Contractor Details	Type/ size of legal entity	Place of performance of contract activities	Logo
Main contractor CONSORCIO PARA LA EXPLOTACIÓN DEL CENTRO NACIONAL DE ANÁLISIS GENÓMICO (CNAG) Baldiri Reixac, 4 (Parque Científico de Barcelona, Torre I), 08028 Barcelona, SPAIN Mònica Bayés +34 628128762 monica.bayes@cnag.eu	university / research institute	% of contract value allocated to main contractor: 88.44 % % of activities for the contract performed by the main contractor in EU Member States or countries associated with Horizon 2020: 100 %	
Other consortium member(s) (if applicable) TECNO-MED INGENIEROS, S.L. Plaza de Cataluña, 1 (Edificio Triangle, 4ª), 08002 Barcelona, SPAIN Xavier Canals Riera +34 932917739 xcanals@tecno-med.es	SME	% of contract value allocated to TECNO-MED INGENIEROS, S.L.: 3.15% % of activities for the contract performed by contractor TECNO-MED INGENIEROS, S.L in EU Member States or countries associated with Horizon 2020: 100 %	
Subcontractors (if applicable) INTERNET SECURITY AUDITORS, S.L. Santander 101 (Edificio A. 2º), 08030 Barcelona, SPAIN Antoni Nicolás +34 651919916 anicolas@isecauditors.com	SME	% of contract value allocated to subcontractor INTERNET SECURITY AUDITORS, S.L.: 2.10 % % of activities for the contract performed by subcontractor subcontractor INTERNET SECURITY AUDITORS, S.L. in EU Member States or countries associated with Horizon 2020: 100 %	
Subcontractors (if applicable) Appser Data Engineering S.L. Coso nº 46, 1º, 50004 – Zaragoza, SPAIN Josep M Bonet +34 902026213 bonet@apser.es	SME	% of contract value allocated to subcontractor Appser Data Engineering S.L.: 6.31 % % of activities for the contract performed by subcontractor [x] in EU Member States or countries associated with Horizon 2020: 100 %	

Project abstract *(+/- 1000 characters maximum)*

The Cancer Analysis GPAP enables streamlined and user-friendly management and analysis of NGS data in adult and paediatric cancers, common and rare. The development of the platform has leveraged the RD-Connect Genome-Phenome Analysis Platform, built upon a big data architecture and a friendly graphical user interface (GUI), accessible through web browsers. The platform has a modular design built upon Singularity containers, enabling installation in High Performance Computing (HPC) clusters and typical Cloud Computing Services such as

Amazon AWS. The modular approach provides flexibility while facilitating updates and backups. Security was incorporated in all the stages of the Software Development Life Cycle to follow the EU GDPR and relevant ISO and IVDR requirements. All users must be authenticated in the system, which relies on the OpenID protocol.

The Cancer Analysis GPAP is structured around a well-defined and streamlined workflow, envisioning different types of users, each with specific roles and permissions. A set of pre-defined, but still customisable, pipelines encoded with Nextflow and deployed with Singularity containers, makes it possible to analyse sequencing data input automatically according to the clinical request and the experimental information. Quality control metrics and messages are provided at different stages of the process, providing flexibility to re-configure and re-launch steps through the GUI. An automated verification solution with reference datasets has been implemented to ensure the desired accuracy is met. The output includes VCF and gVCF files with germline variants or somatic mutations, and BAM/CRAM alignment files. The VCF files are annotated with multiple information resources.

The Cancer Analysis GPAP is one of the two key modules from the Cancer GPAP, which also includes the Cancer Reporting GPAP, a user-friendly solution integrating next generation sequencing (NGS) results, e-medication data and clinical evidence for therapy decision making in cancer

Previous EU funding

Is the project based on / a continuation of R&D activities that were previously funded by the EU?: YES
If yes, identify this EU funding:
FP7-HEALTH-2012-INNOVATION-1, RD-CONNECT: An integrated platform connecting registries, biobanks and clinical bioinformatics for rare disease research, GA 305444
H2020-SC1-2016-2017, Solving the unsolved Rare Diseases, GA 779257
H2020-SC1-BHC-2018-2020, European Joint Programme on Rare Diseases, GA 825575