

# HUAWEI HiCar & Infotainment Presentation

## FG-VM - WG3 draft plans

ITU FG-VM Workshop

10 December 2020



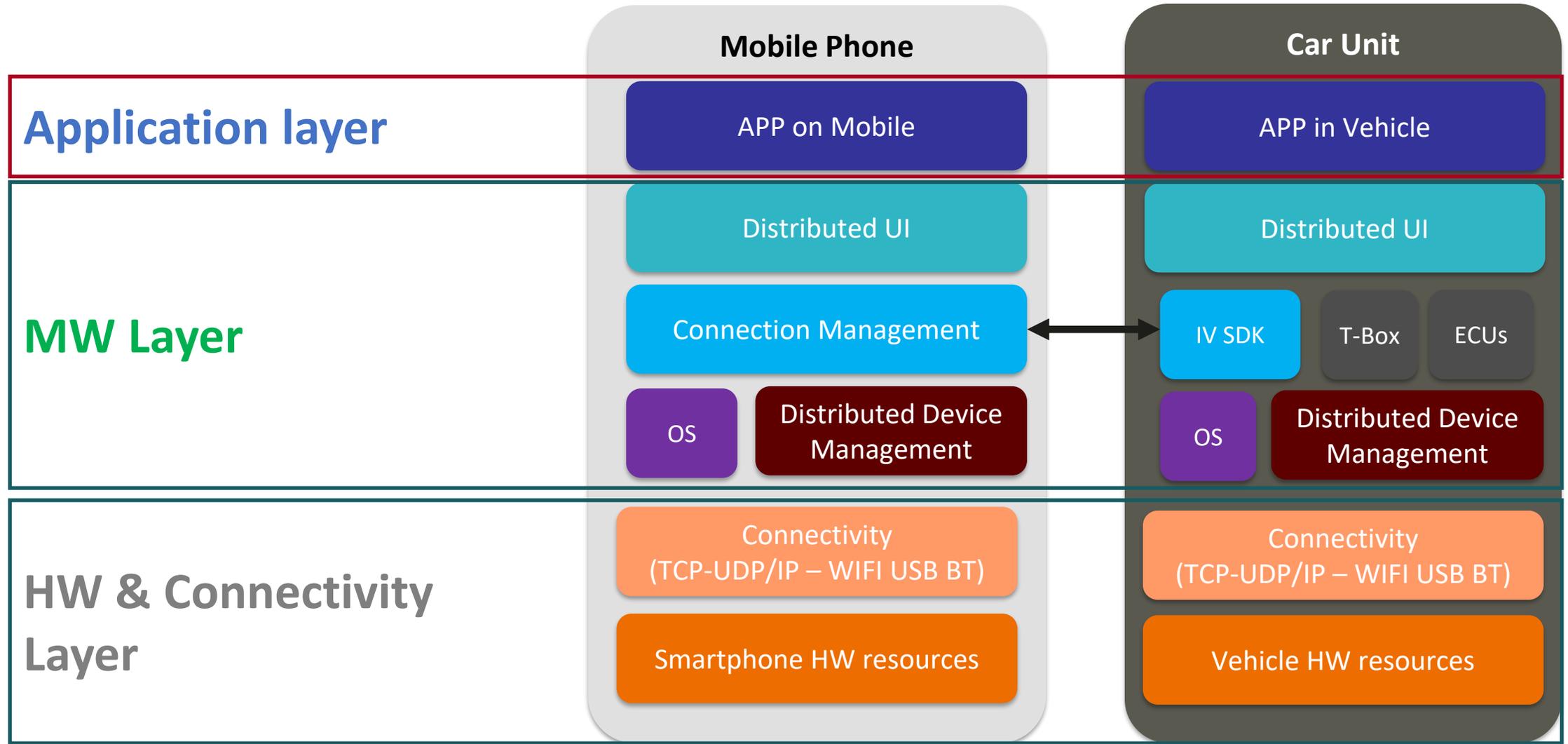
# Smart Mobility Journey

Smart Building - Automotive – Smart Mobility – Smart City - Smart Energy – Smart Home

