HUAWEI

HUAWEI DEVELOPER DAY

Open Ecosystem Defines Future

Nov.18 2019 @ GOTO Conference

Agenda

Time	Topic
11:10—11:30	Morning Welcome
11:30—11:45	Who are we?
11:45—12:10	Building all-scenario & intelligent ecosystem with Huawei Mobile Service
12:10—12:20	Better together with Huawei
12:20—14:10	Lunch Break
14:10—14:40	Afternoon Welcome
14:40—15:05	HUAWEI Ability Gallery: Evolution of Content and Services Distribution
15:05—15:30	HUAWEI HiAI: Make your App smarter
15:30—17:50	Booth visit and private meetings

Billeddelen med relations-id rId36 blev ikke fundet i filen.

NEW HUAWEI ECOSYSTEM DEFINES THE FUTURE

Billeddelen med relations-id rId28 blev ikke fundet i filen.

ON THE GLOBAL SCENE

ns-id rId2 blev ikke fundet i filen.

COUNTRIES

POPULATION

EMPLOYEES

R&D EMPLOYEES

NETWORK LEADER

68.

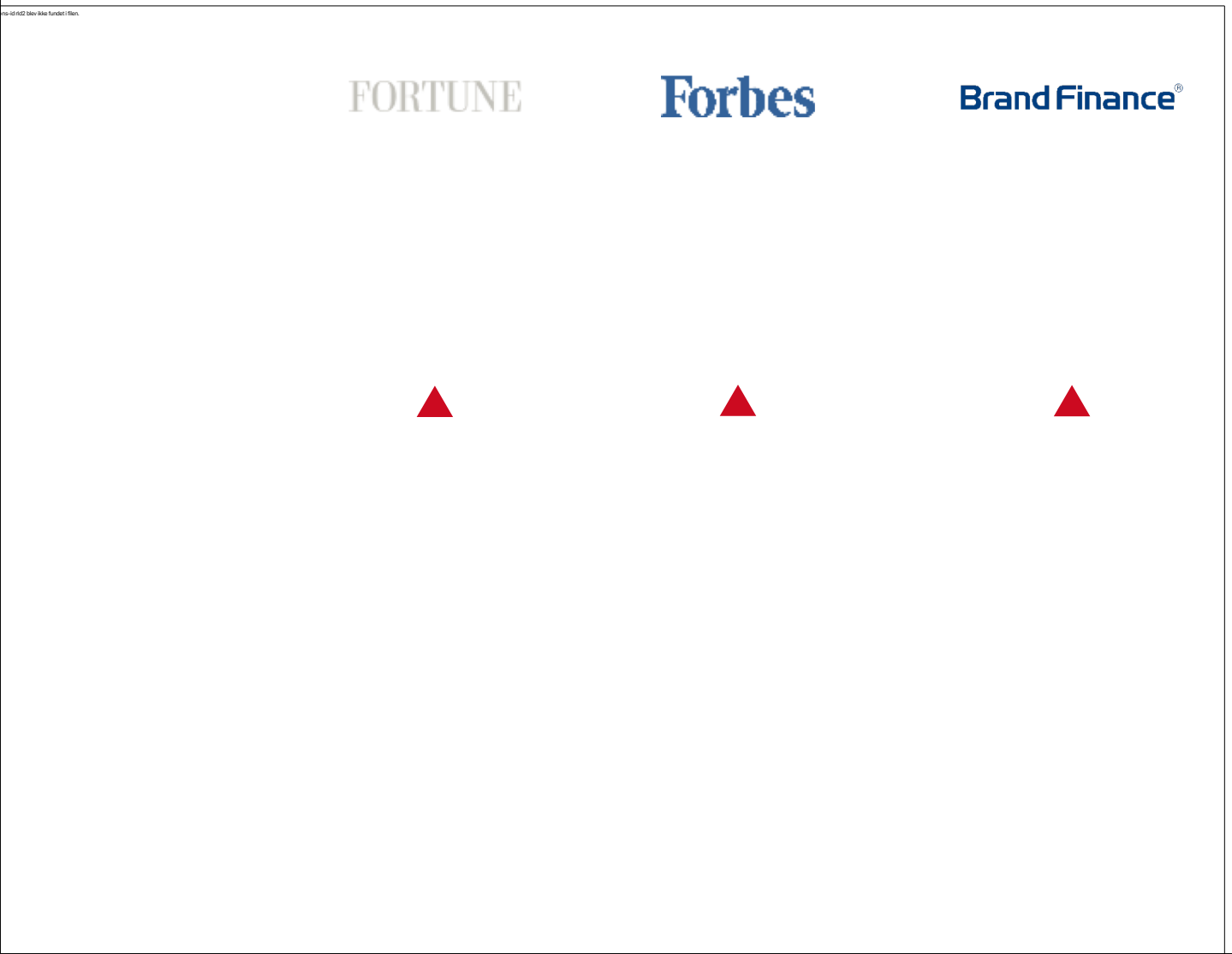
IN INTERBRAND'S TOP 100 BEST GLOBAL BRANDS

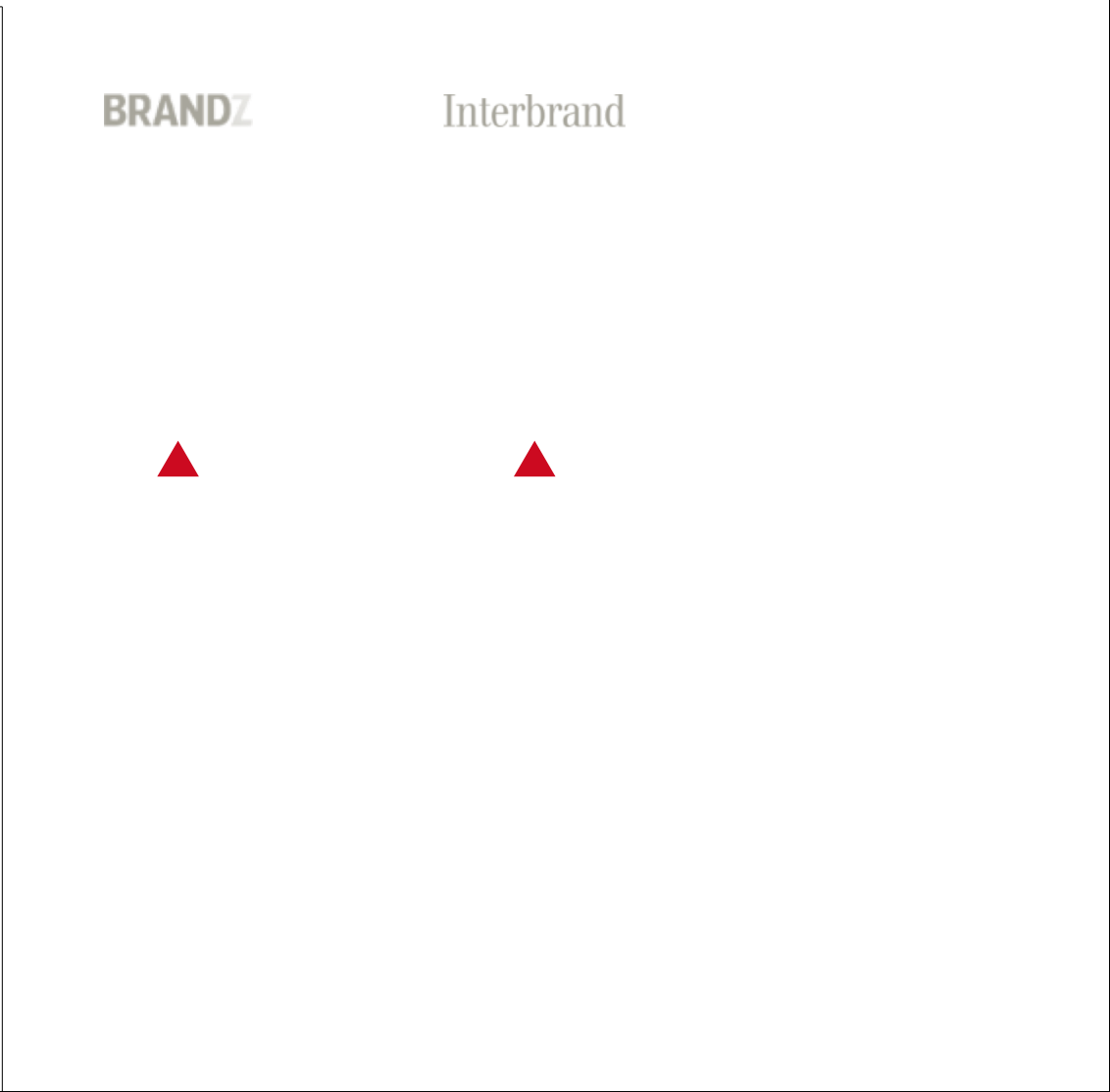
61.

IN FORTUNE GLOBAL 500

Billeddelen med relations-id rId28 blev ikke fundet i filen.

ns-id rId2 blev ikke fundet i filen.





Billeddelen med relations-id rId28 blev ikke fundet i filen.

GROWTH

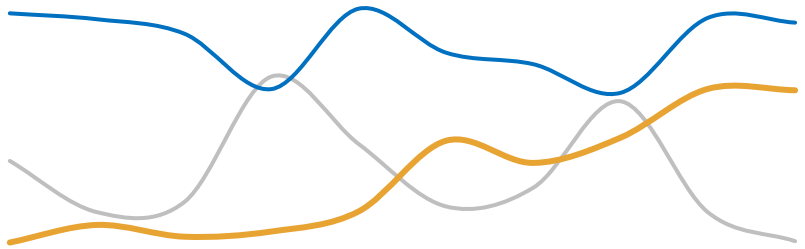
Billeddelen med relations-id rId3 blev ikke fundet i filen.

206 million

52+ billion

200 million units 26% ↑

23% MS in 500+ USD smartphone segment



17.6%

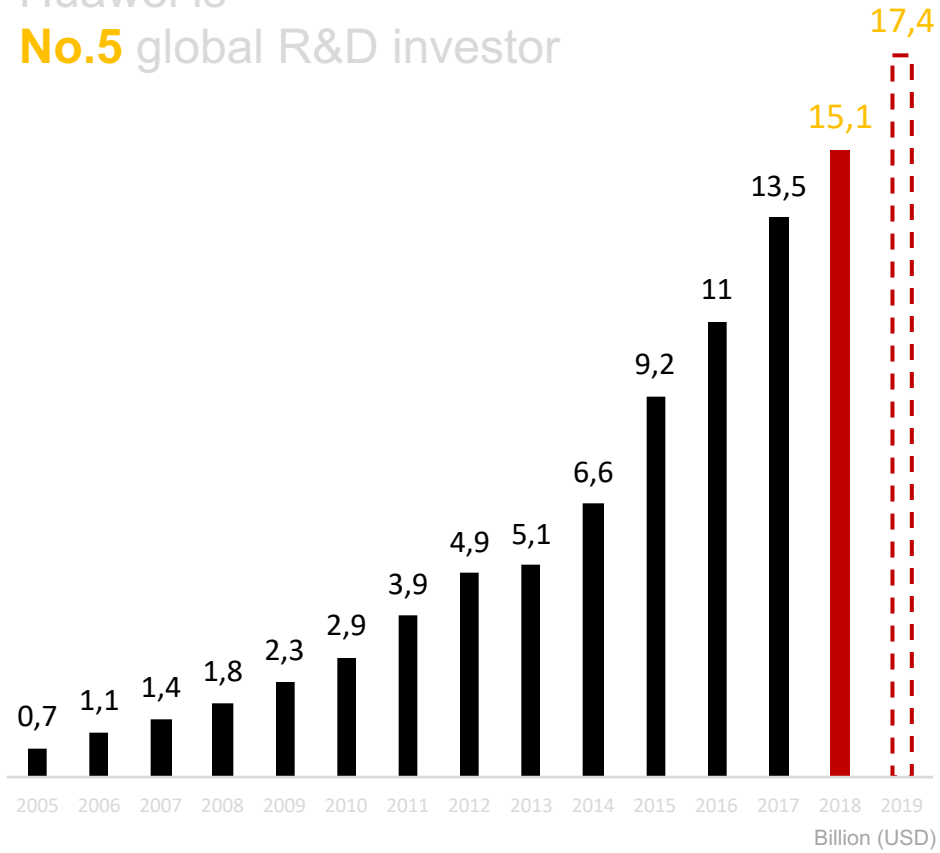
10% Huawei

*China Market share data from GFK reports 2019.08, Global Market share data from IDC reports 2019.Q2

Latest Groundbreaking Innovations

Kirin 990 5G			
40MP Cine Camera			
		40W HUAWEI SuperCharge	EMUI 10.0
	Ultra slow-motion up to 7680 fps		

Huawei is **No.5** global R&D investor



Billeddelen med relations-id rId3 blev ikke fundet i filen.

Billeddelen med relations-id rId3 blev ikke fundet i filen.

Billeddelen med relations-id rId7 blev ikke fundet i filen.

HUAWEI

INDUSTRY
INNOVATION
LEADER

- World’s fastest
- World’s most powerful
- World’s best
- World’s first
- World’s first
- World’s first
- World’s first

Billedteksten med relations-id rId3 blev ikke fundet i filen.

Billeddelen med relations-id rId28 blev ikke fundet i filen.

IN Nordic

Billeddelen med relations-id rId3 blev ikke fundet i filen.

No.3

Billeddelen med relations-id rId8 blev ikke fundet i filen.

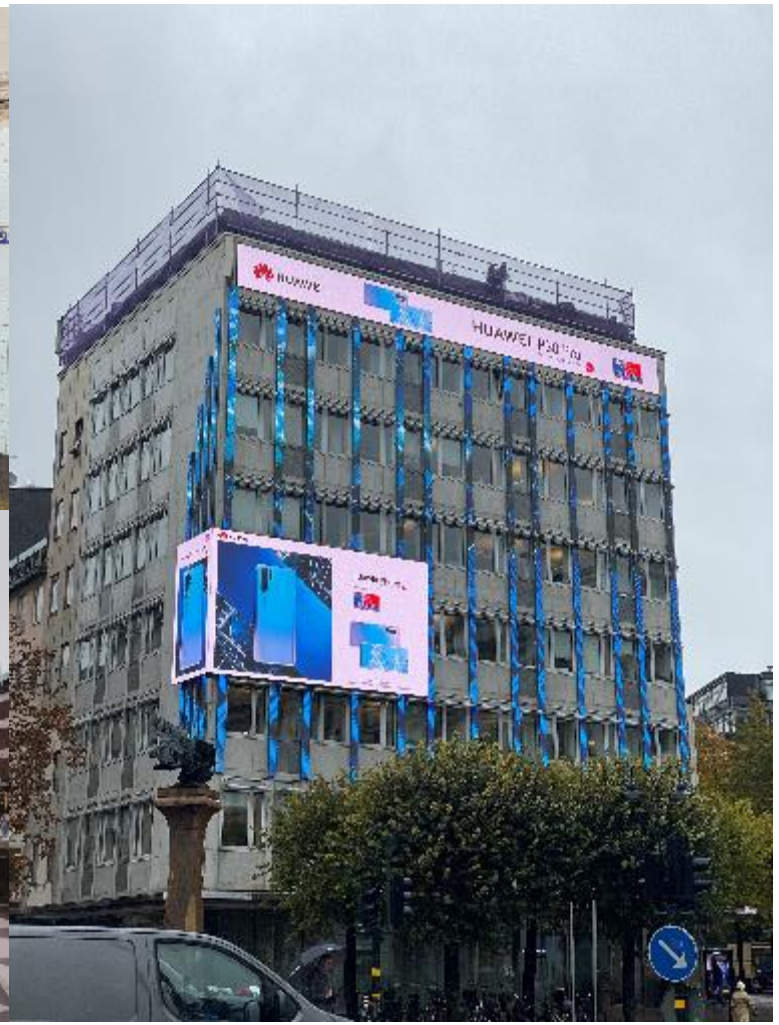
established in 2000 & 2012

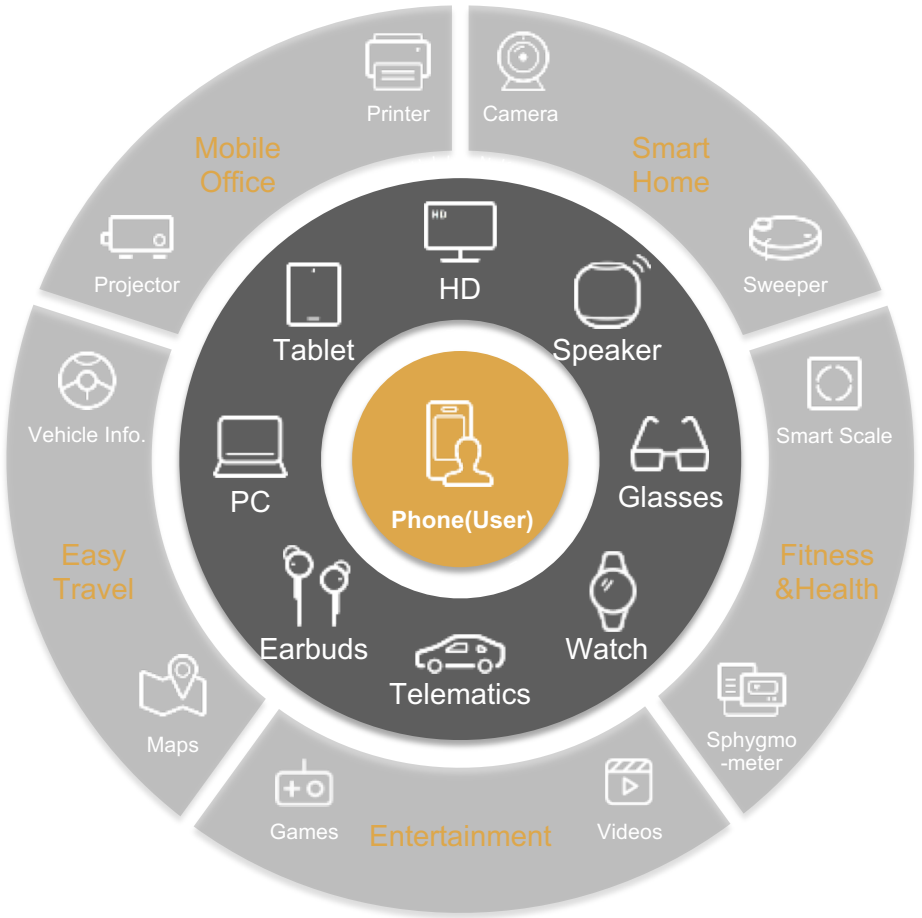
82% staffs are local

DISPLAY COUNTERS & ZONES

Billeddelen med relations-id rId35 blev ikke fundet i filen.

ALWAYS-ON MARKETING IN NORDIC





HUAWEI Share

HiLink + WiFi Router/MBB Devices

Billeddelen med relations-id rId3 blev ikke fundet i filen.

Billeddelen med relations-id rId6 blev ikke fundet i filen.

TO DEFINE FUTURE

3,5 mln Active Phone Users in Nordic

DEVELOPERS & PARTNERS GLOBAL

930 K Monthly Active Users in Nordic

Thanks!

