4	kysitleja 0034	Kinnitatud ankeediga (1100)	14.11.2014	
<input type="checkbox"/>	10000999335	6/66	Harju maakond, Paldiski linn, Paldiski linn, Lepiku tänav 1	kysitleja 0034	Alustatud	14.11.2014	
<input type="checkbox"/>	10000999338	6/66	Harju maakond, Paldiski linn, Paldiski linn, Peetri tänav 36b	kysitleja 0034	Alustamata		


Status















Field work progress by fieldwork team structure

Koondvaade	Teated	Vaatlus	Vaatluse järk	Tööplaan	Administreeri	menu:test
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Avaleht > ETEU 2014 01 - Tööplaani täitmine (11.11.2014)

ETEU 2014 01 - Tööplaani täitmine (11.11.2014)

 Näita arve ühikutena

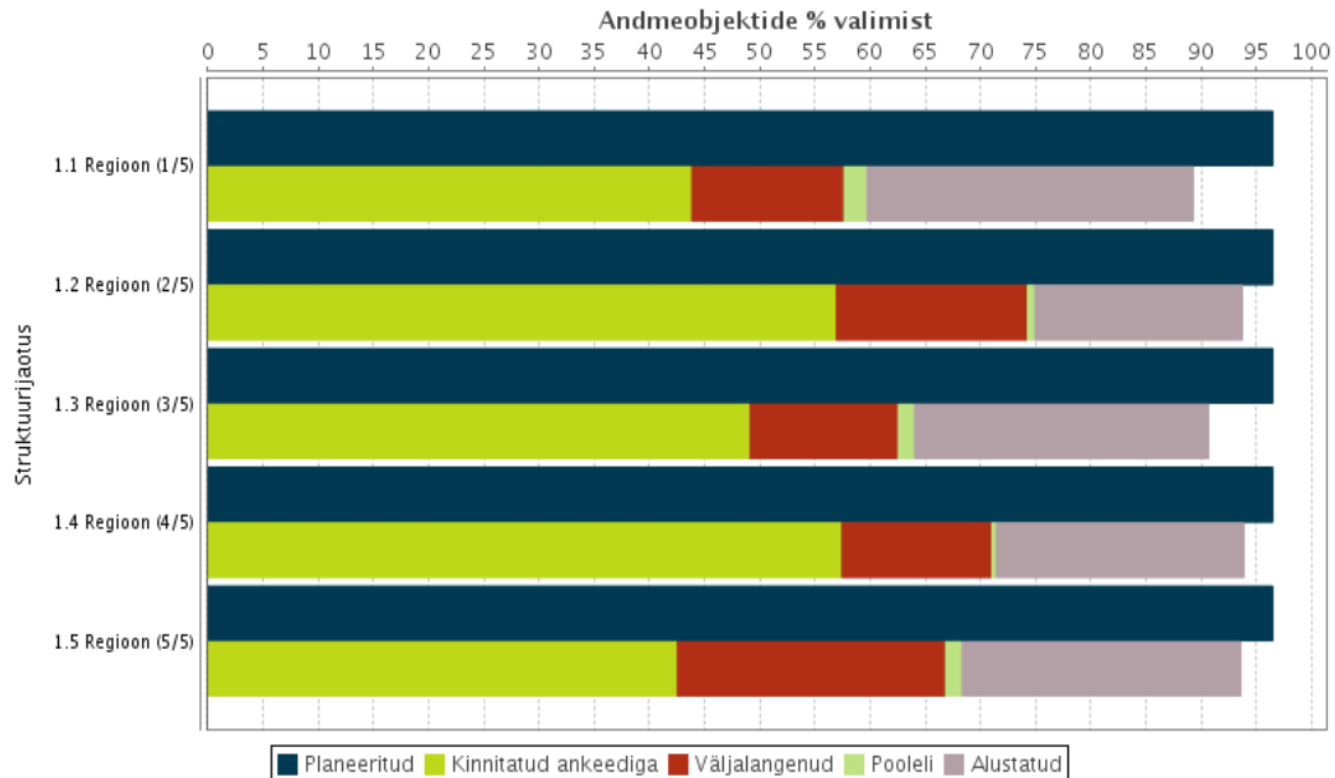
Struktuurijaotus	Valim	Plaan	Plaanist ees/maas	Töös	Alustatud	Poleeli	Lõpetatud	Kinnitatud ankeediga	Kinnitatud väljalange	
<input type="checkbox"/> 1 Kogu Eesti (1/1) - Välitööde juht	7841	96.5%	-3.5	93.1%	24.8%	1.3%	0.8%	49.1%	17.1%	
<input type="checkbox"/> 1.1 Regioon (1/5)	1476	96.5%	-6.8	89.9%	29.6%	2.1%	0.6%	43.8%	13.8%	
