





State of European Mobility Startups H1 2022







Leading innovation ecosystem for mobility entrepreneurs.

Via ID

As a business accelerator for new businesses and the venture capital arm of Mobivia, Via ID provides long-term support for projects and entrepreneurs in the development of innovative solutions, so that they can become leaders in sustainable mobility and autotech.

Thanks to its hybrid positioning (investor, accelerator, ecosystem facilitator) Via ID supports innovative startups in sustainable mobility at different stages of development in order to help them develop in France and Europe and transform the mobility of tomorrow.

Mobility Club

The Mobility Club by Via ID is an acceleration platform for mobility players (corporates, enterprises, scale-ups, investors).

The value proposition of the Mobility Club is built around 3 main pillars: inspiration, matchmaking, acceleration.















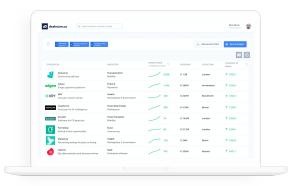




Global startup & venture capital intelligence platform.

Dealroom.co is the foremost data provider on startup, early-stage and growth company ecosystems in Europe and around the globe.

Founded in Amsterdam in 2013, we now work with many of the world's most prominent investors, entrepreneurs and government organizations to provide transparency, analysis and insights on venture capital activity.









What happened in mobility in H1 2022.

H1 2022 was the second most active period for European mobility funding.

European mobility startups raised more in H1 2022 than in any other six month period apart from H1 2021, with \$5.7B raised. This is down 36% from last year's record, but still up more than 3x compared to 2020.

Europe is also the most innovative region for early stage investment, attracting more than 40% of global seed funding in H1 2022, with logistics & delivery attracted the most funding overall and at Seed.

VC investment in European Mobility startups



Exits value falls, but number of small M&A near all-time-high.

Exits value has fallen from last year, driven by a pause in public listings, but smaller M&A is near all-time high levels of transactions. The logistics & delivery sector has seen the most exits, followed by mobility platforms and vehicle marketplaces.

Corporates investment in mobility made just 15% of the total funding, but half of the top 10 largest deals in H1 had corporate involvement.

Number and total value of European mobility exits



Used cars and urban air mobility.

Two of the main trends shaping the future of mobility in Europe are used car sales and urban air mobility (UAM).

Online used car sales are booming, driven by chip shortage and changes in consumer behaviour. This has led to many well capitalized startups in the segment.

Frontier UAM could bring a cheaper, quieter, and more environmentally friendly transportation, especially in congested urban areas.







Urban air mobility (UAM)





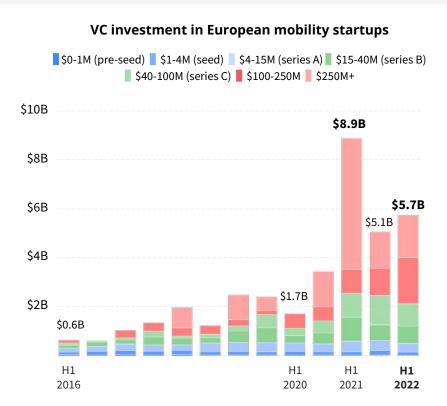


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1 — Mobility startup funding - H1 2022

H1 2022 was the second most active ever for European mobility investment, with \$5.7B raised, down 36% from last year, but still up more than 3x from 2020.

