



CRS NF Labelling Process  
Martial Haeffelin

***CCRES Workshop, Heraklion – Oct 26<sup>th</sup>, 2023***



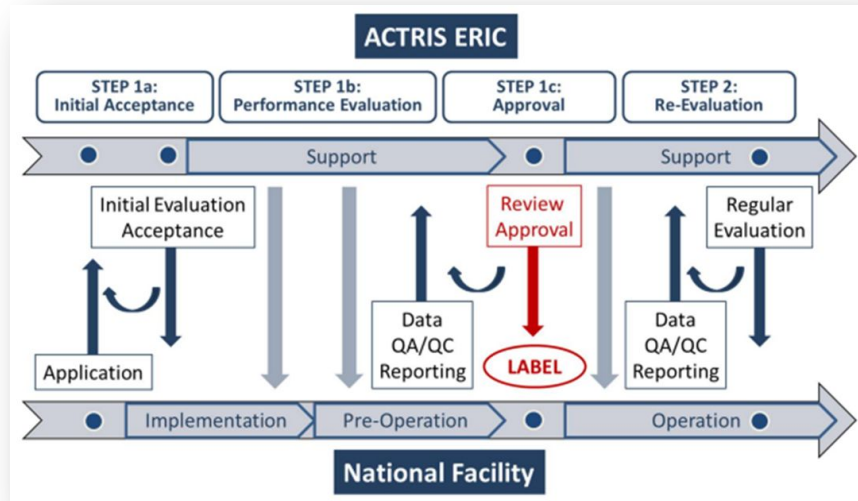
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# Plan

- **CCRES labelling process**
  - CCRES labelling process in a nutshell
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- **NFs labelling process**
  - NFs already in the labelling process
  - NFs labelling status : state of readiness



# CCRES labelling process in a nutshell



## STEP 1 a: Initial acceptance

General feasibility check, collect of information on variables, instruments and personnel

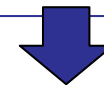
→ [Compliance with CCRES requirements](#)



## STEP 1 b: Performance evaluation

Data flow and operation support schedule created, Tracking of NF data (2 years), Upgrade of the facility (if necessary),

→ [Compliance with CCRES/CLU data requirements](#)



