CroRIS Data
Quality Issues and
Possible Solutions

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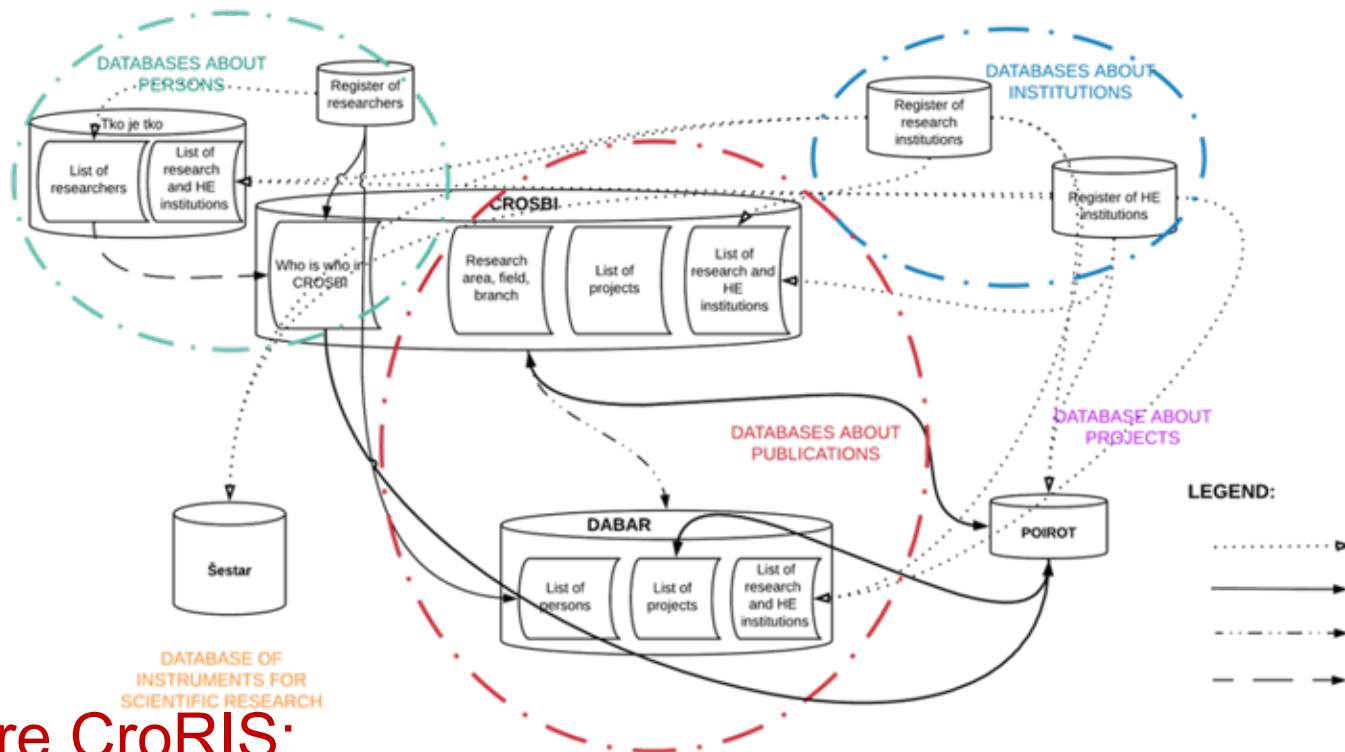June 1st, 2023, Brussels, Belgium

Croatian National CRIS (CroRIS)

Development of CERIF based

Croatian **R**esearch **I**nformation **S**ystem

(www.croris.hr)