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MARÍA RAMIRO

Head of Huawei Mobile Services Business, Spain

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HUAWEI MOBILE SERVICES

BUILDING ALL- SCENARIO & INTELLIGENT ECOSYSTEM

@HuaweiMobileServices

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“Mobile Users spend an average of 3.8 hours in their device”

PwC

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OUR MISSION

A TRUSTWORTHY, DEVICE-CENTRIC, INTER-CONNECTED MOBILE SERVICES ECOSYSTEM

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HUAWEI MOBILE SERVICES

RAPID AND STABLE GROWTH

570M+
Global MAU

100M+
Users Outside of China

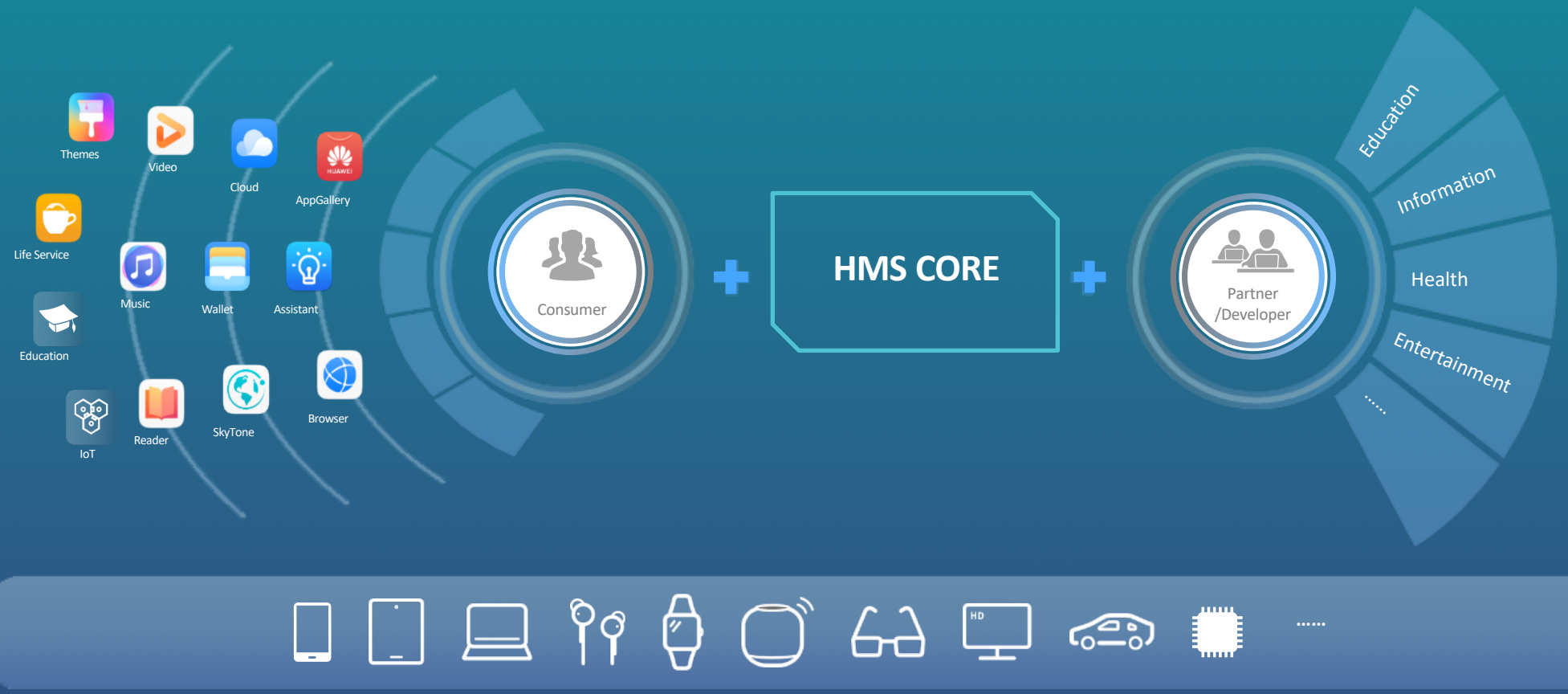
170+
Countries

1M+
Global Developers

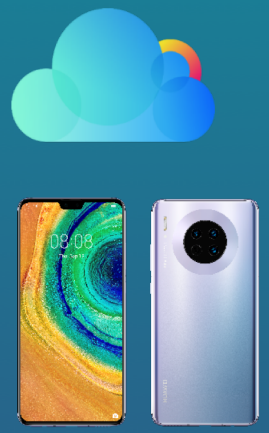
ASPIEGEL

GAPP + GDPR + Legal Compliance

HIGH QUALITY SERVICES IN ALL SCENARIOS...



… AND A FULLY OPEN ECOSYSTEM



HMS

HMS Apps

3rd Party Apps

HMS Core & Capabilities

OS

Chipsets & Hardware

Chipset-Device-Cloud-based all-scenario openness

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HUAWEI MOBILE SERVICES

FIVE LEADING ADVANTAGES

GLOBALIZED SERVICES

CHIPSET-DEVICE-CLOUD SYNERGY

EXPERIENCE-DRIVEN

CONTINUOUS INNOVATION

PRIVACY & SECURITY COMPLIANCE

HOW PARTNERS CAN BENEFIT FROM THE HUAWEI MOBILE SERVICES ECOSYSTEM?

IMPROVE CONTENT DISCOVERY AND ENGAGEMENT

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HUAWEI MOBILE CLOUD

HOME OF YOUR MEMORIES

140M+
Global MAU

308%
Paid User Growth Per Year
(50GB+)

40+
Countries Covered
(with Payment Support)

- ✓ NINE-LAYER PROTECTION MECHANISM FOR DATA SECURITY
- ✓ CROSS-DEVICE CLOUD SYNC. & BACKUP SOLUTION, SUPPORTS XX KINDS OF DATA
- ✓ DRIVE-KIT OPEN TO PARTNERS, PROVIDING THE CLOUD DRIVE STORAGE CAPABILITY

HUAWEI THEMES

ART IN YOUR POCKET

70M+
Global MAU

+172%
Themes Paid Users in 2018

730M+
Global Downloads Per Year

280M+
Downloads Per Year Outside of China

- ✓ PERSONALIZE YOUR PHONE: THEMES, WALLPAPER, FONTS
- ✓ DIGITALIZATION OF ART: MUSEUMS, TOP IP, TOURISM, ETC
- ✓ TALENTS COLLABORATION: LOCAL ARTISTS, DESIGN SCHOOLS, ETC

elleme MOOMIN move NETFLIX Van Gogh Museum Amsterdam

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HUAWEI VIDEO

EXPERIENCE YOUR VISION

8000+
Titles

3.7M+
Users in Italy and Spain

130M+
MAU Globally

- Wisevideo: intelligent codec, AI enhancement, super resolution
- Connecting partners with a flexible business model
- Integrating distribution within a strong ecosystem

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HUAWEI BROWSER

RESHAPING YOUR CONNECTIONS

200M+
Global MAU

100%+
MAU Monthly Average Growth Outside of China*

Find everything you want!

- Security and privacy in design
- Integrate software and hardware capabilities to enhance the web experience
- Provide users with all-in-one information services, such as an enhanced newsfeed and quick access to locally relevant services

HUAWEI ASSISTANT

YOUR PERSONAL ASSISTANT

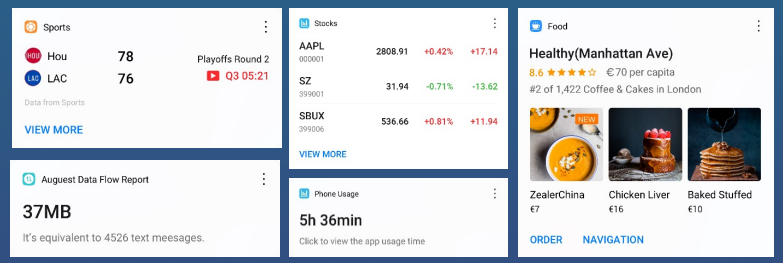
160M+

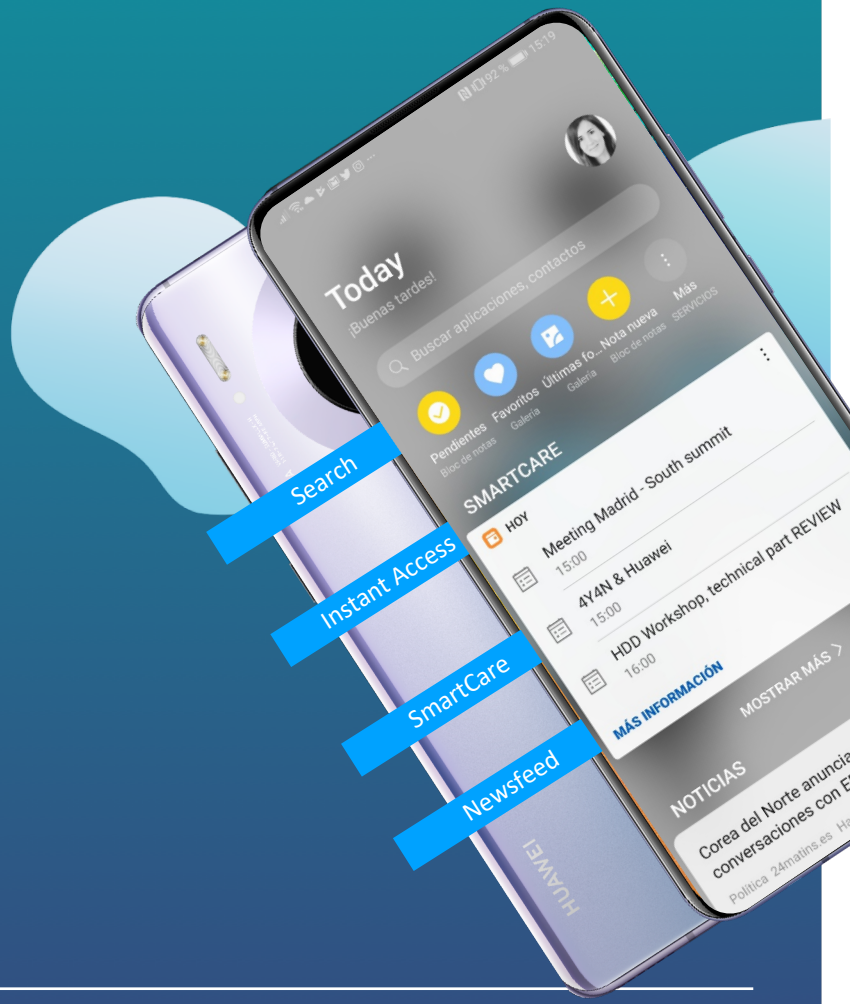
Global MAU

High user activation: 140m+ monthly active users

All-in-one intelligent services: search, instant access, smartcare, news feed

Global launch with mate 30 series in september 2019





More SmartCare cards will roll-out gradually with partners' content & services

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HUAWEI AppGallery

YOUR DISCOVERY CENTER

390M+
Global MAU

180Bn+
Global Apps Downloads
Per Year

11K+
Top Apps
Outside of China

- ✓ LOW FRICTION AND FAST ONBOARDING SUPPORT WITH LOCAL ASSISTANCE
- ✓ ON-DEVICE ACQUISITION SOLUTIONS: GIFTS, CROSS PRODUCT PROMOTION, ETC
- ✓ AGE RESTRICTIONS SUPPORT (IARC STANDARD)
- ✓ LOCALIZED CONTENT MANAGEMENT FOR BEST USER EXPERIENCE

HOW PARTNERS CAN BENEFIT FROM THE HUAWEI MOBILE SERVICES ECOSYSTEM?

FULL RANGE BUSINESS SUPPORT FOR PARTNERS & DEVELOPERS

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ALL-IN-ONE OPERATION SUPPORT SERVICES

FOR GLOBAL DEVELOPERS

Unified Portal Access

Chinese/English/Russian language services

Unified Certification

Enterprise/Personal /Merchant/Client

Unified Info Service

Report/EDM/Station letter/Official website

Unified Help Desk

Global time-free customer service

Unified Settlement

220+ countries/ regions settlement

English Website | http://developer.huawei.com/consumer/en

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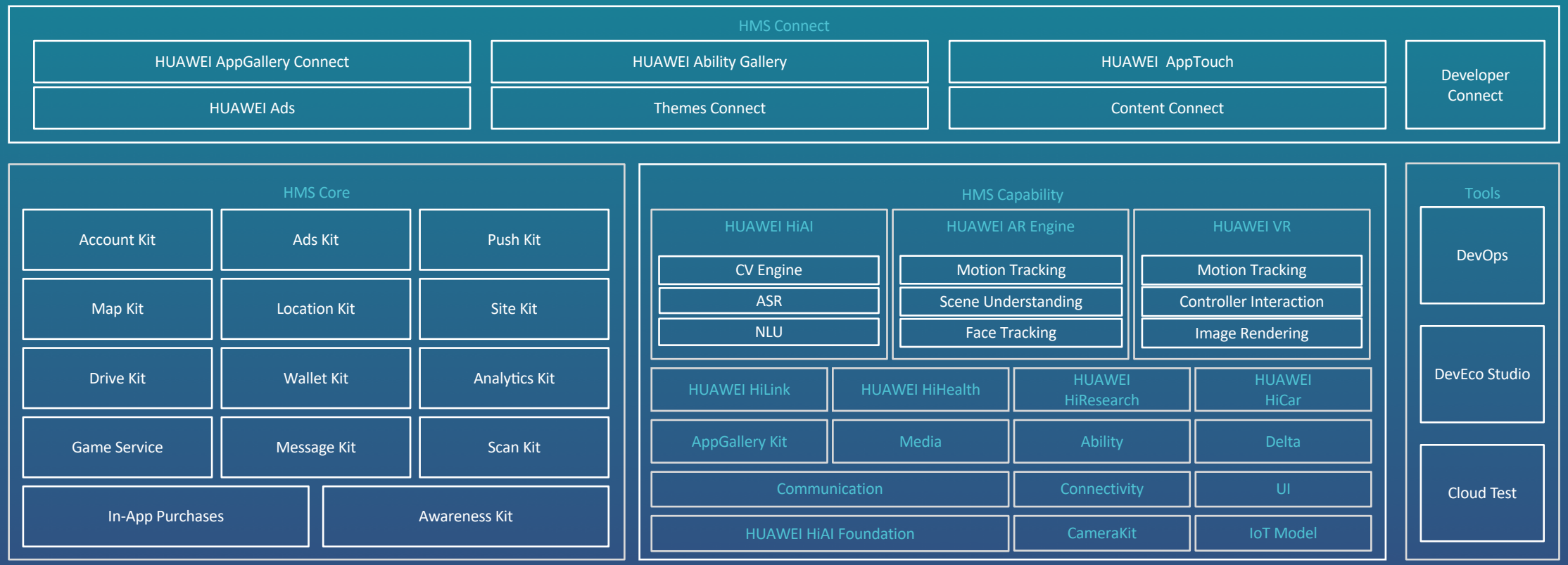
OPEN TECHNICAL CAPABILITIES

51 SERVICES + 997 API



HUAWEI MOBILE SERVICES CORE

FOR GLOBAL DEVELOPERS

Essential

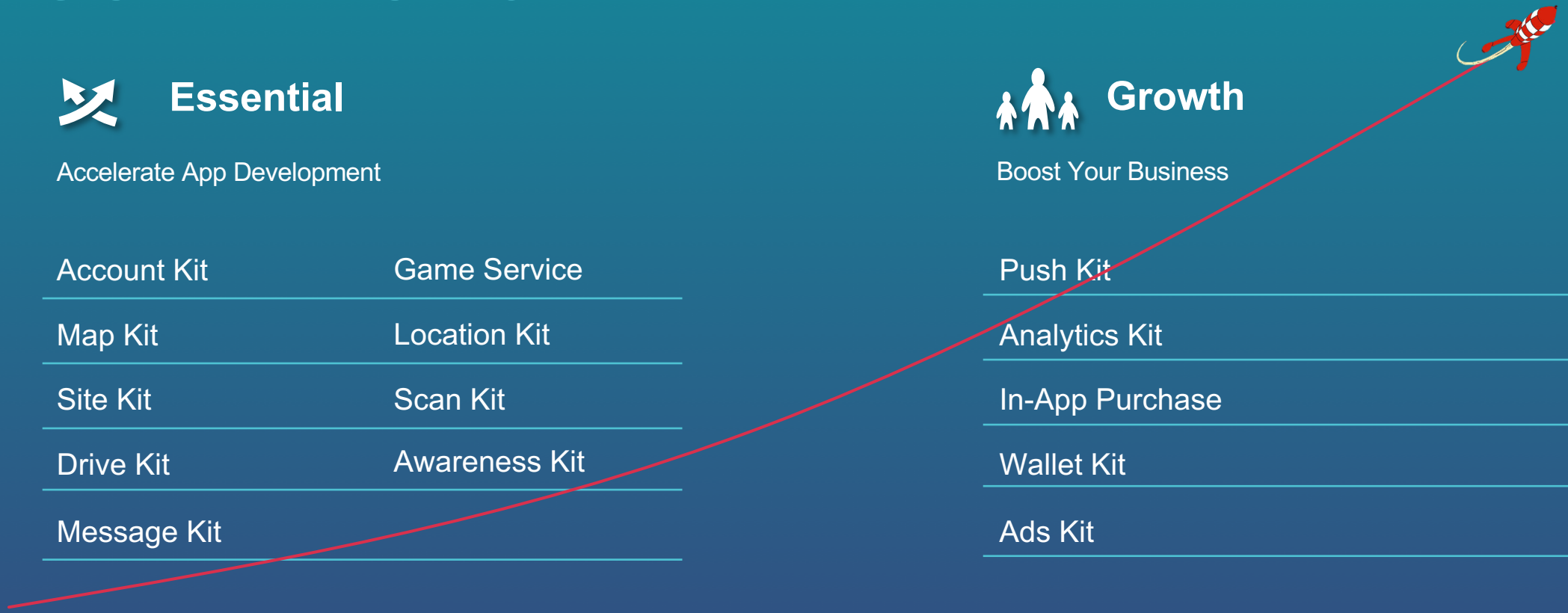
Accelerate App Development

Account Kit	Game Service
Map Kit	Location Kit
Site Kit	Scan Kit
Drive Kit	Awareness Kit
Message Kit	

Growth

Boost Your Business

- Push Kit
- Analytics Kit
- In-App Purchase
- Wallet Kit
- Ads Kit



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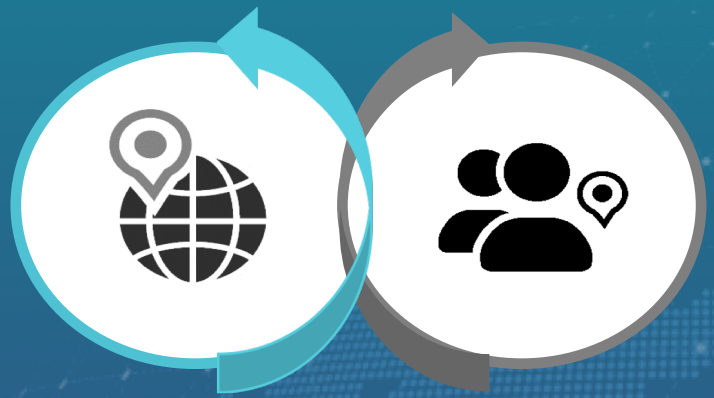
PROVIDE RESOURCES & EMPOWER INNOVATION

6 Regions

DigiX Lab For Innovation Support

Real-device Debugging
Open Capability Experience
Mobile Services Experience



1 BLN USD

HMS Ecosystem Incentive Program

Development Fund
User Growth Fund
Marketing Fund

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Mike Skyte

Brand Owner, Pling
Aller Media A/S

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C.T.C

Content Transaction Center

We select, optimise and distribute existing Aller content to our digital subscription platforms, applications and external partners

