



**Junta de Andalucía**  
Consejería de Salud y Familias  
SERVICIO ANDALUZ DE SALUD



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824666

# Call: SwafS-04-2018

TOPIC: Encouraging the re-use of research data generated by publically funded research projects

## Specific Challenge:

All research builds on former work and depends on scientists' possibilities to access and share scientific information. In the context of Open Science and Responsible Research and Innovation the European Commission therefore strongly supports the optimal open access to and re-use of research data (considering e.g. robust opt-outs). As a concrete action the EC has extended the Open Research Data Pilot to cover all areas of Horizon 2020 (as of the 2017 Work Programme). This will result in more data becoming available for re-use. However, **it is necessary to adopt further actions to reach the Commission's overall objective of findable, accessible, interoperable and re-usable (FAIR) data by 2020.**

SwafS-04-2018: Encouraging the re-use of research data generated by publically funded research projects  
<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-04-2018.html>

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## Scope:

1. To support the **FAIRification of data, stressing on data quality** (certification), their interoperability and reproducibility of research
2. To generate pathfinder use cases to demonstrate how data sharing and re-use can **generate a groundbreaking innovative product, service, or treatment**
3. To generate a **prototype** of such innovative product, service, or treatment
4. To include at least **10 different EU countries** in the consortium

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## Expected impacts:

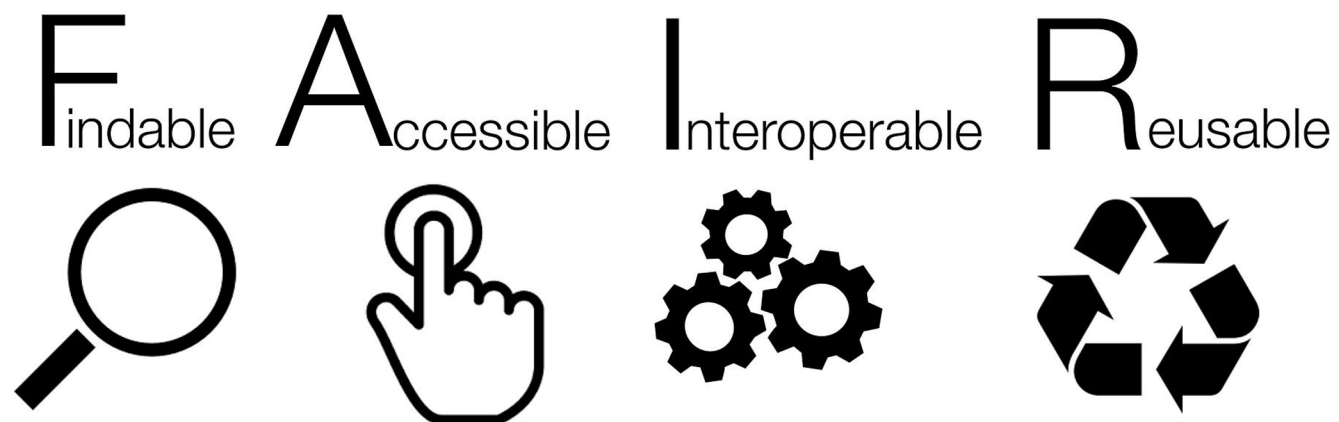
1. To **increase the visibility of the Commission's open FAIR data policy** through dedicated communication activities, and networking of relevant actors including industry.
2. To generate a **beneficial impact for science, the economy and society** by means of:
  - a. Increasing the reproducibility of research.
  - b. Cross-fertilisation of interdisciplinary research.
  - c. Boosting citizen science.
  - d. Generating added value for innovative companies (including SMEs and start-ups) in the EU DSM.

## Key Performance Indicators:

1. Increase in FAIR data in those domains identified by the beneficiaries for action.
2. Contribution of the pathfinder case studies to innovative data sharing and re-use.