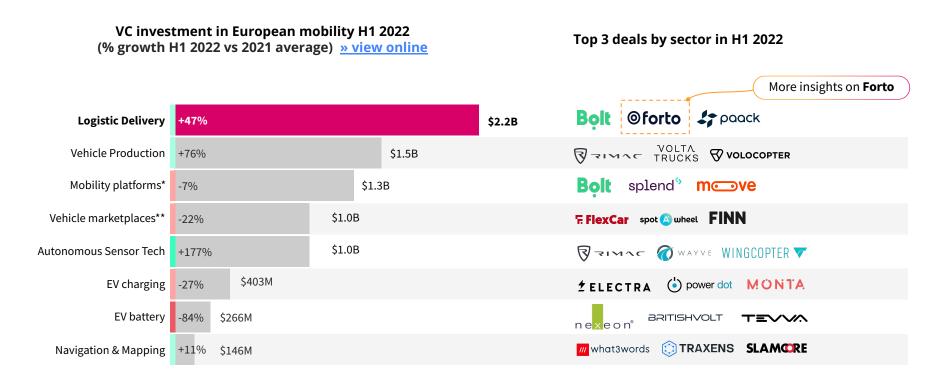


Top European mobility rounds in H1 2022 <u>» view online</u>

Startup		Sector	Round
Bolt	-	Mobility platforms	€628M Series F
\$ 31MVC		Vehicle production, Autonomous Sensor Tech	\$536M Series D
VOLTA TRUCKS	+	Vehicle production	\$260M Series C
<pre>@forto</pre>		Logistics & delivery	\$250M Series D
F. FlexCar		Vehicle marketplaces	€210M Late VC
🧦 paack	<u> </u>	Logistics & delivery	€210M Series D
WAYVE		Autonomous Sensor Tech	\$200M Series B
instabox	-	Logistics & delivery	\$190M Late VC

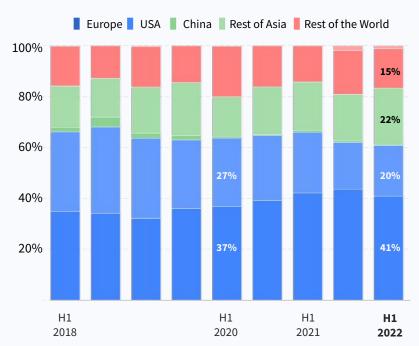


Logistics & delivery startups have attracted the most funding in 2022, followed by vehicle production and mobility platforms.



European mobility startups dominate early stage funding, raising 41% of global Seed capital in H1 2022.

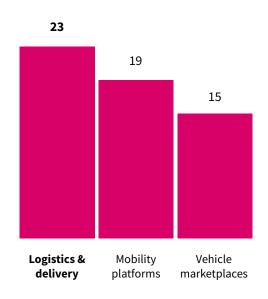
Number of seed funding rounds in mobility by startup HQ » view online



Logistics & delivery startups are the most represented segment at Seed stage in Europe.

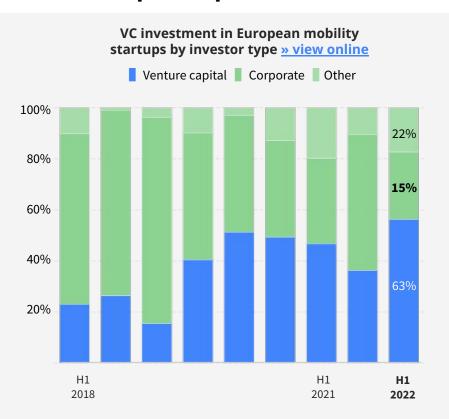
Top mobility sectors by number of seed funding rounds in Europe (H1 2022)

» view online





Corporates contributed just 15% of total mobility startup funding in H1 2022, but participated in five of the largest 10 deals in the period.



