

An aerial photograph of a large yellow and black mining machine, possibly a bulldozer or grader, operating in a vast, arid, reddish-brown desert landscape. The machine is positioned in the lower right quadrant of the frame, leaving deep tracks in the sand. The background shows the undulating dunes of the desert under a clear sky.

BHP


WOOLPERT

Enabling efficiencies in the global resources sector through effective geospatial data governance

Glenn Morrison

Matt Pomery

*Presented at the FIG Working Week 2025,
6-10 April 2025 in Brisbane, Australia*



Agenda

Governance

Data collection

Data processing

Data reporting

Data storage

Methodology that sets us up for AI

Governance

Establish clear policies and procedures for data management.

Define roles and responsibilities for data stewardship.

Implement data quality standards and regular audits.





Data collection

Ensure data is collected from reliable sources.

Use standardised formats and protocols for data collection.

Validate and clean data to maintain accuracy.

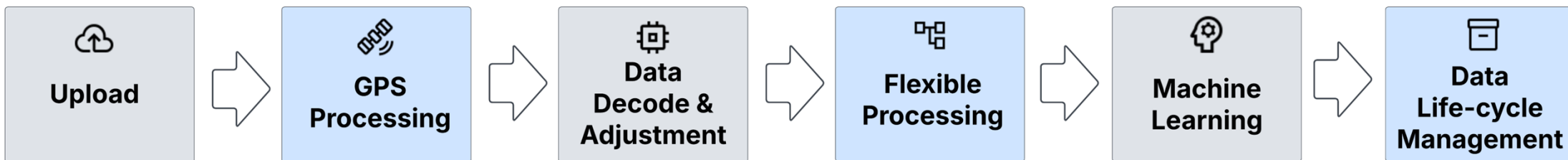
Data processing

Automate workflows where possible.

Ensure methods comply with regulatory requirements.

Maintain detailed logs and documentation of activities.





Highly Scalable



Cost Reduction



Time Reduction



Standardisation

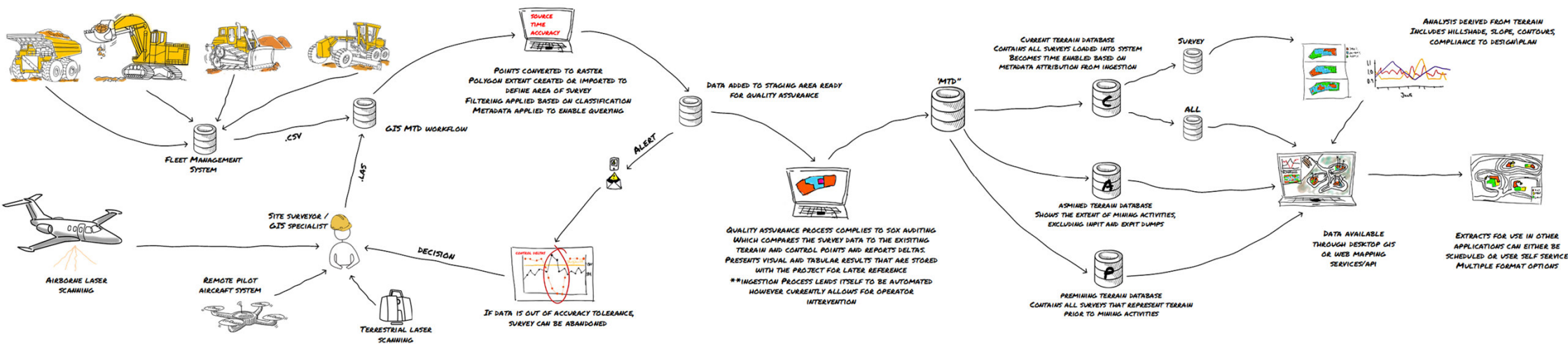


Client Satisfaction

Sensor ID	Flight ID	Project ID	Aircraft	Sensor	Survey Date (UTC)	Wheels Up Wheels Down (UTC)	Project Manager	Calib. Params.	Processing Template	Pipeline Status							
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
SL020702	FL018315	PRJ42549	VH-LAV	Optech Galaxy Prime - 424	2022-10-26	00:03:00 03:54:00	Andrew Port			GPS ¹	LMS		Strip Align	SL QA Status	IC-P Status	IC-C	PI Status

Automation of terrain information

Enabled through a standardised data management lifecycle





Data reporting

Use standardised reporting formats and templates.

Implement automated tools to streamline the process.

Ensure reports are reviewed and validated before submission.

Data storage

Use secure and compliant storage solutions.

Implement data encryption and access controls.

Regularly back up data to prevent loss.



Methodology that sets us up for AI

Framework development

Develop then maintain a comprehensive framework that outlines the entire data lifecycle

Include guidelines for each stage of data management



Automation

Implement tools to reduce manual effort and minimise errors

Use workflow management systems to track and manage data processes.



Regular updates

Regularly review and update policies and procedures to reflect changes in regulations and business requirements.

Keep software and tools up-to-date to ensure compatibility and security.



Methodology that sets us up for AI

Training & awareness

Provide ongoing training for staff involved in data management.

Raise awareness about the importance of data compliance and best practices.



Monitoring & auditing

Continuously monitor data management processes for compliance

Conduct regular audits to identify and address any issues



Seek feedback

Establish a feedback loop to gather insights from stakeholders.

Use this to improve and refine data management practices.



Thank You