Topic overview:
- Ensuring data accuracy and quality
- Data verification
- Overview of various roles and their responsibilities
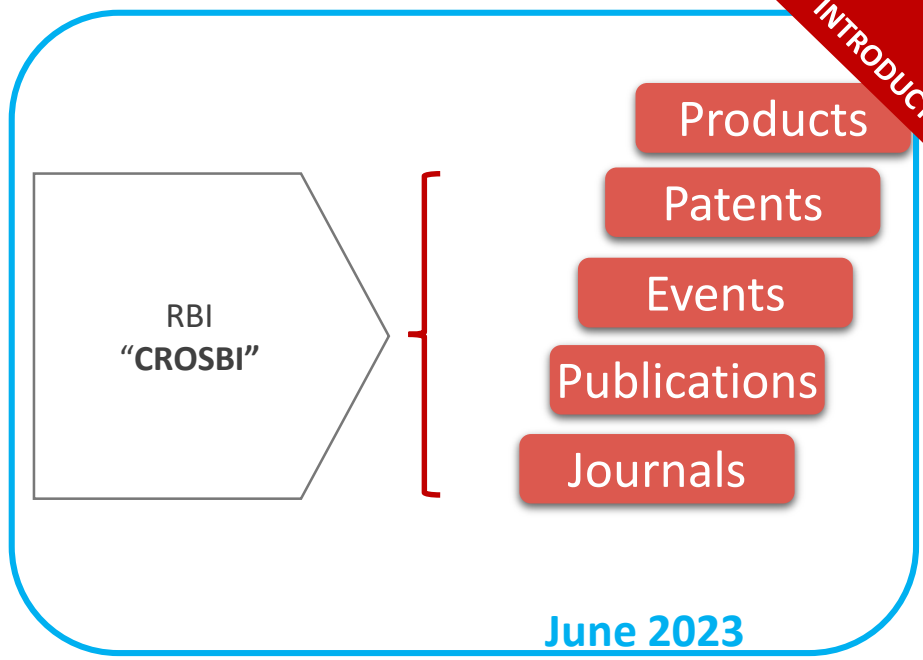- Importance of role separation and scope limitation
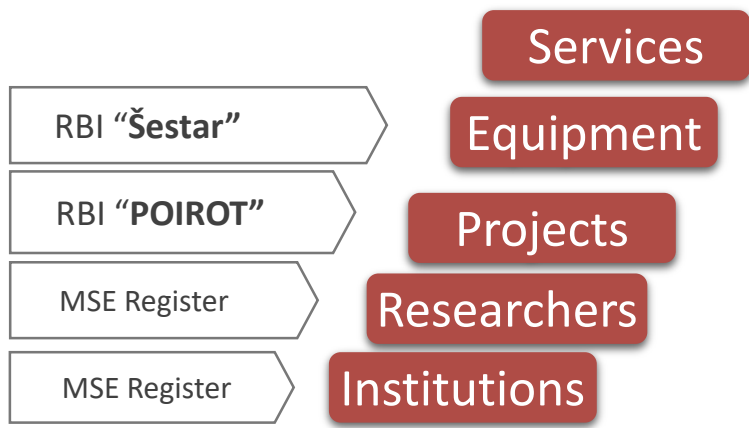
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Before CroRIS:
Croatian Research Information Landscape?

Several crucial data sources required complete migration to CroRIS

Each of these systems had design issues that contributed to the **accumulation of data chaos**

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RBI "**Šestar**"

RBI "**POIROT**"

MSE Register

MSE Register

Services

Equipment

Projects

Researchers

Institutions

RBI "**CROSBI**"

Products

Patents

Events

Publications

Journals

June 2023

CroRIS data migration

Integration of existing informations into a sustainable and unique information system