Top European mobility rounds with corporate investors in H1 2022 » view online

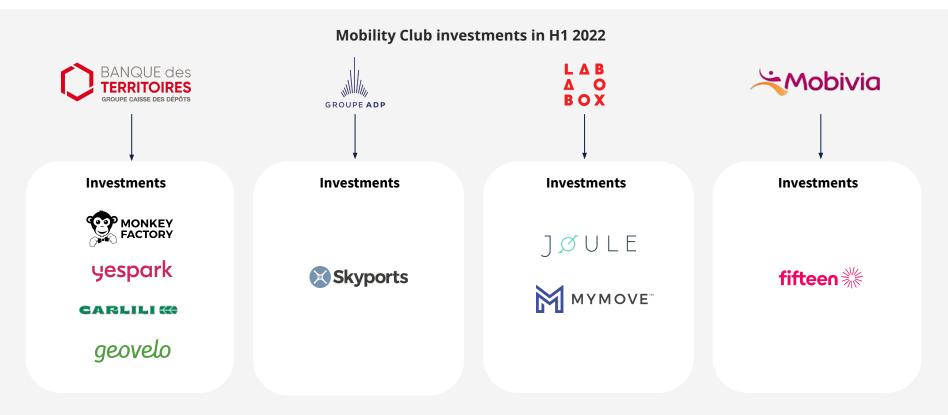
Startup	Sector	Corporate investor	Round
B 31MVC	Vehicle production, Autonomous Sensor Tech	PORSCHE	\$536M Series D
VOLTA TRUCKS	Vehicle production	Agility	\$260M Series C
WAYV	E Autonomous Sensor Tech	Virgin ■ Microsoft	\$200M Series B
± ELECTR	A EV charging	RATP STOP invest	€160M Series A
VOLOCOPTER	Vehicle production	Atlantia Honeywell	\$170M Series C
spot 🔼 wheel	Vehicle marketplaces	Adevinta Ventures Outlook Ventures	€110M Growth Equity







Mobility Club members have made several corporate venture investments in mobility startups in H1 2022.



Exits value has fallen from last year, driven by a pause in public listings, but smaller M&A is near an all-time high.



Logistics & delivery has seen the most exits, followed by Mobility platforms and Vehicle marketplaces.

Top mobility sectors by exits in Europe (H1 2022)



Top European mobility exits in H1 2022 <u>» view online</u>

Startup	Sector	Acquirer	Round	Valuation
Allego>	EV charging		SPAC IPO	\$3.1B
Glovo [?]	Logistics & delivery	Delivery Hero	Acquisition	€2.3b
Lhyfe	Clean mobility		IPO	€411M
@vanarama	Vehicle marketplaces	= AutoTrader	Acquisition	£200m
Z zeelo	Mobility platforms	sw/l	Acquisition	\$100m
pr∩mpr∩m 😂	Vehicle marketplaces	CAZOO	Acquisition	€80M
SHARENOW	Mobility platforms	STELLANTIS	Acquisition	Undisclosed
FIVE	Autonomous Sensor Tech	(BOSCH	Acquisition	Undisclosed
♦ FHZLIFI	Vehicle production	PORSCHE	Acquisition	Undisclosed

Europe is the leading region in mobility innovation, especially in logistics & delivery, mobility platforms and vehicle marketplaces.



Romain Lafitte
Investment Director
Via ID

The figures of this report demonstrate that Europe is the leading region when it comes to mobility.

Via ID anticipated that trend two years ago. Indeed, after investing in several geographies such as North America and Asia, we decided to refocus on Europe.

It's truly exciting to be part of this ecosystem as an investor. From our perspective, we clearly see a trend in logistics & delivery (especially with e-bikes solutions), mobility platforms and vehicle marketplaces. This explains why we recently invested in companies such as VelyVelo, Beev and Reparcar."

2 — Used car marketplaces

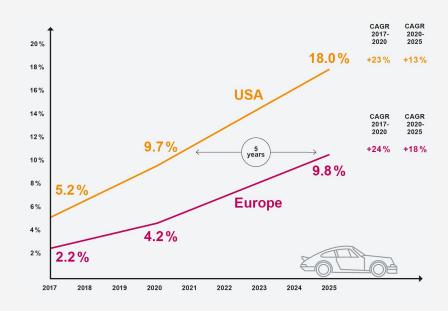
Online used car sales are booming, driven by chip shortage, rising cost of living, and changes in consumer behaviour.

The **global shortage of semiconductors** stalled the production of many carmakers and led to a price increase for new cars. As a consequence, the European car industry has experienced a record drop in new registrations over the past two years. The chip shortage is predicted not to end before 2024.

Also, the **leasing market has come under pressure** in the aftermath of the pandemic. As many employees are still preferring home offices, fewer leased cars are needed, which is why dealers are expecting a huge wave of second-hand vehicles.

Many startups in Europe have tapped into this huge opportunity and raised considerable venture capital funding.

