

DVN Workshop From Signaling to Messaging

Joachim Reill | 16th of January 2019 | Rochester, MI
Light is OSRAM

OSRAM
Opto Semiconductors

Some Statistics

You have the choice from ~ 2,5 million apps in Google Play Store
and ~ 2 million apps in Apple for iOS

1. For how many of those Apps did you pay on your smart phone ?

2. Why didn't you pay for most of those apps ?

Digital Advertisement

Digital Advertisement

Worldwide market of advertisement: > \$600 billion

Digital Advertisement > 50% share increasing

Facebook: 2017 ~ \$ 40“ Revenue
~ \$ 20“ EBIT

Alphabet: 2017 ~ \$ 110“ Revenue
~ \$ 26“ EBIT

Traditional vs. Digital Business

Traditional Business

Digital Business

Process centric



Customer centric

High latency



Low latency to real time

Cost focused



Outcome focused

Company controlled



Customer controlled

Multichannel



Omnichannel

Hard and slow to scale



Easy and quick to scale

Rigid policies based on distrust



Open, transparent and collaborative

Single function with siloed metrics



Integrated functions

Ten Ways Your Smartphone Knows Where You Are

1. GPS
2. Assisted GPS
3. Synthetic GPS
4. Cell ID
5. Wi-Fi
6. Inertial Sensors
7. Barometer
8. Ultrasonic
9. Bluetooth Beacons
10. Terrestrial Transmitters

→ There is no way to escape
digital advertisement

From Signaling to Messaging

RCL
Standards signaling



“Digital display door”



Display setup

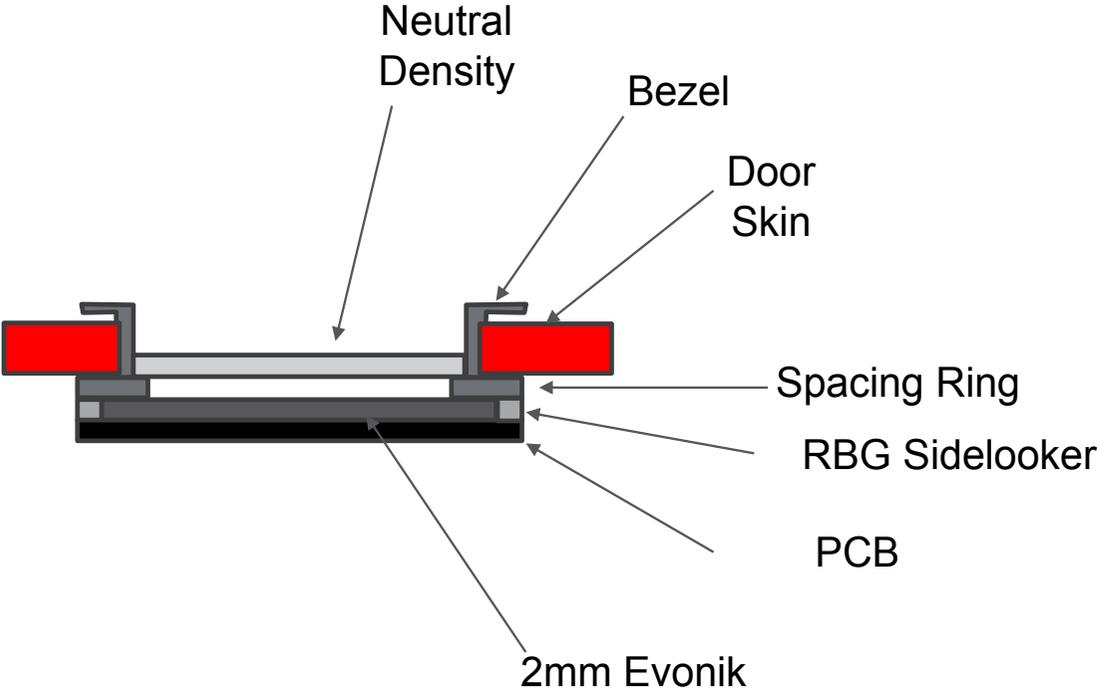
RCL

- 1 x 2 aspect ratio
- < 1mm pixel pitch
- RGB pixels
- > 28k pixel (RGB)
- Up to 6000nits for white

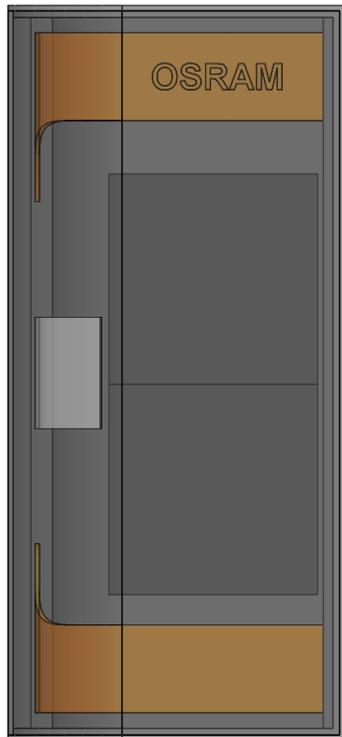
“Digital display door”

