



Global new mobility market insights Part 2.

Analysis of the global investor landscape in the CASE segments

White Paper

Giving substance to reality.

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Management Summary

In part 1 of our study on the Global New Mobility Market, we have concluded that out of the \$ 163 bn cumulated global investments into CASE segments (**C**onnectivity, **A**utonomous driving, **S**mart mobility, **E**lectrification), only 13 % of investments originate from Europe and a mere 3 % flow into European CASE start-ups. This clearly is a worrying development given the long-term perspectives of Europe as a leading region for automotive and new mobility players.

In this second part of our study, we investigate which types of investors in which regions drive CASE investments:

- With 38 % Corporate Venture Capital companies (CVCs) are the biggest investor group, followed by Venture Capital firms (VCs) (35 %) – amongst CVCs, non-automotive CVCs invest substantially more than automotive CVCs
- In **Asia / China**, CVCs play an even greater role covering almost 50 % of all investments; key investment area is Smart Mobility (64 %) with 73 % of funding staying in Asia
- In **North America**, VCs are the biggest investor group with almost 50 %; Smart Mobility is a key investment area (66 %); autonomous driving receives “only” 13 % but is the largest absolute investment area of all major regions; 78 % of funding stay in North America
- In **Europe** automotive CVCs are the biggest investor group with 34 %; Smart Mobility (45 %) and autonomous driving (30 %) as key investment areas; only 13 % of European investments stay in Europe
- The only investor type where **Europe** invests at comparable levels to Asia and North America is automotive CVCs, on all other investor types Europe is falling substantially short
- Accordingly, amongst the **top 10 investors** there is only one European company (Volkswagen), one American (GM), three Chinese and five from the rest of Asia

Summarizing, the future of modern mobility is clearly in the hands of North American and Asian investors. Whilst VCs are the largest investor type in NA, CVCs play the dominating role in Asia.

Europe is somehow competitive in terms of automotive CVC investments but drastically falls short on all other investor types. Hence, Europe has manoeuvred into a backseat position, not only on the investor side but also amongst new mobility players.

Introduction

As a specialized consulting firm in the automotive industry, we regularly provide our customers with newest insights on future trends and developments within the mobility sector. In Part 1 of “Global new mobility market insights” (May 2020), we focussed on the functional and regional destination of funding in the CASE (Connectivity, Autonomous driving, Smart mobility, Electrification) mobility trends, yielding the following key takeaways:

- **\$163 bn** have been **invested** in **CASE segments** since 2010
- **Asian/Chinese** and **North American** start-ups have received **95 % of all funds**, while Europe only received 3 %
- Funding has been concentrated on very few leading players: **31 CASE start-up companies have received 80% of all funding**; the top 10 highest funded companies account for 60 % of all funding
- Among the top 10 start-up companies **four** are based in **North America** and **six** in **Asia / China**

In the scope of Part 2 of our analysis we detail our view on start-up investments by looking at the origin of funding from an investor type as well as regional point of view covering the following topics:

- Global investor types and investment behaviours
- Regional investor types and investment behaviours
 - Deep dive Asia/China
 - Deep dive North America
 - Deep dive Europe
- Top CASE investors

We hope that the insights into the CASE investor landscape will help to broaden the view on new mobility trends and support you in driving your business forward.

1. Global investor types and investment behaviours

In the following we distinguish between the following investor types, who have invested into CASE:

- Corporate Venture Capital companies (CVC) part of automotive (“automotive CVCs”) and non-automotive (“non-automotive CVCs”) corporations
- Private Equity (PE) firms
- Investment Banks (IB)
- Venture Capital companies (VC)

Over the past decade a total of US\$ 163bn¹ of cumulative investments has flown into start-ups within the CASE segments. The largest share with 38 % originate from corporate venture capital companies (CVCs), which are subdivided into automotive (13 %) and non-automotive CVCs (25 %). The investments by venture capital companies (VCs) have the second largest share with 35% (s. Figure 1).

