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

Data collection tools – VJS
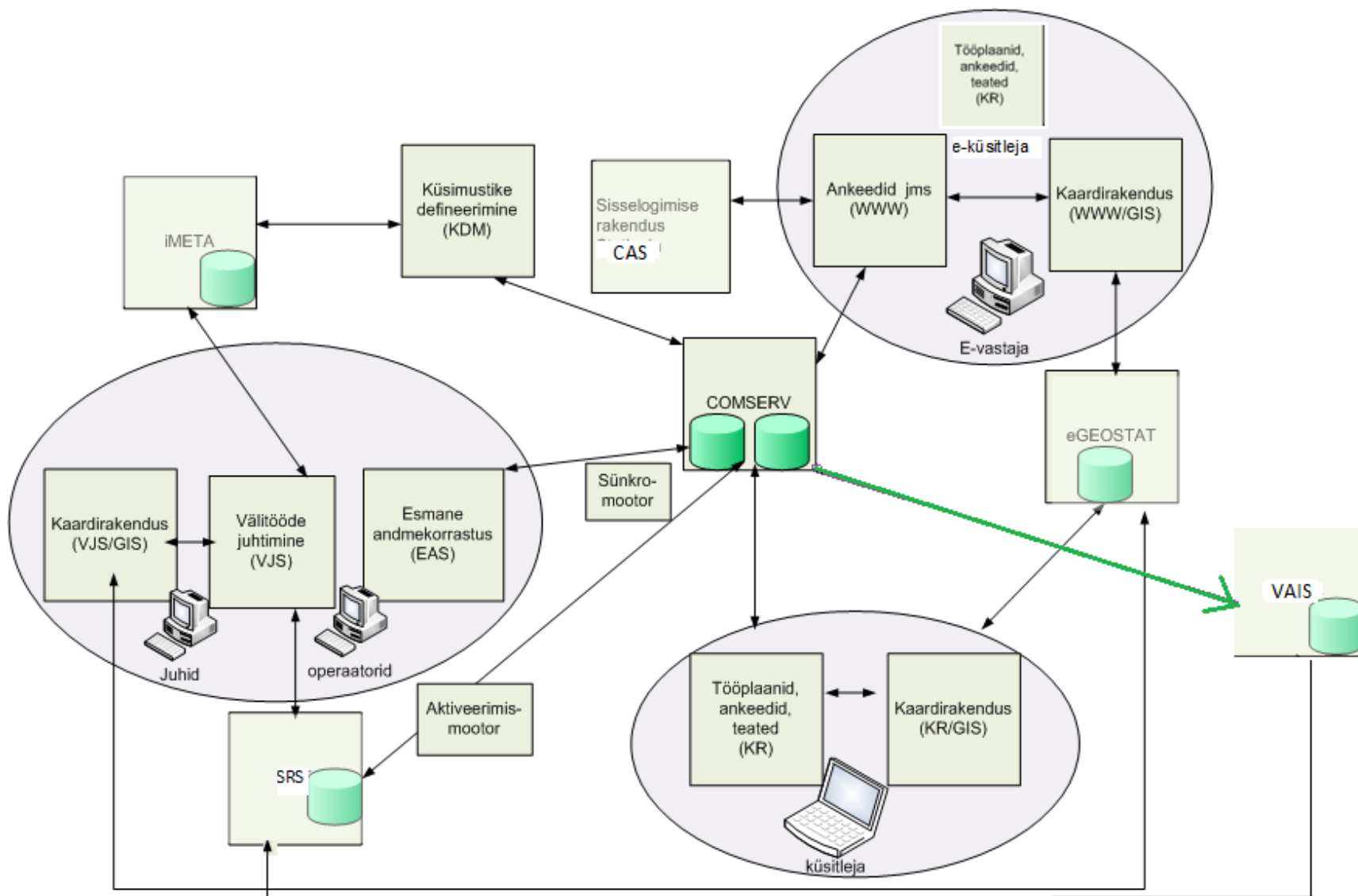
Users – VVIS and related applications

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

CAWI

Supervisor controls if the questionnaire is filled-in correctly and accepts it

Ready

data arrangement (automatic and manual)

data arrangement (automatic and manual)

