AlixPartners
when it really matters

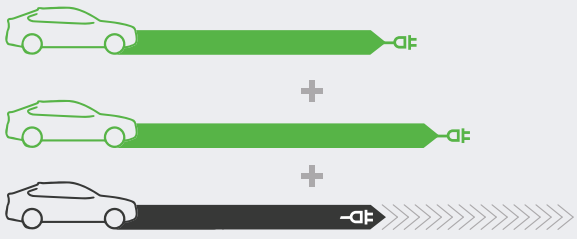
AUTOMOTIVE & INDUSTRIAL

First-of-its-kind measure computes the total "e-range" of vehicles sold and "ICE-equivalent share"

AlixPartners has introduced a new index designed to give the automotive industry and other interested parties, such as governments, a more meaningful tool for measuring the progress of companies and countries on the road towards the electrification of cars and light trucks. It will be updated quarterly and will allow for direct head-to-head comparisons of true vehicle-electrification progress between and among automakers, countries, and world regions.

Unlike other indices, the AlixPartners Automotive Electrification Index tracks not only the number of e-vehicles sold by automakers—including PHEVs, FCEVs and battery-powered vehicles (BEVs)—but importantly it also measures the combined range as a percentage of all cars and trucks sold by individual automakers—a company's ICE-equivalent share and the combined e-ranges and ICE-equivalent shares by country (61) and major regions of the world.

