



Reuse of Questionnaire Generator Based on DDI

ESSNet Sharing common functionalities in ESS

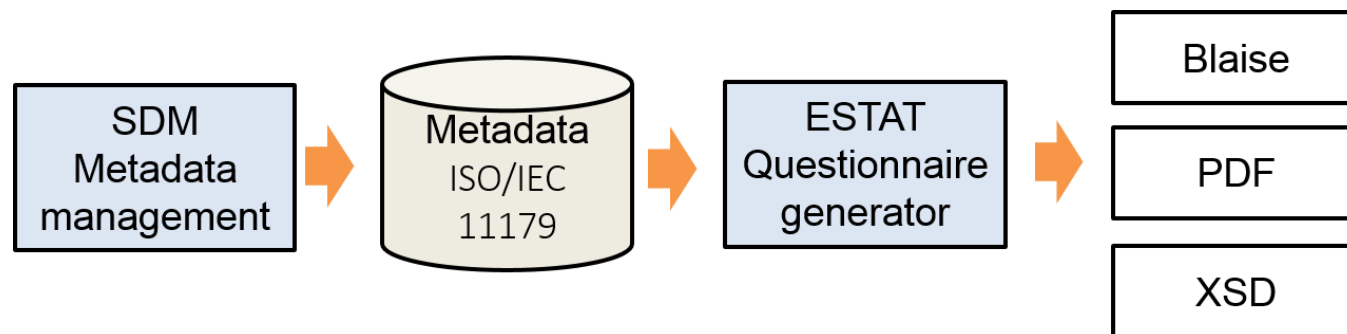
Tomaž Špeh
Statistical office Slovenia

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QGS reuse at SURS

- ESTAT web data collection portal
- Metadata driven questionnaire generation
 - Blaise, PDF, XSD
 - Support for business surveys
- ISO/IEC 11179 metadata model
 - Concepts, codes/representations, categories, etc. are similar to DDI concepts



ESTAT modernisation goals

- From monolith to modular architecture
 - Broken down SDM into multiple component services
- Metadata driven questionnaire design & generation, support for complex questionnaires elements:
 - precise modelisation of the questionnaire in order to be able to render its content



ENO Integration phases

The screenshot shows the eSTAT web application interface. The browser address bar displays the URL: `https://estat_login.zzi.si:5443/ESTat-RH-WP-91-XX/views/app/razpolozljiviVprasnalniki/RazpolozljiviVprasnalniki.faces`. The page header includes the logo of the Statistical Office of the Republic of Slovenia and the text "eSTAT". A user greeting "Pozdravljeni, Roman Oblak" and a "Poročevalska enota: Test SURS IT" are visible, along with an "ODJAVA" button.