38 %

of investments are executed by CVCs

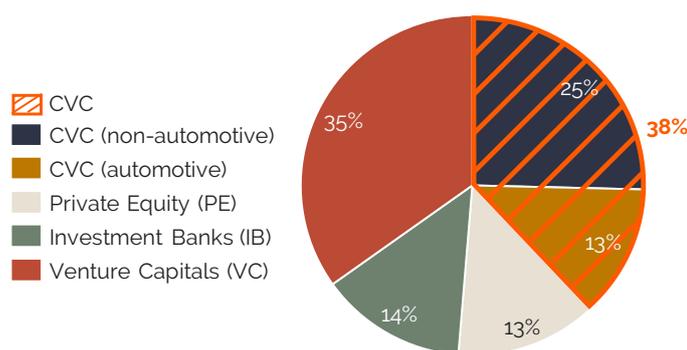


Figure 1: Share of investor types having invested into CASE segments from 2010 to 2019 (Source: Strategy Engineers, Crunchbase)

Global investments of all investor types are mainly focused on the Smart Mobility cluster, which receives 63 % of the worldwide investments into CASE (s. figure 2). Only automotive CVCs are investing mainly (48 % of total automotive CVC investments) into a cluster different from Smart Mobility (Autonomous Driving).

With 22 % Electrification is the CASE segment with the second highest overall investments. The main investors for electrification are VCs (25 % of total VC investments) and non-automotive CVCs

¹ Out of \$163 bn, the investor type is only known for \$128 bn. For the unknown investors a similar distribution of investor types is assumed

(28 % of total non-automotive CVCs investments). The smallest cluster is connectivity with only 3 % of the total funding.

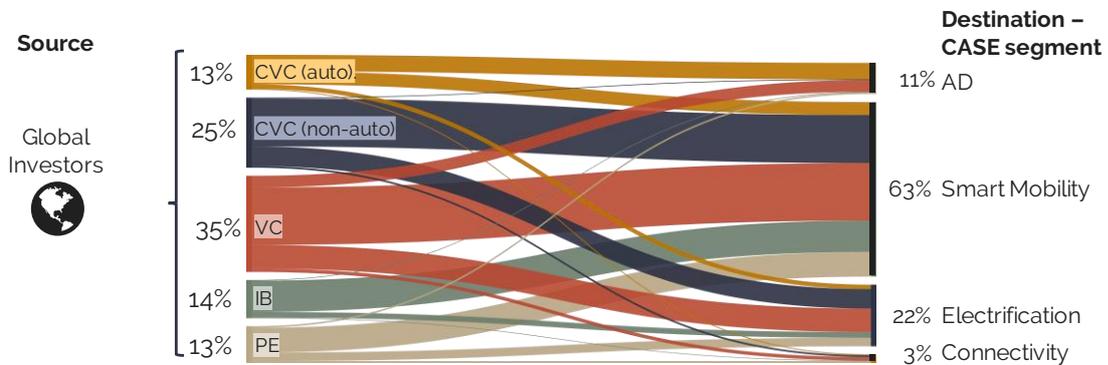


Figure 2: Investment flows from global investors into CASE segments by investor type (Source: Strategy Engineers, Crunchbase)

In terms of regional destinations Asia and North America have received 96 % of all funding. While for North America VCs are the most important investors, in Asia / China the share of investments is split between VC, IBs and non-automotive CVCs (see Figure 3).



Figure 3: Investment flows from global investors to major regions by investor type (Source: Strategy Engineers, Crunchbase)

Regional investor types and investment behaviours

Combined, North American and Asian investors amount to 84 % share of worldwide investments. Thereof Asian investors have the largest investments with \$67 bn of which the largest contribution is non-automotive CVCs with \$23.2 bn.