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# The FAIR Principles



FAIR Data. Wikipedia

[https://en.wikipedia.org/wiki/FAIR\\_data](https://en.wikipedia.org/wiki/FAIR_data)

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# FAIR Principles (in Spanish)

## (F) LOCALIZABLE

**F1.** (meta)datos tienen asignado un identificador global único y persistente.

**F2.** Los datos están descritos con metadatos.

**F3.** (meta)datos están registrados o indexados como recursos localizables.

**F4.** Los metadatos especifican el identificador del dato.

## (A) ACCESIBLE

**A1.** (meta)datos se pueden recuperar con el identificador usando un protocolo de comunicaciones estándar.

**A1.1.** El protocolo es abierto, gratuito e implementable de forma universal.

**A1.2.** El protocolo permite procesos de autenticación y autorización.

**A2.** Los metadatos son accesibles incluso cuando los datos ya no están disponibles

## (I) INTEROPERABLE

**I1.** (meta)datos usan un lenguaje formal, accesible, compartido y de aplicación amplia para la representación del conocimiento.

**I2.** (meta)datos usan vocabularios que siguen los principios FAIR.

**I3.** (meta)datos incluyen referencias cualificadas a otros (meta)datos

## (R) REUTILIZABLE

**R1.** (meta)datos tienen una pluralidad de atributos precisos y relevantes.

**R1.1.** (meta)datos se publican con una licencia de uso clara y accesible.

**R1.2.** (meta)datos están asociados con su procedencia.

**R1.3.** (meta)datos cumplen con estándares comunes relevantes en su dominio

FORCE11 - FAIR Data Guiding Principles

<https://www.force11.org/group/fairgroup/fairprinciples>

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# Consortium

Coordinated by **Virgen del Rocío University Hospital, Andalusian Health Service (SAS)**

**17 partners** from **11 EU and non-EU countries**

- 6 health research organisations
- 2 universities experts in data management
- 4 academic partners with strong background on medical informatics
- 5 business actors



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# Objectives

To **facilitate and encourage** the EU Health Research community to **FAIRify, share and reuse** their datasets derived from publicly funded research initiatives through the demonstration of the potential impact that such strategy will have on health outcomes and health research.

**SO 1.** To design and implement an effective **outreach strategy at EU level**

**SO 2.** To produce a **set of guidelines** to set the foundations for a **FAIR data certification roadmap**

**SO 3.** To develop and validate an intuitive, user-centered **FAIR4Health platform and FAIR4Health agents**

**SO 4.** To demonstrate the potential **impact in health research and health outcomes** through the validation of 2 pathfinder case studies

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# Pathfinder Use Cases

Innovative eHealth services based on FAIR data reuse

**#1** To support the **discovery of disease onset triggers and disease association patterns** in comorbid patients and **demonstrate the reproducibility of research**

