Workshop on Open Data

CEDR – CONFERENCE OF EUROPEAN DIRECTORS OF ROADS
TRA 2018

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1. ACEA

2. CCAM and data

3. Policy dialogue

3. Going forward

Note : the graphs in this presentation are for illustrative purposes only.

1. ACEA : what and who

ACEA MEMBERS

ACEA COMMERCIAL VEHICLE MEMBERS

ACEA LCV MEMBERS

ACEA BUS & COACH MEMBERS

KEY FIGURES ABOUT THE INDUSTRY

12.6 million Europeans work in the automotive sector

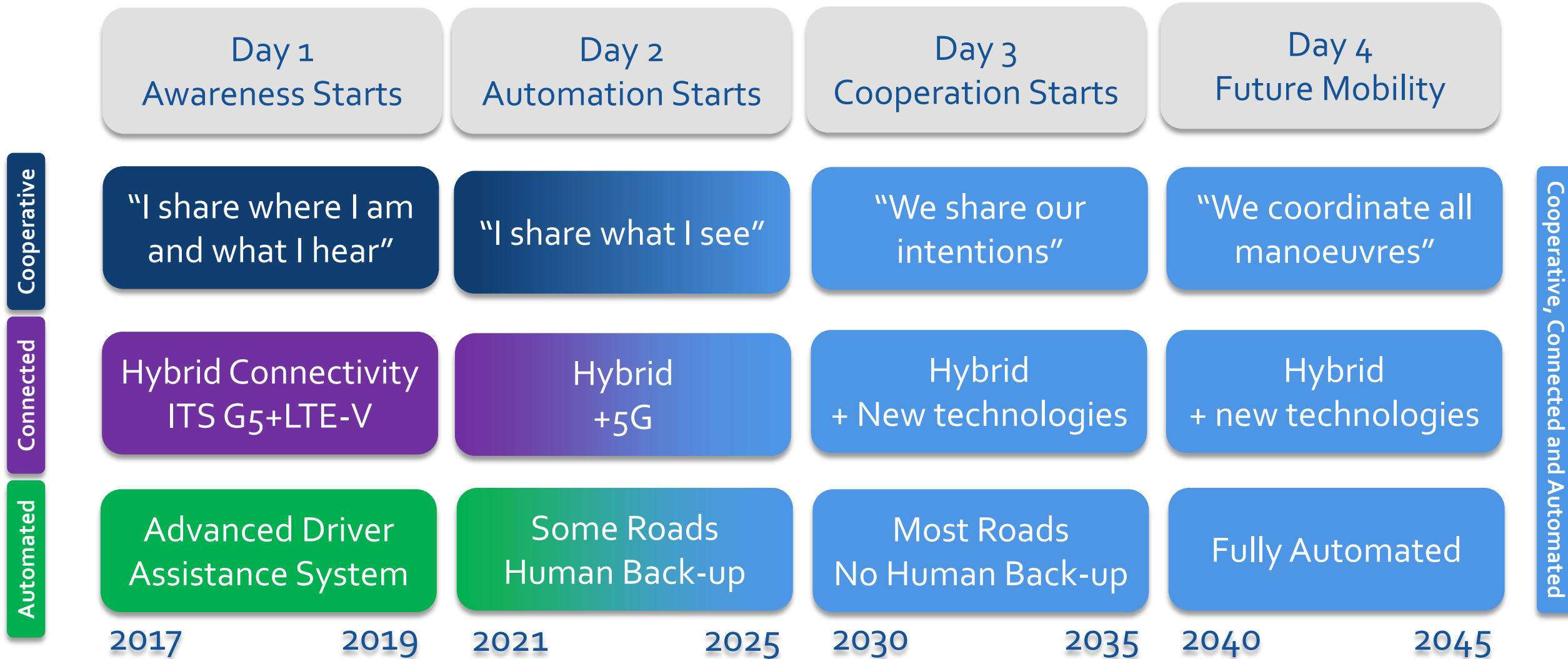**3.3 million** jobs in automotive manufacturing

€396 billion in tax revenues (EU15)

