



Site Protection in Morocco

The progress of the "Atlas Dark Sky Reserve" project

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3 October 2021



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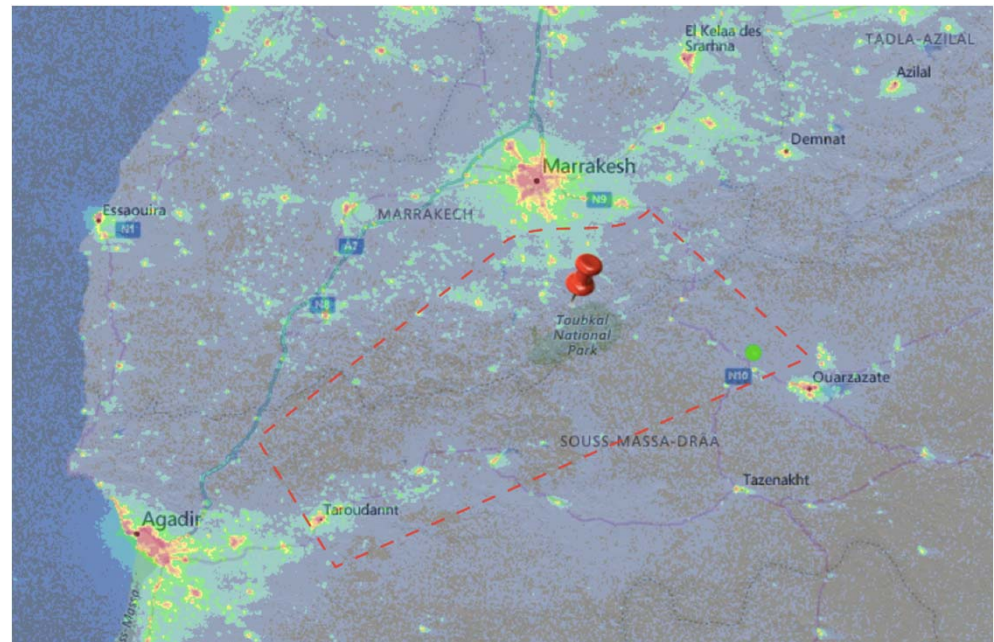