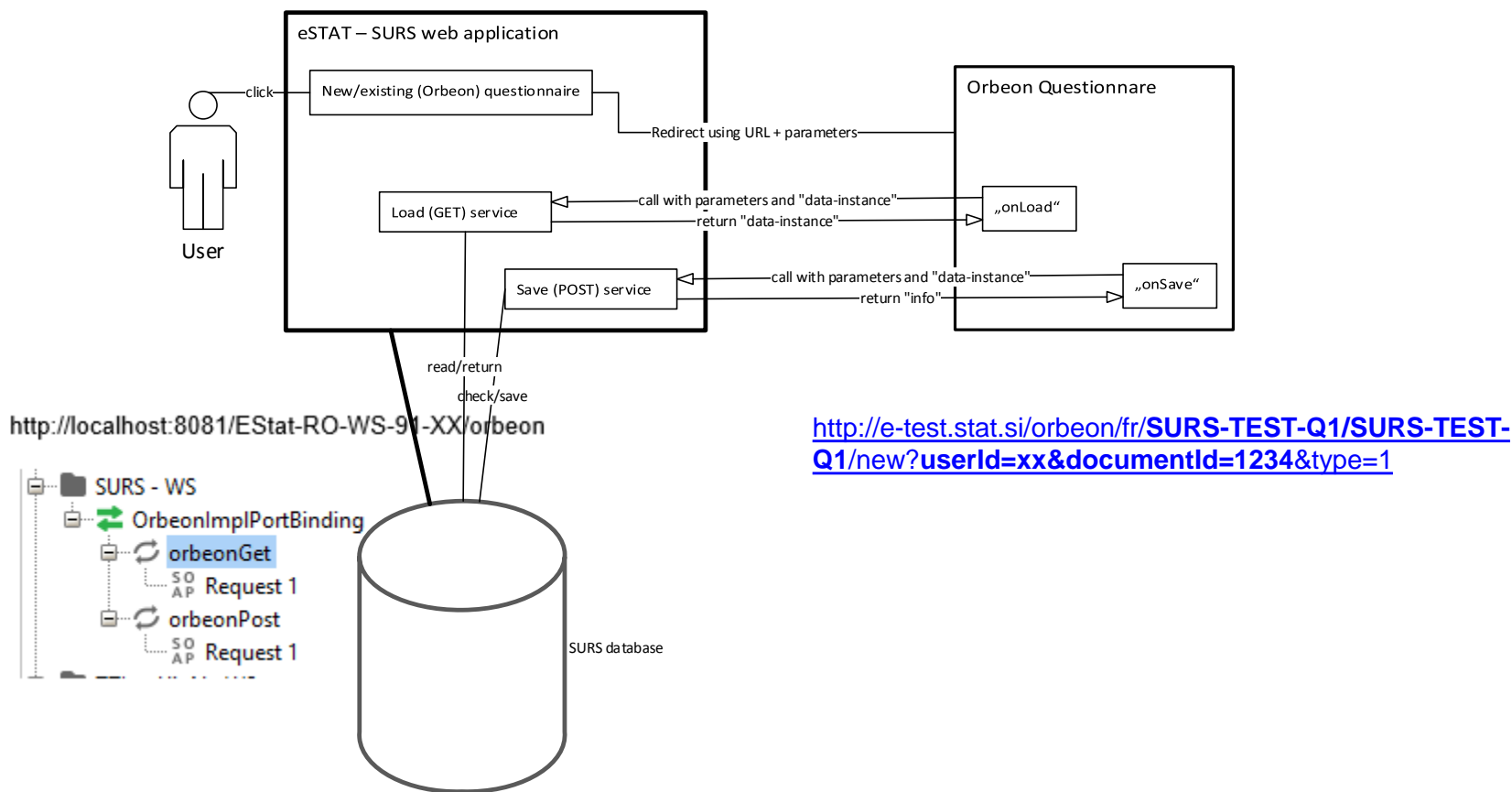
The main content area is titled "RAZPOLOŽLJIVI VPRAŠALNIKI". It features a navigation sidebar on the left with options: VPRAŠALNIKI, PREGLED, RAZPOLOŽLJIVI VPRAŠALNIKI (highlighted), ODDANI VPRAŠALNIKI, UPRAVLJANJE, PROFIL, UPORABNIKI, KOORDINATORJI, OPAZOVANE ENOTE, and POMOČ.

The main content area contains a table of available questionnaires. The table has columns for "Prikaži" (filters), "Opazovana enota", "Raziskovanje", "Vprašalnik", "Rok poročanja", "Sprememba", "Obdobje", "Status", "Verzija", "Analitični", and "Vrsta". The "Vrsta" column for the first entry is highlighted with a red box.

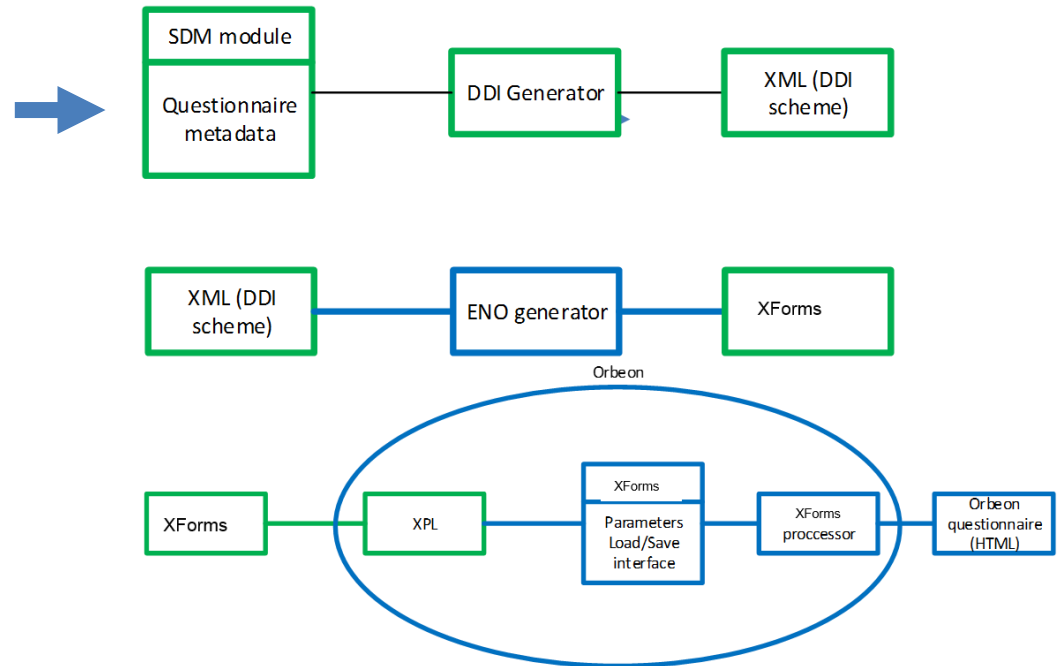
Prikaži	Opazovana enota	Raziskovanje	Vprašalnik	Rok poročanja	Sprememba	Obdobje	Status	Verzija	Analitični	Vrsta
Vse opazovane enote	Test SURS IT	IND-PN/M	IND-PN/M	20.04.2016		2016 marec			Ne	Orbeon
Vsa raziskovanja	Test SURS IT	DEM-RAZ	DEM-RAZ	13.03.2017		2016 letna			Da	Blaise
Vsa obdobja	Test SURS IT	PT	PT	10.04.2014	24.05.2017, 12:19:26	2014 april	izpolnjen	6	Ne	Orbeon

