

OVERVIEW

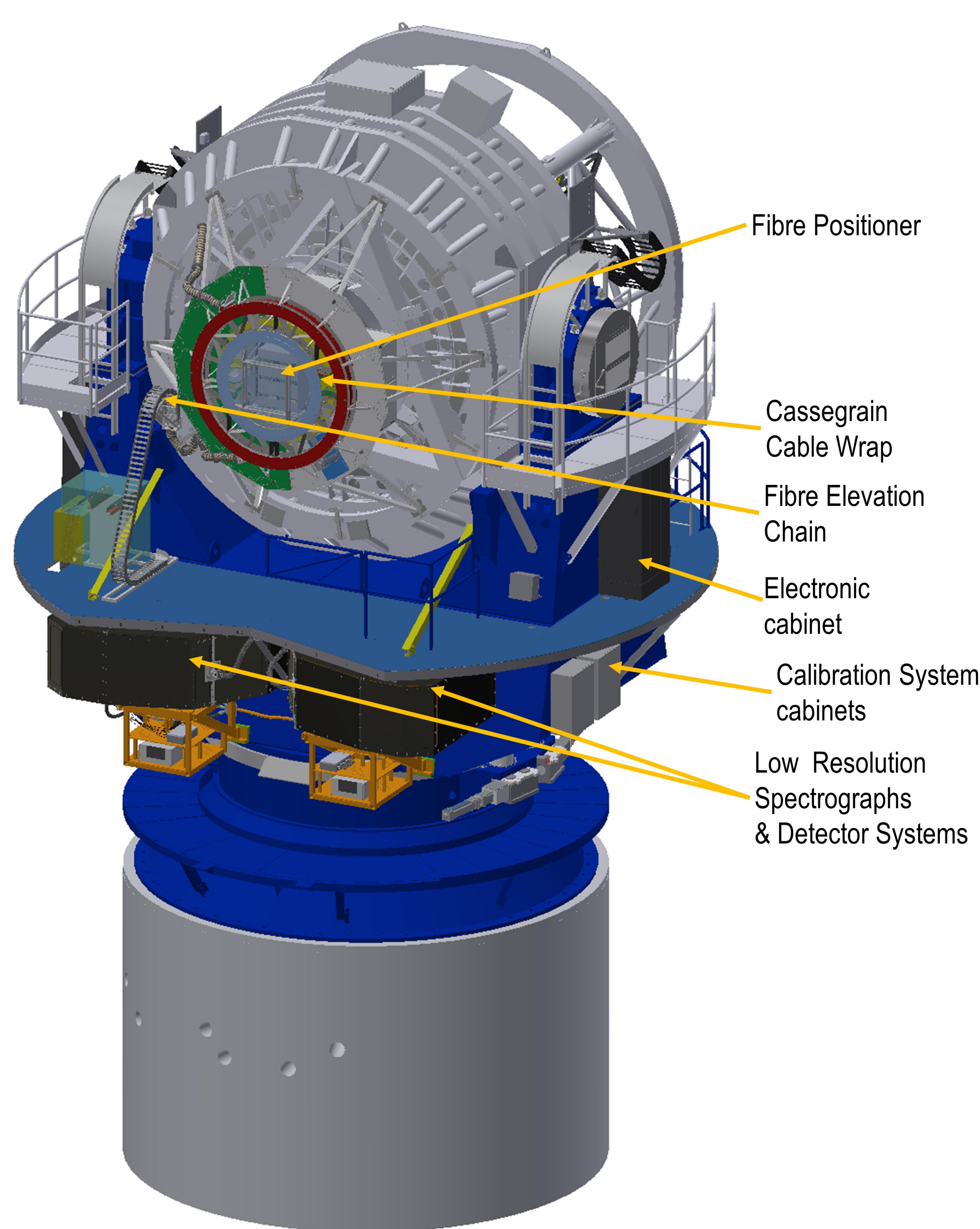
4MOST is a 2nd-generation spectroscopic instrument built for ESO's 4.1-metre VISTA telescope.

A state-of-the-art fiber-fed spectroscopic survey facility

- 2400 simultaneous spectra
- Sky objects on hexagonal field-of-view of more than 4 square degrees.

Such challenge requires an efficient Quality Assurance (QA) and stringent safety compliance.