Online sales of used cars as a % of total sales*

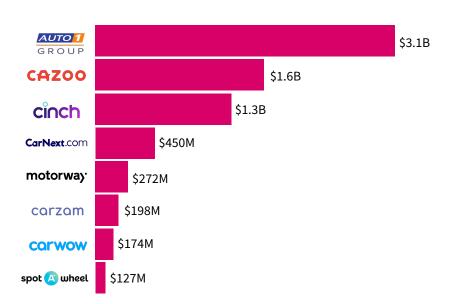




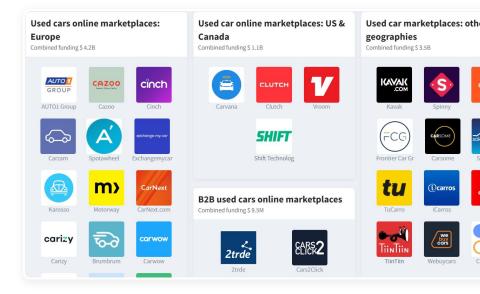
European used car startups have raised billions in funding, with 8 players having raised more than \$100M.

Top European used car startups by total capital raised*

» view online



Explore 40+ used car marketplaces globally



Used car marketplaces adopt very different business models.

Online Dealers

Vertically integrated, asset-heavy models





Online dealers buy cars from sellers, inspect, market, and sell them online, and deliver them to buyers' homes. They also offer auto financing and post-purchase services.

Advantages:

Control of the whole value chain and quality of car transacted

Disadvantages:

Cash-intensive
More sensible to rising interest rates
and financial tightening

Transactional marketplaces

Asset-light models

corwow

Peer-to-peer marketplaces connect buyers and sellers and own little to no inventory. These marketplaces still offer many value-added services: they inspect cars, offer guaranteed minimum prices to sellers, and handle all marketing and transaction details.

Advantages:

Less cash-intensive (no/less inventory)

Disadvantages:

Less control over car quality in transaction

B2B enablers





Solutions that will help streamline the used car market, using technology to help facilitate sales.

Advantages:

Less cash-intensive
Takes advantage of established network of
retailers

Disadvantages:

Not in control of value chain Slower go-to market







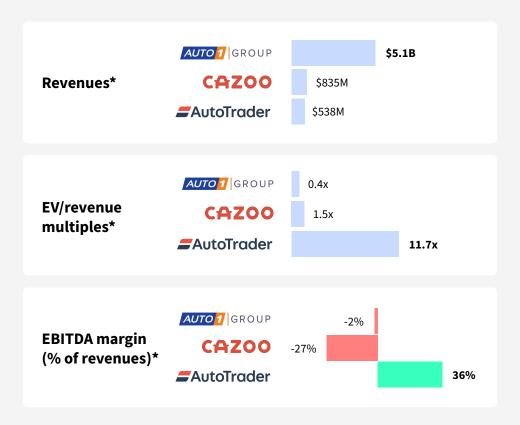
Public asset-heavy online dealers have reached significant scale but had their valuation slashed due to challenges in reaching profitability.

The two biggest European used online car marketplaces Auto1 group and Cazoo have reached significant scale. Both are vertically-integrated and centralised players acquiring, refurbishing and selling used cars online.

This asset-heavy model is still yet to reach profitability, and the two players have lost market cap as a result. Auto1 is down 81% and Cazoo 85% since IPO.

Increasing interest rates and uncertain financing market are taking an heavy-toll on this models. <u>Carzama</u> failed in early June 2022 despite \$198M raised less than one year ago and Cazoo announced a strong <u>cost cut plan</u>.

However, these players have also impressive results on the brand establishment, for instance Cazoo has achieved a 80% national brand awareness in the UK, and can even be found as shirt sponsors in the Premier League, Serie A, LaLiga, Ligue 1 and Bundesliga.



An ecosystem of services is present around used car purchase, mainly focused on verification & inspection, and financing & insurance.

Verification and inspection

Select Cases

Trustoo

trustoo

Connects car buyers with neutral professional automotive inspectors.



Ravin Al

Advanced digital vehicle inspections for auctions and dealerships.





Evaluation and certification of the state of electric-car batteries for used car purchase and sales.

