MACHINEMAX

# MachineMax and Flannery Increase Utilisation for Amery Construction

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## Summary

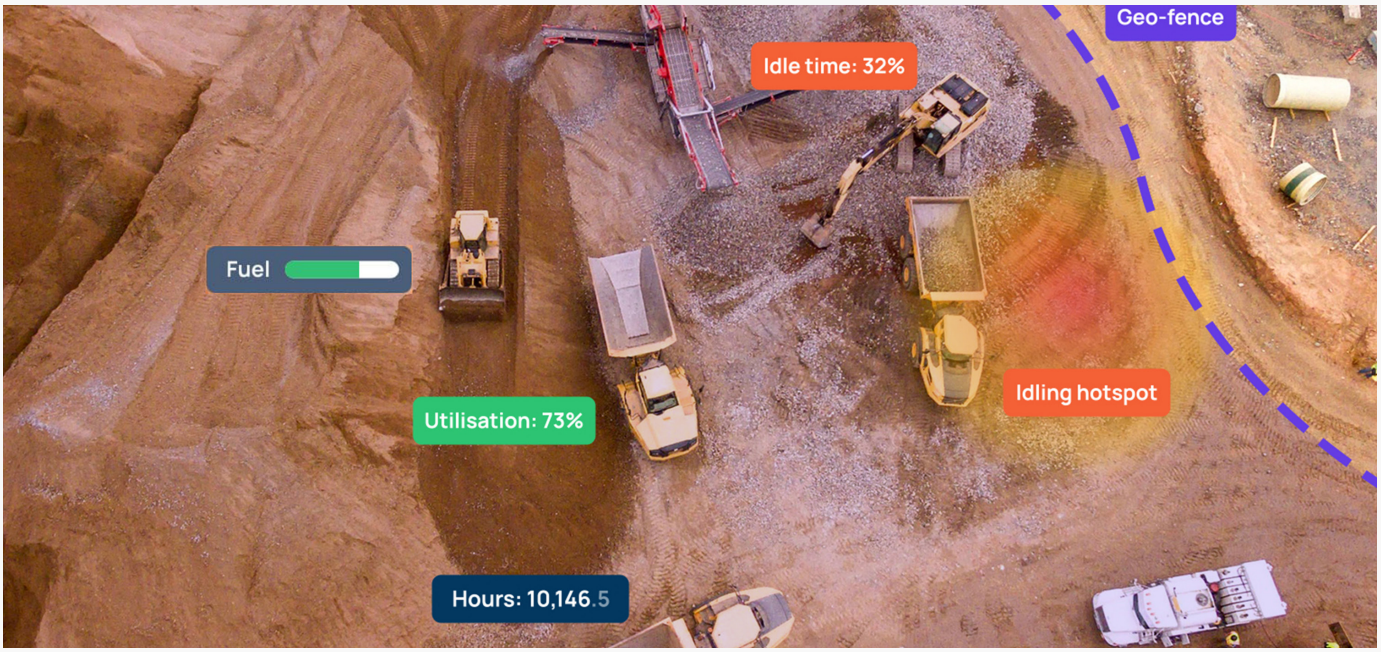
Digitalisation in construction has resulted in a myriad of data solutions/platforms, often siloed by function, OEM manufacturer or technology suppliers. MachineMax is focused on collaboration and information sharing, with an ambition to deliver data that enables its user to make decisions that improve productivity and reduced environmental impact.

An early-adopter, Flannery Plant Hire recognised that its mixed fleet of plant/equipment, posed significant limitations due to the variety of telematic software solutions available direct from OEMs. With customers increasingly looking for solutions to help reduce emissions and measure impact Flannery have been utilising the MachineMax dashboard to educate, inform and reduce idling time onsite with customer Amery Construction on a £118m highways infrastructure project in Scotland.

Industry benchmarks indicate that idling makes up around 40% of operating time, burning roughly 4-litres of fuel per hour. With no consolidated data, an accurate picture of how the Flannery fleet was being utilised was difficult. Resulting in machine usage that was suboptimal, unnecessary fuel burn and thus emissions and cost for the client.

Reducing idle time requires a holistic, data-driven approach that ensure fleet mix, site layout and working method are represented. Managing these elements, naturally leads to a reduction in idle time. Together with MachineMax, Flannery have been working to provide a unified and consolidated view of data to all Flannery customers.

Idling cannot be eliminated but it can be significantly reduced. Many MachineMax customers have managed to eliminate idling periods of more than 5 minutes often leading to a 10% decrease in idling time, all from monitoring data and streamlining operations, resulting in decreased operating costs. Therefore, taking into consideration the previous statistic, a fleet of 1000 machines could save 120,000 litres of fuel resulting in a saving of 340,000 kilograms of $CO_2$. Flannery working with Amery Construction is achieving below industry idle time on a project in Perth Scotland (tracking down to 20% in month three).



**Data from MachineMax has enabled:**

## An increase in machine utilisation

Using the heat maps and utilisation this project has increased machine utilisation (to 83% despite a 78% increase in the amount of equipment on site). Using data has ensured that the right machine is on site, at the right time and working on a suitable task. A leaner product mix onsite has wider reaching benefits; fewer on and off-hires mean reduced transport on and offsite. The inevitable reduction in the total amount of fuel required consequently means that there will be an overall reduction in the need for fuel tankers having both a positive environmental impact but also a reduction in one of the most significant PPI (People Plant Interface) risks faced on a construction site.

## The identification of opportunities for change

Combining MachineMax data with Production Management information provides an accurate 'live' view of site efficiencies, extending the view beyond operator and machine, to site layout and process management. Looking at machine movements and idling heat maps is helping to drive efficiencies in loading position and haul roads.


## Operator Training

Flannery were the first Plant Hirer to develop an ECO-Operator Training program, that encourages the better use of machines and technology, focusing on a reduction in fuel consumption and emissions. Data in the MachineMax platform is helping to identify operators who need support or additional training. It has also been used to share best practise and reward green behaviour. Previously, the operator would have had to manually record this information (as accurately as possible) and somehow enter it into a centralised database. Using MachineMax technology, all data can be recorded and reported immediately with a record that holds the company accountable for their carbon emissions. This has allows users to identify patterns in operational inefficiencies that result in under-utilisation, incorrect equipment being used for the job that results in lower productivity, ineffective site layout resulting in idling and excessive travelling, suboptimal operator behaviour resulting in dangerous and inefficient utilisation and take action to deliver positive impact.

# About MachineMax

MachineMax is an award winning equipment management platform and universal telematics sensors for off-highway fleet, that work with customers to measure key metrics. The metrics providing the biggest initial impact include: utilisation, idling time, fuel consumption, emissions, location, and operating hours. This ensures that sites maximize their productivity, efficiency and profitability.

Our customers, across all industries, have used these metrics to identify patterns in operational inefficiencies including: too many equipment onsite resulting in under-utilisation, incorrect equipment used for the job resulting in lower productivity, ineffective site layout resulting in idling and excessive travelling, suboptimal operator behaviour resulting in dangerous, and inefficient utilisation.

The MachineMax approach ensures data collected by heavy equipment can be communicated in real-time to technical teams and management. Focused on learning-based outcomes; we specialise in building secure and cutting-edge products that solve daily challenges and improve industry practice.

Find out how MachineMax can help you at **MachineMax.com**

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