Aller media

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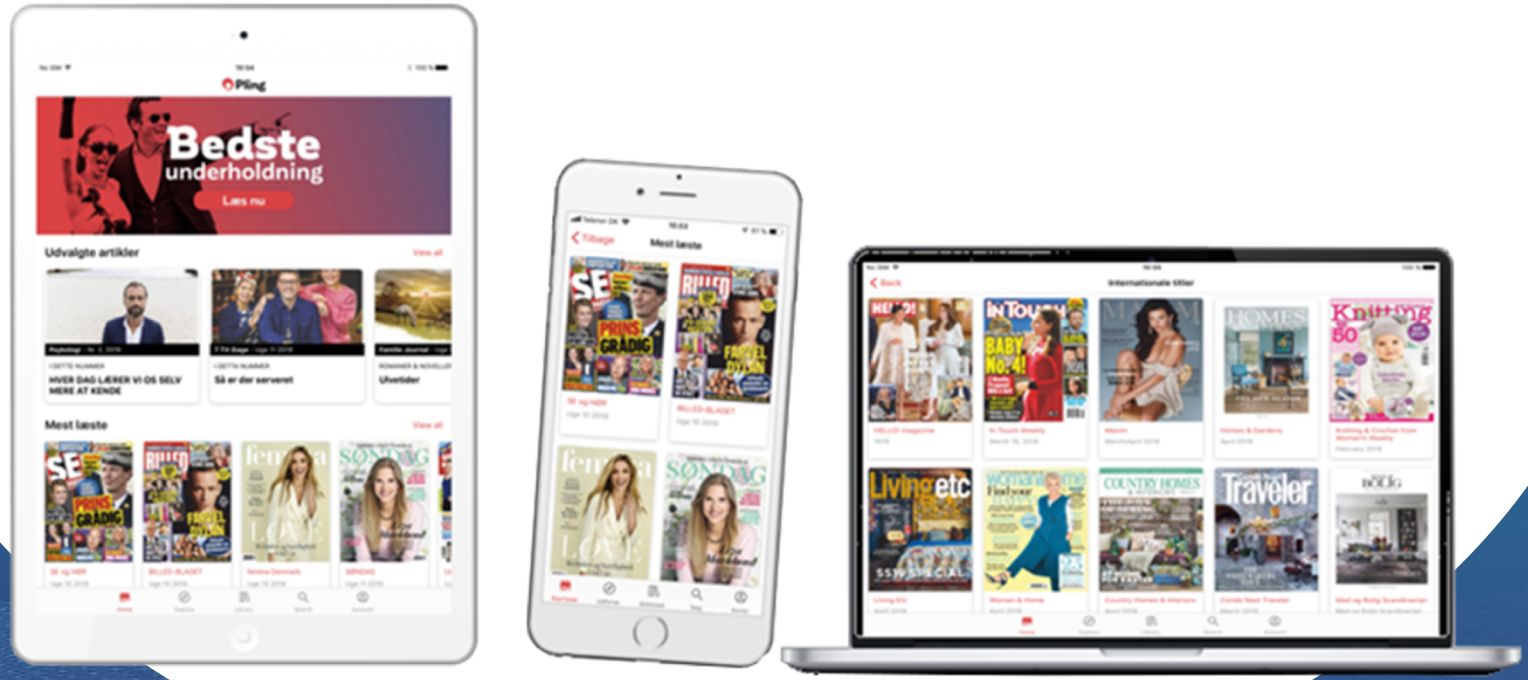
Pling



What is Pling?

Unlimited '**All you can read**' access to over **280 magazines** and podcasts from Aller Denmark, Aller Sweden and over 30 global publishers.

- Android app, iOS app, PC/Mac version
- Digital subscription prices at 99 kr – first month free
- Print/digital subscription bundle at 49 kr – first month free
- Brand access – free digital copy – 0 kr/month

- Around 200 International titles Like: **Hello**, **Vanity Fair, Time, The New Yorker, Rolling Stone og Condé Nest Traveler.**

Number 1 in Denmark!

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Får meget for få penge ! 5. apr.
★★★★★ TineKSvea

Såå mange blade for få penge mere Tidl købte jeg kun Se & Hør x 4 pr mdr. Med dén stk pris +60-70 kr mere, ja så har jeg pludselig alle bladen til gode. Kan læse dem nær det passer MIG ! Skønt.
Det er pling pling skønt 👍👍👍👍👍👍😍

PLING 30. mar.
★★★★★ quist2970

En dejlig og overskuelig mulighed for at læse rigtigt mange magasiner. Tak

Blade til hele familien, så fedt 2. apr.
★★★★★ Prandersen08

Der er blade til enhver smag og interesse, du kommer nemt igang 👍😊

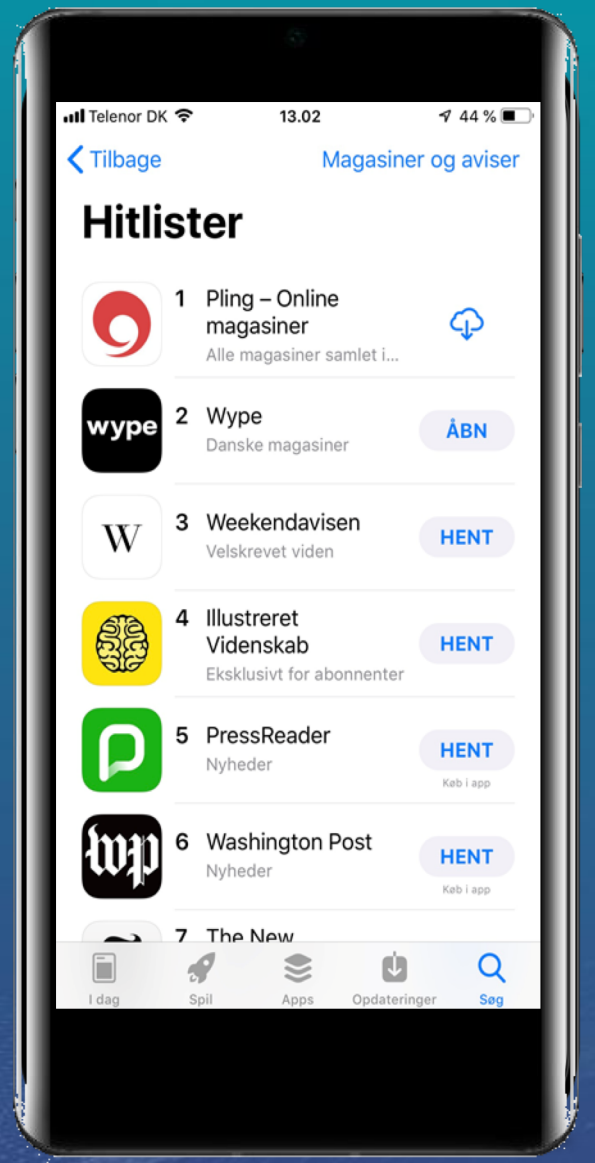
Nemt at bruge 21. mar.
★★★★★ fruelgaard

Dejligt nemt at bruge

Trustpilot — Søg efter en virksomhed...

Pling
Pling
Anmeldelser 159 • God

TrustScore 7.5 / 10



A growing base of loyal, engaged users

Pling

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10%
average
push open rate

8.000
monthly
sessions/user

5,4%
monthly
churn

10%/month.
growth
in-app
purchase

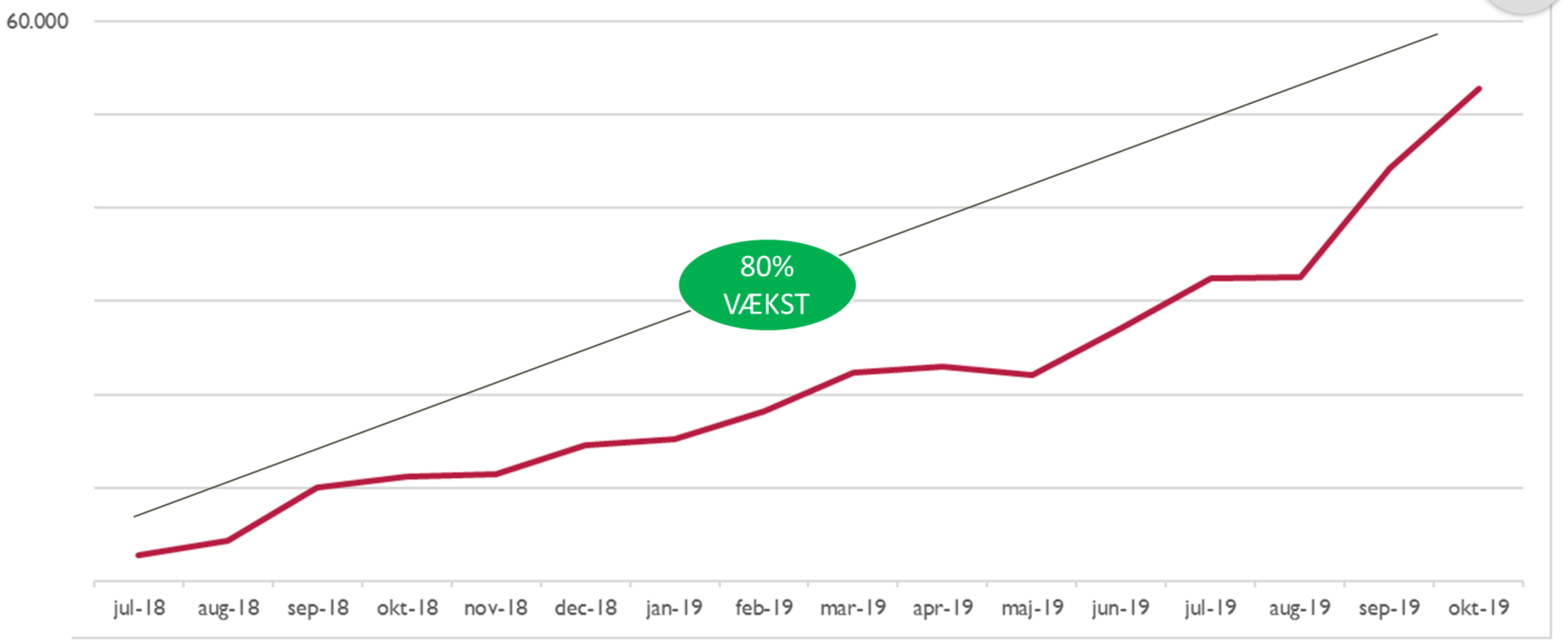
60% cvr
from free
month.

22+ mins
average session length

5%/month.
Avge.
growth
subscriptions

Pling Universe.

Subscriber base has grown by 80% since July 2018



Pling

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All You Can Read

Danish titles (Highlights):

- BILLED-BLADET
- SE og HØR
- femina
- SØNDAG
- Familie Journal
- Mad & Bolig
- Ude og Hjemme
- SPIS BEDRE
- 7 TV Dage
- Antik & Auktion
- ELLE
- ISABELLAS
- Mad & Bolig Gourmet
- IN
- ELLE Decoration
- Plus eksklusivt indhold

International magazines

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Film, TV og Musik

SPORT

Biler & Motorcykler

fitness

Business og Finans

Teknologi og Gaming

Rejser, outdoor

Nyheder og politik

Mænds Livstil

International magazines

Pling

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Sundhed

Wine + Beverages

Foto

Bolig & Indretning

gardening

Mode & Skønhed

ELLE UK

ELLE USA

ELLE FRANCE

Underholdning

Livstil

Gør-det-selv

weddings

Pling

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Solid Foundation for marketing

Value proposition

Multiple brands

Access to ALLER’ s premium publications: femina, SE og HØR, and Billed-Bladet + over 200 leading international magazines titles as HELLO!, Forbes, WIRED TIME and GQ.

Convenience

Content on the go” Online and offline access to publications and exclusive content.

Mobile friendly reading format
Article search

Trust

Quality content produced by professional journalists.
News and expert knowledge always at your finger tips.

Value for money

SOLID FOUNDATION: RETENTION & OPTIMISATION:

✓ ASO
- Very high levels of retention and loyal users
- More marketing will result in high conversions

✓ Web
- UX assessment completed – design/flow overhaul coming
- User testing
- Continual conversion optimisation

✓ Analysis
- Improved understanding of segments/engagement
- Define target groups with potential for good CVR
- Remote ID analysis - retention

✓ Acquisitions strategy
- SEM, push, in-app, SEO – all to be updated

✓ Push & In-app strategy

COMMUNICATION HIERARCHY

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ATL

Hero communication

Builds awareness of platform

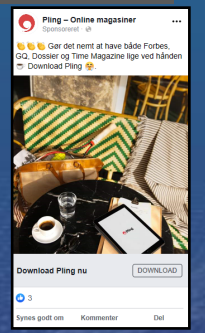
BTL

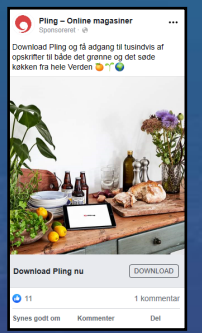
Tactical communication

Value proposition

Brands

Segments and interest





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Optimisation of quality partnerships

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Pling lite is a “living” weekly magazine

Content is curated and optimized for mobile units several times a day to engage users **“where and when they are”** – stories that will fit what is going on right now and the situations users most likely are.. in-transit, at lunch, dinnertime and evening.

What is Pling lite?

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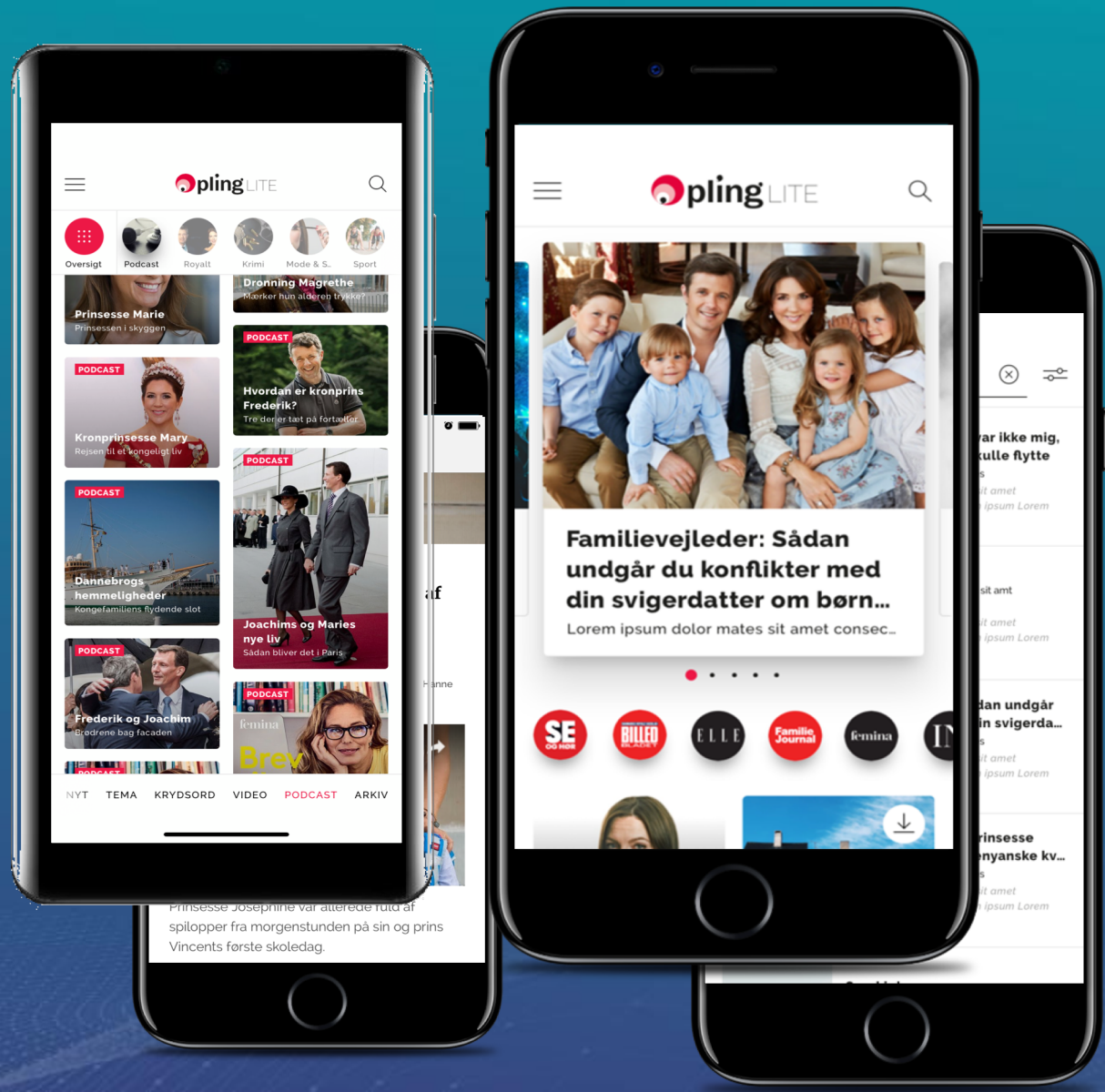
Mobile first Solution tailor-made for YouSee's needs

- Over 700 new 're-use- articles' per month
- Search by category, magazine brand or keyword
- Stickiness: 7 x new videos each week
- Reason to return: 'newsy' articles refreshed x 3 daily.
- Real time user data
- Budget for future investment in dev. (Sprylab)



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THANKS!

http://developer.huawei.com/consumer/en

goto; copenhagen

GOTO Copenhagen 2019

Conference Nov. 18 - 20

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Please

Remember to rate this session

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Taxi

Food

Sightseeing

Weather

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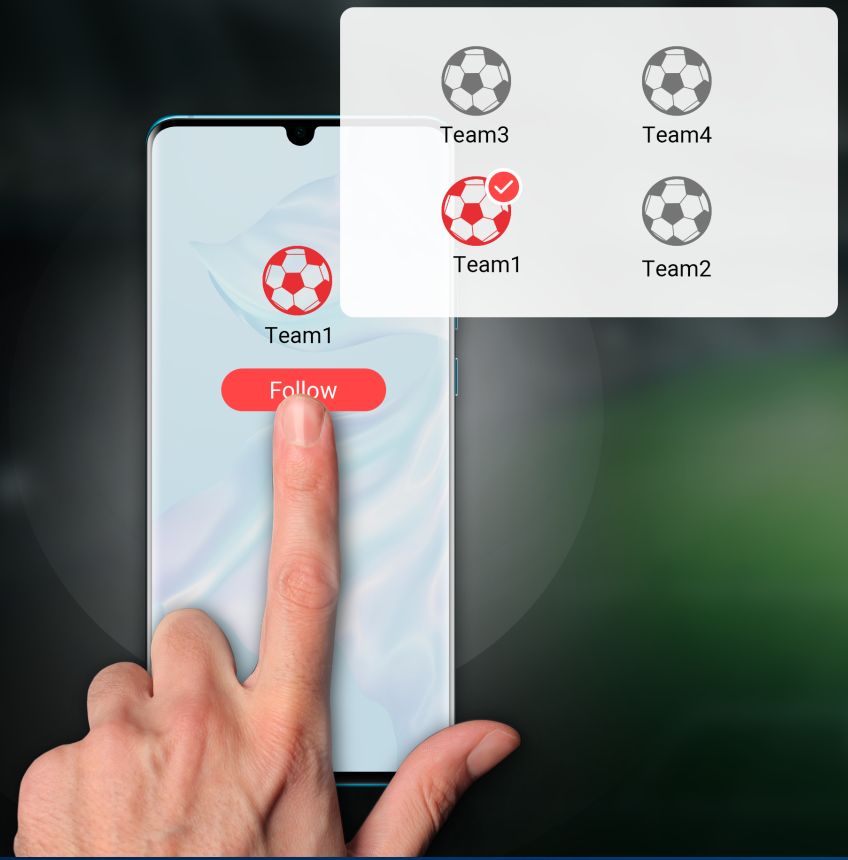
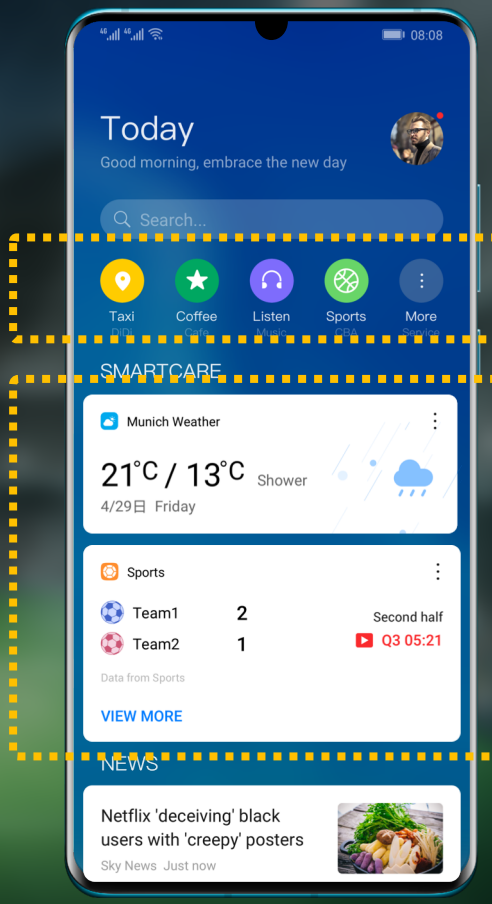
Evolution of Content and Services Distribution

