



TV KIJKEN MET APPS

ZIGGO GO



## WHO AM I?



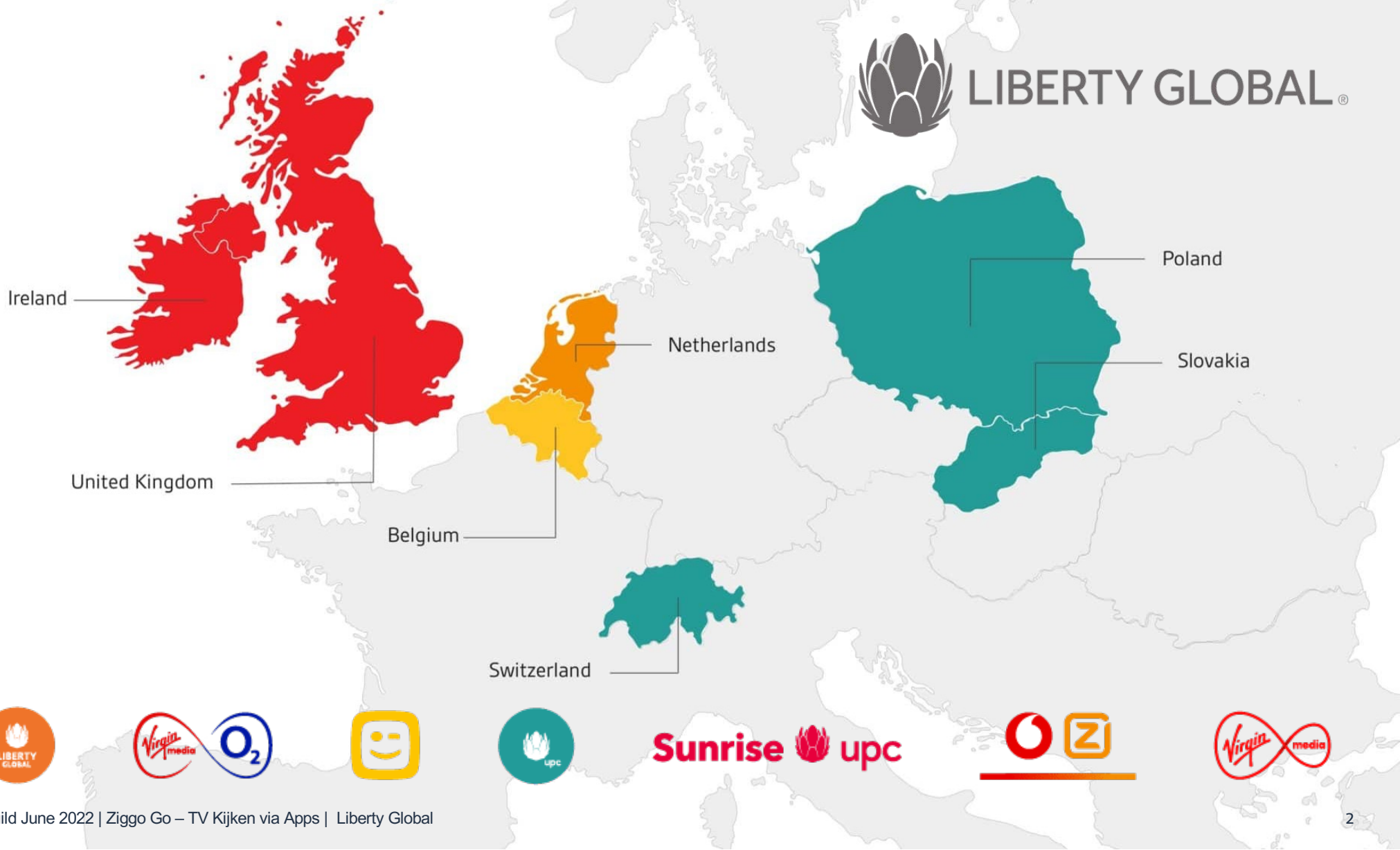
# Edward Bos

## Director of **Product Development Multiscreen** At Liberty Global

- Experience in mobile services Product Development since 2000 (started as Lead Product Developer of Vodafone Live! WAP-portal)
- With Liberty Global almost 18 years
- of which ~9 years in mobile app product development
- Based in Schiphol-Rijk



LIBERTY GLOBAL®



Ireland

United Kingdom

Belgium

Netherlands

Switzerland

Poland

Slovakia



Sunrise  upc



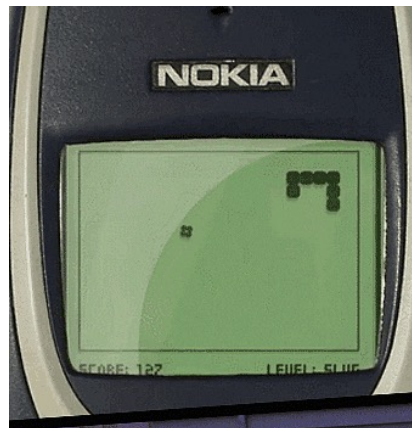
# MOBILE (PHONE) APPS - A BIT OF HISTORY ...



1993



1996



1997



2000



2008

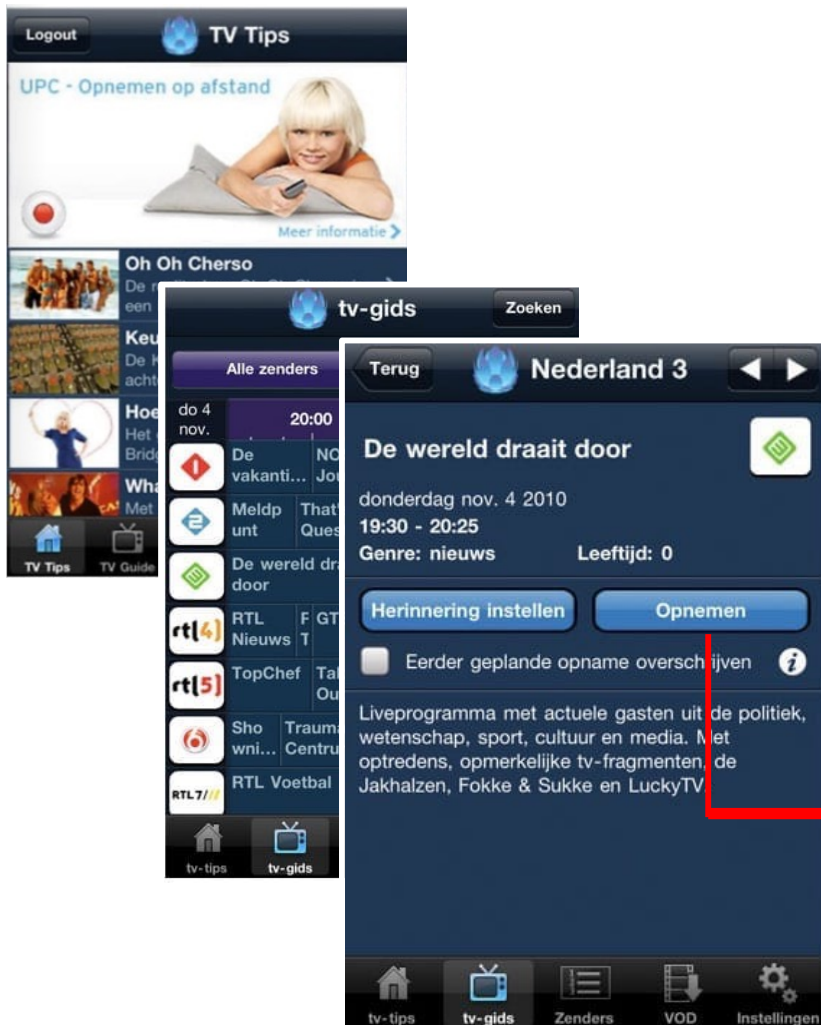
# OUR FIRST SOLUTION FOR WATCHING TV VIA AN APP ...



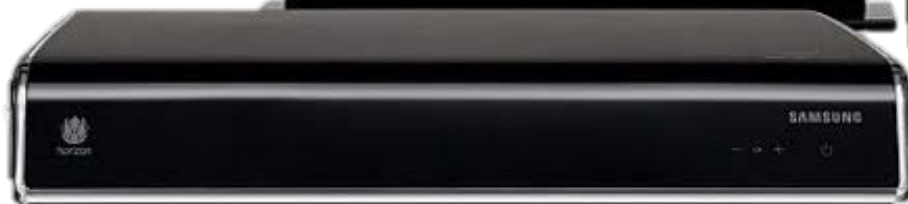
## UPC en Slingbox Solo: overall streaming video

Televisie kijken, dat heeft niets meer te maken met wanneer een programma wordt uitgezonden - laat staan waar je kijkt. De Slingbox Solo, die UPC dit najaar op de Nederlandse markt brengt, maakt het mogelijk om je videorecorder via internet te activeren en zowel live-tv als opgenomen programma's te bekijken op bijna elk apparaat met

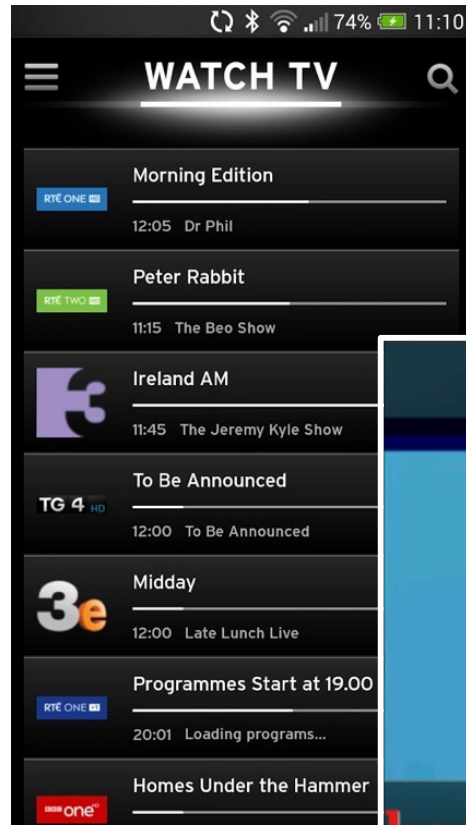
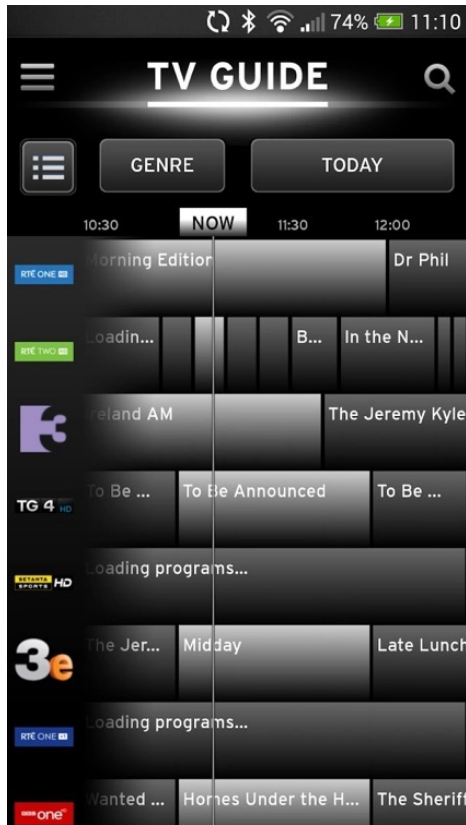
# 2010: OUR FIRST OWN MOBILE APP - THE REMOTE BOOKING IOS APP



