

Michelangelo: a tool for forecasting benefits and performance

Safety Forum in a Flight Safety Foundation conference in partnership with EUROCONTROL and ERA.

June 2022

The NATS logo is displayed in a white, italicized, sans-serif font. It is positioned in the lower right area of the slide, with a large, light blue abstract swoosh graphic behind it that curves from the top right towards the bottom left.

NATS

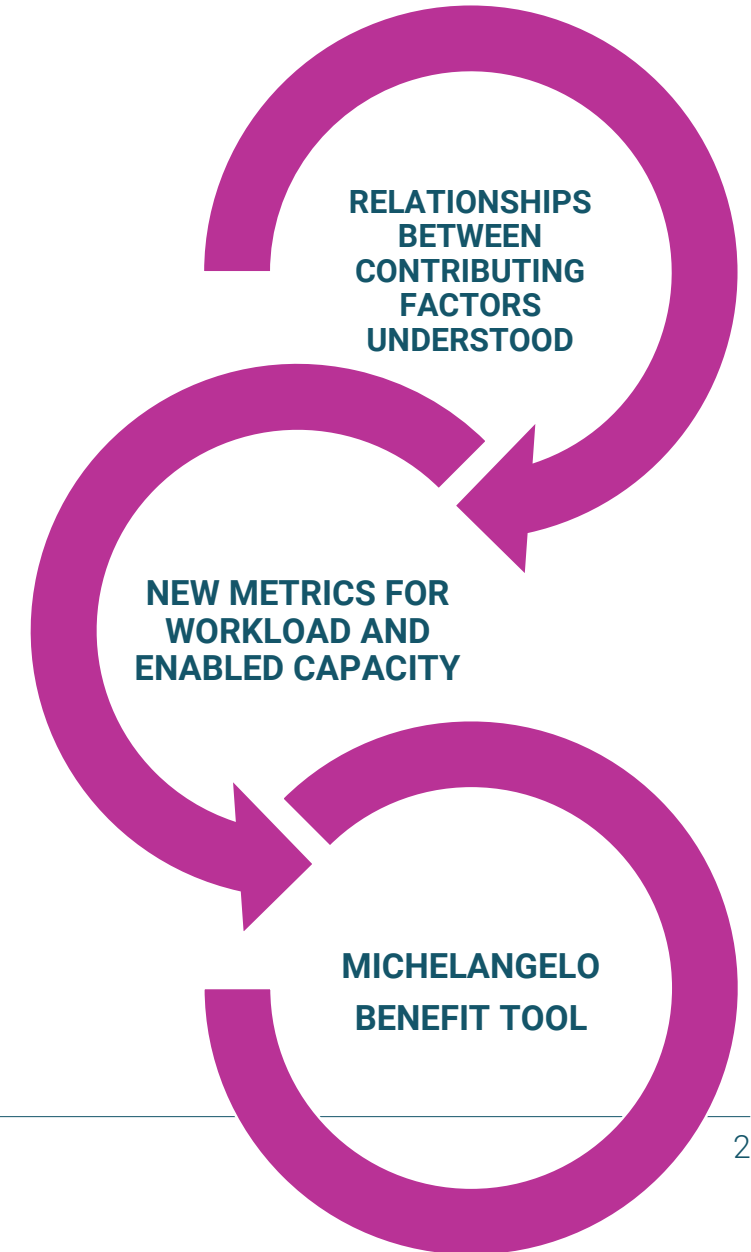
Problem

NATS conducted a review of current benefit types and measures.