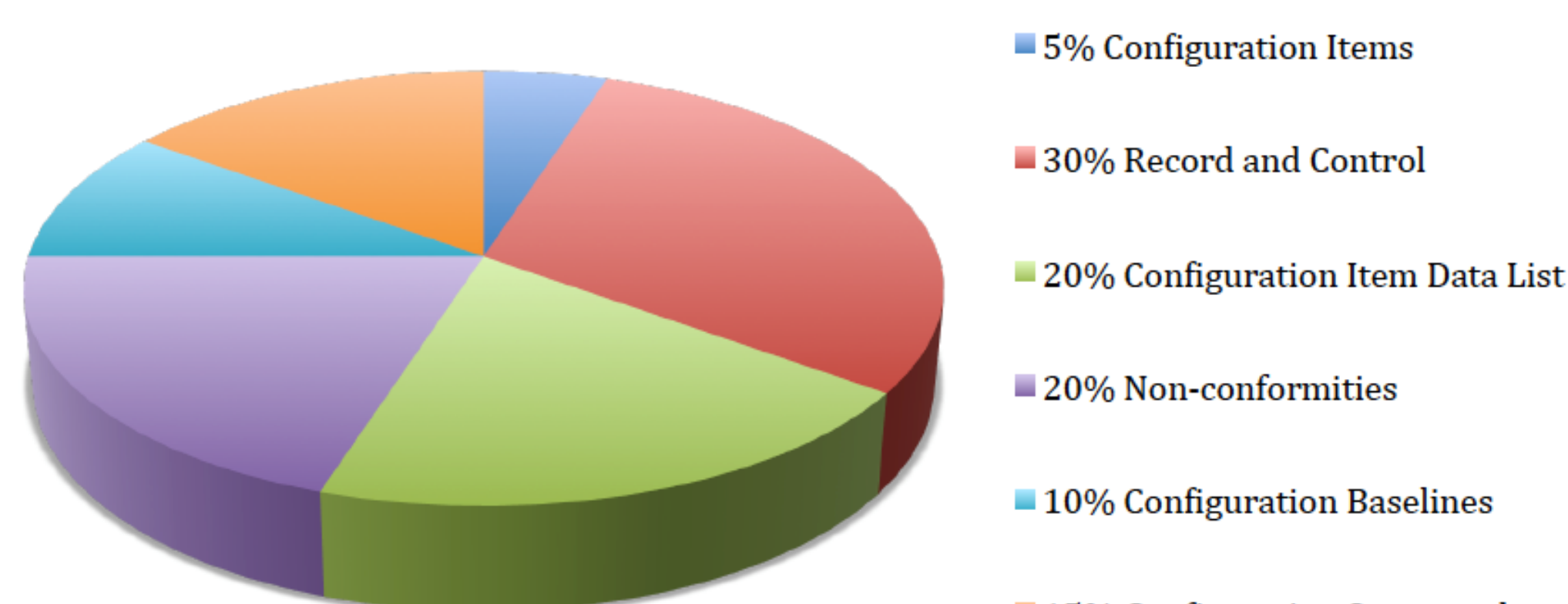
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CONFIGURATION MANAGEMENT

Configuration Management (CM): set of activities aimed at establishing and maintaining consistent records of 4MOST performance parameters, as well as its functional and physical attributes, compared to the 4MOST Instrument and operational requirements.

Main CM Tasks



SAFETY CONFORMITY

4MOST is conducting a comprehensive Hazard Analysis, based on the hazard analyses done by the various subsystems. Finally, 4MOST will deliver to ESO a Declaration of Conformity plus a "Safety File" that contains all safety relevant information including a demonstration of how 4MOST meets the essential safety requirements of the relevant EU Directives (e.g. Machinery, Low Voltage, EMC).



RELIABILITY

To guarantee the specified high performance over the design life time of 15 years, we adopted a rigorous quality control approach. A thorough Failure Mode Effect Analysis (FMEA) helped to identify critical components that need special attention and spare parts.

REFERENCES

1. ISO 10007:2017 Quality management - Guidelines for configuration management
2. Rupprecht, et al., "Safety Conformity Assessment Procedure," ESO Document SAF-GEN-MAN-3444, Version 5 (2015).
3. European Commission, "Guide to application of the Machinery Directive 2006/42/EC," Edition 2.1 (July 2017)
4. van Kesteren, et al., "Electrical and Electronic Design Standards," ESO Document ESO-044295, Version 4 (2016)