# 2012: START OF WATCHING TV WITH AN APP

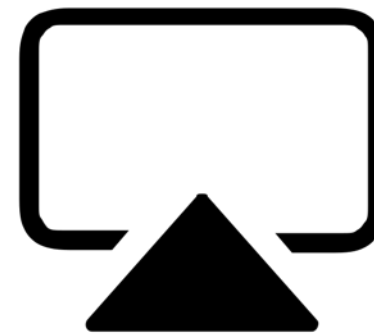
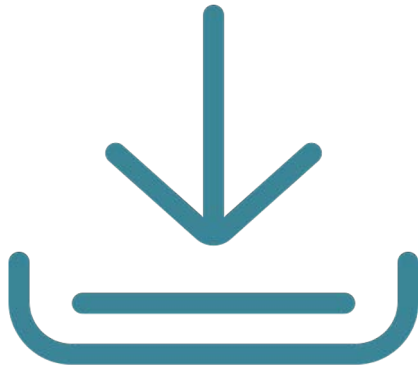
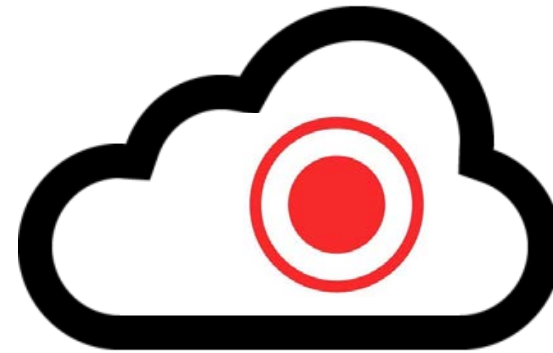


# 2014: INTRODUCTION OF HORIZON GO ANDROID APP

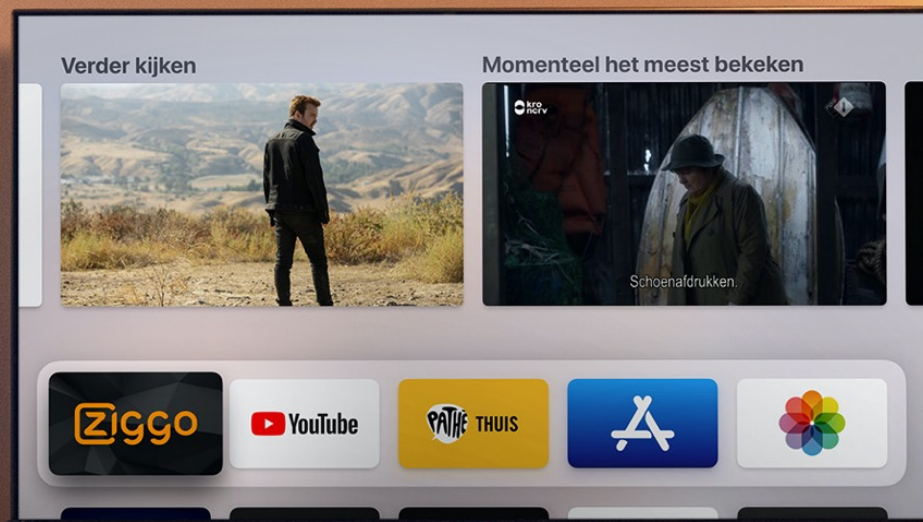




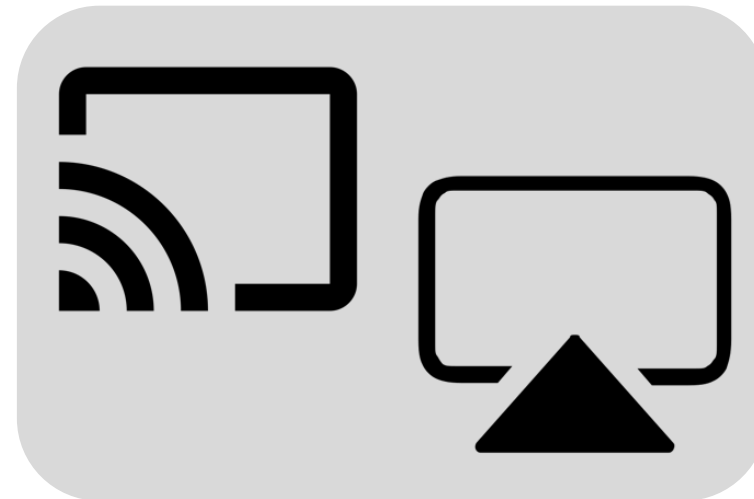
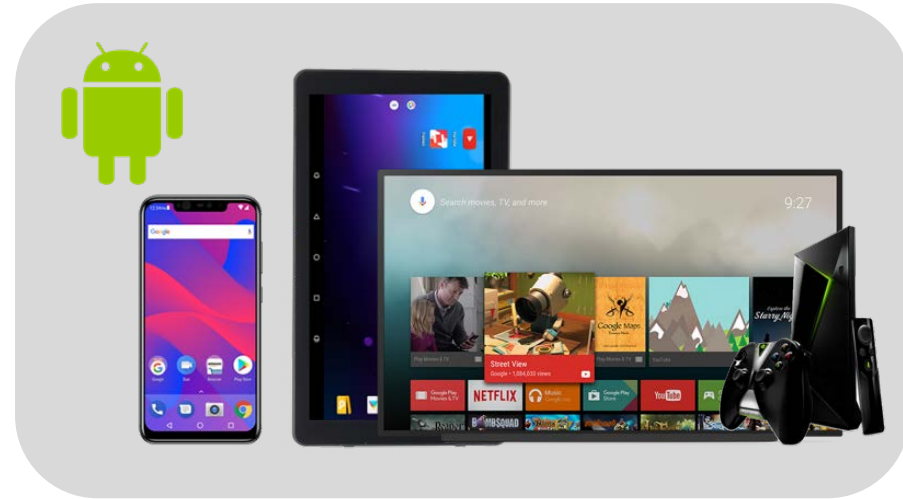
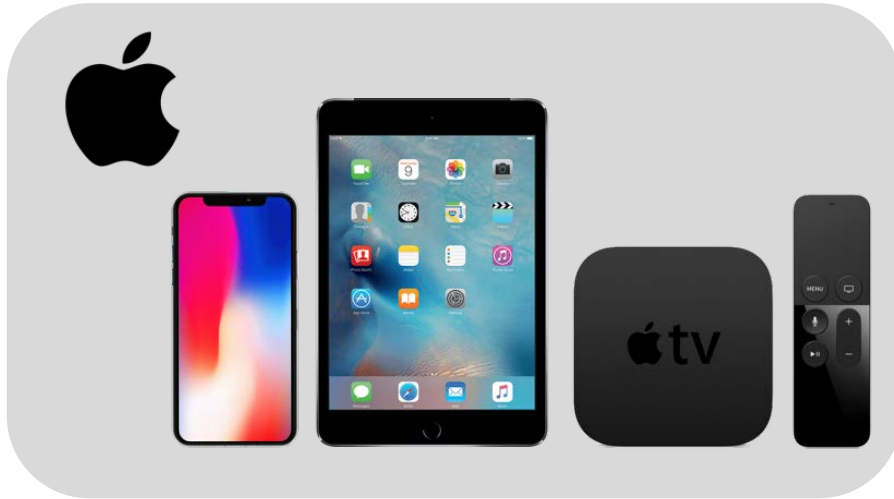
## ADDING MORE AND MORE FEATURES . . .