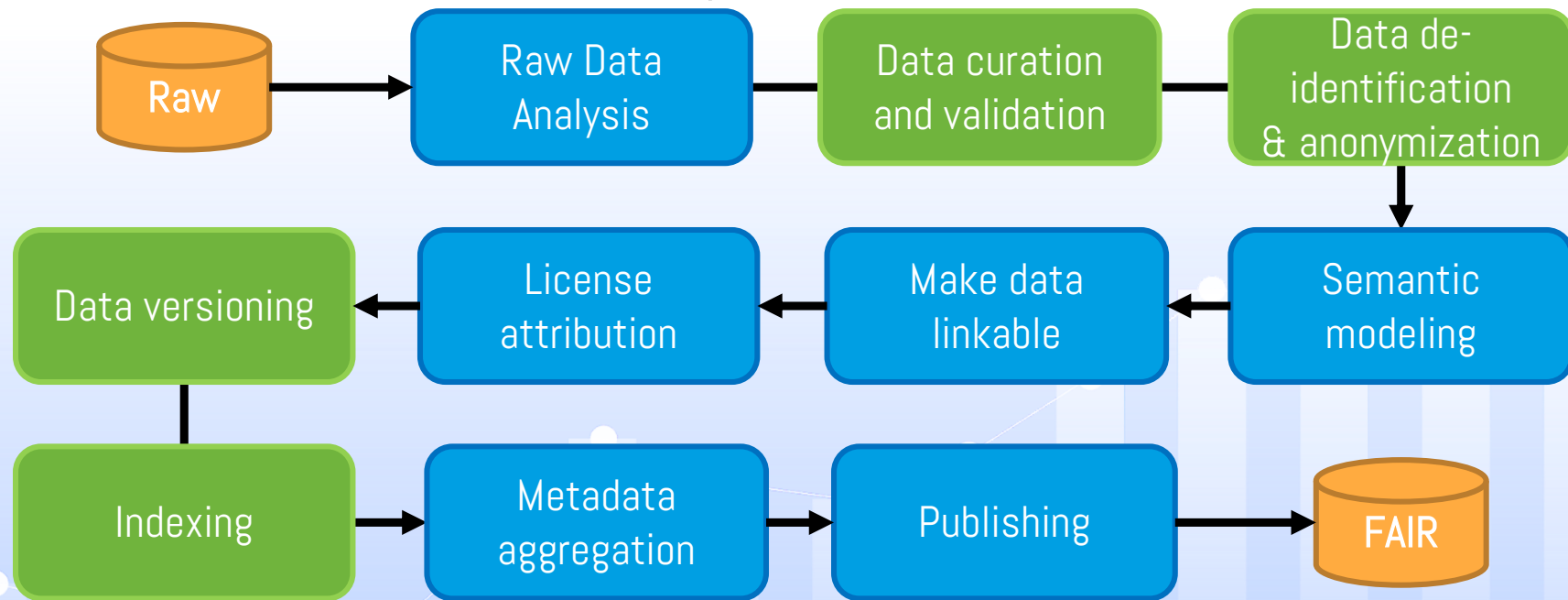
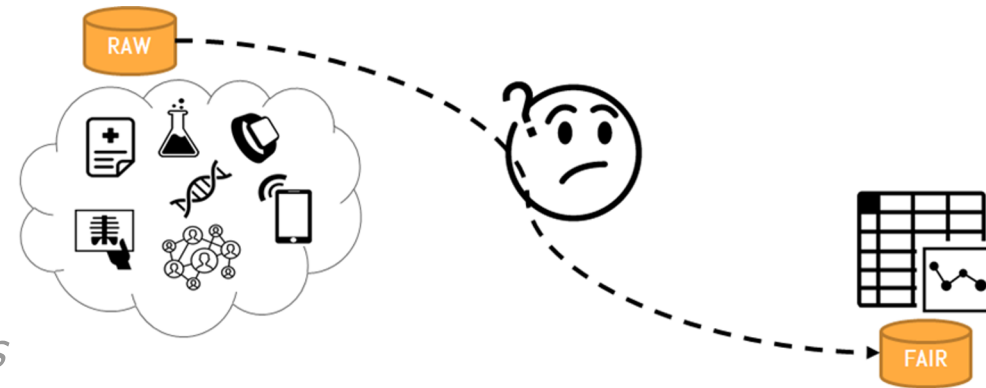
**#2** To develop and pilot a **prediction service for 30-days readmission risk** in patients with COPD