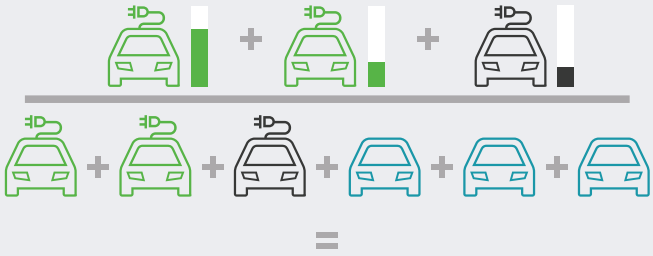
FIGURE 1: E-RANGE



e-Range

Sum of electric range of all electric vehicles (EV) sold

FIGURE 2: ICE-EQUIVALENT SHARE



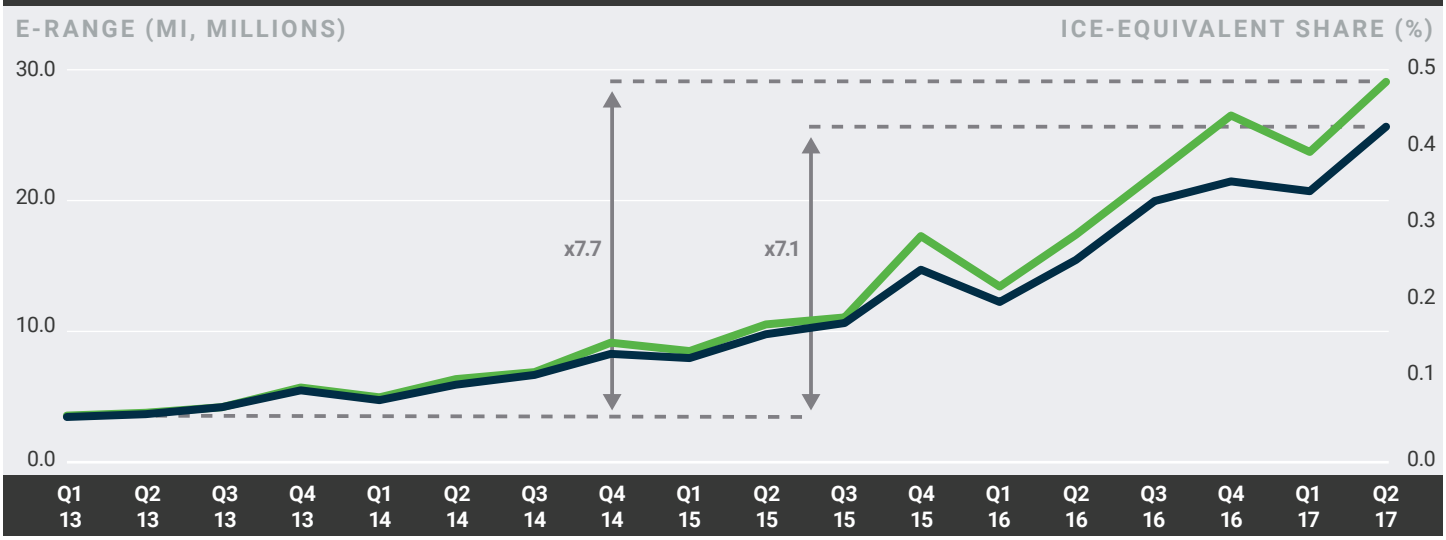
ICE-equivalent share

Total number of full-ICE-equivalent-range EVs sold divided by total number vehicles sold (EV and ICE)

Key: BEV PHEV Non-plug-in HEV or ICE
Source: AlixPartners Automotive Electrification Index

Electrification is taking off, but the average electric range is moving slowly

FIGURE 3: GLOBAL ALIXPARTNERS ELECTRIFICATION INDEX



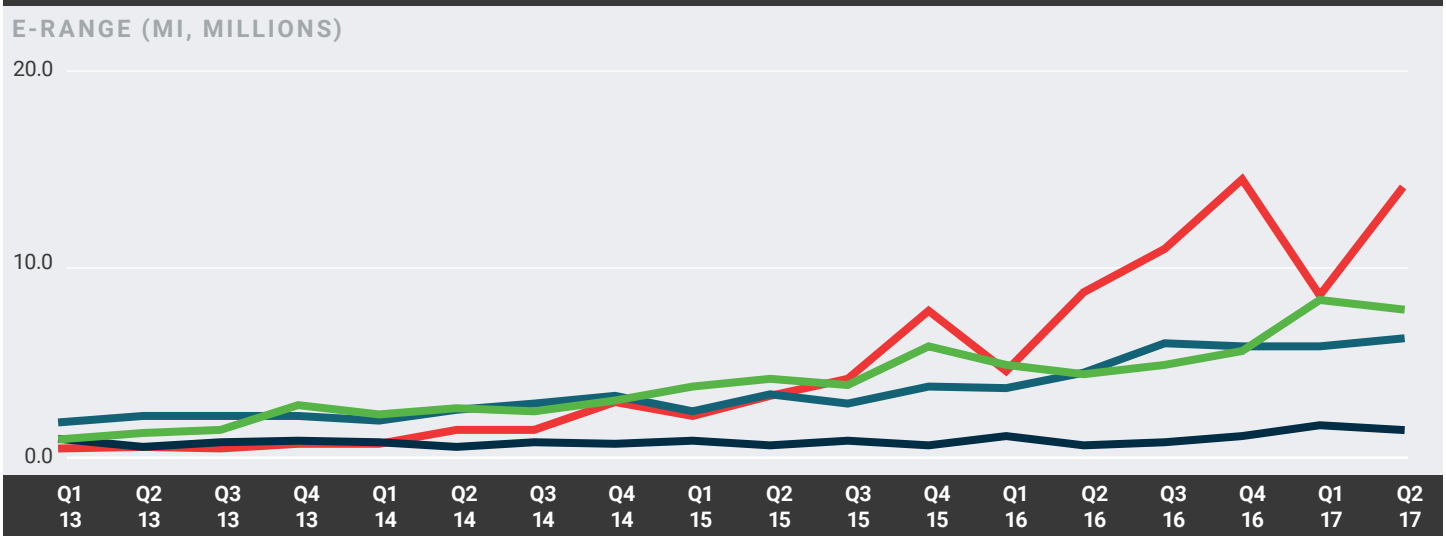
e-Range: electric miles sold ICE-equivalent share: number full ICE equivalent sold as percentage of total number of vehicles sold