- 1 x 8 aspect ratio
- < 1mm pixel pitch
- RGB pixels
- > 115k pixel (RGB)
- Wide color gamut >90% sRGB
- Up to 6000nits for white

RGB Lit Element Construction



RCL



Features

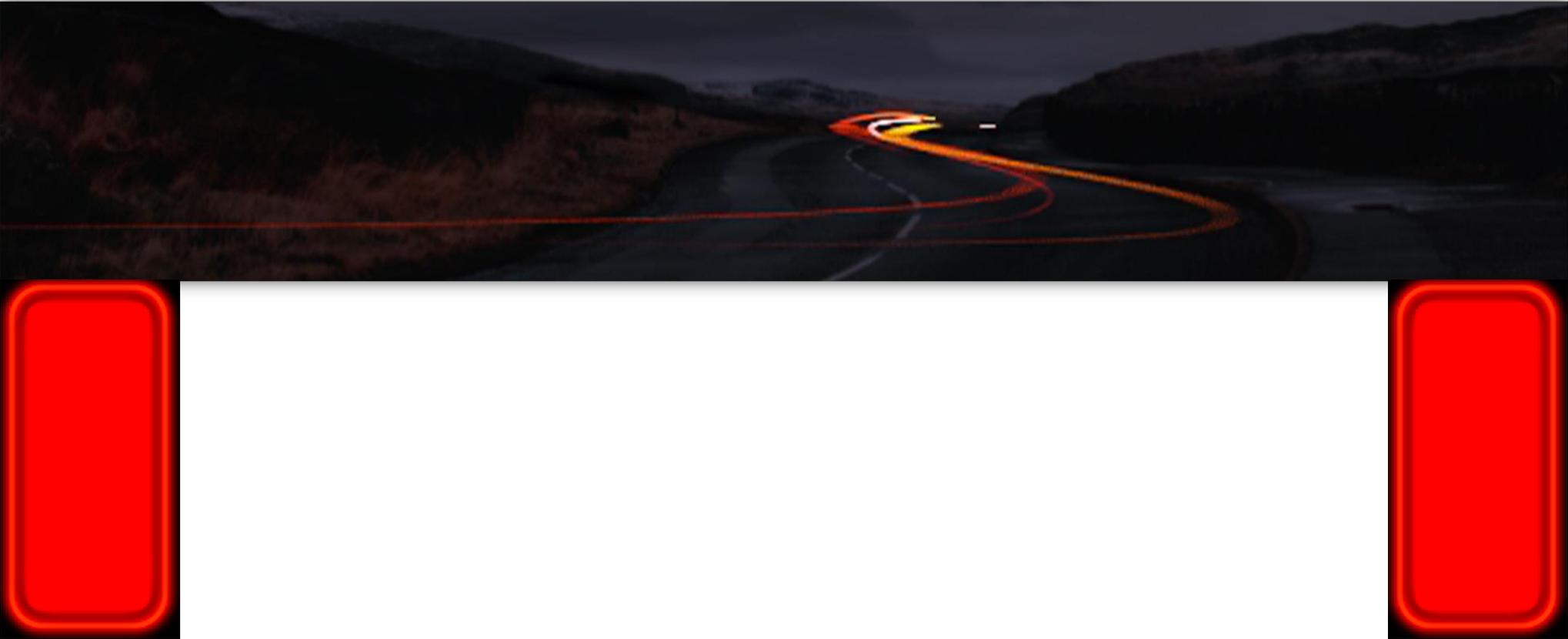
- 2 Bi-color Lighting Elements for Stop, Tail, and Turn Signal
 - Uses Evonik Endlighten Material lit from 2 sides
 - SYNIOS P2720 – red
 - SYNIOS P2720 – yellow
- Back-up Function
 - Single Edge lit Evonik Endlighten
 - SYNIOS P2720 – white
- RGB LED Display
 - 120x240 overall resolution
 - <1.0mm pixel pitch
 - RGB Pixels
 - 5V input

Welcome: “Good Morning, Sam”

Your car welcomes you for a ride !