Financing and insurance

Select Cases

Wrisk

Wrisk

Wrisk has partnered with UK online used car marketplace <u>heycar</u> to launch an embedded car insurance offering for all used cars bought on heycar

Oodle



Oodle gives customers a pre-approved budget; car finance which can be used to buy a car online or in-person from any trusted dealer.

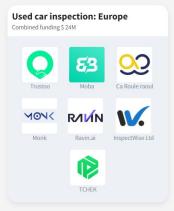
Carmoola

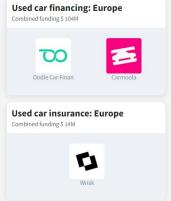
carmoola

Carmoola gives consumers fast, transparent and flexible financing for used car purchases at online dealers like Cazoo or at car dealerships.

Fintech-enabled marketplaces report

Other startups in Europe offering services for used car purchase







Used car purchase remains a complex challenge, and controlling the whole value chain can ensure higher margins, upon success.







In order to provide cars of high quality, we are in control of the whole chain putting significant focus on sourcing, meaning vehicle inspection and preparation.

A used car purchase remains to date a complex challenge both for sellers and buyers. A high value technology product, with striking differences in industry standards across geographies and high impact on the life of the end consumer.

In Spotawheel we tackle the above mix by deploying our proprietary sourcing tech to offer vehicles of the highest possible quality and make them available in markets that traditionally suffer."

» Read the full interview

Original Equipment Manufacturers (OEMs) and insurers are both investing in used car challengers, and exploring alternative propositions.

OEMs and insures have been widely investing in online used car marketplaces



OEMs have launched initiatives competing with online used car marketplaces



Stellantis' **Spoticar** offering launched in France in 2019 is now active in 10 European markets, including the UK. It offers **used cars also from non-Stellantis brands**, with a focus on in-person experience, even if with digital elements. The initiatives do not bypass dealers, with transactions happening through the retailers. Stellantis has also acquired StimCar a used-car reconditioning specialist.

Stellantis also owns a majority stake in French secondhand car group <u>Aramis</u>. Aramis is present in France, Belgium, Spain, United Kingdom and Austria through its brands Aramisauto, Cardoen, Clicars, CarSupermarket and Onlinecars.

Discover the key trends changing car ownership.

» Online car purchasing

» » Global mobility landscape

» Car and motor insurance

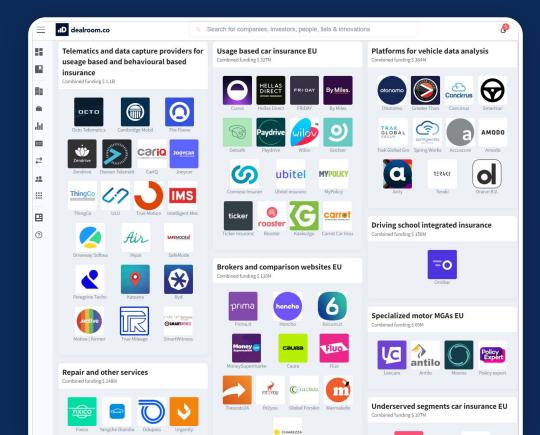
» Automotive Circular Economy

» » CaaS and Auto Subscription



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3 — Urban air mobility (UAM)

The Urban Air Mobility (UAM) market is projected to reach \$1 trillion in 2040, with the promise of a cheaper, quieter, and more eco-friendly transportation.

eVTOL (electric vertical take-off and landing) aircrafts will be cheaper, quieter, and more environmentally friendly than helicopters. Uber Elevate estimates that fully electric VTOLs would have near-term operating costs of around \$700 per hour, at least 35 percent less than a single-engine helicopter.

According to Morgan Stanley, the market for urban air mobility (UAM) will be worth \$1 trillion by 2040. The promise of UAM, however, is dependent on a number of novel technologies, as well as regulatory, infrastructure, and public acceptance requirements.

Once that tipping point is reached, they believe that eVTOL aircraft will be as transformative as vehicles were in the early twentieth century.

