

Global passenger car market share of countries planning to phase out new sales of internal combustion engine vehicles

The number of national and sub-national governments committed to fully ending the sale or registration of new internal combustion engine (ICE) light-duty vehicles (passenger cars and vans/light trucks) keeps growing. Since mid-June 2021, there are three changes to our global map (Figure 1).¹ At the end of June 2021, Canada moved its 2040 goal of 100% zero-emission new light-duty cars and truck sales ahead to 2035.² In mid-July 2021, the Austrian government presented its Mobility Master Plan 2030, and it sets the goal to only allow the registration of new zero-emission cars and light commercial vehicles (vans) by 2030.³ Additionally, in early September, the governor of the U.S. state of New York signed legislation stating that from 2035, in-state sales of new passenger cars and trucks shall be 100% zero-emission.⁴

Figure 1 shows that through September 2021, 16 national and sub-national governments had set a target to fully end the new sale or registration of ICE cars in the 2025 to 2040 time frame. This includes 10 European countries, as well as Canada, Costa Rica, Cape Verde, Singapore, and at the sub-national level, the U.S. states of California and New York.⁵ Of the 16 governments with targets to end the sale or registration of new passenger cars, 11 also include vans/light trucks.

1 Sandra Wappelhorst, *Update on Government Targets for Phasing Out new Sales of Internal Combustion Engine Passenger Cars*, (ICCT: Washington, DC, 2021), https://theicct.org/sites/default/files/publications/update-govt-targets-ice-phaseouts-jun2021_0.pdf

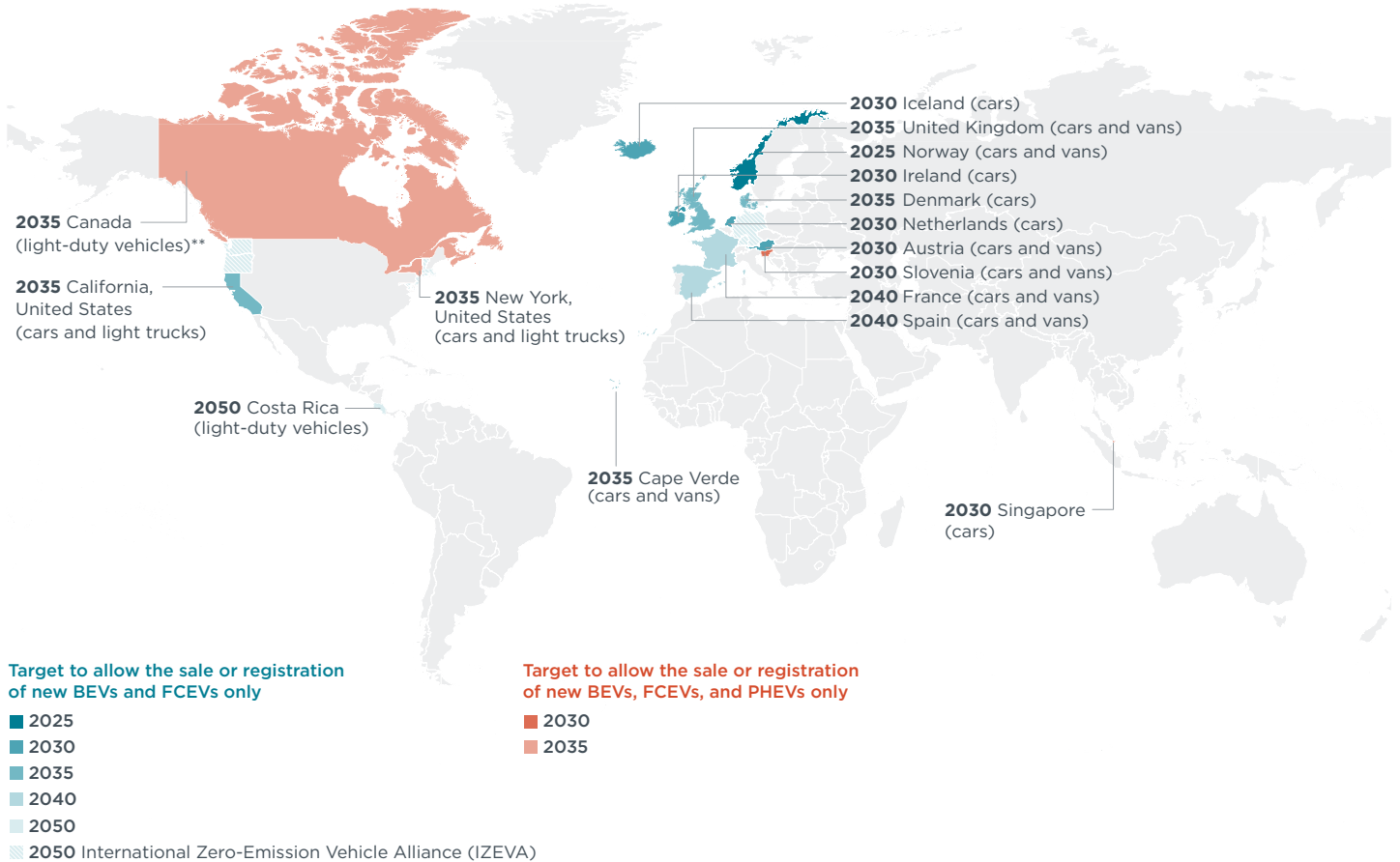
2 Government of Canada, "Building a Green Economy: Government of Canada to Require 100% of Car and Passenger Truck Sales be Zero-emission by 2035 in Canada," June 29, 2021, <https://www.canada.ca/en/transport-canada/news/2021/06/building-a-green-economy-government-of-canada-to-require-100-of-car-and-passenger-truck-sales-be-zero-emission-by-2035-in-canada.html>

