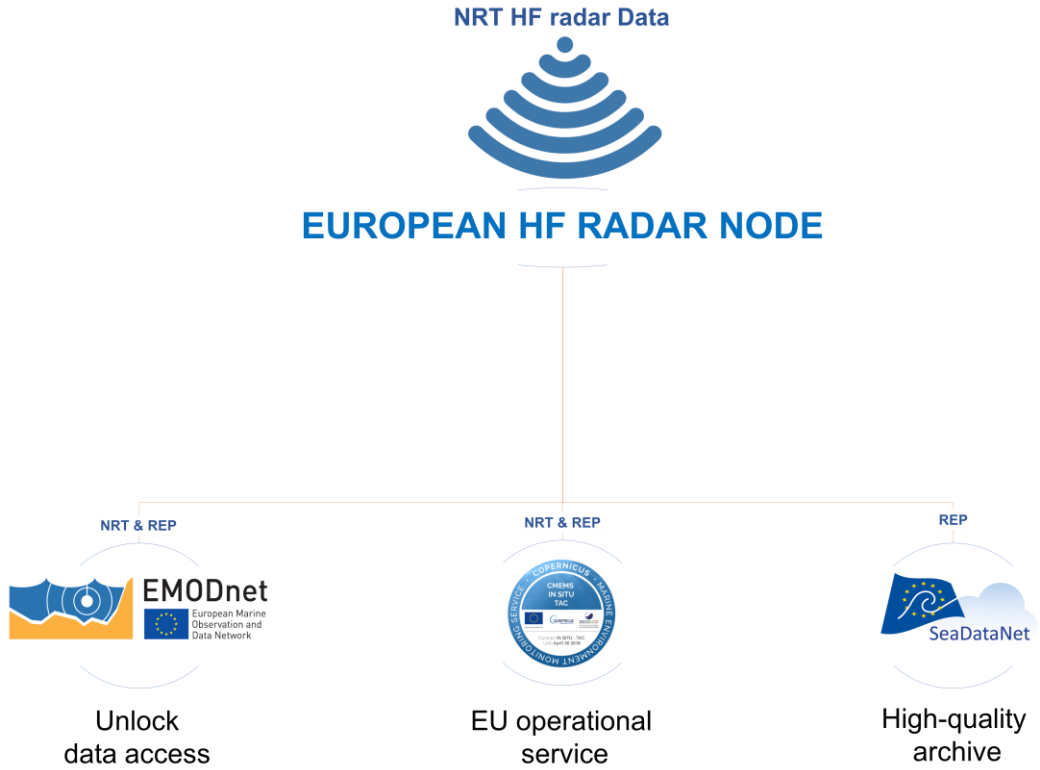
The EU HFR Node Software Solutions

for generating HFR datasets compliant with the European common data and metadata model



HFRadar Task Team

EuroGOOS European Global Ocean Observing System

EU HFR Node architecture

EU HFR providers

HFR
NRT data

EU HFR Node

EU focal point with:

- Data providers
- Key EU networking infrastructures
- Global HF Radar network

Key roles:

- Connection with **data providers** for NRT and REP data
- Connection with **CMEMS-INSTAC** for NRT and REP data
- Connection with **SeaDataNet** for REP data
- Ensure optimal **visibility** of HF radar data
- Foster the **application** of HF radar data
- Produce HF radar data **advanced products**

