



International
Railway
Research
Board



INTERNATIONAL UNION
OF RAILWAYS

worc

WORLDWIDE RAIL RESEARCH CAPACITY FINDER

World Class Research Capacity Plan **WORC**

Databáze výzkumných institucí

Jaroslav Vašátko

Mstetice, 19.01.2017



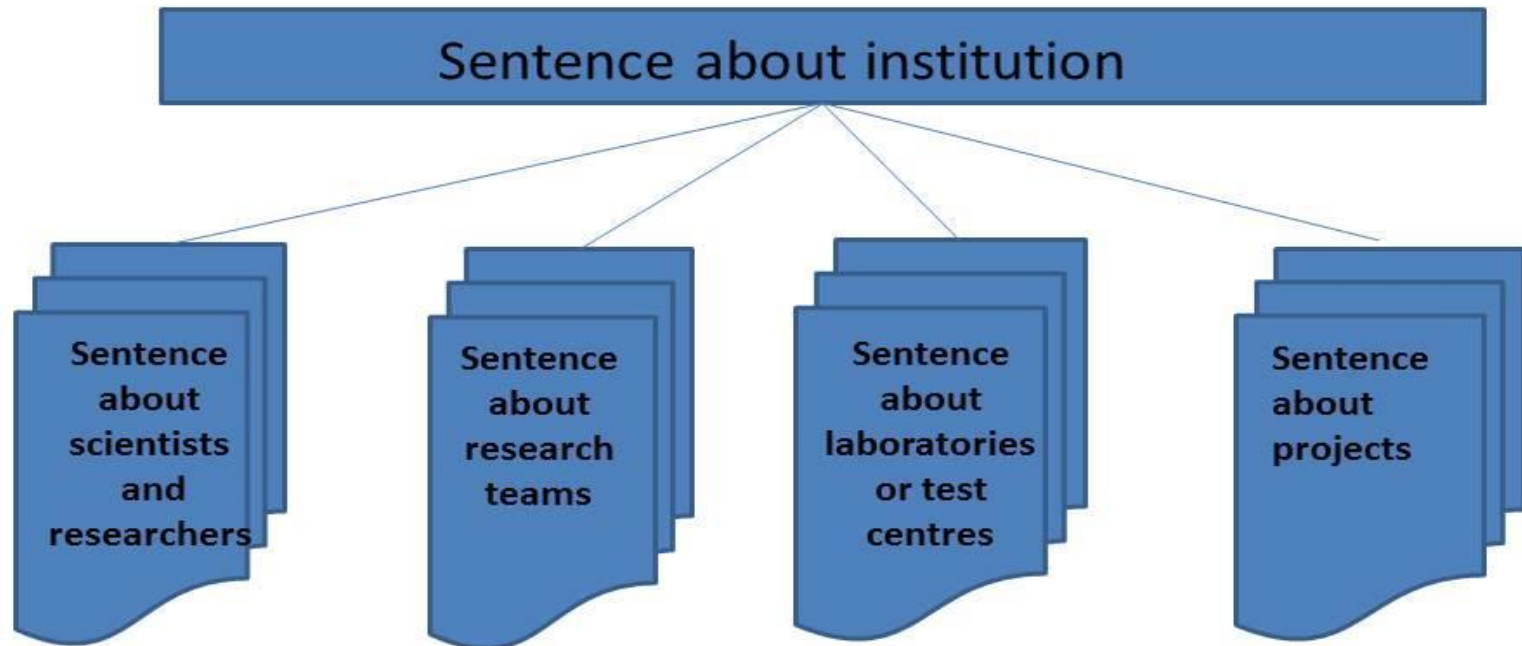
Výzkumný
Ústav
Železniční, a.s.




Základní informace

- IRRB - International Railway Research Board - Mezinárodní výbor UIC pro železniční výzkum - ČR má svého vicepresidenta -TP na úkolech IRRB úzce spolupracuje.
- Jedním z cílů strategie IRRB je sjednocení světových výzkumných kapacit pro řešení globálních problémů na železnici - úkol českého vicepresidenta IRRB.
- Nástrojem pro tuto myšlenku je vytvořená databáze WORC.
- WORC umožní získat přehled o globálních výzkumných kapacitách se zaměřením na železnici a jejich profesní orientaci.
- WORC dále poskytuje přehled o klíčových osobnostech železničního výzkumu, přehled o laboratořích a testovacích centrech a přehled o výzkumných projektech.
- Databáze by měla podporovat spolupráci výzkumných světových kapacit.
- Databáze je dostupná na webové adrese www.rworc.org/WORC4_test1 nebo na portálu UIC www.railway-research.org.