3 Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, "Mobilitätsmasterplan 2030 - Neuausrichtung des Mobilitätssektors [Mobility Master Plan 2030 - Realignment of the Mobility Sector]," (2021), <https://www.bmk.gv.at/themen/mobilitaet/mobilitaetsmasterplan/mmp2030.html>

4 The New York State Senate, "Assembly Bill A4302," (2021), <https://www.nysenate.gov/legislation/bills/2021/a4302>

5 Note that the members of the International Zero-Emission Vehicle Alliance (IZEVA) shown in hashed blue in the map are not further considered. Additionally, the Canadian provinces of British Columbia and Québec, with targets for the years 2040 and 2035, respectively, are not listed separately but are included in the Canada figures.

Governments with official targets to 100% phase out sales or registrations of new internal combustion engine light-duty vehicles (passenger cars and vans/light trucks) by a certain date* (Status: Through September 2021)



* Includes countries, states, and provinces that have set targets to only allow the sale or registration of new battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs), and plug-in hybrid electric vehicles (PHEVs). Countries such as Japan with pledges that include hybrid electric vehicles (HEVs) and mild hybrid electric vehicles (MHEVs) are excluded as these vehicles are non plug-in hybrids.
 ** The Canadian province of British Columbia has set its 2040 target into binding regulation; the Canadian province of Québec has also set a target for 2035.

Figure 1. Government targets to 100% phase out the sale or registration of new ICE cars, status through September 2021.

* This map is presented without prejudice as to the status of or sovereignty over any territory, the delimitation of international frontiers and boundaries, and the name of any territory, city, or area.

To qualify to be included in the map, the target must be set as part of an official policy document such as a national climate or transport strategy/plan, in a law, or in a similar framework such as an executive order. We consider battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs), and plug-in hybrid electric vehicles (PHEVs) as non-ICE vehicles and exclude targets which would still allow the new sale/registration of hybrid electric vehicles (HEVs) and/or alternative fuel vehicles such as compressed natural gas (CNG) or liquefied petroleum gas (LPG) vehicles.

