LiFi-

A DISRUPTIVE TECHNOLOGY TO CHANGE THE COMMUNICATIONS AND LIGHTING INDUSTRY!

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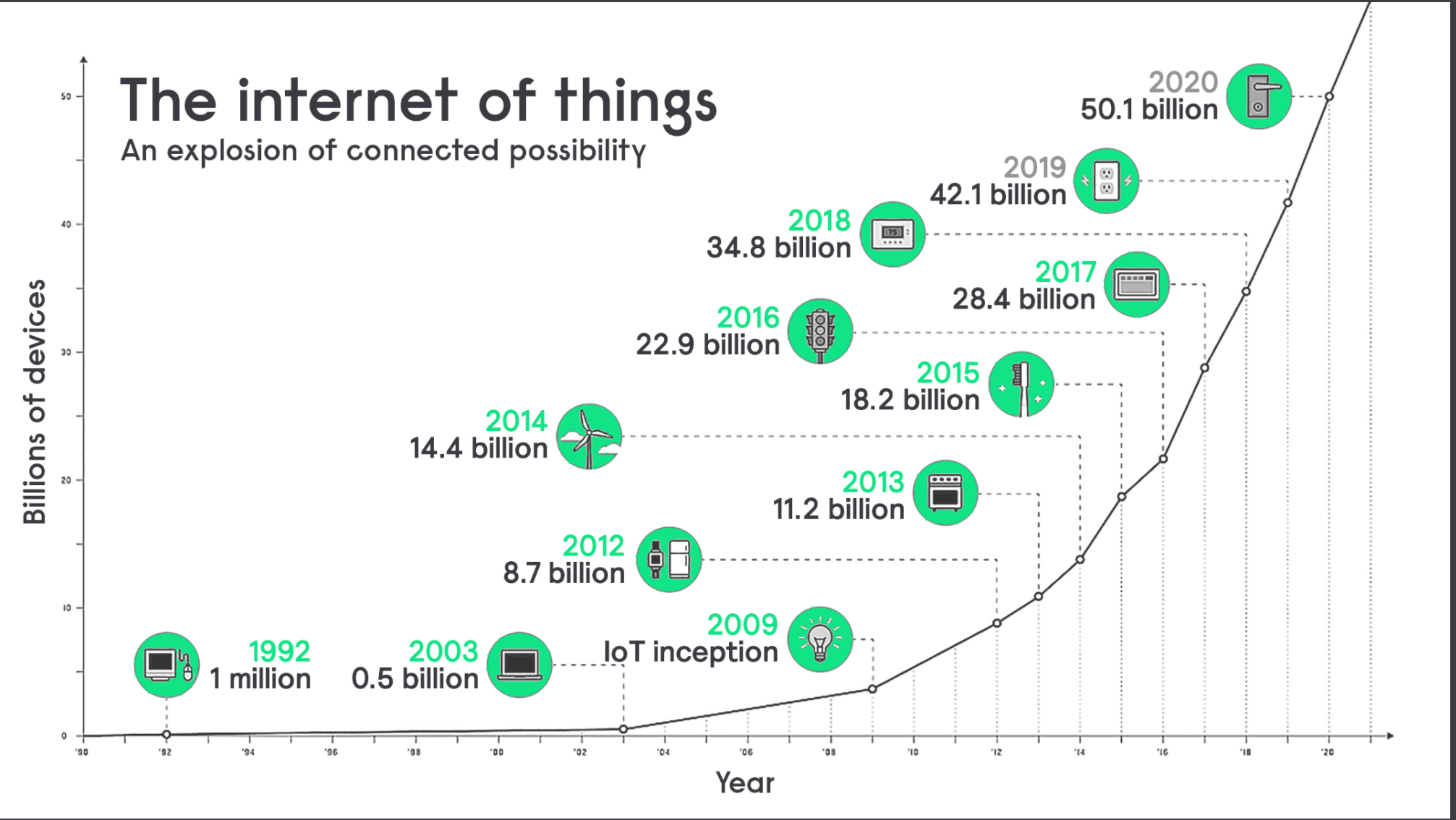
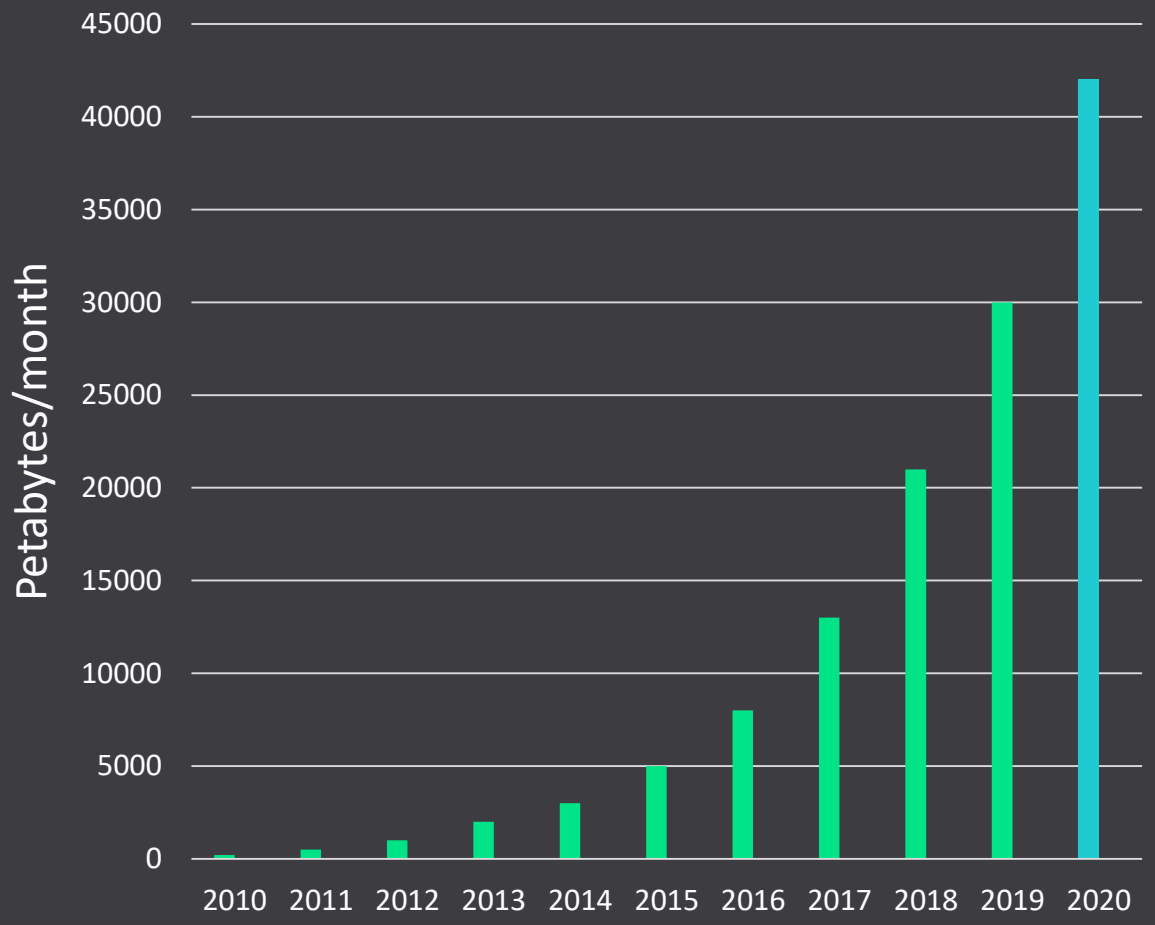
Signify, Chief Evangelist LiFi Systems