Regulations

Formulating the regulations for pilotless vehicles, airworthiness certifications and the need for a pilot's license

Psychological barriers

Related to flying in a fully autonomous aircraft

Safety

Amassing a flawless operational and mechanical safety record

Technology maturity

Implementing efficient energy management systems, onboard sensors, collision detection systems and advanced technologies such as artificial intelligence

Infrastructure

Constructing takeoff and landing zones, parking lots, charging stations and vertiports

Air traffic management

Creating a robust air traffic management system integrated with other modes of transport

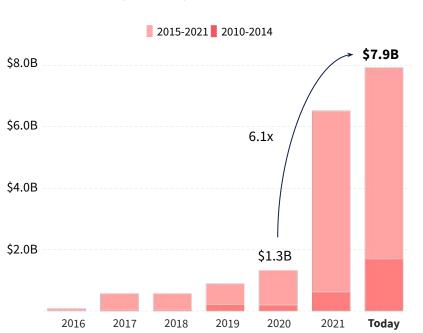




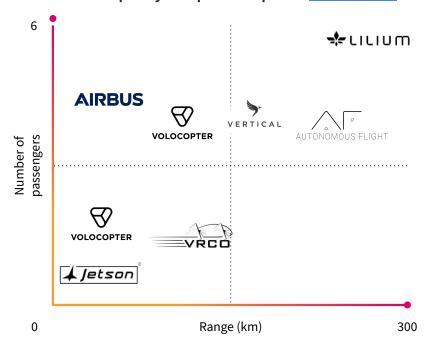


European Electric vertical take-off and landing (eVTOL) startup value took off in 2021, driven by late-stage funding, and Vertical Aerospace's SPAC.

Combined EV of European eVTOL companies by launch year <u>» view online</u>



Full electric VTOL models for passenger transportation developed by European companies <u>» view online</u>



Due to the highly regulated market, many eVTOL developers are also considering applications that require less regulatory compliance.



Passenger transportation (air taxi) Air taxis are self-driving vehicles that can transport up to 6 passengers at a time. Rides are unscheduled and available on demand, similar to today's ridesharing apps. *Air tour* is considered a special use case.

Earliest air taxi services in Europe will be in 2024. <u>Volocopter</u> plans first commercial debuts in Singapore, Rome, and Paris, followed by South Korea in 2025. UAM will also be beneficial for flights along predetermined routes between airports and nearby landing stations, and once battery duration challenges are solved, long flights on established routes will be a major use case.



Cargo deliver

To avoid long and strict regulatory hurdles, several eVTOL manufacturers are moving into time-sensitive parcel delivery in small and mid-size markets.

UPS announced a deal to use 150 piloted eVTOL aircrafts from Beta Technologies.

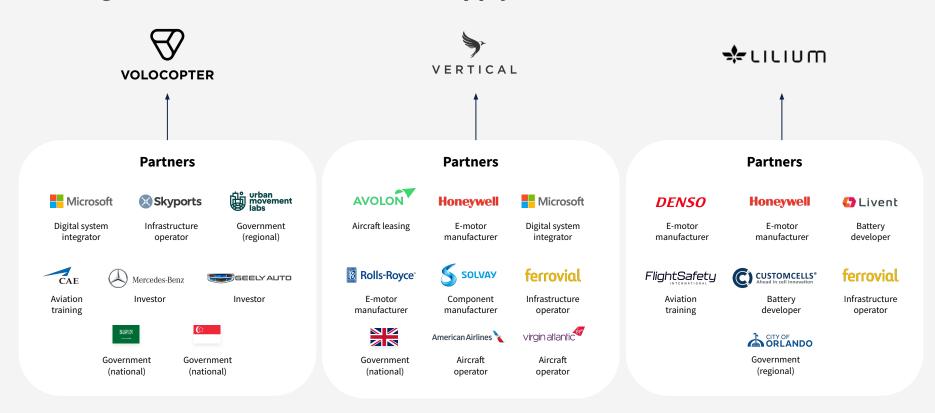


Medical emergency transportation

The amount of time between an emergency call and arrival at a hospital is important, but so is the initial reaction time, or the time it takes for medical experts to arrive on the scene.

