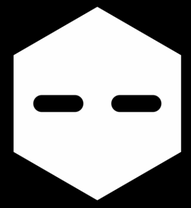


ROBORACE

©

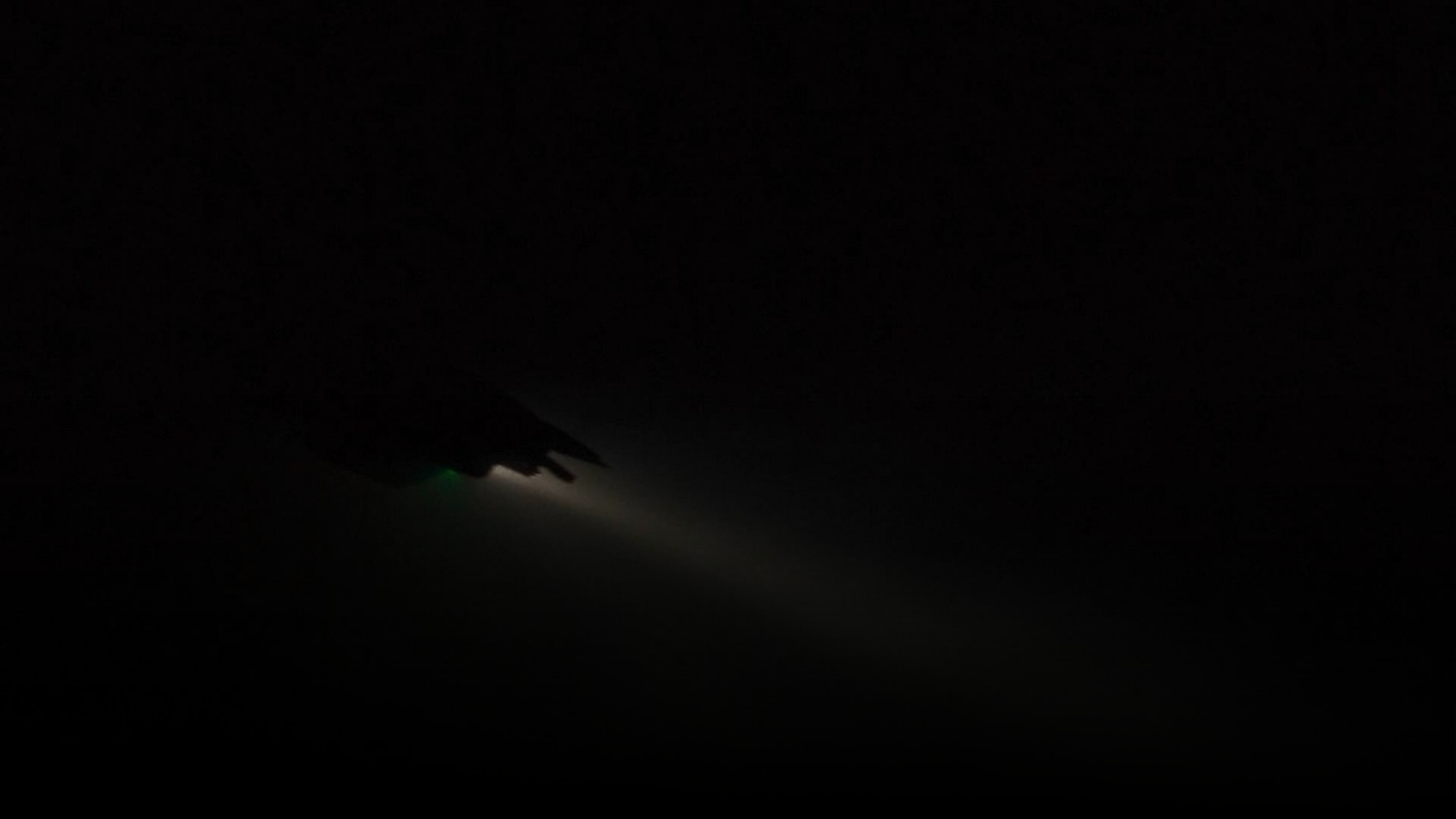
2019 DevBot 2.0

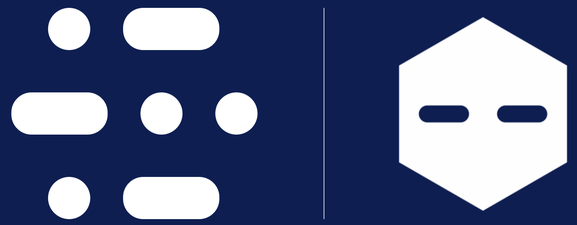
2018 Robocar

©

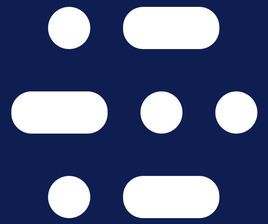
…beyond tradition

©





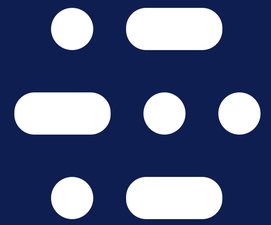
motorsport as **#AIforGood**



AUTONOMOUS
DRIVERS
ALLIANCE

©

Technology
Talent
Trust



Entertainment
Engagement
Exposure

©

Mission Zero 2050 = **Zero Road Deaths** + Zero CO_2 Emissions

©

Road traffic injuries are now the **leading cause of death** for **children** and **young adults** aged **5–29 years**.

– Global Status Report on Road Safety 2018 - World Health Organisation

©

Road traffic **crashes** now represent the **eighth leading cause of death** globally. They claim more than **1.35 million lives** each year and cause up to **50 million injuries**. And the fact is…

– Michael Bloomberg, WHO Global Ambassador for Noncommunicable Diseases and Injuries

©

…**every one** of those **deaths** and **injuries** is **preventable**.

