InteropEHRate

EHR in people's hands across Europe

ARCHITECTURE, PROTOCOLS AND API's

MID-TERM PUBLIC WORKSHOP

21 OCTOBER 2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 826106

INTEROPEHRATE SEMANTIC MAPPING TOOLS

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CONTEXT

- In each European country health records are represented through different data formats, involving different data standards, as well as in different languages.

PROBLEM

- Allow Citizens and Healthcare Professionals to consult health records translated into their own languages, and converted into standard international representations.

WHY TO USE INTEROPEHRATE TOOLS

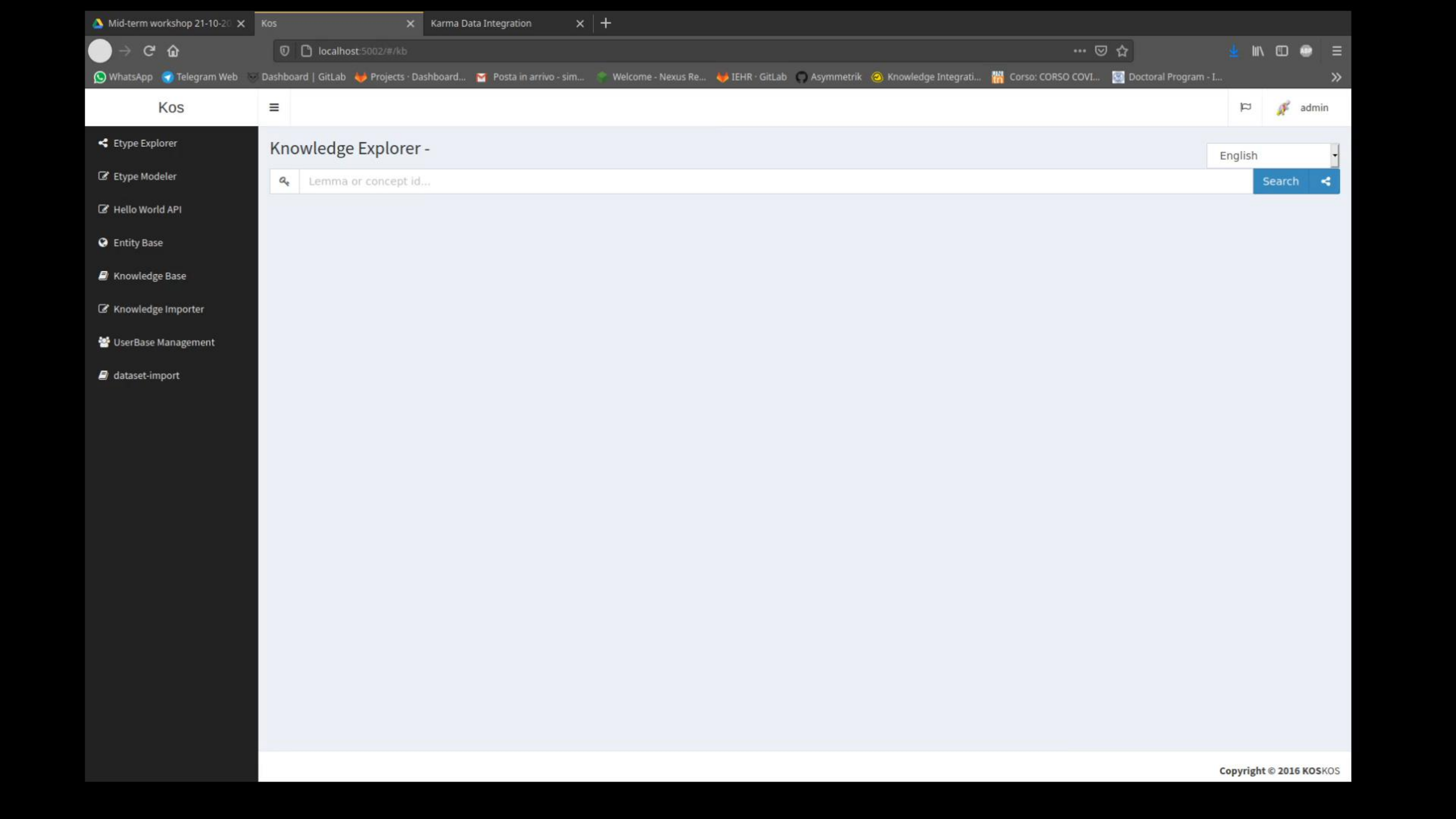
The reason to use the tools provided by InteropEHRate are:

