

JRC-ENCR QCS 2.1

The new release 2023 for PBCRs

14 November 2023

ENCR General Assembly

ENCR-IACR 2023 Scientific Conference, Granada, Spain



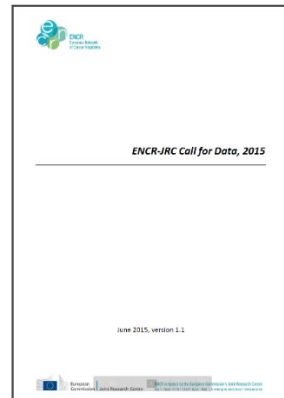
JRC-ENCR QCS 2.1: development roadmap

ENCR-JRC data call 2015

ENCR-JRC data call 2022



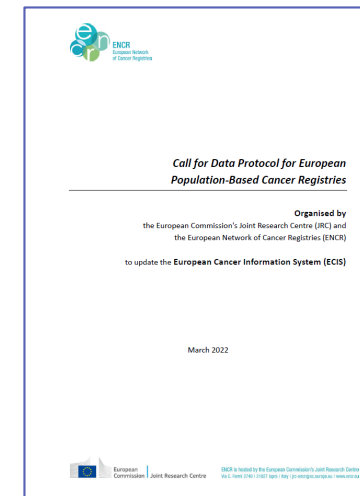
2014



2015



2018 update



2022



2023

2015 QCS 1.4

2016 QCS 1.7

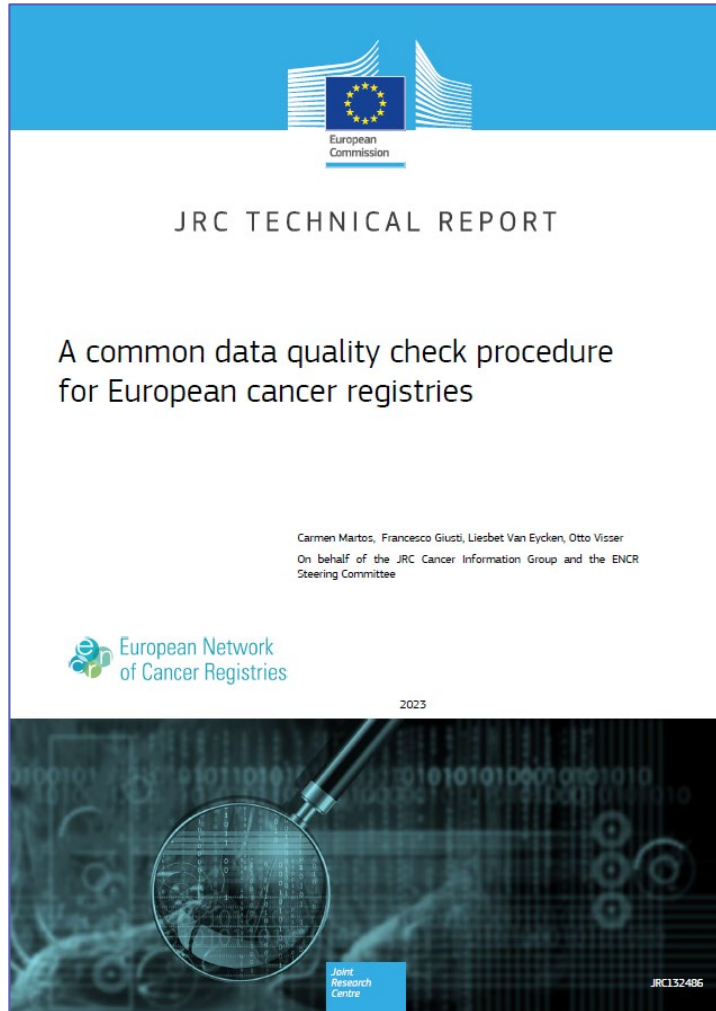
2018 QCS 1.8

2021 QCS 2.0

2023 QCS 2.1

- updates & corrections
- new features

JRC-ENCR QCS 2.1: basis for upgrade

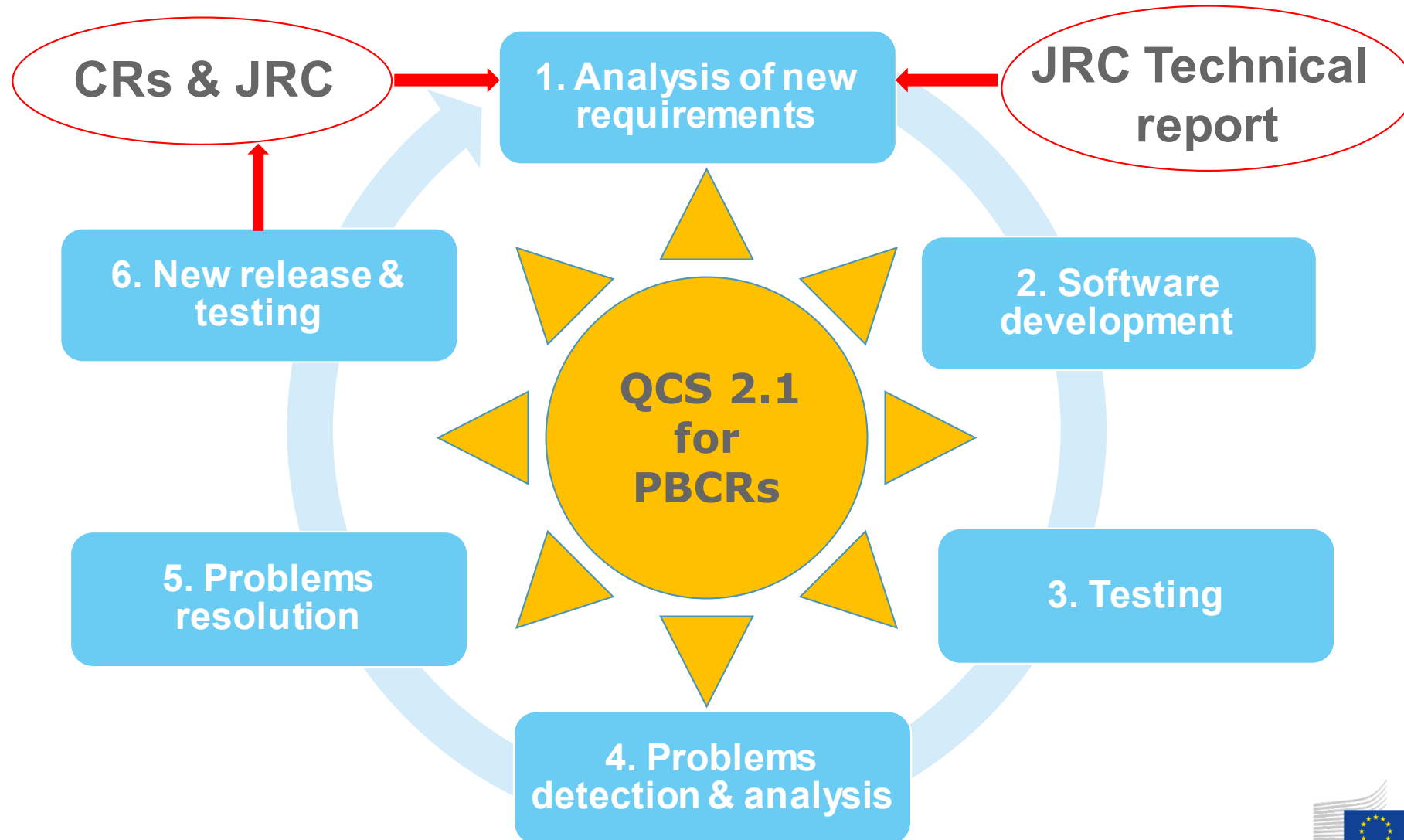


JRC Technical report 2023

Guidelines for acquisition/validation of European CRs data

- Review of data quality checklist based on:
 - Experience in validating data from data call 2015
 - Call for data protocol 2022
 - Feedback from CRs
 - ICD-O-3.2
 - TNM Edition 8

JRC-ENCR QCS 2.1: the development process



JRC-ENCR QCS 2.1: download & run

NEW **JRC QCS KIT** on the ENCR website:

<https://encr.eu/tools-for-registries>

- **JRC-ENCR QCS 2.1**
 - *User Compendium 2023*
 - *JRC Technical Report 2023*
 - *Call for Data Protocol 2022*
- **CSV Data Layout Converter**

