KLM + BCG

Turning airline operations into a competitive advantage

Our suite of AI-powered solutions developed in partnership between KLM Royal Dutch Airlines and BCG

DAY OF OPS

Runway
Runway restrictions

Pathfinder
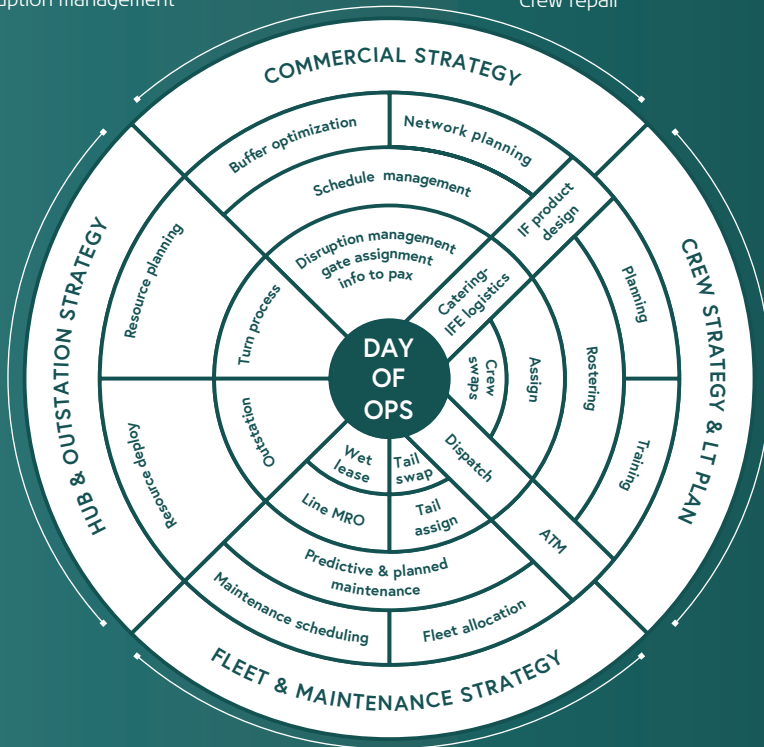Tail assignment

Sentry
Disruption management

CREW

CrewVision
Resource planning

Mentor
Crew training

Harbinger
Crew repair

Wheel diagram labels:

- COMMERCIAL STRATEGY
- HUB & OUTSTATION STRATEGY
- CREW STRATEGY & LT PLAN
- FLEET & MAINTENANCE STRATEGY
- DAY OF OPS (center)
- Buffer optimization
- Network planning
- Schedule management
- Resource planning
- IF product design
- Disruption management gate assignment info to pax
- Planning
- Turn process
- Catering IFE logistics
- Assign
- Rostering
- Crew swaps
- Resource deploy
- Outstation
- Dispatch
- Training
- Wet lease
- Tail swap
- Line MRO
- Tail assign
- ATM
- Predictive & planned maintenance
- Maintenance scheduling
- Fleet allocation

FLEET AND MAINTENANCE

Phaser
Phase-out and shop visit optimization

GROUND

BagPro
Baggage flow

Terra
Ground resource allocation

NETWORK

Horizon*
Strategic network plan

Orbit*
Scheduling and fleeting

ALIGN
Resource planning

*Horizon and Orbit are BCG tools

See more at: https://airlineoperations.ai

Phaser
Phase-out and shop visit optimization

Create a combined shop visit and phase-out plan for engines, with the lowest total cost of ownership across the entire phase-out horizon

Engine selection
for phase-outs to lower lease penalties

Shop visit planning
to build for end-of-life lowering overhaul cost

Lease-in usage
to lower cost and ensure feasibility

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The phase-out challenge

In the next decade, airlines will undergo the largest fleet retirement in history, requiring a new approach to end-of-life management

Planners face a complex choice of selecting engines to phase out...

- Considering complex lease return conditions & penalties
- Capturing uncertain market conditions to sell greentime

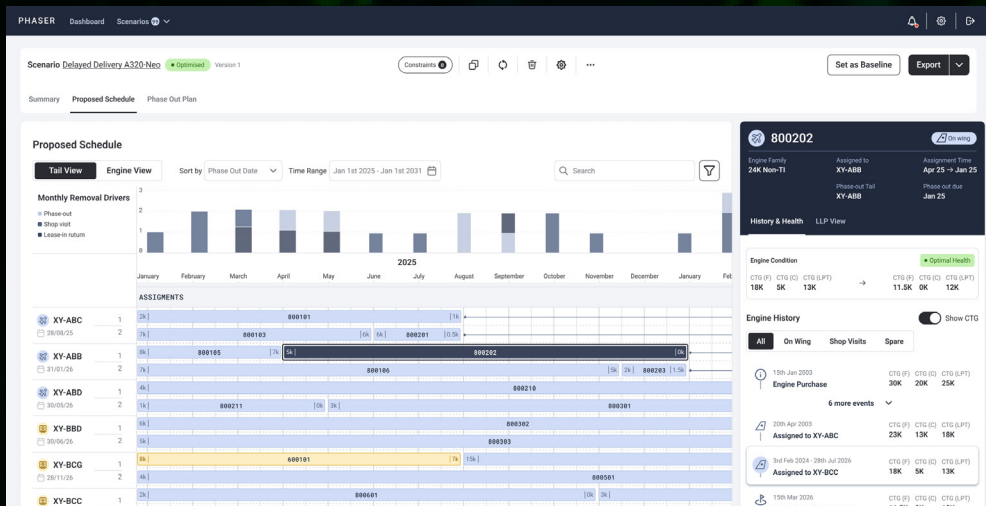**...while deciding which shop visits to perform or when to lease-in...**

- Planning shop visits and deciding on work scopes
- Leveraging short-term lease-ins to prevent maintenance

...while ensuring the plan is robust & meets operational constraints

- Adhering to all engine limits and shop capacity constraints
- Ensuring sufficient spares to cover for unplanned removals

Phaser helps airlines find the cost optimal plan and adapt quickly to a frequently changing context

Our solution enables users to make the right trade-offs and can be tailored to specific needs

01
Single source-of-truth combining data across departments

02
Automatically ingest engine data combined with easy file uploads

03
Users can frequently run a wide range of scenarios

04
Compare scenarios across KPIs and dive into planning details

05
Customizable exports to quickly share results

06
Detailed financial insights into the cost of ownership

Value potential

Total savings per engine	Shop visit and LLP costs	Lessor compensation	Market value of engines	Lease-in costs
$0.6 - $1M	30% - 40%	20% - 30%	10% - 20%	~10%

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