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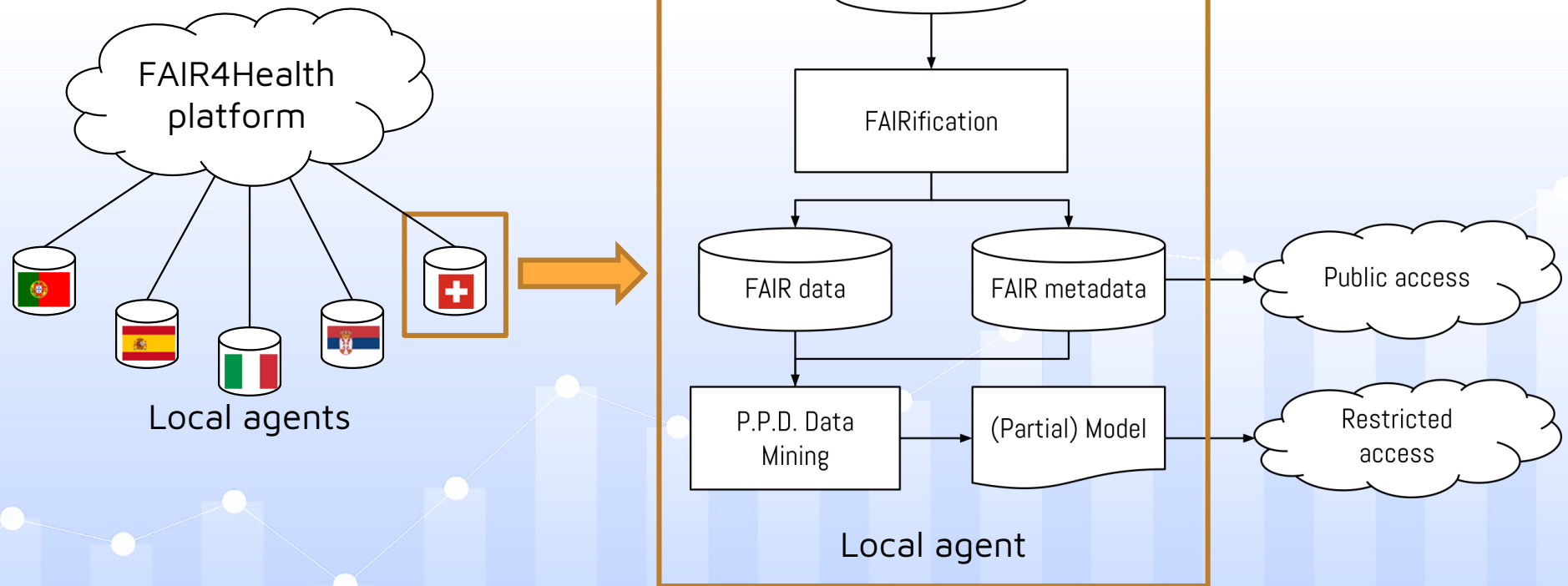
# Technological solution

The "FAIR4Health" FAIRification process



 Sinaci, A. A., Núñez-Benjumea, F. J., Gencturk, M., Jauer, M. L., Deserno, T., Chronaki, C., ... & Erturkmen, G. B. L. (2020). From Raw Data to FAIR Data: The FAIRification Workflow for Health Research. *Methods of Information in Medicine*, 59(S 01), e21-e32.

