

Press Release: **ApronAI system proves its effectiveness for airports' CO2 emission reduction**

Zurich, Switzerland (July 28, 2021): Switzerland-based aviation technology company, Assaia International AG, presented findings from two deployments of the ApronAI system, one at a medium-sized European and one at a large US airport.

The system is used for turnaround control and provides a real-time overview of the current situation in the airport's operations control centre (AOC). The operators in the AOC can see, in real-time, when an aircraft parked and receive notifications if the GPU is not connected within 3 or 4 minutes after aircraft parking. This is important as it is directly linked to the amount of CO2 emitted into the atmosphere.

Real-time insight into Ground Power Unit (GPU) connections and off-block time predictions allow performing GPU connections quicker after arrival and disconnections closer to the actual off-block time (AOBT). Quicker connections and disconnections means that the aircraft's Auxiliary Power Unit (APU) can be turned off earlier and/or turned on later which leads to fuel savings. These, in turn, result in cost savings and most importantly, a substantial reduction in CO2 emissions.

Potential savings per flight in....	US Airport	EU Airport
APU run time	9 min	6 min
Kerosene	15 kg	9 kg
Co2	47 kg	30 kg
Value	\$ 11.00	\$ 6.50

Table 2: Potential savings per flight from reduction in GPU connection and disconnection times.

On a per-flight basis, these figures might not look very spectacular but if we take the average savings between the US and European airport, the annual global savings potential from better GPU operations adds up to 650 million kilograms of kerosene savings, \$500 million in fuel cost savings and a staggering 2 billion kilograms of CO2 emission reduction.

Sustainability is one of the major strategic topics for airports and airlines. Often, it is directly tied to either their license to operate and/or pre-condition for further growth. Even though the aviation industry has been hit very hard by the COVID crisis, all major aviation stakeholders have confirmed their ambitions to become carbon neutral by 2050.

These ambitions obviously demand airports and airlines to make changes to the way they run their operations. Investments in smart technologies can help to achieve different, more sustainable, operational outcomes.

Read the full case

study: <https://assaia.com/resources/sustainability-case-study-co2-emission-reduction-via-gpu-operations-improvement>