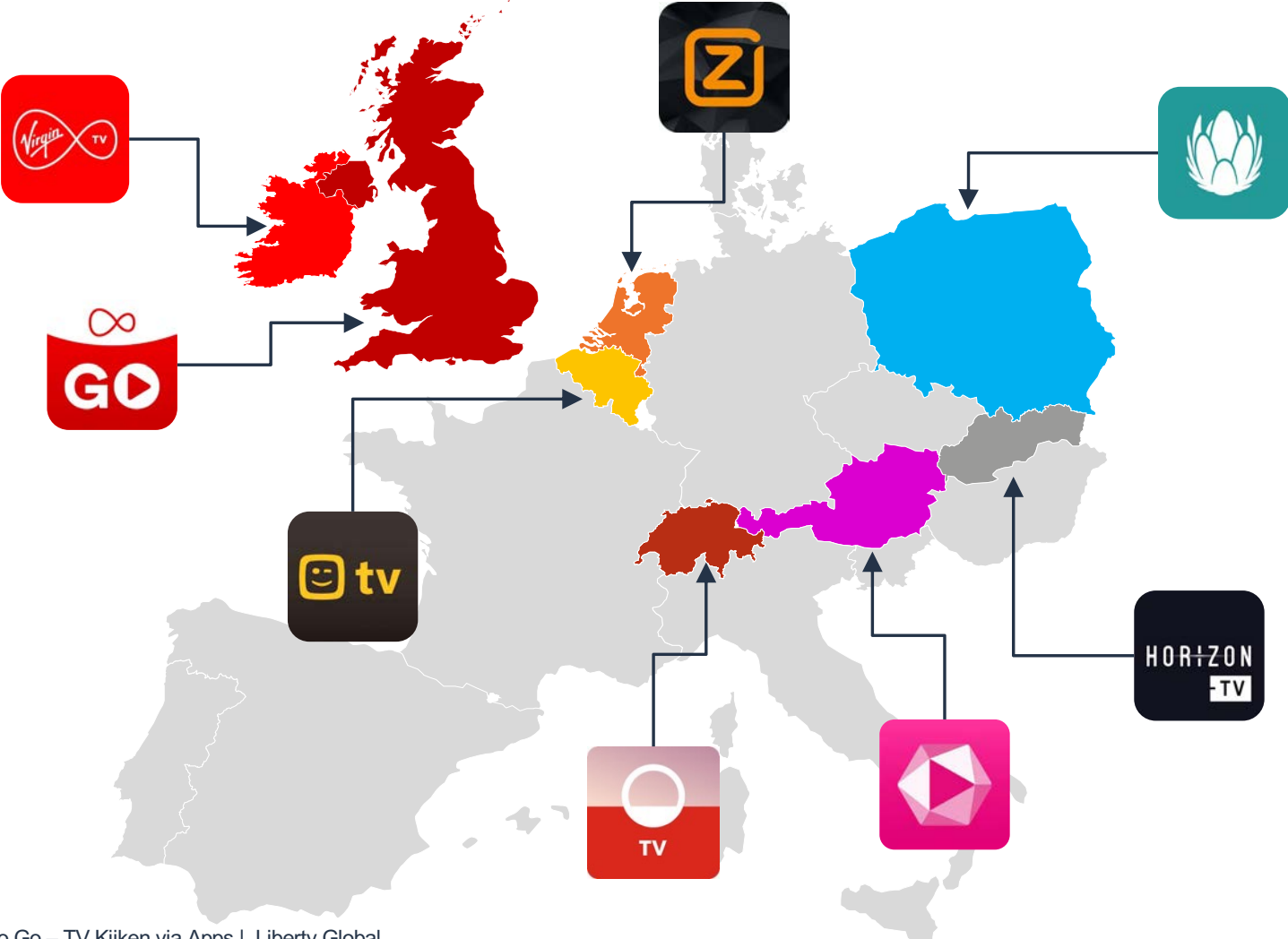
# 2020: INTRODUCTION OF ZIGGO GO ON ANDROID TV & APPLE TV



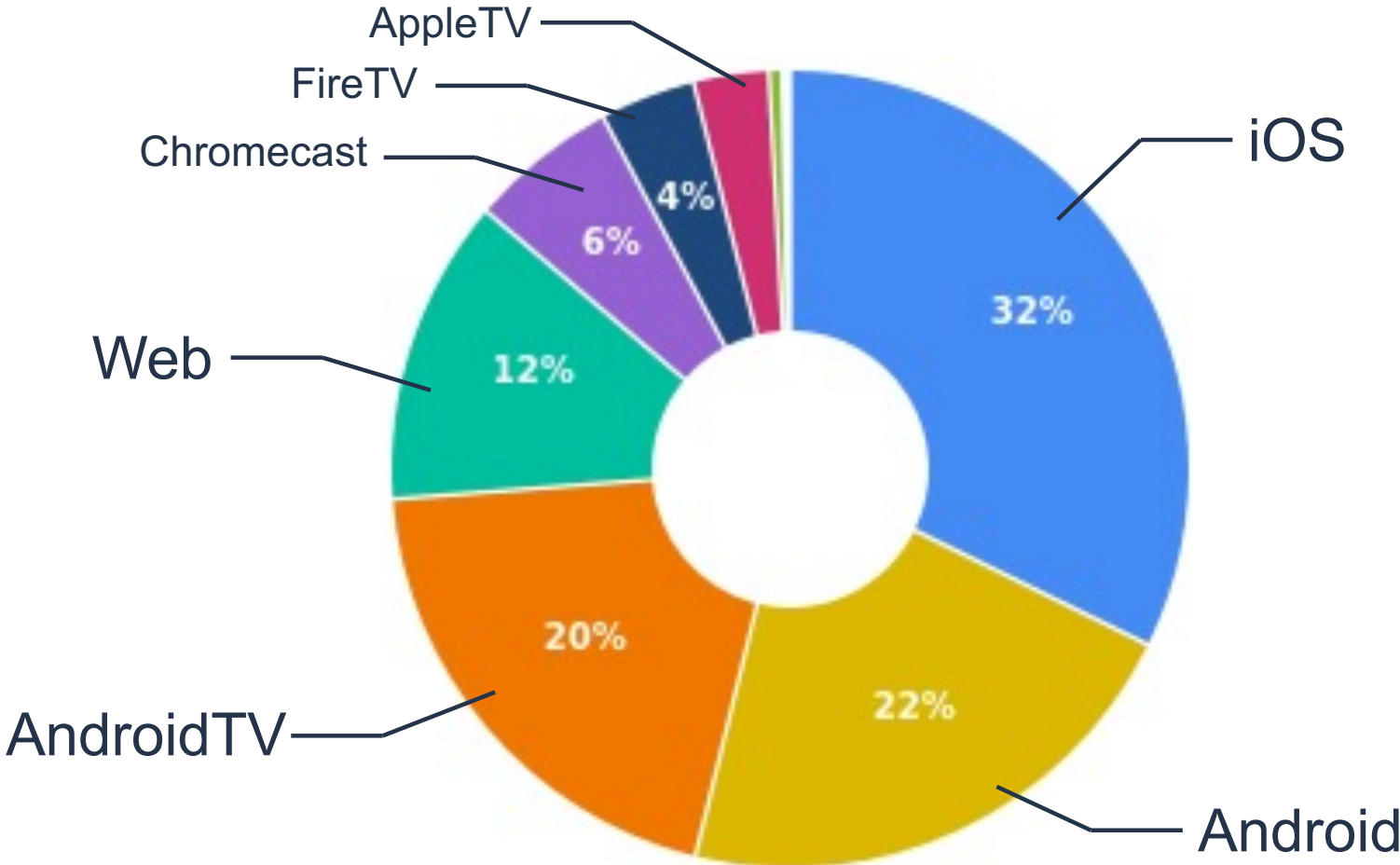
# WATCHING TV NOW POSSIBLE VIA MANY PLATFORMS ...



# USED IN 8 COUNTRIES...



# LIVE CONTENT - PLAYS BY PLAYER





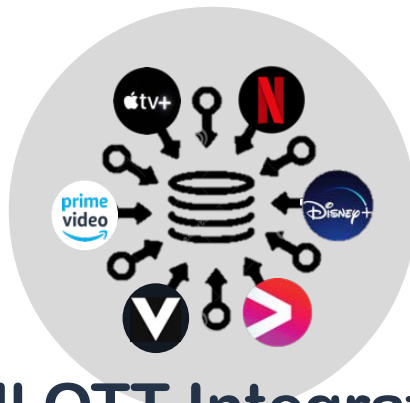
# PROVIDING A TV SERVICE

## APP VS STB

## WATCHING TV WITH AN STB ...



**Voice Control**



**Full OTT Integration**



**Data Ownership**



**Device Lifecycle**



**Billing Integration**



**Screen 0**

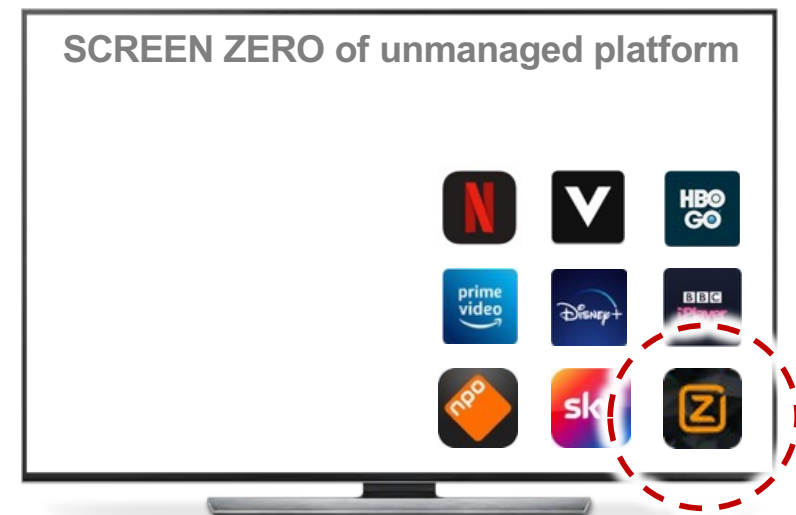
# MANAGED VS UNMANAGED PLATFORM

**Mediabox Next / 360:** We own the Experience and Aggregate



VS

**3<sup>rd</sup> party:** Google / Apple / Samsung own the Experience and Aggregate...





Google TV

Search

Home

Apps

Library

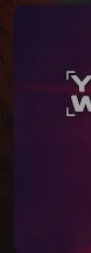


Disney+

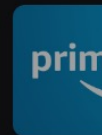
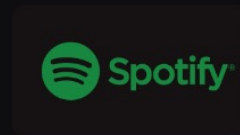
# Turning Red