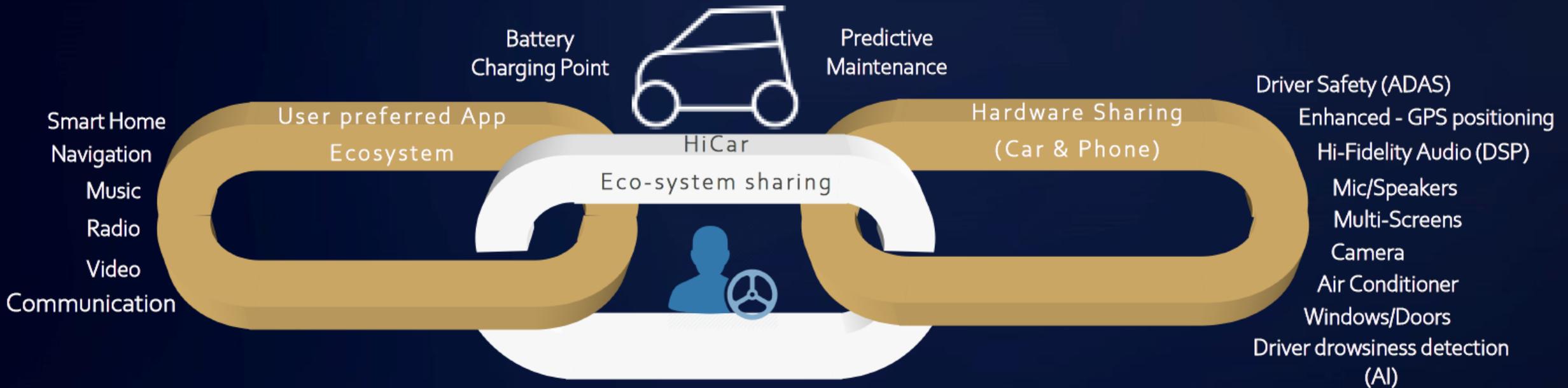




# High Layer Architecture



# HUAWEI HiCar ecosystem



HiCar is more than a projection solution!

< **HDC.Together** >

HUAWEI DEVELOPER CONFERENCE 2020

# Car connectivity and integrated Apps

## Car connectivity 2.0

with HiCar



- All-scenario distributed platform
- Apps and Services work seamlessly across devices



Driver Safety



Smart Connection



Seamless Experience



Resource Sharing

Navigation



Baidu Maps



Tencent Maps



AutoNavi Map



Music



KuGou Music



NetEase Cloud Music



HUAWEI Music

Audio



Himalaya



Lanrentingshu



XiaoBanLong



BabyBus

Social networking



Road safety



# HiCar Solution

— Multiple product portfolio for different vehicle brands/segments

## 1. Entry Level

a. **Phone as a screen:** HiCar **SuperMode** \*  
Car Status-Control App: HiCar **SuperApp** \*  
AC/Windows/Status-Fuel/battery etc.

b. **HiCar lightweight box**  
(aftermarket accessory)-Newly launched



## 2. Middle Level

HiCar in projection mode,  
map on **instrument cluster** cluster  
and other Apps on **Head Unit**

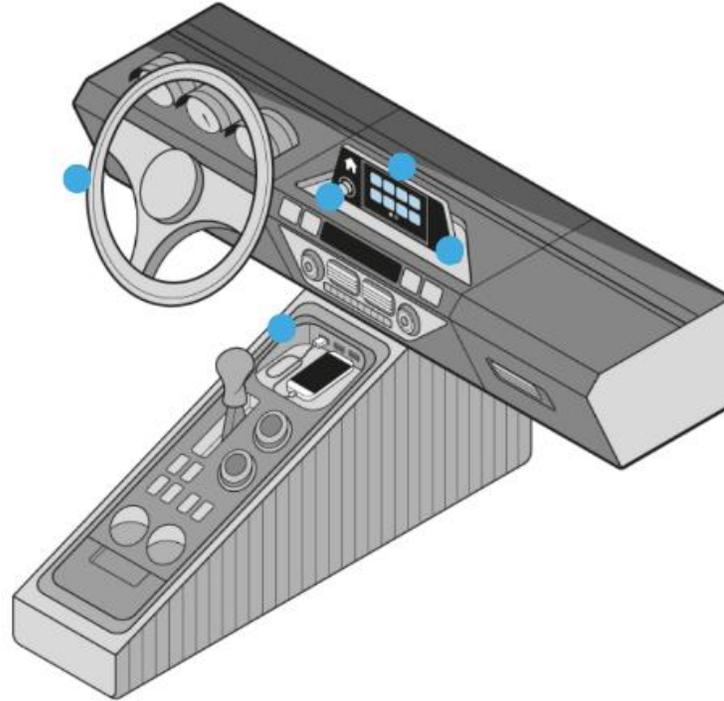


## 3. Premium Level

With HiCar in projection mode,  
Full map on **instrument cluster**, and  
other Apps on **Head Unit/Rear-seat  
Entertainment**