– Michael Bloomberg, WHO Global Ambassador for Noncommunicable Diseases and Injuries

©

When **AI** becomes our **driver**, **co-driver**, **guardian** & **instructor**…

©

…what should our **minimal performance** expectation be?

©

It starts with a **universal** assumption that all road users are;
“**aware**, **willing** and **able**” to avoid collisions

©

…including an **awareness** that **people** are **fallible** and often do make **mistakes** on the road

Race Control - Stewards

LAP
68 / 71
BATTLE FOR 1st
1 LECLERC
2 VERSTAPPEN
3 BOT +14.661
4 HAM +5.014
5 VET +0.978
6 NOR +45.088
7 GAS +4.379
8 SAI +9.776
9 RAI +1.124
10 GIO +3.238
11 PER +1.593
12 HUL +1.708
13 RIC +5.226
14 STR +3.901
15 ALB +2.585
16 GRO +10.434
17 KVY +14.954
18 RUS +20.637
19 MAG +25.793
20 KUB +34.610
P ZERO
P ZERO

LAP
69 / 71

		Interval
1	LEC	
2	VER	+0.334
3	BOT	+14.290
4	HAM	+4.266
5	VET	+0.960
6	NOR	+46.033
7	GAS	+5.569
8	SAI	+9.408
9	RAI	+1.018
10	GIO	+2.643
11	PER	+1.545
12	HUL	+3.946
13	RIC	+2.321
14	STR	+5.049
15	ALB	+2.052
16	GRO	+10.990
17	KVY	+15.629
18	RUS	+20.943
19	MAG	+25.196
20	KUB	+37.428