- They provide data translations and conversions for foreign HCPs and Patients;
- They allow interoperability across hospitals;
- They allow Research data sharing, providing data in a common international format

KNOWLEDGE DRIVEN APPROACH

- The InteropEHRate mapping tools, and services, are based on a set of multilingual knowledge resources, containing:
    - FHIR health record definition.
    - Medical standards codes definitions (such as ICD-9, ICD-10, SNOMED-CT, LOINC).
    - Medical terminology.

- Thanks to this Knowledge Base the InteropEHRate tools and services can produce:
    - Mappings between health records, defined usign local formats, and the FHIR based structure.
    - Mappings between local medical codes, and the relative international standard representation.
    - Translation of medical concepts in other languages.
    - Extraction of medical concepts from natural language text reported in the health records.


Mid-term workshop 21-10-20
Kos
Karma Data Integration
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WhatsApp
Telegram Web
Dashboard | GitLab
Projects · Dashboard...
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Welcome - Nexus Re...
IEHR · GitLab
Asymmetrik
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admin
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Entity Base
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Knowledge Importer
UserBase Management
dataset-import
Knowledge Explorer -
English
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Search
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TRANSLATION & CONVERSION EXAMPLES

Paziente	Sesso	Diagnosi primaria	Descr. diagnosi primaria	Stato osservazione	Tipo osservazione	Descr. tipo osservazione	Data
123456	maschio	425.4	Altre forme di cardiomiopatia restrittiva	completato	8716-3	Parametri vitali	1999/05/24

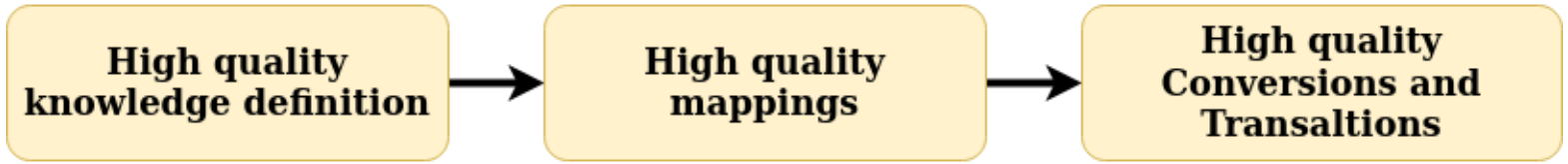
translation | conversion (ICD9 to ICD10) | translation | translation | conversion (Implicit to LOINC) | translation

Patient	Sex	Primary condition	Primary condition descr.	Observation status	Observation type	Observation type descr.	Date
123456	male	ICD10:i42.5	Other restrictive cardiomyopathy	completed	LOINC: 8716-3	Vital parameters	1999/05/24

ADVANTAGES

- Automatic re-apply of mappings already generated.
- Automatic mapping procedure on a large number of health records
- Exploit new standards, terminology and languages only updating the Knowledge Base.

CONSIDERATIONS



The Hospital Data Scientist is in charge to keep the Knowledge Base updated, through periodic operations of new knowledge collection and mappings generation.

THANK YOU

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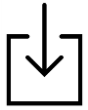

D5.18 InteropEHRate D5.18 - Library and tool for data mapping and conversion - V1

D5.16 InteropEHRate D5.16 - Data integration platform for healthcare professionals - V1