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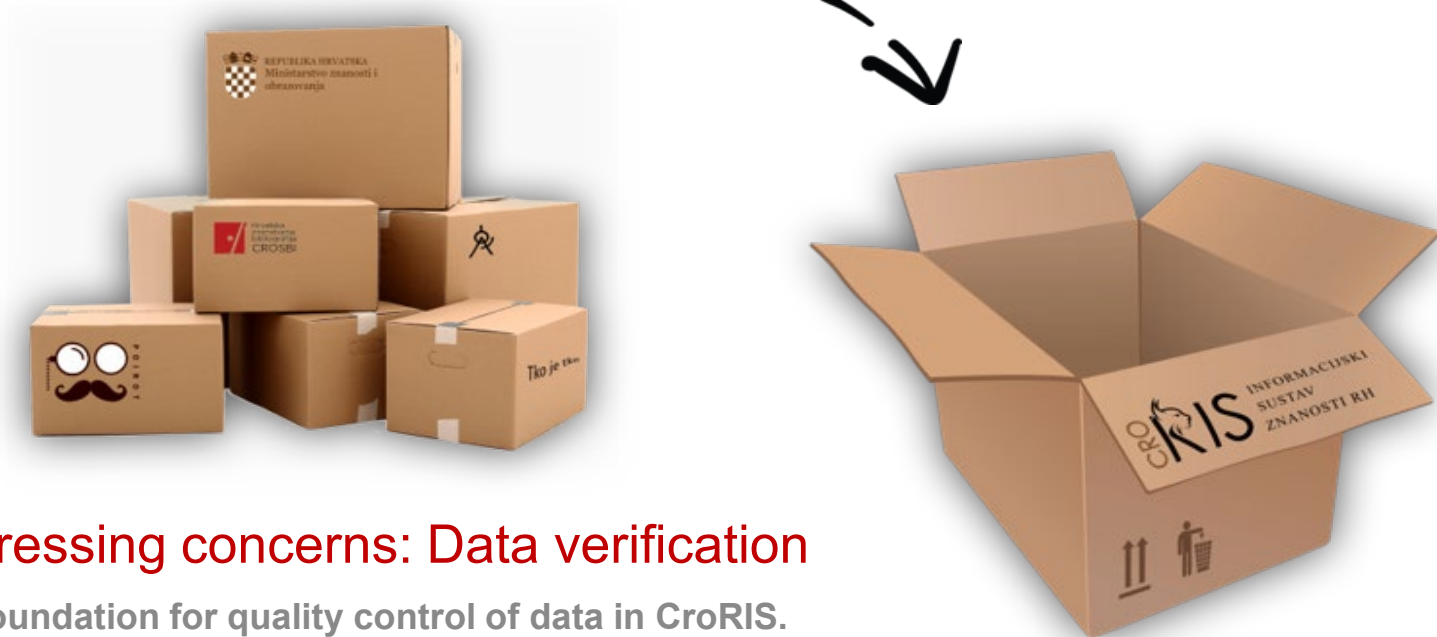
Addressing concerns: Data verification

The foundation for quality control of data in CroRIS.

It refers to a part of the data within CroRIS that is recognized as more important.

The process also begins automatically when a user enters / changes such data and concludes with the approval of the records by the designated authority.

Mechanism behind data verification

Designated authorities and top-level user roles

REPUBLIKA HRVATSKA
Ministarstvo znanosti i obrazovanja

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Sveučilište u Zagrebu
Sveučilišni računski centar

CroRIS tim

Institut Ruđer Bošković
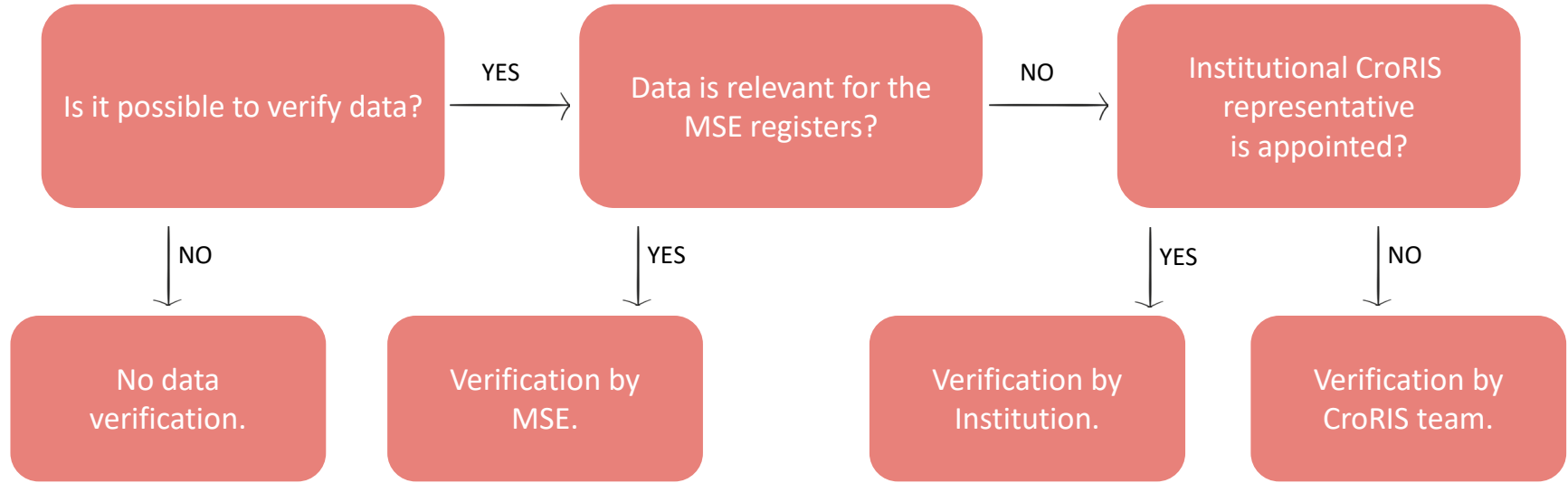
Institutions

Each institution appoints a CroRIS representative:

107 Coordinators
112 Project editors
90 Equipment editors

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Data verification process

Is it possible to verify data? — **YES** → Data is relevant for the MSE registers? — **NO** → Institutional CroRIS representative is appointed?