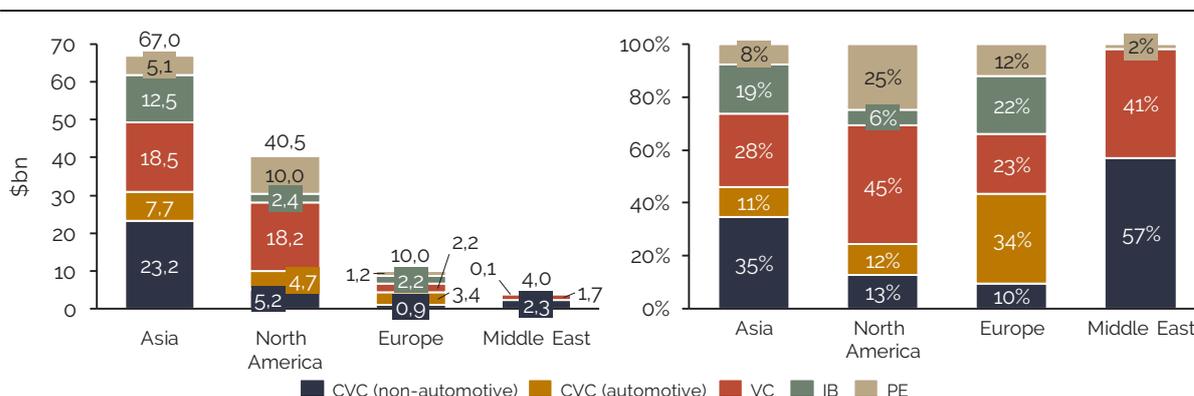


Figure 4: Cumulated (absolute and relative) CASE investments by investor types and by regions (Source: Strategy Engineers, Crunchbase)

In Asia and Europe CVCs are the lead investors covering a total of 46 % and 44 % respectively. However, while in Europe the share of automotive CVCs is 3.5 times larger than the one of non-automotive CVCs, this picture is reversed in Asia. In North America VCs are the main investors with a share of 45 % vs. 25 % from CVCs.

The overall investment volume of Asian and North American investors exceeds the total European investment volume by a factor of 6 and 3 respectively. Only for European automotive CVCs investment levels are somehow comparable to North America and Asia/China (EU \$3.4 bn, NA \$4.7 bn / Asia \$7.7 bn – see Figure 5).

7 times higher

investments by Asian compared to European investors



Figure 5: Cumulated absolute CASE investments by investor type and by regions (Source: Strategy Engineers, Crunchbase)

Deep dive: Asia/China

In Asia/China all investor types heavily fund the Smart Mobility segment (64 %), while the Connectivity segment (2 %) and the Autonomous Driving segment (8 %) receive lower investments. Electrification is the second highest-funded segment, which is especially endorsed by VCs and non-automotive CVCs. Automotive CVCs in Asia/China invest mainly in Smart Mobility and AD.

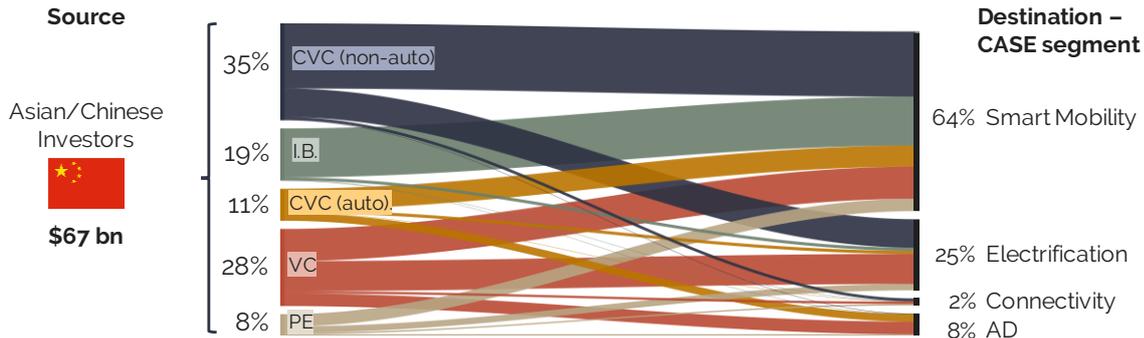


Figure 6: Investment flows from Chinese investors into CASE segments by investor type (Source: Strategy Engineers, Crunchbase)

\$7.3 bn

invested to North America by Chinese non-automotive CVC

Asian investors invest 73 % into their own market and 25 % into the North American market. The foreign investments into North America are mainly attributed to non-automotive CVCs with a total of \$7.3 bn mainly into Electrification (51 %) and Smart Mobility (46 %). The second largest investment into North America is conducted by Asian VCs with a total of \$5.5 bn mainly in the Autonomous Driving (45 %) and Smart Mobility (50 %) segment. Investments of Automotive CVCs in North America (\$2.7 bn) focus on Autonomous Driving (68 %) and Smart Mobility (21 %).