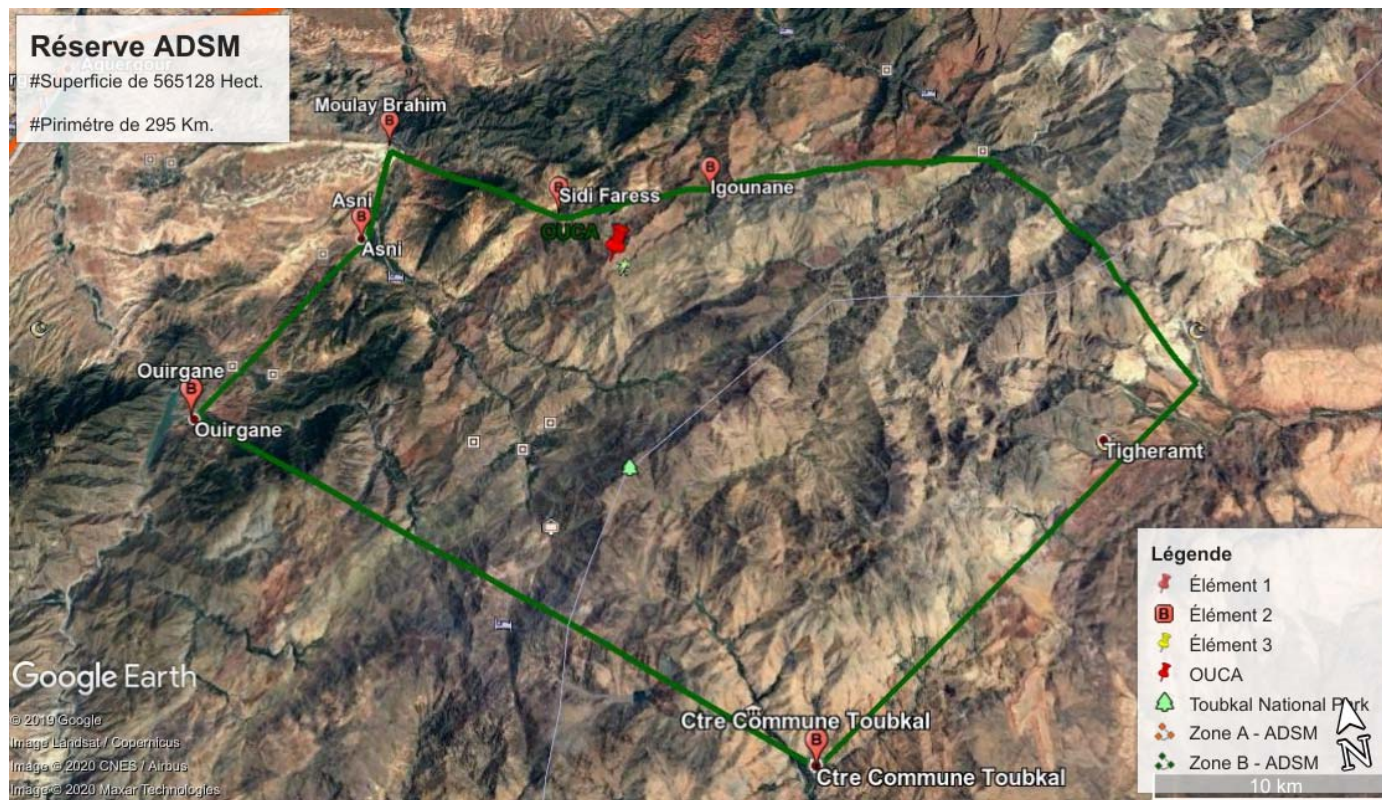
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The project Atlas Dark Sky Reserve (ADSR) is a unique project in North Africa. It consists on creating an International Dark Sky Reserve covering a large part of the Toubkal National Park.

The **Oukaïmeden Observatory** located at the Atlas Chain in Morocco will be the central region of this reserve. Our project start by acting on this central region (High priority). Dark Sky Communities will be composed of about 120 villages and cities located in a diameter of about 80 km from the central region. This Figure shows the limits of the ADSR project. We can see that the most important source of light pollution is the city of Marrakesh. Communities between the Observatory and the city of Marrakesh show high light pollution contribution and can impact the astronomical observation of faint objects. They will be our first targets after finishing the central region. The communities near of the city of Taroudant are also another important source of light pollution in this reserve. They will be treated with a medium priority. The communities between the city of Ouarzazate and the Oukaïmeden Observatory are still not contaminated by the light pollution but we will immunize them during this project by including them to the ADSR before the situation becomes worst.







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The Initial Strategic Plan (2018-2021)

Phase I : 2018-2019

- ◆ International workshop on light pollution
- ◆ 100% coverage of the Central Region

Phase II : 2018-2020

- ◆ 80% coverage of the Dark Sky Reserve Communities

Phase III : 2018-2021

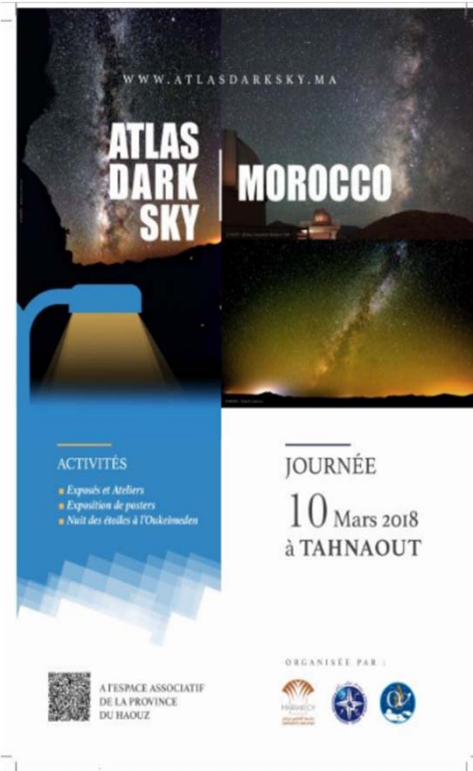
- ◆ 100% coverage of the Atlas Dark Sky Reserve
- ◆ Recognition by the International Dark Sky Association