Source: IHS Markit, EV-volumes.com, automaker responses, AlixPartners research

Q1 2013		Q2 2017
41,023 Number of BEV, PHEV, and FCEV sold	▲ +535%	260,411 Number of BEV, PHEV, and FCEV sold
0.06% ICE-equivalent share	▲ +617%	0.43% ICE-equivalent share
0.21% Market share	▲ +467%	1.19% Market share
84 mi Average e-range	▲ +33%	112 mi Average e-range

China is picking up speed faster than the rest of the world, and North America and Europe are falling behind

FIGURE 4: E-RANGE: REGIONAL VIEW (Q1 2013 TO Q2 2017)



Source: IHS Markit, EV-volumes.com, AlixPartners research

The e-range shows that China is leading the way with the highest total electric miles range sold in Q2 2017, followed by the United States and Norway

Rank Q2 2017	Country	e-Range (mi, millions)	e-Range (km, millions)	Number EV sold
1	China	13.83	22.26	121,185
2	United States	5.55	8.93	47,974
3	Norway	1.71	2.75	13,948
4	France	1.59	2.56	10,140
5	Germany	1.22	1.96	12,203
6	Japan	0.94	1.51	14,276
7	United Kingdom	0.86	1.38	10,161
8	Canada	0.50	0.81	4,390
9	Netherlands	0.38	0.61	1,969
10	Sweden	0.35	0.56	4,479
11	South Korea	0.35	0.56	2,775
12	Austria	0.31	0.50	1,777
13	Belgium	0.25	0.41	4,286
14	Switzerland	0.25	0.40	1,624
15	Spain	0.17	0.28	1,688

But the ICE-equivalent share shows that other countries—mostly smaller European countries with high buying power—are leading on the level of electrification across the entire fleet

Rank Q2 2017	Country	ICE-eq. (%)	Number EV sold
1	Norway	11.47	13,948
2	Iceland	1.59	632
3	Netherlands	0.97	1,969
4	Austria	0.95	1,777
5	Sweden	0.94	4,479
6	Ukraine	0.87	790
7	Switzerland	0.86	1,624
8	France	0.72	10,140
9	China	0.71	121,185
10	Luxembourg	0.58	298
11	Belgium	0.46	4,286
12	Finland	0.44	662
13	United Kingdom	0.41	10,161
14	United States	0.40	47,974
15	Portugal	0.38	958

Source: IHS Markit, EV-volumes.com, AlixPartners research

The e-range shows that Tesla is in a league of its own, but some Chinese manufacturers are making up ground

Rank Q2 2017	OEM	e-Range (mi, millions)	e-Range (km, millions)	Number EV sold
1	Tesla	6.11	9.84	21,746
2	Renault/Nissan	3.73	6.00	21,746
3	BYD	3.34	5.38	26,548
4	BAIC	2.02	3.25	17,451
5	General Motors	1.64	2.64	12,347
6	Geely	1.33	2.14	12,623
7	BMW	1.26	2.03	20,026
8	Zhidou	1.24	2.00	12,894
9	Jianghuai	1.20	1.92	7,774
10	Hyundai	1.14	1.84	9,289
22	FCA	0.20	0.32	3,328
23	Ford	0.16	0.26	5,840
24	Honda	0.08	0.13	220

IHS Markit, EV-volumes.com, AlixPartners research

Our methodology

The key data sources used for vehicle and electric vehicle sales numbers are:

- IHS Markit for total LV sales data for all countries covered.
- Electric ranges for BEV, PHEV, FCEV are taken from EV-volumes.com as well as from OEM information sources and government websites.

The vehicle scope coincides with the IHS LV sales database definition—passenger cars and light trucks, GVW<6t.

Allocation of vehicles to OEMs is based on IHS allocation of vehicles sales-to-sales brands—irrespective of the OEM actually producing the vehicle in case of JVs/co-operations—and does not include upfitters and post-production customizations such as VIA Motors.

Learn more at https://alix.link/APAuto

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