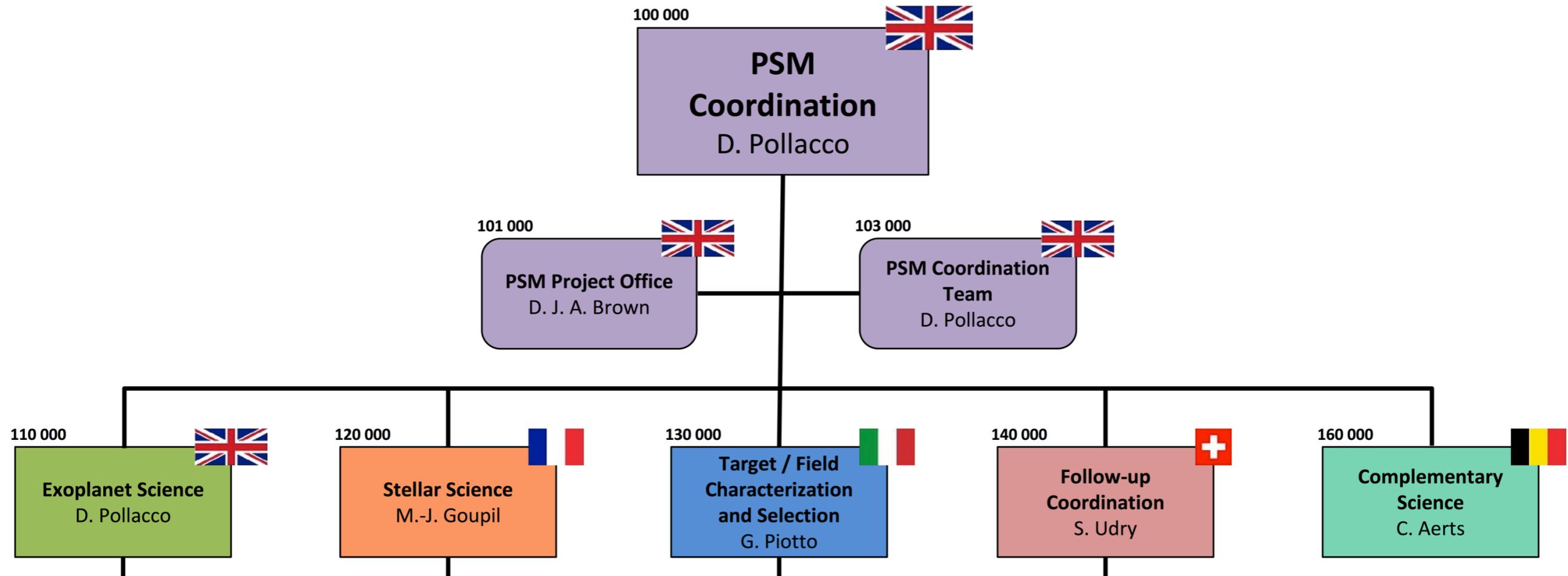




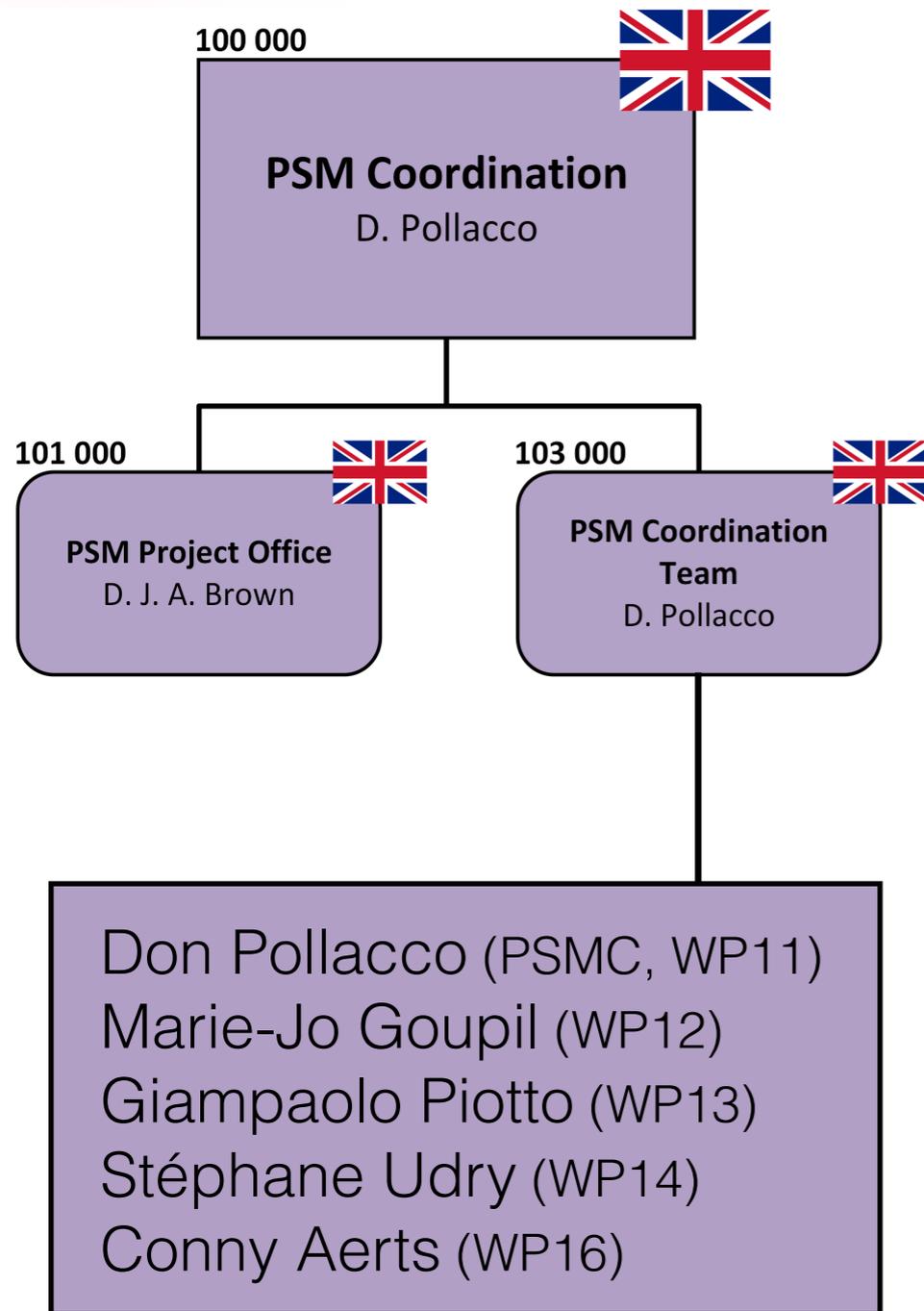
# PSM Management

David Brown  
(PSM Project Office)

# Management Structure

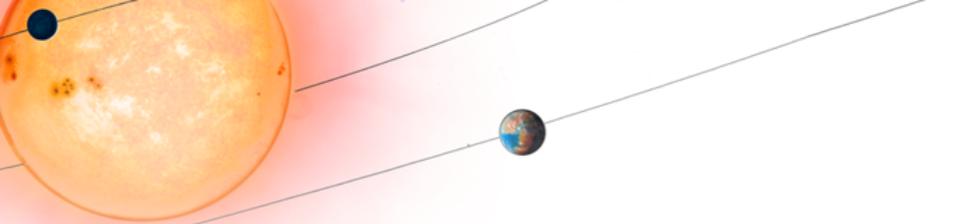


# Management Structure



- PSM Project Office
  - ➔ PSM interfaces
  - ➔ Configuration management
  - ➔ Organisation of scientific reviews
  - ➔ Admin
  - ➔ Website
- PSM-CT
  - ➔ PSM Coordinator
  - ➔ Project oversight
  - ➔ <Something about their power of sign-off>

- Regular meetings
- Documentation
- Scientific testing
- Development tools & configuration management
- Long-term effects for detrending



# PSM-PDC Communications

- Policy that will describe procedures for:
  - ➔ Deliverables
  - ➔ High-level document preparation
  - ➔ Reviews of PDC algorithms
- Ongoing discussion providing lots of helpful feedback
- Working to:
  - ➔ Simplify and update procedures
  - ➔ Add separation between different procedures
  - ➔ Improve clarity

- Close-out of onboard algorithm testing
  - ➔ Test report
  - ➔ Investigation of odd data artefacts
- Changes to testing procedure
  - ➔ Statistical testing vs one-off testing
  - ➔ Definition of test cases in advance

# On-Ground Algorithms

L0 / L1

## PACK 0

Architecture and data flow of the on-ground science processing pipeline (document)

## PACK A

Jitter and long-term drift correction  
Microscanning and PSF modelling  
Photometry of imagerettes  
Outlier correction  
Photometry of saturated stars

## PACK B

Attitude estimation  
Calibration of image geometry  
PSF interpolation across the field of view

## PACK C

Sky-background modelling  
Long-term detrending  
Focus calibration  
LC matching & flux calibration