The national and sub-national **governments listed in the map made up 14% of all new passenger car sales globally in 2020, based on an estimated 66 million vehicles sold.**⁶

Figure 2 illustrates these markets, differentiated by those that would allow BEVs and

⁶ Depending on the market, data represent either new sales or new registrations. Cape Verde, a small market, includes all vehicle registrations. Costa Rica, also a small market, includes light commercial vehicle sales. Data for the United States and Canada include light trucks (pickup trucks and sport utility vehicles). Data based on International Organization of Motor Vehicle Manufacturers (OICA), "Global Sales Statistics 2019 - 2020," (2021), <https://www.oica.net/category/sales-statistics/>; MarkLines, "USA - Flash Report, Sales Volumes, 2020," (January 6, 2021), https://www.marklines.com/en/statistics/flash_sales/automotive-sales-in-usa-by-month-2020; MarkLines, "Canada - Flash Report, Sales Volumes, 2020," (January 7, 2021); European Automobile Manufacturers Association (ACEA), "New Passenger Car Registrations European Union," (2021), https://www.acea.auto/files/2021119_PRPC_2012_FINAL.pdf; California Auto Outlook, "Comprehensive Information on the California Vehicle Market," Volume 17, Number 1, (February 2021), <https://www.cncda.org/wp-content/uploads/Cal-Covering-4Q-20.pdf>; Asean Automotive Federation (AAF), "Sales: 2020," (2020), http://www.asean-autofed.com/files/AAF_Statistics_2020.pdf; Asociación Latinoamericana de Distribuidores de Automotores (ALADDA), "Boletín Informativo [Newsletter]," (January 2021), <http://www.aladda.com/novedades/Boletin25.pdf>; National Statistics Office Malta, "Motor Vehicles: Q4/2020," (February 23, 2021), https://nso.gov.mt/en/News_Releases/Documents/2021/02/News2021_034.pdf; Focus2Move, "Cape Verde 2020. Market Down 23.3% After Growing Impressively the Previous Year," March 8, 2021, <https://www.focus2move.com/cape-verde-cars-sales-2/>

FCEVs only, shown in blue, and those which also include PHEVs in their phase-out target, shown red. The size of each box is proportional to the number of global new passenger car sales/registrations in that region in 2020. The U.S. states of California and New York are listed separately from the United States as a whole, as the states have committed to a 100% target for zero-emission passenger car sales and the country has not.