<input type="checkbox"/> 1.2 Regioon (2/5)	1385	96.5%	-2.0	94.6%	18.9%	0.7%	0.8%	56.9%	17.3%	
<input type="checkbox"/> 1.3 Regioon (3/5)	1505	96.5%	-4.5	92.1%	26.7%	1.5%	1.4%	49.1%	13.4%	
<input type="checkbox"/> 1.4 Regioon (4/5)	1364	96.5%	-1.6	94.9%	22.5%	0.4%	1.0%	57.4%	13.6%	
<input type="checkbox"/> 1.5 Regioon (5/5)	2111	96.5%	-2.7	93.9%	25.3%	1.5%	0.4%	42.5%	24.3%	
<input type="checkbox"/> 1.2 Regioon (2/5)	1385	96.5%	-2.0	94.6%	18.9%	0.7%	0.8%	56.9%	17.3%	
1.2.1 Jaoskond (14/66)	102	96.5%	+4.1	100.0%	17.6%	1.0%	0.0%	61.8%	19.6%	
1.2.2 Jaoskond (15/66)	114	96.5%	+0.9	97.4%	4.4%	0.0%	1.8%	58.8%	32.5%	
1.2.3 Jaoskond (16/66)	129	96.5%	+0.8	97.7%	10.9%	0.0%	0.8%	70.5%	15.5%	
1.2.4 Jaoskond (17/66)	113	96.5%	+0.0	96.5%	23.0%	2.7%	0.0%	49.6%	21.2%	
1.2.5 Jaoskond (18/66)	95	96.5%	+3.3	100.0%	37.9%	0.0%	1.1%	35.8%	25.3%	
1.2.6 Jaoskond (19/66)	117	96.5%	+0.0	96.6%	31.6%	0.0%	0.9%	50.4%	13.7%	
1.2.7 Jaoskond (20/66)	106	96.5%	-3.9	92.5%	113	27.4%	0.9%	53.8%	10.4%	