June 2019

Nov 2019

Mar 2020

June 2020

Nov 2020

Mar 2021

Pack A

Pack B

Pack C

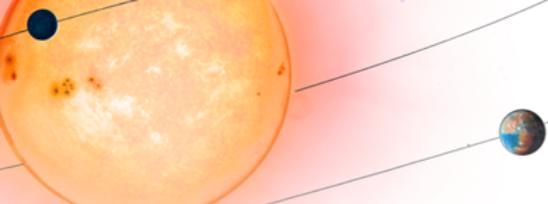
Justification documents

Pack A

Pack B

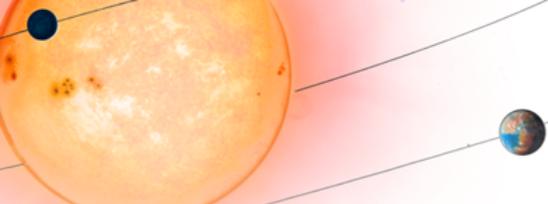
Pack C

Algorithms



# Development and Configuration

- Documents
  - ➔ Collaborative writing
  - ➔ Identification and storage
  - ➔ Change control
- Action Items
- Requirements
  - ➔ Writing
  - ➔ Tracing
  - ➔ Fulfilment
- Software
  - ➔ Development
  - ➔ Issues
  - ➔ Testing
  - ➔ Version control



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One centralised system across the whole project is unachievable.

But we can have a **ground segment** system

- Collaborative writing:
  - ➔ Google docs? - has data protection issues
  - ➔ MS Office online?
  - ➔ OnlyOffice?
- ID / storage / change control:
  - ➔ MPSSR developed system?
- Likely to be short-term before transition to SOCCI.

- Redmine: [link](#)
  - ➔ In use by the PDC for some time
  - ➔ PSM Office and top-level WPs have accounts
- Likely to be short-term before transition to SOCCI.

The screenshot shows the Redmine interface for the PLATO PSM project. The top navigation bar includes links for Home, My page, Projects, and Help. The user is logged in as D. Brown, with links for My account and Sign out. The search bar contains the text 'PSM'. The main navigation menu includes Overview, Activity, Roadmap, Issues, New Issue, Gantt, Calendar, Documents, Files, Settings, and Issues Reminder. The Overview section displays subprojects (PSM Office, Simulators / Simulations WG, WP11, WP12, WP13, WP14, WP16) and an issue tracking summary (2 open issues, 0 bugs, 0 features, 23 open action items). A members list is shown with David Brown as the manager and a long list of developers and reporters. A sidebar on the right shows a spent time of 36.25 hours with links for Log time, Details, and Report. The bottom of the page features the ESA and Warwick logos.

Home My page Projects Help

Logged in as D.Brown My account Sign out

PLATO » PSM

Search: PSM

Overview Activity Roadmap Issues New Issue Gantt Calendar Documents Files Settings Issues Reminder

Overview

+ New subproject Close

- Subprojects: PSM Office, Simulators / Simulations WG, WP11, WP12, WP13, WP14, WP16

**Issue tracking**

- Issue: 2 open / 2
- Bug: 0 open / 0
- Feature: 0 open / 0
- Action Item: 23 open / 27

View all issues | Calendar | Gantt

**Members**

Manager: David Brown

Developer: Andrew Tkachenko, Antonino. F. Lanza, Benoit Mosser, Bill Chaplin, Conny Aerts, David Brown, Don Pollacco, Francois Bouchy, Frédéric Baudin, Giampaolo Piotto, Heike Rauer, Isabella Pagano, Jorgen Christensen-Dalsgaard, Juan Cabrera, Kevin Belkacem, Magali Deleuil, Marc-Antoine Dupret, Marco Montalto, Margarida Cunha, Mariejo Goupil, Nuno Santos, Ouazzani Rhita-Maria, Riccardo Claudi, Richard West, Roi Alonso, Silvano Desidera, Stephane Udry, Szilard Csizmadia, Thierry Morel, Valentina Granata, Valerio Nascimbeni, Xavier Bonfils

Reporter: Andrew Tkachenko, Antonino. F. Lanza, Benoit Mosser, Bill Chaplin, Conny Aerts, David Brown, Don Pollacco, Francois Bouchy, Frédéric Baudin, Giampaolo Piotto, Heike Rauer, Isabella Pagano, Jorgen Christensen-Dalsgaard, Juan Cabrera, Kevin Belkacem, Magali Deleuil, Marc-Antoine Dupret, Marco Montalto, Margarida Cunha, Mariejo Goupil, Nuno Santos, Ouazzani Rhita-Maria, Riccardo Claudi, Richard West, Roi Alonso, Silvano Desidera, Stephane Udry, Szilard Csizmadia, Thierry Morel, Valentina Granata, Valerio Nascimbeni, Xavier Bonfils