# Customer report - IVI quality criteria



## Essential IVI features

- Voice recognition
- Good sized screen
- Responsiveness
- Simple control
- Android Auto and Apple Car Play +HiCar compatibility

**Ratings** ➤ Built-In Systems CR members rate infotainment systems based on satisfaction with audio, calling, and navigation functions.

Manufacturer	Infotainment System	Overall Score	Audio	Calls	Nav.
Tesla	IVI	86	⬆️	⬆️	⬆️
BMW	iDrive (with Gesture Control)	80	⬆️	⬆️	⬆️
Genesis	Genesis Display	75	⬆️	⬆️	⬆️
Ford/Lincoln	Sync 3	73	⬆️	⬆️	⬆️
FCA (Chrysler, Dodge, Fiat, Jeep, Ram)	Uconnect 4	72	⬆️	⬆️	⬆️
Porsche	PCM	69	⬆️	⬆️	⬆️
Volkswagen	MIB 2	68	⬆️	⬆️	⬆️
BMW	iDrive (touch)	68	⬆️	⬆️	⬆️
Audi	MMI (Virtual Cockpit)	68	⬆️	⬆️	⬇️
Cadillac	Cue	67	⬆️	⬆️	⬇️
Hyundai/Kia	Hyundai Display Audio & UVO3	67	⬆️	⬆️	⬇️
GM (Buick, Cadillac, Chevrolet, GMC)	GM Infotainment	66	⬆️	⬆️	⬆️
Volvo	Sensus Touch	63	⬆️	⬆️	⬇️
Nissan	NissanConnect	61	⬆️	⬇️	⬇️
Infiniti	Infiniti Intouch	60	⬆️	⬆️	⬇️

Source: <https://www.consumerreports.org/automotive-technology/choose-an-infotainment-system-you-will-love/>

# WG3 implementation aspects

## 1. Driving safety:

- > Immersion in the driving environment: ADAS – C-ITS – AI/ML – AR/MR/VR/XR
- > Driver distraction avoidance: ISO/TC22/SC39/WG8: TICS on-board-MMI
- > Autonomous Driving path: L2 → L3 → L4 – car cockpit to support AD control and handovers

## 2. User experience

- > Infotainment
- > HMI – voice recognition - Haptics
- > Services: Parking find&book&pay, eCharging, PayAsYouDrive...
- > MaaS – multimodal mobility (recent: Toyota Kento – Europe March 2021)

## 3. Vehicle Integration

- > X-device: Car2Smartphone – heterogenic domains
- > X-sectors (City-energy-mobility-building) & Co-opetition: new Openness concept (OS/OP/OD)
- > SW quality – Cybersecurity (ISO JTC1 and TC22)
- > Vehicle homologation and specific requirements

## 4. Testing

## 5. Policy – Regulation

- > EU Data Strategy – Digital Service/Market Act – GAIA-X: will change data based service deployment in EU
- > Vehicle regulation to adapt to AD and driverless vehicles

# WG3 draft work plan

1. Involve industry and service players (Q1 2021 – still challenged by COVID)
  - > Use different channels
    - Standardisation bodies – ISO TC22
    - Alliances: GENIVI – CLEPA – ACEA
    - Direct contacts (if you have some please share)
    - Social media
2. Analyse ecosystem – identify synergies and conflicts (January)
3. Develop draft technical report on VM implementation aspects prepare Scope and ToC based on scope of work (January 2021)
4. Develop promotional flyer (one page) (February 2021)
  - > based on ToC and available content
  - > raise attention on actual results: ITU-T F. 749.3 and the draft TR on VM architecture
5. Initiate drafting of technical report on VM implementation aspects (end Q1 2021)
  - > Scope and ToC proposal
  - > High level content and essential figures

# Thank you.

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每个组织，构建万物互联的智能世界。

Bring digital to every person, home and  
organization for a fully connected,  
intelligent world.

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