Why Lifi?

Life in a connected world…

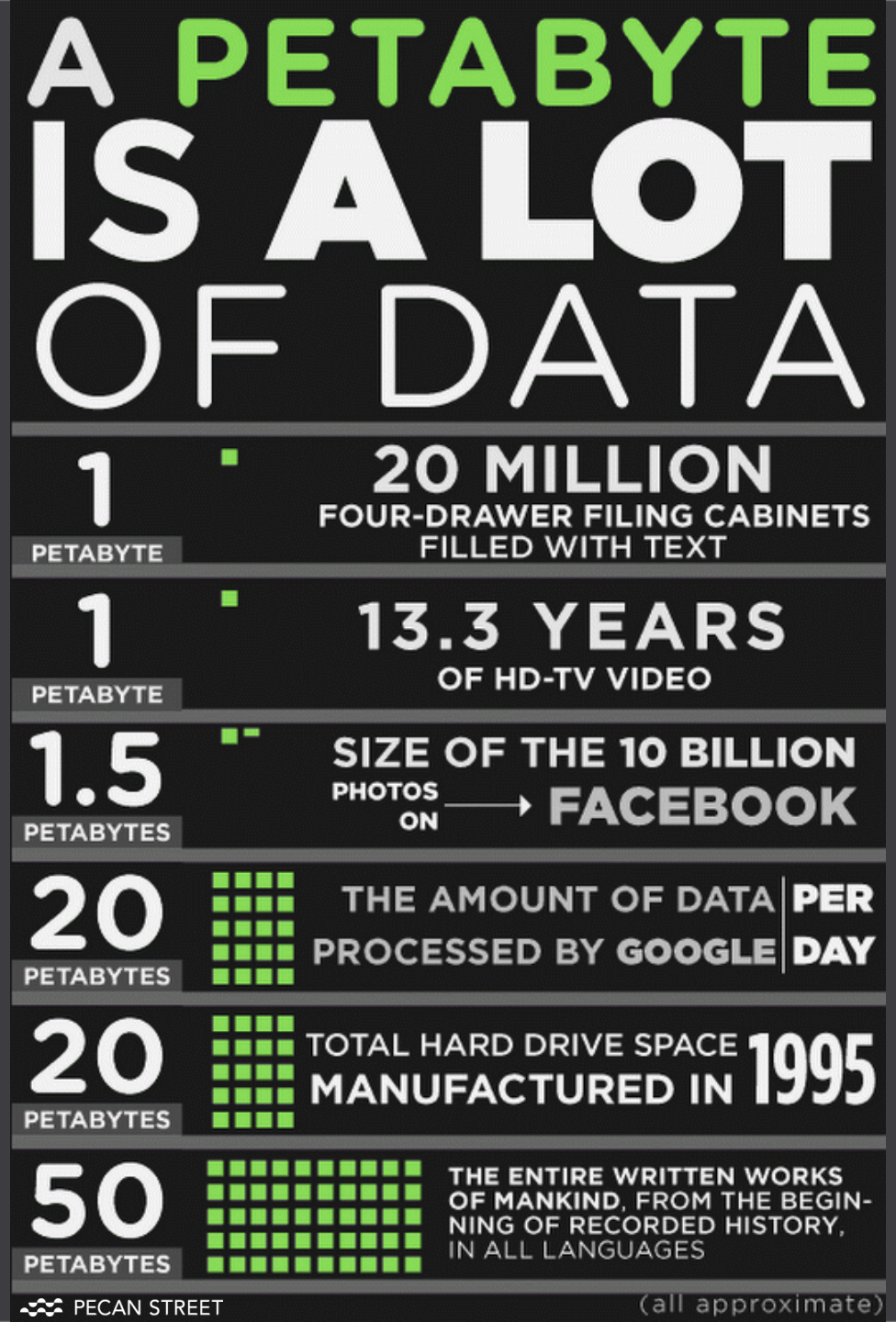
How do we connect in the future?