Is it possible to verify data? — **NO** → No data verification.

Data is relevant for the MSE registers? — **YES** → Verification by MSE.

Institutional CroRIS representative is appointed? — **YES** → Verification by Institution.

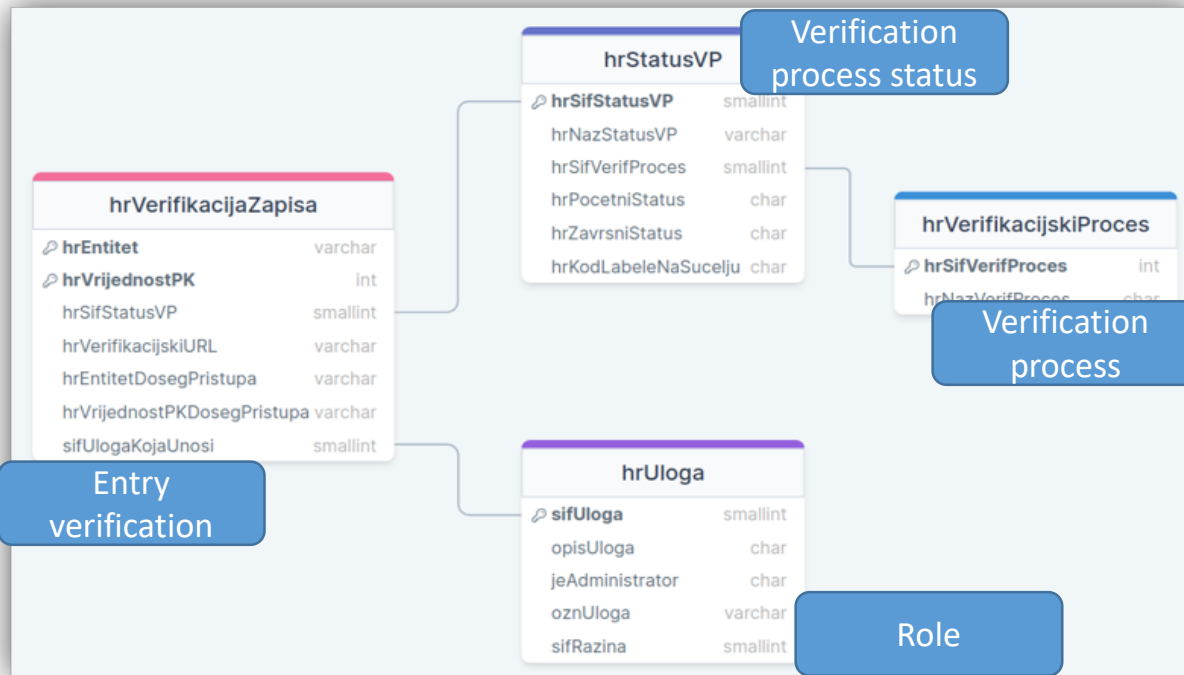Institutional CroRIS representative is appointed? — **NO** → Verification by CroRIS team.

Institutional editors and MSE employees play the key role for ensuring data accuracy and quality

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Data verification DM model simplified

Data verification in practice

nije verificirano

| Opći i tehnički podaci | Projekti | Financijeri | Usluge | Poveznice i dokumenti | Kontakt | Lokacija |

izvor podataka: croris

Naziv 👤✓

| hr | izvorni jezik | | FoodScan™ 2 Lab |

Kratki naziv

| hr | izvorni jezik | | Food Scan |

Opis

| hr | izvorni jezik | | Uređaj je namijenjen za primjenu brzih metoda analize sastava polukrutih i kašastih proizvoda u prehrambenoj industriji. |

JPG ili PNG ne veće od 5 MB

📷 Dodaj sliku

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Data verification in practice

| Verifikacija opreme | Verifikacija usluge | Verifikacija zaposlenja | Verifikacija stručnosti | Verifikacija aktivacije znanstvenika | Verifikacija projekata |

Prikaži 10 ⇕ rezultata po stranici   Pretraži: [Počnite pisati...]