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Réserve internationale de ciel étoilé

Atlas Dark Sky

Dossier préparé par Ismael Moumen

Co-Chair du projet ADSR

Revu et complété par Benkhaldoun Zouhair

Porteur du projet ADSR

5 février 2019

<http://atlasdarksky.com>

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Septembre 2019

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ATLAS DARK SKY RESERVE FOUNDATION (ADSR)

STATUTS DE LA FONDATION ATLAS DARK SKY RESERVE



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Covid Effect on the ADSR Project

- Covid-19, had a huge influence on the action plan of the project, so we started in this summer 2021 the campaign of taking data from 3 villages of all villages located in the region and we hope finishing at Octobre 2021.
- The results of this three villages (Asni , Imlil , Oukaimeden) are shown in the next slide :

Asni Village by night

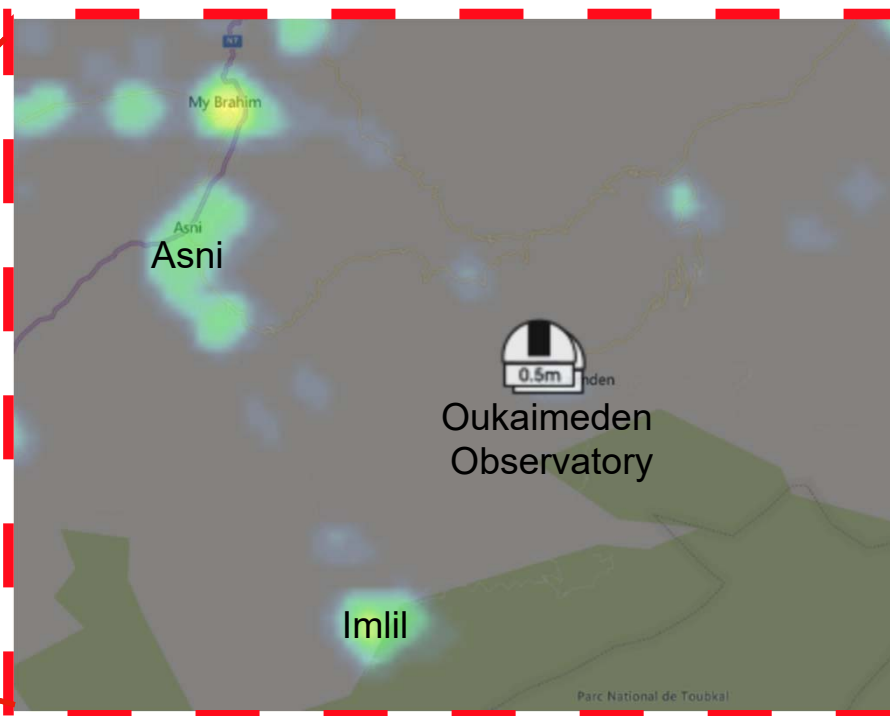
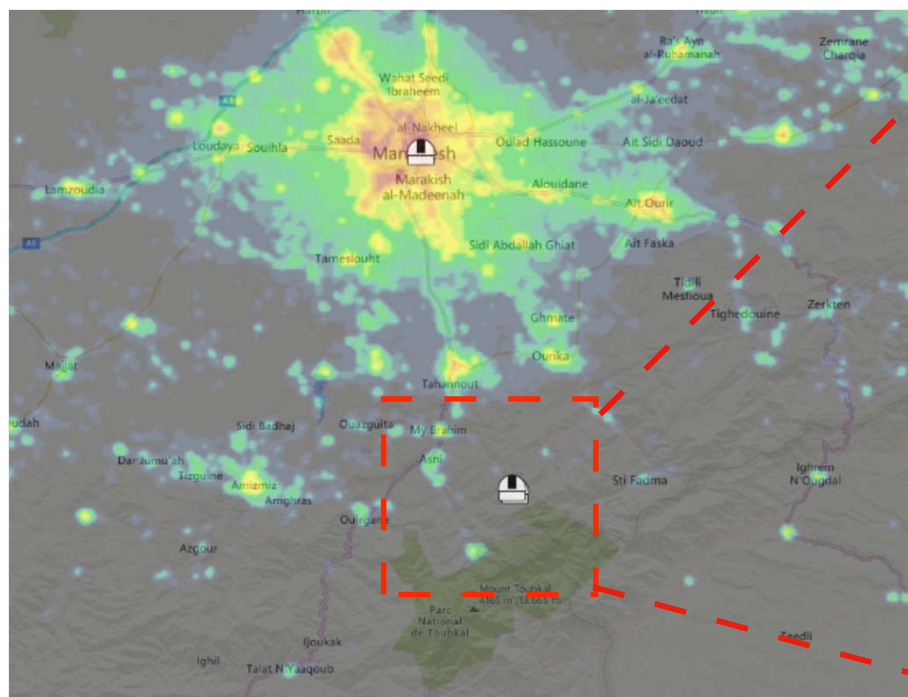




