

HarmonicSS Vision

- An International Network and Alliance of partners and cohorts, entrusted with the mission of addressing the unmet needs in primary Sjögren's Syndrome
- An ICT environment designed to enable secure storage, governance, analytics, access control and controlled sharing of information at multiple levels along with methods to make results of analyses and outcomes comparable across centers and sustainable through Rheumatology scientific associations

HarmonicSS Consortium



HarmonicSS

HARMONIZATION and integrative analysis of regional, national and international Cohorts on primary Sjögren's Syndrome (pSS) towards improved stratification, treatment and health policy making disease

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**HarmonicSS
Services and Tools**

- ▶ Cloud infrastructure
- ▶ Semantic interlinking
- ▶ Harmonization
- ▶ Data Governance
- ▶ External information source retrieval
- ▶ Text mining
- ▶ Big data mining
- ▶ Genetics analytics
- ▶ Social media analytics
- ▶ Health policy impact assessment
- ▶ Visual analytics
- ▶ Clinical trial patient selection
- ▶ Segmentation of imaging tests
- ▶ Training/Education

Outcomes

- Network of partners
- Legal and privacy report on data sharing
- Integrative harmonized cohort
- Improved stratification for patient management
- Validation of existing biomarkers
- Identification of novel biomarkers
- Shared health policy
- Sustainability and expandability plan

**HarmonicSS
Objectives**

**HarmonicSS
Modules**

- 01 Knowledge sustainable network
- 02 Ethical, legal, privacy and IPR issues
- 03 Data quality and completeness
- 04 Harmonize individual cohorts
- 05 ICT services infrastructure
- 06 Address unmet needs in pSS
- 07 HarmonicSS tools for patient selection
- 08 Health policies in pSS and pilot application
- 09 Sustainability, expandability and exploitation

- 01 Data providers (data controllers) can log into the platform (through the user access management module)
- 02 Data processors can log into the platform and gain access to a variety of provided of data analytics services (through the data analytics services module)
- 03 Clinical data are uploaded only if they fulfill all the necessary GDPR (General Data Protection Regulation) and pSS-related quality requirements (through the data sharing assessment module).
- 04 Harmonization transforms an heterogenous dataset into a homogeneous one by mapping the ontology of the heterogeneous dataset to the HarmonicSS reference model (through the cohort data harmonization module).
- 05 The data processors can upload data models and/or algorithms and evaluate them on the HarmonicSS clinical cohort data.
- 06 The data processors can execute the HarmonicSS data analytics services on the cohort data of interest by requesting access to the corresponding data providers.