WORC database structure



Úvodní obrazovky




WORC (test 2.1)

WORLDWIDE RAIL RESEARCH CAPACITY FINDER

Home Input operations Output operations

Home




World class Research Capacity Plan

Welcome

WORC is a database of the world's major research institutions providing information about their professional focus and about their most important results in the field of railway research. Part of the WORC database is also information about professionally oriented capacities of this institution (individuals or whole teams) and their laboratories and testing centres with the definition of their parameters, it means with description of the technical facilities, performed tests and provided certification.

The database provides not only an overview of the world's top research institutions, but also other information from the field of railway research with links to the world's major sources of information. At the same time the WORC is a marketing tool for the implementation of services capacity and research institutions in the market of railway research and testing.



Úvodní obrazovky

The screenshot shows the WORC website interface. At the top, a green header contains the 'worc' logo and the text 'WORLDWIDE RAIL RESEARCH CAPACITY FINDER'. To the right of the logo, there are links for 'My account' and 'Log out', and a version indicator 'WORC (test 2.1)'. Below the header, a blue navigation bar includes buttons for 'Home', 'Input operations', and 'Output operations'. On the left side, a red-bordered box highlights a 'Navigation' menu with the following items: 'Basic information', 'More about WORC', 'List of WORC Members', and 'WORC Contacts'. Below this menu is a search bar with a magnifying glass icon. The main content area features a large banner with the 'worc' logo and the text 'World class Research Capacity Plan' over a background image of railway tracks. Below the banner, the 'Welcome' section contains two paragraphs of text describing the database and its purpose. At the bottom, a row of logos represents various member organizations, including VUZ, KRI, CRC, Network Rail, and others.

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- Basic information
- More about WORC
- List of WORC Members
- WORC Contacts

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Logos of member organizations: VUZ, KRI, CRC, Network Rail, DB, SNCF, RAIL, JR, CTR, TCR, TCDD, VIA Rail Canada, RSSB, and others.

Demonstration of filling input data

The screenshot shows the WORC website interface. At the top, there is a green header with the 'worc' logo in blue and green, and the text 'WORLDWIDE RAIL RESEARCH CAPACITY FINDER' below it. To the right of the logo, there are links for 'My account' and 'Log out', and the text 'WORC (test 2.1)'. Below the header, there is a blue navigation bar with three buttons: 'Home', 'Input operations', and 'Output operations'. The 'Home' button is currently selected. Below the navigation bar, the page content is white. It starts with a 'Home' link, followed by the title 'WORC Input Forms'. Below this title, there is a text line: 'Electronic Forms (data inputs, validation, editation, removal) for:'. Underneath this text, there is a list of five items, each preceded by a blue diamond bullet point: 'Institution (I)', 'Team (T)', 'Researcher (R)', 'Laboratory (L)', and 'Project (P)'. The 'Institution (I)' item is circled in red.

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WORC Input Forms

Electronic Forms (data inputs, validation, editation, removal) for:

- Institution (I)
- Team (T)
- Researcher (R)
- Laboratory (L)
- Project (P)

Demonstration of filling input data



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Institution (I)

WORC Institution - Data input, edit, delete:

(To create, edit or delete data in WORC database, you have to start with Institution)

Acronym:	Institution (english name):	Edit:	Delete:
KRRI	Korea Railroad Research Institute	Edit	Delete
NewRail	NewRail Centre for Railway Research	Edit	Delete
TCDD DATEM	TCDD DATEM	Edit	Delete
VNIIZhT	Railway Research Insitute	Edit	Delete
VUZ	Railway Research Institute	Edit	Delete

Number of Institutions for selection in WORC Database: 5

New Institution Data - Insert new Institution Acronym:

Create

Demonstration of filling input data

Identification data about institution

1 - Identification:

Institution:

Name:

Name (english):

Acronym:

Legal form:

Address:

Street:

House:

Post code:

City:

Country:

Contact:

Surname:

Firstname:

Secondname:

Phone:

e-Mail:

Web site:

Demonstration of filling input data

Professional focus of institution

3 – Professional focus:

3.1 – Infrastructure:

Track-superstructure:

Track-substructure:

Rails:

Sleepers:

Switches:

Bridges:

Tunnels:

Power and traction systems:

Others 3.1:

Others 3.1 description:

☐
☐
☐
☐
☐
☐
☐
☐
☐
☐

3.2 – Rolling Stocks:

Locomotives:

Units:

Passengers cars:

Freight cars:

Others Rolling stocks:

Others Rolling stocks description:

☐
☐
☐
☐
☐

3.3 Propulsion sys:

Propulsion systems:

Others propulsion systems:

Others propulsion systems description:

☐
☐

3.4 Economy and management of railway transport :

Economy and management of railway transport:

Others economy and management of railway transport:

Others economy and management of railway transport description:

☐
☐

Demonstration of filling input data

Other information about institution

4. Other information about institution:

4.1 Personal and financial data:

Total number of employees:

Number of experts with an academic degree:

Number of scientists and researchers focused on rail transport:

Annual budget institutions focused on the research and innovation in million US dollars:

4.2 Scientific potential and productivity:

Scientific potential and productivity: ☐

Number of registered patents of railway research for the last 3 years (max. 3 examples):

1.example (PAT):

2.example (PAT):

3.example (PAT):

Number of registered licences of railway research for the last 3 years (max. 3 examples):

1.example (LIC):

2.example (LIC):

3.example (LIC):

Demonstration of output operations

My account Log out

WORC (test 2.1)

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WORLDWIDE RAIL RESEARCH CAPACITY FINDER

Home Input operations **Output operations**

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General Outputs

Global Overview Tables

- Institutions Outputs
- Teams Outputs
- Researchers Outputs
- Laboratories Outputs
- Projects Outputs

WORC Selective Outputs

- Selective Outputs

Demonstration of output operations

The screenshot shows the WORC website interface. At the top, there is a green header bar. On the left side of the header, the WORC logo is displayed in blue and green, with the text "WORLDWIDE RAIL RESEARCH CAPACITY FINDER" below it. On the right side of the header, the text "WORC (test 2.1)" is shown, along with links for "My account" and "Log out". Below the header, there is a blue navigation bar with three tabs: "Home", "Input operations", and "Output operations". The "Output operations" tab is currently selected. Below the navigation bar, the main content area is white. It starts with a "Home" link. Then, there is a section titled "General Outputs". Under this section, there is a sub-section titled "Global Overview Tables". Below this, there is a list of links: "Institutions Outputs", "Teams Outputs", "Researchers Outputs", "Laboratories Outputs", and "Projects Outputs". The "Institutions Outputs" link is circled in red. Below this list, there is another section titled "WORC Selective Outputs", which contains a single link: "Selective Outputs".

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Demonstration of output operations



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- Researchers Outputs
- Laboratories Outputs
- Projects Outputs

Institution Outputs


Identification (I)

- Institution List
- Institution Contact List

Type of Activity (I)

- Institutions Activity Overview

Demonstration of output operations



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- [Laboratories Outputs](#)
- [Projects Outputs](#)

Institution List

WORC Institution List:

Acronym:	Institution (english):	Institution (national):	Country:	Website:
KRRI	Korea Railroad Research Institute	Korea Railroad Research Institute	South Korea	www.krri.re.kr
NewRail	NewRail Centre for Railway Research	NewRail Centre for Railway Research	Great Britain	www.newrail.org
TCDD DATEM	TCDD DATEM	TCDD DATEM	Turkey	www.tcdd.gov.tr
VNIIZhT	Railway Research Institute	Všeruskij Narodnyj Issledovatelnyj Institut Železnodorožno Transporta	Russia	www.vniizht.ru
VUZ	Railway Research Institute	Výzkumný Ústav Železniční	Czech Republic	www.cdvuz.cz

Number of Institutions for selection in WORC Database: 5

Demonstration of output operations

The screenshot shows the WORC website interface. At the top, there is a green header bar. On the left, the WORC logo is displayed in blue and green, with the text "WORLDWIDE RAIL RESEARCH CAPACITY FINDER" below it. On the right, the text "WORC (test 2.1)" is shown, along with links for "My account" and "Log out". Below the header, there is a blue navigation bar with three tabs: "Home", "Input operations", and "Output operations". The "Output operations" tab is currently selected. Below the navigation bar, the page content is white. It starts with a "Home" link. Then, there is a section titled "General Outputs" followed by "Global Overview Tables". Under this, there is a list of five items: "Institutions Outputs", "Teams Outputs", "Researchers Outputs", "Laboratories Outputs", and "Projects Outputs". Below this list, there is a section titled "WORC Selective Outputs". Under this section, there is a single item: "Selective Outputs", which is circled in red.