Field work progress - graph

ETEU 2014 01 - Tööplaani täitmine (11.11.2014)

 Näita arve ühikuna


ETEU 2014 01 - Tööplaani täitmine (11.11.2014)


















Overview of field work progress.

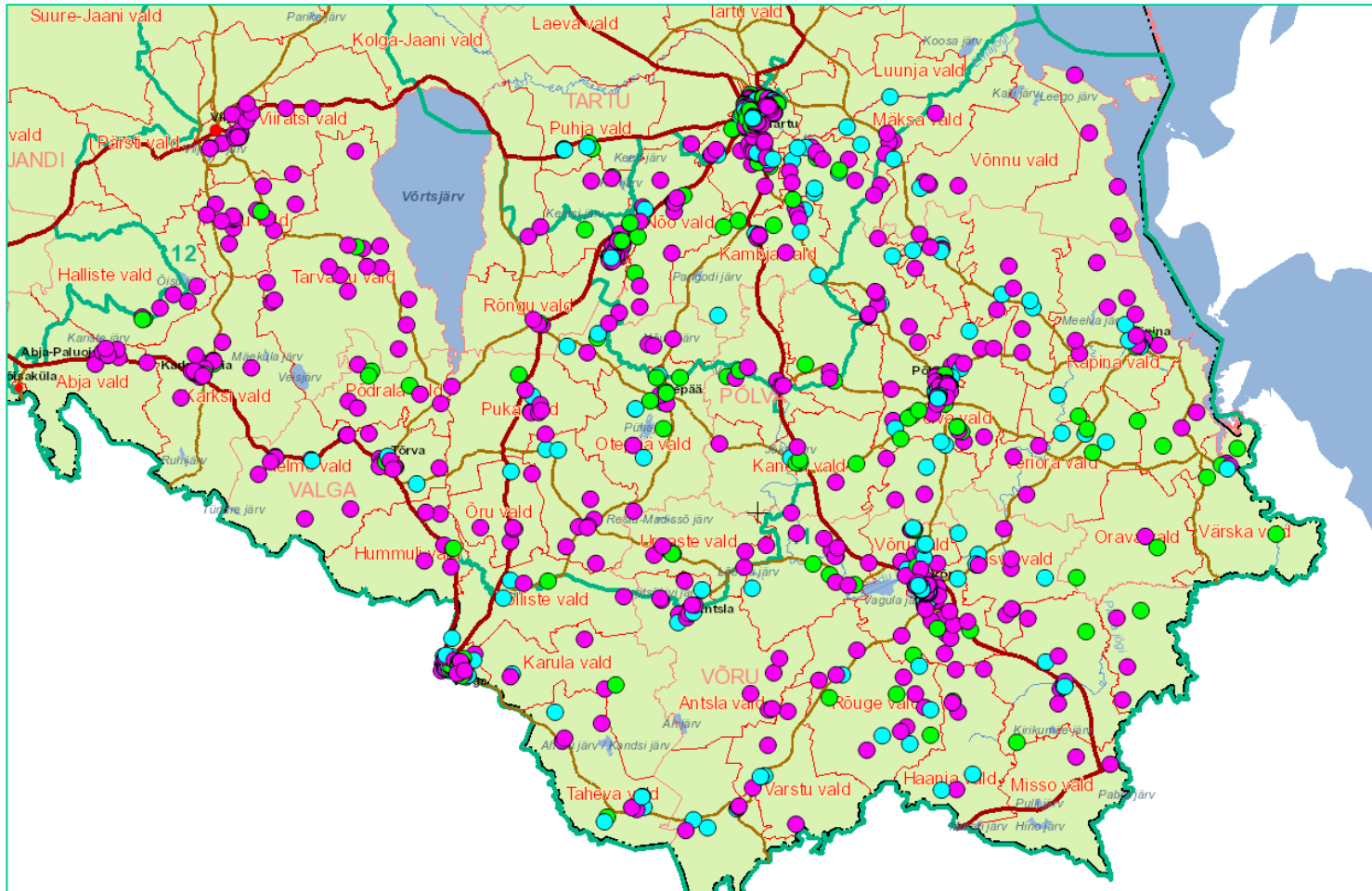
Interviewers (Supervisors display)

ETEU 2014 01 - Küsitelajate tööplaani täitmine (11.11.2014)

 Näita arve protsentidena

Struktuurijaotus / küsitelaja	Valim	Plaan	Plaanist ees/maas	Töös	Alustatud	Pooleli	Lõpetatud	Kinnitatud ankeediga	Kinnitatud väljalange	
<input type="checkbox"/> 1 Kogu Eesti (1/1) - Välitööde juht	7841	7567	-267	7300	1942	100	63	3853	1342	
<input type="checkbox"/> 1.1 Regioon (1/5)	1472	1421	-98	1323	436	31	9	643	204	
<input type="checkbox"/> 1.2 Regioon (2/5)	1389	1340	-26	1314	263	10	11	791	239	
1.2.1 Ingrid Jäks	101	98	+3	101	18	1	0	62	20	
1.2.2 Eduard Oganjan	114	110	+1	111	5	0	2	67	37	
1.2.3 Kersti Oganjan	128	124	+1	125	14	0	1	90	20	
1.2.4 Ulvi Meikup	86	83	-1	82	19	3	0	40	20	
1.2.5 Diana Zvonkova	95	92	+3	95	36	0	1	34	24	
1.2.6 Eve Rohkla	122	118	+0	118	38	0	1	63	16	
1.2.7 Sirje Hansen	106	102	-4	98	29	1	0	57	11	
1.2.8 Marju Kaasik	75	72	-13	59	11	0	1	35	12	
1.2.9 Jaana Razumova	37	36	-20	16	6	0	0	8	2	
1.2.10 Viktor Mäger	112	108	+0	108	3	0	0	77	28	
1.2.11 Maria Pruus	53	51	+2	53	14	1	0	35	3	
1.2.12 Ruth Männi	31	30	+1	31	6	0	0	23	2	