Naziv zapisa ↑↓	Šifra zapisa koji se verificira	Koordinator postoji ↑↓	Odgovorne ustanove ↑↓	Verificiraj
Fluorimetar	3550	DA	Prehrambeno-biotehnološki fakultet	→ ⊘
FoodScan™ 2 Lab	3797	NE	-	→ ⊘
Fotoaparat Canon	3220	NE	-	→ ⊘
Fotografski aparat Sony Alpha A7 IV	4278	DA	Pomorski fakultet u Splitu	→ ⊘
Fotokatalitički zračni tunel	4095	DA	Geotehnički fakultet	→ ⊘
GNSS prijemnik STONEX UT10	4272	DA	Pomorski fakultet u Splitu	→ ⊘
GOM ARAMIS	1989	DA	Sveučilište u Rijeci	→ ⊘
GOM ATOS Compact 8M	3682	DA	Fakultet elektrotehnike, strojarstva i brodogradnje u Splitu	→ ⊘
GOM ATOS II Triple Scan	1987	DA	Sveučilište u Rijeci	→ ⊘
GOM PONTOS	2011	DA	Sveučilište u Rijeci	→ ⊘

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Data verification in practice

| Opći i tehnički podaci | Projekti | Financijeri | Usluge | Poveznice i dokumenti | Kontakt | Lokacija |

izvor podataka: croris

Naziv

| hr | izvorni jezik | FoodScan™ 2 Lab |

Kratki naziv

| hr | izvorni jezik | Food Scan |

Opis

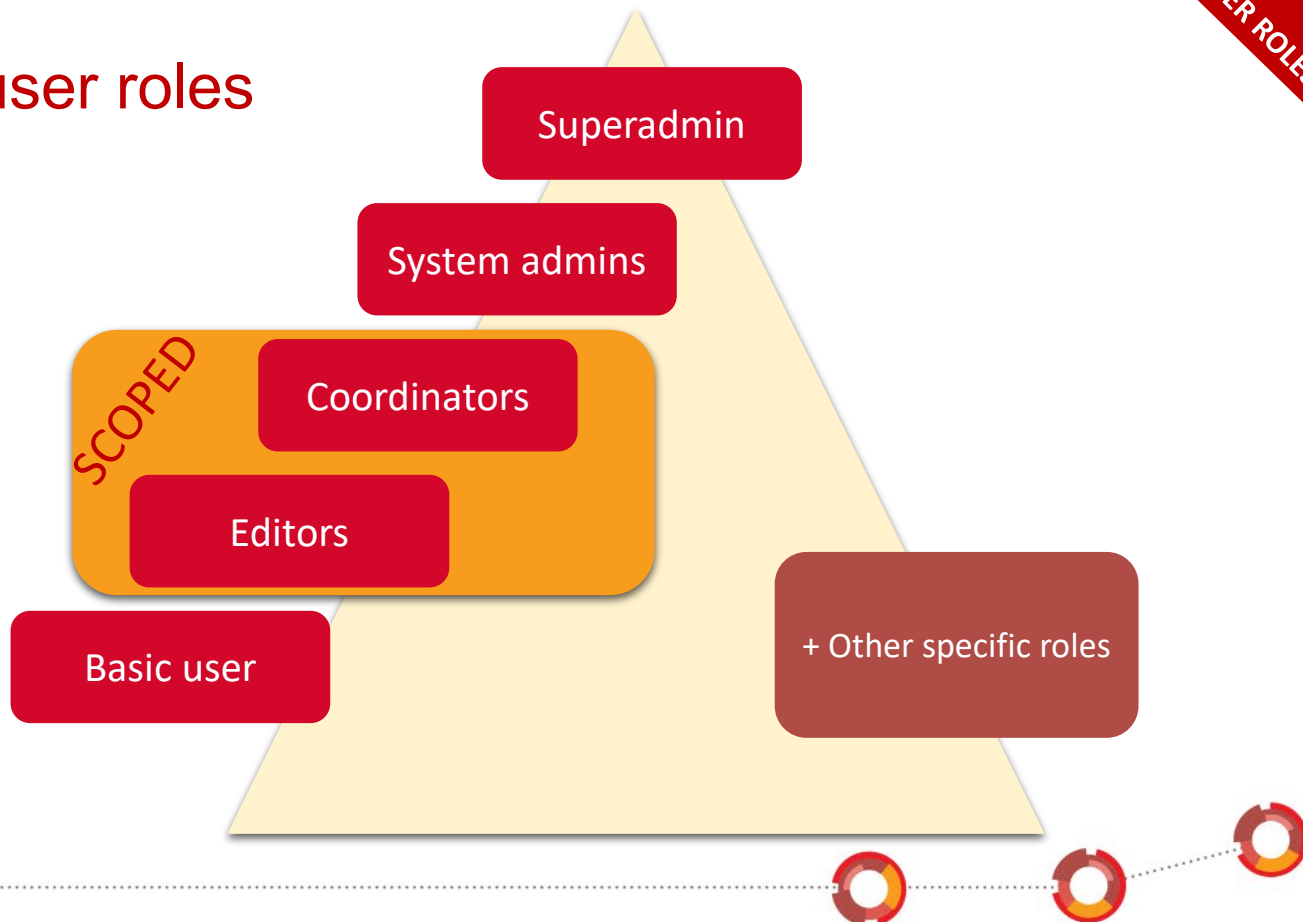| hr | izvorni jezik | Uređaj je namijenjen za primjenu brzih metoda analize sastava polukrutih i kašastih proizvoda u prehrambenoj industriji. |