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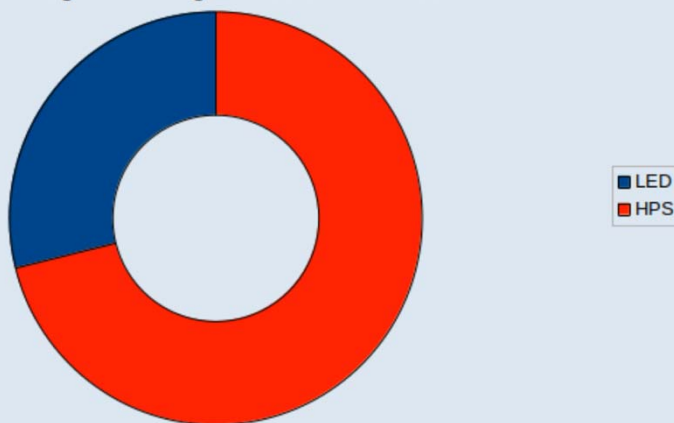


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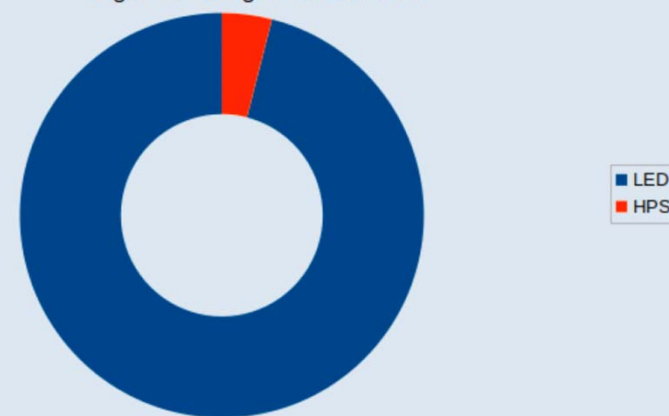