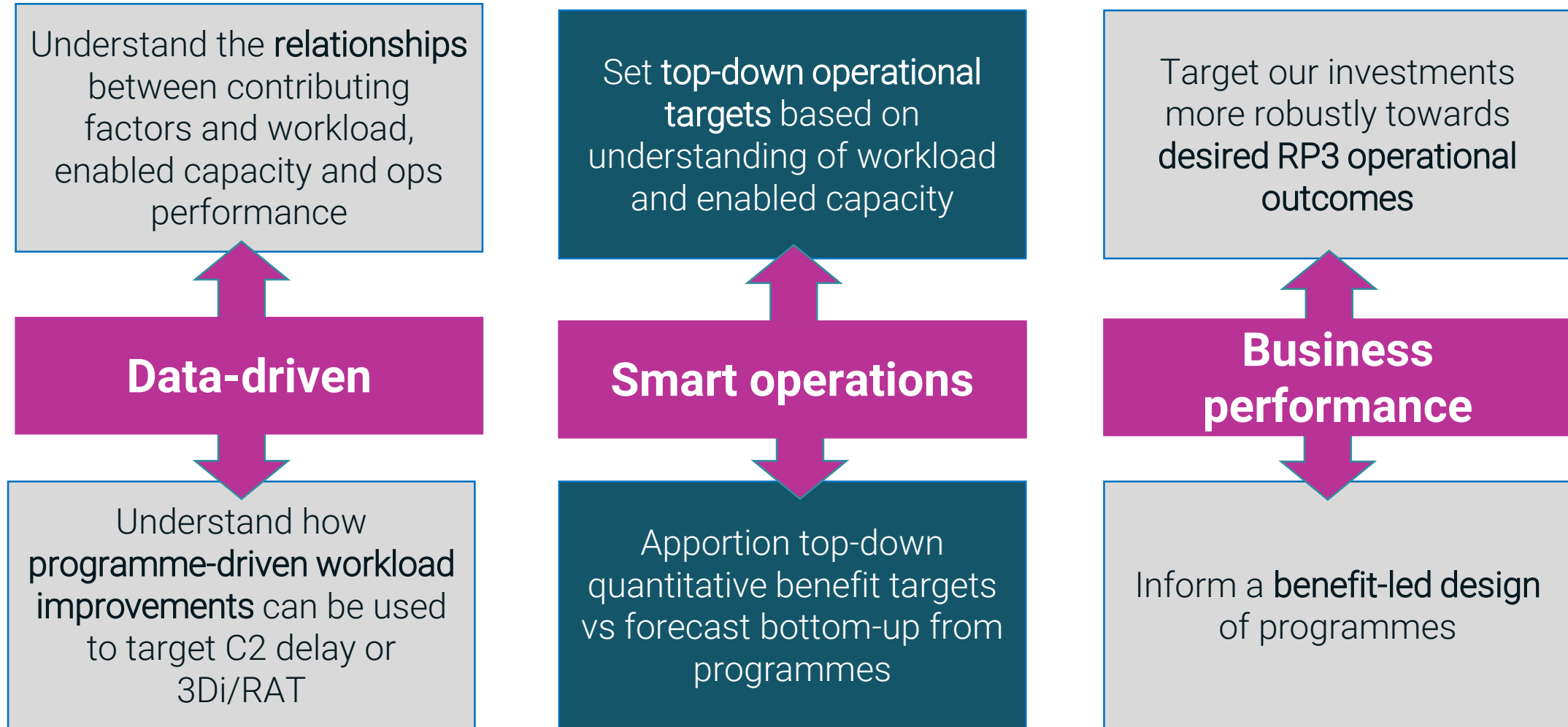
A need was identified to better understand the relationship between inputs and realised benefits/operational performance.

Analytics was tasked with developing a tool for forecasting benefits and performance.

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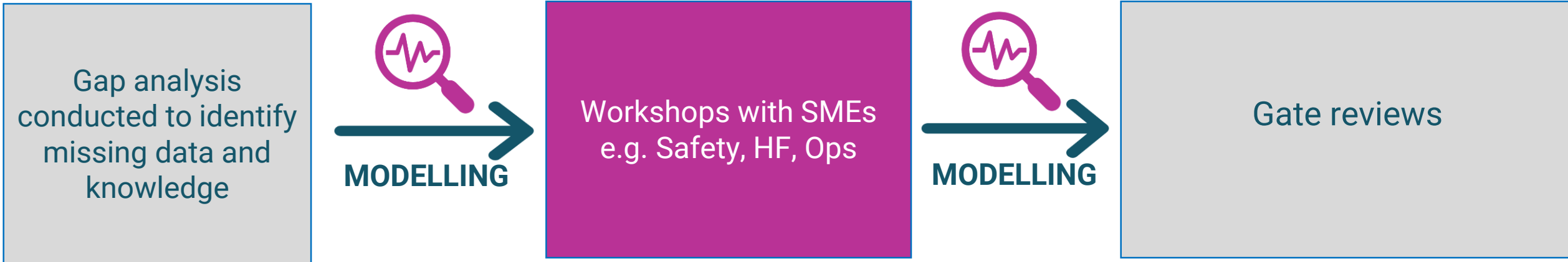
Goals