JPG ili PNG ne veće od 5 MB

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Role Separation
and Scope Limitation

Overview of user roles

Superadmin

System admins

SCOPED

Coordinators

Editors

Basic user

+ Other specific roles

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Basic user

Basic role for users with academic electronic identity.

Users with basic role can change their personal data and add/edit affiliations, publications, projects, equipment...

Sensitive data entered by basic user must be verified.

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CroRIS coordinators

Manage CroRIS operations at institutional level.

Appoint editors for different scopes of data.

They are formally appointment by the dean or the director of the institution.

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Institutional editors

Users trained and specialized for maintaining specific data.

Editors are responsible for institutional data verification.

Different editors are appointed to different scopes of data

- Institutional editor of equipment data
- Institutional editor of projects data
- ...

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System admins

Specialized editors for specific parts of the system.

They assist institutions without appointed editors.

Responsible for verification and correction of data (especially for data involving multiple institutions).

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Superadmin

Coordinates the entire system.

Maintains the semantic layer (classification schemas, classifications, ...).

Administers institutional coordinators.
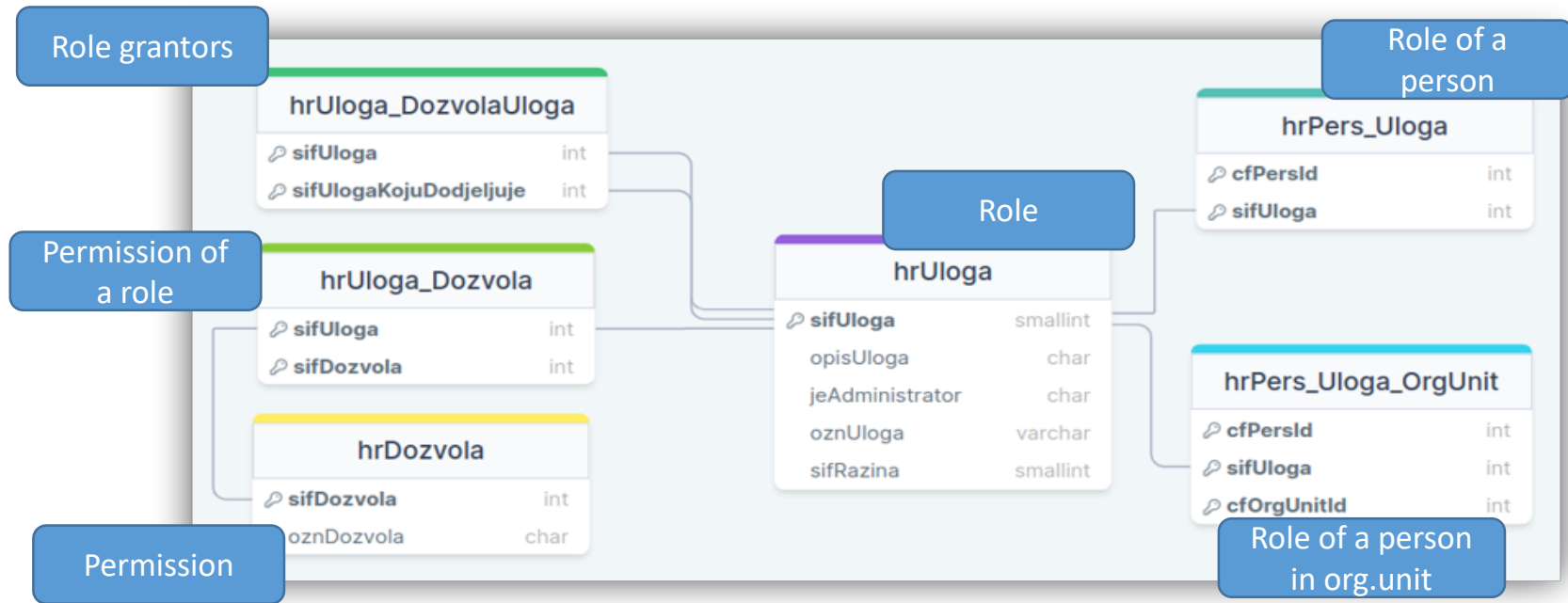
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Other specific roles

