MINISTÈRE CHARGÉ DES TRANSPORTS

Liberté
Égalité
Fraternité

PBN to ILS
CONTINUOUS DESCENT

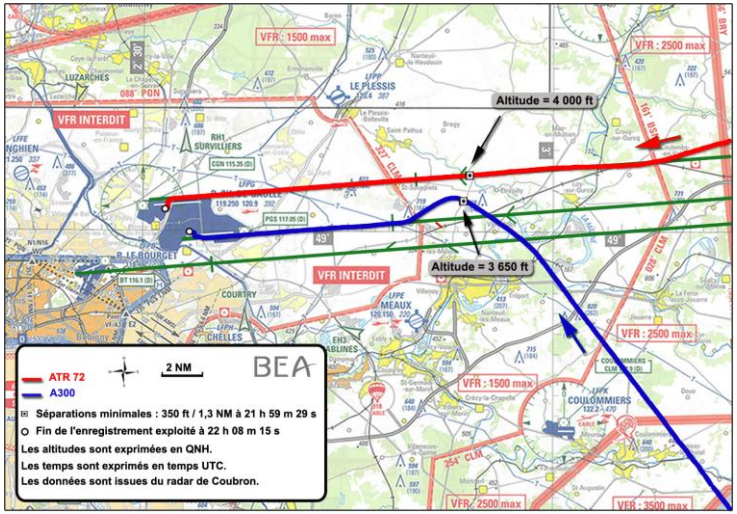
dgac direction générale de l'Aviation civile

Paris CDG

Sophie Baranes, Deputy head Environment department
DSNA

The triggers (1)

- **Safety Motivations**
  - 2013 : Report from the French air safety investigation authority about **losses of separation in Paris CDG approach** (triple simultaneous interception)
  - Final Directors positions are the **bottleneck of safety** and thus capacity increase (they can handle up to 8/9 aircraft simultaneously)



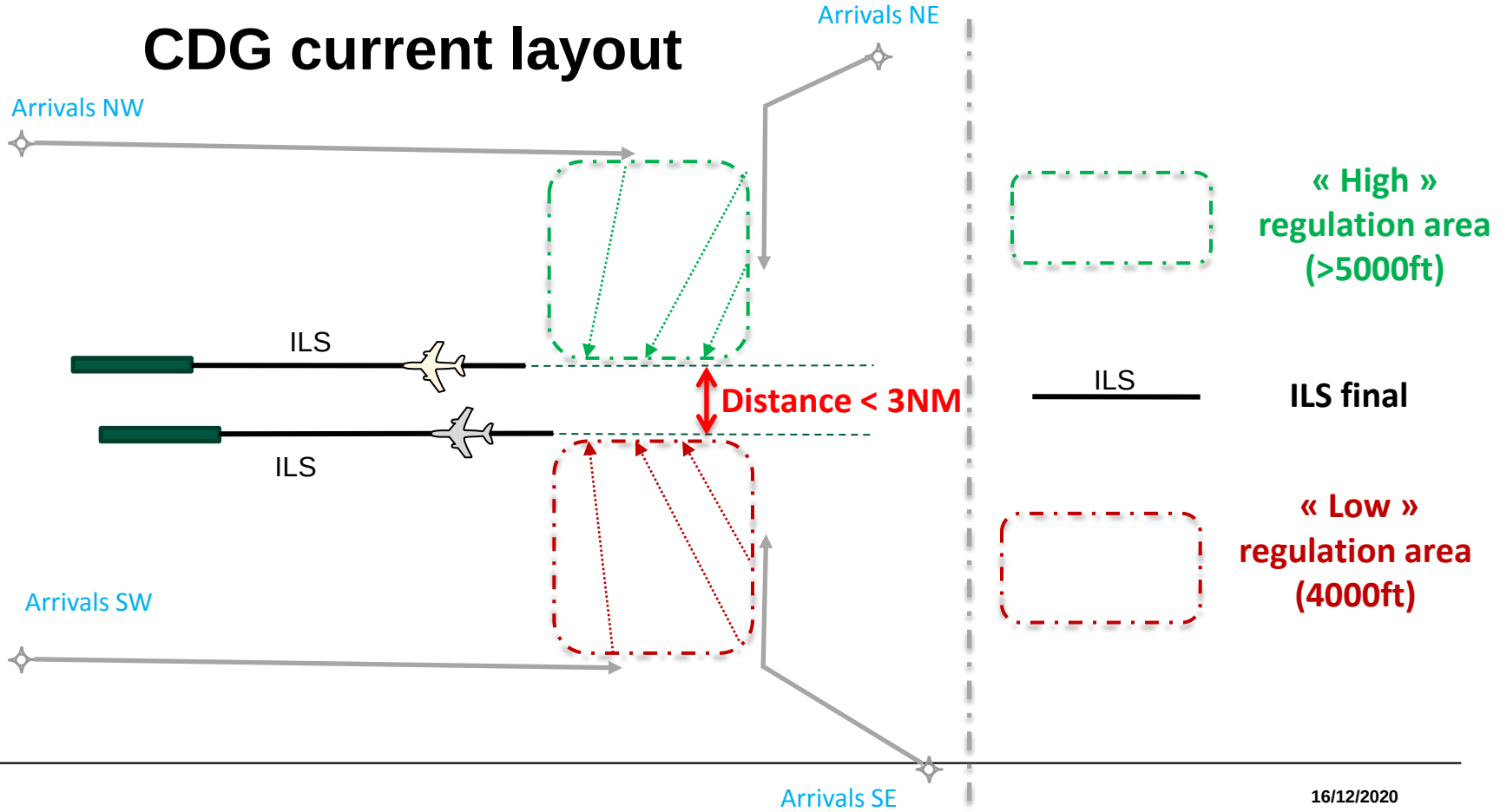
Initiative to investigate new ways of handling arrival flows (different from full radar vectoring)

