



EuroHeart Data standards

European Unified Registries On Heart Care
Evaluation and Randomized Trials

www.escardio.org/euroheart



EuroHeart

European Unified Registries for Heart Care
Evaluation and Randomised Trials



 **ESC**
European Society
of Cardiology

EuroHeart – The Project

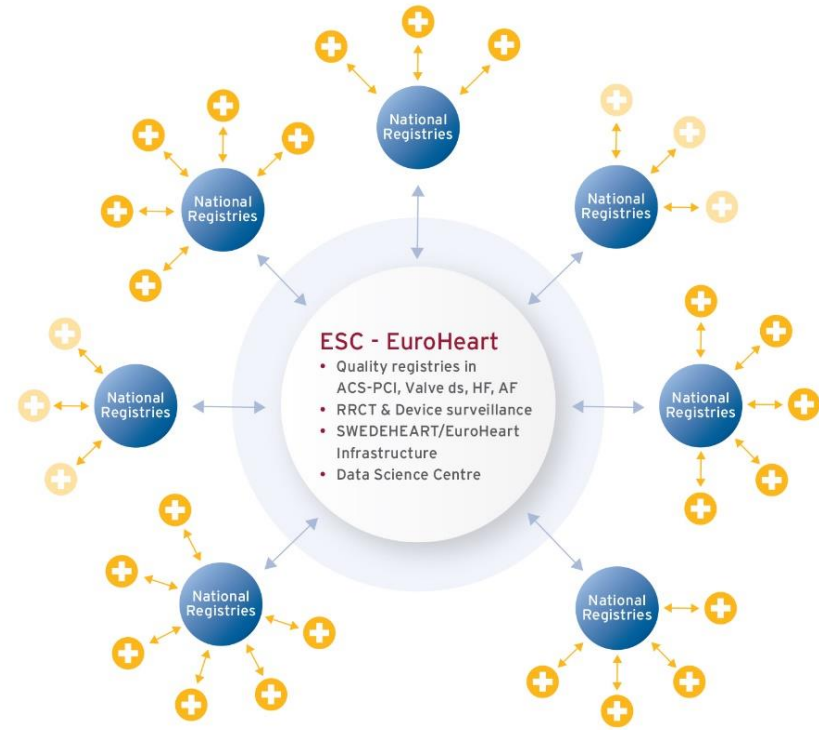
The mission of EuroHeart is to develop and maintain an **international collaboration** that provides general availability to systems with **continuous online registration** of **high quality and harmonised individual patient data** at entry and over time, with real-time information supporting continuous improvement of care and outcomes in patients with common cardiovascular diseases.

EuroHeart will also include an **international infrastructure** for cost-effective safety surveillance of new drugs and devices and registry based randomised clinical trials in a general patient population across multiple geographies.



EuroHeart – The Project

- Is based on development of and **collaboration** between national programmes that use **common data sets and quality criteria**.
- Supports continuous **development of quality of care** based on **individual and harmonised patient data**.
- Integrates **tools for drug and device surveillance**.
- Integrates tools for **registry-based randomised clinical trials (RRCT)**.
- Provides an optional common **IT-infrastructure**.



EuroHeart – The Concept



Quality improvement



Observational research

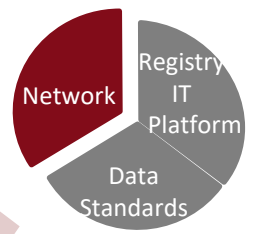


Registry-based randomized controlled trials



Drug and device surveillance

Countries joining EuroHeart through adopting the EH datasets



- **Mandatory variables**

Data set review
Rough review - comparing the two datasets, at a very high level, in order to get the sense of degree of harmonisation needed.

Data crosswalk – High level
A high level data crosswalk to identify the variables that are similar/same, different and new.

Data crosswalk – Detailed
Detailed review of variables classified as different and new and to take decision on harmonisation and prioritisation.

Step-wise harmonisation
In accordance with the decisions and pace set by the national registries.