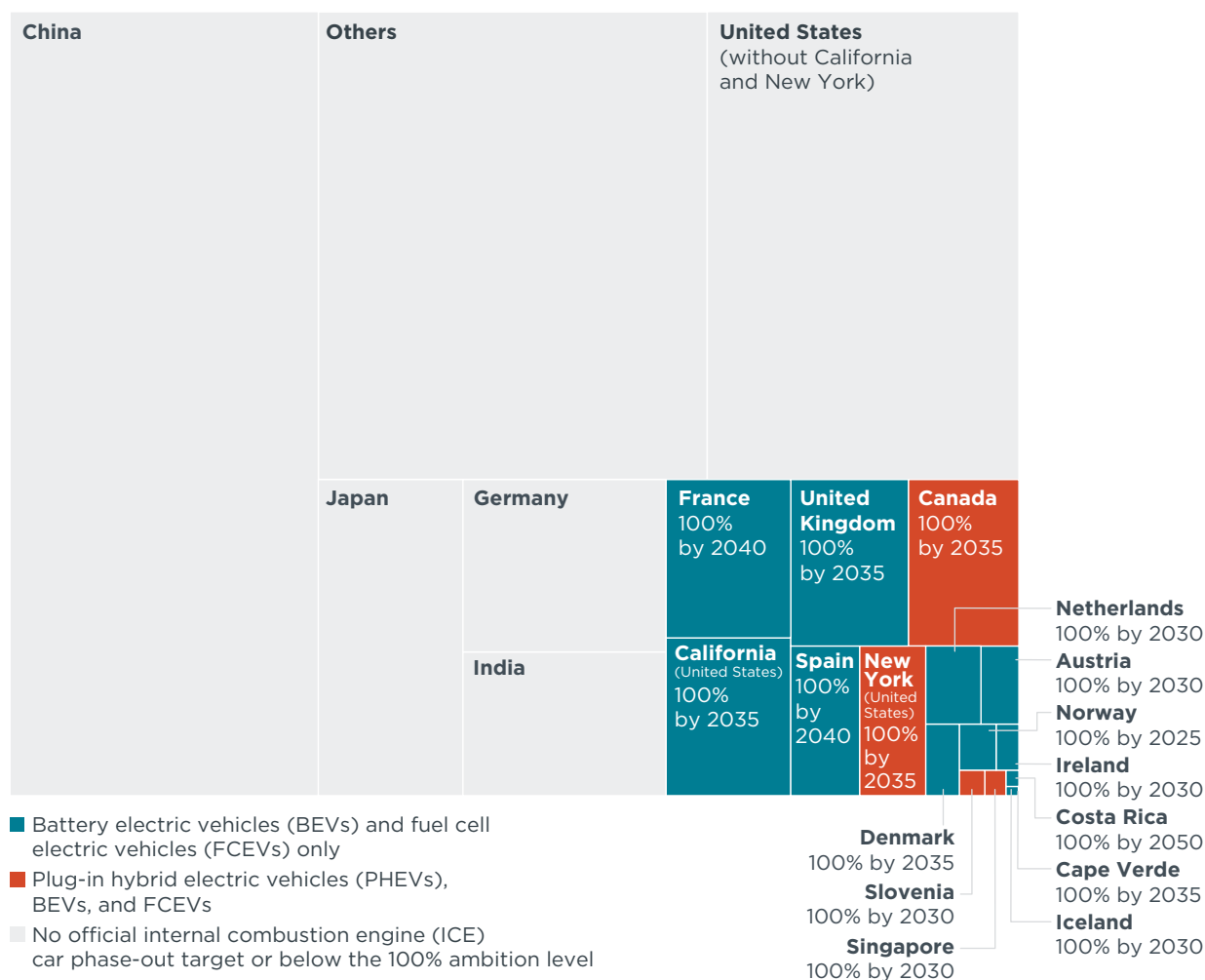


Figure 2. Global market share of new passenger car sales/registrations by national and sub-national governments in 2020. The size of the boxes is proportional to the number of global new passenger car sales/registrations in 2020. Highlighted in blue and red are governments with official targets to 100% phase out the sale/registration of new ICE cars. Sources: OICA, MarkLines, ACEA, California Auto Outlook, AAF, ALADDA, National Statistical Office Malta, and Focus2Move.

Of the governments with an official phase-out target, France, the United Kingdom, and the U.S. state of California were the largest markets and captured 2.5% of global new passenger car sales each in 2020. This was followed by Canada, which had a global market share of 2.3%, and then Spain and the U.S. state of New York with 1.3% each. Smaller markets such as Austria, Cape Verde, Costa Rica, Denmark, Iceland, Ireland, Netherlands, Norway, Singapore, and Slovenia made up between 0.001% and 0.5% of global new passenger car sales in 2020. Markets which have not yet made any official commitment to fully end the sale or registration of new ICE passenger cars were home to 86% of new car sales/registrations. Among those with the largest shares were China with 31% of new global car sales in 2020, the United States (excluding California and New York) with a share of 18%, Japan with 6%, and Germany and India, each representing about 4% of global new car sales in 2020.

Some countries have committed to end the sale or registration of new ICE cars, but not yet at a 100% ambition level. These include Pakistan, the United States, Greece, and China. Figure 3 illustrates those markets together with the governments mentioned

above that have official targets to fully end the sale or registration of new ICE cars. The lighter blue and lighter red colors indicate ambition levels below 100%.

