



Statistical Office of the Republic of Serbia

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# National system for producing reference metadata and quality reports

- RZSMETA -

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Workshop on the Implementation of a National Quality Assurance Framework for Official  
Statistics in countries of Eastern-Europe/Central-Asia Region

Belgrade, Serbia, 10-13 December 2019

# Life before RZSMETA

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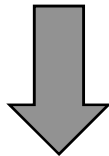


- Lack of survey documentation (**methodological documentation**)
- Need to monitor product quality (**quality reports**)
- Need to ensure calculation of **quality indicators** in more systematic, standardised and better documented way
- **Eurostat requests** for quality reports (last but not least)

# Goals

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- Introduce centralised, standardised and systematic way of production of reference metadata and quality reports for national needs
- Fulfil Eurostat demands
- Use international standards
- Minimise burden on statisticians
- Use IT solution



Higher transparency and quality  
Raised confidence and trust  
Better understanding of statistics

# RZSMETA

## (Reference metadata and quality reporting system)

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### IT system

- Developed in SORS
- Based on ESS standard (SIMS v2.0 – ESMS, ESQRS)
- Trilingual (Serbian Cyrillic, Serbian Latin, English)
- User friendly (similar with ESS MH)
- Include SDMX standard



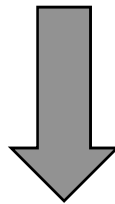
# RZSMETA

## (Reference metadata and quality reporting system)

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### Supporting documentation

- Procedure for the production, publishing and updating of reference metadata and quality reports
- Handbook for Creating Metadata and Quality Reports (based on ESS Handbook for quality reports 2014 and Technical Manual for SIMS)
- ESS Guidelines for the Implementation of the ESS Quality and Performance Indicators (QPI) are translated to Serbian
- Manual for using the application



Available for view/download within application

Short guidelines for filling-in each particular concept included in application

# RZSMETA

## (Reference metadata and quality reporting system)

Following documentation

**LIST OF STATISTICAL DOMAINS, SUBDOMAINS,SURVEYS AND INDICATORS**

- + Business services
- Structural Business Statistics
  - + [Calculation of Indicators for Branches of Domestic Companies Outside the Territory of Serbia \(Outward FATS\)](#)
  - + Annual structural business statistics
  - + Foreign affiliates in Serbia (inward FATS)
  - + Business demography
  - + Quarterly indicators of business activities of enterprises

Open options for new file

Identification	Name	Type	Year	Status
<input checked="" type="checkbox"/> 1901_ESMS_G0_2017	Annual structural business statistics	ESMS		
<input checked="" type="checkbox"/> 1901_ESQRS_G0_2017	Annual structural business statistics	ESQRS		
<input checked="" type="checkbox"/> 1902_ESMS_G0_2017	Foreign affiliates in Serbia (inward FATS)	ESMS		
<input checked="" type="checkbox"/> 1902_ESMS_G0_2018	Foreign affiliates in Serbia (inward FATS)	ESMS		
<input checked="" type="checkbox"/> 1902_ESQRS_G0_2017	Foreign affiliates in Serbia (inward FATS)	ESQRS	G0	2017
<input checked="" type="checkbox"/> 1902_ESQRS_G0_2018	Foreign affiliates in Serbia (inward FATS)	ESQRS	G0	2018
<input checked="" type="checkbox"/> 1903_ESMS_G0_2018	Business demography	ESMS	G0	2018
<input checked="" type="checkbox"/> 1903_ESQRS_G0_2018	Business demography	ESQRS	G0	2018
<input checked="" type="checkbox"/> 1904_ESMS_G0_2017	Quarterly indicators of business activities of enterprises	ESMS	G0	2017
<input checked="" type="checkbox"/> 1904_ESMS_G0_2018	Quarterly indicators of business activities of enterprises	ESMS	G0	2018
<input checked="" type="checkbox"/> 1904_ESQRS_G0_2017	Quarterly indicators of business activities of enterprises	ESQRS	G0	2017
<input checked="" type="checkbox"/> 1904_ESQRS_G0_2018	Quarterly indicators of business activities of enterprises	ESQRS	G0	2018

Show additional options\*

\*Default option is insert/update existed metadata

Insert/update metadata  
 Delete metadata  
 Preview metadata  
 Preview logs(only for validators)

↑

Useful links:

- [Eurostat/Database](#)
- [Eurostat/Database - quality reporting](#)

(Clicking on 'Following documentation' popup window is closing.)