EuroHeart – Data standards

SPECIAL ARTICLE

European Heart Journal (2022) 43, 2269–2285
<https://doi.org/10.1093/eurheartj/ehac133>

Data standards for acute coronary syndrome and percutaneous coronary intervention: the European Unified Registries for Heart Care Evaluation and Randomised Trials (EuroHeart)

In collaboration with the Association of Cardiac Professions (A European Association of Cardiac Professionals), the European Association of Cardiac Professionals¹, Aldo P. Maggioni² and Chris P. Gale³



European Heart Journal - Quality of Care and Clinical Outcomes (2022) 0, 1–12
<https://doi.org/10.1093/ehjpc/qaac068>

Data standards for atrial fibrillation/flutter and catheter ablation: the European Unified Registries for Heart Care Evaluation and Randomized Trials (EuroHeart)

Gorav Batra^{1,*,} Suleman Aktaa^{2,3,*}, A. John Camm³, Francisco Costa⁴, Ziad Hijazi⁵, David Duncker⁶, Laurent Fauchier⁷, Nikolaos Fragakis⁸, Ziad Hijazi⁹, Tord Juhlin¹⁰, José L Merino¹¹, Luisis Mont¹², Jonas Oldgren¹³, Anna Polewczyk¹⁴, Tatjana Potpara¹⁵, and Chris P. Gale¹⁶

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European Heart Journal - Quality of Care and Clinical Outcomes (2022) 0, 1–8
<https://doi.org/10.1093/ehjpc/qaac063>

ORIGINAL ARTICLE

Data standards for transcatheter aortic valve implantation: the European Unified Registries for Heart Care Evaluation and Randomized Trials (EuroHeart)

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European Heart Journal (2022) 43, 2185–2195
<https://doi.org/10.1093/eurheartj/ehac151>

SPECIAL ARTICLE

Heart Failure and Cardiomyopathies

Data standards for heart failure: the European Unified Registries for Heart Care Evaluation and Randomized Trials (EuroHeart)

Suleman Aktaa^{1,2,3,*}, Gorav Batra⁴, John G.F. Cleland⁵, Andrew Coats^{6,7}, Lars H. Lund^{8,9}, Theresa McDonagh^{10,11}, Giuseppe Rosano^{12,13}, Petar Seferovic¹⁴, Peter Vasko^{15,16,17}, Lars Wallentin¹⁸, Aldo P. Maggioni¹⁹, Barbara Casadei¹⁹, and Chris P. Gale^{1,2,3,*} In Collaboration with the Heart Failure Association of the European Society of Cardiology