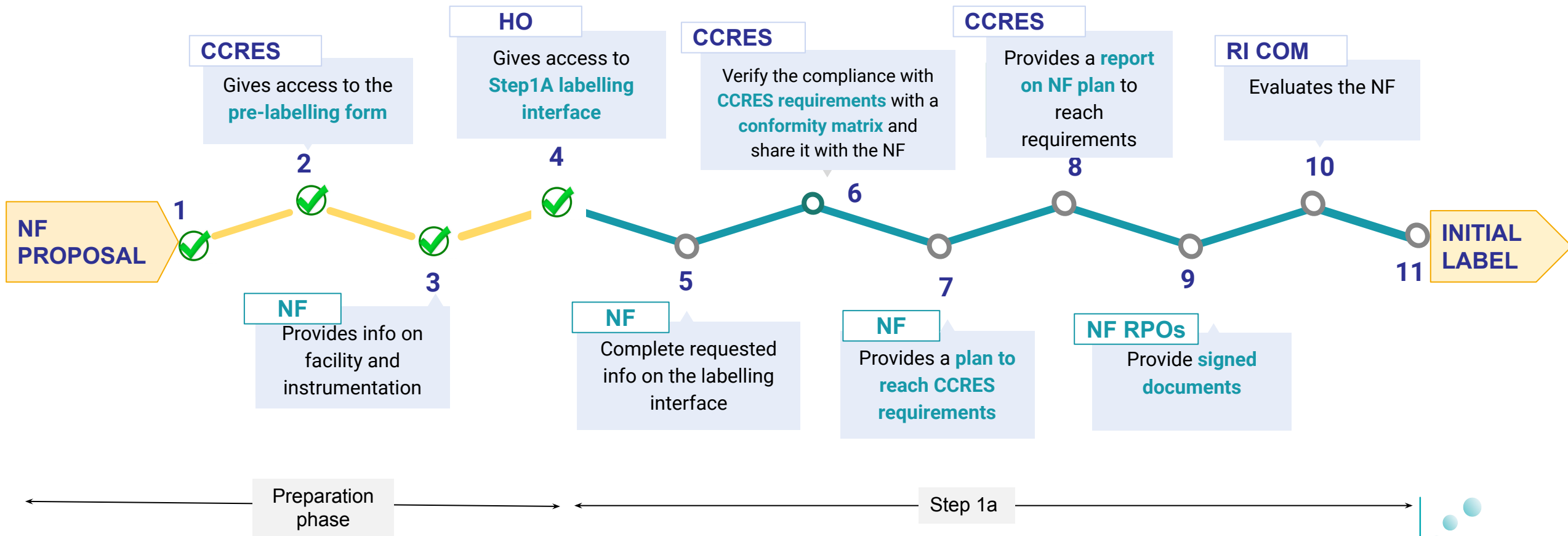
## STEP 1 c: Approval

Full label is granted. Signature of ERIC and NF agreement.

# The initial acceptance

## Step 1 a workflow

- 11 stages to reach initial label:





# ACTRIS NF Labelling Interface

<https://actris-nf-labelling.out.ocp.fmi.fi/>



Site Instrumental de Recherche par Télédétection Atmosphérique (SIRTA)

## Cloud remote sensing

### Labelling plan

According to the National Facility plan provided to ACTRIS Head Office by France, the facility Site Instrumental de Recherche par Télédétection Atmosphérique (SIRTA) is scheduled to start the labelling process for cloud remote sensing in 2021.

### Initial application

In the initial application phase the facility PI or other staff at the facility provide more detailed information on the facility and component specific contacts and instrumentation, and a plan how to reach compliance with ACTRIS technical requirements. This is done in collaboration with the respective Topical Centre in ACTRIS. The organization hosting the facility is also to sign a commitment for providing the necessary resources for the facility for at least 5 years. The existing and planned set-up of the facility is evaluated by the respective Topical Centre and the RI committee, after which the facility proceeds to initial acceptance phase.

### Component information

The facility PI fills information on the component-specific contacts and instrumentation in the forms below. After that he / she submits the information, and it will be automatically directed to the respective Topical Centre and Data Centre unit for further elaboration and contact with the facility PI and staff.

**Contacts**  
6 contacts

**Instruments**  
No instruments yet

Submit

### Upgrade plan

The facility PI is to provide a plan how and when the facility will reach full technical compliance with ACTRIS requirements. If the facility is already in line with ACTRIS requirements, the PI is to upload a document stating that.

This should be uploaded only after contact with the respective TC.

**Upgrade plan**  
Not uploaded yet

Submit

### Commitment letter

The organization hosting the facility has to commit to providing the needed resources for the facility for at least 5 years, and to approve the relevant ACTRIS policies. This commitment has to be signed by a legal signatory of the organization.

For commitment letter template and more information, press the button below.

**Commitment letter**  
Not uploaded yet

Submit

### Evaluation

In this stage the Director General of ACTRIS initially approves or refuses the facility to be an ACTRIS National Facility. The decision is communicated to the facility PI, the hosting organization and the hosting country. In case the facility is initially accepted, the status will also be visible in ACTRIS maps and documents.

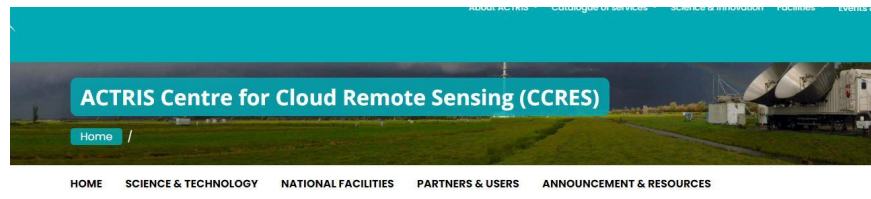
### TC evaluation

The Topical Centre in charge of the applied measurement component evaluates the readiness of the facility and feasibility of its upgrade plan.