Automated division of sample units between interviewers

CAPI, CATI
Interviewer visits/calls, fills-in questionnaires and sends to SE
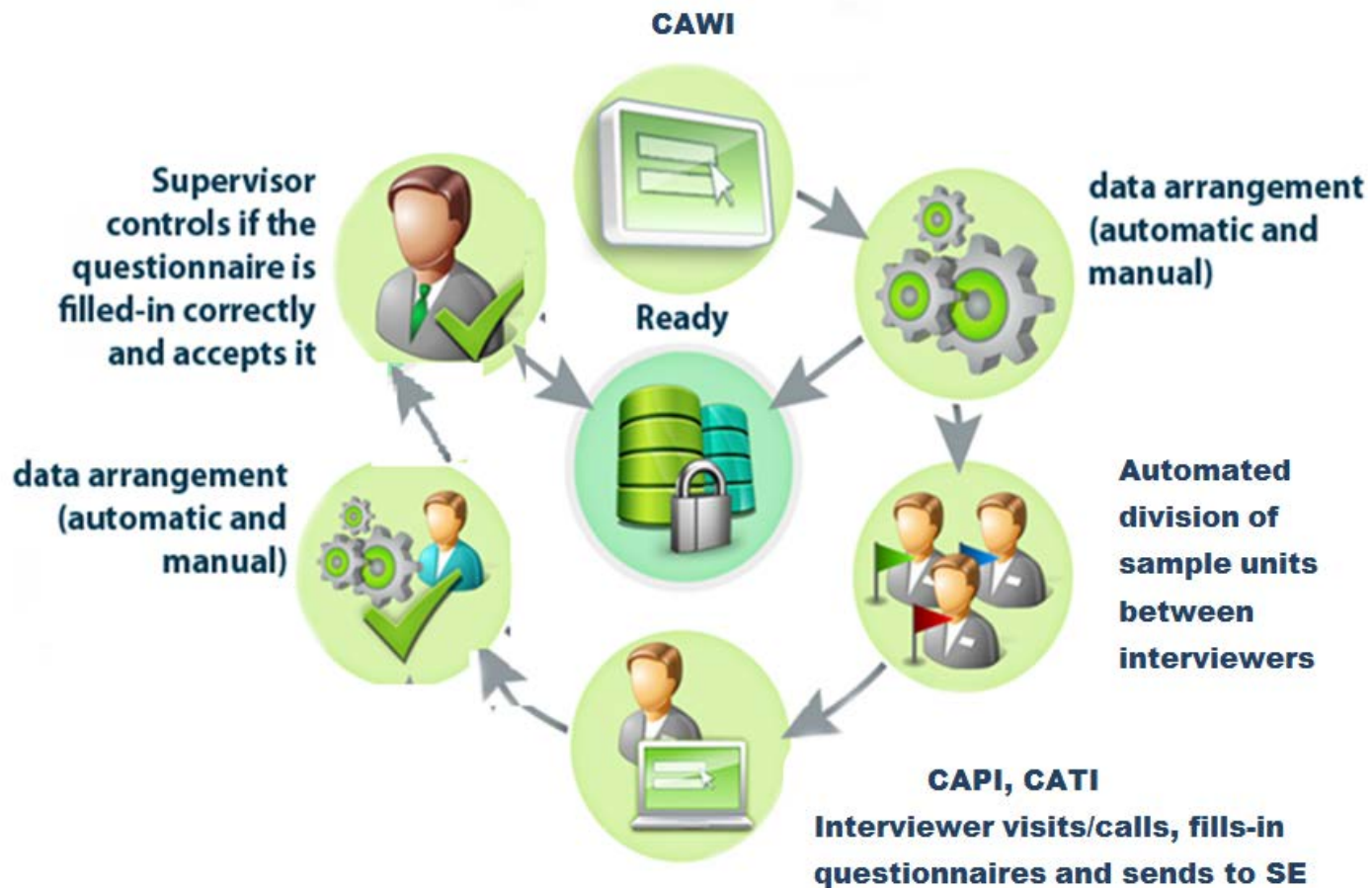
Data collection tools- VJS

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)

Data query from VJS

- Notification/reminder letters aid-query
- Survey final queries
  E.g. All the sample units with final coding, contacts per sample unit, helpdesk contacts
- Interviewer workflow aid-queries
  E.g. Filled questionnaires / mileage per interviewer
- Different custom-made aid-queries
  E.g. Respondents by age, split-offs
- System synchronized
  by interviewers query

Thank You!