# Technological solution



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# Relationships

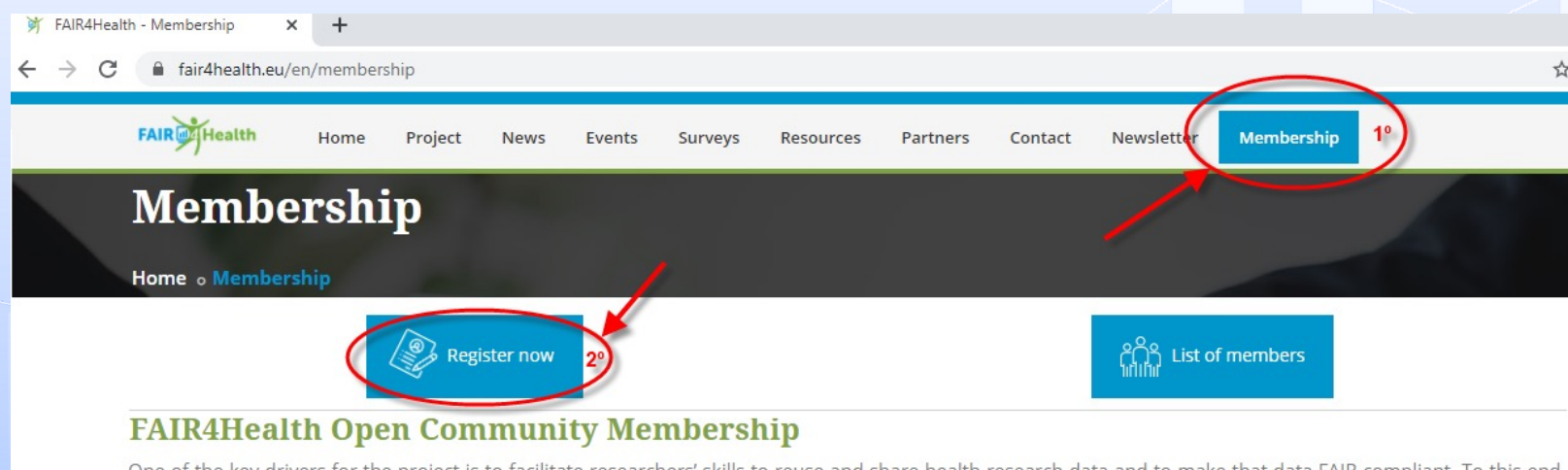


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# FAIR4Health Open Community

On behalf of FAIR4Health project, we would like to invite you to register as **FAIR4Health Open Community Member**.

In this section into FAIR4Health website: <https://www.fair4health.eu/en/membership>, you will find the Membership definition, a button to register as a new member, and a button to check the current list of members.



# FAIRness for FHIR (FHIR4FAIR)

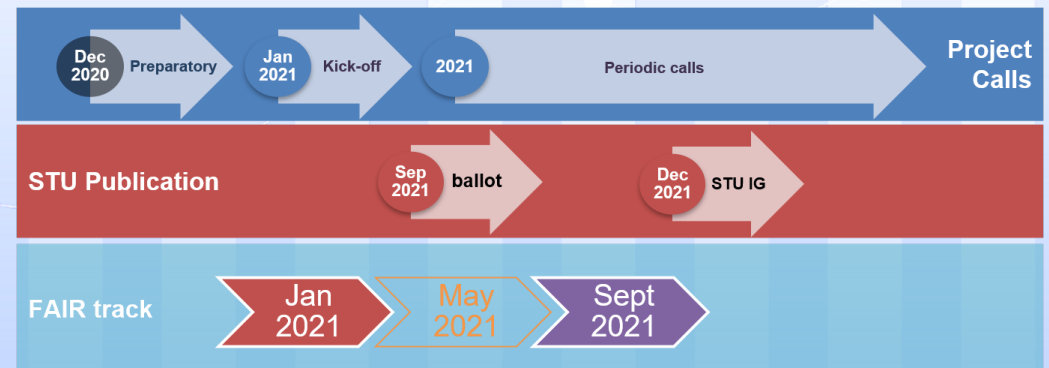
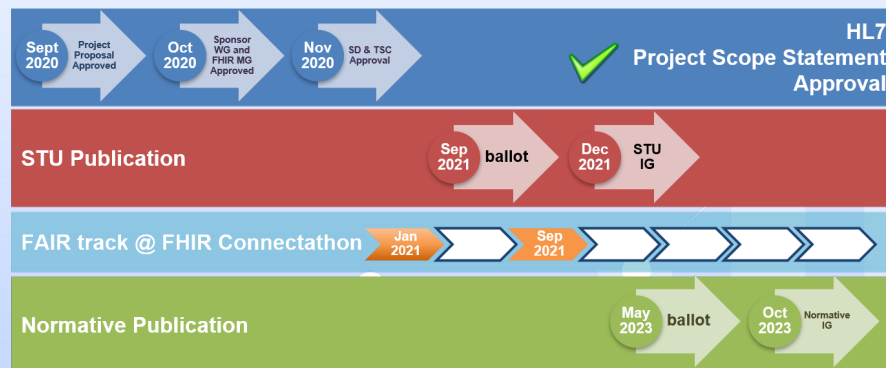


## Goals

- Facilitate the collaboration between the FAIR and the FHIR communities
- Enable a cooperative usage of the FHIR and FAIR paradigms.
- Support the health data FAIRness assessment by using HL7 FHIR conformance resources.

## Objective

- Develop a HL7 FHIR Implementation guide - called FHIR4FAIR FHIR IG - providing guidance on how HL7 FHIR can be used for supporting FAIR health data implementation and assessment



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THANK YOU!



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<https://www.linkedin.com/company/13977340/>



[www.fair4health.eu](http://www.fair4health.eu)



<https://www.youtube.com/channel/UCpycUIqaXM AJCZPatqcm4cg>

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