Following documentation

- [ESMS структура](#)
- [ESQRS структура](#)
- [Презентација са обуке](#)
- [Процедура \(P3C\)](#)
- [Израчунавање индикатора квалитета - упутство](#)
- [Приручник ЕС за извештај о квалитету 2014](#)
- [Single Integrated Metadata Structure v 2.0 – ESMS 2.0 and ESQRS 2.0 – 2015](#)

# RZSMETA

## (Reference metadata and quality reporting system)

Index of labor costs (per hour worked)

Period: Annual Year: 2015

Metadata  Quality report

Create/change concepts Annexes Preview Summary

Identification 240401\_ESMS\_G0\_2015

(auxiliary options)  
 Upload XML  
 Copy data for chosen concepts

Expand all Collapse all

- 1. Contact
  - 1.1. Contact organisation\*
  - 1.2. Contact organisation unit\*
  - 1.3. Contact name\*
  - 1.4. Contact person function\*
  - 1.5. Contact mail address
  - 1.6. Contact email address\*
  - 1.7. Contact phone number\*
  - 1.8. Contact fax number
- 2. Metadata update
  - 2.1. Metadata last certified\*
  - 2.2. Metadata last posted\*
  - 2.3. Metadata last update\*
- 3. Statistical presentation
  - 3.1. Data description\*
  - 3.2. Classification system\*
  - 3.3. Coverage - sector\*
  - 3.4. Statistical concepts and definitions\*
  - 3.5. Statistical unit\*
  - 3.6. Statistical population\*
  - 3.7. Reference area\*
  - 3.8. Coverage - Time\*
  - 3.9. Base period\*
- 4. Unit of measure\*
- 5. Reference Period\*
- 6. Institutional Mandate
  - 6.1. Institutional Mandate - legal acts

**01.1 - Contact organisation**

**GUIDELINES:** The name of the organisation of the contact points for the data or metadata.

Save

Concepts Restricted from publication

Молимо Вас да унесете текст ћириличним писмом:

Републички завод за статистику

Унесите текст на енглеском: [Translate from serbian to english](#) Google translate

# RZSMETA

## (Reference metadata and quality reporting system)

The screenshot displays the RZSMETA web application interface. On the left, a tree view lists various metadata categories and their sub-items, including:

- 1. Contact
  - 1.1. Contact organisation\*
  - 1.2. Contact organisation unit\*
  - 1.3. Contact name\*
  - 1.4. Contact person function\*
  - 1.5. Contact mail address
  - 1.6. Contact email address\*
  - 1.7. Contact phone number\*
  - 1.8. Contact fax number
- 2. Metadata update
  - 2.1. Metadata last certified\*
  - 2.2. Metadata last posted\*
  - 2.3. Metadata last update\*
- 3. Statistical presentation
  - 3.1. Data description\*
  - 3.2. Classification system\*
  - 3.3. Coverage - sector\*
  - 3.4. Statistical concepts and definitions\*
  - 3.5. Statistical unit\*
  - 3.6. Statistical population\*
  - 3.7. Reference area\*
  - 3.8. Coverage - Time\*
  - 3.9. Base period\*
- 4. Unit of measure\*
- 5. Reference Period\*
- 6. Institutional Mandate
  - 6.1. Institutional Mandate - legal acts and other agreements\*
  - 6.2. Institutional Mandate - data sharing\*
- 7. Confidentiality
  - 7.1. Confidentiality - policy\*
  - 7.2. Confidentiality - data treatment\*
- 8. Release policy
  - 8.1. Release calendar\*
  - 8.2. Release calendar access\*
  - 8.3. Release policy - user access\*
- 9. Frequency of dissemination\*
- 10. Accessibility and clarity
  - 10.1. Dissemination format - News release\*
  - 10.2. Dissemination format - Publications\*

The main content area is titled "01.1 - Contact organisation". It includes a "GUIDELINES:" section with the text: "The name of the organisation of the contact points for the data or metadata." Below this is a "Save" button. A "Concepts Restricted from publication" checkbox is visible. The interface features two rich text editors. The top editor, titled "Молимо Вас да унесете текст ћириличним писмом:", contains the text "Републички завод за статистику". The bottom editor, titled "Унесите текст на енглеском:", contains the text "Statistical Office of the Republic of Serbia". Both editors include a toolbar with various text formatting options and a "Google translate" button.