Detailed Map (Supervisors display)




Interviewers field work progress (overview of all active surveys)


Koondvaade ▾	Teated ▾	Vaatlus ▾	Vaatluse järk ▾	Tööplaan ▾	Administreeri ▾	menu:test ▾
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Avaleht ▸ ETEU 2014 01 - Küsitelajate tööplaani täitmine (29.10.2014) ▸ Heili Koonik Tööplaani täitmine (29.10.2014)

H K Tööplaani täitmine (29.10.2014)

 Näita kaardil

 Näita arve ühikutena

 Näita graafikuna

<u>Vaatlus</u> ▾	<u>Algkuupäev</u> ▾	<u>Lõppkuupäev</u> ▾	<u>Struktuurijaotus</u> ▾	<u>Valim</u> ▾	<u>Plaan</u> ▾	<u>Plaanist ees/maas</u> ▾	<u>Töös</u> ▾	<u>Kinnitatud</u> ▾	<u>Kinnitatud ankeediga</u> ▾
ETU 2014 13	23.10.2014	15.12.2014	Jaoskond (28/66)	20	14.6%	-10.0 %	0.0%	0.0%	
ETEU 2014 01	28.03.2014	14.12.2014	Jaoskond (28/66)	102	90.8%	-2.9 %	87.3%	38.2%	
LEU 2014 01	29.09.2014	28.11.2014	Jaoskond (28/66)	16	64%	+ 37.5 %	100.0%	25.0%	
ETU 2014 12	25.09.2014	17.11.2014	Jaoskond (28/66)	22	66.7%	+ 13.6 %	77.3%	54.5%	
ETU 2014 11	29.08.2014	13.10.2014	Jaoskond (28/66)	17	100%	+ 0.0 %	100.0%	100.0%	94.1%

Kokku: 5 | Näitan: 1 - 5

◀ [Tagasi](#) (muudatusi ei salvestata)

[Salvesta Excelina](#)

Monitoring of interviewer's worktime

Küsitaja tööaja jälgimine - t

Kuupäev:

01.11.2014



- 11.11.2014



Filtreeri

<u>Kuupäev</u>	<u>Kokku aeg</u>	<u>Intervjuu</u>	<u>Otsimine</u>	<u>Planeerimine</u>	<u>Sisestamine</u>	<u>Täpsustamine</u>	<u>Tehtud kontakte</u>
11.11.2014	00:00:07	00:00:00	00:00:00	00:00:07	00:00:00	00:00:00	0
10.11.2014	11:13:11	01:53:37	06:08:23	03:11:10	00:00:00	00:00:00	14
09.11.2014	10:34:44	00:00:00	05:50:49	04:43:55	00:00:00	00:00:00	6
07.11.2014	10:01:16	00:00:00	05:59:14	04:02:02	00:00:00	00:00:00	18
06.11.2014	13:50:36	02:01:15	10:28:20	01:21:01	00:00:00	00:00:00	15
05.11.2014	11:31:31	00:45:57	04:12:40	06:32:54	00:00:00	00:00:00	6
04.11.2014	10:13:09	00:43:46	08:44:30	00:44:53	00:00:00	00:00:00	18
03.11.2014	12:36:28	02:29:30	09:35:59	00:30:58	00:00:00	00:00:00	16
02.11.2014	08:57:06	02:04:16	06:22:52	00:29:57	00:00:00	00:00:00	2
01.11.2014	11:29:33	02:08:27	08:31:39	00:49:26	00:00:00	00:00:00	17

