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Toward a Non Stabilized Approach assistant based on human expertise

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PROBLEM

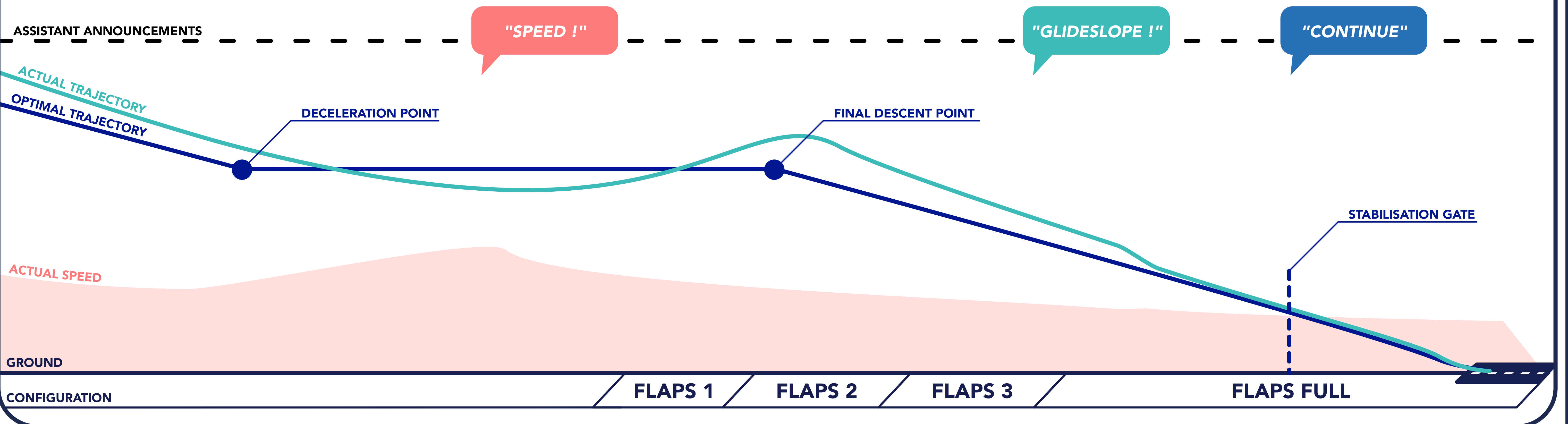
97% of Non-Stabilized Approaches are continued unto landing going against Standard Operating Procedures.

HARVIS PROJECT'S OBJECTIVES

Within the Clean Sky 2 framework, the HARVIS (Human Aircraft Roadmap for Virtual Intelligent System) project aims to identify how cognitive computing algorithms implemented in a digital assistant could support the decision making process of a single pilot in complex situations at 2035+ horizon.

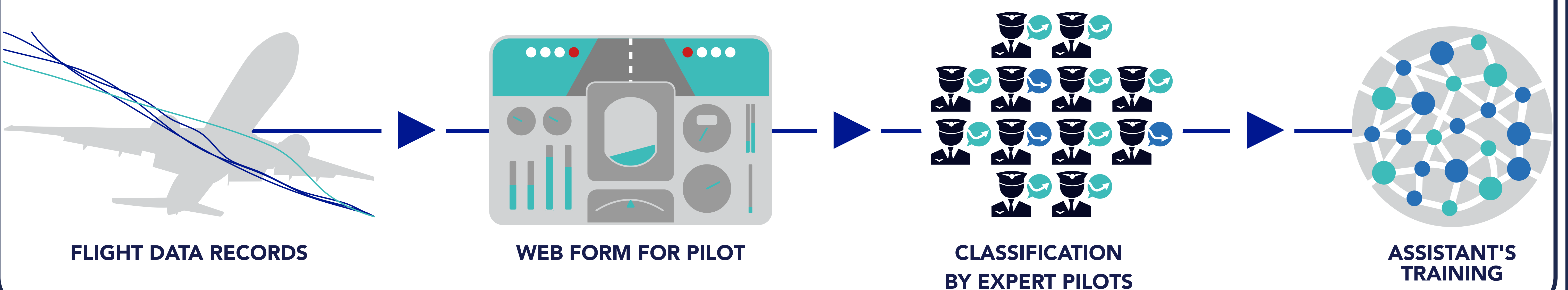
SCENARIO WITH APPROACH ASSISTANT

The digital assistant will aim to support the pilot for approach stabilisation, providing alerts in case of parameter's deviation and support for go around decision making at stabilization gate as the Pilot Monitoring does today in multicrew operations. It will be fed with aircraft parameters, pilot gaze through an eye tracking system and contextual information like meteorological conditions.



LEARN FROM EXPERTS

Our innovative approach is to use expertise from a large number of pilots on many relevant scenarios to classify human judgement on real flight trajectories instead of relying on rules like SOP. Relevant segments of NSA based on flight data recordings will be presented to pilots on a web interface displaying parts of the flight deck. Pilots will then give their go-around decision. Thanks to this labelling, an assistant will be trained to recognize these situations and will provide real time support to decision-making.



PERSPECTIVES



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