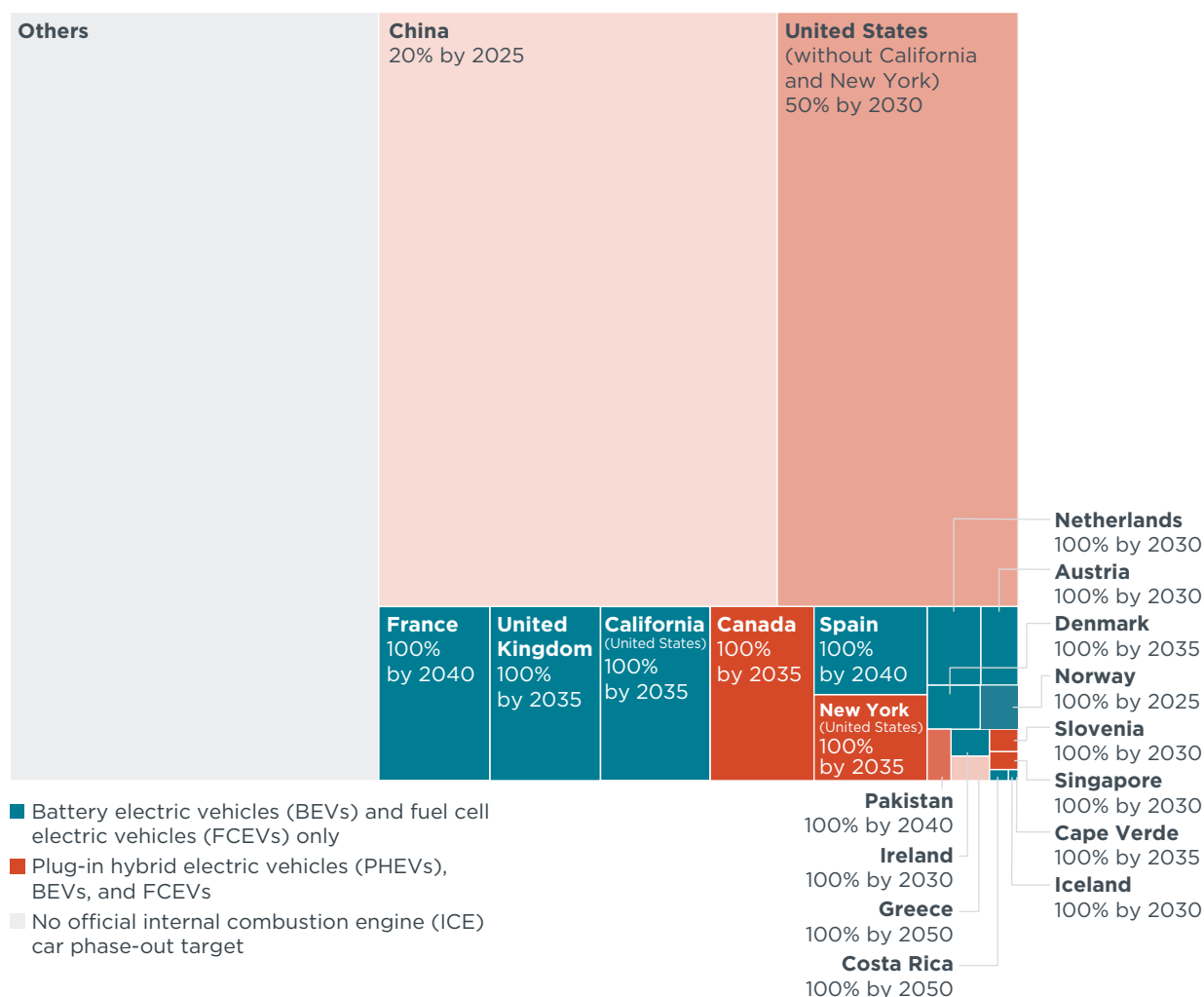


Figure 3. Global market share of new passenger car sales/registrations by national and sub-national governments in 2020. The size of the boxes is proportional to the number of global new passenger car sales/registrations in 2020. Highlighted in blue and red are governments with official targets to 100% phase out the sale/registration of new ICE cars; lighter blue and lighter red represent governments with ambition levels below 100%. Sources: OICA, MarkLines, ACEA, California Auto Outlook, AAF, ALADDA, National Statistical Office Malta, and Focus2Move.

Pakistan aims for 90% new electric passenger car sales by 2040.⁷ In the beginning of August 2021, U.S. President Biden signed an Executive Order setting the goal that 50% of all new passenger cars and light trucks sold in 2030 be zero-emission vehicles, including BEVs, PHEVs, and FCEVs.⁸ Greece intends to have 30% of new passenger car registrations in the country be BEVs and PHEVs by 2030.⁹ Lastly, China has set the target to reach about 20% of total new sales being new energy vehicles (BEVs, PHEVs, and FCEVs) by 2025.¹⁰ **The 16 national and sub-national governments with official targets**

7 Moaz Uddin, "Pakistan's National Electric Vehicle Policy: Charging Towards the Future," ICCT (blog), January 10, 2020, <https://theicct.org/blog/staff/pakistan%E2%80%99s-national-electric-vehicle-policy-charging-towards-future>