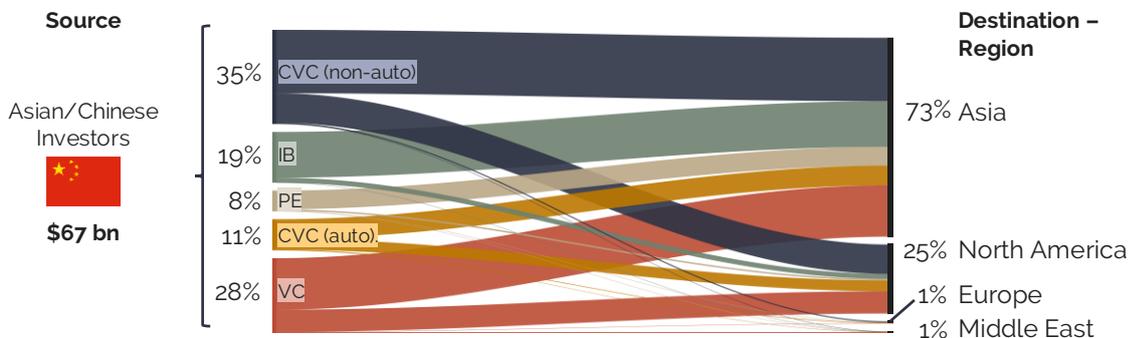


Figure 7: Investment flows from Chinese investors to major regions by investor type (Source: Strategy Engineers, Crunchbase)

Deep dive: North America

Similar to Asian investors, North American investors strongly fund the Smart Mobility segment (66%), while the electrification segment is of lower priority (18%). Especially VCs and PE investors, which stand for 70% of the overall investment volume invest heavily in Smart Mobility. Automotive CVCs in North America focus strongly on the Autonomous Driving segment investing over 80%, while providing the remaining investment volume to the Electrification segment.

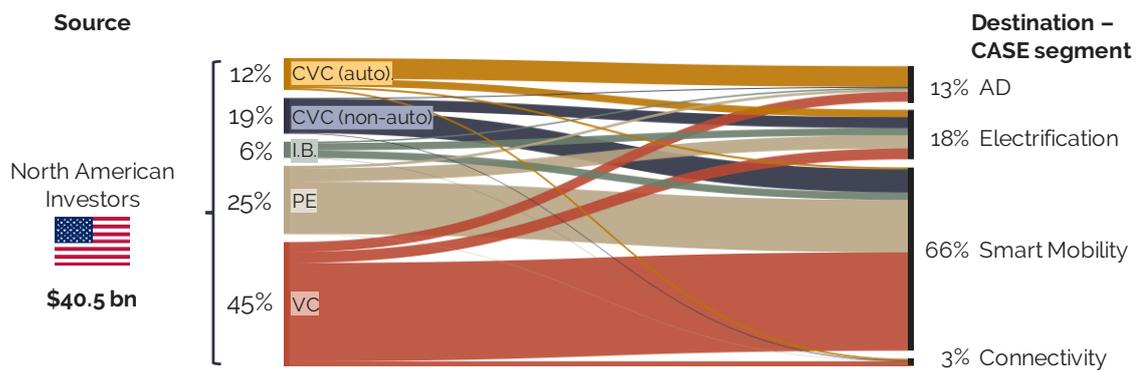


Figure 8: Investment flows from North American investors into CASE segments by investor type (Source: Strategy Engineers, Crunchbase)

With 78% North American investors focus on their home market, while allocating 18% to Asian companies. Thereof VCs (45%) provide the largest funding, followed by PEs (25%) and CVCs (25%). While non-automotive CVCs, VCs and PEs all invest in Asia with similar shares automotive CVCs and IBs almost exclusively invest in their home market.