# RZSMETA

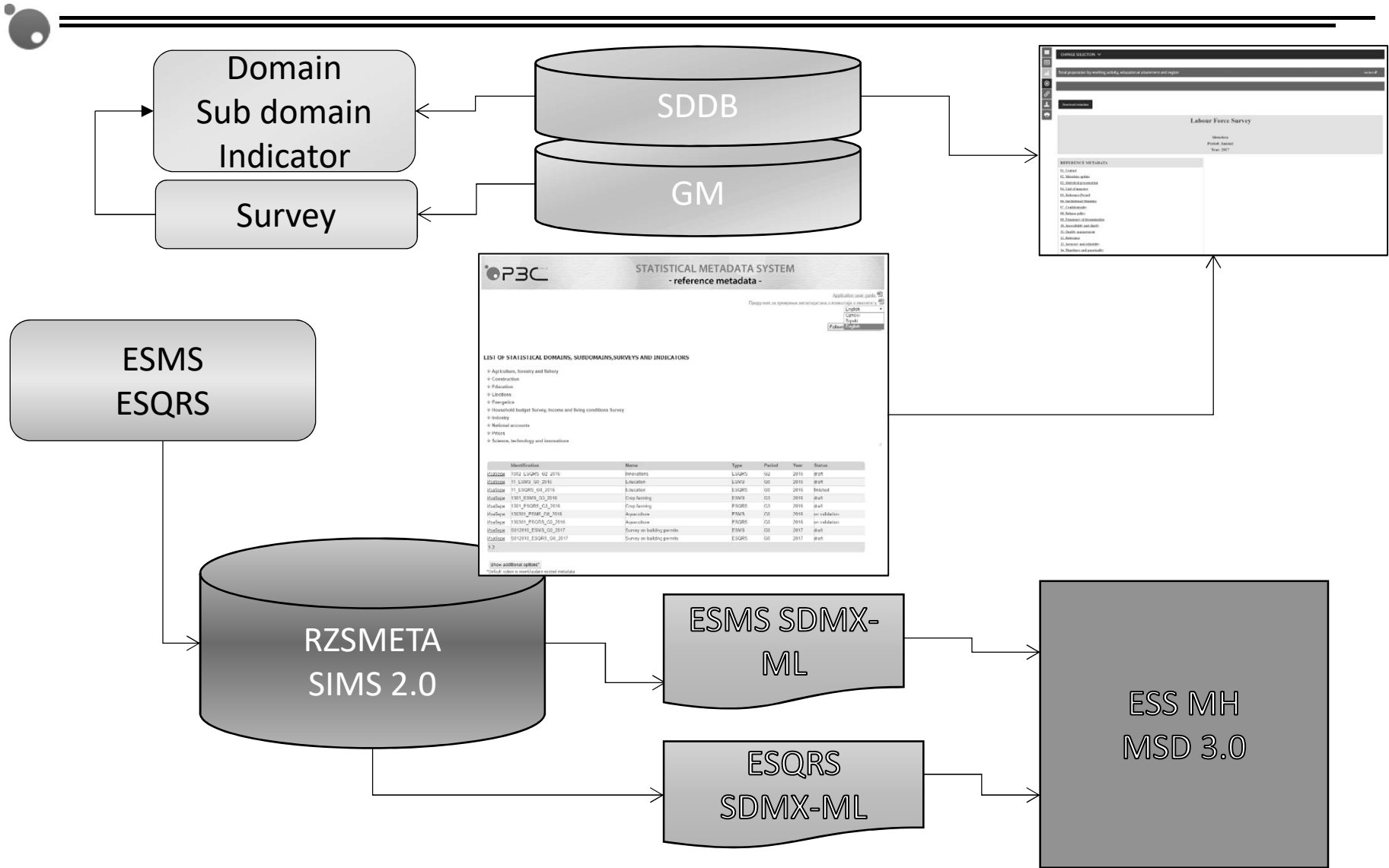
## (Reference metadata and quality reporting system)

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### **Implementation**

- Series of trainings for survey statisticians (theoretical and practical)
- System put into production at the end of 2017
- Reference metadata published on SORS website
- Quality reports published on SORS intranet portal
- Files downloaded in SDMX format and sent to Eurostat via ESS MH
- Annual update ensured (except for multiannual surveys)