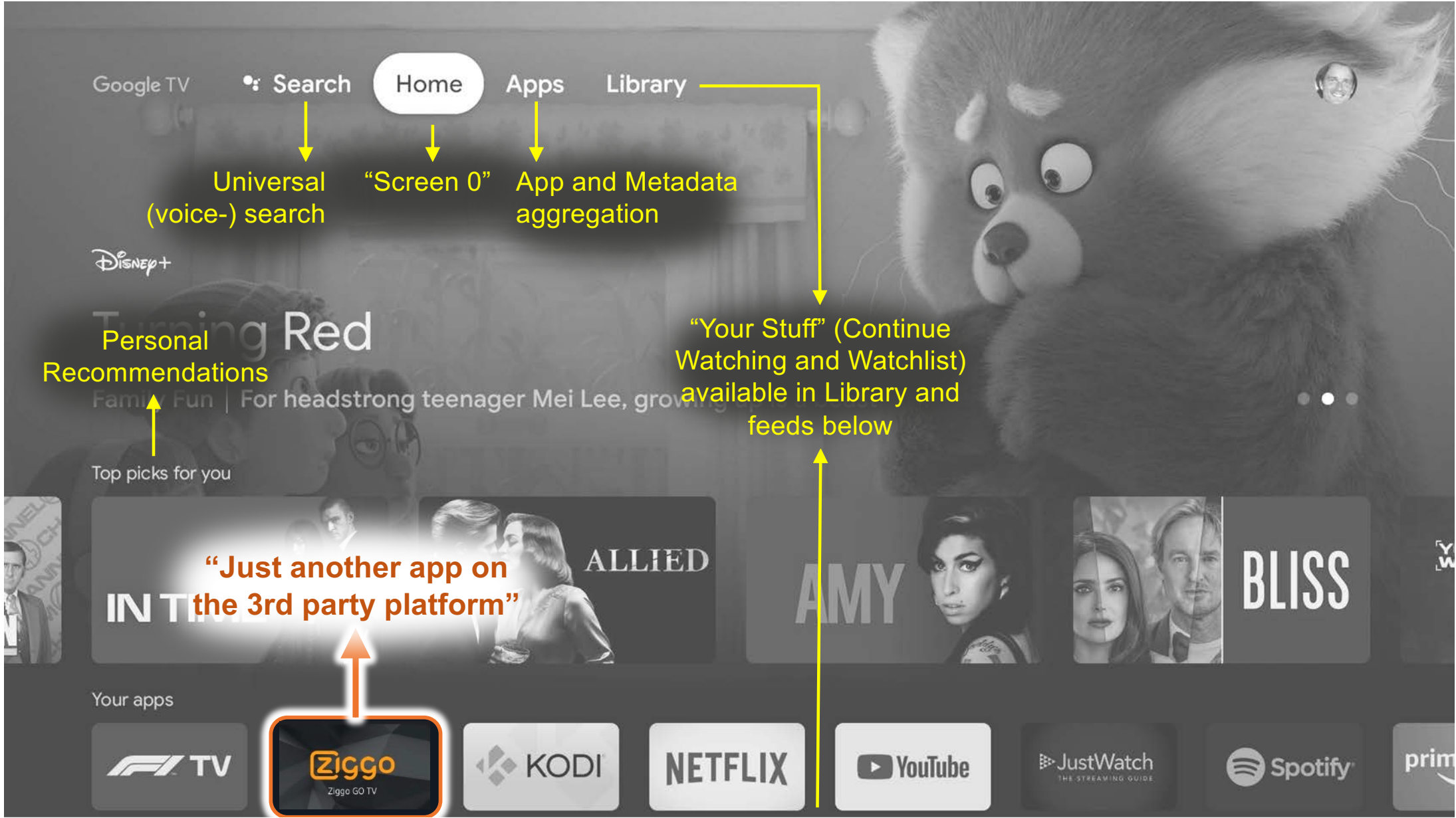
Family Fun | For headstrong teenager Mei Lee, growing up is a beast

Top picks for you



Your apps





Google TV

Search

Home

Apps

Library

Universal (voice-) search

"Screen 0"

App and Metadata aggregation

Disney+

Turning Red

Personal Recommendations

Family Fun | For headstrong teenager Mei Lee, growing

"Your Stuff" (Continue Watching and Watchlist) available in Library and feeds below

Top picks for you

"Just another app on the 3rd party platform"

ALLIED

AMY

BLISS

Your apps

F1 TV

Ziggo

Ziggo GO TV

KODI

NETFLIX

YouTube

JustWatch

THE STREAMING GUIDE

Spotify

prim

## ... BUT CUSTOMERS MIGHT NOT WANT AN STB ...



**Digital Natives:** Grew up with mobile first



**BYOD:** Growing number of retail streaming devices and Smart TV's in the home



**Cost Saving:** Customers are looking for cheaper alternatives



**Save the Planet:** Customers are more aware about energy consumption of STB's

SO WHERE DOES ZIGGO GO FIT IN ALL THIS ?



# ZIGGO GO IS STILL PART OF A FAMILY

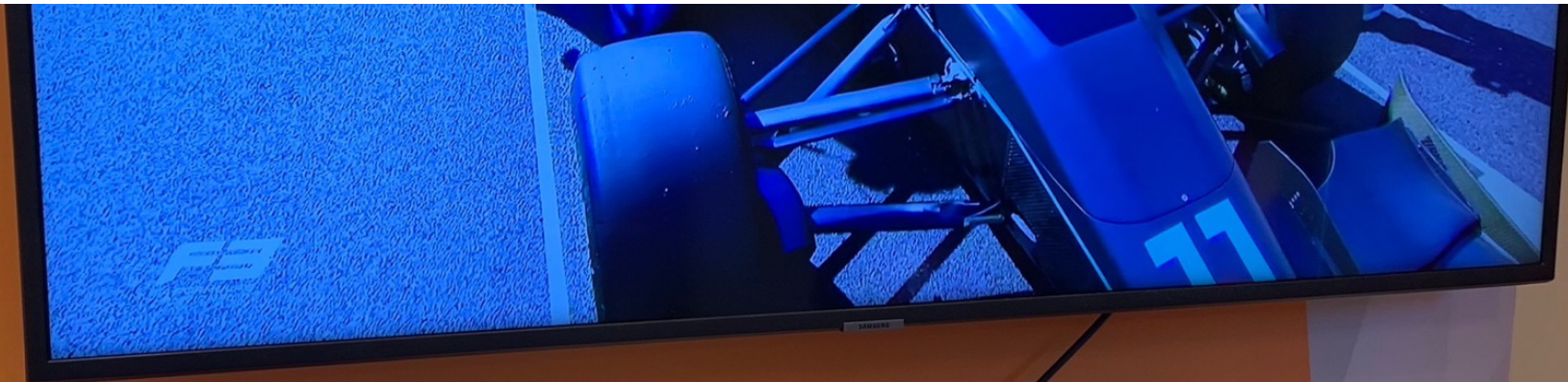
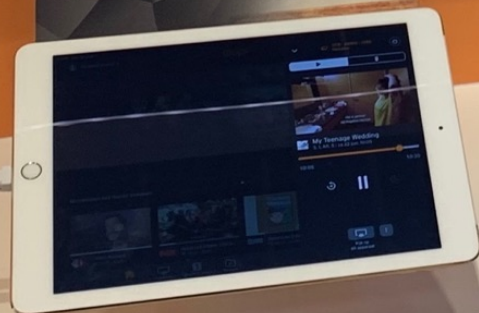


Ziggo TV doet met je mee

Ontdek  
het hier

**MAKKELIJK ZOEKEN**  
Met 1 zoekopdracht krijg je daar het aanbod en vind je snel wat je zoekt.

**EIGEN KIJKPROFIEL**  
Maak met je kijkprofiel je eigen aanbod en ontdek. En krijg persoonlijke aanbevelingen.





## 360 KIJKEN

Bekijk je gepauzeerde serie, gehuurde film of opname verder op elk scherm wanneer het jou uitkomt.

Press via de app  
**VOICE CONTROL**



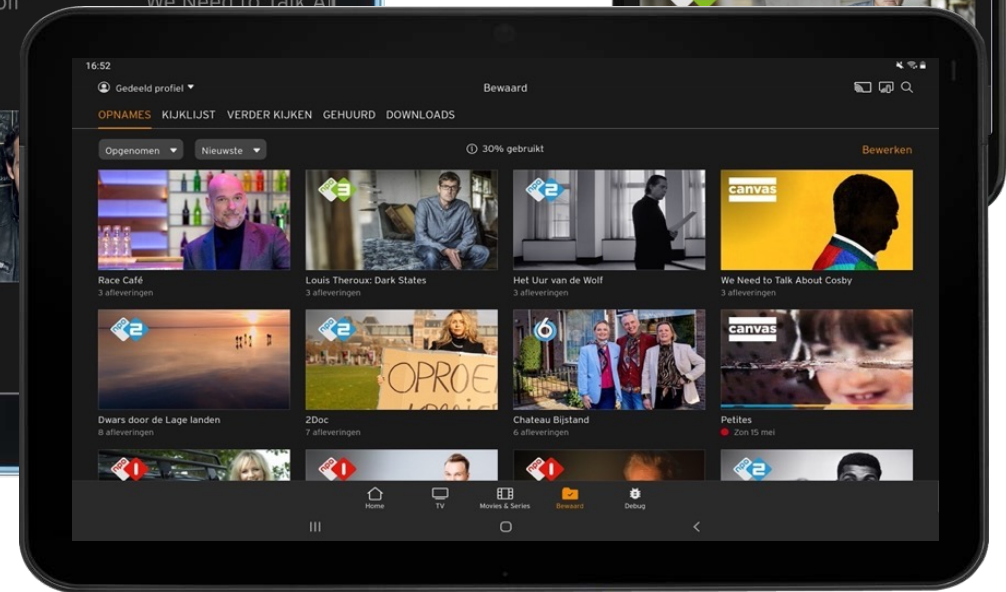
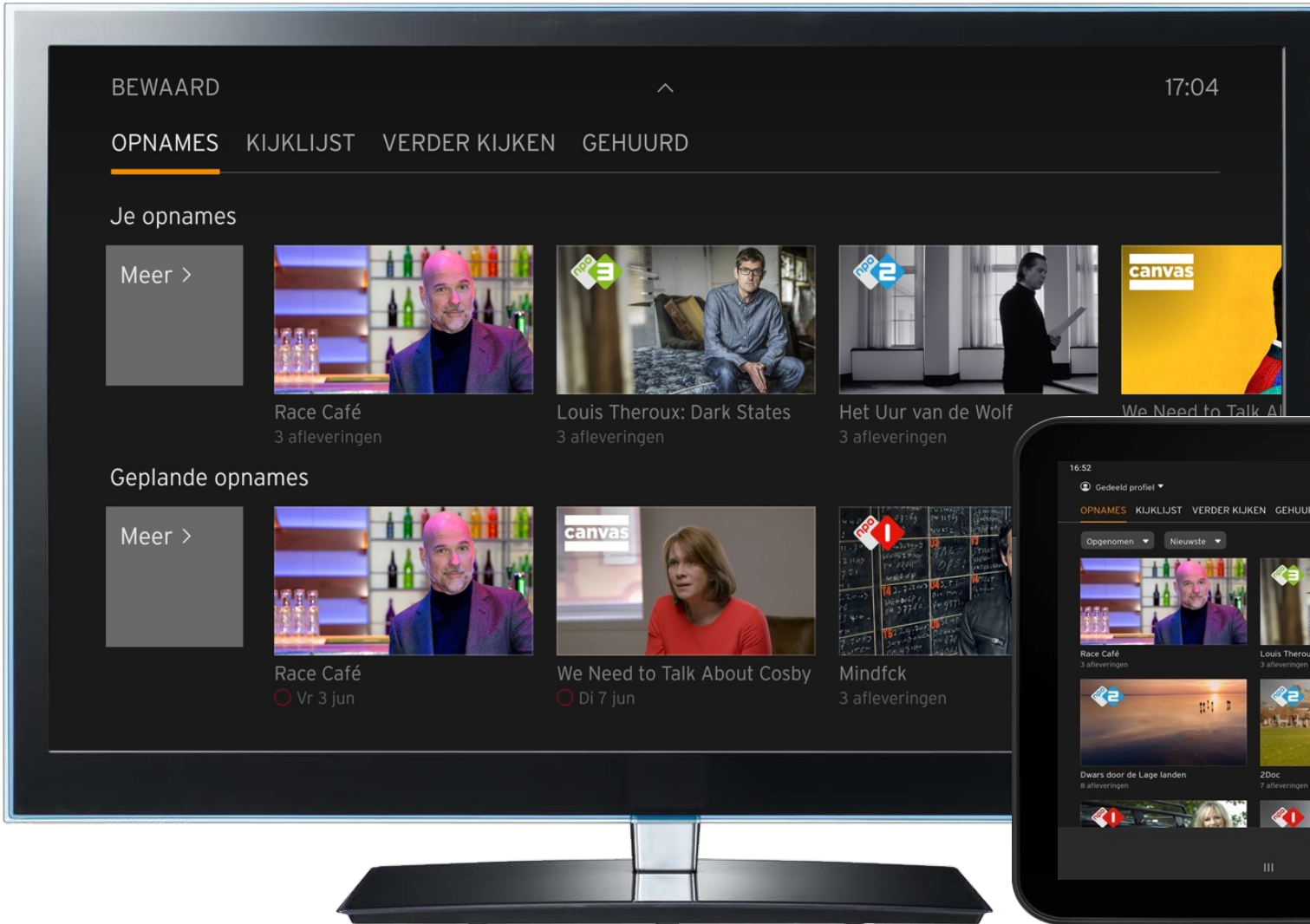
PROVIDING A **CONSISTENT** “360”  
USER EXPERIENCE BUT **TAILORED**  
**TO EACH PLATFORM**