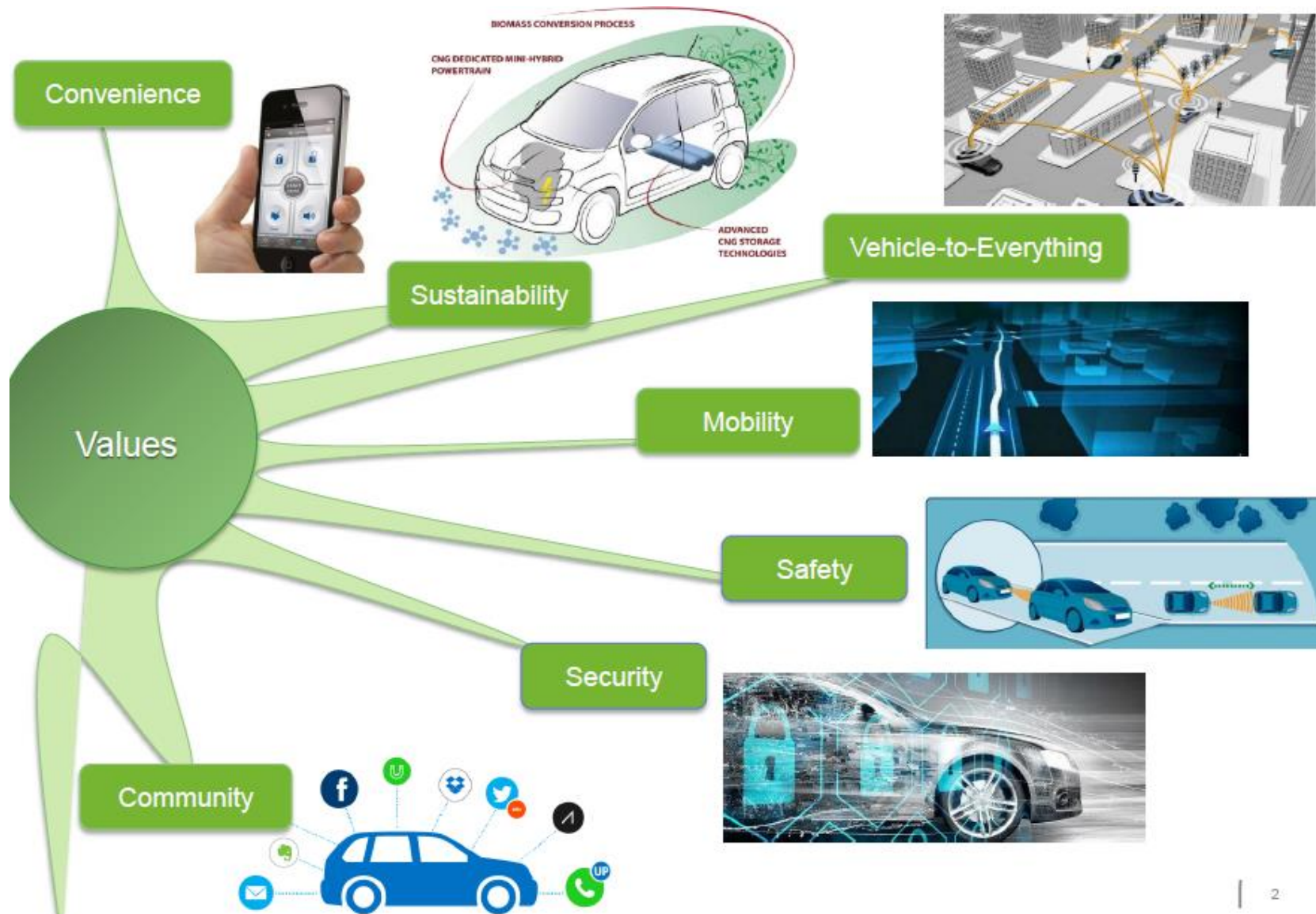**€50.1 billion** in R&D spending, largest private investor

€90 billion positive net trade contribution

2. CCAM and data

COOPERATIVE, CONNECTED AND AUTOMATED MOBILITY

ACEA

	Day 1 Awareness Starts	Day 2 Automation Starts	Day 3 Cooperation Starts	Day 4 Future Mobility	
Cooperative	"I share where I am and what I hear"	"I share what I see"	"We share our intentions"	"We coordinate all manoeuvres"	**Cooperative, Connected and Automated**
Connected	Hybrid Connectivity ITS G5+LTE-V	Hybrid +5G	Hybrid + New technologies	Hybrid + new technologies	
Automated	Advanced Driver Assistance System	Some Roads Human Back-up	Most Roads No Human Back-up	Fully Automated	
	2017 2019	**2021 2025**	**2030 2035**	**2040 2045**	

CONNECTIVITY SERVICES

VEHICLES AND DATA

❖ **Sense of reality needed -> not all vehicles and infrastructures are connected today**

❖ **Step by step approach on connectivity and automation**

❖ **Starting blocks for V2V/V2I/I2V/V2X**

❖ **Invest once principle. Vehicles are not smartphones ! Hard choices to be made: sensors, lidars, camera technology, communications technology, back-end servers**