The triggers (2)

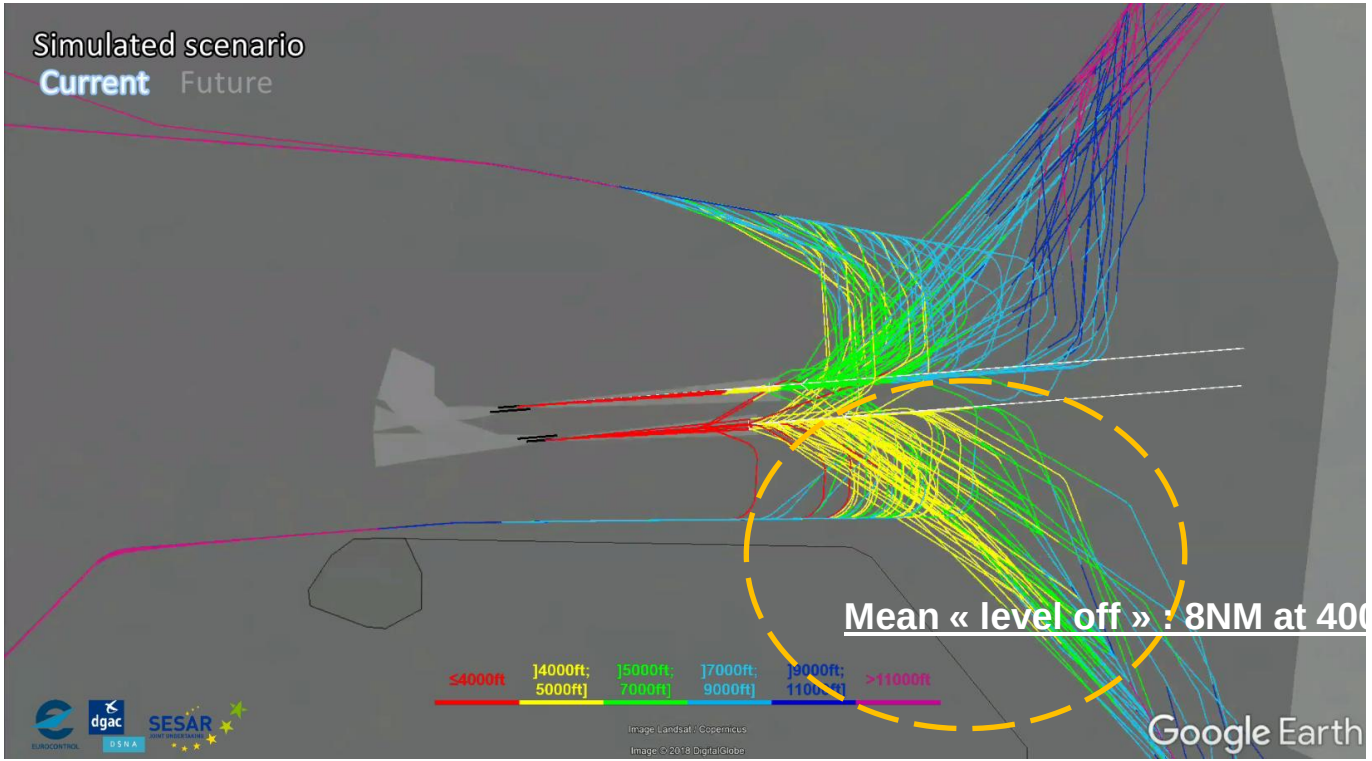
- **<u>Environmental challenges</u>**
  - Strong pressure to reduce noise around CDG airport thanks to continuous descent operations