The worldwide data communication traffic is rapidly increasing

1 Petabyte = 1000 Terabyte = 1,000,000,000,000,000 Bytes



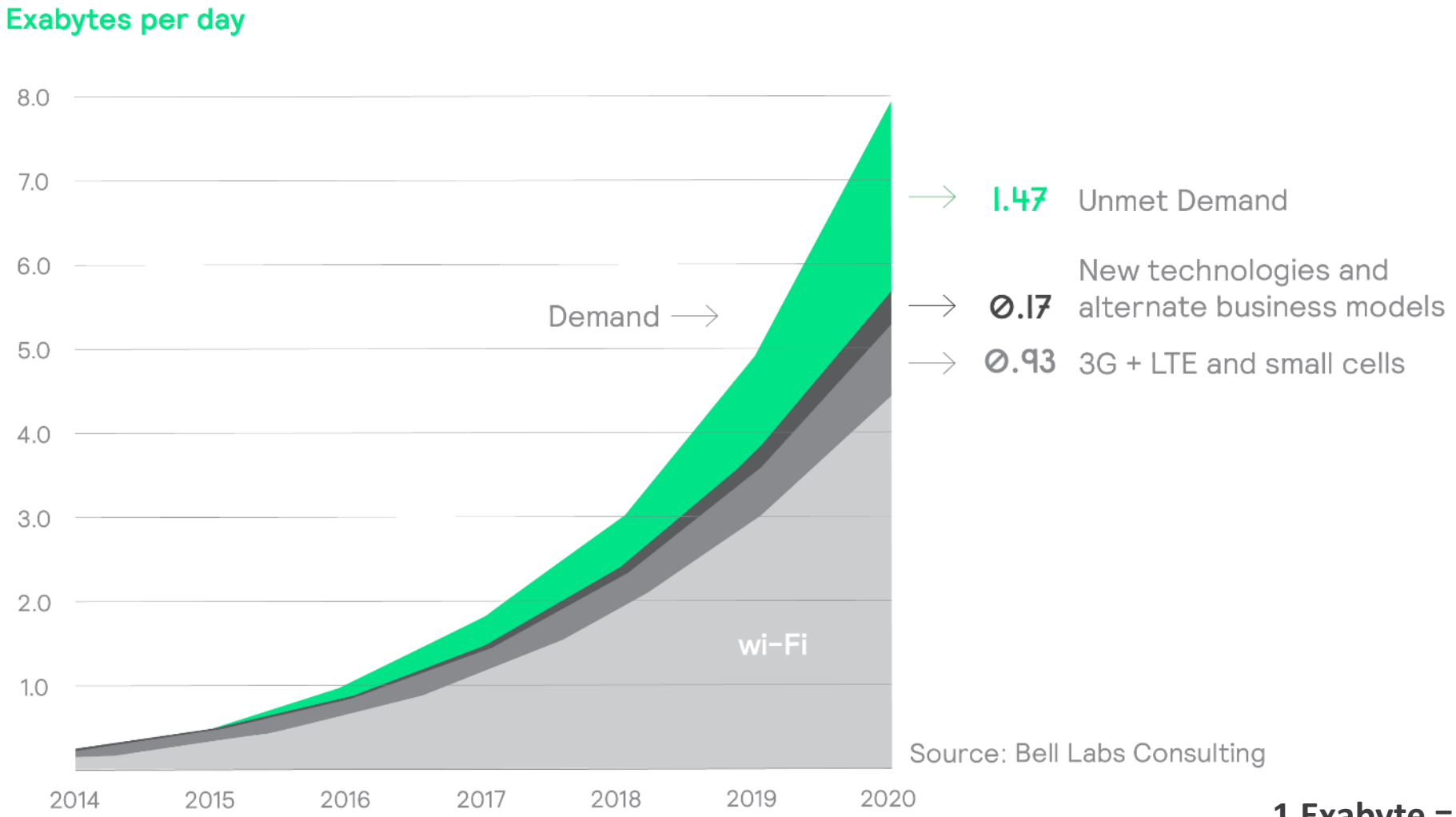
To put things into perspective…

What do these big numbers mean in terms of content?

Unit	Value	Example
Kilobytes (KB)	1,000 bytes	a paragraph of a text document
Megabytes (MB)	1,000 Kilobytes	a small novel
Gigabytes (GB)	1,000 Megabytes	Beethoven's 5th Symphony
Terabytes (TB)	1,000 Gigabytes	all the X-rays in a large hospital
Petabytes (PB)	1,000 Terabytes	half the contents of all US academic research libraries
Exabytes (EB)	1,000 Petabytes	about one fifth of the words people have ever spoken
Zettabytes (ZB)	1,000 Exabytes	as much information as there are grains of sand on all the world's beaches
Yottabytes (YB)	1,000 Zettabytes	as much information as there are atoms in 7,000 human bodies