German air medical operator ADAC Luftrettung who worked with eVTOL developer <u>Volocopter</u> on the application of multicopter aircraft to the sector.

The top three European eVTOL developers are scaling up their operations through collaboration with other supply chain actors.





Several pre-revenue eVTOL developers sought to raise funds through SPACs in 2021.

It's just been a few years since the eVTOL movement began, yet by 2021, businesses had already raised considerable private funding.

SPACs have gained traction among eVTOL startups. Joby Aviation was the first developer to list through SPACs in August, followed by Archer, Lilium, Vertical Aerospace and Eve Air.

However, the market is now putting pressure on these startups as their market capitalization has dropped by more than 40% since the end of 2021. Now eVTOL developers will need to show they can go forward with commercialization and deliver on their clean and sustainable promises.

eVTOL startups exits globally

» view online



\$690M IPO SPAC Aug 2021



\$300M IPO SPAC Dec 2021



Acquisition April 2021



\$500M IPO SPAC Sept 2021



\$380M IPO SPAC September 2021



\$230M IPO SPAC May 2022



\$40M IPO December 2019









Explore some of the key trends in **Mobility.**

» Urban air mobility

» Micromobility

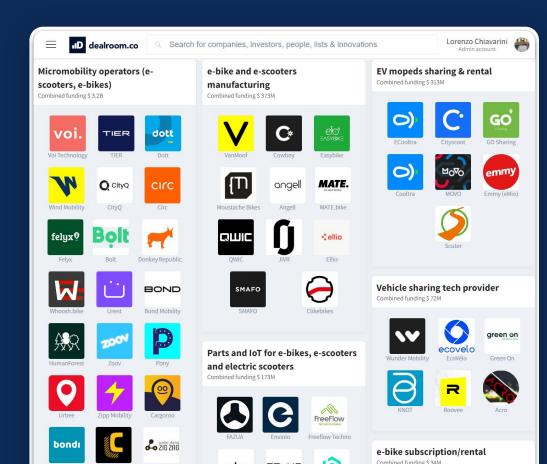
» EV Charging

» EV Batteries



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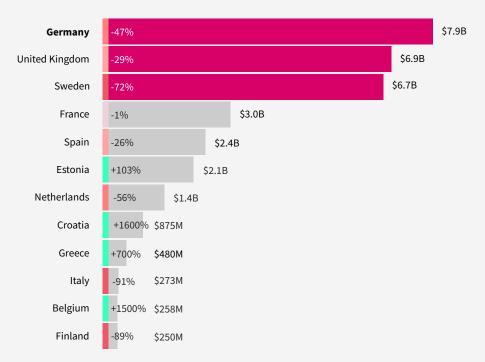
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4 — Regional analysis

Germany, UK, and Sweden, led mobility funding in recent years in Europe, but have slowed down this year. Emerging hubs like Estonia, Croatia and Greece jumped forward instead.

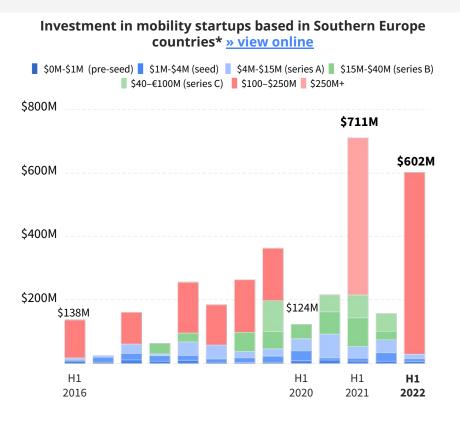
Mobility investment by country in Europe 2016-2022 (% growth H1 2022 vs 2021 average) <u>» view online</u>



In recent years, Germany, the United Kingdom, and Sweden have led funding in the European mobility industry. These countries saw considerable pullback in funding in the first half of 2022.

Central and Eastern Europe and Southern Europe countries like Estonia, Croatia and Greece have instead witness strong growth, signs of an emerging and maturing ecosystem.