**TC evaluation report**  
Not uploaded yet

# The initial acceptance CCRES requirements

- Once the **labelling interface** is completed by the NF (Stage 5), CCRES verify the compliance with **CCRES requirements** thanks to a **conformity matrix** (Stage 6).
- CCRES requirements are composed of 3 main parameters:
  - **Instruments requirements** are checked
  - Instruments are **on site and operational** (or installed on site and plan to be operational in less than 3 months)
  - Each instrument has **an identified contact point for CCRES**



Requirements are available in  
the CCRES website !

<https://www.actris.eu/topical-centre/ccres>

# The initial acceptance CCRES requirements

1. Doppler cloud radars	2. Microwave radiometers	3. Lidars & ceilometers	4. Disdrometers	5. Doppler lidars	Other instruments
Metek Mira 35	RPG HATPRO series	Vaisala CL61	OTT Parsivel2	Halo Photonics Streamline	GPS water vapor
Metek Mira 35 C	Radiometrics MP 3000 series	Vaisala CL51	Thies LNM	Halo Photonics Streamline Pro	Lidar (Raman, DIAL, HSRL, etc)
BASTA FMCW 94 GHz		Vaisala CL31	Distromet Joss-Waldvogel	Halo Photonics Streamline XR	Micro Rain Radar
RPG FMCW 94 SP		Vaisala CT25k (SkyVUEPRO)		Vaisala (Leosphere) Windcube WLS 100s	All-sky camera
RPG FMCW 94 DP		Lufft CHM15k		Vaisala (Leosphere) Windcube WLS 200s	Global radiation
RPG 35 GHz		Lufft CHM8K		Vaisala (Leosphere) Windcube WLS 400s	In situ probes (clouds, aerosols)
RPG 35 GHz + 94 GHz		SkyVUEPRO Campbell Scientific CS135			Sensible and latent heat flux measurements
Copernicus		Campbell Scientific SkyVUE			GPS water vapor
Galileo		Raymetrics RAP			
		NASA MPL			
		Droplet MT MiniMPL			
		Cimel CE376			

# Next steps

## Preparation phase (that you have done already)

- *Complete pre-labelling form*
- *Install all instruments*
- *Look for CCRES documents and recommendations in CCRES website*
- *Participate in CCRES trainings and workshops*



## When ready for labelling process

Go to the [ACTRIS National Facility Labelling platform](#)  
and start the NF registration for labelling

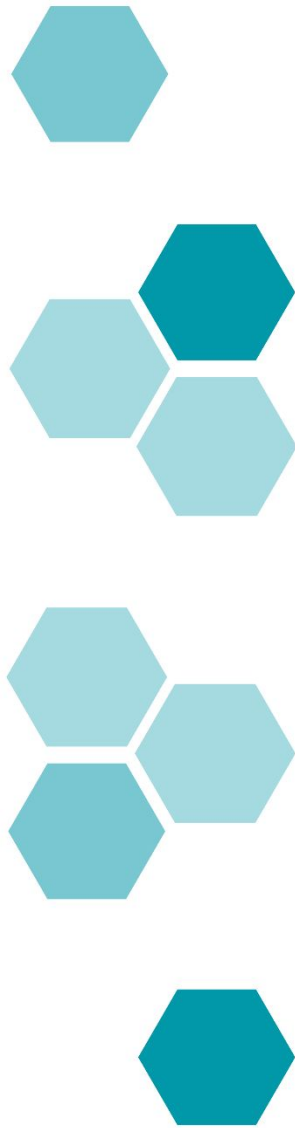


**STEP 1 A**



# Labelling Step 1b

- NF **submit data**, meta data, housekeeping data to **CLU**
- **CCRES and CLU are developing and implementing**
  - Daily diagnostics and visualisation of HKD
  - Monthly reports of HKD
  - Quality control of meta data conformity
  - Quality tests and control of geophysical data
- Step 1b phase will take **2 years**



# Templates for labelling process (1/3)



## Templates



Document 1 : Preliminary Evaluation Report

Document 2 : Upgrade Plan

Document 3 : Labelling Evaluation Report



# Templates for labelling process (2/3)

## Document 4 : Expectations for Photos and Maps

### Instructions to follow to provide aerial views, maps, and photographs

To review site and instrument layouts, CCRES Topical Centre is requesting National Facilities to present their cloud remote sensing facility and all relevant instruments using maps, aerial photographs, sketches and instrument photographs.