# Conceptual model of SORS reference metadata system




# Latest developments

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## Improvements

- Reporting functionalities developed (for monitoring completeness and quality)
- Constant improvement of quantity of files produced
- First assessment of quality and completeness of the content conducted
- Predefined and standardised text for some concepts of quality reports (SIMS 2.0) prepared and incorporated in RZSMETA
- New series of trainings conducted
- Access to RZSMETA provided to ONAs
- Training for ONAs
- Improved accessibility (website, Open data portal)

# Accessibility of reference metadata


SRBIJE  
Statistical Office of the Republic of Serbia

English
Advanced search

CHANGE SELECTION
▼

Labour costs by divisions of CA2010 and by regions
Get link

CHANGE SELECTION
▼

Labour costs by divisions of CA2010 and by regions
Get link

Download metadata

## Labour Cost Survey

Metadata  
Period: Every four years  
Year: 2016

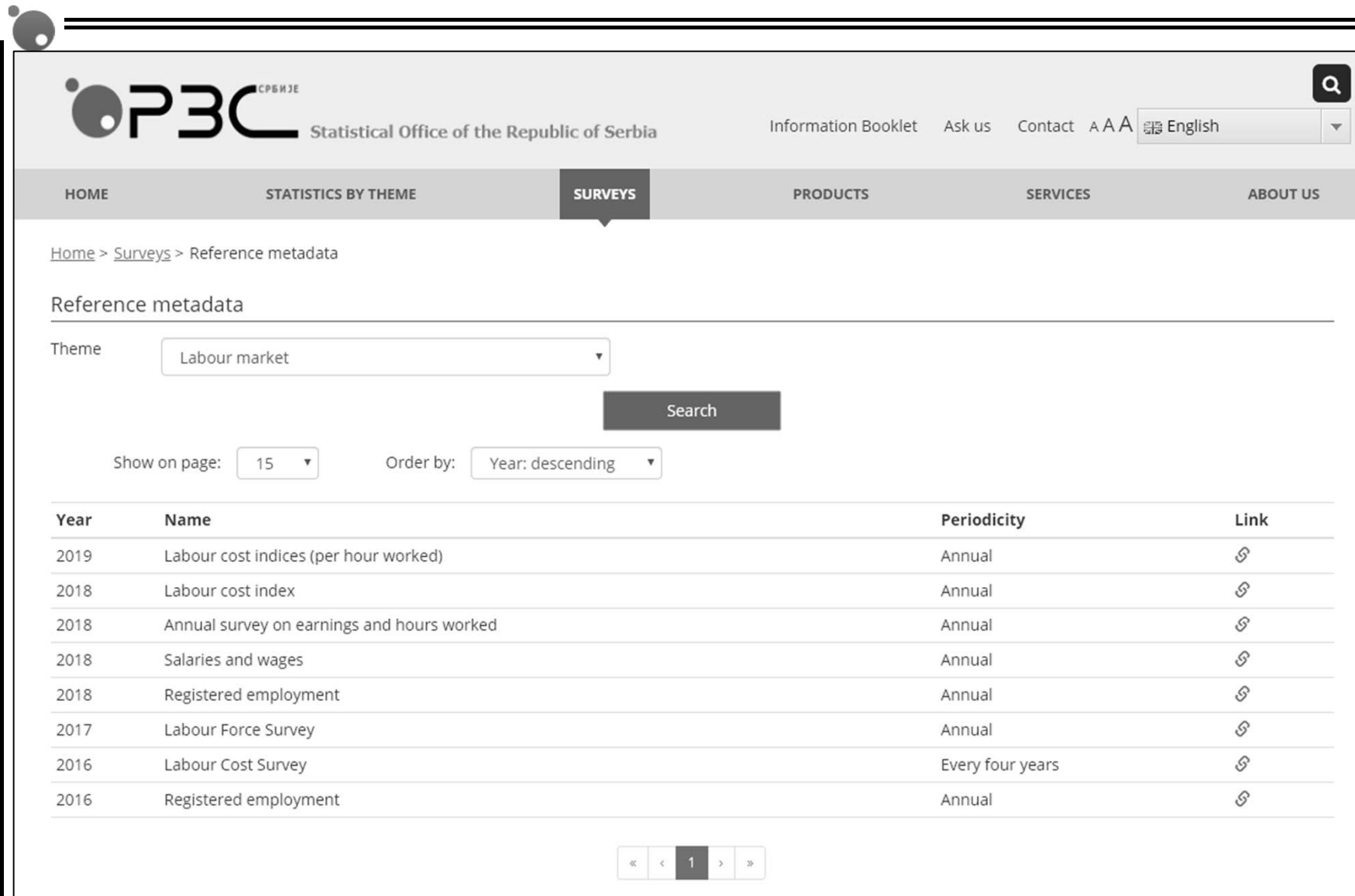
**REFERENCE METADATA**

- [01. Contact](#)
- [02. Metadata update](#)
- [03. Statistical presentation](#)
- [04. Unit of measure](#)
- [05. Reference Period](#)
- [06. Institutional Mandate](#)
- [07. Confidentiality](#)
- [08. Release policy](#)
- [09. Frequency of dissemination](#)
- [10. Accessibility and clarity](#)
- [11. Quality management](#)
- [12. Relevance](#)
- [13. Accuracy and reliability](#)
- [14. Timeliness and punctuality](#)
- [15. Coherence and comparability](#)
- [16. Cost and Burden](#)
- [17. Data revision](#)
- [18. Statistical processing](#)
- [19. Comment](#)

<b>01. Contact</b>	138