DISPLAY EXAMPLES

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

Sampled units list
(Supervisors display)

Field work progress by fieldwork team structure

Field work progress - graph

ETEU 2014 01 - Tööplaani täitmine (11.11.2014)

Näita arve ühikutena
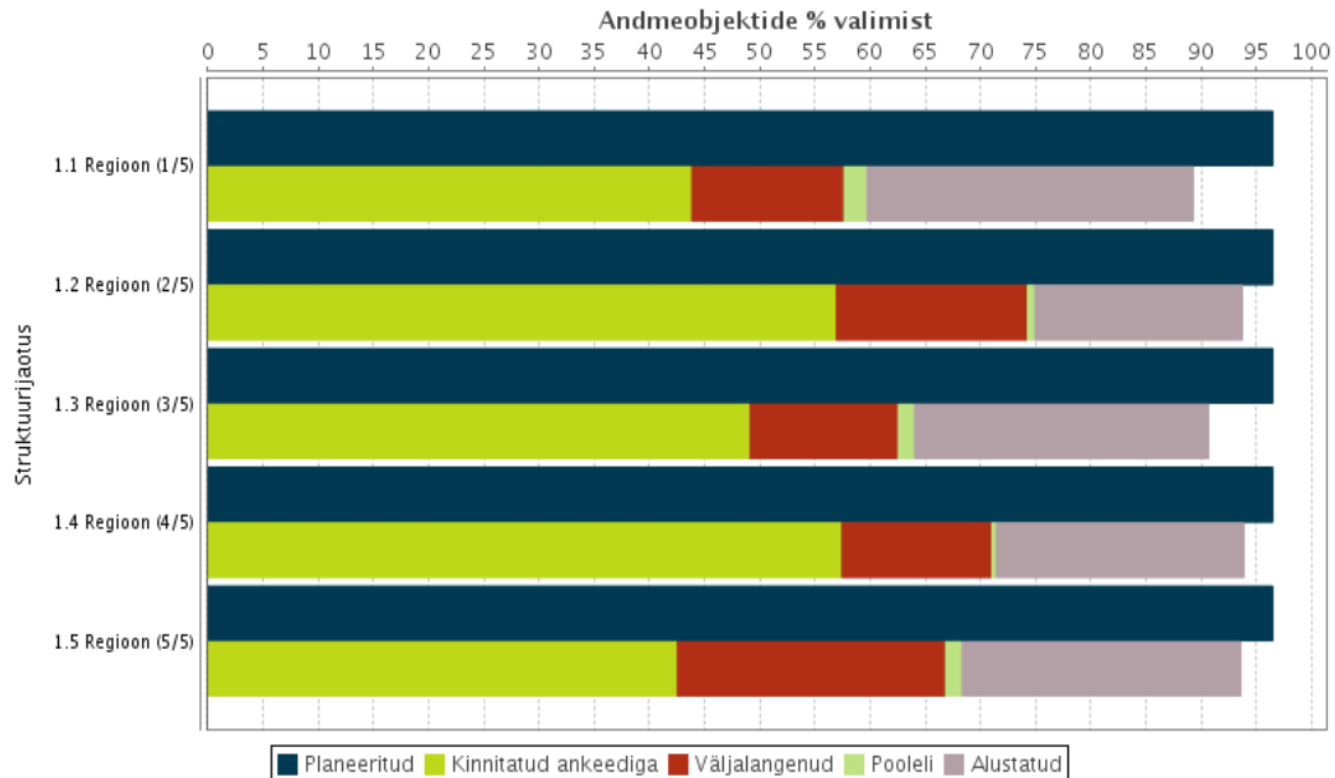
Overview of field work progress. Interviewers (Supervisors display)

ETEU 2014 01 - Küsitlejate tööplaani täitmine (11.11.2014)