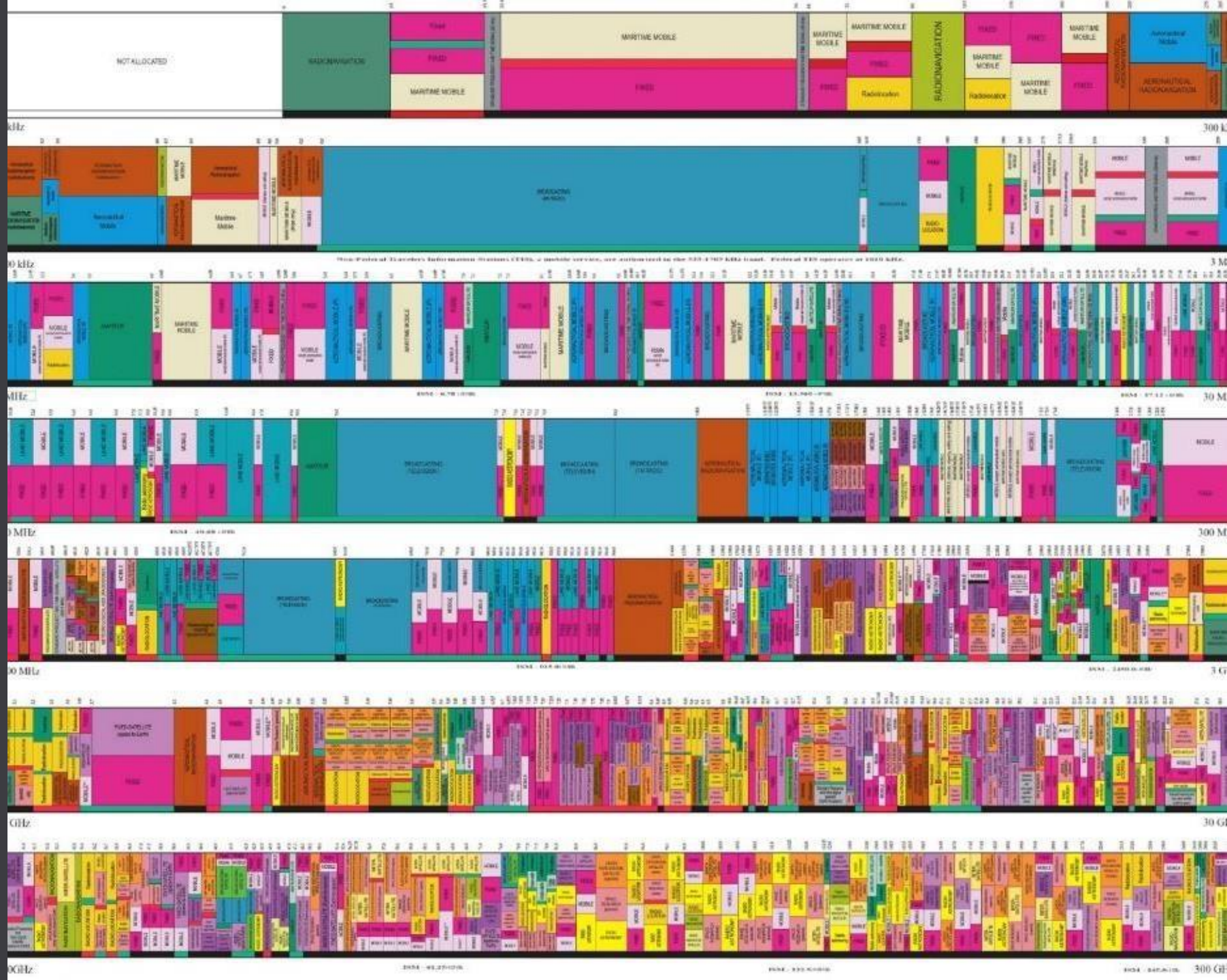
By NASA

This leads to a gap between supply and demand

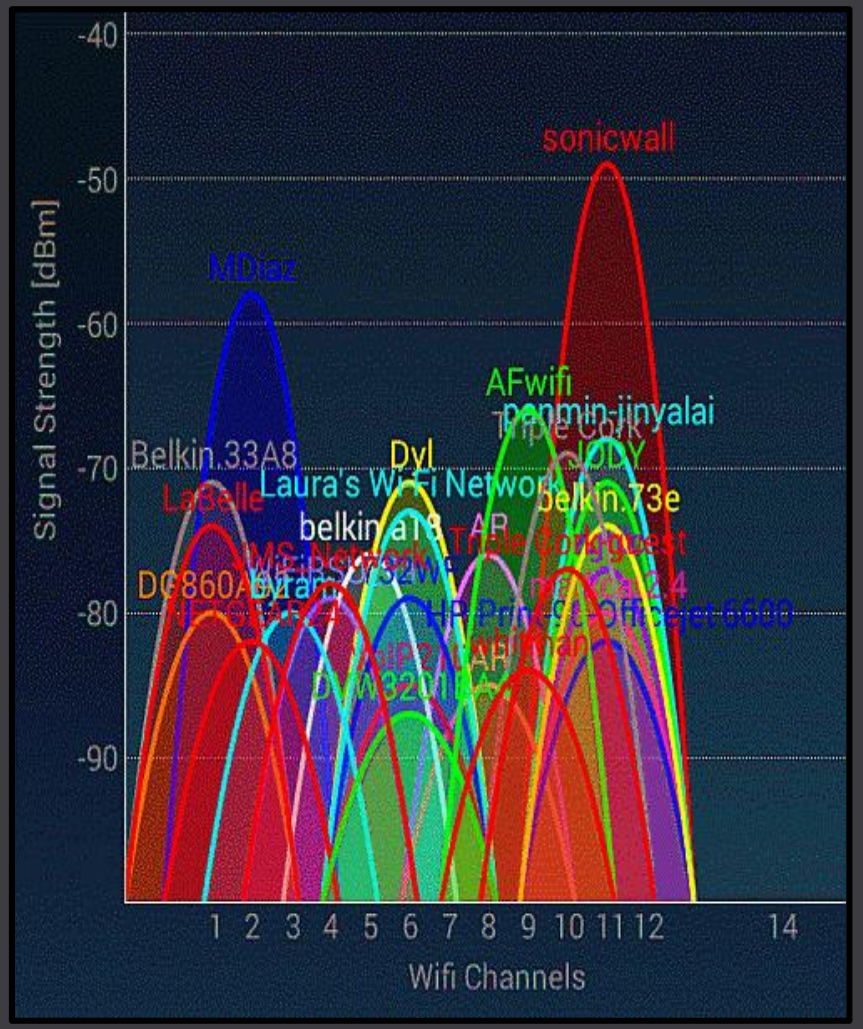