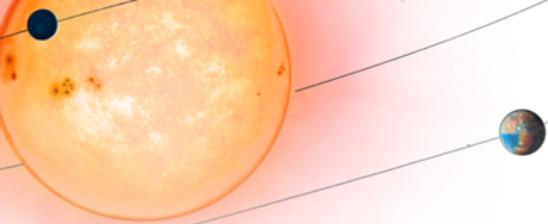
Spent time

36.25 hours

Log time | Details | Report

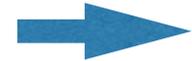
esa WARWICK

- ESA-developed environment
- Single login
- Includes:
  - ➔ Jira - action items; requirements
  - ➔ Confluence - document management
  - ➔ Bitbucket - code development
- Shared across SGS
- Roll-out over the coming months

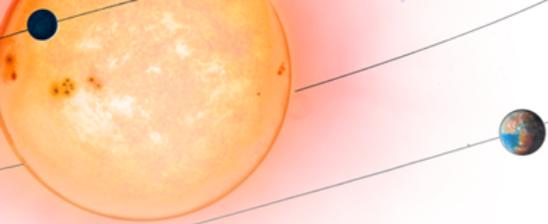


# Looking Forwards

2014	Mission selection
2015	
2016	
2017	Mission adoption Mission conference
2018	Selection of spacecraft manufacturer iPDR S/W SRR unit PDR
2019	Q1: S/W PDR <b>Q2: L0-L3 Requirements Review</b>
2020	<b>Q4: PGSRQDR</b>
2021	Critical Milestone Review (CMR)
2022	<b>Q4: Ground Segment Requirements Review (GSRqR)</b>
2023	<b>Q4: GS Design Review (GSDR)</b>
2024	<b>Q4: GS Implementation Review (GSIR)</b>
2025	<b>Q4: GS Readiness Review (GSRR)</b>
2026	<b>Q3: GS FOP Review</b> Q4: Operations Readiness Review (ORR) Q4: Launch
2030	End of nominal operations
2033	End of (possible) extended operations



**Internal reviews**  
**ESA reviews**

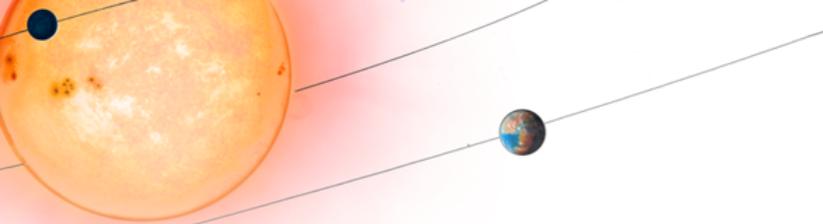


# L0-L3 Internal Review

- Objectives

- ➔ Check that L0-L3 requirements are complete and fulfil mission requirements
- ➔ Verify common understanding of goals and products
- ➔ Allow for evolution of preliminary design
- ➔ L0-L3 subsystem definition

<b>Date</b>	
June 2018	Kick-off for review preparations
December 2018	PLATO Week 7 — Face-to-face splinters
1st March 2019	Full set of drafts of all documents (100% complete)
30th July 2019	Delivery of document package; review kick-off
15th October 2019	Delivery of RIDS
15th November 2019	Review close-out



# L0-L3 Internal Review

- Document package
  - ➔ Mix of 'scientific' and 'management' docs
  - ➔ 'Scientific' docs given priority

<b>Document</b>	<b>Lead author</b>
L2 URD & URJD	David Brown
L3 URD & URJD	David Brown
PMC SGS System User Requirements Specifications (SRS)	PDC Office PSM will receive requirements that need splitting
PMC SGS Science Implementation Plan (SIP) [L2/L3 parts; L0/L1 TBD]	PDC & PSM Offices plan respective contributions
PMC Management Plan	Anders Erikson [TBC]
PMC SGS Development Plan	PDC Office PSM will provide input on specific development details
PMC SGS Configuration Management Plan	David Brown

- 5th - 7th December 2018
- Focus on PSM and PDC
- Splinters
  - ➔ Internal review
  - ➔ PIC
  - ➔ Candidate ranking
  - ➔ Ground-based data
  - ➔ Data processing
  - ➔ WP12?



# Thank you

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[www.warwick.ac.uk/plato-science](http://www.warwick.ac.uk/plato-science)