HFR NRT & REP data

EMODnet European Marine Observation and Data Network

HFR
NRT & REP
data

COPERNICUS · MARINE ENVIRONMENT MONITORING SERVICE ·
CMEMS IN SITU TAC
Contract IN SITU - TAC
Until April 30 2018

HFR
REP data

SeaDataNet

EU HFR Node architecture

EU HFR providers

HFR
NRT data

EU HFR Node

Data Centre: - link with data providers
- collect & archive HF radar data

Software tools: for HF radar data standardization

Data processing and catalogue creation

HFR NRT & REP data

EMODnet European Marine Observation and Data Network

HFR
NRT & REP
data

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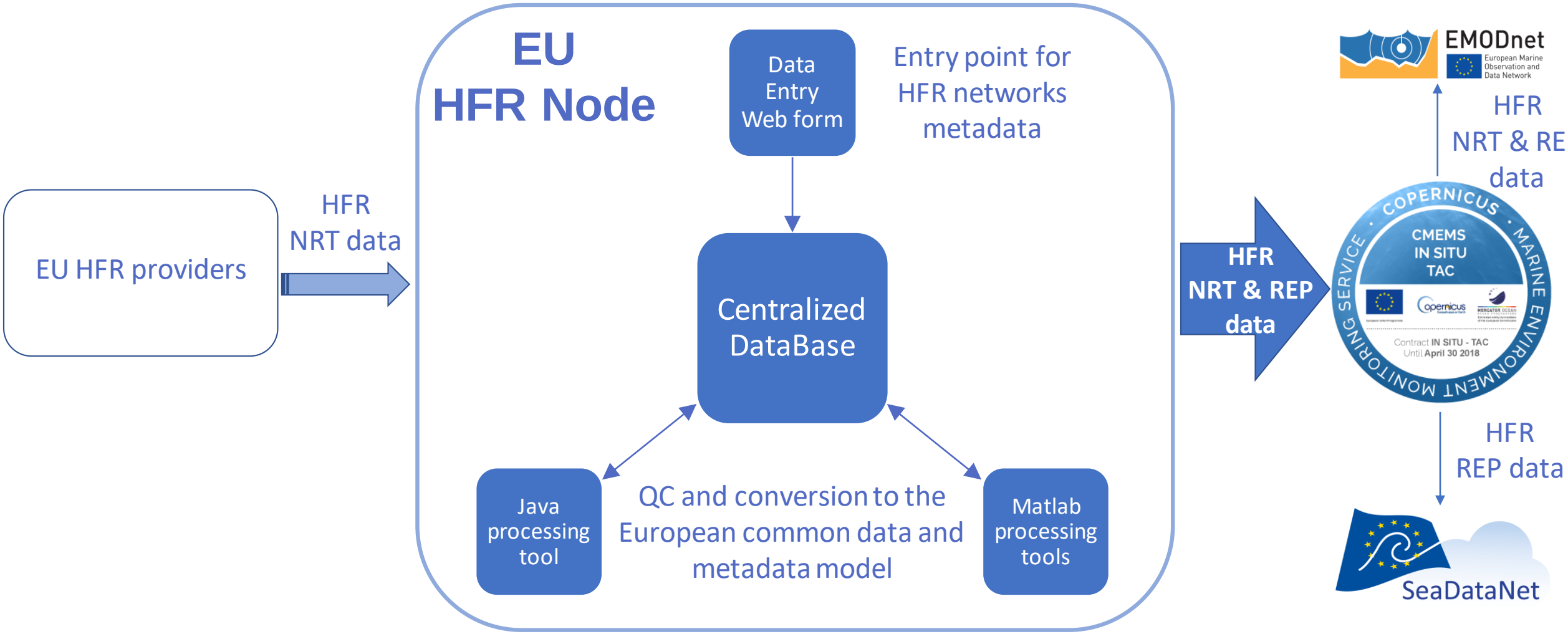
EU HFR Node architecture



