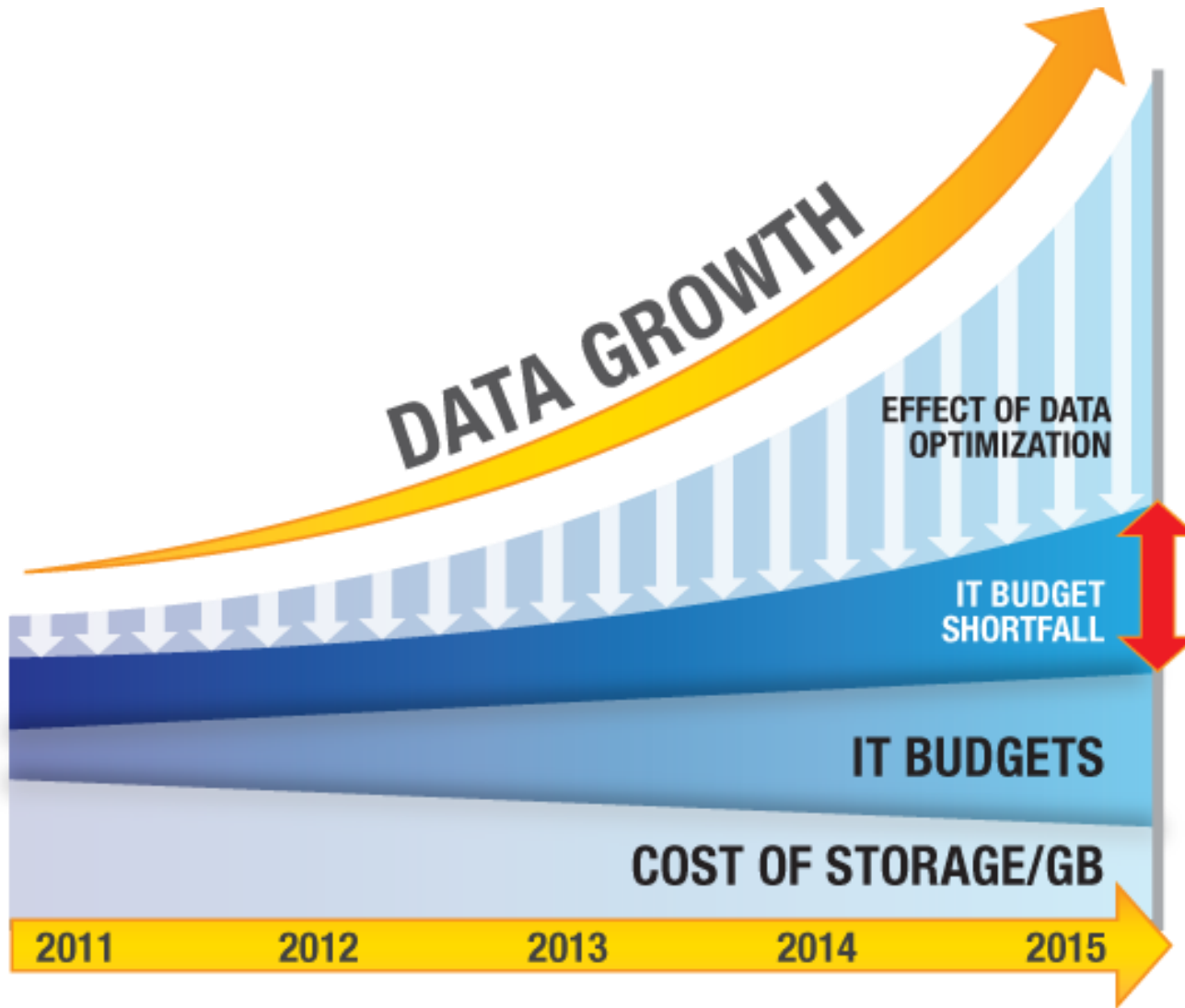


# Highspeed-Raster compression without loss

Luzius Ammann, Intergraph (Schweiz) AG



*Diagram courtesy: Permabit Blog, 2011*

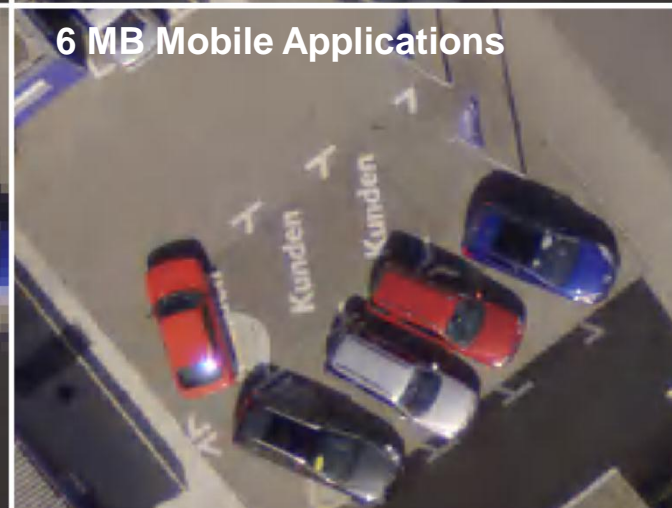
TIFF bzw. JPG2000 lossless



JPG2000 - komprimiert um Faktor 40



TIFF - Pixelgröße um Faktor 5 vergrößert



JPG2000 - Kompressionsfaktor 100

- Leading technology
  - Lossless or lossy compression
  - Highest compression with good quality
  - No additional pyramids needed
  - Enables data-streaming
- 
- Base for Enhanced Compressed Wavelet (ECW) and JPEG2000