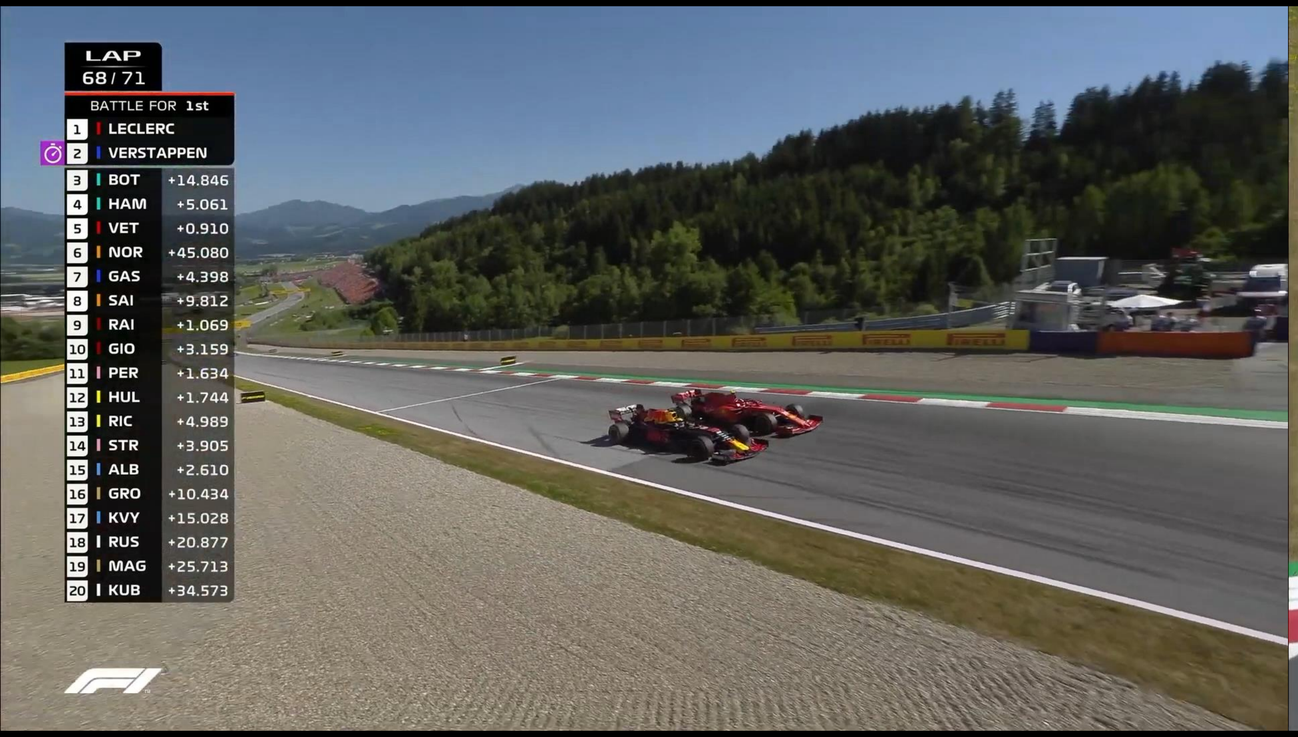
1 LECLERC — DRS — 299 KM/H

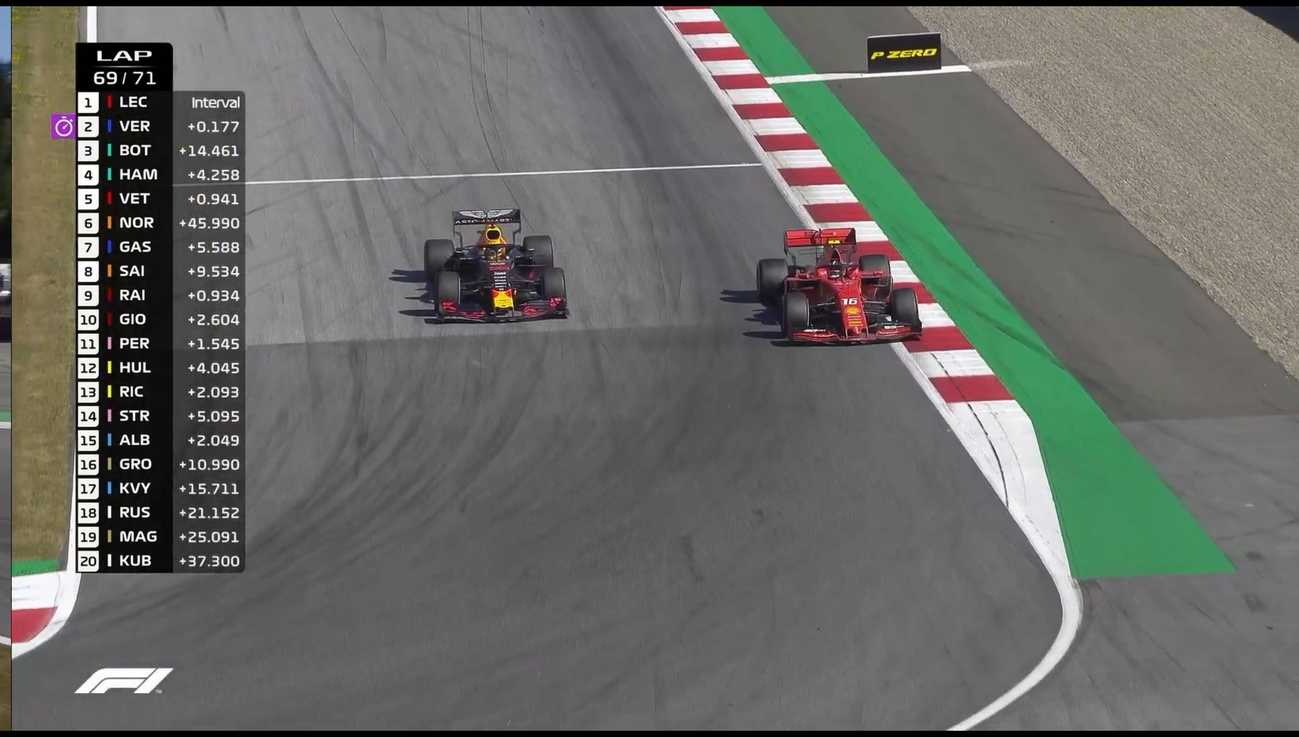
2 TURN

2 VERSTAPPEN — 320 KM/H — DRS

Any driver **moving back towards the racing line**, having earlier defended his position off-line, should leave **at least one car width** between his own car and the edge of the track **on the approach to the corner.**

…manoeuvres liable to **hinder other drivers**, such as **deliberate crowding of a car beyond the edge of the track** or any other abnormal change of direction, are **strictly prohibited**.


LAP
68 / 71
BATTLE FOR 1st
1 LECLERC
2 VERSTAPPEN
3 BOT +14.846
4 HAM +5.061
5 VET +0.910
6 NOR +45.080
7 GAS +4.398
8 SAI +9.812
9 RAI +1.069
10 GIO +3.159
11 PER +1.634
12 HUL +1.744
13 RIC +4.989
14 STR +3.905
15 ALB +2.610
16 GRO +10.434
17 KVY +15.028
18 RUS +20.877
19 MAG +25.713
20 KUB +34.573


LAP
69 / 71
1 LEC Interval
2 VER +0.177
3 BOT +14.461
4 HAM +4.258
5 VET +0.941
6 NOR +45.990
7 GAS +5.588
8 SAI +9.534
9 RAI +0.934
10 GIO +2.604
11 PER +1.545
12 HUL +4.045
13 RIC +2.093
14 STR +5.095
15 ALB +2.049
16 GRO +10.990
17 KVY +15.711
18 RUS +21.152
19 MAG +25.091
20 KUB +37.300
P ZERO

How do we define **reckless**, **dangerous** or **careless** driving?

Reckless driving: …**wilful** or **wanton disregard** for the **safety of persons or property**

– USA Florida Statutes, Section 316.192

Dangerous Driving: …**falls far below** what would be **expected** of a ***competent*** *and* ***careful driver***…

– UK Road Traffic Act 1988 c. 52 Part I Driving offences Section 2A

©

Dangerous Driving: …**obvious** to a ***competent*** *and* ***careful driver***
that driving in that way would be **dangerous**

– UK Road Traffic Act 1988 c. 52 Part I Driving offences Section 2A

©

Careless Driving: …driving without **due care** and **attention** if (and only if) the way he drives **falls below** what would be **expected** of a ***competent*** *and* ***careful driver***

– UK Road Traffic Act 1988 c. 52 Part I Driving offences Section 3ZA

©

Should **AI** be held to same legal standards as **human** drivers?

Surely the **minimum** we should expect is that **AI** Self-Driving Software never engages in **reckless**, **dangerous** or **careless** driving?