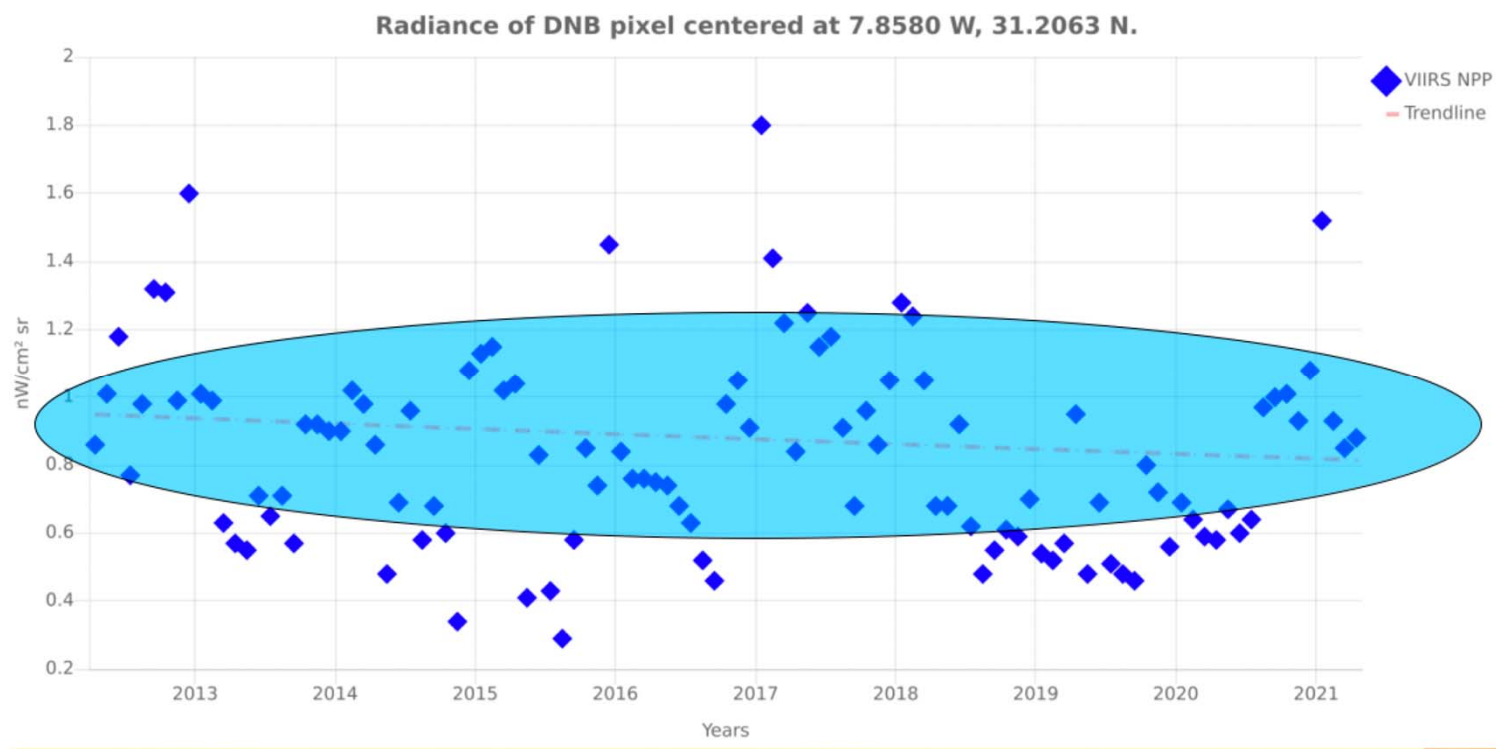
Commune	Asni		Imlil		Oukaïmeden	
Total number of light technologies devices	200		90		96	
number of streetlights censused	123 61,5%		64 72%		90 94%	
Light Technologies	LED	HPS	LED	HPS	LED	HPS
	118	5	61	3	26	64
	95,93%	4,06%	95,31%	4,68%	28,88%	71,11%
Type of Sol	Asphalte	herbe	Asphalte	herbe	Asphalte	herbe
	90	29	44	20	23	67
Uplight	0%	30%	0%	30%	0%	30%
	114	9	21	43	12	68

Light technologies case of Oukaimeden



Light technologies case of Asni





The New Plan (2021-2023)

Phase I : Mid 2022

- ◆ 100% coverage of the Central Region

Phase II : Mid 2022

- ◆ 80% coverage of the Dark Sky Reserve Communities
- ◆ Labeled some localities of the reserve (Star Light label?)

