

The RCS engagement model for Information and Communication Technology

This document outlines the strategic engagement within the Research and Computing Sector (RCS) for the planning and use of Information and Communication Technology (ICT) services.

The RCS comprises different communities: the Experimental Physics (EP) department, the Information Technology (IT) department, the Theory (TH) department and the CERN library. Some key stakeholders are international collaborations and have a broader scope than CERN. They will be part of the engagement process within the RCS and they need to be properly represented. This is the case for the four LHC experiment collaborations and the WLCG collaboration. In this document we will refer to the RCS as all the communities above, including the LHC collaborations and WLCG.

The RCS communities depend on services provided by the IT department to complete their mission. There are several examples of existing cooperation between the IT department and the other communities in the RCS with engagement channels at the technical coordination level. This existing operational and technical cooperation will be widened across the RCS and complemented with a strategy body. The strategy body will ensure the longer-term ICT activities between the IT department and the other communities of the RCS are aligned with the communities' priorities. A multi-annual roadmap of ICT services and projects jointly engaging IT department and the other communities in the RCS will be developed and maintained. The roadmap will be consistent with the experiment and CERN accelerator schedules, the departments' strategies and consider the whole lifecycle of services from initial research and technology investigations through to service retirement. The roadmap builds on and shapes the service catalogues of the communities, considering dependencies and criticalities to offer functional, secure, and cost-effective solutions.

The LHC experiments and WLCG are regularly reviewed by the LHCC for the scientific aspects of computing and the RRB for funding and resources. The WLCG Overview Board discusses and agrees the medium-term strategic roadmap of the WLCG collaboration. The proposed engagement model within RCS should provide a framework to discuss and agree on how CERN IT should contribute, jointly with the experiments and WLCG to the implementation of the LHCC and RRB recommendations and the OB decisions, focusing on the items of highest priority for these communities.

There are many examples, and a non-exhaustive list includes the evolution of the data management tools and services, the support of the software development process on heterogeneous architectures, Linux platforms, the evolution of the Technical Network, the engineering tools, collaborative tools, open data and data/analysis preservation, HPC clusters, etc.

Mandate for RCS ICT Steering Committee

The RCS ICT Steering Committee is the inter-departmental and inter-organizational governance body that deals with matters related to strategies and the planning of ICT services across the RCS.

The RCS ICT Steering Committee endorses a five-year multi-annual roadmap for engagement, reviews it annually, monitors its progress and will arbitrate to resolve identified issues.

The RCS ICT Steering Committee is chaired by the director of research and computing at CERN with the support of a secretary with knowledge of the domain. It comprises the heads of the IT and EP departments, the spokespersons of the four LHC experiments and the LCG project leader. The co-chairs and secretaries of the RCS ICT Technical Committee are also invited.

The RCS ICT Steering Committee shall meet at least two times per year and the chair can call extra meetings as necessary. The agenda and documents for RCS ICT Steering Committee meetings should be sent out to its members at least 7 days before scheduled meetings. Minutes of the meeting are to be made accessible to members of the RCS.

Mandate for RCS ICT Technical Committee

The RCS ICT Technical Committee is the inter-departmental and inter-organizational governance body that establishes and maintains a five- year multi-annual roadmap of ICT services and projects jointly engaging the communities in the RCS sector. The roadmap will be consistent with the experiment roadmaps, the departments' strategies and consider the whole lifecycle of services from initial research and technology investigations through to service retirement. The roadmap builds on and shapes the service catalogues of the departments considering dependencies and criticalities to offer functional, secure, and cost-effective solutions.

The RCS ICT Technical Committee is co-chaired by one management representative from IT and one representative from a different community, agreed within the RCS. The co-chairs are supported by a secretary with knowledge of the domain and the minutes of the meetings are to be made accessible to members of the RCS. The RCS ICT Technical Committee reports to the RCS ICT Steering Committee.

The members of the Technical Committee are drawn to represent the different communities in the RCS, according to their responsibilities. The leads of the different communities will appoint their representatives or they will delegate. The Technical Committee can invite additional experts for specific discussions. The communities to be represented are the groups/teams in the Experimental Physics (EP) department¹, the IT department, the Theory department, the CERN library, the LHC collaborations and WLCG.

¹ Groups/teams supporting the recognized CERN experiments (the LHC experiment teams, the Small Medium Experiment - SME - group, and the Neutrino – NU – group) and the general support groups (Software for sk Experiments – SFT, Detector Technologies - DT, Electronic System for Experiments - ESE and Administration and General Services – AGS)

The committee will identify the need for joint projects within RCS to implement the roadmap and monitor their subsequent progress. The project identification phase includes determining resources, timelines, and expected outcomes, to be presented to the RCS ICT Steering Committee for initial endorsement. The projects will be agreed and monitored by this committee, including objectives, timeline, and resources

The RCS ICT Technical Committee shall meet at least ten times per year and the co-chairs can call extra meetings as necessary.

IT Technical Coordination with the experiments

The Technical Coordination meetings between IT and the experiments (IT-ATLAS, IT-ALICE, IT-CMS, IT-LHCb, IT-SMEs, IT-NU) will continue. The CNIC meeting will also continue as a Technical Coordination body with the Online teams and the Control Systems. The Technical Coordination meetings will be chaired by a person from IT, assisted by a secretary. The chairs of the Technical Coordination meetings should bring the operational issues to the attention of the IT Technical Delivery teams and the medium/long term strategy needs of the communities to the attention of the RCS ICT Technical Committee.