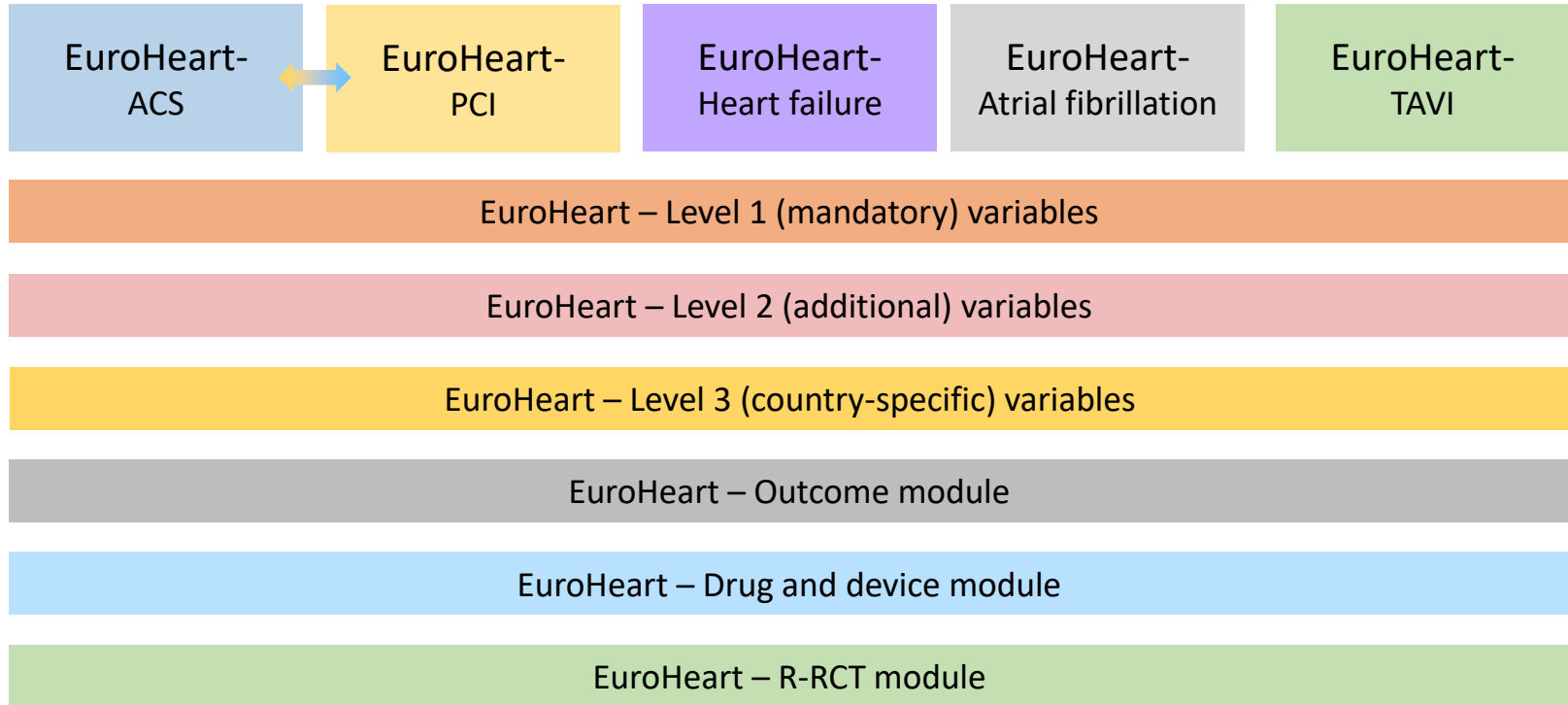
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Listen to the audio abstract of this contribution

EuroHeart – Data standards



EuroHeart – Data standards

	EuroHeart-ACS	EuroHeart-PCI	EuroHeart-Heart failure	EuroHeart-Atrial fibrillation	EuroHeart-TAVI
Level 1	68	84	84	70	93
Level 2	90	55	79	92	113

EuroHeart – Data standards for CV outcomes

Aim

Will be used in future randomised trials and observational Studies

Outcome domains

- General CV outcomes
- Domain specific outcomes
 - Acute coronary syndrome and PCI
 - Heart failure
 - Atrial fibrillation
 - TAVI

