

DATATHON 21 & 22 mai 2025



Conference on Rail Resilience to Climate Change Panel II – Innovation for Rail Resilience Monday 16 June 2025 Varsaw (Poland)

The Datathon (21-22 May 2025)





The reasons and methods used





Goals:

Thanks to both railway & data experts from various sectors, better understand the impact of climate change on railway risks to anticipate them more effectively in the future

Datathon:

- 1 topic : Developing predictive models to facilitate the supervision activities of NSA and Railway entities
- 7 teams composed of 5 data scientists, 1 railway expert & 1 coordinator
- 2 days of intensive work in Paris
- Prestigious jury deliberating the winners

Methods:

- Provide exclusive access to the national safety events data base, crossed with a large amount of contextual data
- Providing access to a cloud computing solution (AWS)

First results and prospectives



The heatwave team won with its "PREDIRAIL" solution:

Best operational anchoring

DATATHON

2025

- Use case for predicting tree falls on the track
- Useful features as weather alert, impacted area, infrastructure maintenance context, list of actions to be taken

All other solutions will be thoroughly studied for inclusion in our own safety analyses

PrédiRail 🥵					
27	7-05-2025, 14h à 17h	Alerte 322 Orage / Vent / Affaissement caténaire	60%	Angoulē Mise à put	
29.05.2025 Ah à 7h		Alerte 323 Orage / Précipitations / Obstacle	60%	-Ò	-
30	-05-2025, 13h à 22h	Alerte 324 Canicule / Forte chaleur / Rupture cate	anaire 70%	jeu. 22 	ve
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Opérationnel Mise en place d'une LTV Ordre baissez panto (CO	GC)				



This event has been a great opportunity to highlight NSA activities

Most of the attendees gave us excellent feedbacks even if they claimed the lack of time

→ EPSF will organise another data event very soon !