8 The White House, "Executive Order on Strengthening American Leadership in Clean Cars and Trucks," August 5, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/08/05/executive-order-on-strengthening-american-leadership-in-clean-cars-and-trucks/>

9 Hellenic Republic, Ministry of the Environment and Energy, "National Energy and Climate Plan," (December 2019), https://ec.europa.eu/energy/sites/ener/files/el_final_necp_main_en.pdf

10 General Office of the State Council, "The General Office of the State Council on Printing and Distributing the New Energy Automobile Industry Notice of Development Plan (2021-2035)," October 20, 2020, http://www.gov.cn/zhengce/content/2020-11/02/content_5556716.htm

to 100% phase out new ICE cars in future years and the four countries with lower ambition levels represented over 60% of new global passenger car sales in 2020.

Also, the European Commission's (EC) proposal to revise the current regulation on CO₂ emission standards for new passenger cars and vans was published in mid-July 2021.¹¹ Although the EC has not formulated an ICE phase-out target as part of an official policy document such as the European Green Deal, the CO₂ proposal, which is an implementation measure already, translates into a de facto ICE phase-out target, as it suggests to only allow the registration of new zero-emission cars (BEVs and FCEVs) by 2035. If adopted, this regulation would apply to the 27 EU Member States and may also include Norway, Iceland, and Liechtenstein if they adopt the regulation as well.

If counting the 27 EU Member States that would be affected by the tighter CO₂ emission standards for new passenger cars along with the aforementioned governments committed to a 100% ICE phase out target in future years and the three countries with an ambition level below 100% outside the European Union, these markets captured almost three quarters of global new passenger car sales in 2020 (Figure 4).