Step 1

- Identification of clinical cardiovascular domains

Step 2

- Defining specifications
- Systematic literature review

Step 3

- Selection of variables, permissible values and definitions

Step 4

- Wider validation
- Formal endorsement
- Publication

Step 5

- Implementation into the EuroHeart IT platform



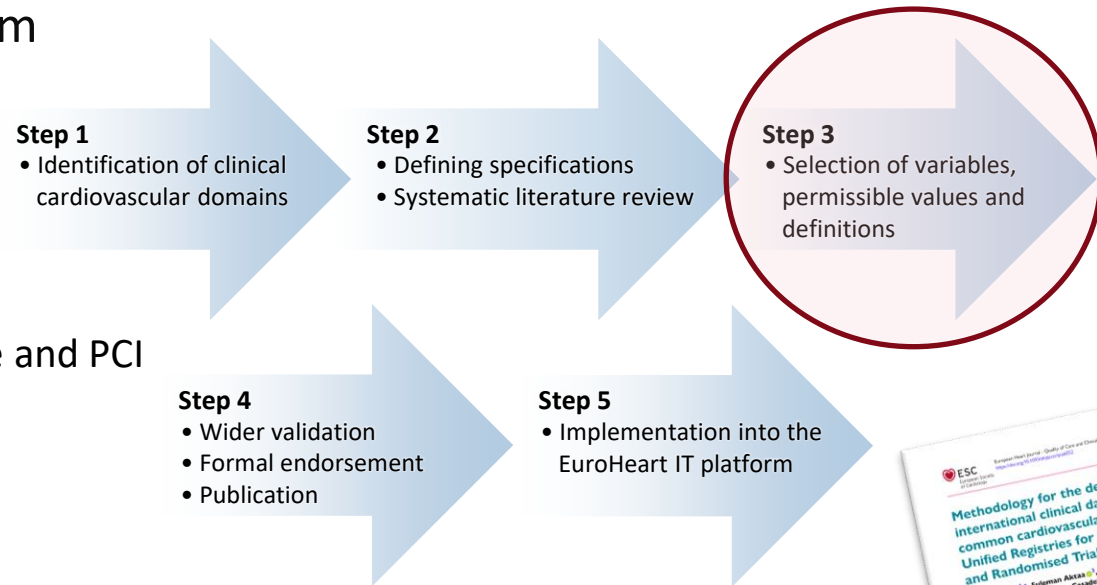
EuroHeart – Data standards for PROMs

Aim

To develop a unified Data Standards for CV PROMs and to implement it into the EuroHeart IT platform

Outcome domains

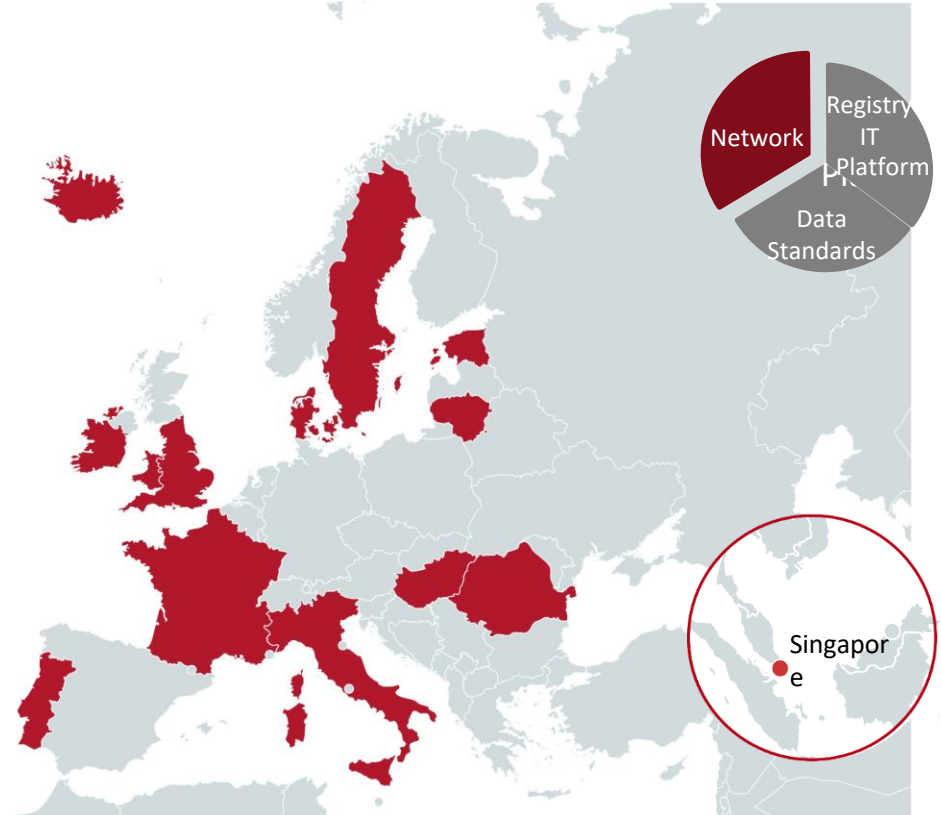
- General CV PROMs
- Domain specific PROMs
 - Acute coronary syndrome and PCI
 - Heart failure
 - Atrial fibrillation
 - TAVI



