

Work package 8: Full-time Operation of CTF3 and maintenance

Time schedule: up to 2010
Resource estimate: 0.5 MCHF, 25 man-years

- Operation
 - commissioning of CTF3
 - participation in experimental programme
 - 30 GHz RF structure conditioning and testing
 - operational support
- Software development
- Hardware development

The ambitious test programme to demonstrate the feasibility of the CLIC technology requires a large amount of beam time for the commissioning of the different stages of the facility, the experimental beam dynamics programme and 30 GHz component testing.

In particular, an automated 30 GHz high-gradient test stand (work package 2.1) will be built to test damped accelerating structures, transfer structures and high-power waveguide components. A large number of operating hours is needed for conditioning of the structures, especially for Mo and W structures.

In order to minimize the required time for the conditioning of the structures, it is highly desirable to run the test stand 24 hours per day in shifts. During the running period, this would require 5 people over 5 years.

These people would operate the high-gradient test stand to condition and test the 30 GHz structures, participate in the commissioning of the facility, take part in the experimental beam dynamics studies, and give support for operating the facility.

Due to the nature of a test facility and the evolution of CTF3 over the years, the operation will be very diverse and never be a routine operation.

During the shut-down period, these people write CTF3 specific software, or participate in hardware developments.

The software tasks include CTF3 specific high level application programs, implementations of CTF3 specific hardware in the control system, and support for the application programs and the control of the automated 30 GHz test stand, as well as for the associated high speed data acquisition systems.