78%

investments in home market by North American investors

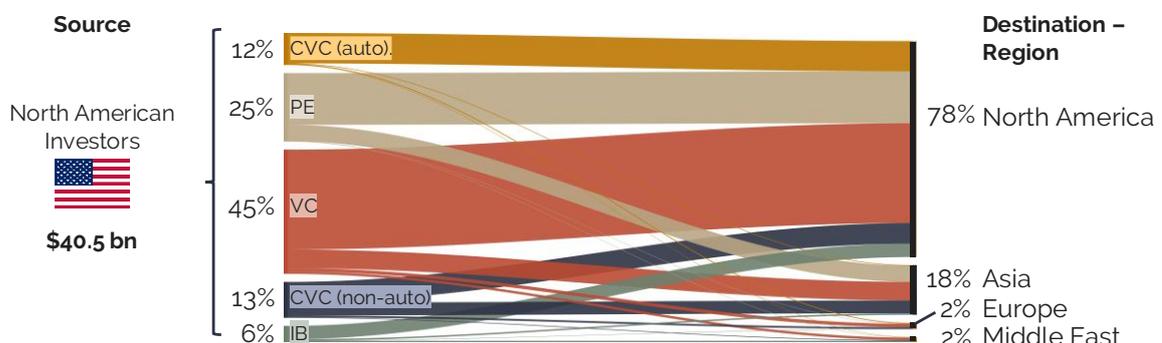


Figure 9: Investment flows from North American investors to major regions by investor type (Source: Strategy Engineers, Crunchbase)

Deep dive: Europe

In the European investor landscape automotive CVCs constitute the largest share of the investment volume with 34 %, mainly dedicated to AD (30 % of European investments). Electrification is rather underfunded in Europe which most likely is driven by the fact that substantial investments in this area are used internally in R&D activities.

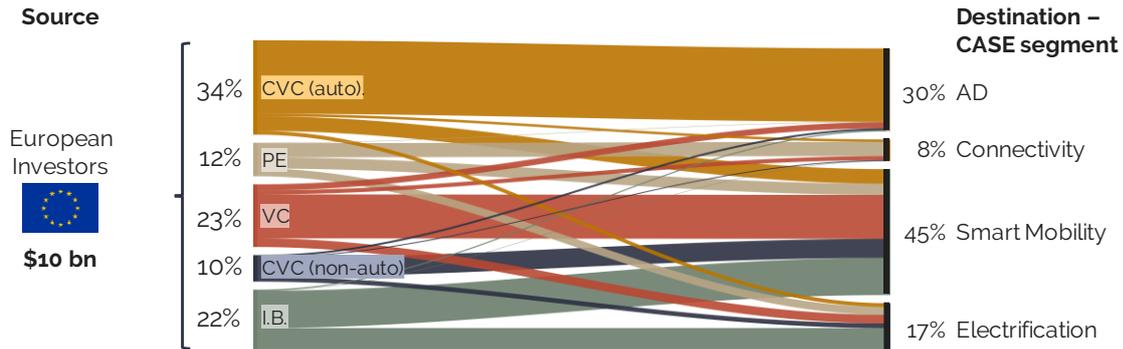


Figure 10: Investment flows from European investors into CASE segments by investor type (Source: Strategy Engineers, Crunchbase)

90 %

of European automotive CVC investments in North America are in Autonomous Driving

As opposed to Asian and North American investors, who invest ~75 % in the regions where they are based, European investors only invest 13 % into Europe. 50 % of all European investments flow to North America with the major share originating from automotive CVCs. Out of the \$2.9 bn, which are invested in North America by automotive CVC 90 % are dedicated to Autonomous Driving. European IBs split their investment between North America, Asia and Africa. Investments of European investors in Europe are mainly driven by VCs and to a smaller extent by PEs.

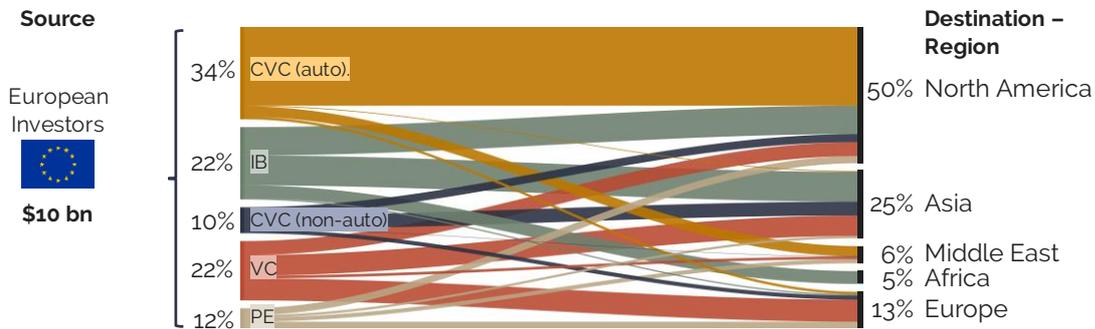


Figure 11: Investment flows from European investors to major regions by investor type (Source: Strategy Engineers, Crunchbase)