FOUR CATEGORIES OF DATA/USE CASES

1. "Public interest" data -> Reciprocity

Data relevant to traffic safety
(e.g. local hazard warning, ITS-related services)

2. Data triggered by the vehicle -> B2B

Services available across brands: non-differentiating vehicle data
(e.g. ambient temperature, traffic flows, road sign recognition, street parking)

3. Vehicle specific technical data

Brand-specific services & component analysis/product improvement: link to suppliers, IP protected
(e.g. ECU monitoring, chassis sensor data)

4. Data triggered by driver -> GDPR

Personalised services
(e.g. vehicle position, speed, insurance, fleet, roadside assistance, diagnostic)

VEHICLES AND INFRASTRUCTURE

❖ **Examples of events generated by the vehicle**

- Accident warning
- Unexpected stationary vehicle
- Slippery road warning
- Hard breaking event

❖ **Examples of events generated by the traffic infrastructure**

- Fixed infra static data (eg speed limit)
- Fixed infra dynamic data (dynamic speed limits)
- Temporary infra static data (road closed, diversion)
- Temporary infra dynamic data (alert board)
- Roadworks

Examples of C-ITS use cases
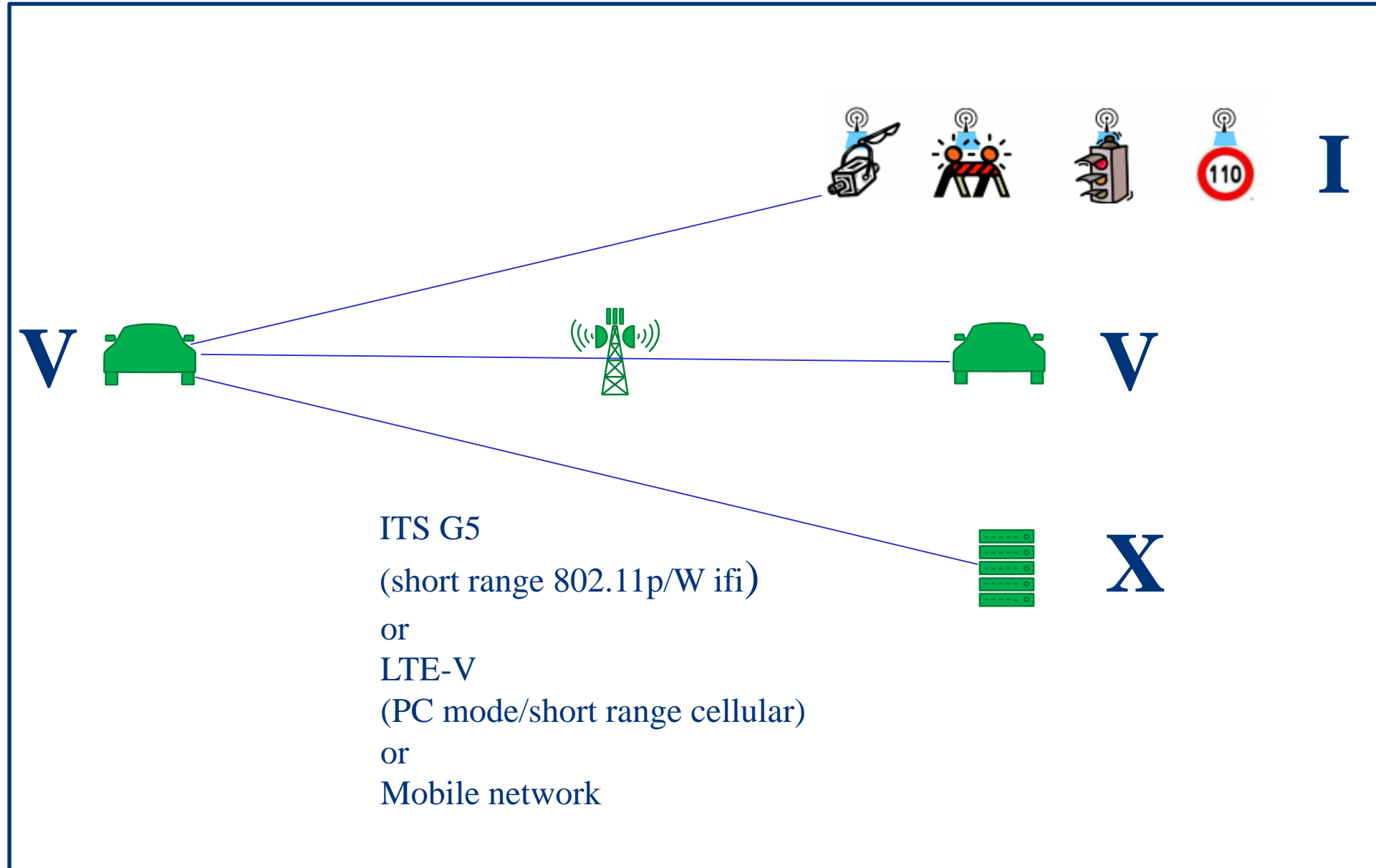
Road safety related:
- Emergency vehicle approaching
- Slow or stationary vehicle(s)
- Traffic jam ahead warning
- Hazardous location notification
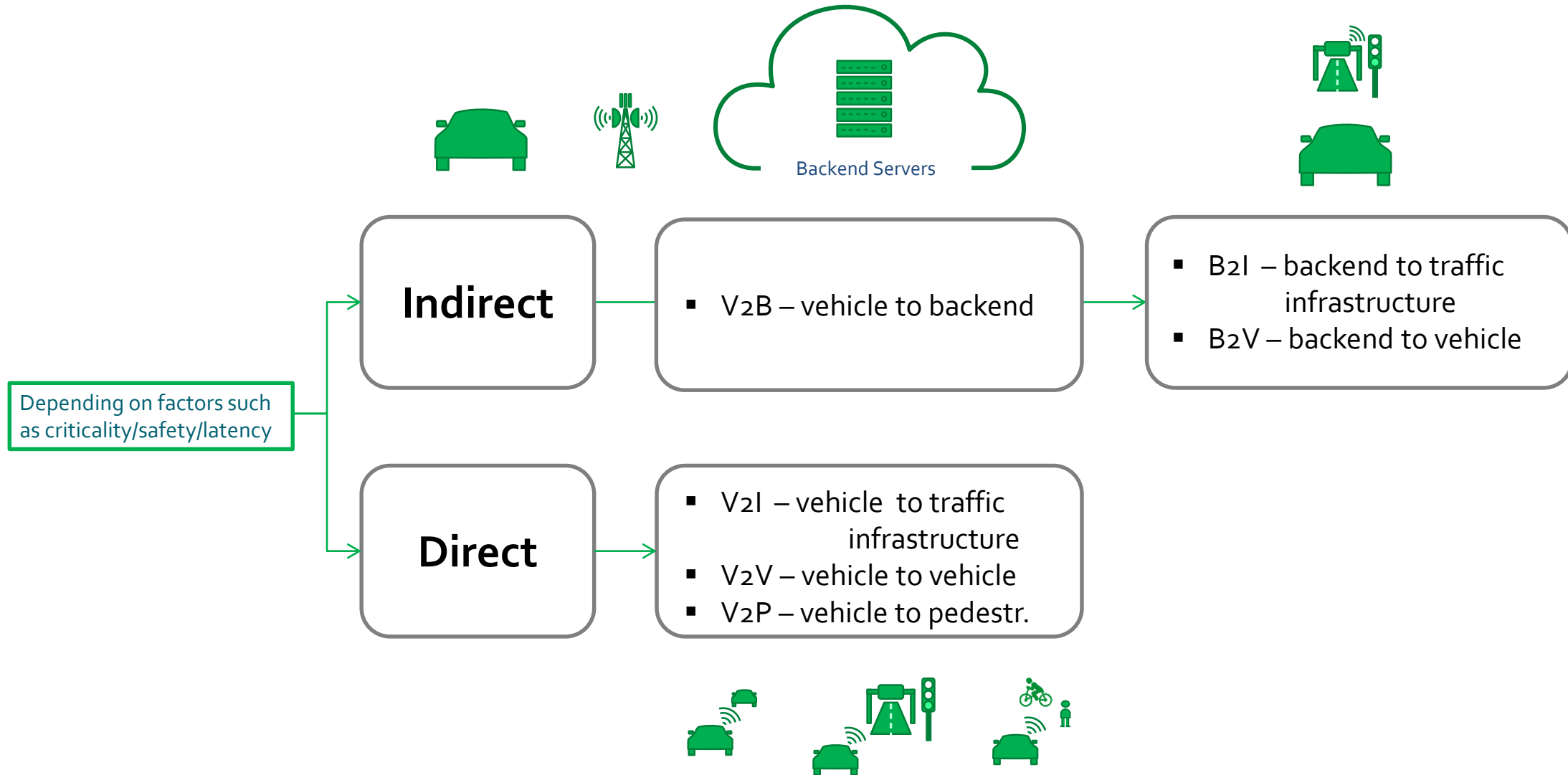
Cooperative traffic efficiency:
- Traffic information and smart routing
- Traffic Light Assist
- Green Light Optimal Speed Advisory (GLOSA) / Time To Green (TTG)
- Road works warning
- Weather conditions