——Via HUAWEI Ability Gallery

Touch Points ：Instant Access & SmartCare

After following sports events, recommend the real-time information for users ：





Instant Access

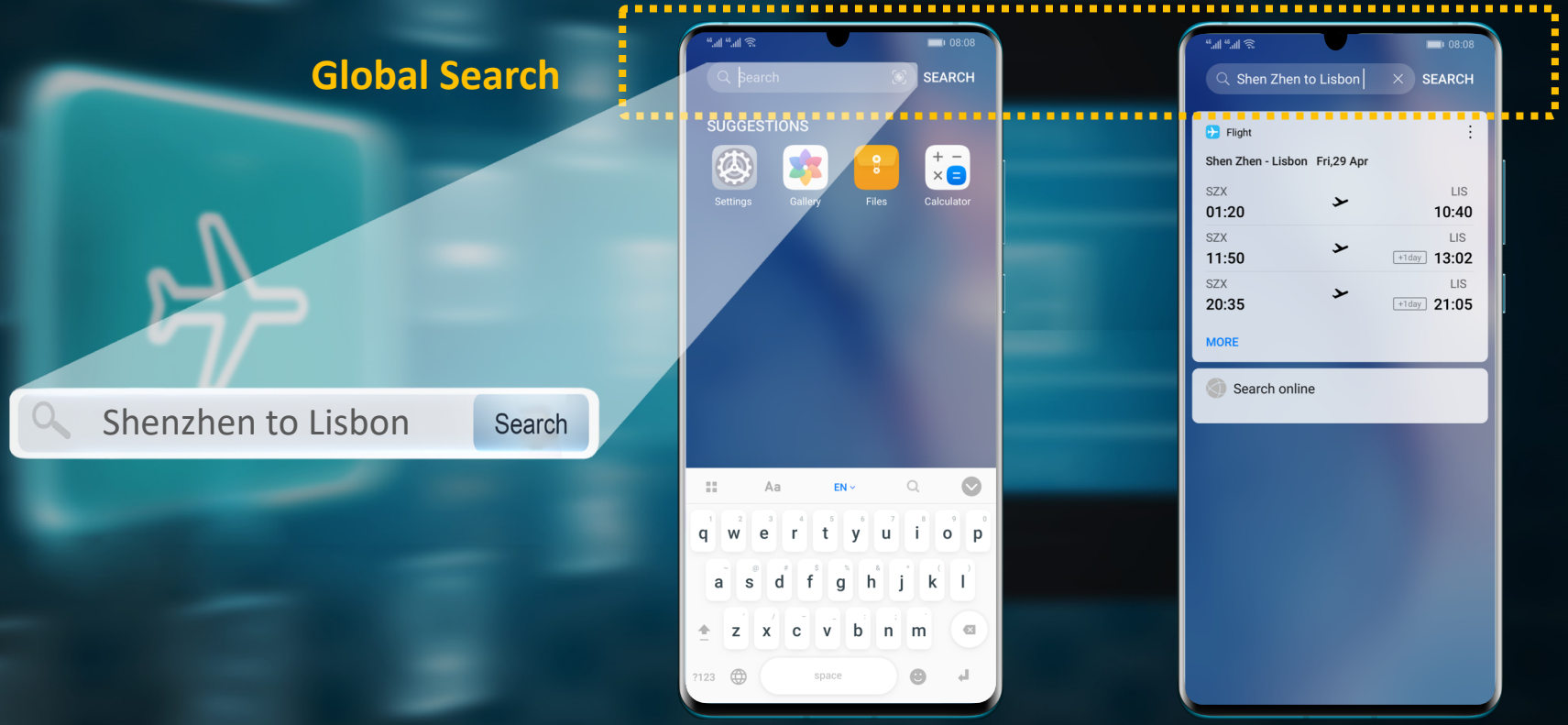
SmartCare

Powered by HUAWEI Ability Gallery

Touch Points : Global Search

Get instant service through global search :

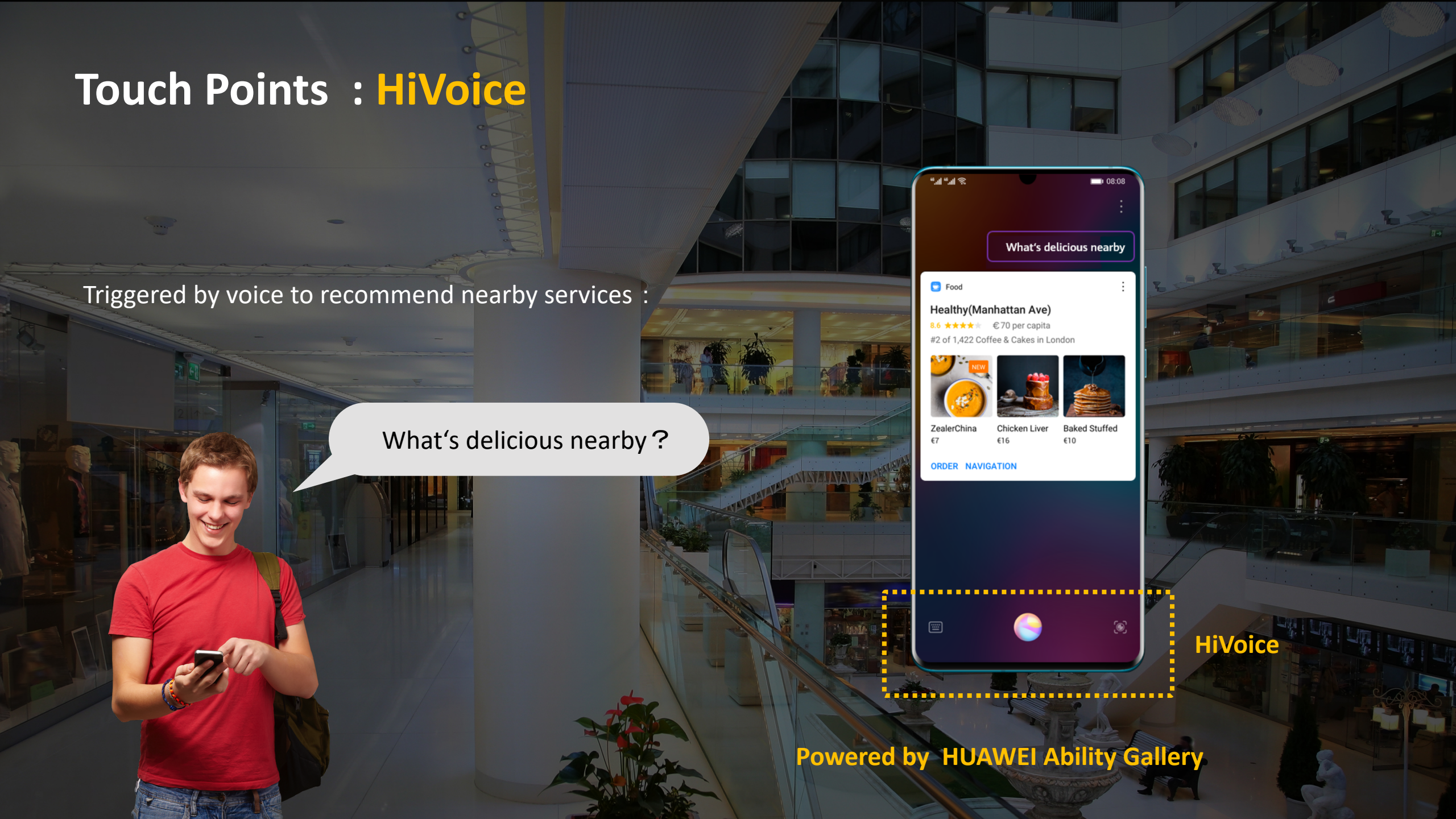
Global Search



Powered by HUAWEI Ability Gallery

Touch Points ：HiVoice

Triggered by voice to recommend nearby services：



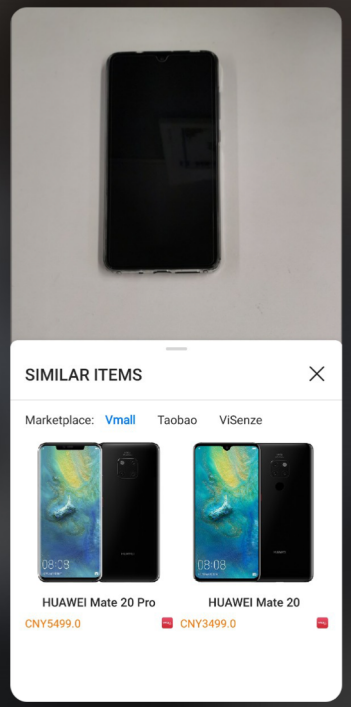
Powered by HUAWEI Ability Gallery

Touch Points : AI Lens

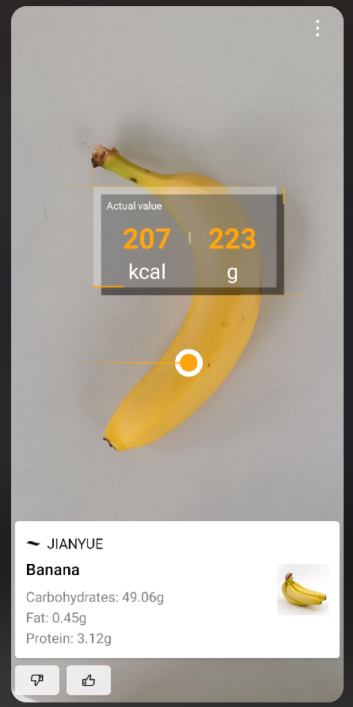
AI Lens

Identify

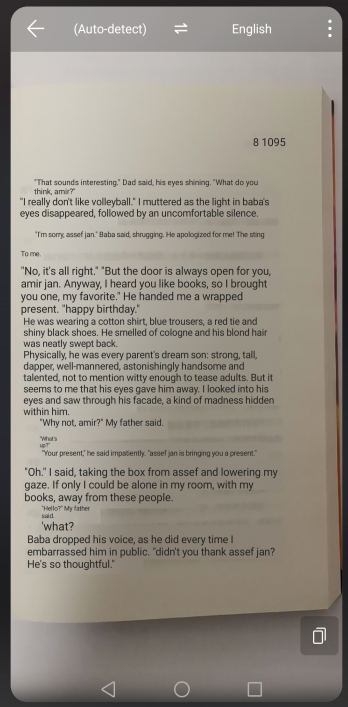
Shopping



Calorie

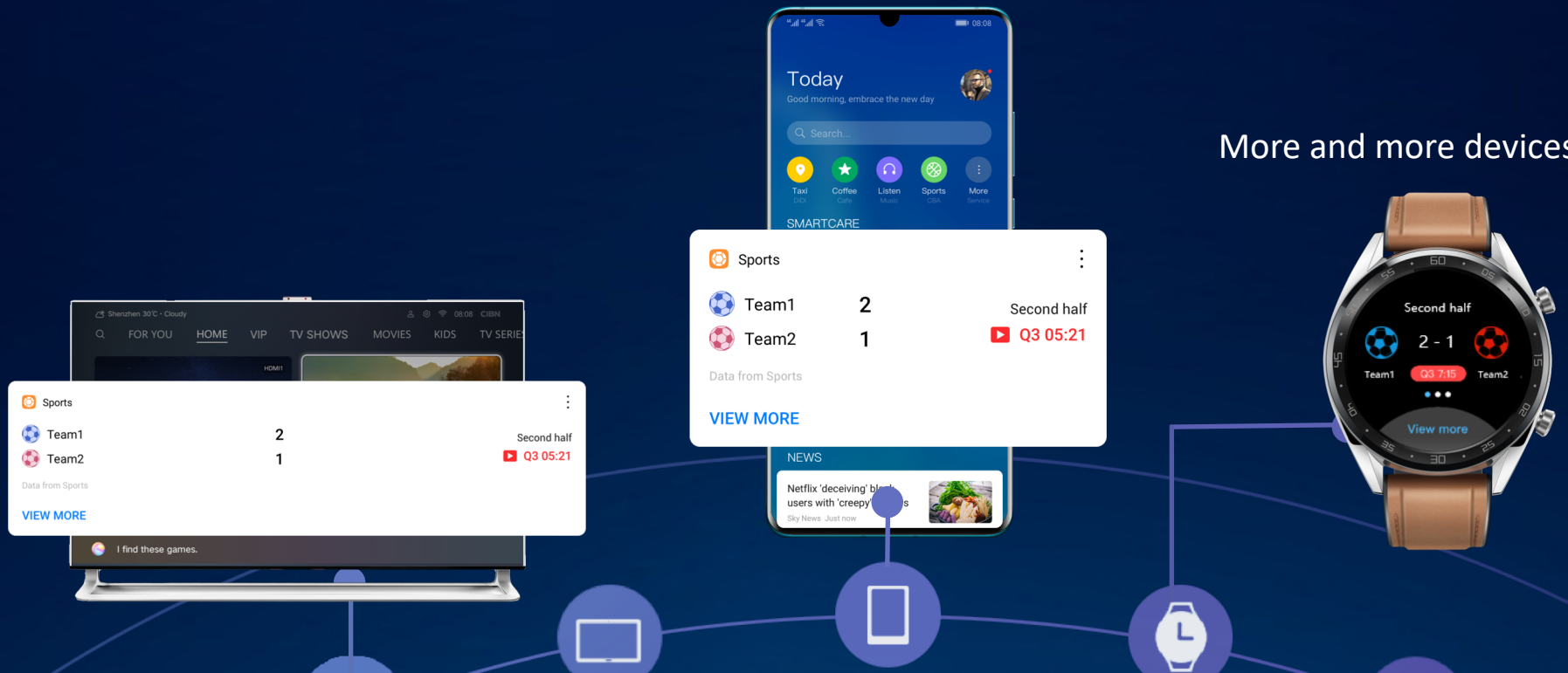


Translate



Powered by HUAWEI Ability Gallery

Distribute Abilities to Various Types of Devices

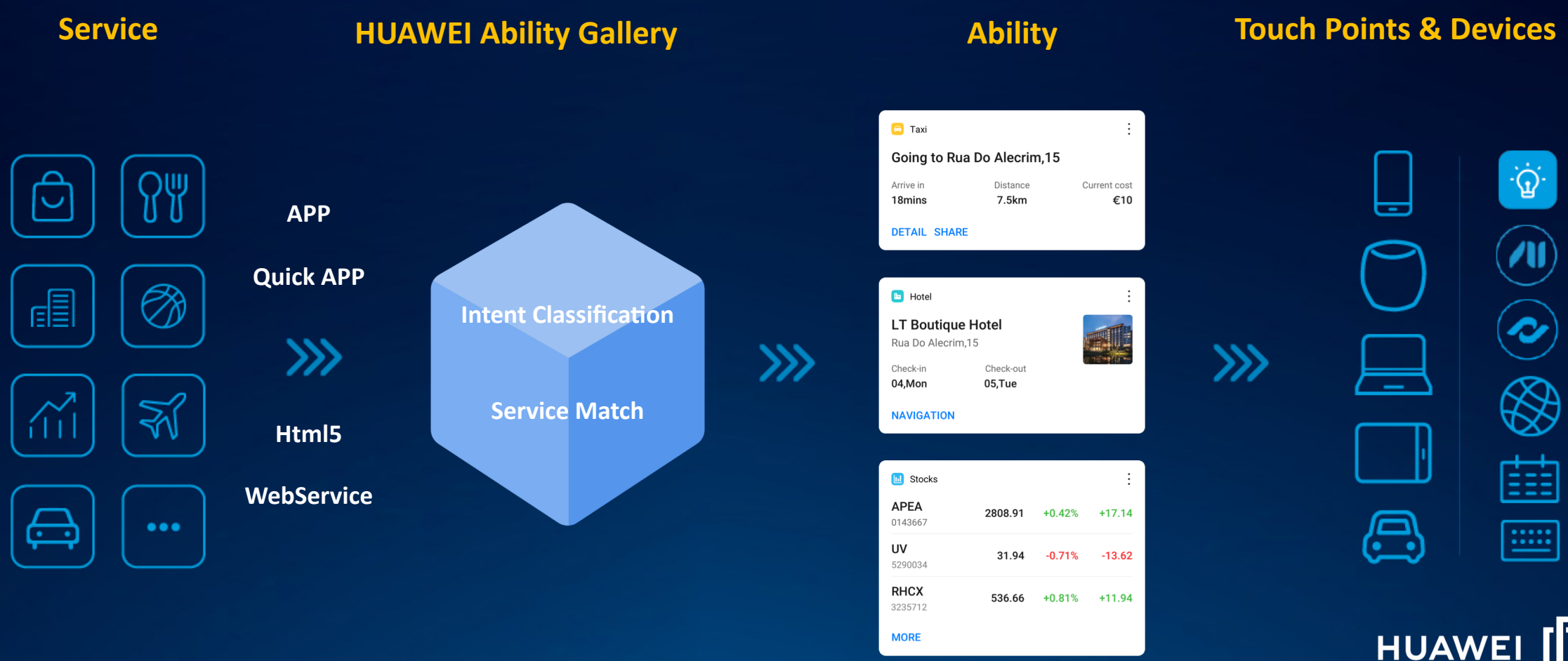


More and more devices in the future

Powered by HUAWEI Ability Gallery

HUAWEI DEVELOPER DAY

Ability is the Service That Meets User's Intent
Huawei Ability Gallery Distribute Abilities to Users



HUAWEI DEVELOPER DAY

App Ability

Display mode：**Icons**

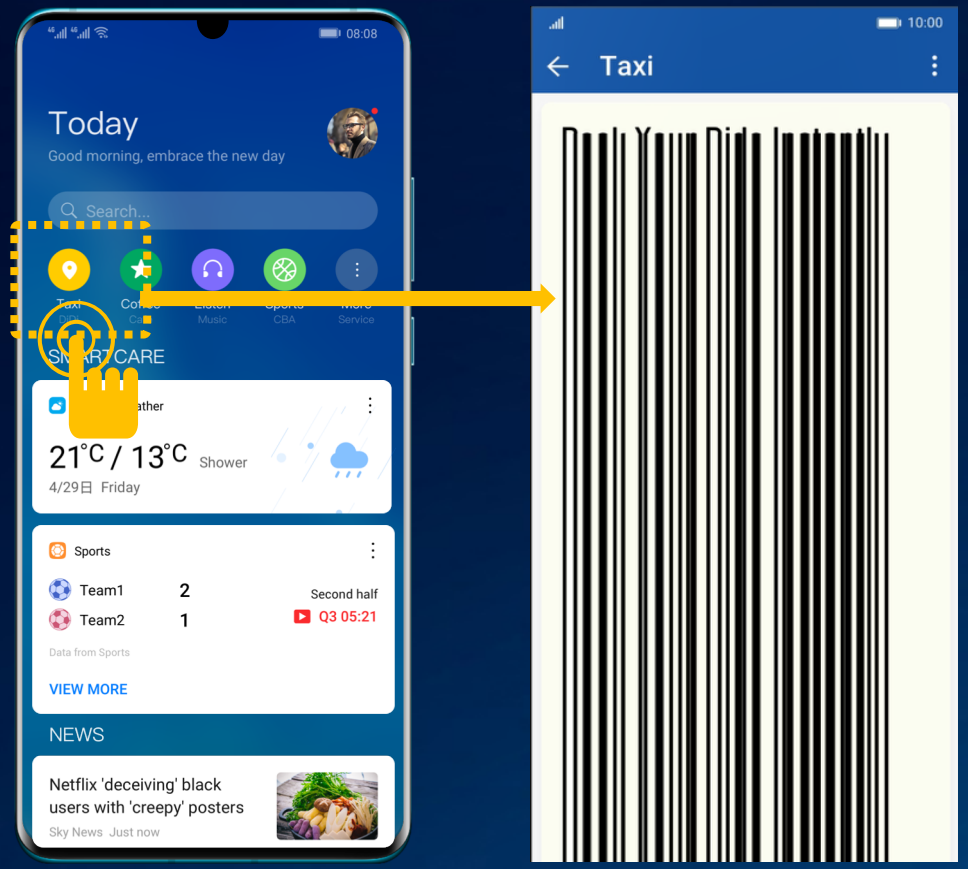


illustration purpose only, actual products may vary

What should developers do?