At the bottom of the page, there is a footer with the text "eSTAT v1.0.20170524.1500", "© Statistični urad Republike Slovenije", and "ZZI d.o.o.".

ESTAT API reuse



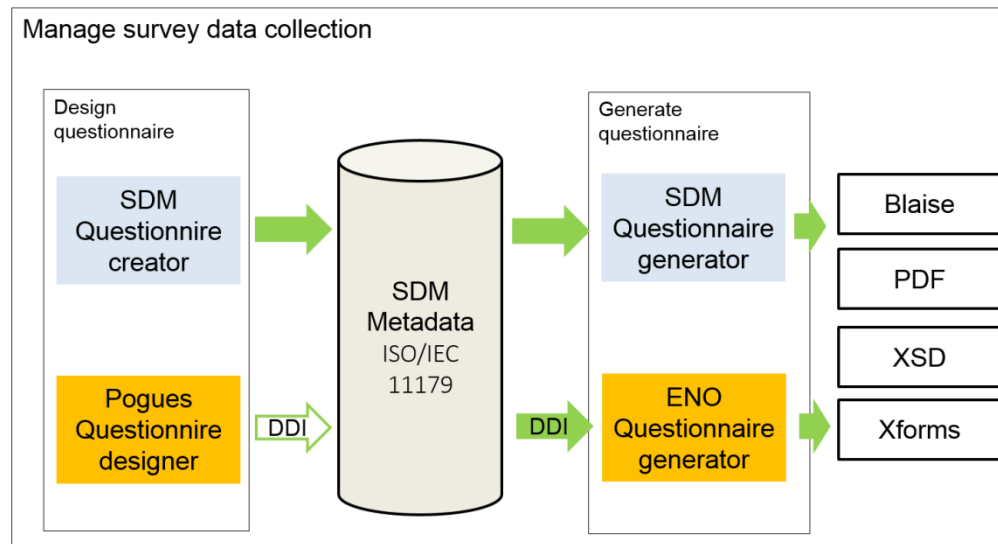
Questionnaire generation process



DDI as modelling format

- The choice of DDI as a modelling format for questionnaire specification was motivated by:
 - A strong need for a precise modelisation of the questionnaire in order to be able to render its content
 - DDI being an open standard;
 - DDI being serialised in XML, and thus easily processable.
 - Future work will provide new output formats
 - Questionnaire design user interface that will connect with the generation process > statistician would be able to define controls that could be used not only during the web data collection process but during the data editing process too.

Organisational impacts & open issues



- Questionnaires designed by statisticians
- Internal standard for questionnaire design review, based on DDI/Pogues capabilities
- SDM module upgrade not started yet

Lessons learned

- DDI, complete but complex
- ENO DDI profile, XSD Schema to be developed
- New technologies (XSLT, XForms, Orbeon)
- The reuse of the ENO generator is more successful with the simultaneous reuse of Pogues designer
- Used methods, standards and technologies that are more innovative, and thus has an important organizational impact.
- Reusability is never just a technical subject: semantic, organizational and even legal interoperability level are impacted > Review of internal questionnaire design standard