01.1. Contact organization	
Statistical Office of the Republic of Serbia	
01.2. Contact organization unit	
Labor Market Statistics Department, Registered Employment and Labour Costs Unit	

	Indicator	Period	LCS variables	Labour cost:
Territory - NSTJ				
Industry NACE Rev2.				
	Territory - NSTJ	Industry NACE Rev2.	Indicator	Labour cost:
	REPUBLIC OF SERBIA	Total	Period	2012
	A AGRICULTURE, FORESTRY AND FISHING	22163210	LCS variables	D Labour costs
	B MINING AND QUARRYING	29103062		
	B-S - INDUSTRY, CONSTRUCTION AND SERVICES (EXCEPT ACTIVITIES OF HOUSEHOLDS)	1268526038		

# Accessibility of reference metadata



The screenshot shows the website of the Statistical Office of the Republic of Serbia (P3C). The page is titled 'Reference metadata' and is filtered by the theme 'Labour market'. The search results are sorted by 'Year: descending' and displayed in a table with columns for Year, Name, Periodicity, and Link. The table lists several surveys from 2016 to 2019, including 'Labour cost indices (per hour worked)', 'Labour cost index', 'Annual survey on earnings and hours worked', 'Salaries and wages', 'Registered employment', 'Labour Force Survey', 'Labour Cost Survey', and 'Registered employment'. The page also includes navigation links, a search bar, and a language selector set to English.

Statistical Office of the Republic of Serbia

Information Booklet Ask us Contact A A A English

HOME STATISTICS BY THEME SURVEYS PRODUCTS SERVICES ABOUT US

Home > Surveys > Reference metadata

Reference metadata

Theme: Labour market

Search

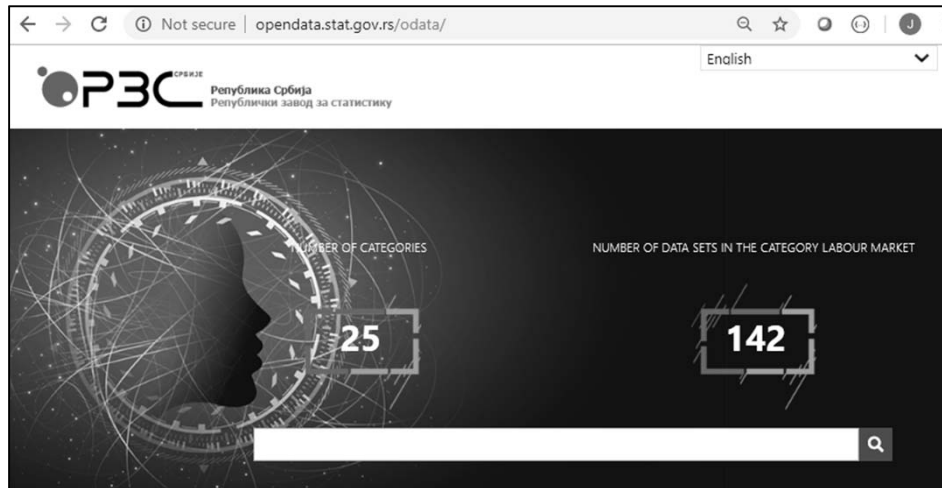
Show on page: 15 Order by: Year: descending