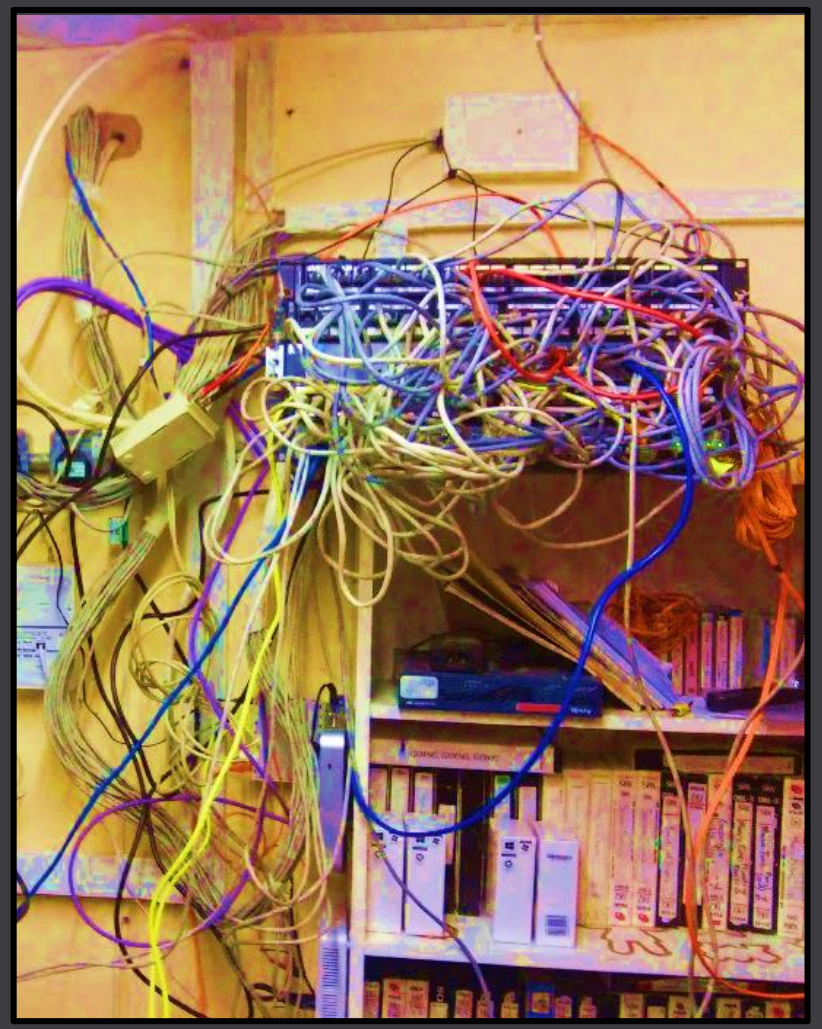
1 Exabyte = 1000 Petabyte

The radio spectrum does not provide enough room to grow.