- Develop deeplink for services/content within App/Quick App.

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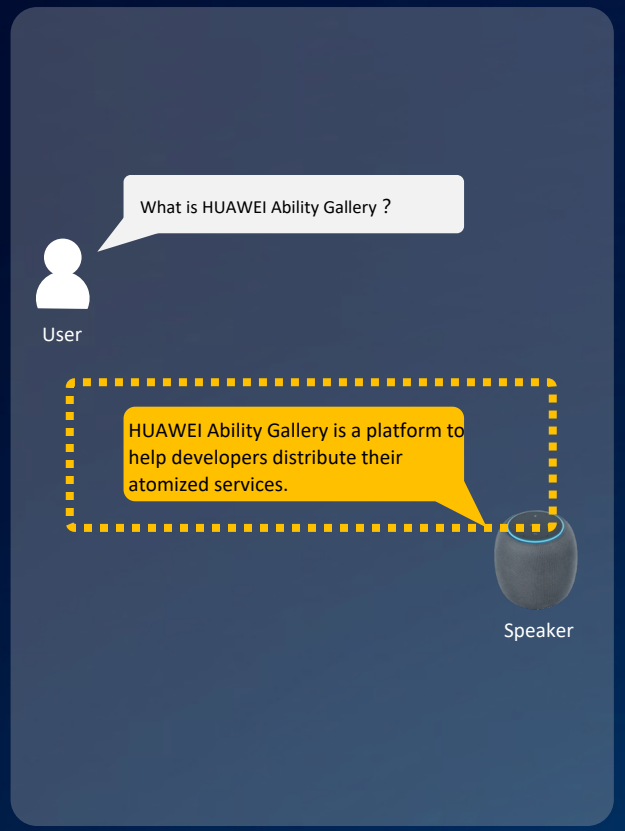
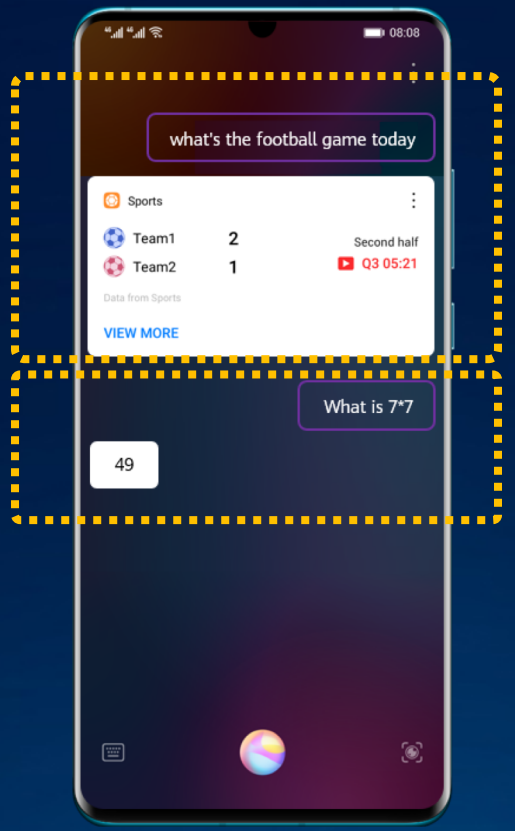
Content Ability

Display mode：**Voice**



Display mode：**Card or text**



What should developers do?

- Developers provide event data through API.
- Huawei is responsible for card definition and development.
- Developers are responsible for providing event detail pages (quick app/app/H5).

illustration purpose only, actual products may vary

Card Ability

Display mode：**Card**

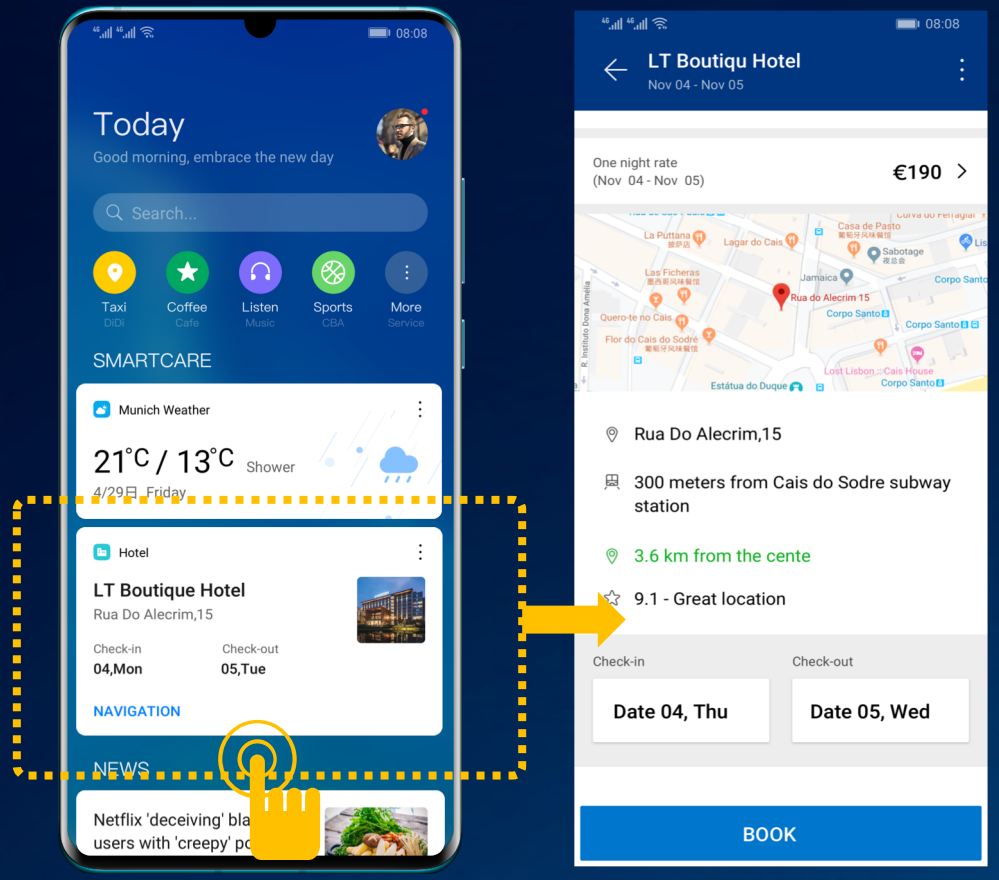


illustration purpose only, actual products may vary

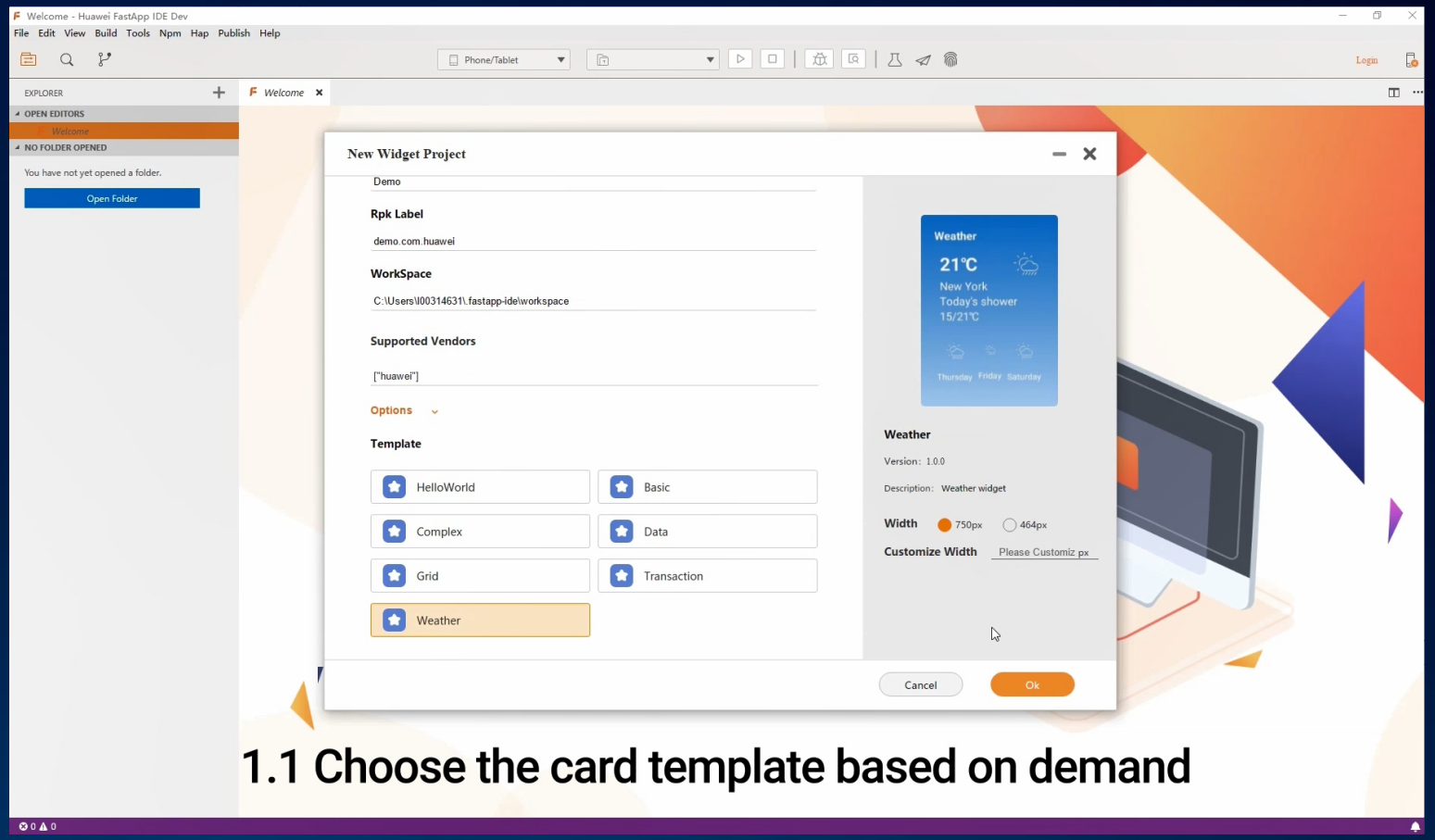
What should developers do?

- Developers directly provide ability cards through Huawei Ability Gallery.
- Developers are responsible for defining and developing service cards and detail pages , and need to bind with Huawei account.

Tools for faster development

IDE tool

- Design with Card Template;
- Development with Demo Code;
- Debug with Real-time Card Preview



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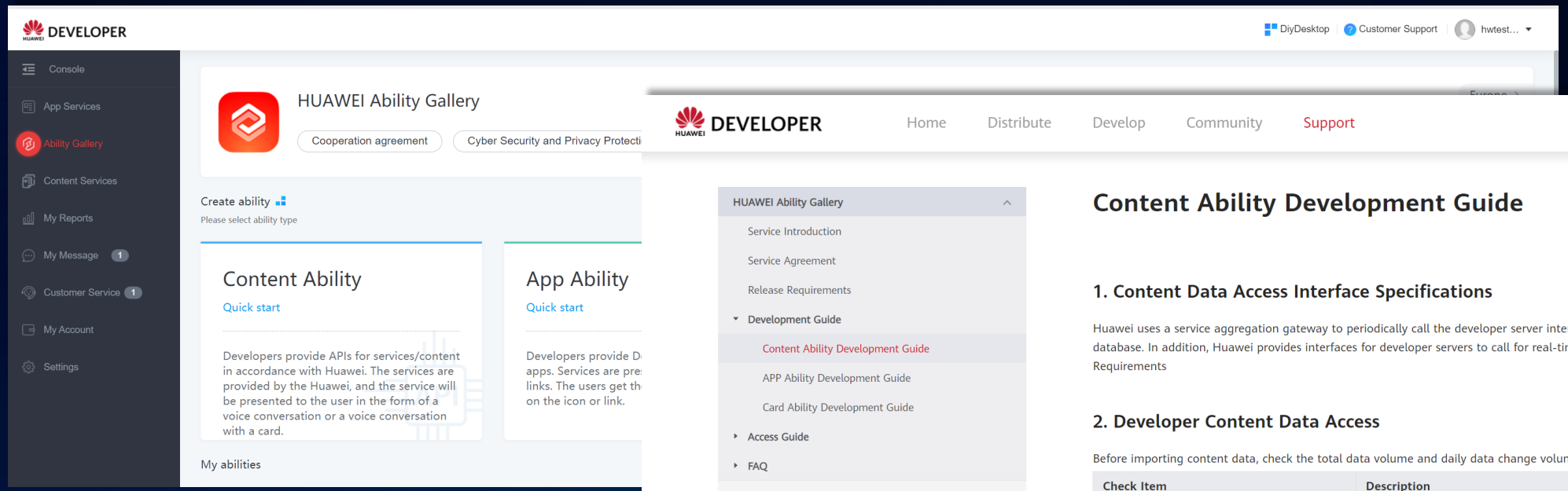
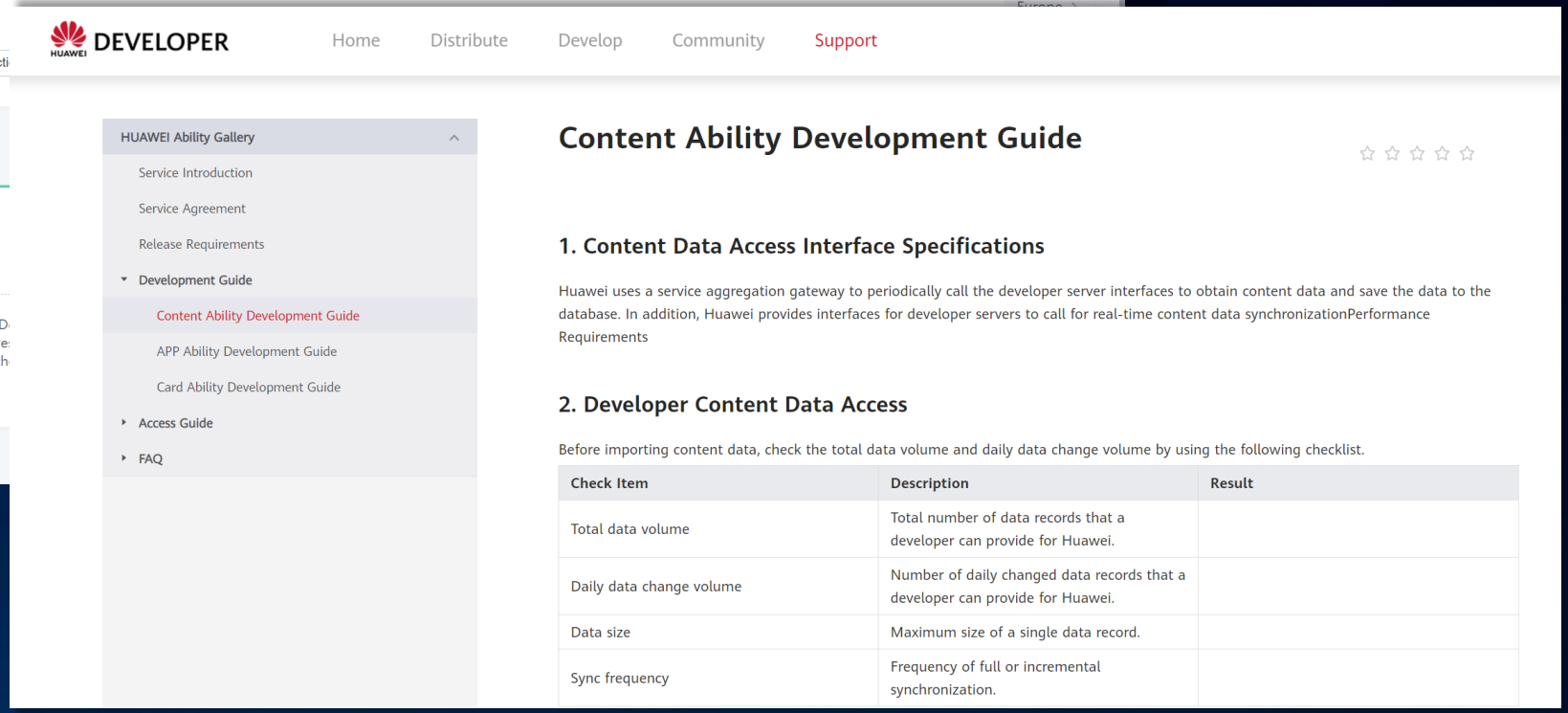
Console for convenient access





Huawei Ability Gallery Console

- Achieving ability configure and fulfillment conveniently with detailed development guide and access guide

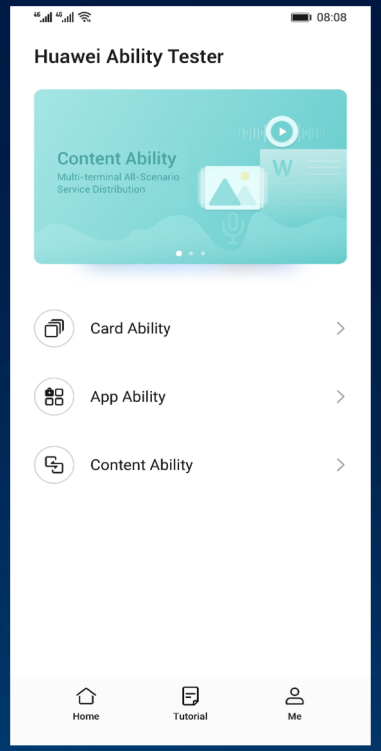
HUAWEI DEVELOPER DAY

Consoles for convenient integration

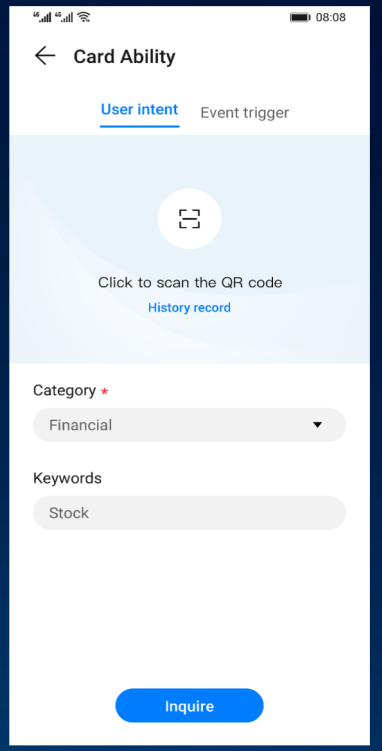
Huawei Ability Tester

- Self-tester for three integration methods under test environment
- Test:
  Card Design;
  Account Binding;
  Event Notification;
  Ability Trigger