Phase III : End 2023

- ◆ 100% coverage of the Atlas Dark Sky Reserve
- ◆ Final International International Workshop
- ◆ Recognition by the International Dark Sky Association



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Some local Sponsors and Partners



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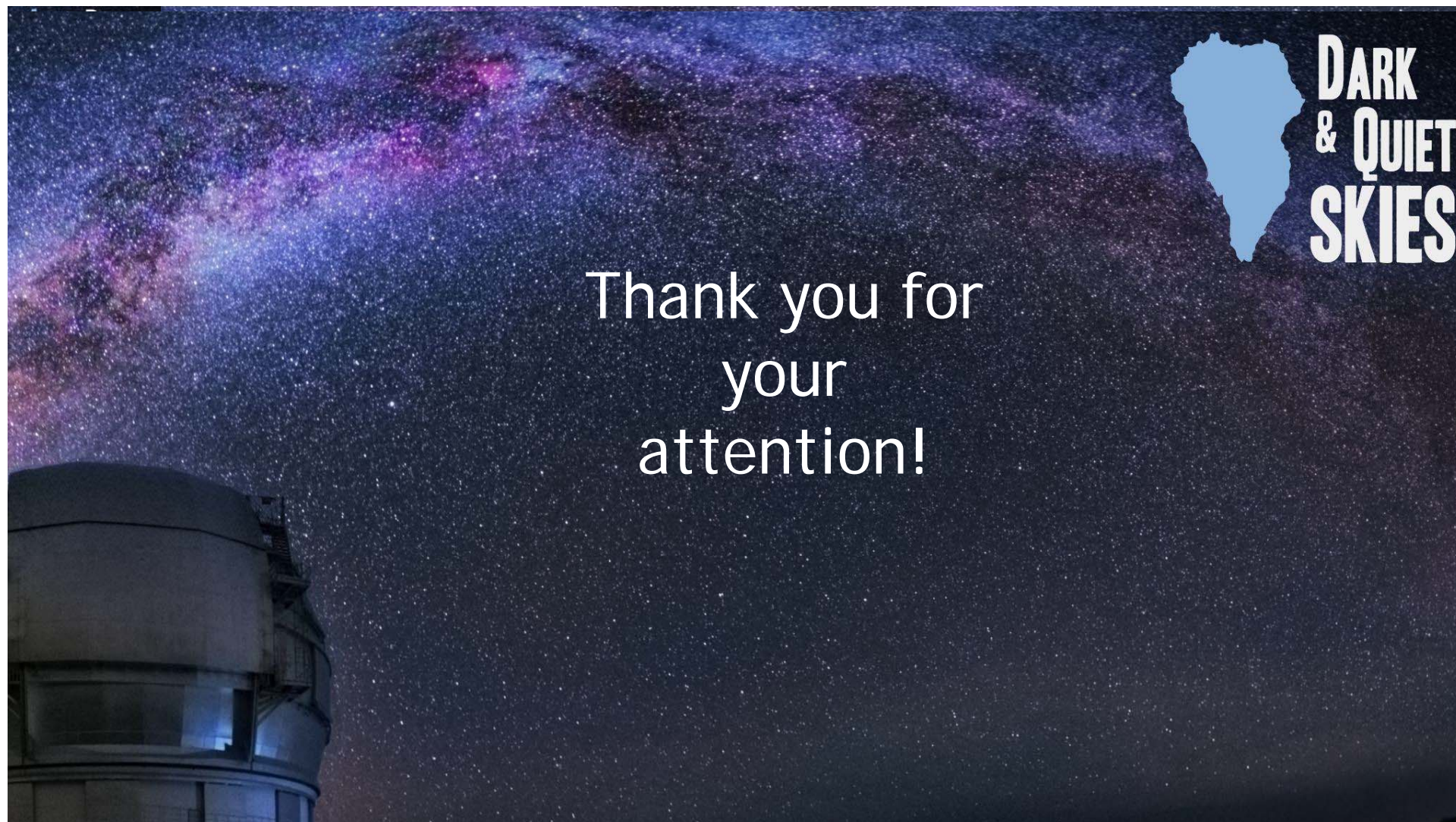
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Thank you for
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