Driving Mode



DVN Workshop Advertisement

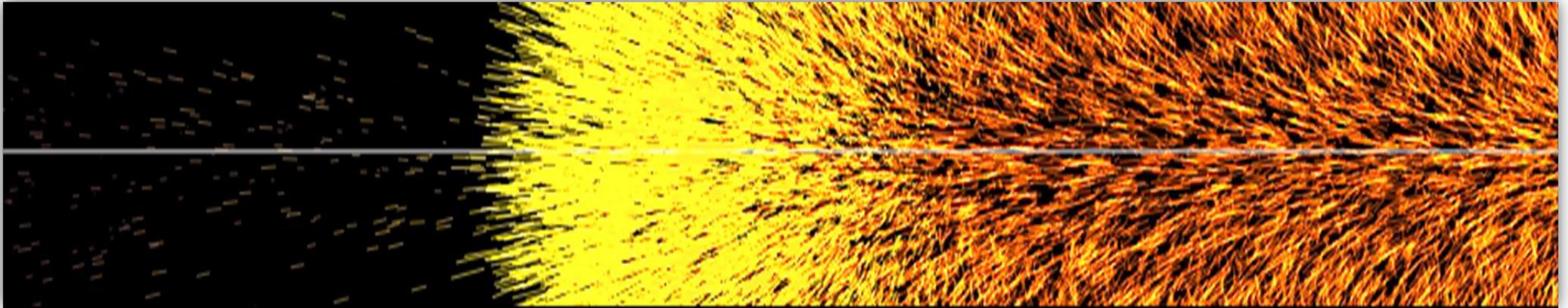


Automated Driving Mode

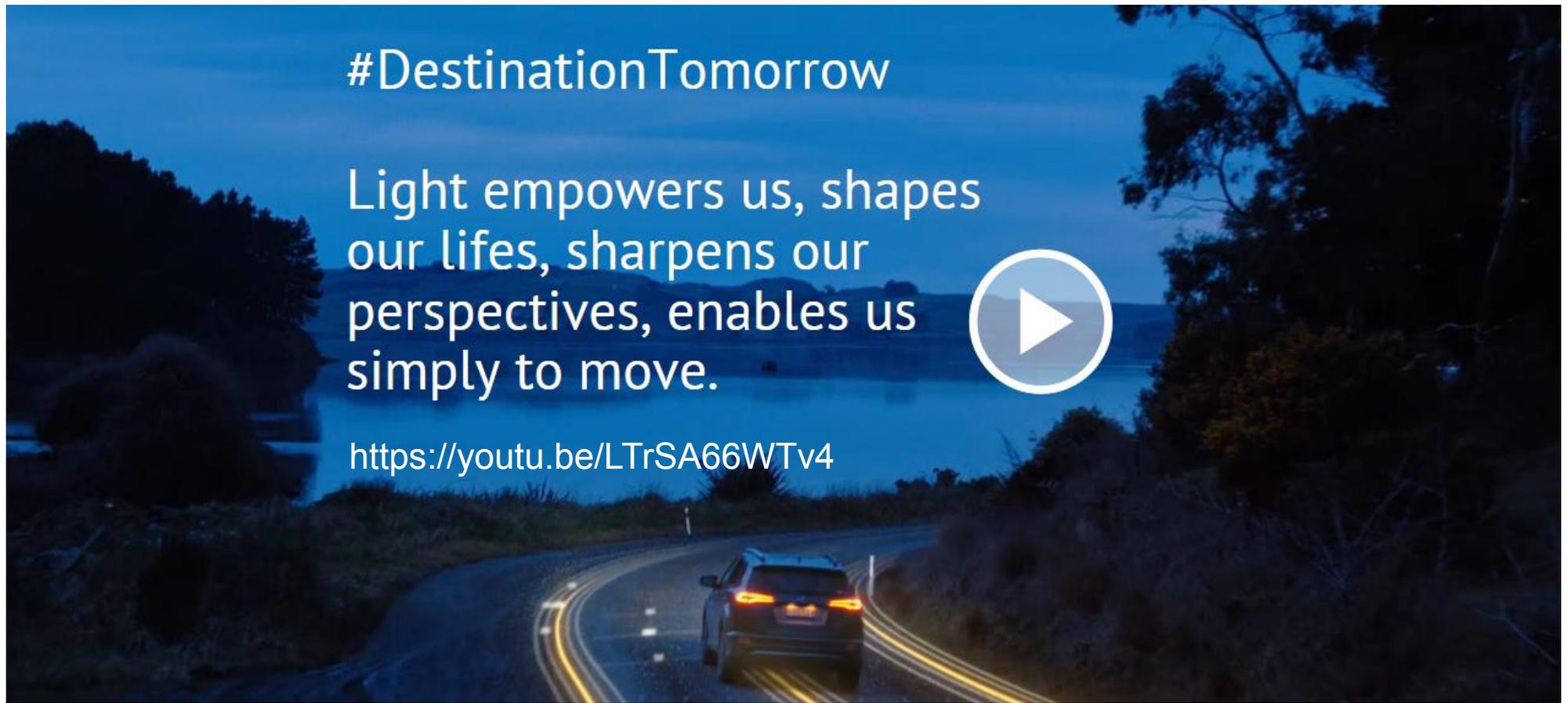
A graphic representing an automated driving mode indicator. It features a teal background with a white dotted line running horizontally across the middle. In the center, the words "AUTOMATED DRIVE" are written in white, uppercase, sans-serif font, enclosed within a white rectangular border. Below the teal bar, there are two vertical black rectangles. Each contains a yellow chevron shape pointing left and right respectively, surrounded by a glowing red border, resembling a steering wheel indicator.

AUTOMATED DRIVE

Car locking



Destination Tomorrow





Many thanks!