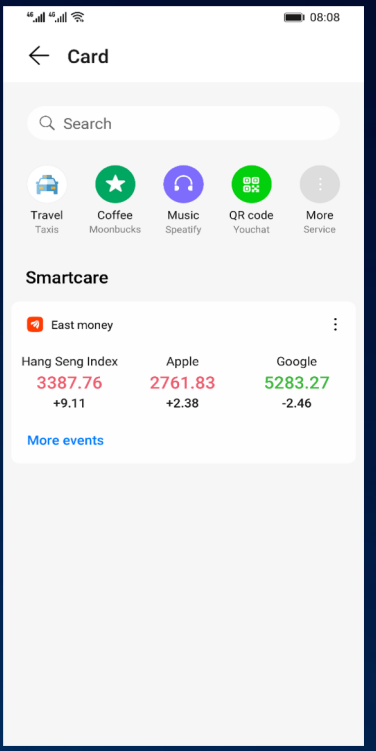
Test APP



Input trigger condition



Check the card



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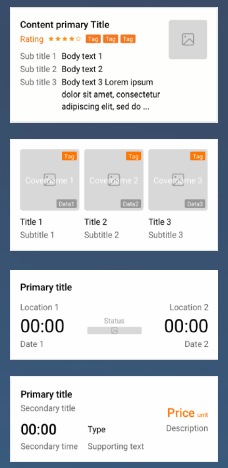
Value of Huawei Ability Gallery for Developers

Lower Integration Cost

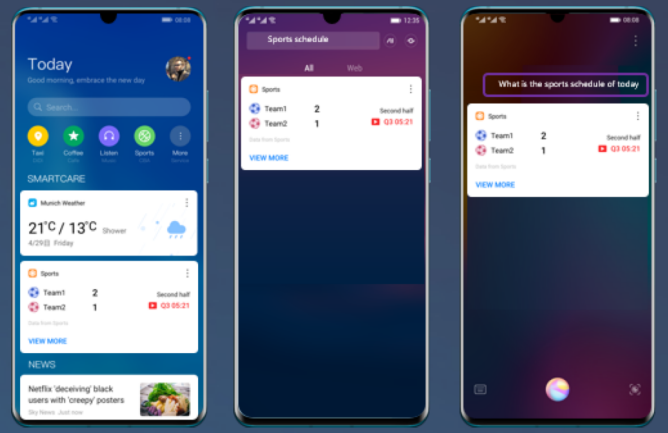
- One time integration
- Tools & support

Developer's API with data

Huawei Ability Template



Abilities on different touch points



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Value of Huawei Ability Gallery for Developers

Expand Market Reach

- Access to large amount of users
- TOP market share

Smartphone shipments estimate given for 2019:

250 million

Global MAU of Huawei mobile phone :

530 million

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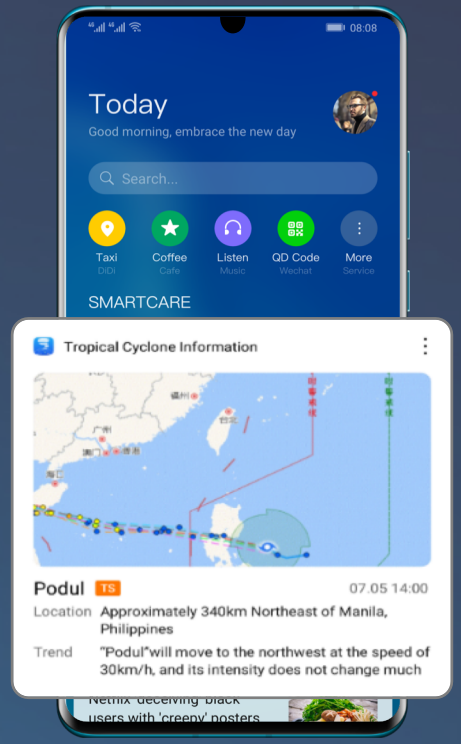
Value of Huawei Ability Gallery for Developers

Improve Conversion Rate

- AI tech promote precise and valuable distribution
- Reach to High-end users

Tropical Cyclone Information

+1500% User Growth
Within 2 weeks



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5000+ Abilities Have Integrated Globally

HUAWEI Ability Gallery

Intelligent connection | One-Time Integration | Multi-Device Distribution

Contact Us

Huawei Ability Gallery Official Website:

https://developer.huawei.com/consumer/en/huawei-hag

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THANKS!

http://developer.huawei.com/consumer/en

Make your app smarter

Francesco Romano
Developer Advocate @Huawei Device OpenLab

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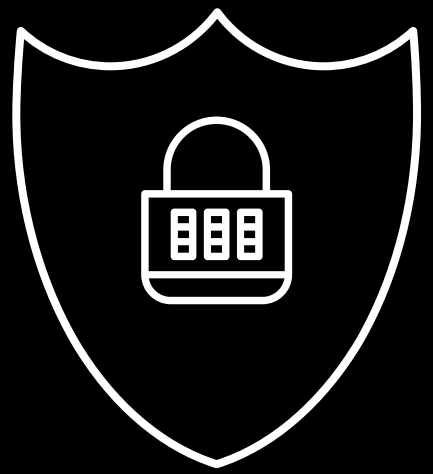
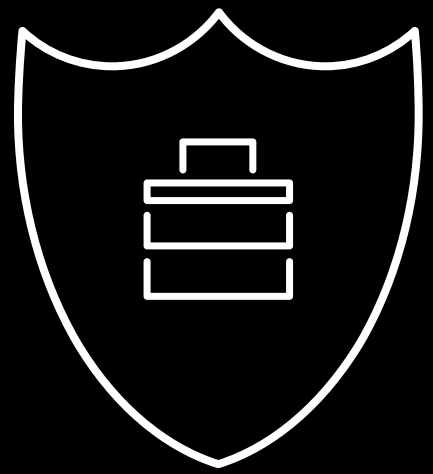
Why on-device computation?



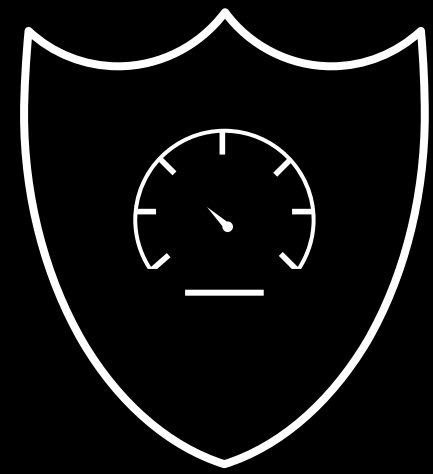
More Safe

User data stays on device,
so user privacy is better protected.



Less Cost

All on-device algorithms
avoid server rent.



Less Delay

No network transmission needs,
for better user experience.

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However, the popularity of on-device DL still faces many challenges.

How to deploy models on device:

- Heavy calculations pose obstacles to real-time performance.
- Power consumption, memory, and storage space are all facing challenges because of limited development environment.

Without models, but still hope to leverage intelligent capabilities:

- High-threshold of requisite skills: ML & DL, Statistics, linear algebra
- Long period for model training: data collection, data cleaning…

How to increase app traffic and reach of users:

- Paid traffic increases the operating costs.

HUAWEI HiAI: Building a Comprehensive Open Ecosystem, through Integration of Chip, Device, and Cloud

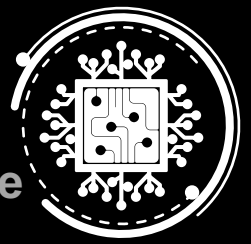
Cloud

HiAI Service

A Fertile Ground for Smart All-Scenario Digital Services

Service Capabilities Openness - Connecting users with your services

Device



HiAI Engine

Entrance of Digital World for the Ultimate Experience

App Capabilities Openness - Making apps more intelligent and powerful

Chipset

HiAI Foundation

Achieve Optimal Energy Efficiency and Breakthrough Performances

Chip Capabilities Openness - Achieving optimal performance and efficiency

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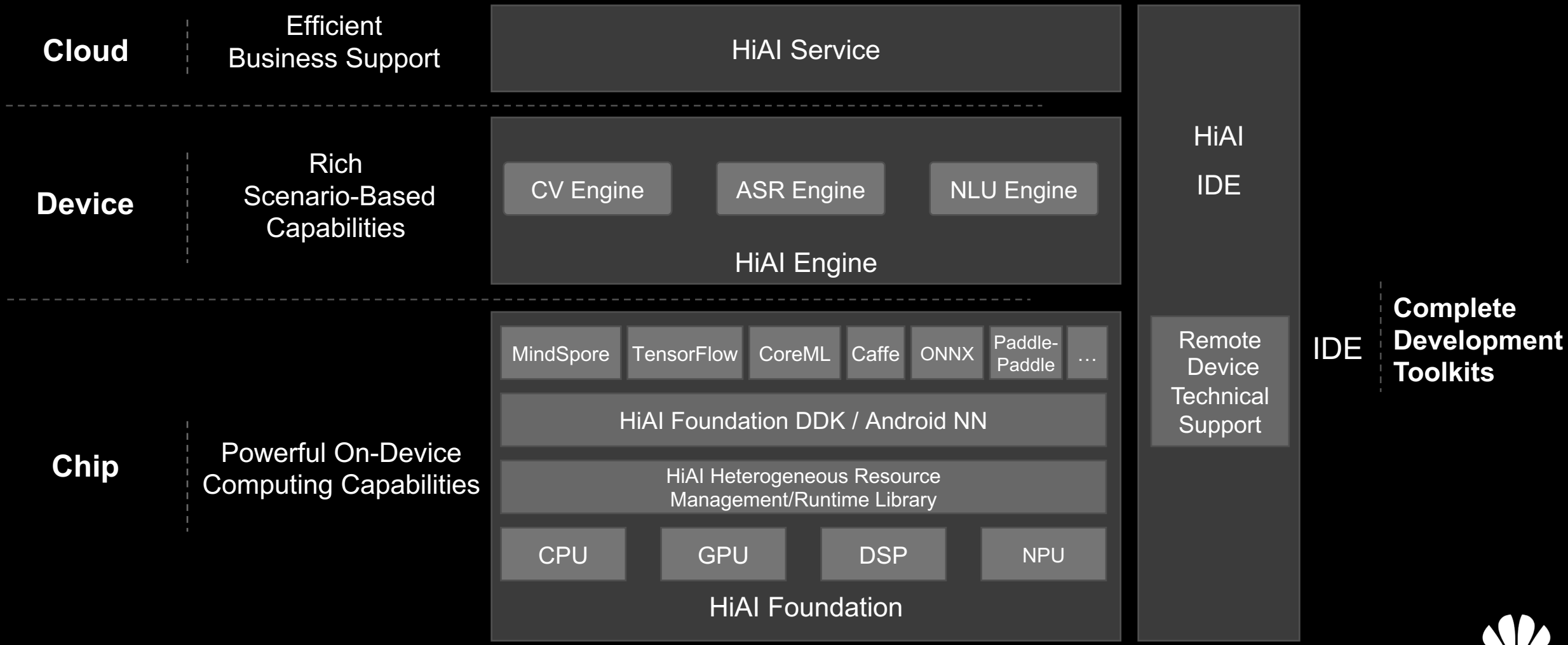
Overview of HUAWEI HiAI Capabilities Openness Platform



Remark: now, ASR and NLU Engine are only available for China

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On-Device Computing Capabilities:

HiAI Foundation, Chip Capabilities Openness

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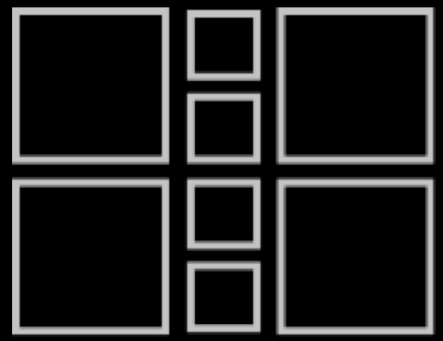
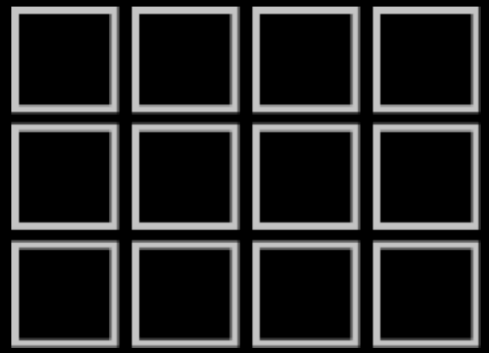
Dedicated Instruction-Set and Computing Library, Efficient Execution of Neural Network Operators



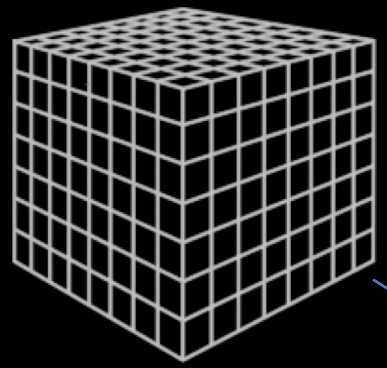
CPU = Scalar

- General-purpose computing
- Logic control



GPU = Vector

- Image processing
- Large-scale parallel computing



NPU = Tensor

- Dedicated instruction-set
- More large-scale parallel computing

Convolution
Deconvolution
Pooling
ReLU
Normalize
BatchNorm
FullConnection
Sigmoid

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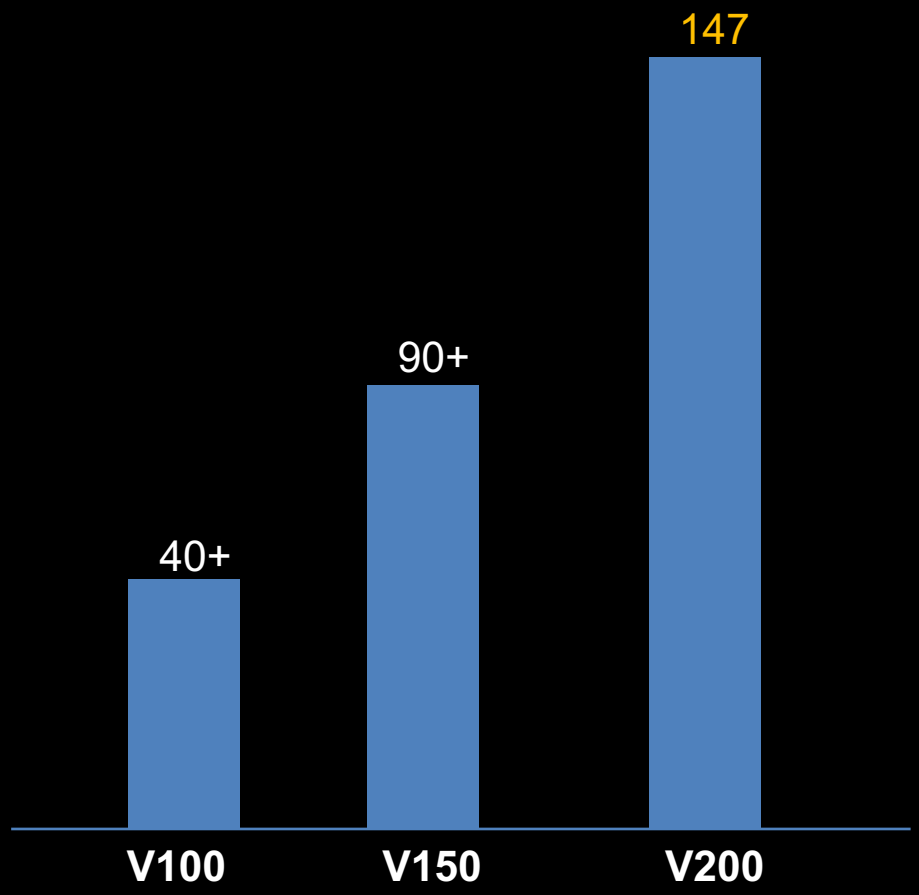
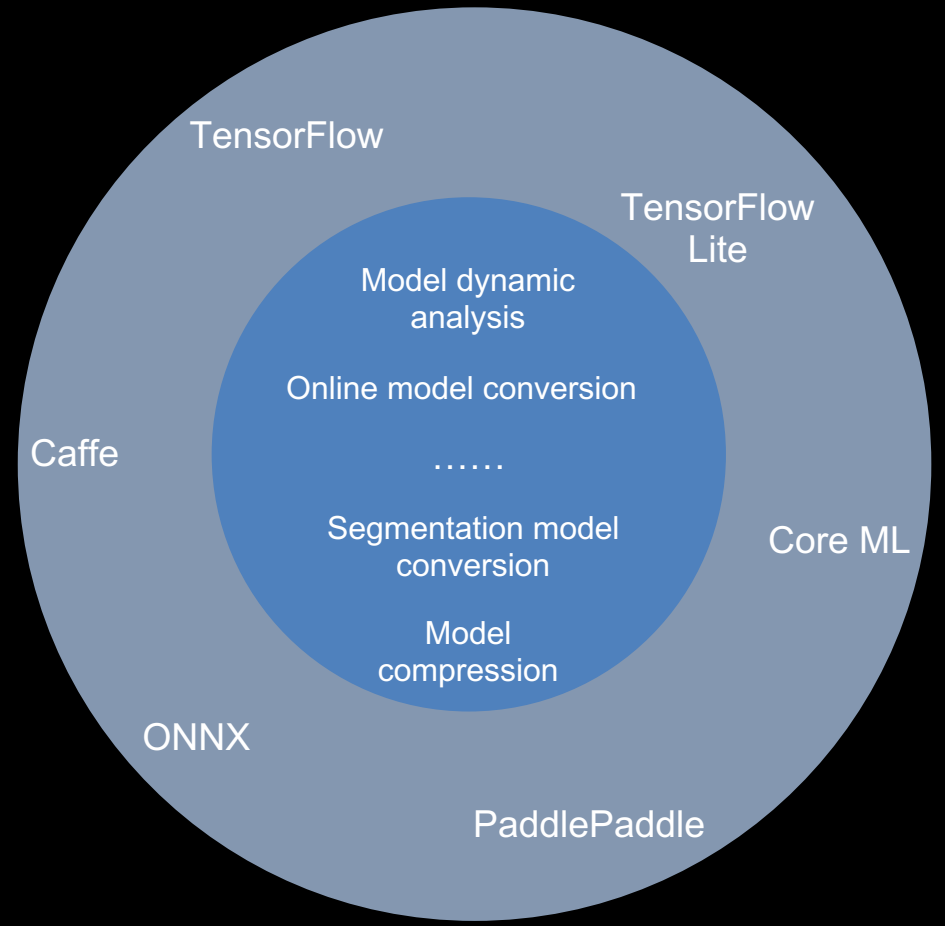
NPU Capabilities Openness Trigger Powerful On-Device Computing Capabilities



Supported Operators



Compatibilities and Direct Conversion of Machine-Learning Mainstream Platforms

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NPU enhances performance by 25x and power efficiency by 50x

With Kirin 980 dual-NPU, image recognition efficiency is increased by 3x, and ResNet-50 can recognize 4500 images per minute.