Year	Name	Periodicity	Link
2019	Labour cost indices (per hour worked)	Annual	<a href="#">Link</a>
2018	Labour cost index	Annual	<a href="#">Link</a>
2018	Annual survey on earnings and hours worked	Annual	<a href="#">Link</a>
2018	Salaries and wages	Annual	<a href="#">Link</a>
2018	Registered employment	Annual	<a href="#">Link</a>
2017	Labour Force Survey	Annual	<a href="#">Link</a>
2016	Labour Cost Survey	Every four years	<a href="#">Link</a>
2016	Registered employment	Annual	<a href="#">Link</a>

« < 1 > »

# Accessibility of reference metadata

All reference metadata (ESMS) are available on SORS Open Data Portal



A screenshot of the SORS Open Data Portal search results page. The page is titled 'OPEN DATA' and includes a sidebar with navigation links such as 'WHAT ARE OPEN DATA?', 'OPEN DATA AND PRIVACY', 'WHY OPEN DATA?', 'OPEN DATA FOR WHOM?', 'HOW TO USE OPEN DATA?', and 'QUESTIONS, SUGESSTIONS, IDEAS?'. The main content area shows a search result for the category 'Labour market'. The result includes the title 'RATES OF ACTIVITY. RATES OF ACTIVITY, EMPLOYMENT, INACTIVITY AND UNEMPLOYMENT BY AREA', the category 'Labour market', the period '2014 - 2018', and the number of records '1710'. The source is listed as 'SORS' and the last update date is '3.10.2019.'. Download options for 'Excel', 'CSV', and 'JSON' are provided.

# Connection to UN NQAF

B Managing the institutional environment

8 Assuring the quality commitment

8.6	Indicators on statistical output quality are regularly measured, monitored, published and followed up to improve statistical products and processes.	<a href="#">click</a>	Full compliance	<p>The reference metadata system – RZSMETA is developed in the SORS with the aim to ensure the production of updated User-oriented and Producer-oriented quality reports that will be used for monitoring product quality. RZSMETA system is developed according to SIMS version 2.0 and its underlying reporting structures ESMS and ESQRS v2.0. The RZSMETA system consists of a repository of metadata, that is a SQLSERVER database, and a web application that enables its users to fill-in their metadata. It was put into operation in May 2017.</p> <p>Supporting documentation related to quality (and metadata) reporting, such as: Procedure for the production, publishing and updating of reference metadata and quality reports, Manual for using application for production of reference metadata and quality reports, Handbook for Creating Metadata and Quality Reports exist and are available on the Intranet portal. Also ESS Guidelines for the Implementation of the ESS Quality and Performance Indicators (QPI) are translated to Serbian and available on the SORS Intranet portal.</p> <p>User-oriented quality reports are available to the public on the official SORS website. Producer-oriented quality reports are published on the SORS intranet portal. Based on these documents the SORS will monitor product quality over time in the future. Quality indicators that are part of SIMS 2.0 structure are calculated and published within User-oriented and Producer-oriented quality report.</p>
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# Connection to UN NQAF

C Managing statistical processes

10 Assuring methodological soundness

10.1	The methodologies applied by the statistical agencies are consistent with international standards, guidelines and good practices and are regularly reviewed and revised as needed.	<a href="#">click</a>	Partial compliance	For every statistical survey some forms of supporting methodological documents are prepared (survey methodology, organisational and technical manual, methodological notes, etc.). Methodological documents are available at SORS website and for certain statistical surveys include information on possible divergences from the existing European and international recommendations. Concepts and definitions, depending on the statistical domain, are in accordance with the national and/or EU legislation. Majority of the statistical classifications are in accordance with the EU and national legislation and they are regularly applied. As anticipated, in future, reference metadata system (RZSMETA) should provide standard summary methodological documents for all statistical surveys, in addition to user and producer oriented quality reports.
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# Connection to UN NQAF

