

# Think with Google

## Quick guide to faster websites Optimise images by following **these four steps**:

An increase in page speed leads directly to an [increase in revenue](#). To increase page speed you should reduce the page size - the most impactful way is to begin with the **optimisation of images**.

If you want to dive deeper into automated image optimisation, check out [images.guide](#)

### 1 Prioritise critical images

***“The most optimised image is the non-existing image”***

Removing images reduces page weight and maintenance.

You should consider:

- Removing unused and unnecessary images
- Prioritising loading hero images first
- Using CSS effects and animations where possible
- Using web fonts instead of encoding text in images

[Start working with image prioritisation](#)

### 2 Choose the right format

Next, ensure that your images are formatted correctly. Aim to start with WebP for optimal quality. Then, fallback to:

- JPEG for photos
- PNG for transparencies
- SVGs for icons and shapes



Use progressive JPEG for images over 10k bytes to make larger images appear to load fast.

[Learn more about selecting the right image format](#)

### 3 Compress and resize

Optimising images can help you achieve the largest byte savings and performance improvements for your website.

- Compress images and remove metadata
- Experiment with quality settings for your formats
- Resize images on the server side
- Enable GZIP compression for files
- Use automated tools for image optimisation
- Use responsive images to adjust to screen sizes

[Dive deeper into our optimisation checklist](#)

### 4 Use loading techniques

Once everything else is in place, you need to make sure that your images are delivered as quickly as possible.

- Lazy loading: Load images only when needed
- Conditional serving: Serve different image versions to optimise for device, browser, and network quality
- Placeholders: Occupy space while loading
- Caching: Speed up for returning visitors

[Learn more about advanced loading techniques](#)

## Make speed a KPI

[In our research](#), we found that the number of images on a page was the second greatest predictor of conversions. Optimising images is a fast and cost-effective way to experience results, but in order to make speed optimisation sustainable in the long term, site speed should be added as a KPI across your organisation.

[Learn more about KPI setting and performance budgets](#)

## Optimise your images today

One reason: **there's no downside**. Your site speed improves, which impacts both your search engine ranking and your conversions on the site.

Run a [Lighthouse Audit](#) to identify your opportunities

## Every byte counts!

Etsy discovered that 160KB of additional images caused their bounce rate to **increase 12% on mobile devices**.

Source: Lara Hogan, "Designing for Performance", 2014.