	CPU		HiAI Foundation/NPU			
Network	Time Per Frame	Power Efficiency	Time Per Frame	Power Efficiency	**NPU/CPU**	**NPU/CPU**
	s	frame/s/W	s	frame/s/W	**Performance**	**Power Efficiency**
AlexNet	0.310	2.26	0.0126	62.300	**24.60**	**27.51**
VGG16	1.584	0.25	0.0591	12.42	**26.80**	**49.68**
Resnet34	0.373	0.89	0.0175	39.875	**21.33**	**44.58**

*HUAWEI Lab statistics, for reference.

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Real time segmentation with NPU

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Successful cases

HiAI Foundation, Chip Capabilities Openness

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HUAWEI HiAI + Prisma

AI for Photography Scenario

HiAI Foundation Chip Capabilities & HiAI Engine Scene Detection

[NPU Acceleration] Fast image classification; create a masterpiece instantly

Rendering Improvement

Speed up image processing from 9.6s to 3.2s per image.

Smart Filter Recommendation

500+ filters cover multiple complex backgrounds.

On-Device Processing

Not rely on network.

Available on AppGallery

*Lab data, for reference.

@_romanofranz @HWDevelopers

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HUAWEI HiAI + Microsoft Translator

AI for Translation Scenario

HiAI Foundation Chip Capabilities Openness

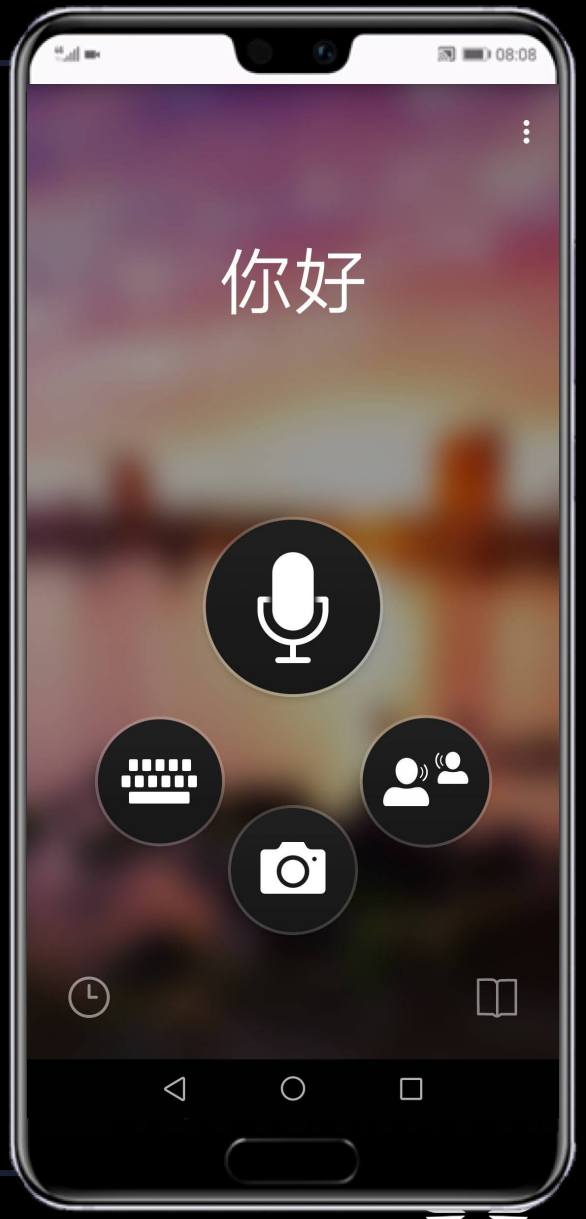
[Offline Immediate Translation] Be your private translator.

On-device Calculation Allows Offline Translation

Offline models don’t rely on network.

NPU Speeds Up Translation

Accelerating calculations almost by 3 00% compared to CPU.



Available on AppGallery

*Lab data, for reference.

Scenario-Based Capabilities:

HiAI Engine, App Capabilities Openness

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Available APIs

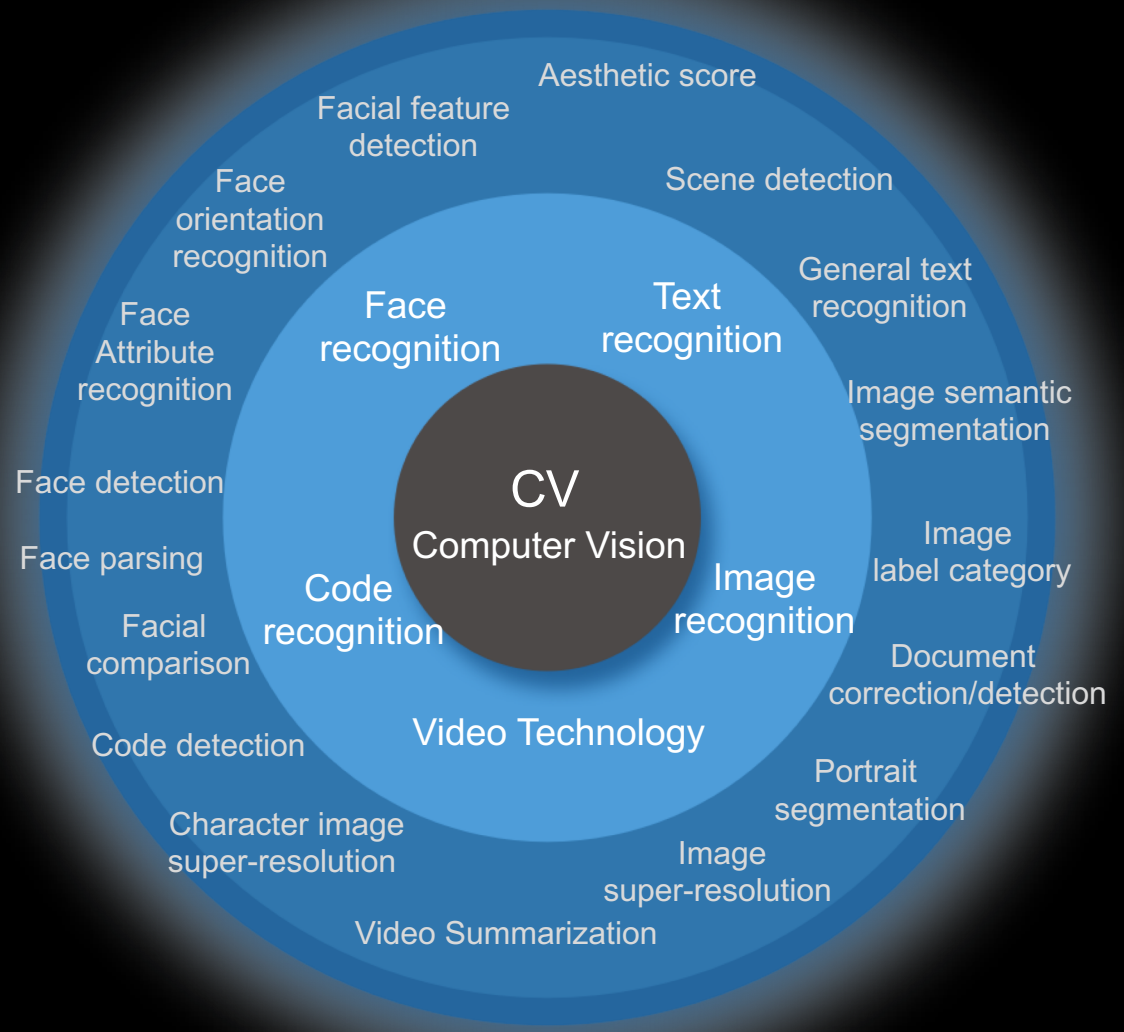

Table identification

Human Body Part/Pose Detection

Card identification

Video portrait segmentation

…

Coming Soon...

HUAWEI

High level production-ready APIs

```
VisionBase.init(context, object : ConnectionCallback {
    override fun onServiceConnect() {
        //service connected
    }
    override fun onServiceDisconnect() {
       //guess what?
    }
})


uiScope.launch {
       withContext(Dispatchers.IO) {
        val faceDetector = FaceDetector(this@Activity)
        val frame = Frame()
        frame.bitmap = getBitMap()

        val jFace: JSONObject = faceDetector.detect(frame, null)
        val faces: List<Face> = faceDetector.convertResult(jFace)
    }
}
```


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HUAWEI HiAI + WPS

Redefining Future Mobile Office

HiAI Engine Document Detection and Correction + Super Text Resolution

One-click to recreate the PowerPoint presentation in perfect detail

Intelligent Identifying

Text area within image

Correcting

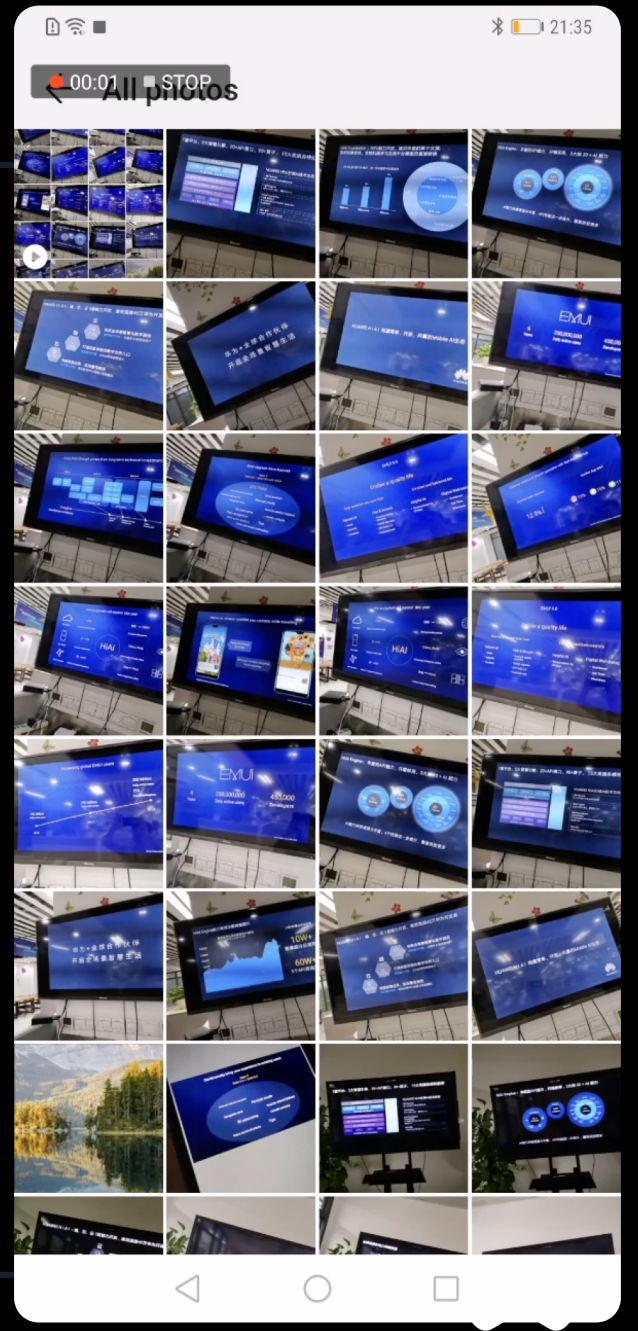
Angle of text area so that the text is perfectly horizontal

9X

Increase the text resolution to increase legibility

One-touch

PPT generation



Available on AppGallery

HUAWEI HiAI + StorySign

AI Tech illuminates Deaf Education

HiAI Engine: OCR & Document Correction/Detection

[Sign Language Interpreter] Change deaf literacy with the magic of reading.

OCR for 7 Languages

Support quick recognition of 7 languages. Click and learn the sign language.

Bitmap Enhancement

Accurately recognize the position information of the text to enhance the bitmap regardless angle.

Available on AppGallery

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Complete Development Toolkits:

HiAI IDE, Enable Productive Capabilities Integration

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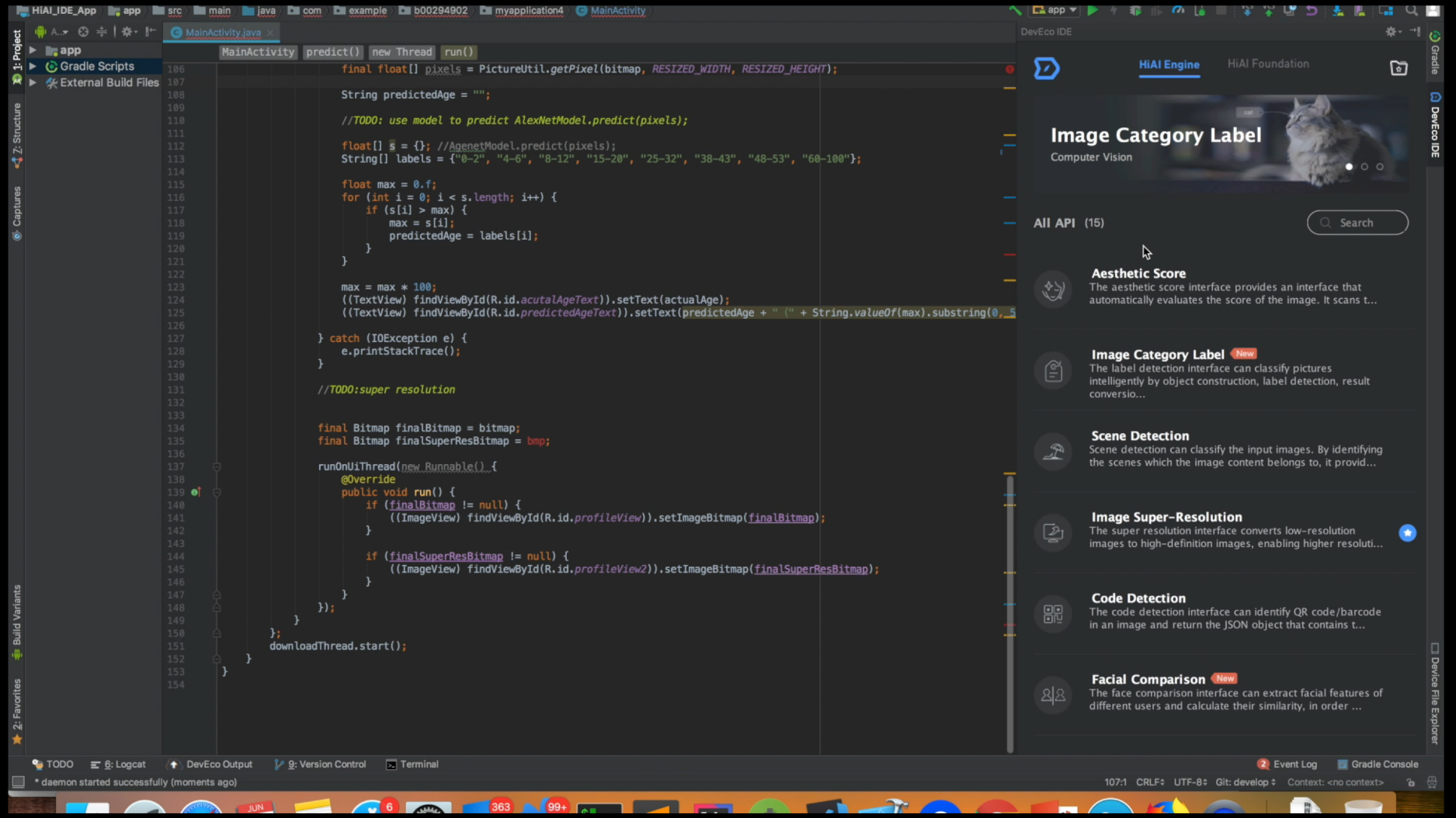
HiAI IDE: One-stop Workshop for Efficient Integration



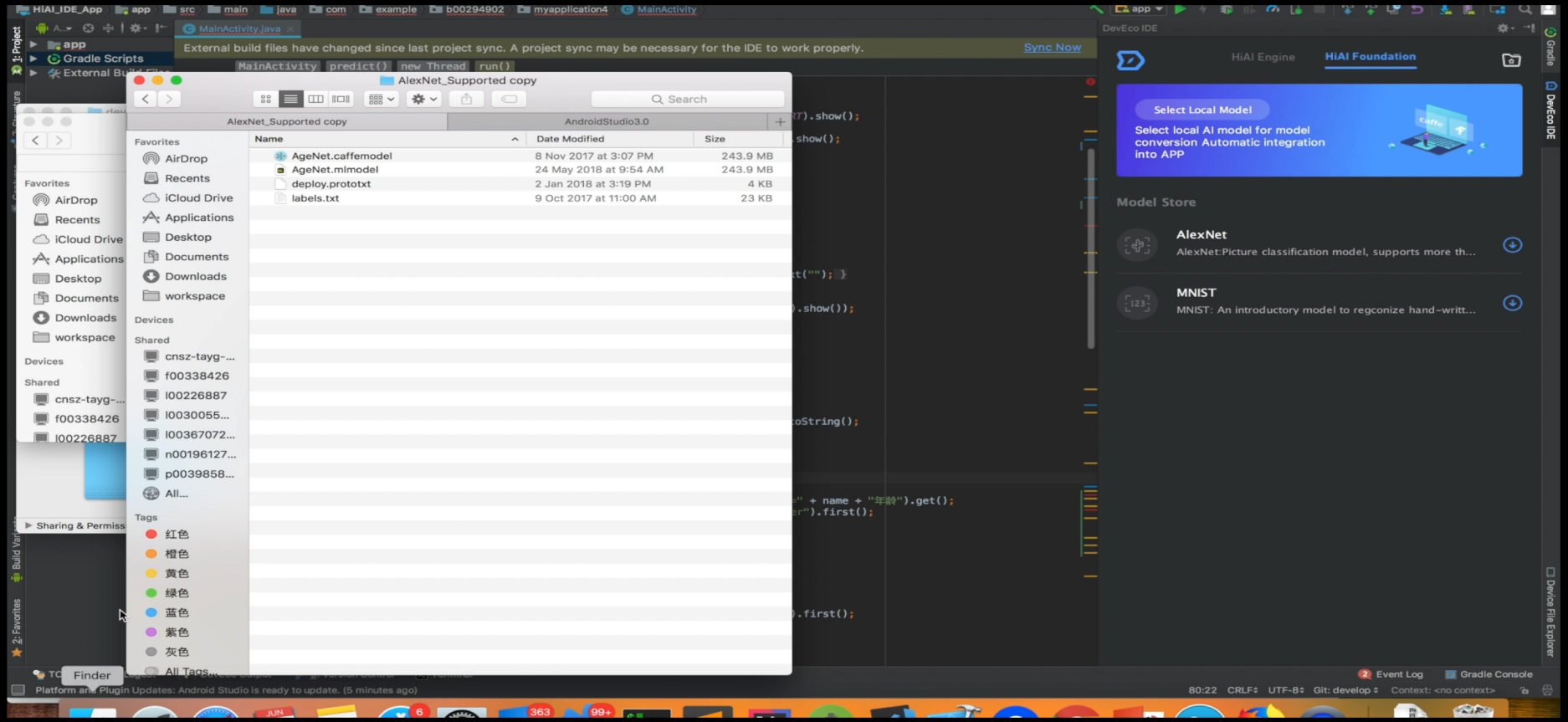
DevEco in Android Studio plugins store

Drag & Drop operation

MacOS and Windows

HUAWEI

HiAI IDE: One-stop Workshop for Efficient Integration



Custom model integration

- Model analysis
- Model conversion
- Code generation

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HiAI IDE: 3000+ Smartphones, 7*24 Remote One-Click Debug