- Maps, photos and sketches should include legends, scales, and orientations (cardinal points)
- Heights of platforms and instruments with respect to ground level, distances between instruments, and orientations should appear clearly.

1. Large aerial view (20-30 km)	1
2. Detailed aerial view (1-2 km)	2
3. Aerial view and/or sketch of building/ instrument set-up.	3
4. Picture of each instrument with name of model and manufacturer	4
Doppler Cloud Radar, [manufacturer], [model]	4
Microwave Radiometer, [manufacturer], [model]	4
Automatic lidar and ceilometer, [manufacturer], [model]	4
Doppler Lidar, [manufacturer], [model]	5
Disdrometer, [manufacturer], [model]	5
Weather Station, [manufacturer], [model]	5
Raingauge, [manufacturer], [model]	5

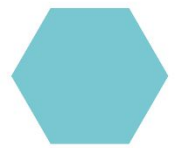


# Templates for labelling process (3/3)

## Document 5 : Conformity Matrix

<b>COUNTRY</b>		Latest update by C dd/mm/yyyy																	
Expected year of readiness to start labelling : 2023		Latest update by M dd/mm/yyyy																	
Facility PI : [to fill]																			
		Instrument PI				Instrument's information						Location of the instrument						Scanning	
<b>Name of the Station</b>	Instruments	First name followed by last name	PI contact (email)	Manufacturer	Model	Manufacturing year	Status of the instrument (operational, planned, under construction)	Date of planned full operation	PID	Serial number	Status in ACTRIS (Nominal, Mobile, Additional/Back up, Former/ Not in use)	GPS coordinates	Instrument Mean Sea Level (MSL) height (meters)	Instrument height above ground level (meters)	Place name	Description of surroundings	Distance from Doppler Cloud Radar (meters)	Scanning (vertical only, vertical + scanning, scanning only)	Schedule (to be filled later)
	Doppler Cloud Radar																		
	Microwave Radiometer																		
	Automatic lidar & ceilometer																		
	Doppler Lidar (optional)																		
	Disdrometer																		
	Weather Station																		
	Raingauge																		
Additional instruments																			

