



SpaceSystems
Finland

ESO Dome & Main Structure

SSF's capabilities in the area of
Software Engineering

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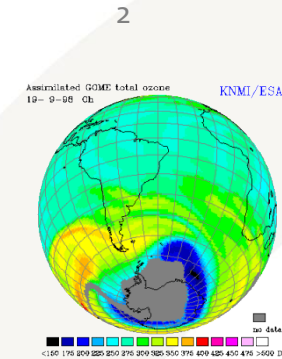
Veera Sylvius

*On the Grounds
of Quality*

General

- Founded in 1989
- 30 staff, turnover 3.0 M€
- ISO 9001 certified Quality Management System
- TÜV Certified Functional Safety Professionals
- Development of Safety Critical Software
- IEC 61508 SIL 1- 3
- Hard Real-time Control Systems
- 20 years of experience in challenging ESA and other projects

<http://www.ssf.fi>



Tools, platforms and methods

Design &
Validation

Platforms

Safety and
Management

UML, C,C++,
VHDL, Java,
Delphi

DOORS,
Polyspace,
Cantata

Linux,
VxWorks,
RTEMS

ARM, Sparc,
Intel, FPGA

IEC 61508 and
other relevant
safety
standards

FMEA, FTA,
FMEDA

Project and
test
management

*On the Grounds
of Quality*

Unique Experience in Challenging Projects

GOCE

- On-board SW that controls all satellite functions and communication
- Mode management, AOCs
- 200 kLOC
- ECSS DAL B SW
- 100% unit test coverage



Herschel-Planck

- Embedded, mission critical, real-time SW
- ASW development
- 140 kLOC
- ECSS DAL B SW
- 5 M€
- Fully automated functional testing
- 0 problem reports since launch 2009



Wavefront Real-Time computer

- Telescope controller for EELT
- Prototype Conceptual Design
- Processor analysis and selection
- Communication infrastructure analysis
- Test Plan



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