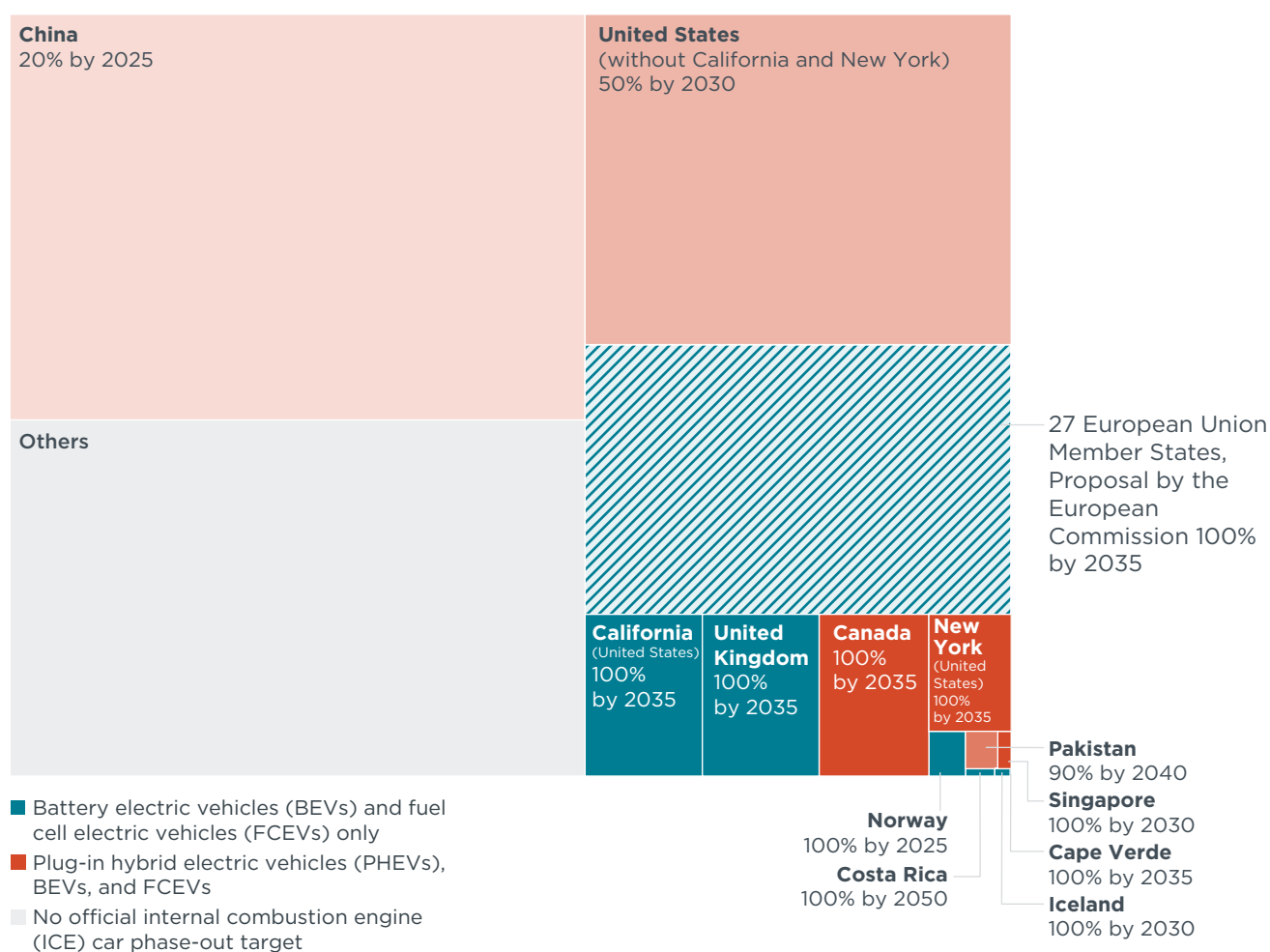


Figure 4. Global market share of new passenger car sales/registrations by national and sub-national governments in 2020. The size of the boxes is proportional to the number of global new passenger car sales/registrations in 2020. Highlighted in blue and red are governments with official targets to 100% phase out the sale/registration of new ICE cars; lighter blue and lighter red represent governments with ambition levels below 100%; solid boxes reflect governments with official targets; and the hatched box represents the proposal by the European Commission which has not been adopted yet. *Sources:* OICA, MarkLines, ACEA, California Auto Outlook, AAF, ALADDA, National Statistical Office Malta, and Focus2Move.

¹¹ European Commission, "Proposal for a regulation of the European Parliament and the Council amending Regulation (EU) 2019/631 as regards strengthening the CO₂ emission performance standards for new passenger cars and new light commercial vehicles in line with the Union's increased climate ambition," July 14, 2021, https://ec.europa.eu/info/sites/default/files/amendment-regulation-co2-emission-standards-cars-vans-with-annexes_en.pdf

TRENDS IN LEADING MARKETS

Over the past year, three of the five leading markets by new passenger car sales in 2020 —China (31%), the United States (22%), and the European Union (15%)—have announced targets or made proposals including timeframes for phasing out new ICE cars and vans/light trucks. Japan, the fourth-largest passenger car market with 6% of global new car sales in 2020, announced in December 2020 that it plans to achieve 100% electric new passenger car sales by the mid-2030s at the latest. However, Japan's target would still permit the sale of new HEVs and therefore it is not being considered as a country with a 100% ICE car phase-out target here. Lastly, India, the fifth-largest global car market with 4% of global new passenger car sales in 2020, has not yet committed to end the sale of new ICE cars by a certain date as part of any official government policy document.

FOR MORE INFORMATION

Global ICE phase-out map, <https://theicct.org/global-ice-phase-out-map>

Update on government targets for phasing out new sales of internal combustion engine passenger cars, June 2021, <https://theicct.org/publications/update-govt-targets-ice-phaseouts-jun2021>

Growing momentum: Global overview of government targets for phasing out sales of new internal combustion engine vehicles, November 2020, <https://theicct.org/blog/staff/global-ice-phaseout-nov2020>

Regulatory design elements: Phase-out targets for combustion engine vehicles, <https://theicct.org/sites/default/files/publications/eu-co2-FS5-jun2021.pdf>

The end of the road? An overview of combustion-engine car phase-out announcements across Europe, May 2020, <https://theicct.org/publications/combustion-engine-car-phase-out-EU>

Contact: Sandra Wappelhorst, s.wappelhorst@theicct.org

www.theicct.org

communications@theicct.org

[twitter @theicct](https://twitter.com/theicct)