My account Log out

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General Outputs

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WORC Selective Outputs

- Selective Outputs

Demonstration of output operations

The screenshot displays the WORC website interface. At the top, the logo 'worc' is shown in blue and green, with the text 'WORLDWIDE RAIL RESEARCH CAPACITY FINDER' below it. To the right, there are links for 'My account' and 'Log out', and the text 'WORC (test 2.1)'. Below the header, there are navigation tabs: 'Home', 'Input operations', and 'Output operations'. The 'Output operations' tab is selected. On the left side, there is a sidebar with a 'Back to Outputs Operations' link and a list of output types. The 'WORC Selective Outputs' option is circled in red. The main content area is titled 'WORC Selective Outputs' and lists various output types under the heading 'Selective Outputs Types'.

Home Input operations Output operations

Home

Back to Outputs Operations

- Home
- **WORC Selective Outputs**
- Institutions Outputs
- Teams Outputs
- Researchers Outputs
- Laboratories Outputs
- Projects Outputs

WORC Selective Outputs

Selective Outputs Types

- Institution Card
- Team Card
- Researcher Card
- Laboratory Card
- Project Card
- Choice of Institutions by professional focus (Rolling Stock)
- Choice of Teams by professional focus (Rolling Stock)
- Choice of Teams by professional focus (Rolling Stock - Parts, Systems, Components)
- Choice of Scientists and Researchers by professional focus (Rolling Stock)
- Choice of Laboratories and Test centres (Technical equipment used for testing criteria)

Demonstration of output operations



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- [Teams Outputs](#)
- [Researcher Outputs](#)
- [Laboratories Outputs](#)

Laboratories - Select Laboratories - Technical equipment used for testing criteria

[View](#) [Track](#)

[Selection of Laboratories by Technical equipment used for testing criteria:](#)

Test tracks: ☐

Track or circuit with GSM-R: ☐

Track or circuit with ETCS-1: ☐

Track or circuit with ETCS-2: ☐

Halls for preparation:

GNSS technology: ☐

Dynamic test laboratories: ☒

Training centre: ☐

Counter of axles: ☐

Indicator of the flat wheels: ☐

Indicator of the hot axles: ☐

Special measuring section for TSI measurement: ☐

Special test track for derailment safety measurement under high longitudinal forces (UIC 530-2): ☐

Curve for measurement lateral and vertical forces between wheel and rail: ☐

Special measuring section for EMC test: ☒

Other equipments: ☐

Supply power system – DC system 1,5 kV ☐

Supply power system – DC system 3 kV ☐

Supply power system – AC system 25 kV , 50 Hz ☐


Supply power system – AC system 15 kV , 16 2/3 Hz ☐

Other power station systems: ☐

[Select](#)

25 reads

Demonstration of output operations



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WORLDWIDE RAIL RESEARCH CAPACITY FINDER

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- Laboratories Outputs

Selected Outputs - Laboratories 2.3

[View](#)
[Track](#)

Laboratories - Selected Testing Equipments parameters:

(OR selection)

Testing halls number = .

Value Dynamic test laboratories = 1.

Value Special measuring section for EMC test = 1.

WORC Database: - Table #05 - Laboratories & Testing Equipments

Laboratory name:	Laboratory Acronym:	Institution Acronym:	Type Laboratory:	Type Testcenter:	City:	Country:	Contact Surname:	Contact First name:	Contact Second name:	Phone:	e-Mail:	Website:	Using expert client:
Design improvement of the permanent way	VSP	VNIIZHT	1		Moscow	Russia	Khvostik	Mikhail		+7(499)180-3241	vsp311@yandex.ru	www.vniizht.ru	1
Test Centre Velim	TC Velim	VUZ		1	Cerhenice	Czech republic	Klofanda	Miloš		+420 602 712 139	klofandam@odvuz.cz	www.odvuz.cz	1
VUZ Testing Laboratory No. 1492	VUZ ZL	VUZ	1		Prague	Czech republic	Šuk	Vratislav		+420 972 223 320	sukv@odvuz.cz	www.odvuz.cz	
TCDD RAILWAY RESEARCH CENTER	TCDD DATEM	TCDD DATEM	1	1	YENIMAHALLE	Turkey	KANDEMİR	GUVEN		+9 (0312) 211 10 41 - 8603	guvenkandemir@todd.gov.tr	www.todd.gov.tr	

WORC contacts



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WORC Contacts

WORC Contacts points

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E-mail: petiokym@cdvuz.cz



Další plánované kroky

- Naplnit databázi WORC daty
- Zahájit naplňování databáze vybranými českými subjekty
- Ve spolupráci s UIC zhodnotit výsledky projektu a stanovit další postup rozvoje databáze



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Děkuji za pozornost

Jaroslav Vašátko



Výzkumný
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