MSE employee roles with special permissions for official registers.

Primarily designed to efficiently support business processes for MSE, institutions, and researchers.

e.g. Agency for Science and Higher Education; Croatian Science Fundation; National Council for Science...

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User permissions and roles DB model simplified

Role grantors

Role of a person

hrUloga_DozvolaUloga

| 🔑 sifUloga | int |
| 🔑 sifUlogaKojuDodjeljuje | int |

hrPers_Uloga

| 🔑 cfPersId | int |
| 🔑 sifUloga | int |

Role

Permission of a role

hrUloga_Dozvola

| 🔑 sifUloga | int |
| 🔑 sifDozvola | int |

hrUloga

🔑 sifUloga	smallint
opisUloga	char
jeAdministrator	char
oznUloga	varchar
sifRazina	smallint

hrDozvola

| 🔑 sifDozvola | int |
| oznDozvola | char |

hrPers_Uloga_OrgUnit

🔑 cfPersId	int
🔑 sifUloga	int
🔑 cfOrgUnitId	int

Permission

Role of a person in org.unit

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Why so complicated?

- With elaborated role separation and scope limitation it is our goal to:
  - Raise data quality within the system
  - Ensure validity of newly entered data
  - Establish comprehensive and accurate research information system in Croatia

Disorder   Order
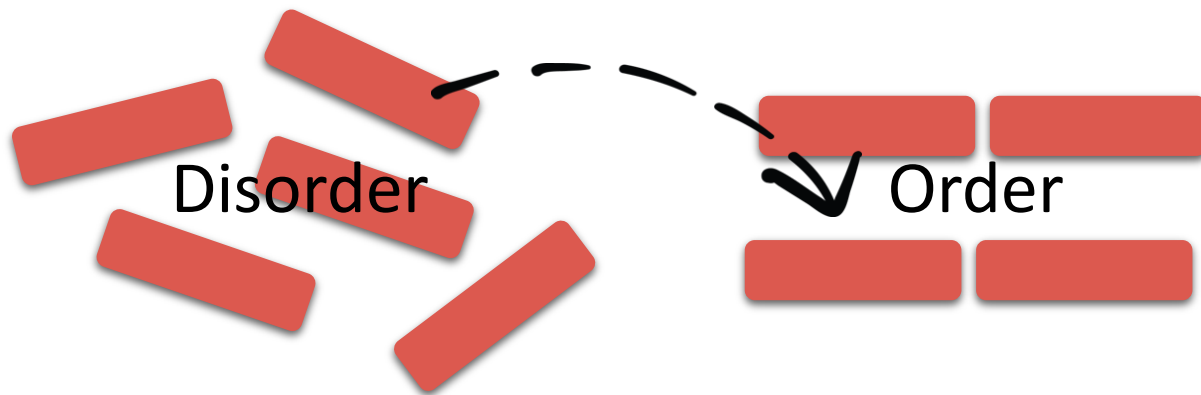
Thank you for your attention!

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