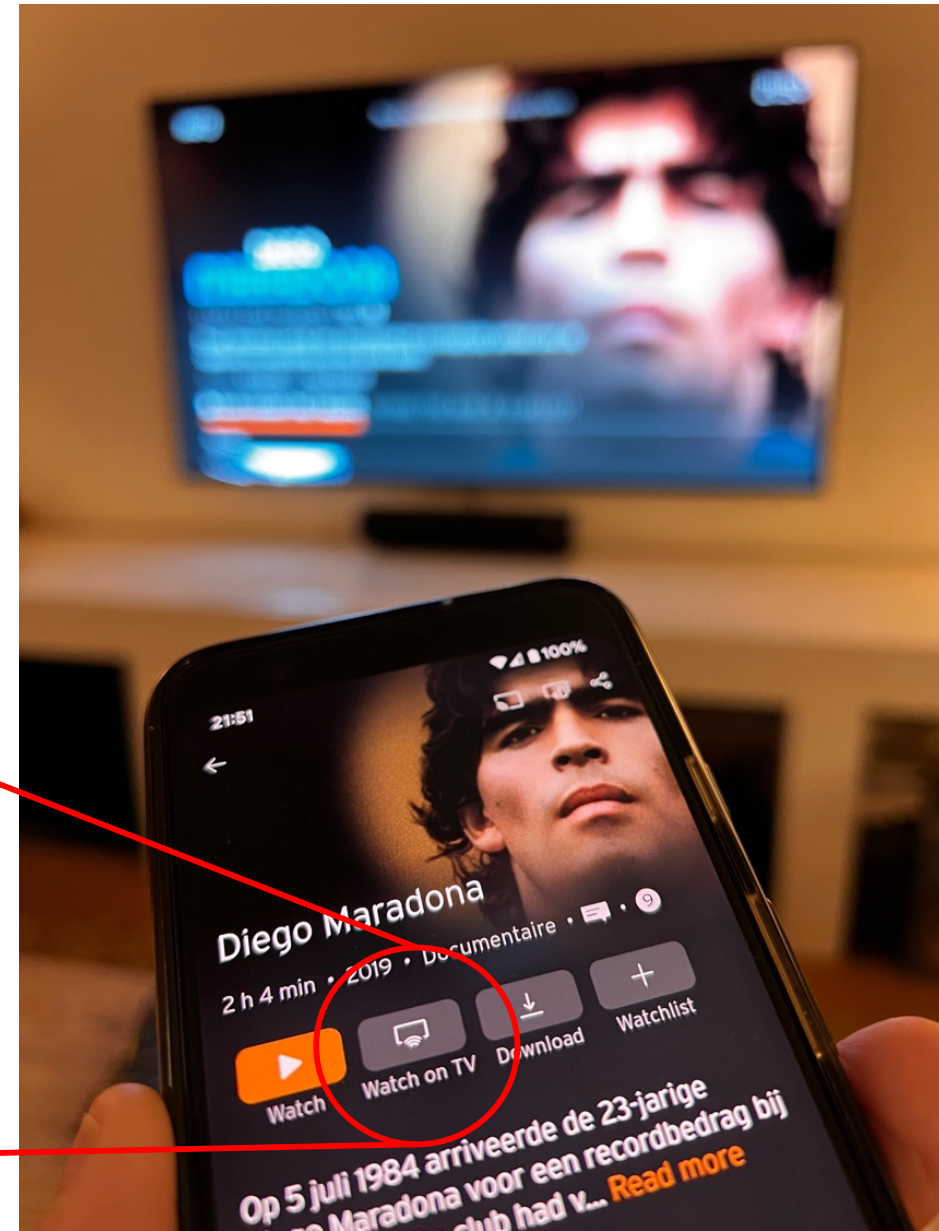
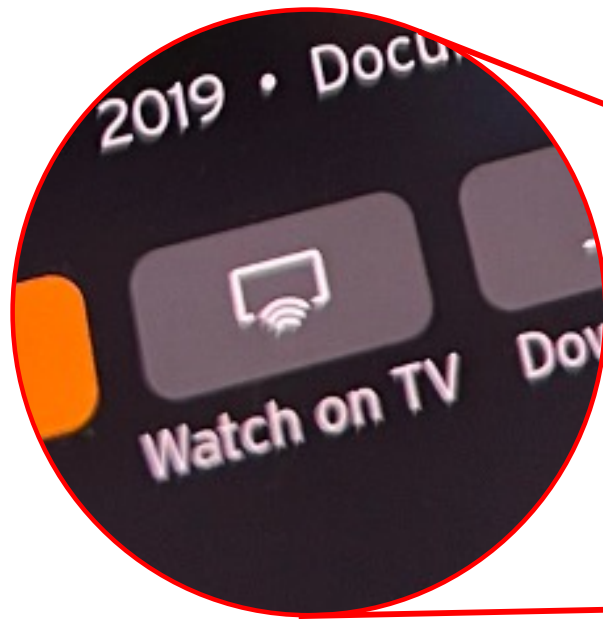
# THE BENCHMARK