D Managing statistical outputs

15 Assuring accuracy and reliability

15.2	Sampling errors are measured, evaluated and documented. Non-sampling errors are described and, when possible, estimated.	<a href="#">click</a>	Full compliance	<p>Identification and evaluation of main sampling and non-sampling error sources in statistical processes is implemented through the SORS reference metadata system – RZSMETA which is based on SIMS 2.0 standard. Quality reports made using RZSMETA system contain information on errors.</p> <p>Supporting documentation related to quality (and metadata) reporting, such as: Procedure for the production, publishing and updating of reference metadata and quality reports, Manual for using application for production of reference metadata and quality reports, Handbook for the production of reference metadata and quality reports exist and are available on the Intranet portal. Also ESS Guidelines for the Implementation of the ESS Quality and Performance Indicators (QPI) are translated to Serbian and available on the SORS Intranet portal.</p> <p>Different methods and tools for preventing and reducing errors are used, like pilot surveys, pre-testing of questionnaires, interviewers training, different kind of survey promotions, web questionnaires, CAPI and CATI methods for data collection, etc. These activities are described in the technical documentation of each particular survey. The SORS has also prepared a Manual for assessing and validating new questionnaires.</p> <p>Information about errors is made available to users through user-oriented quality reports that are published on the SORS website.</p>
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# Connection to UN NQAF

D Managing statistical outputs

17 Assuring accessibility and clarity

17.1	Statistics are presented in a form that facilitates proper interpretation and meaningful comparisons.	<a href="#">click</a>	Partial compliance	<p>Dissemination policy of SORS prescribes the basic principles regulating dissemination of statistical data and information. Dissemination policy is harmonized with Official Statistics Law, Quality policy and European Statistics Code of Practice.</p> <p>Basic principles and guidelines of dissemination policy:</p> <ul style="list-style-type: none"> <li>•Professional independence</li> <li>•Impartiality and objectivity</li> <li>•Availability and clarity</li> <li>•Confidentiality</li> <li>•User – friendly oriented approach</li> <li>•Transparency and accuracy</li> <li>•Data free of charge</li> <li>•Reuse of data</li> </ul> <p>Statistical data are published with the accompanying metadata, in accordance with national and international criteria, so as to enable users the appropriate understanding of the data.</p> <p>Quality and statistical data availability is subject to systematic estimation in the sense of providing continuous improvement of dissemination activities.</p>
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# Connection to UN NQAF

D Managing statistical outputs

17 Assuring accessibility and clarity

17.7	Users are kept informed about the quality of statistical outputs.	<a href="#">click</a>	Full compliance	User-oriented quality reports are published on the SORS website, together with the statistical results. They are defined according to ESS standards, and they are produced according to Handbook for Creating Metadata and Quality Reports which is based on ESS standards and guidelines for quality reporting.
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# Connection to UN NQAF

## D Managing statistical outputs

### 19 Managing metadata

19.1	The metadata management system of the statistical agency is well defined and documented.	<a href="#">click</a>	Full compliance	<p>The reference metadata system – RZSMETA is developed in the SORS with the aim to ensure the production of updated User-oriented and Producer-oriented quality reports that will be used for monitoring product quality. The RZSMETA system consists of a repository of metadata, that is a SQLSERVER database, and a web application that enables its users to fill-in their metadata. It was put into operation in May 2017.</p> <p>Supporting documentation related to quality (and metadata) reporting, such as: Procedure for the production, publishing and updating of reference metadata and quality reports, Manual for using application for production of reference metadata and quality reports, Handbook for Creating Metadata and Quality Reports exist and are available on the Intranet portal. Also ESS Guidelines for the Implementation of the ESS Quality and Performance Indicators (QPI) are translated to Serbian and available on the SORS Intranet portal.</p>
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# Connection to UN NQAF

## D Managing statistical outputs

### 19 Managing metadata

19.2	Metadata are documented, archived and disseminated according to internationally accepted standards.	<a href="#">click</a>	Full compliance	RZSMETA system is developed according to SIMS version 2.0 and its underlying reporting structures ESMS and ESQRS v2.0. User-oriented quality reports are available to the public on the official SORS website. Producer-oriented quality reports are published on the SORS intranet portal.
19.3	Staff training and development programs are in place on metadata management and related information and documentation systems.	<a href="#">click</a>	Full compliance	Regular trainings on preparation of metadata and quality reports and on usage of RZSMETA system are organized for staff involved in preparation of User-oriented and Producer-oriented quality reports. SORS staff participate regularly in working groups meetings, training courses, conferences and other international meetings related to metadata.

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Thank you for your attention



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[www.stat.gov.rs](http://www.stat.gov.rs) / [stat@stat.gov.rs](mailto:stat@stat.gov.rs)