- One-click access to HUAWEI device OpenLab
- Provide remote debugging services for all-range HUAWEI devices
- Fast and stable
- Free to use

Huawei Device OpenLab

@ Düsseldorf, Germany

Remote Device Technical Support

deveco.rnd.huawei.com

Huawei Device OpenLab

@ Beijing, China

HUAWEI

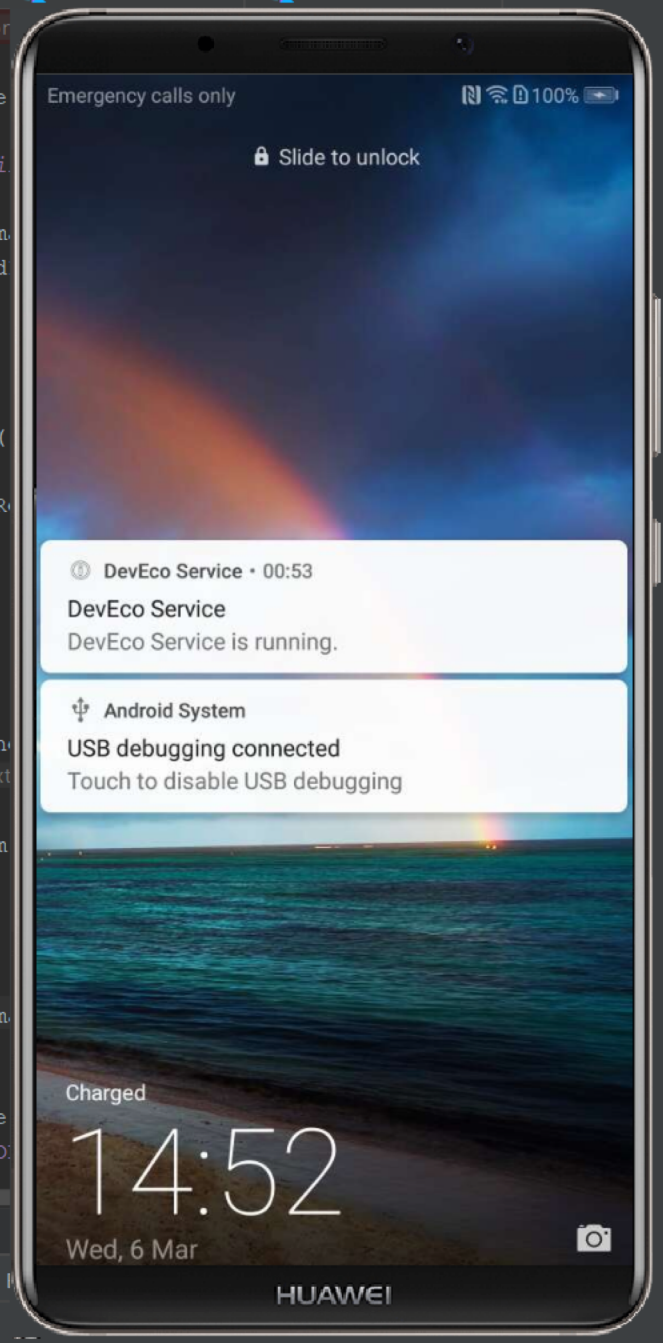
MobileVision › app › src › main › java › com › example › mobilevision › MainActivity.kt

app

MainActivity.kt | activity_test.xml | TestActivity.kt | MVProvider.kt | HiAIProvider.kt

```
20    private val uiScope = CoroutineScope( cor
21
22    override fun onCreate(savedInstanceState
23        super.onCreate(savedInstanceState)
24        setContentView(R.layout.activity_mai
25
26        buttonMV.setOnClickListener { loadIm
27        buttonHIAI.setOnClickListener { load
28    }
29
30    private fun loadImage(m: Mode) {
31
32        val options = BitmapFactory.Options(
33        options.inMutable = true
34        val myBitmap = BitmapFactory.decodeR
35            applicationContext.resources,
36            R.drawable.test1,
37            options
38        )
39
40        uiScope.launch { this: CoroutineScope
41            val faces = withContext(Dispatch
42                if (m == Mode.MV)  ^withContext
43            }
44            drawFaceLimit(myBitmap, faces, m
45        }
46
47    }
48
49    private fun drawFaceLimit(myBitmap: Bitm
50        val myRectPaint = Paint()
51        myRectPaint.strokeWidth = 10f
52        myRectPaint.color = if (mode == Mode
53        myRectPaint.style = Paint.Style.STRO
54
```

MainActivity › drawFaceLimit()



03:50:25

Environment & Debug Tools

Remote Devices

Input phone name,version and emu

Remote Device technology can deliver real time screen images of remotel
located Huawei mobile phone to local computer screens.(Note: Do not RC
lock the screen, install illegal applications, modify developer options, etc.
the cloud device)

Mate 10 Pro	HiAI	8.0.0	1080*2160	8.0.0	In Use
Honor 8		7.0.0	1080*1920	5.0.0	Connect
P10		8.0.0	1080*1920	8.0.0	Connect
P10		7.0.0	1080*1920	5.1.0	Connect
P10		7.0.0	1080*1920	5.1.0	Connect

HiKey 970 HiAI Install Driver

@_romanofranz @HWDevelopers

6: Logcat | TODO | DevEco Output | Terminal | Event Log

* daemon started successfully (today 12:23 PM)

49:22 CRLF UTF-8 Context: <no context>

COMPATIBILITY TEST

Verify the compatibility of all app functions and scenarios

Traversal Test

- Installation, startup, login, traversal, uninstallation issues
- Crashes, ANR issues, UI errors, function errors
- Screenshots prior to and after bugs happened, error logs

Stability Test

- *Monkey Test*: Long-time simulation of random operations
- Measure CPU, memory, data traffic
- Installation, startup, response time

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PERFORMANCE TEST

Collect performance data from real devices to identify app performance bottlenecks

Consumption Test

- App keepalive, push services, AP wakeup
- Process auto-start, GPS positioning, WiFi search

Performance Testing

- App behavior testing
- Background performance analysis
- Foreground and background services, broadcasts
- Memory leak detection, excessive rendering test, main thread I/O

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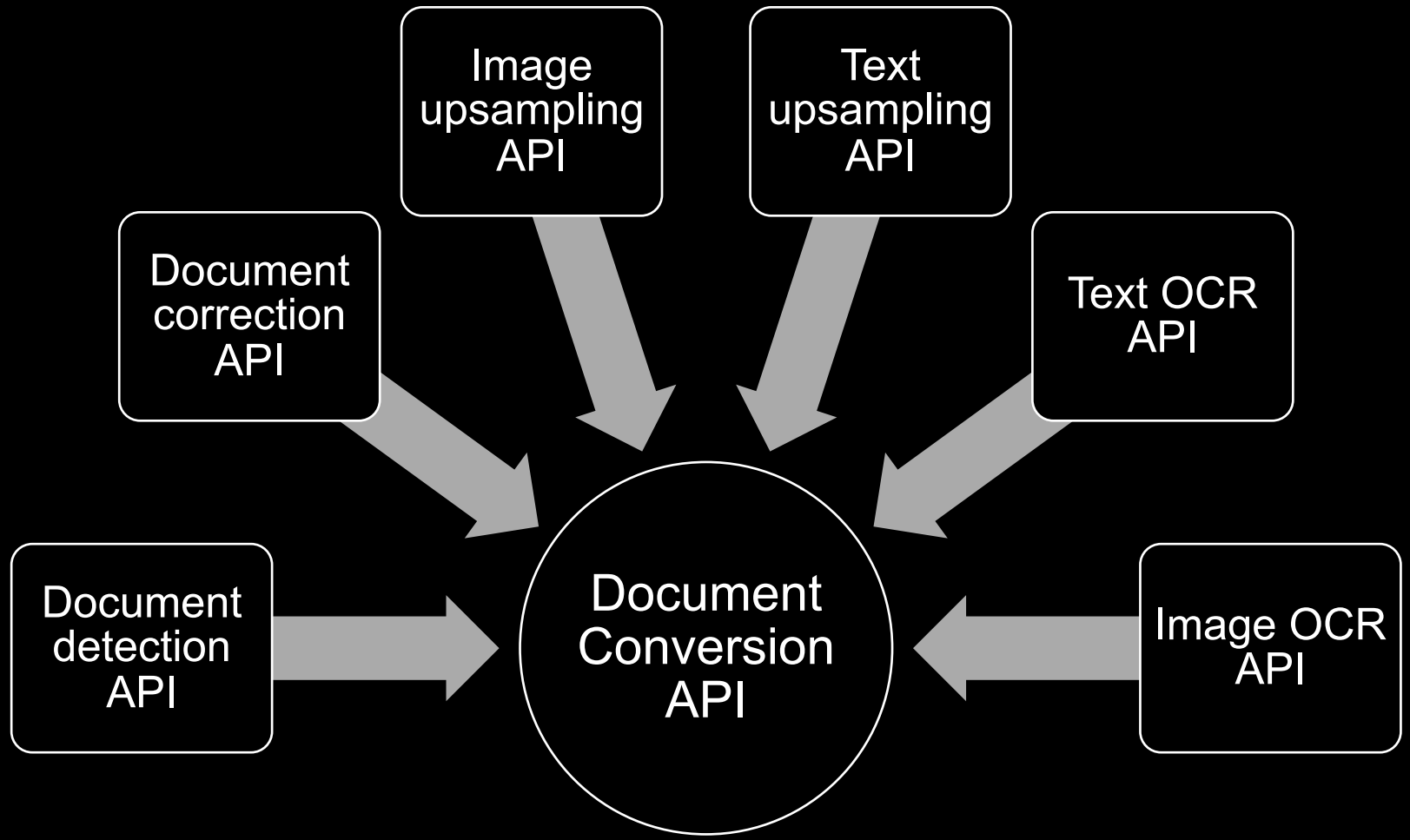
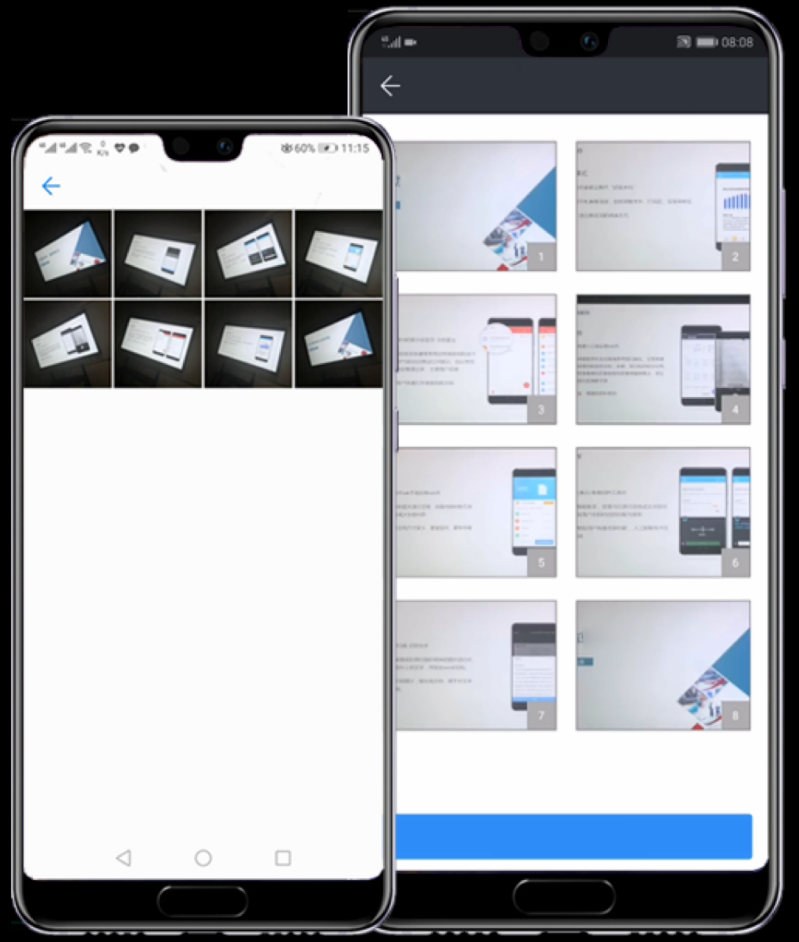
WHAT'S NEXT

From atomic API to scenario based API





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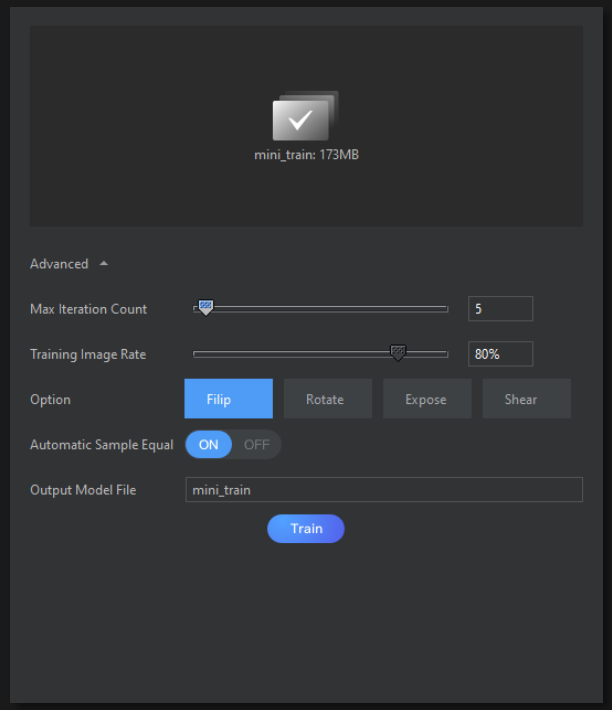
WHAT'S NEXT

HiAI IDE Model Creator

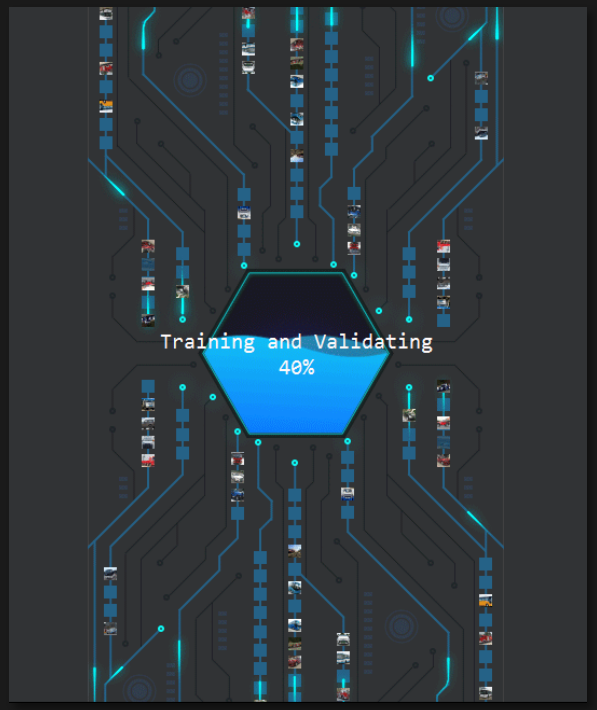
Fewer Training Data

40-100 pics per class



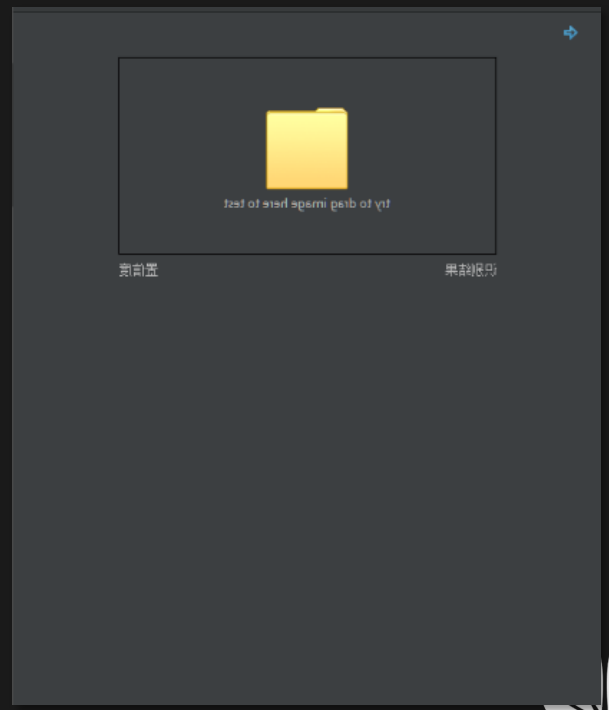
Faster Speed

training in minutes



Smaller APK Footprint

20-80K (Before: 8-100M)



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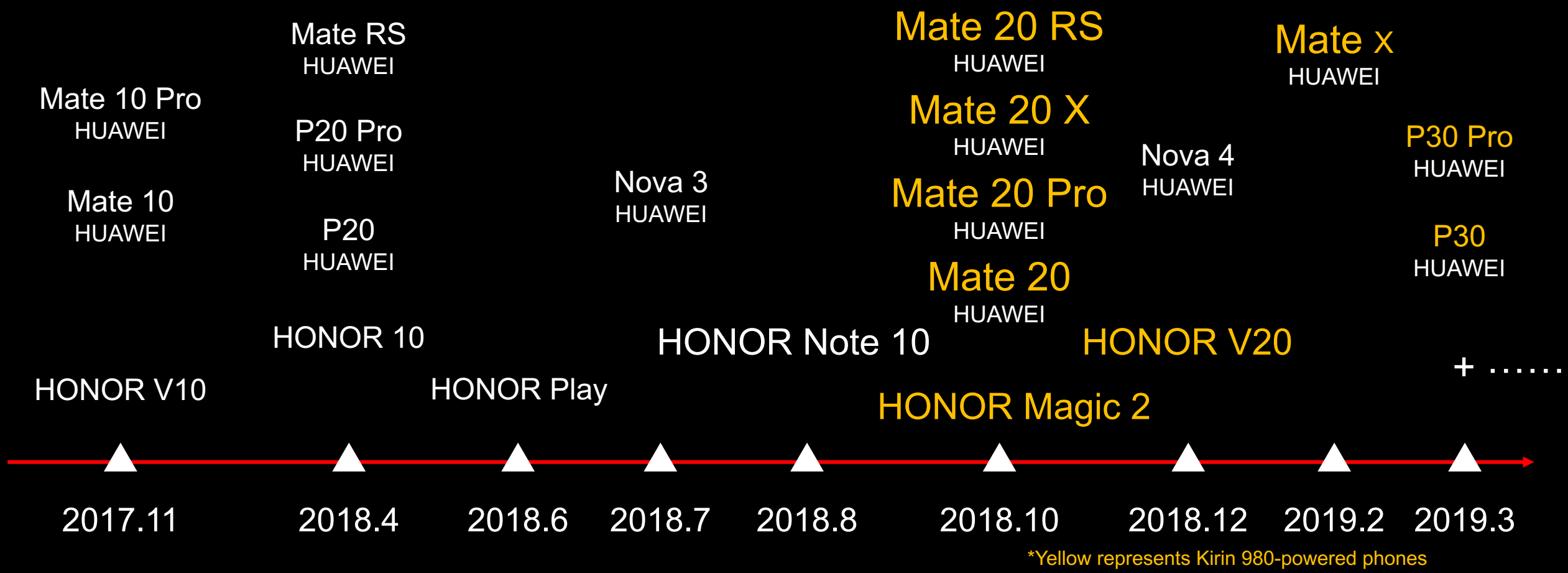
With rapid growth, HUAWEI HiAI covers 40 million devices.



*Yellow represents Kirin 980-powered phones

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Contact Us

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ONE MORE THING