# Conformity Matrix (1/2)



## Exemple of SIRTAs Conformity Matrix

FRANCE		Latest update by CCRES :		03/03/2023							
Expected year of readiness to start labelling :		Latest update by NF:		02/03/2023							
CRS main PI :	Martial Haeffelin	martial.haeffelin@ipsl.fr									
		Instrument PI			Instrument's information						
SIRTA	Instruments	First name followed by last name	PI contact (email)	Manufacturer	Model	Manufacturing year	Status of the instrument	Date of planned full operation	PID	Serial number	Status in ACTRIS (Nominal, Mobile,
	Doppler Cloud Radar	Julien Delanoe	julien.delanoe@latmos.ipsl.fr	LATMOS	BASTA FMCW 94 GHz	2014	Operational	01/09/2009	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	BASTA-SIRTA	Nominal
	Microwave Radiometer	Jean-Charles Dupont	jean-charles.dupont@ipsl.fr	RPG	HATPRO G5	2022	Operational	01/10/2022	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	0030231	Nominal
	Automatic lidar & ceilometer	Simone Kotthaus	simone.kotthaus@ipsl.fr	Lufft	CHM15k	2014	Operational	01/01/2022	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	CHM150101	Nominal
	Doppler Lidar	Eric Dupont	eric.dupont@edf.fr	Vaisala	Vaisala WLS70	2012	Operational	01/01/2012	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	SN_WSL70-10	Nominal
	Disdrometer	Jean-Charles Dupont	jean-charles.dupont@ipsl.fr	OTT	Parsivel2	2019	Operational	01/01/2022	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	PA2-450058	Nominal
	Weather Station	Jean-Charles Dupont	jean-charles.dupont@ipsl.fr	Vaisala, Guilcor, Campbell	HMP110, PT100, A100R, W200P	2014	Operational	01/01/2014	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	-	Nominal
	Raingauge	Jean-Charles Dupont	jean-charles.dupont@ipsl.fr	Precis-Mecanique	R3070A	2014	Operational	01/01/2014	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	SN 23837	Nominal
Additional instruments											
	Automatic lidar & ceilometer	Simone Kotthaus	simone.kotthaus@ipsl.fr	Vaisala	CL31	2010	Operational	01/12/2010	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	S/N F1850010	Additional/ Back up
	Microwave Radiometer	Jean-Charles Dupont	jean-charles.dupont@ipsl.fr	RPG	HATPRO G2	2010	Operational	01/02/2010	<a href="https://hdl.handle.net/">https://hdl.handle.net/</a>	R-DPR-G2-10/016	Additional/ Back up



# Conformity Matrix (2/2)

FRANCE										
Expected year of readiness to start labelling :										
CRS main PI :		Martial Haeffelin								
Location of the instrument								Scanning		Date of latest CLU instrument database update.
SIRTA	Instruments	GPS coordinates	Instrument Mean Sea Level (MSL)	Instrument height above ground level	Place name	Description of surroundings	Distance from Doppler Cloud Radar (meters)	Scanning (vertical only, vertical + scanning,	Schedule (to be filled later)	If red instrument database should be updated.
	Doppler Cloud Radar	48.7130N, 2.2087E	161.3	4.2	Roof observatory	On top of a building	-	Vertical only		
	Microwave Radiometer	48.7130N, 2.2087E	161.3	4.2	Roof observatory	On top of a building	10m	Vertical + scanning		
	Automatic lidar & ceilometer	48.7130N, 2.2087E	161.3	4.2	Roof observatory	On top of a building	10m	Vertical only		
	Doppler Lidar	48.7130N, 2.2087E	161.3	4.2	Roof observatory	On top of a building	10m	Vertical only		
	Disdrometer	48.7178N, 2.2095E	157.1	0	North parcel	Open view within a cone of specified elevation angle	80m			
	Weather Station	48.7178N, 2.2076E	157.1	0	North parcel	Grassland	80m			
	Raingauge	48.7178N, 2.2076E	157.1	0	North parcel	Grassland	80m			
Additional instruments										
	Automatic lidar & ceilometer	48.7179N, 2.2087E	157.1	0	North parcel	Grassland	80m	Vertical only		
	Microwave Radiometer	48.7130N, 2.2087E	161.3	4.2	Roof observatory	On top of a building	10m	Vertical + scanning		



# Procedure to fill Conformity Matrix

1 - The online conformity document is pre-filled by CCRES based on the labelling interface :

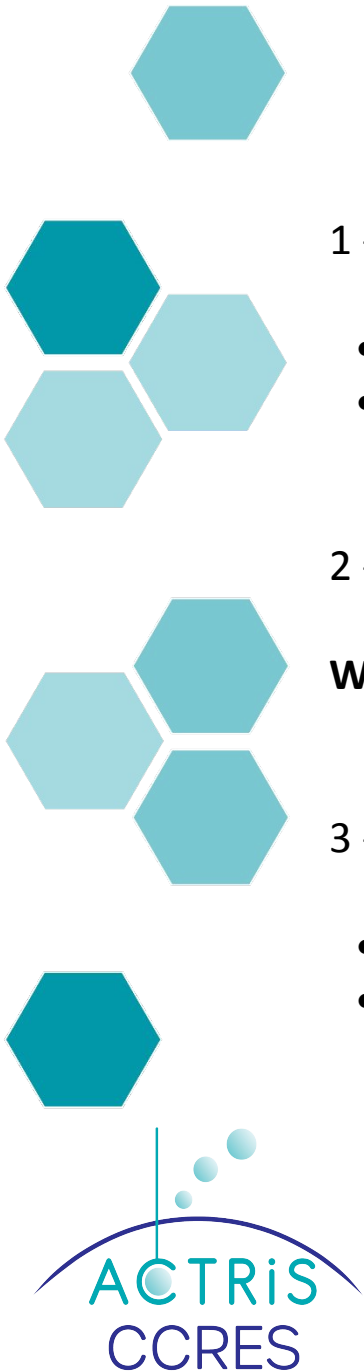
- All information pre-filled by CCRES appears in white.
- All missing information appears in red.