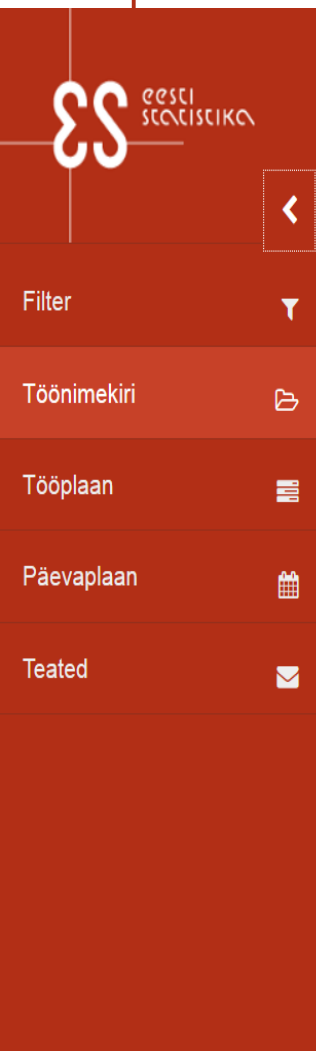
CATI application

Sampled units list. CATI interviewer

↻ Eemalda kõik märgistus

📅 Lisa päevaplaani

➔ Alusta tuuri



- ←
- Filter
- Töönimekiri
- Tööplaan
- Päevaplaan
- Teated

◆	Kood ◆	Järk ◆	◆ Aadress ◆	◆ Periood ◆	◆ Nimi ◆	Plaanis ◆	Olek ◆	Jsk ◆	Lõpetamine ◆	Kontaktid ◆
<input type="checkbox"/>	10001423989	ETU-2016 13	ARNO, SUUR-PAHILA KÜLA, ORISSAARE VALD, SAARE MAAKOND	2016.09.06 2016.12.30	SALLI KULL		Kinnitatud väljalangenud -	-	2016.11.01	1
<input type="checkbox"/>	10001423994	ETU-2016 13	TUULE-2, TORNIMÄE KÜLA, PÕIDE VALD, SAARE MAAKOND	2016.09.06 2016.12.30	SENNI KOTKAS		Kinnitatud väljalangenud VVIS	-		0
<input type="checkbox"/>	10001423992	ETU-2016 13	VÕIDU TÄNAV 36-4, ORISSAARE ALEVIK, ORISSAARE VALD, SAARE MAAKOND	2016.09.06 2016.12.30	SASKIA ELANDA LEPP		Kinnitatud väljalangenud VVIS	-		0
<input type="checkbox"/>	10001423987	ETU-2016 13	KAOMÄE, ARDLA KÜLA, PÕIDE VALD, SAARE MAAKOND	2016.09.06 2016.12.30	SAILI JÄNES		Kinnitatud väljalangenud VVIS	-		0
<input type="checkbox"/>	10001441507	ETU-2017 07	Leevikese tänav 3, Käina alevik, Käina vald, Hiiu maakond	2016.12.05 2017.12.30	REET TÖÖJÕU		Alustamata	-		0

CATI Questionnaire and logical controls

Objekti 11000294371 ankeet

[+ Loe uuringust lähemalt](#)

[T10B] VÄLISREIS NR 1, ALBAANIA ALGUSEGA DETSEMBER 2016

✘ Ankeedi täitmisel esines vigu. Palun parandage allpool olevad vead.

T10BVS

Kulutused majutusele (sh hotelli maksumuses sisalduv toitlustus)

[+ Lisa kommentaar](#)

✘ Küsimus koodiga T10BVS on kohustuslik.