Investment landscape and top investors

80 % of global CASE investments were carried out by 159 investors, hence, the investor landscape is not as concentrated as for the receiving companies (80 % of all start-up funding is allocated to 31 companies).

The top 10 investors account for 26 % of total investments allocating \$36 bn to start-up companies. The TOP 10 investors are evenly split between VCs, IBs and CVCs (non-automotive and automotive) while no PE firm can be found among the top investors.

The share of investments of the TOP 10 investors into the different CASE segments shows a deviation from the global picture: While Smart Mobility is also key investment focus, Autonomous Driving has the second largest share with 20 %.

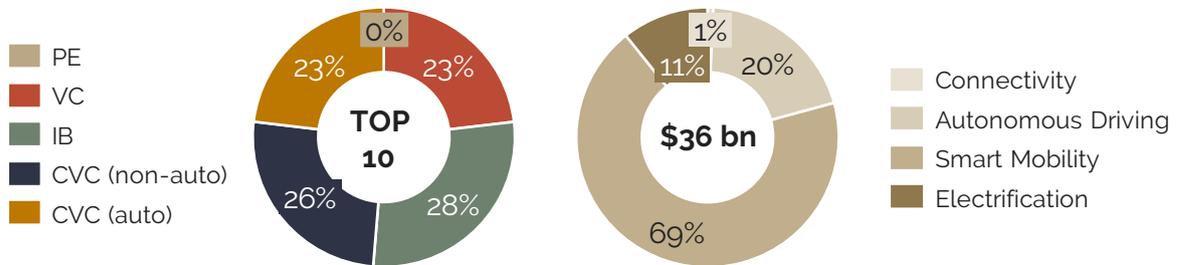


Figure 12: Shares of investor types for TOP 10 investors and their investment focus in the four CASE segments (Source: Strategy Engineers, Crunchbase)

Looking at the investors with investments above \$1.4 bn the dominance of Asian investors becomes apparent. Out of 17 investors, eleven are based in Asia (seven in China and four in Japan), three in North America, two in the middle East and only one in Europe.

11 of 17

TOP investors are based in Asia

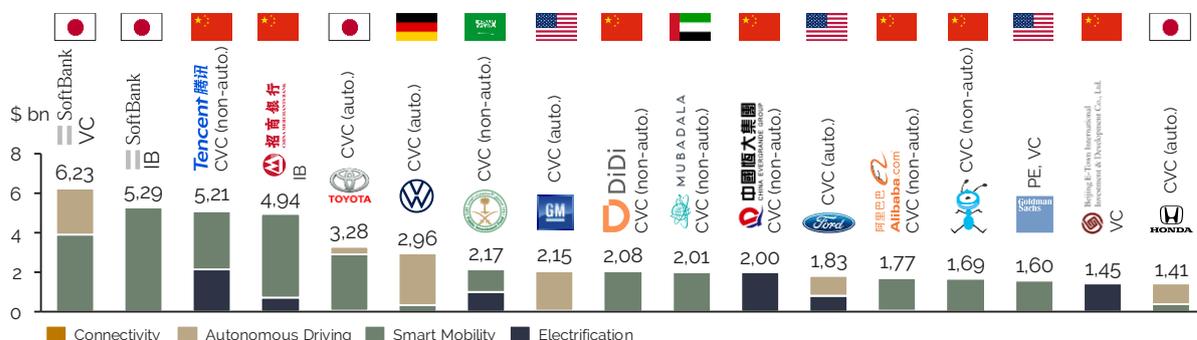


Figure 13: TOP 17 investors with individual investments over \$1.4 bn, including investor type, investor origin and share of CASE segment investments

The fact that only one European investor (Volkswagen) is among the leading CASE investors confirms that there is a substantial need for increased engagement in new mobility trends from the European investor side.

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