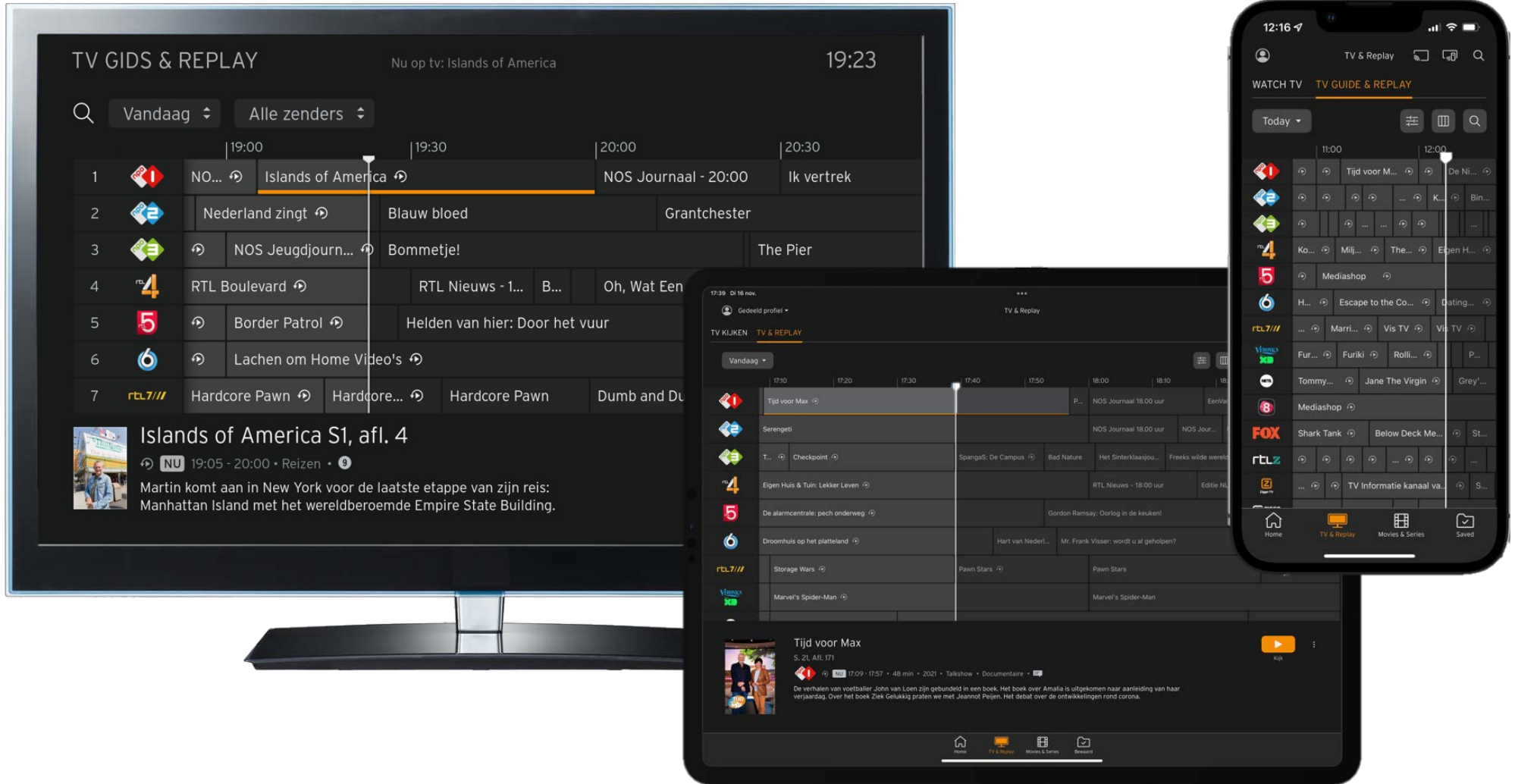
# 1. SAME CONTENT ACROSS ALL DEVICES



## 2. FLUID INTERACTION BETWEEN ALL DEVICES



### 3. SAME USER EXPERIENCE ACROSS ALL DEVICES



# INTERACTION PARADIGMS



10-foot experience

VS



Touch Interface

# 10 FOOT EXPERIENCE: MANAGED VS UNMANAGED PLATFORM



VS



# MEDIABOX NEXT REMOTE



# IOS HUMAN INTERFACE GUIDELINES







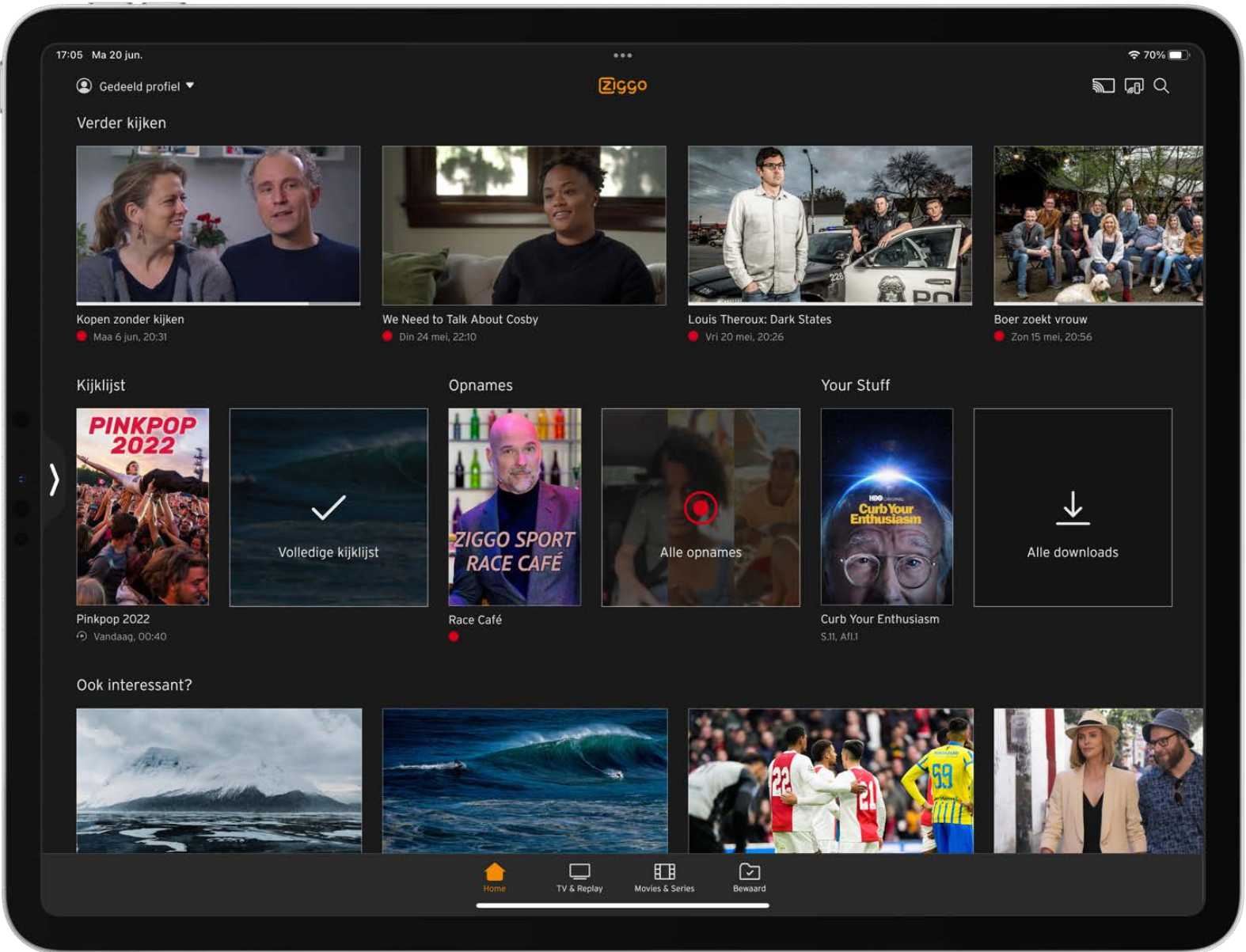
**(HIGH-LEVEL) TECHNOLOGY  
& FLOW BEHIND WATCHING  
TV VIA AN APP**

# FIRST YOU NEED AN APP (OR GO TO THE WEBSITE)...



# LOGIN REQUIRED TO GET THE RIGHT ENTITLEMENTS





17:05 Ma 20 jun.

70%

Gedeeld profiel



Verder kijken



Kopen zonder kijken  
Maa 6 jun, 20:31



We Need to Talk About Cosby  
Din 24 mei, 22:10



Louis Theroux: Dark States  
Vri 20 mei, 20:26



Boer zoekt vrouw  
Zon 15 mei, 20:56

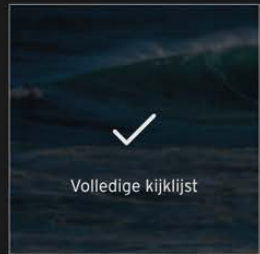
Kijklijst

Opnames

Your Stuff



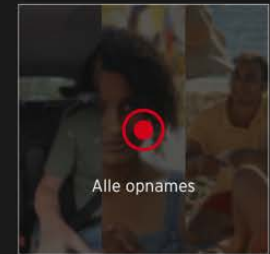
Pinkpop 2022  
Vandaag, 00:40



Volledige kijklijst



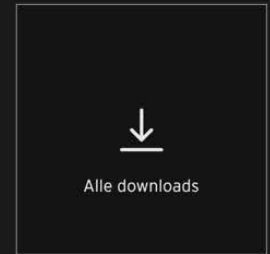
Race Café



Alle opnames

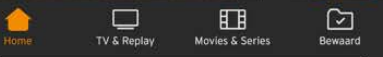


Curb Your Enthusiasm  
S.11, Af.1



Alle downloads

Ook interessant?





# WATCH FLOW

Multiple instances of program/show?

↳ All instances entitled?

↳ 4K?

↳ AVAD Content?

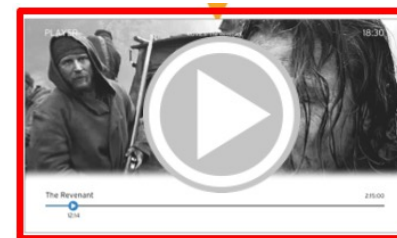
↳ Opted in?

↳ Concurrent Streams?

↳ Watching inside EU?

↳ Live or Startover?

↳ Parental Rating?