©

Turing Test for **Autonomous Driving**
a global performance standard for AI on our roads

©

…it compares **AI** performance to that **expected** of a
competent *and* ***careful driver*** (with humans as the starting baseline)

…it continually monitors the **AI**’s self-reported
situational awareness and **situational risk assessment**

…to validate that the AI Self-Driving Software always remains
“**aware**, **willing** and **able**” to avoid collisions

©

*let's **start** the **journey** to **safer mobility** today*

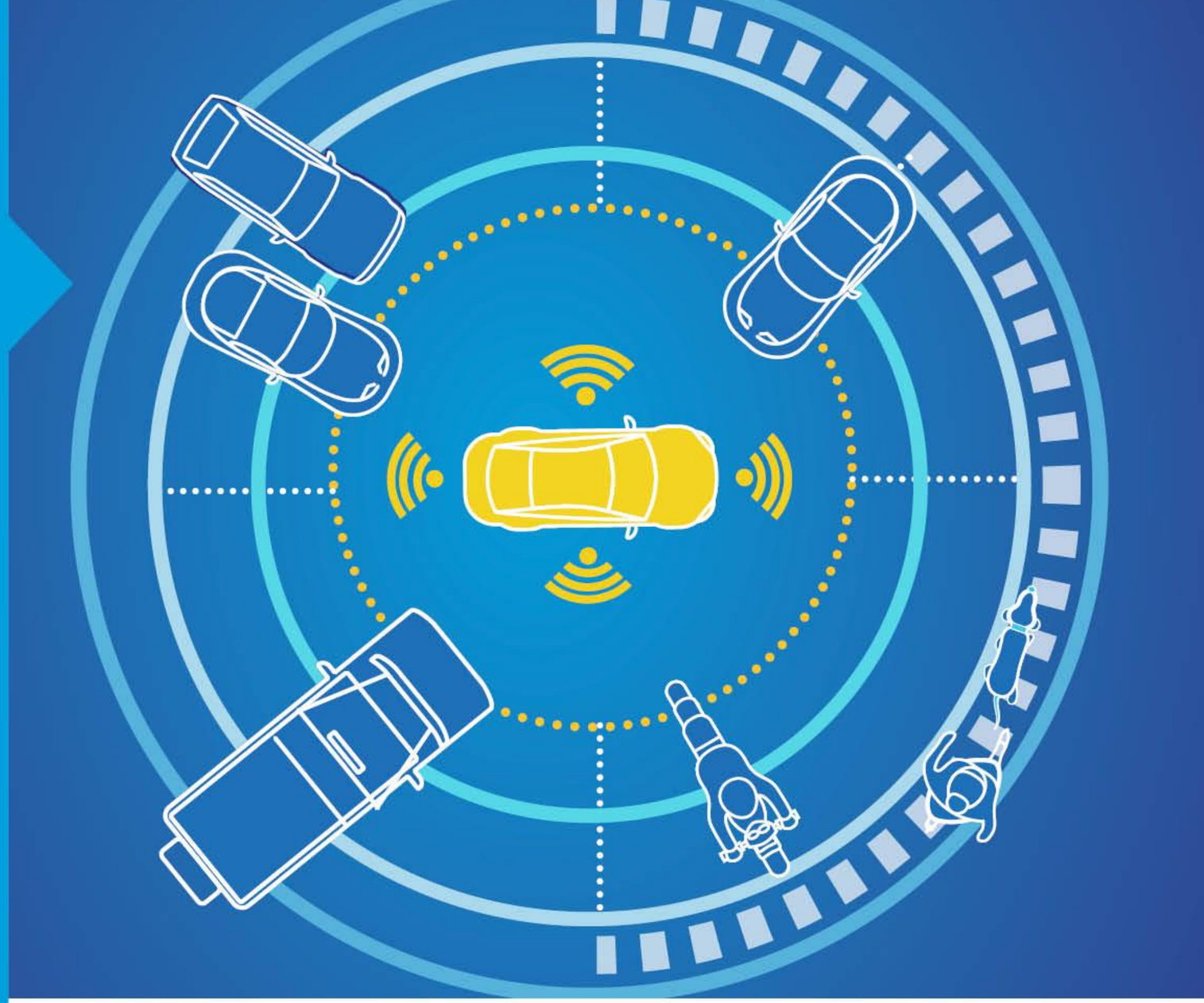
ITUEvents

One-day workshop

The Turing test for autonomous driving

A global performance standard for AI on our roads

10 September 2019
ITU Telecom World
Budapest, Hungary



Partner

AUTONOMOUS DRIVERS ALLIANCE

Organized by

ITU