Like the Sistine Chapel,
Michelangelo creates a
big picture view

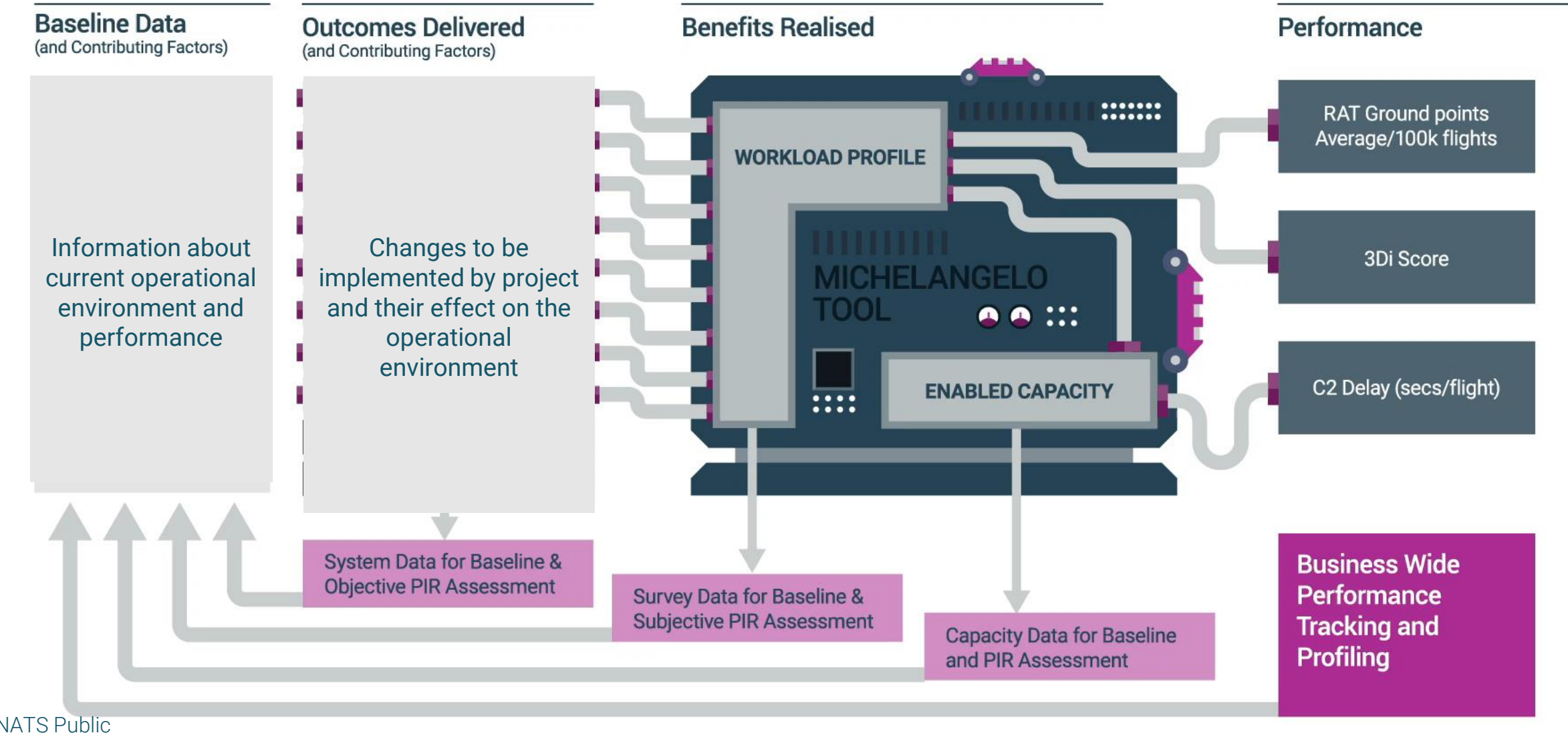
Collaborative development and outcomes



Outcomes:

- Developed new systems-based metric for workload, which predicts controller responses to the Human Performance workload/situational awareness surveys based on objective factors observed during the session worked
- Developed metric for enabled capacity based on workload and sector characteristics
- Developed predictive models for 3Di, C2 delay, and RAT points, each incorporating the workload metric

Benefits & Operational Performance



- New routes more environmentally friendly, what is the knock on affect.



- Identify hotspots for poor environmental performance and determining how to resolve including finding contributing factors.



In summary



A new way to measure benefits including sustainability via workload and enabled capacity

Enables setting top-down operational targets

Allows better investment decisions

**Data-driven,
smart
operations &
improved
business
performance**

Thank you