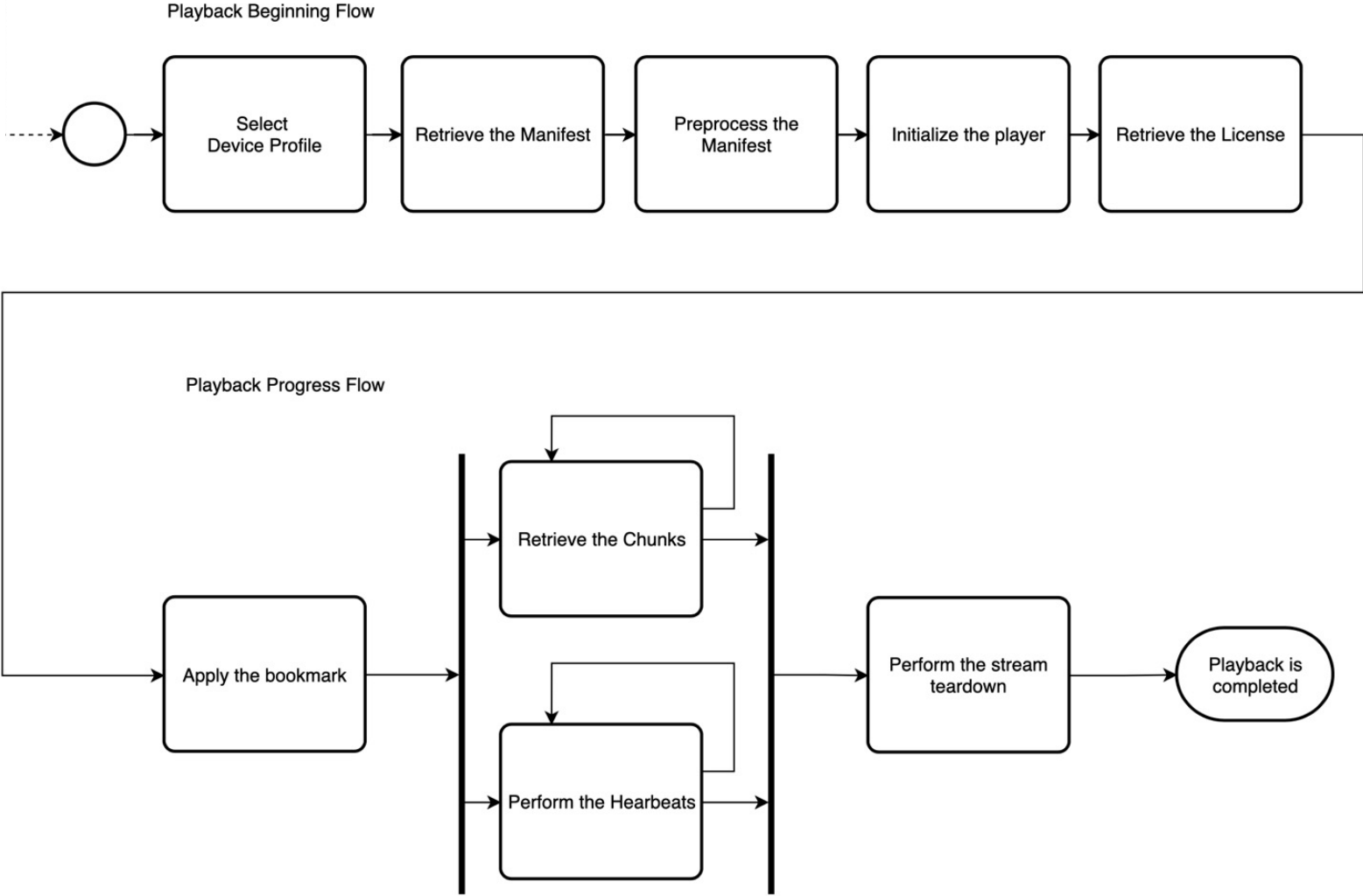


IP Player Flow

# IP PLAYER FLOW



IP Player Flow



## OTHER CONSIDERATIONS . . .

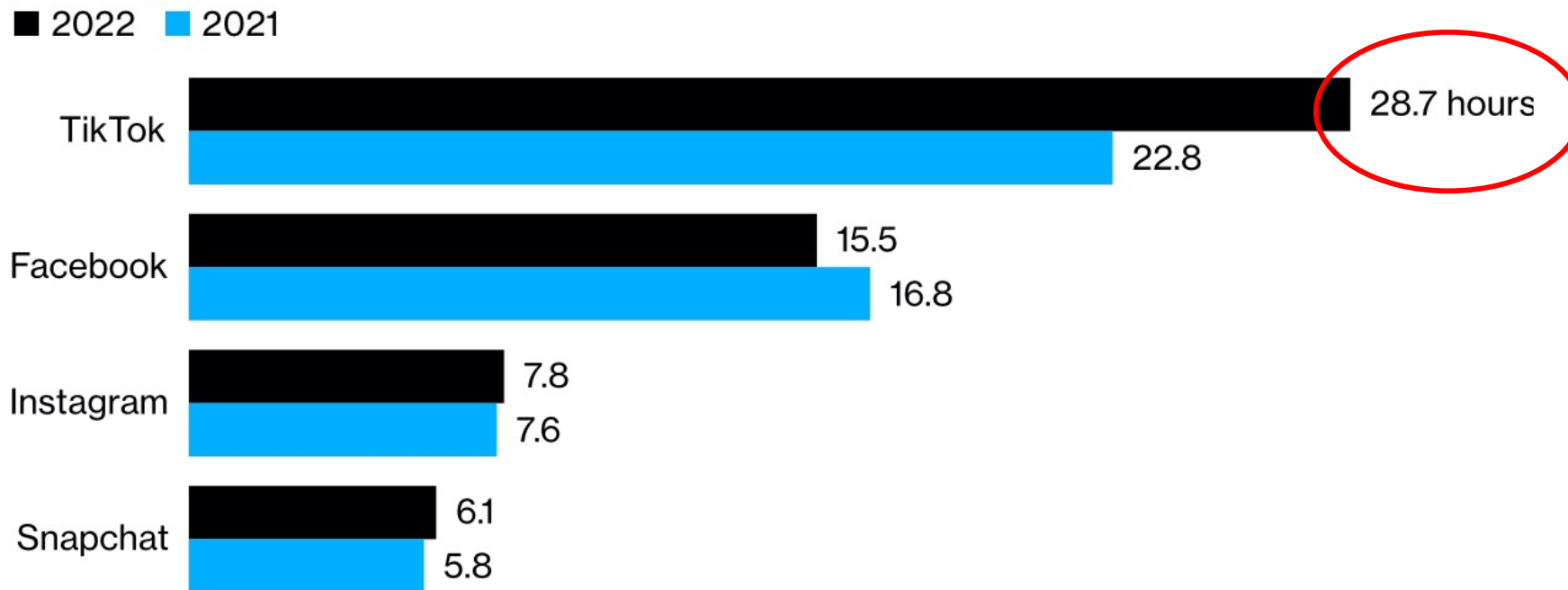
- Branding
- Localisation
- Downloads
- Device Registration
- Code Obfuscation
- Watermarking
- Quality and Functional Reporting
- All kinds of annoying edge-cases . . .





**WHERE DO WE GO FROM HERE?**

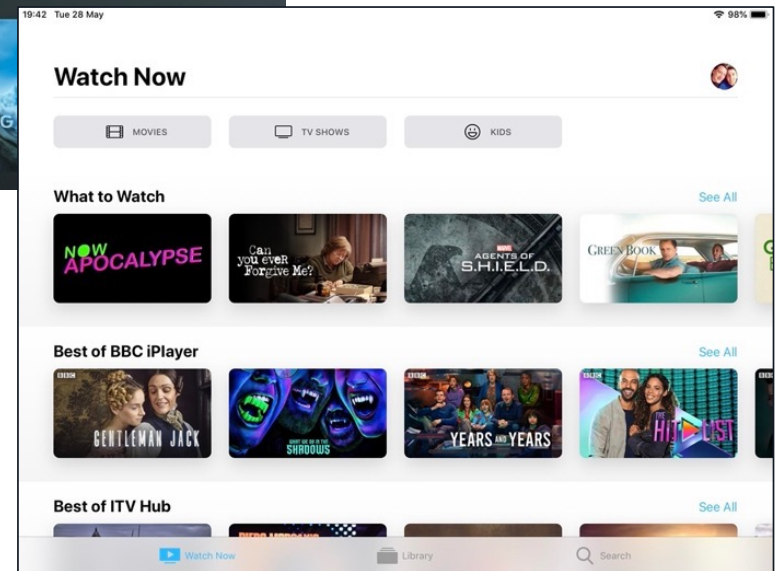
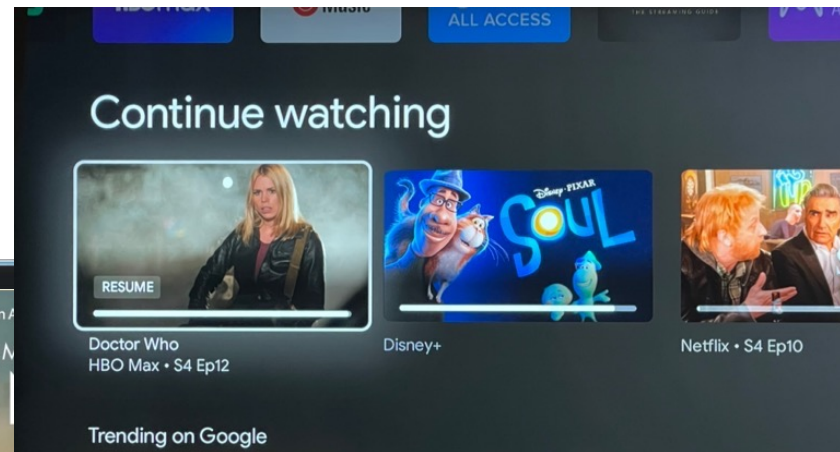
# VIDEO-STREAMING BEHAVIOUR IS CHANGING RAPIDLY ...