2 - The candidate NF is asked to complete the online conformity document and provide any missing information :

**When the NF adds and/or modifies information, it is asked that the NF changes the colour of the cell to orange.**

3 - CCRES will then modify the colours of the cells using the following colour code:

- Information, compliant with CCRES requirements appears in green.
- Information, non-compliant with CCRES requirements appears in yellow

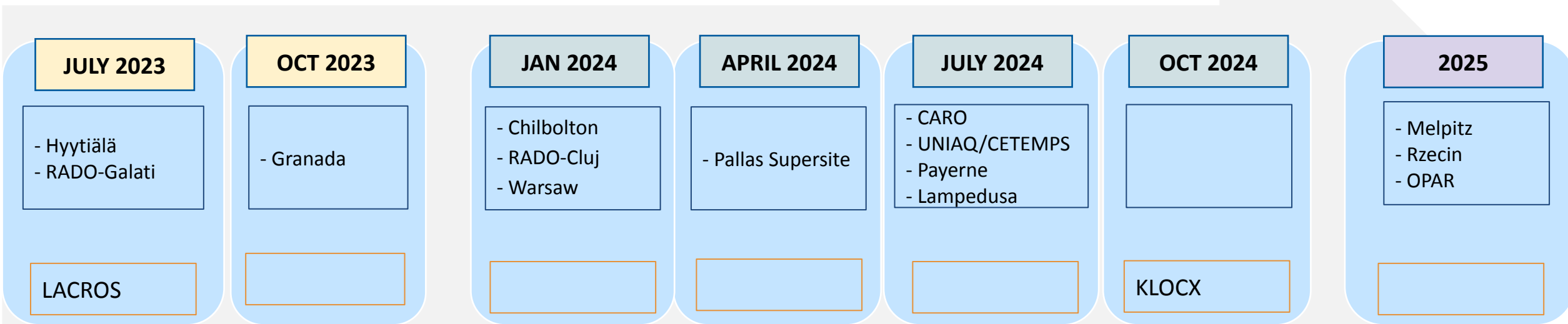


# Instruments PID

- When a **PID** for your instrument is entered in the cell, please **check that the PID and landing page are correct**. If you notice any incorrect or outdated information, please send an email to [actris-cloudnet@fmi.fi](mailto:actris-cloudnet@fmi.fi)
- When there is **no PID** entered, please **fill this [form](#) to get a PID** for your instrument. You need the following information of your instrument: instrument manufacturer, model, location, date since when the instrument has been in the location entered, location history, legal owner(s) of the instrument, contact name of the PI, contact email, instrument serial number, additional information concerning the instrument



