



# JWST MIRI IMAGER

Doc. : MIRI Centre of Expertise: Requirements  
Ref. : MIRI-CE-00011-CEA  
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## MICE

### The French JWST/MIRI Centre of Expertise

## Requirements

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## Document Changes Record

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## 1 Introduction

### 1.1 Scope

This document is intended to give an overview of the scientific requirements that should rule the French Centre of Expertise for MIRI MICE.



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## 2 Requirements

### 2.1 Top level requirement

The MIRI Expertise Centre is to provide support to the French community to exploit scientifically the MIRI instrument of the JWST.

### 2.2 Level 1 Requirements

- 2.2.1 In order to provide support, the expertise centre should have the expertise needed.
- 2.2.2 In order to provide support, the expertise centre should inform the community
- 2.2.3 The expertise centre should provide added value compared to STSCI

### 2.3 Level 2 Requirements

- 2.3.1 The expertise needed goes beyond the expertise acquired in the contractual framework of the MIRI instrumental development (hardware, test and data reduction algorithms).
  - 2.3.1.1 Prior to launch, additional expertise, especially on detectors behaviour, should be acquired through additional tests at JPL or at Saclay (intrapixel measurements).
  - 2.3.1.2 The centre of Expertise should test the STSCI data pipeline
  - 2.3.1.2 The commissioning data should not just be used to verify that the performance required are met but also to test the limits of the instrument.
  - 2.3.1.3 The GTO should also be considered as a way to improve data reduction pipeline.
- 2.3.2 In order to inform the community:
  - 2.3.2.1 A Web site should be developed,
  - 2.3.2.2 An annual meeting "JWST FRANCE" should be organized
  - 2.3.2.3 Seminars should be given in various French laboratories
- 2.3.3 The added value will consist in:
  - 2.3.3.1 Developing a place where support to visiting scientists can be provided to prepare the observations, to analyse the data.
  - 2.3.3.2 Developing high level data reduction software not available from STSCI and co-ordinating such developments which could be made in France and possibly at the European level.



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2.3.3.3 Data production and archiving; MICE will keep an archive of MIRI observations and calibrations that will be available to the French community. As the pipe line evolves and new high level analysis tools are developed, data would be re-processed by MICE on request. This implies establishing a strong link with STSCI.