EuroHeart Network



1. Estonia
2. England and Wales
3. Denmark
4. France
5. Hungary
6. Iceland
7. Ireland
8. Italy
9. Lithuania
10. Portugal
11. Romania
12. Singapore
13. Sweden

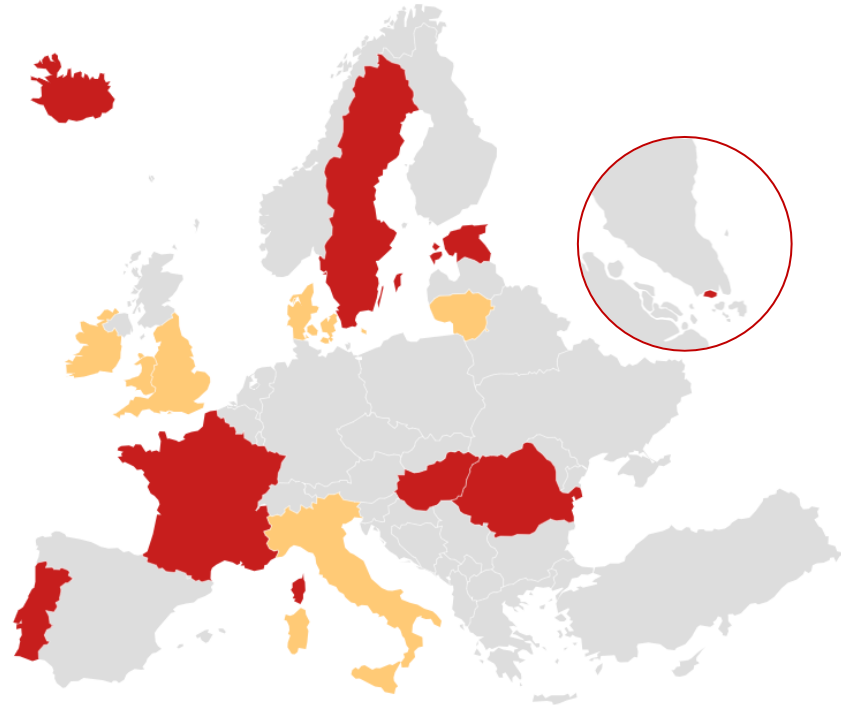


2024 Report: 63,960 ACS and 46,971 PCI submissions

- Eight countries: Estonia, France, Hungary, Iceland, Romania, Portugal, Singapore, Sweden.
- Final diagnosis of STEMI or NSTEMI
- Analysis stratified by diabetes status

EuroHeart Countries

■ Provided data for 2024 report ■ Will provide data for future reports



EuroHeart – Registry IT-platform



www.escardio.org/euroheart

User: doctorisin
Password: doctorisin

Registrations
Your healthcare unit's current registration work

Continue to register

Personal ID	Name	Demographics and Comorbidities
19450110-3297	Münchenhauser, Hilda	
19121212-1212	Tolvsson, Tolvan	

Coronary angiogram findings and PCI



Demographics and Comorbidities

Postal code: 18574
Height (cm): 187
Weight (kg): 87

Smoking: Never smoked Former smoker Current smoker Unknown

3. % NSTEMI pts with coronary angiography < 24h



EuroHeart as a core ESC activity from 2025



Core activities

Support and develop the existing network of countries/registries

- Improve data quality and coverage
- Expand to additional registry domains

Regularly report on quality of care aligned with ESC guidelines

Development activities

Apply federated data analysis

Support automated data capture

Generate new evidence

Consider the EuroHeart IT for possible ESC accreditation schemes

EuroHeart – More information

www.escardio.org/euroheart

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