Cooperative local services:
- Off street parking information
- Park & Ride information
- Information on AFV fueling & charging stations
- Zone access control for urban areas

I

V

V

X

ITS G5

(short range 802.11p/W ifi)

or

LTE-V
(PC mode/short range cellular)

or

Mobile network

V2X

Indirect
- V2B – vehicle to backend

- B2I – backend to traffic infrastructure
- B2V – backend to vehicle

Backend Servers

Depending on factors such as criticality/safety/latency

Direct
- V2I – vehicle to traffic infrastructure
- V2V – vehicle to vehicle
- V2P – vehicle to pedestr.

ACEA POSITION ON ACCESS TO DATA

- **OEMs prepared to make data available,
  when the following principles are respected:**
  - **Safety, security, vehicle integrity and liability**
  - Customer choice (repair and maintenance, as well as mobility services)
  - Fair competition
  - Privacy and data protection
  - Interoperability (standardised approach, cfr ISO)
  - Return on investment

- **Direct access to data inside the vehicle poses a threat to: safety, security and integrity of the vehicle**

- **Dongles connected to an OBD interface pose a risk to the vehicle**

- **Focus on providing off-board access to data through Extended Vehicle model**

2. POLICY DIALOGUE

CONNECTED DATA POLICIES

ITS directive 2010/40	DR 886/2013 (Priority Action c)	DR on C-ITS specs (Priority Area IV)	"Data economy"	Data protection/ privacy
Priority action c + Priority Area IV	SRTI	Linking vehicle with the transport infrastructure	PSI directive B2B, G2B, B2G Access, use, re-use	GDPR ePrivacy EECC NIS
Specifications Procedures Standardisation	Public/private service providers road authorities	Interoperability Technology "GPDR" (Cyber) security	Private interest/ public interest balance	Personal data non-personal data raw data

NO ONE SIZE FITS ALL

ACEA

Types of data

❖ **Machine generated data, raw data**

❖ **Interpreted data**

❖ **Anonymised data**

❖ **Personal data**

❖ **Meta data**

❖ **[…]**

Who generates the data ?

Who processes and interpretes the data ?

Who uses the data ?

Balance the interests

❖ **Quality monitoring**

❖ **Intellectual property rights**

❖ **Trade secrets**

❖ **Privacy**

❖ **Private interest**

❖ **Public interest**

❖ **Competitiveness of the industry**

3. GOING FORWARD

KEEP IN MIND

1. **Not all is connected today. Step by step approach**

2. **Invest once principle: first time right, safety, security and sustainability at stake**

3. **Competitive landscape among vehicle manufacturers**

4. **Policies should facilitate, not hamper innovation**

5. **And… let's continue to talk to each other !**

GOING FORWARD

❏ **Dialogue with CEDR CAD group**

  ✓ Understand each other's ecosystem

  ✓ Demystify connectivity, automation, data

  ✓ Exchange on ongoing projects

  ✓ Identify barriers and opportunities, solutions

  ✓ First intro meeting held with CAD group on 8 March 2018, Birmingham

❏ **Identify which sources, use cases and data: vehicle originated, road centres originated, other third parties devices and services**

❏ **No duplication of dialogue for a : sync with the Data Task Force member states/industry**

ACEA POSITION PAPERS
On Smart Mobility and Cybersecurity

Principles of Automotive Cybersecurity

Access to Vehicle Data for Third-party Services
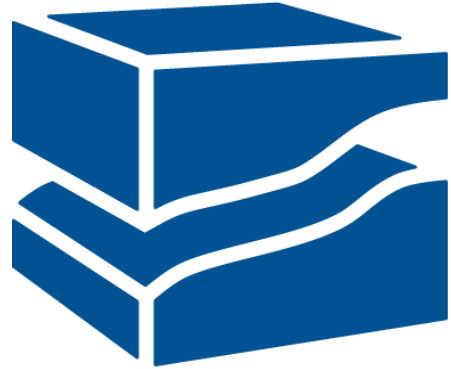
Principles of Data Protection in relation to CAD

https://goo.gl/L7SdRX

https://goo.gl/Lf8vAB

https://goo.gl/37iCHV

STAY CONNECTED !

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THANK YOU FOR YOUR ATTENTION

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