## ECW



Raw Imagery



+1 ECW mosaic file

## Conventional Approach



Raw Imagery



+Image Tiles



+Tile Pyramids



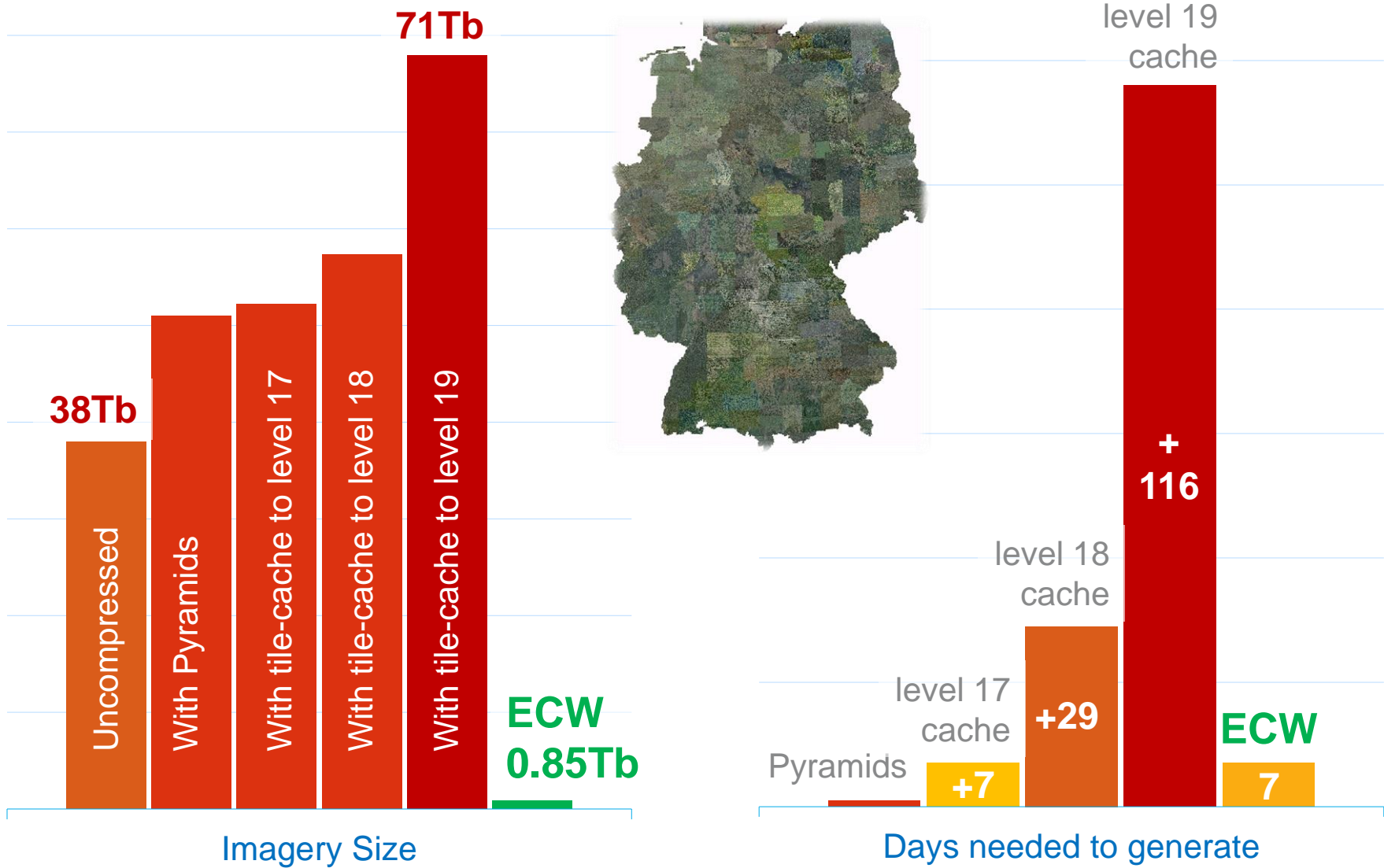
+Mosaic Overviews



+Tile Cache

Efficient processing and simple data structure:

- Easier to manage
- Time effective
- Provides a single source of truth
- One format to serve all software clients.



- Free desktop read-only licences
- No royalties

PLATFORM		Read-only	Read-Write
SERVER		<p>→ <u>End-user</u></p> <p>↘ <u>Redistributable</u></p>	<p>↘ <u>Redistributable</u></p> <p>↓</p> <p>1 gigapixel 10 gigapixels 100 gigapixels 1000 gigapixels</p>
DESKTOP		<p>↘ <u>Redistributable</u></p>	<p>↘ <u>Redistributable</u></p> <p>↓</p> <p>1 gigapixel 10 gigapixels 100 gigapixels 1000 gigapixels</p>
MOBILE		<p>↘ <u>Redistributable</u></p>	







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