Southern Europe is an emerging mobility startup hub, with Spanish companies leading several large rounds and hidden gems in Greece and Italy.



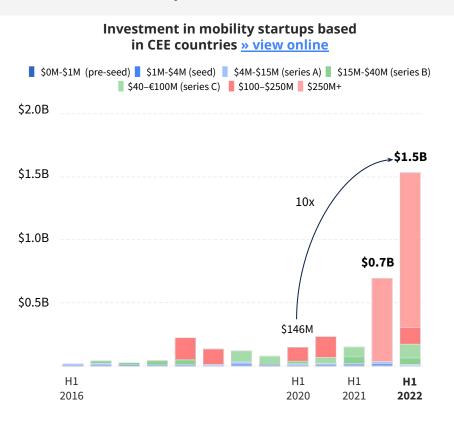
Largest funding rounds in mobility startups based in Southern Europe since 2016**

Startup		Sector	Round	Date
Glovo	£ .	₋ogistics & Delivery	€450M Series F	May 2021
두 FlexCar	i ≡ m	Vehicle arketplaces	€210M Late VC	May 2022
\$ paack	6	₋ogistics & Delivery	€200M Series D	Jan 2022
cabify	£:	Mobility platforms	€145M Series E	Jan 2018
spot 🔼 wheel	≝ m	Vehicle arketplaces	€110M Growth Equity	Apr 2022
prumbrum	m	Vehicle arketplaces	€65M Series C	Jun 2021
GOAL	<u> </u>	₋ogistics & Delivery	€45M Late VC	Oct 2019





Mobility investments in Central and Eastern European countries have increased 10x since 2020, with Bolt and Rimac leading the pack.



Largest funding rounds in mobility startups based in CEE countries since 2016**

Startup		Sector	Round	Date
Bolt	-	Mobility platforms	€628M Series F	Jan 2022
BSIMVC	-8-	Vehicle production	\$536 Series D	Jun 2022
citybee		Mobility platforms	€110M Growth Equity	Dec 2018
DODO		Logistics & Delivery	€60M Series B	May 2022
SKELE+ON TECHNOLOGIES	-	EV battery (supercapacitor)	€41M Series D	Nov 2020
△ alMotive"	=	Autonomous Sensor Tech	\$38M Series C	Jan 2018
∞ SPARK		Mobility platforms	€30M Early VC	Jan 2022
⋑ BUSFOR		Mobility platforms	\$20M Series B	Oct 2016





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Mobility Club's Mobility Insights

Monthly access to exclusive content: sectoral and thematic analysis, mappings, interviews, debriefs following key tech & mobility events, insights from our international offices.

» Join the Mobility Club

Venture capital methodology and definitions.

Startups, scaleups, grownups and tech

Companies designed to grow fast. Generally, such companies are VC-investable businesses. Sometimes they can become very big (e.g. \$1B+ valuation).

This report focuses, unless specified, on companies in the information age, i.e. after 1990. When startups are successful, they develop into scaleups (>50 people), grownups (>500 people) and result in big companies, like NorthVolt or Arrival.

A unicorn is defined as a rapidly scaling company (and tech enabled) that has reached a \$1 billion valuation, on the basis of a funding round (unrealised), acquisition or IPO (realised).

Venture capital investment

Investment numbers refer to rounds such as Seed, Series A, B, C, late stage, and growth equity rounds.

Venture capital investment figures exclude debt or other non-equity funding, lending capital, grants and ICOs.

Buyouts, M&A, secondary rounds, and IPOs are treated as exits: excluded from funding data.

Investment rounds are sourced from public disclosures including press releases, news, filings and verified user-submitted information.

Taxonomy

This report focuses on the Mobility industry. This industry is referred as "Transportation" in the Dealroom taxonomy.

The transportation industry is divided into the following sub-industries:
Mobility, Search, Buy & Rent,
Maintenance, Navigation & Mapping,
Autonomous & Sensor Tech, Vehicle
Production, Logistics & Delivery. A
precise definition can be found here.

Sub topics like micromobility and EV battery are represented by tags in the platform. This can be under one single industry/sub industry or across multiple of them.