# NFs labellisation process



**OTHERS?**



# NFs Labelling Status : State of Readiness

			Contact point(s)	Email	2021	2022	2023			2024				2025					
							April 2023	July 2023	October 2023	Janv 2024	April 2024	July 2024	October 2024	Janv 2025	April 2025	July 2025	October 2025		
Cyprus	Cyprus Atmospheric Remote Sensing Observatory CARO (Limassol)	Cyprus University of Technology & ERATOSTHENES Centre of Excellence	Rodanthi-Elisavet Mamouri	NEW rodanthi@eratosthenes.rodanthi.mamouri@cut.ac.cy								X							1
Denmark	Villum Research Station	Aarhus University																	0
Finland	Pallas Atmosphere-Ecosystem Supersite (Kenttäröva)	FMI	Ewan O'Connor	Ewan.Oconnor@fmi.fi							X								1
Finland	SMEAR II (Hyytiälä)	UHEL	Dmitri Moisseev	dmitri.moisseev@helsinki.fi				X											1
France	SIRTA	CNRS, CEA, EP, UVSQ	Martial Haefelin Jean-Charles Dupont	martial.haefelin@ipsl.fr jean-charles.dupont@ipsl.fr			X												1
France	OPAR, France-Belgian site	UR, CNRS	Valentin Duflo	valentin.duflo@univ-reunion.fr										X					1
Germany	Cape Verde Atmospheric Observatory	TROPOS																	0
Germany	Jülich Observatory for Cloud Evolution (JOYCE)	UoC	Bernhard Pospichal	bernhard.pospichal@uni-koeln.de			X												1
Germany	Melpitz Research Station	TROPOS	Birgit Heese	heese@tropos.de												X			1
Germany	Meteorological Observatory Lindenberg (MOL-RAO)	DWD	Ulrich Goersdorf	Ulrich.Goersdorf@dwd.de			X												1
Germany	München	LMU	Stefan Kneifel	stefan.kneifel@lmu.de															0
Greece	PANGEA	NOA																	0
Italy	CIAO (Potenza)	IMAA-CNR	Donato Summa	donato.summa@imaa.cnr.it															0
Italy	Lampedusa	ENEA	Giandomenico Pace	giandomenico.pace@enea.it								X							1
Italy	UNIAQ/CETEMPS	DSFC/CETEMPS/Università degli Studi dell'Aquila	Vincenzo Rizi	vincenzo.rizi@aquila.infn.it								X							1
Netherlands	Ruisdael Observatory: CABA UW	KNMI																	0
Poland	Rzeczyn	University of Life Sciences in Poznań/UW	Patryk Poczta Bogdan Chojnicki	patryk.poczta@puls.edu.pl bogdan.chojnicki@puls.edu.pl														X	1
Poland	Warsaw	UW	Pablo Ortiz Amezcua Iwona Stachlewska	Pablo.Ortiz@fuw.edu.pl wona.Stachlewska@fuw.edu.pl							X								1
Romania	RADO-Bucharest	INOE	Anca Nemuc	anca@inoe.ro			X												1
Romania	RADO-Cluj	UBB	Nicolae Aftai	nicolae.aftai@ubbcluj.ro						X									1
Romania	RADO-Galati	UGAL	Mirela Voiculescu	Mirela.Voiculescu@ugal.ro				X											1
Spain	Granada	IISTA-UGR	Lucas Alados Arboledas	alados@ugr.es							X								1
Sweden	NORUNDA	SMHI	Eliasson Salomon	salomon.elia@smhi.se															0
Switzerland	Payerne (PAY)	PSI/EMPA/ MeteoSwiss	Renaud Matthey	renaud.matthey@unibe.ch								X							1
Switzerland	Beromuenster (BRM)	PSI/EMPA/ MeteoSwiss																	0
UK	Chilbolton Observatory	NCAS	Chris Walden	chris.walden@stfc.ac.uk								X							1
	<b>TOTAL</b>						4	2	1	3	1	4	0	0	1	1	1		
					0			7				8			3				18
	<b>Mobile platforms</b>																		
Finland	Doppler Cloud Radar	FMI																	0
Finland	Doppler Lidar	FMI																	0
Germany	LACROS	TROPOS	Patric Seifert	seifert@tropos.de				X											1
Germany	KLOCX	KIT	Jan Cermak	jan.cermak@kit.edu									X						1
Italy	CIAO Mobile Facility	IMAA -CNR																	0
	<b>TOTAL</b>						/	1	0	0	0	1		0	0	0			0
					0			1				1			0				2







**Thank you**