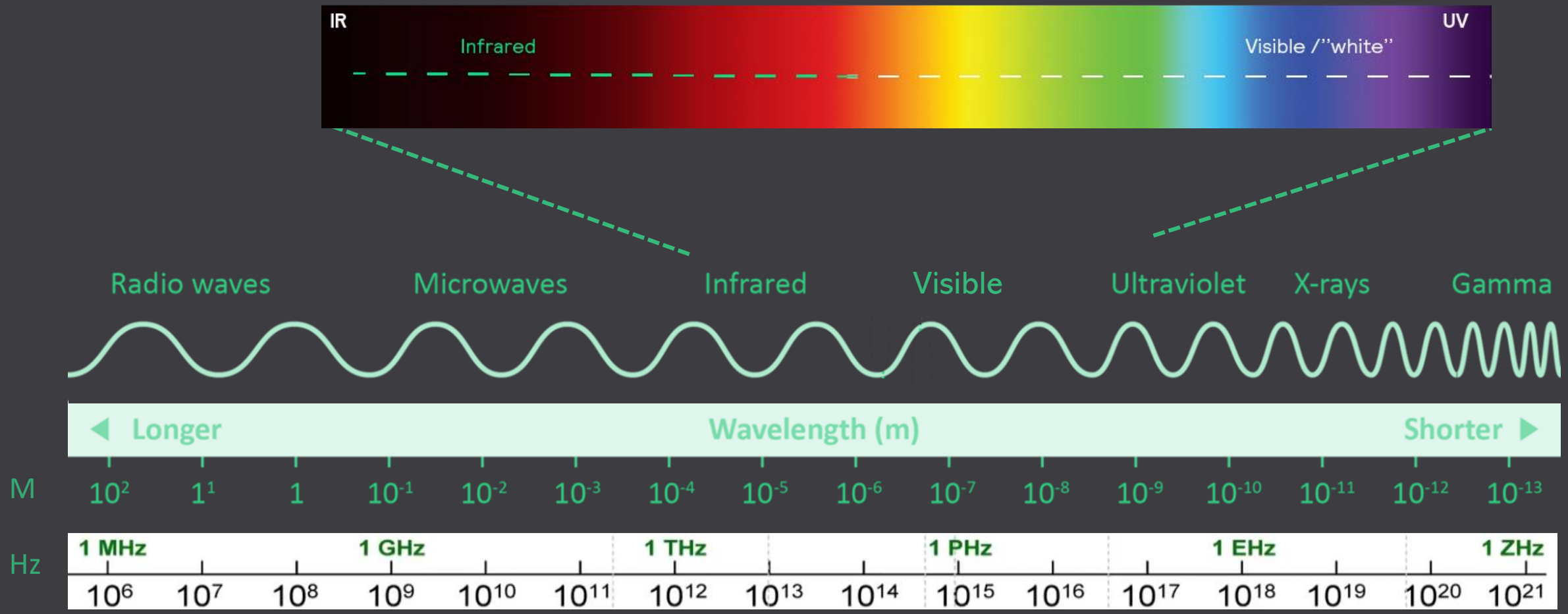


What is blocking this need?





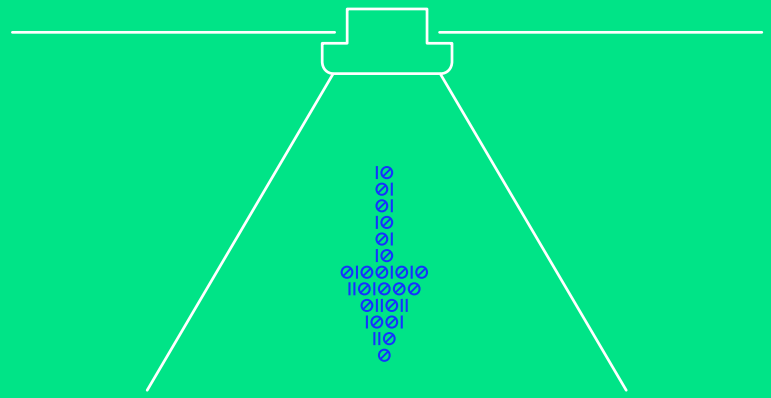
Lighting can provide additional spectrum to communicate



There are two variants for Optical Wireless Communications (OWC)

Visible Light Communications (VLC)