Kogusumma

T10BV

[+ Ava abiinfo](#)

[+ Lisa kommentaar](#)

Valuuta

CATI questionnaire, using the classification of the countries

ES ESTI
STATISTIKA

Objekti 11000294371 and

[T04KOOD] VÄLISREI

T04	Mis oli reisi peamine sihtkoht?
T04a	Ei leia k

Sisestage sõna otsinguväljale või valige loendist. Loendi tasemeid avavad ja sulgevad märgid "+" ja "-"

Otsi:

- Austraalia*
- Austria*

Valik: (midagi pole valitud)

0/100

Salvesta ja jätka

Salvesta

Sulge

Loe uuringust lähemalt

+ Lisa kommentaar

+ Lisa kommentaar

Tagasi

CATI questionnaire. Selection of the currency

Objekti 11000294371 ankeet

[Loe uuringust lähemalt](#)

[T10A] VÄLISREIS NR 1, ALBAANIA ALGUSEGA DET

T10Tekst1	Järgnevalt küsime, lisaks reisipak (transpordile, majutusele jm).	september 2016; Albaania) tehtud kulutusi
T10Tekst3	Öelge palun iga kulutuseliigi kohta KUI TÄPSET SUMMAT EI TEA, SIIS	uta, milles kulutusi ütlete. MA.
T10AVS	Kulutused transpordile (bensiin, a Kogusumma	used jm) + Lisa kommentaar
T10AV	↓ Ava abiinfo Valuuta	+ Lisa kommentaar
T10AK	Valuuta kurss 1	+ Lisa kommentaar


- Vali -

- Euro
- Austraalia dollar
- Brasiilia reaali
- Bulgaaria leev
- Filipiinide peeso
- Hiina jüaan
- Hongkongi dollar
- Horvaatia kuna
- Iisraeli uus seekel
- India rupia
- Indoneesia rupia
- Islandi kroon
- Jaapani jeen
- Kanada dollar
- Lõuna-Aafrika Vabariigi rand
- Lõuna-Korea vonn
- Malaisia ringgit
- Mehhiko peeso
- Norra kroon
- Euro

An overview of the interviewer's work plan

Tööplaan

Järk	Periood	Valim	Plaan	Töös	+ -	Lõpetatud	Kinnitatud
PSU-2016-02	2016.08.01 2016.12.31	5	5	5	0	0	5
PSU-2016-01	2016.08.01 2016.09.07	26	6	26	20	0	26
ETU-2017-02	2016.12.21 2017.12.31	6	1	3	2	3	0
TMU-2017-02	2017.01.25 2017.06.30	26	6	3	-3	3	0
ESU-2017-02	2017.01.25 2017.06.30	6	1	3	2	3	0
ITL-2016-01	2016.02.11 2016.07.31	50	50	50	0	0	50



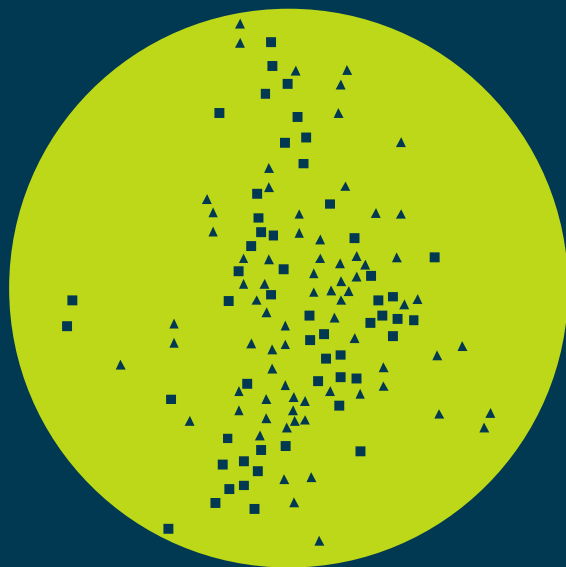
Filter

Töönimekiri

Tööplaan

Päevaplaan

Teated



objekte kokku n 129
kolmnurki n 74
nelinurki n 54
ring n 1



EESTI
STATISTIKA