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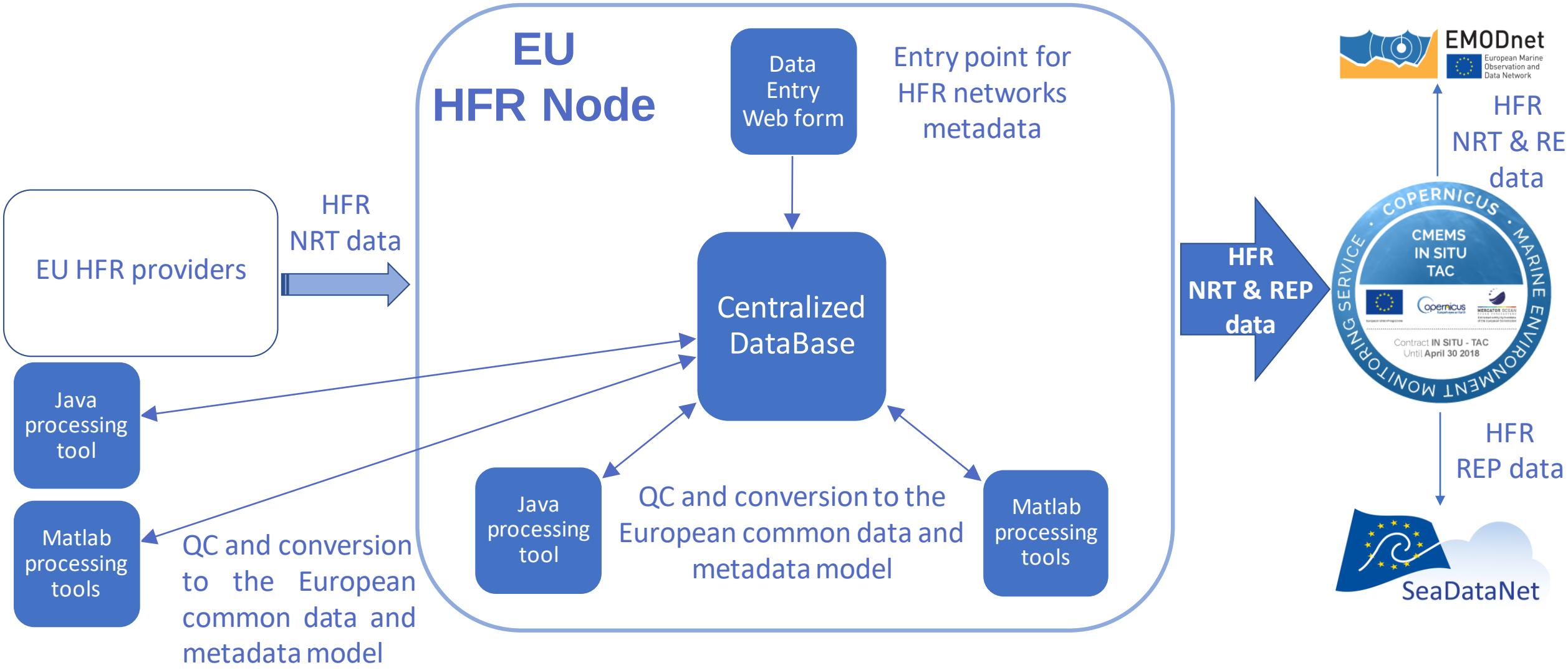
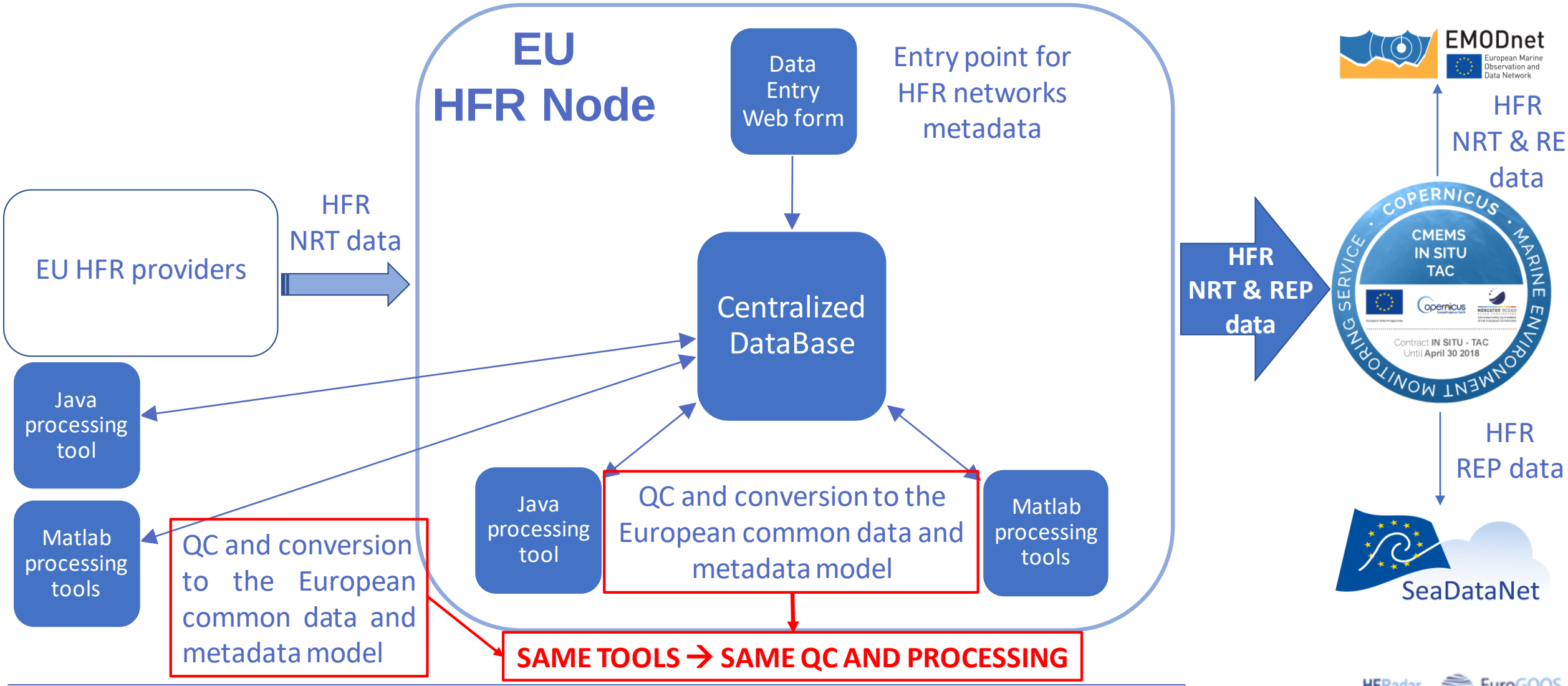
EU HFR Node architecture