Näita arve protsentidena

| Struktuurijaotus / küsitleja	Valim	Plaan	Plaanist ees/maas	Töös	Alustatud	Pooleli	Lõpetatud	Kinnitatud ankeediga	Kinnitatud väljalange	
⊟ 1 **Kogu Eesti** (1/1) - Välitööde juht	7841	7567	-267	7300	1942	100	63	3853	1342	
⊞ 1.1 **Regioon** (1/5)	1472	1421	-98	1323	436	31	9	643	204	
⊟ 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 Rohtla**	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)
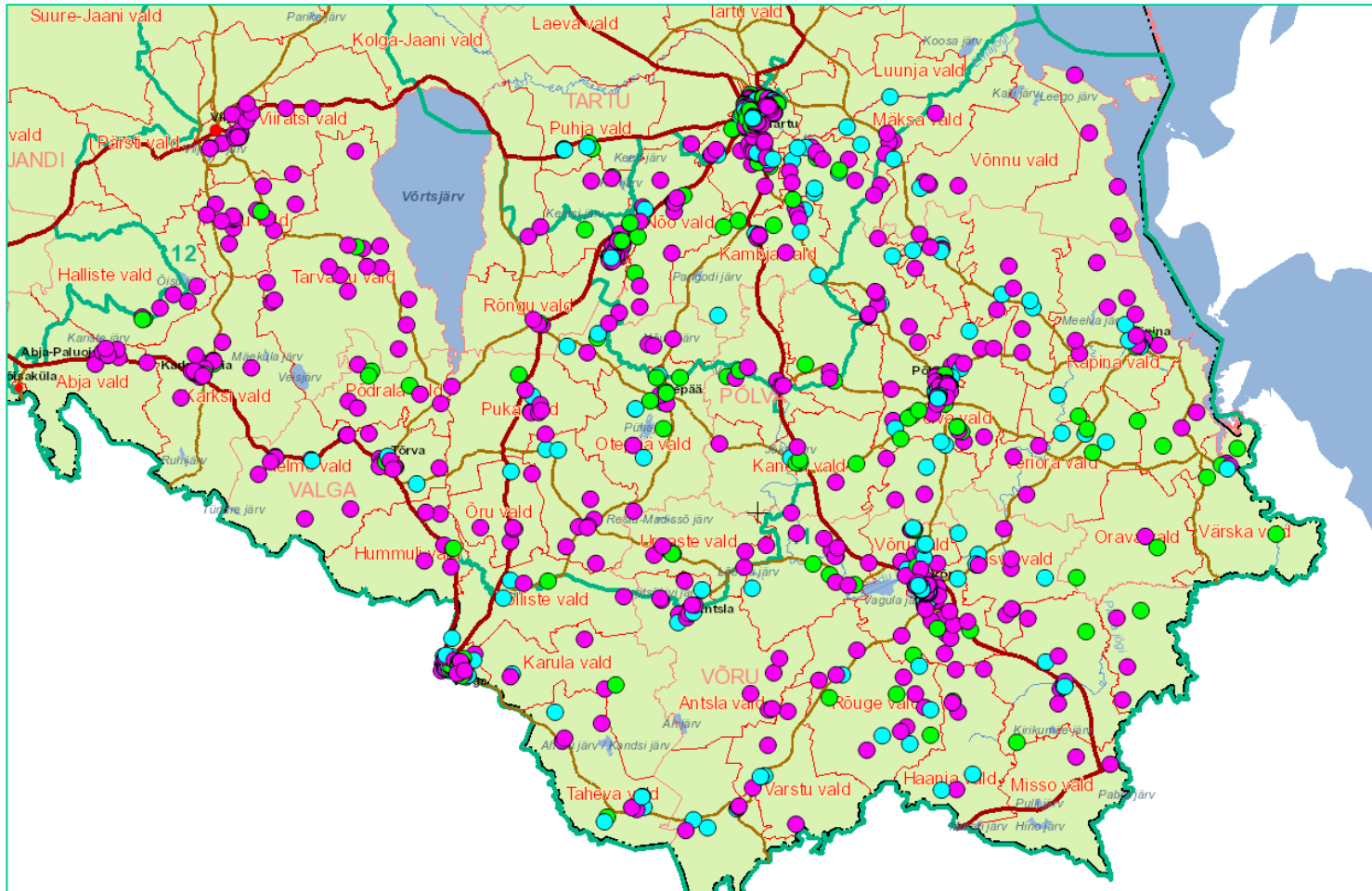
Interviewers field work progress (overview of all active surveys)

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| | Koondvaade ▾ | Teated ▾ | Vaatlus ▾ | Vaatluse järk ▾ | Tööplaan ▾ | Administreeri ▾ | menu:test ▾ |

Avaleht ▸ ETEU 2014 01 - Küsitlejate 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