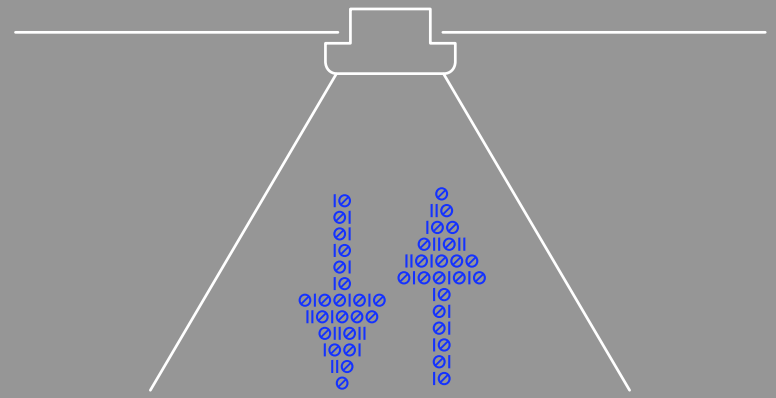
Coded light



One-way communication
Transmits identifier/code - low data rate
Data reception via smartphone camera
Designed to provide indoor localization

Infrared (IR)

LiFi



Two-way communication
Broadband - high data rate
Data reception via USB access key /dongle
Designed to provide broadband wireless internet

Advantages of Li-Fi

Secure

We want to work wirelessly but safety is crucial for our business line.

Li-Fi offers a strict definition of your communication area.


Corporate


Banking & government


Military

Reliable/Fast

We want a stable data rate per user despite the number of users.

Li-Fi 'offloads' Wi-Fi in high traffic areas.


Corporate


Hospitality areas


Industry

No Radio Waves

We want a stable connection despite several RF sensitive areas with poor or no Wi-Fi.

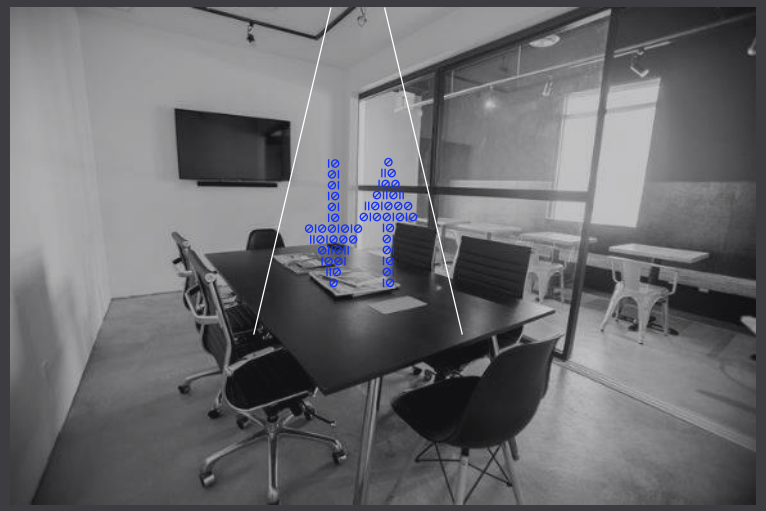
Li-Fi offers a high quality (non-interfering) connection


Industry

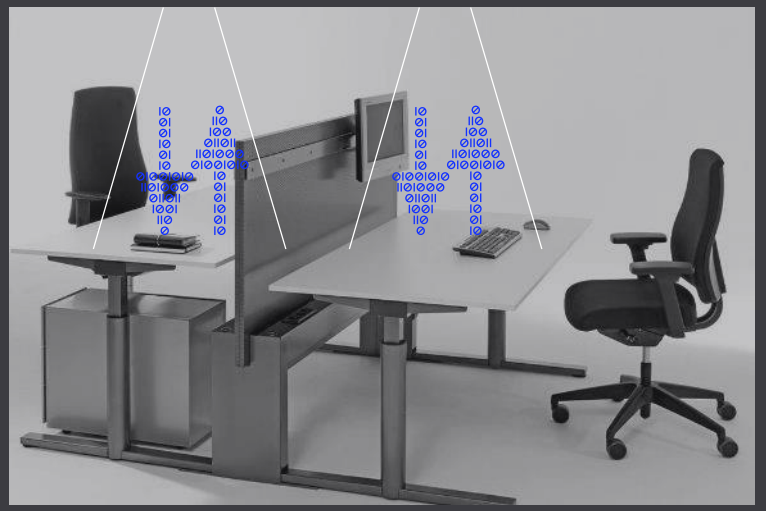

Schools

Government/Military

Use cases offices



Meeting room



Workplace

Guest waiting area

Example:
Office Lifi Installation

LiFi is not replacing traditional radio communication, but completes the offering

LiFi