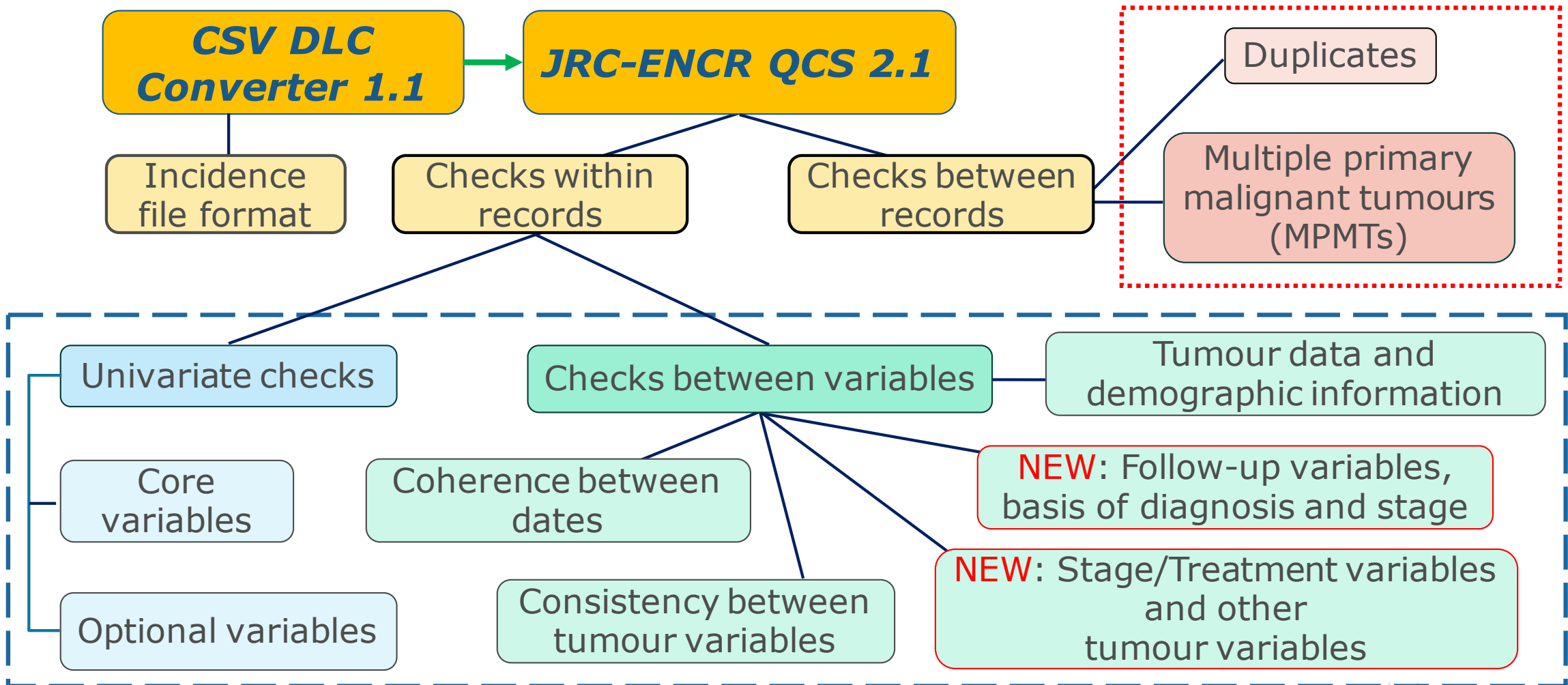
Incidence file format

JRC-ENCR QCS 2.1: updates & improvements

Technical improvements:

- Improved architecture: protocol data moved from source code to about 130 configuration files
- Computer memory optimisation during validation
- Improved outputs: more detailed reports & new sections of errors/warnings
- Improved GUI (Graphic User Interface)

JRC-ENCR QCS 2.1: data quality checks



JRC-ENCR QCS 2.1: updates & improvements

Checks on single variables:

- list of variables, allowed format & range of values -> Data Call Protocol 2022

Checks between variables of same record:

- all checks for different combinations of variables
 - 6 new checks -> 3 new warnings + 3 new errors
- > JRC Technical report 2023

Checks between records:

- more precise filtering criteria for checking MPTs with behaviour < 3
- more precise identification & classification of MPTs

JRC-ENCR QCS 2.1: new checks

New errors/warnings:

- **NEW** consistency check between *morphology* and *grade* for tumours with Beh < 3 (e.g. C50, Urological and CNS tumours): new rule **W-TBGR** (tab.5)*
- **NEW** consistency checks for *follow-up variables***, *basis of diagnosis* and *stage*: new rules **E-VSBD**, **E-BDVS** and **E-AUVS** (Tab.10,11 and 12)*
- **NEW** consistency checks for *stage/treatment variables and other variables****: new rules **W-SUBD** and **W-SUpT** (p.33)*
- **NEW** classification of MPMTs:
 - **W-MPMT** for tumours in the same patient that should be counted only once for incidence analysis (e.g. C50.1/8500 and C50.3/8520)
 - **W-MPCR** for records that should be revised by CRs before to being considered for incidence analysis (e.g. C67.9/8130 and C80.9/8000)

*JRC Technical report 2023; **Vital status, Survival time, Autopsy; ***Behaviour, Basis of diagnosis;

JRC-ENCR QCS 2.1: updates & improvements

The JRC-ENCR Quality Check Software (QCS)
for the validation of cancer registry data:
user compendium

JRC-ENCR QCS 2.1
JRC CSV Data layout converter

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Raquel N. Carvalho, Giorgia Randi, Nicholas Nicholson,
Manola Bettio, Enrico Ben

2023



- **Chapter 2:** *System requirements and installation*
- **Chapter 5:** *Using the software*
- **Chapter 6:** *How to interpret the incidence files' output generated by the QCS*
- **Annex 1:** *Changes and improvements from the previous version*
- **Annex 3:** *List of error and warning codes*

JRC-ENCR QCS 2.1: performance

PC with 16.0 GB RAM, Processor Intel(R) Core(TM) i7, Windows 10 Enterprise

- ✓ Number of records in dataset : 3189092
- ✓ Number of correct records : 2584006
- ✓ Number of **records with issues** : 605086 (19%)
- ✓ Number of **error messages** : 69785
- ✓ Number of **warning messages** : 812000
- ✓ **Total number of messages** : 881785 (1.4 x record)
- ✓ **Validation time: 0:38:38**

JRC-ENCR QCS 2.1: next steps

- Automatic selection of MPMTs for analysis
- Automatic exclusion of duplicate records
- Continuous debug & improvements

Please download and test the new JRC-ENCR QCS 2.1!

Help us improve it, send your feedback:

JRC-ENCR@ec.europa.eu

Thank you

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