Political support to launch a deployment project

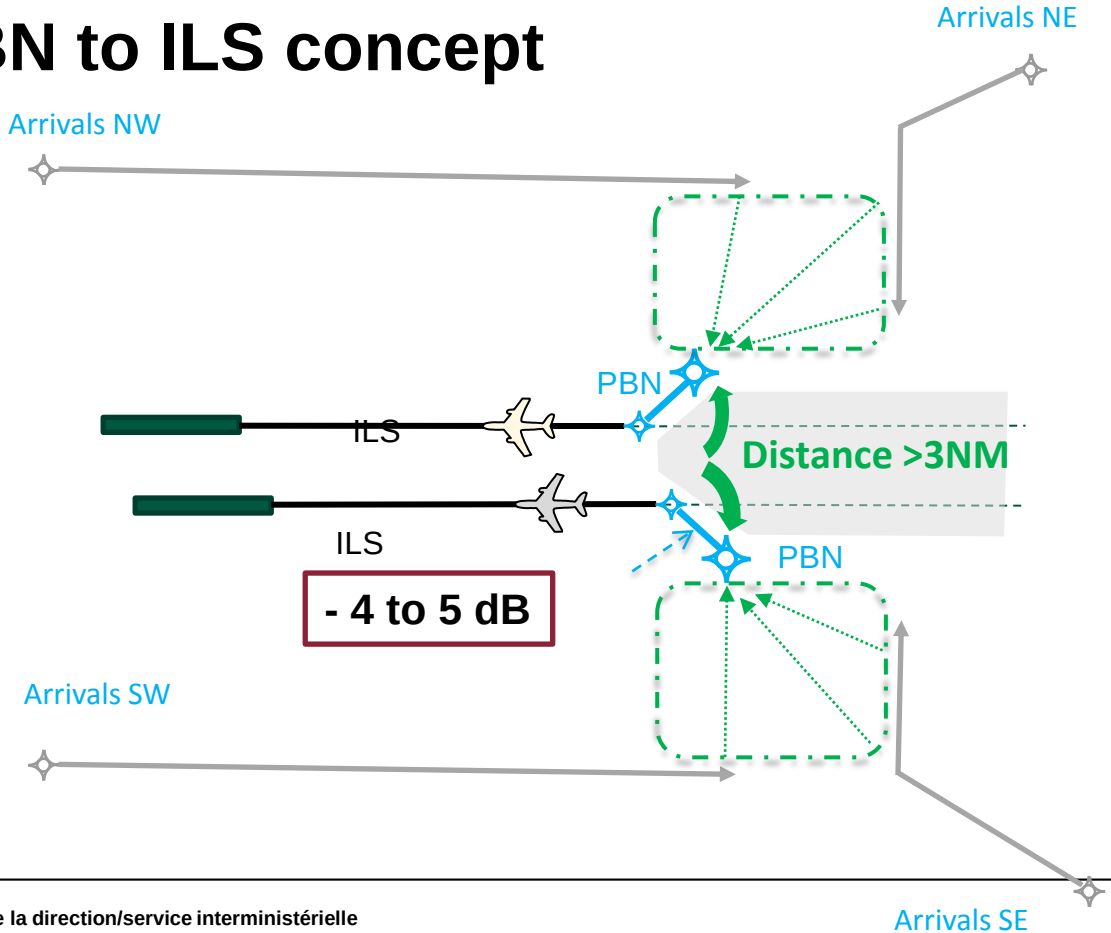
CDG current layout

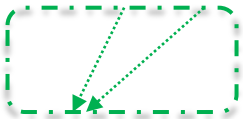


CDG current layout



PBN to ILS concept





Convergence area

PBN

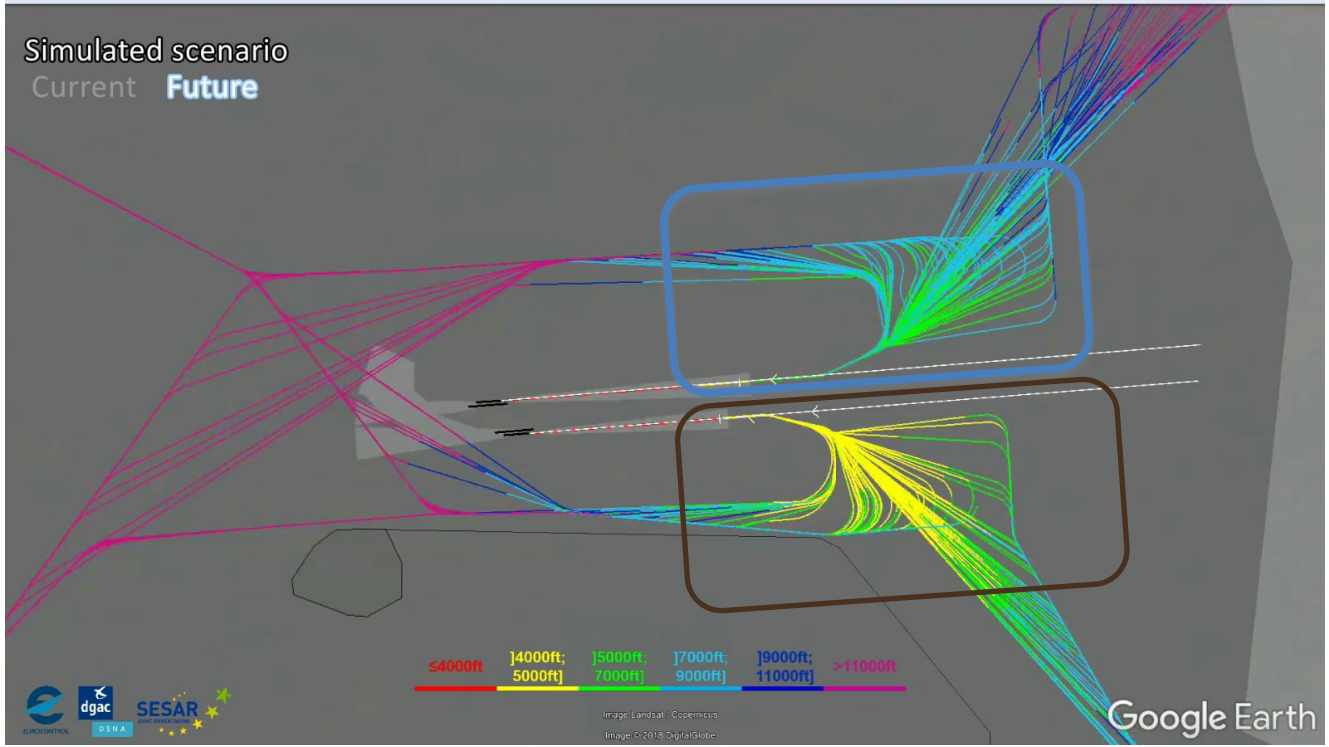
Concentration area

ILS

ILS Final

« Continuous » descent area

PBN to ILS concept



Expected environmental gains

- 70% less population overflown (need to put the PBN segment on strategic areas - Concentration)
- Decrease of noise level by 3 to 5 dBA

A 3-month live trial will provide actual measures, starting this January

Technical challenges

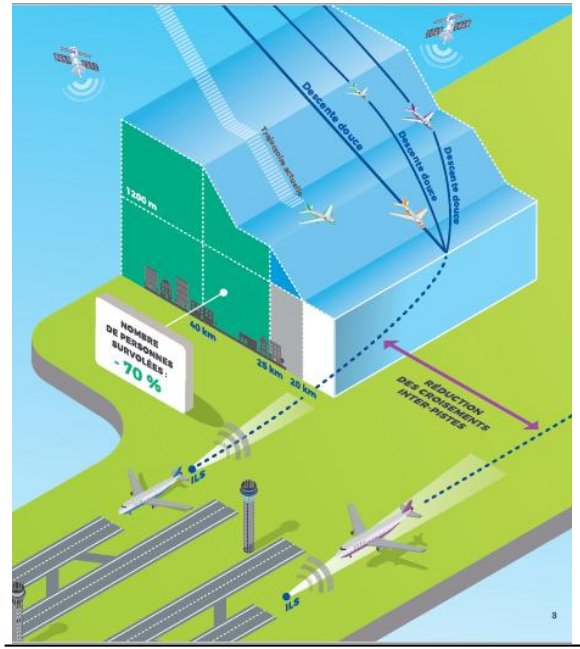
- **OPEN LOOP CONCEPT:**

Necessary due to the complex and variable traffic in CDG
More difficult to conceive, code and publish

- **HEAVY SAFETY CASE:**

First PBN to ILS with close parallel approaches, with only RNP1 requirement, and in such a complex airport
Challenge to obtain the lateral (therefore vertical) independence
2 or 3 years work, with DTI and all the aeronautic experts

Project Roadmap



- **01/2021-03/2021 :** Live Trials for 27R arrivals
- **2022 :** Environmental « concertation » and safety case
- **04/2023 :** Intermediate implementation
- **12/2023 :** Final implementation

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PBN to ILS@CDG

1st part of the project was co-financed by the European Union