EU HFR Node architecture



HFRadar Task Team

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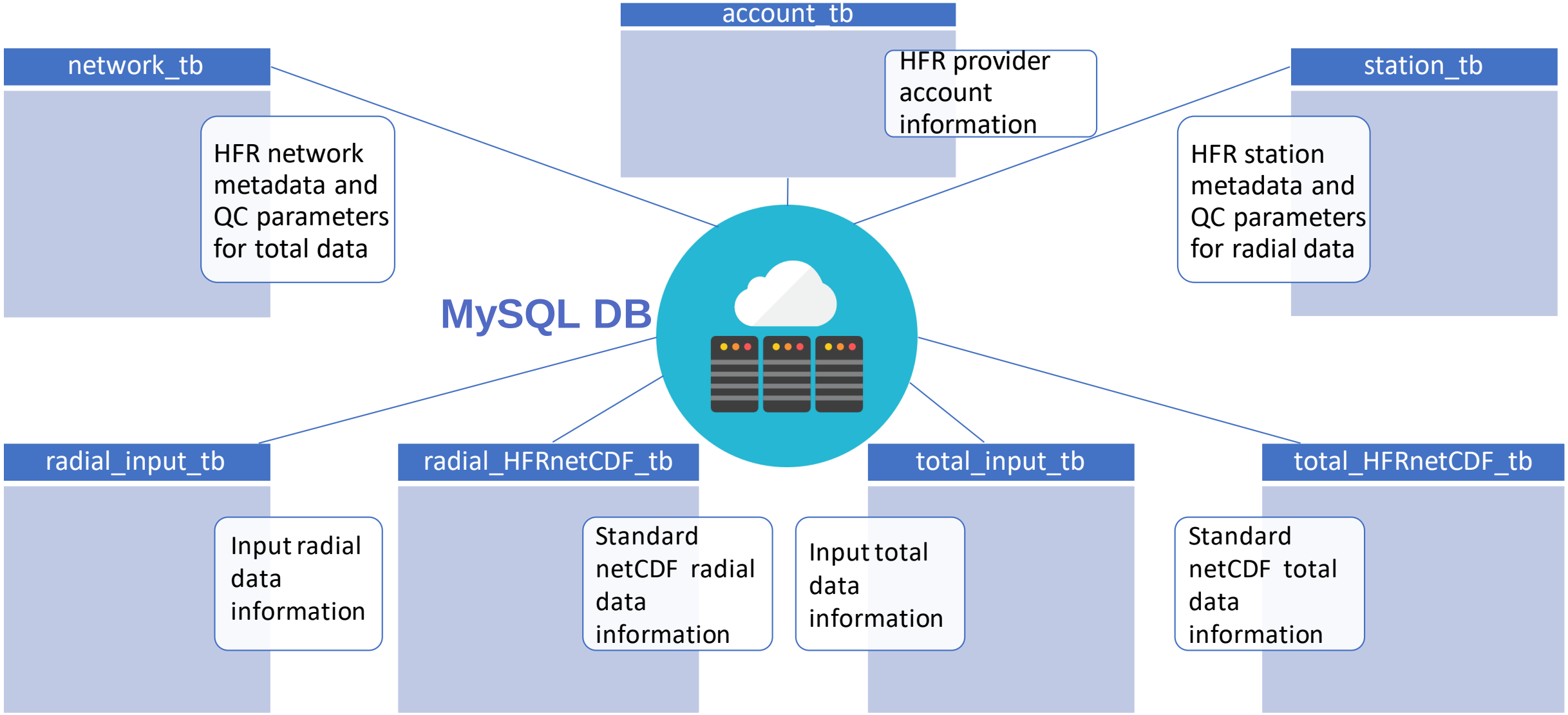
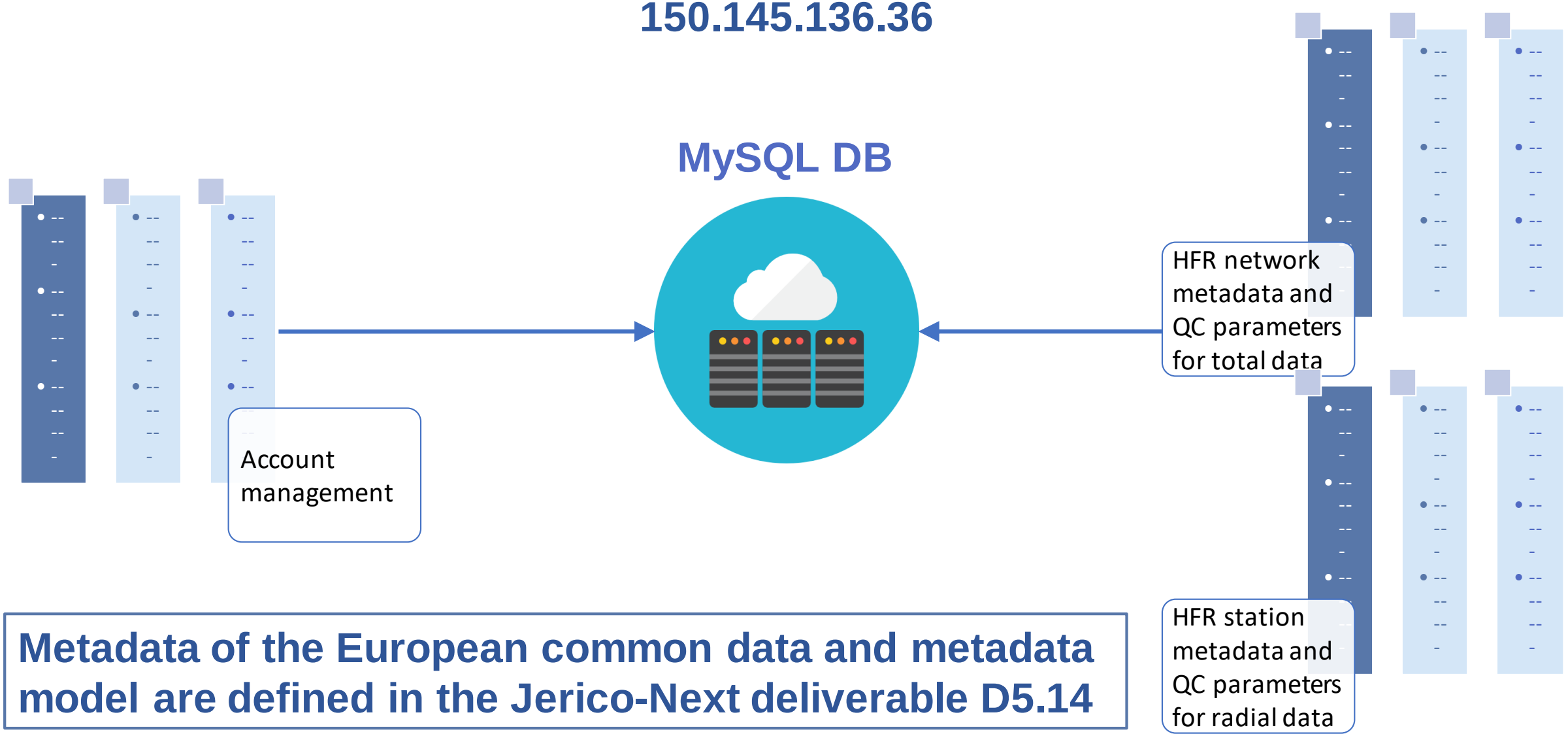
The Centralized DataBase