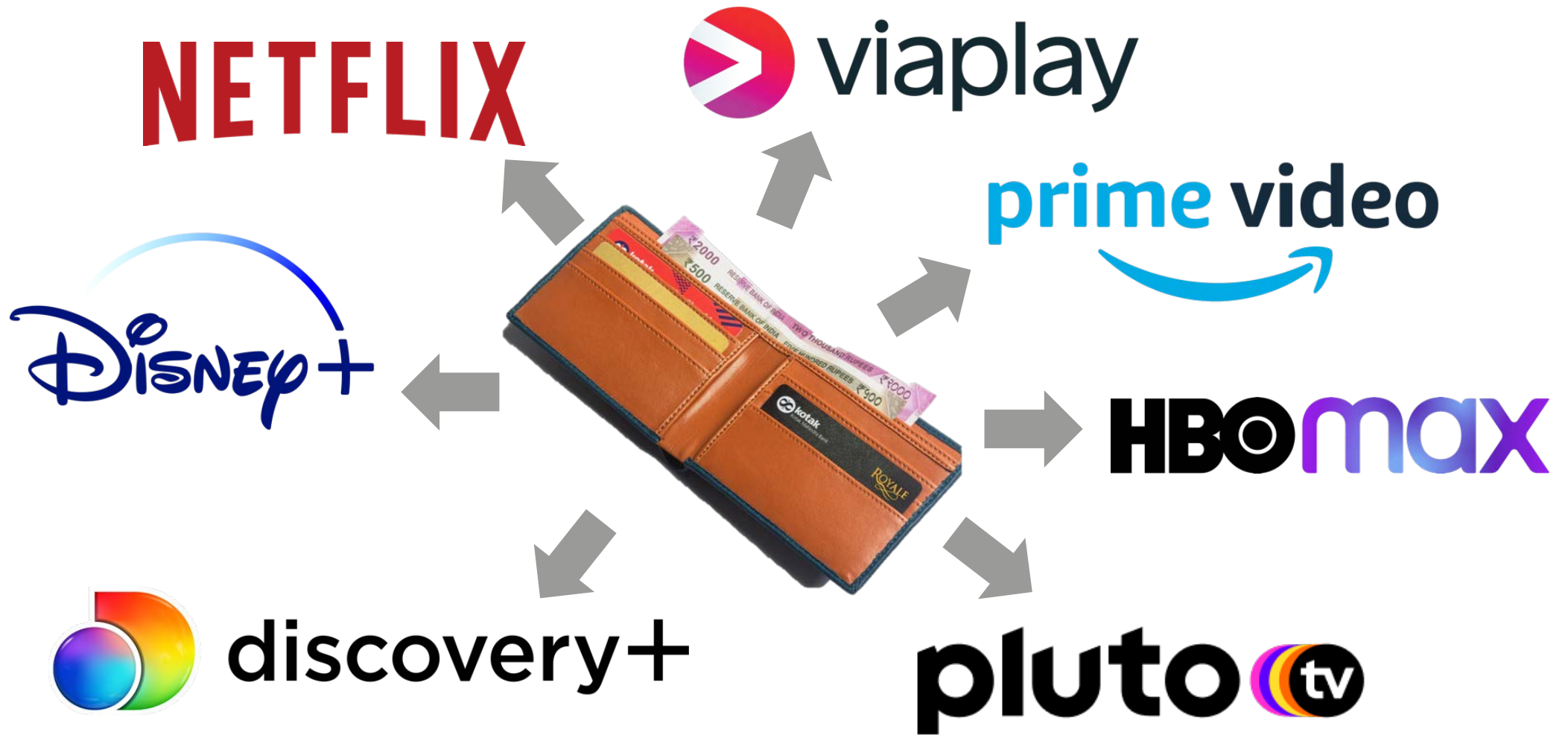
Source: Data.ai

Average time per US Android user, comparable 1Q numbers

# PLATFORM WAR...

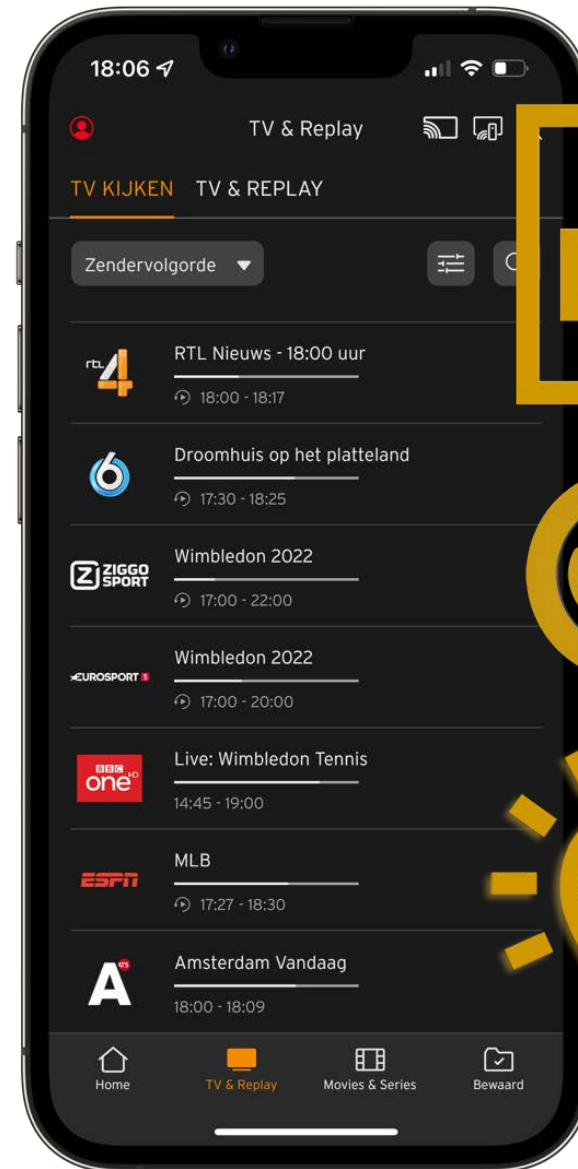


# OTT & CONTENT WAR ...





# WE SOLVE A GROWING PROBLEM





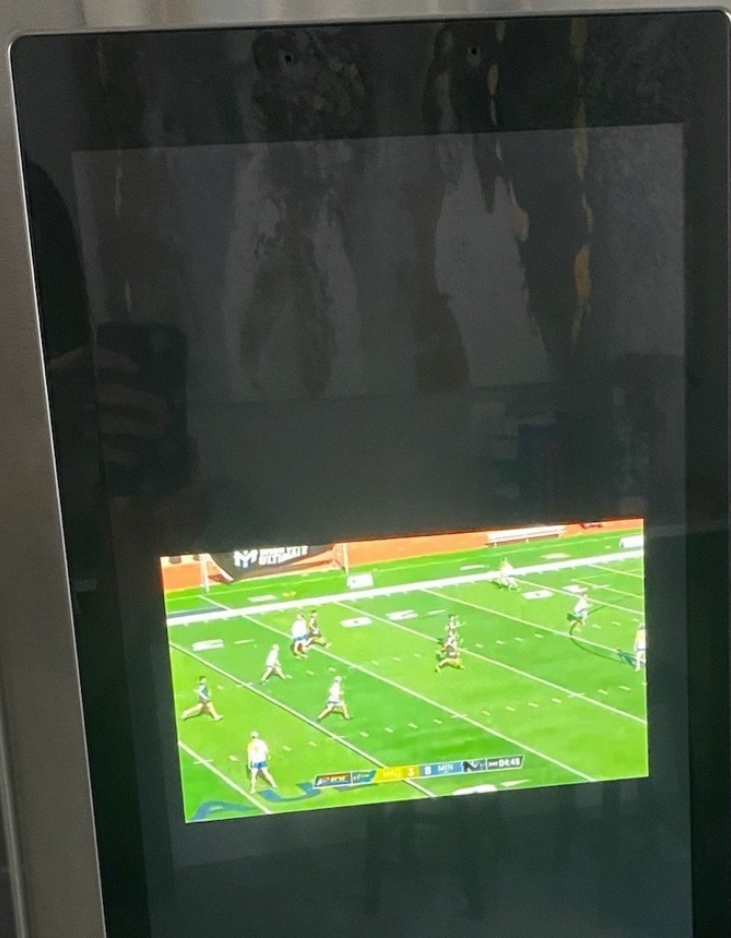
Follow Your  
Customers





SAMSUNG

**10**  
YEAR  
WARRANTY  
ON THE COMPRESSOR  
DIGITAL INVERTER  
TECHNOLOGY

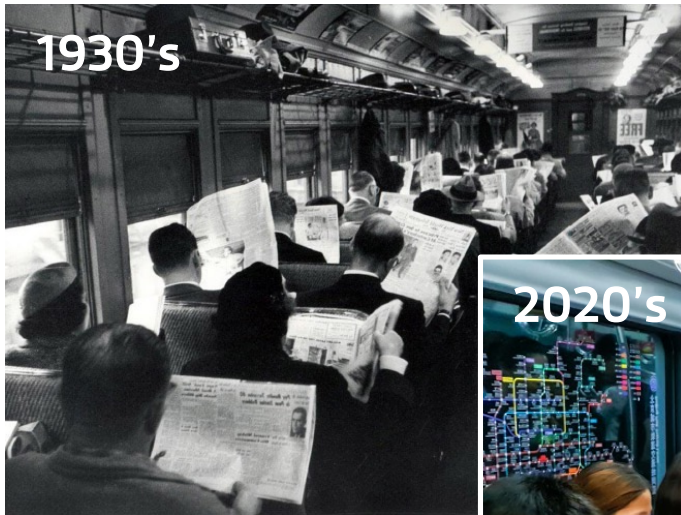


# VIRTUAL / AUGMENTED REALITY / 360



After a little experimentation with the Nreal Light, I could comfortably sit on a couch watching YouTube Dream SMP fandom recaps while knitting, wear it at my desk while using its Wikipedia app, or slip my phone into my pocket and walk around the kitchen making tea while watching anime. I even took the Light on the subway — I got a lot of funny looks, but the experience was about a million times better than my public transit adventures with a Gear VR six years ago. Nreal ships the device with

**THE VERGE**

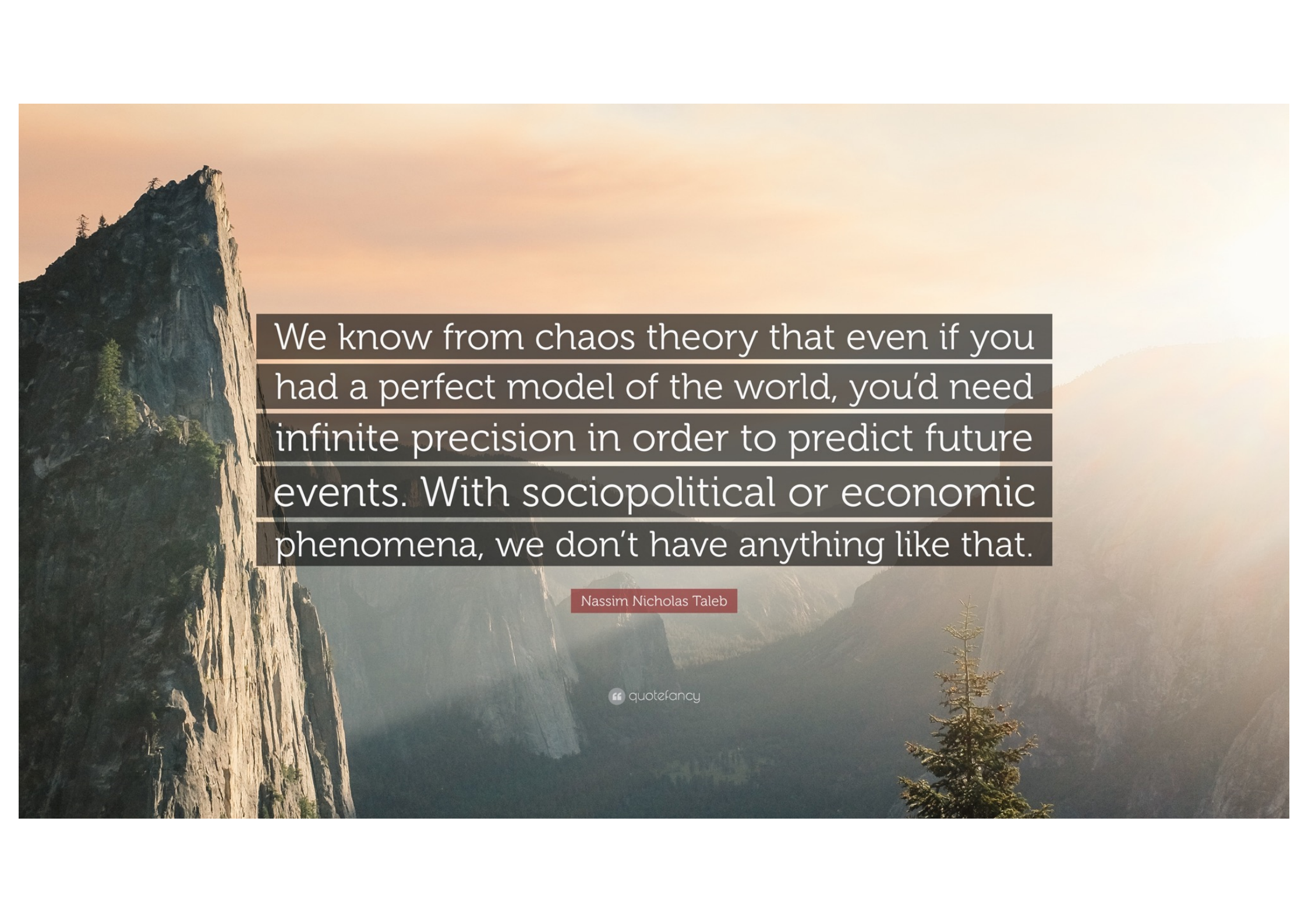


1930's




2020's





We know from chaos theory that even if you had a perfect model of the world, you'd need infinite precision in order to predict future events. With sociopolitical or economic phenomena, we don't have anything like that.

Nassim Nicholas Taleb

 quote fancy

THANK  
YOU

The text "THANK YOU" is displayed in a large, bold, sans-serif font. The letters are filled with various images: 'T' is grass; 'H' is a person in an orange shirt; 'A' is a person's face; 'N' is a person in a grey shirt; 'K' is a person's hand; 'Y' is a person holding a red phone; 'O' is a solid orange circle with a white swirl; 'U' is grass.