Vaatlus ⇕	Algkuupäev ⇕	Lõppkuupäev ▾	Struktuurijaotus ⇕	Valim ⇕	Plaan ⇕	Plaanist ees/maas ⇕	Töös ⇕	Kinnitatud ⇕	Kinnitatud ankeediga ⇕
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

Küsitleja tööaja jälgimine - H

Kuupäev:
01.11.2014 — 11.11.2014 **Filtreeri**

Kuupäev	Kokku aeg	Intervjuu	Otsimine	Planeerimine	Sisestamine	Täpsustamine	Tehtud kontakte
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
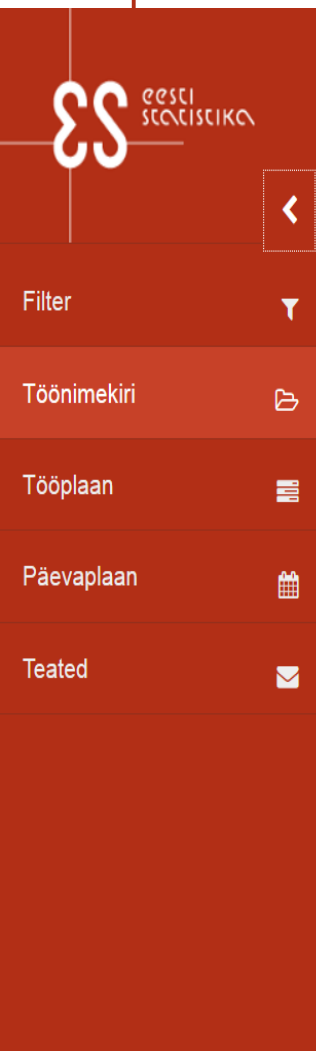
CATI application

Sampled units list. CATI interviewer

↻ Eemalda kõik märgistus   **📅 Lisa päevaplaani**   **➡ Alusta tuuri**

☐	Kood ⬍	Järk ⬍	⬍ Aadress ⬍	⬍ Periood ⬍	⬍ Nimi ⬍	Plaanis ⬍	Olek ⬍	Jsk ⬍	Lõpetamine ⬍	Kontaktid ⬍
☐	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
☐	10001423994	ETU-2016 13	TUULE-2, TORNIMÄE KÜLA, PÖIDE VALD, SAARE MAAKOND	2016.09.06 2016.12.30	SENNI KOTKAS		Kinnitatud väljalangenud VVIS	-		0
☐	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
☐	10001423987	ETU-2016 13	KAOMÄE, ARDLA KÜLA, PÖIDE VALD, SAARE MAAKOND	2016.09.06 2016.12.30	SAILI JÄNES		Kinnitatud väljalangenud VVIS	-		0
☐	10001441507	ETU-2017 07	Leevikese tänav 3, Käina alevik, Käina vald, Hiiu maakond	2016.12.05 2017.12.30	REET TÖÖJÕU		Alustamata	-		0

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Filter ▼

Töönimekiri 🗁

Tööplaan 🗏

Päevaplaan 📅

Teated ✉

CATI Questionnaire and logical controls

CATI questionnaire**, using the** classification **of the countries**

CATI questionnaire. Selection of the currency

An overview of the interviewer´s work plan
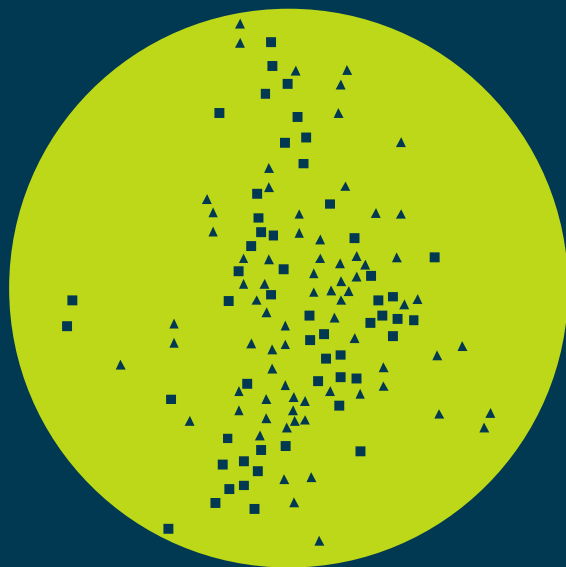
objekte kokku   n 129
kolmnurki   n 74
nelinurki   n 54
ring   n 1

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