The Data Entry Web Form

150.145.136.36

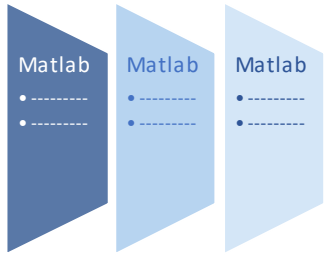


Metadata of the European common data and metadata model are defined in the Jerico-Next deliverable D5.14

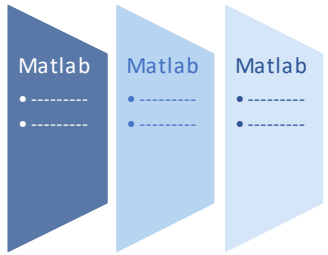
The Matlab processing tools

Input tools

list the input files pushed by the HFR data providers and insert into the HFR database the information needed for the combination of radial files into totals and for the conversion of the radial and total data files into the European standard data model



Codar and WERA radial files:
- .ruv
- .crad_ascii

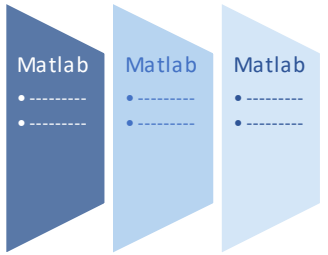


Codar and WERA total files:
- .tuv
- .cur_asc

MySQL DB

Processing tools

read the HFR database for collecting information about the radial and total data files and performs the QC, the combination of radials into totals and the generation of radial and total data files into theEuropean standard data model



Codar and WERA radial files:
- .ruv
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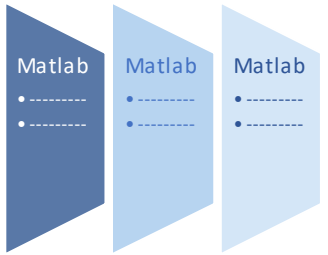


Codar and WERA total files:
- .tuv
- .cur_asc

The Matlab tools are freely available at https://doi.org/10.5281/zenodo.2639555

The Java processing tool

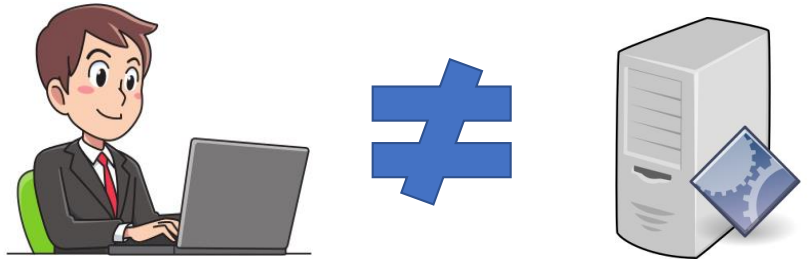
MySQL DB

Local data visualization

The software reads the DB to retrieve required metadata and QC parameters.
The data can be visualized and manipulated using a user friendly interface to perform all or some tests manualy, check errors inside files or save files temporarily.

Processing tool

Performs the QC and the generation of files into the European common data snd metadata model (only Codar files). The tool does not share the information neither send it to the database. It saves the information locally. Two working modes: User interface (user required), console mode (humans are optional)



The JRadar tools is freely available at https://github.com/llasensio/JRadar