GREEN DAM PRACTICES & SUSTAINABILITY

GREEN DAM: HOW SUSTAINABLE DIGITAL ASSET MANAGEMENT REDUCES ENVIRONMENTAL IMPACT

WHY IT MATTERS:

DIGITAL STORAGE USES REAL ENERGY:

Data centres and networks account for 1% of global energy-related greenhouse gas emissions (IEA, 2023)

AS DAM LIBRARIES GROW, SO DOES THEIR CARBON FOOTPRINT:

More assets mean more storage, which means more electricity and emissions

DEDUPLICATION AND ASSET HYGIENE

Clearing duplicate or outdated files helps reduce storage and energy consumption. By removing unnecessary files, deduplication can cut stored data volumes by as much as 95%, drastically lowering the cost to operate and maintain DAM systems

Deduplication can reduce stored data by as much as

95%

(Energy Star, n.d.)

COMPRESSION AND EFFICIENT FILE FORMATS

Converting images from JPEG to WebP typically reduces file size by

30%

(Google Developers, n.d.)

Using enhanced formats like WebP or AVIF helps keep file sizes small without compromising quality. Storing one high-res master and generating smaller versions only when needed reduces bandwidth, storage use, and overall energy consumption.

SUSTAINABLE HOSTING

Hosting your DAM on cloud providers using renewable energy cuts its carbon footprint. running heavy tasks especailly when the grid is cleaner allows for efficiency and smooth production.

Globally, data centres account for

1.5%

of global electrcity consumption. (IEA, 2024).

RETENTION POLICIES AND LIFECYCLE AUTOMATION

Adding expiration dates and automated archives prevents outdated or unused assets from adding up. This reduces long-term storage demands, saves energy, and keeps your DAM organized and efficient, eliminating the need for constant manual cleanup.

60%

of stored data in organizations goes unused. (IEA, 2023)

HOW TO MEASURE YOUR DAM'S ENVIRONMENTAL IMPACT

Tracking a few simple metrics helps you understand how your DAM contributes to energy use and emissions. Start by monitoring the total storage (in GB or TB), the percentage of duplicates you remove, and the proportion of your data that is stored in hot vs. cold storage. From there, estimate your energy use (kWh) based on your data centre's efficiency, and convert that into carbon emissions using your region's grid-intensity factor.

SIMPLE METHOD

Total GB stored > multiply by kWh per GB > convert kWh to CO_2e using local grid data

MAKE YOUR DAM MORE SUSTAINABLE IN 90 DAYS

30 DAYS

✓ **Run a full deduplication scan:**
Identify and remove duplicate or outdated assets to immediately reduce storage use and energy consumption.

✓ **Add retention metadata to key assets:**
Tag files with expiration dates or timelines to automate DAM cleanup

✓ **Convert assets to efficient formats**
Start migrating high-impact assets, such as images, to formats like WebP or AVIF to lower file sizes and storage use.

60 DAYS

✓ **Automate derivative generation**
Stop storing multiple size versions manually and let the DAM generate the right-sized products only when needed, reducing bulk storage.

✓ **Convert assets to efficient formats**
Archive old or rarely used files into low-power or long-term storage tiers to cut energy usage.

90 DAYS

✓ **Evaluate your cloud region's carbon intensity**
Shift your DAM hosting to regions powered by cleaner energy grids or providers with renewable-energy commitments.

✓ **Build a simple sustainability dashboard**
Track metrics like total storage, duplicate reduction, hot vs. cold storage ratio, and estimated CO_2e to measure long-term impact.