



**2018 VC**

**Data Usage**

**Survey**



# Contents

|                                   |    |
|-----------------------------------|----|
| Introduction                      | 3  |
| Current data usage habits         | 5  |
| Sentiment towards leveraging data | 9  |
| Future usage of machine learning  | 13 |
| Takeaways by investor type        | 17 |
| Survey methodology                | 18 |

# Background and objectives

In 2018 alone, more than \$24.6 billion of venture capital was invested into artificial intelligence (AI) and machine learning (ML) globally, according to PitchBook Data.

And appetite only seems to be growing. Yet, the VC industry has historically relied on personal network and gut feeling to make investment decisions—a stark contrast to the companies they’re interested in.

Could the worldwide adoption of technology and machine learning actually change how VCs vet investments and perform due diligence on opportunities?

For some firms, the answer is yes. Alphabet’s corporate venture arm, GV, created an algorithm called “The Machine” to evaluate investment opportunities—even resorting to a color-coding system of green, yellow and red.

GV isn’t alone in that endeavor either. Social Capital experimented with an operating system they called “capital-as-a-service,” which based decisions on data rather than relationships. And despite the recent demise of the firm, it sparked the debate about data-driven approaches for VC.

This idea helped guide the creation of PitchBook’s *VC Data Usage Survey*. Not only did we set out to discover how venture capitalists leverage data and machine learning currently, but also their sentiment toward adopting it in the future.





# Hypotheses and findings

## 1. A majority of VCs believe there will always be some element of intuition involved in venture investment decision making.

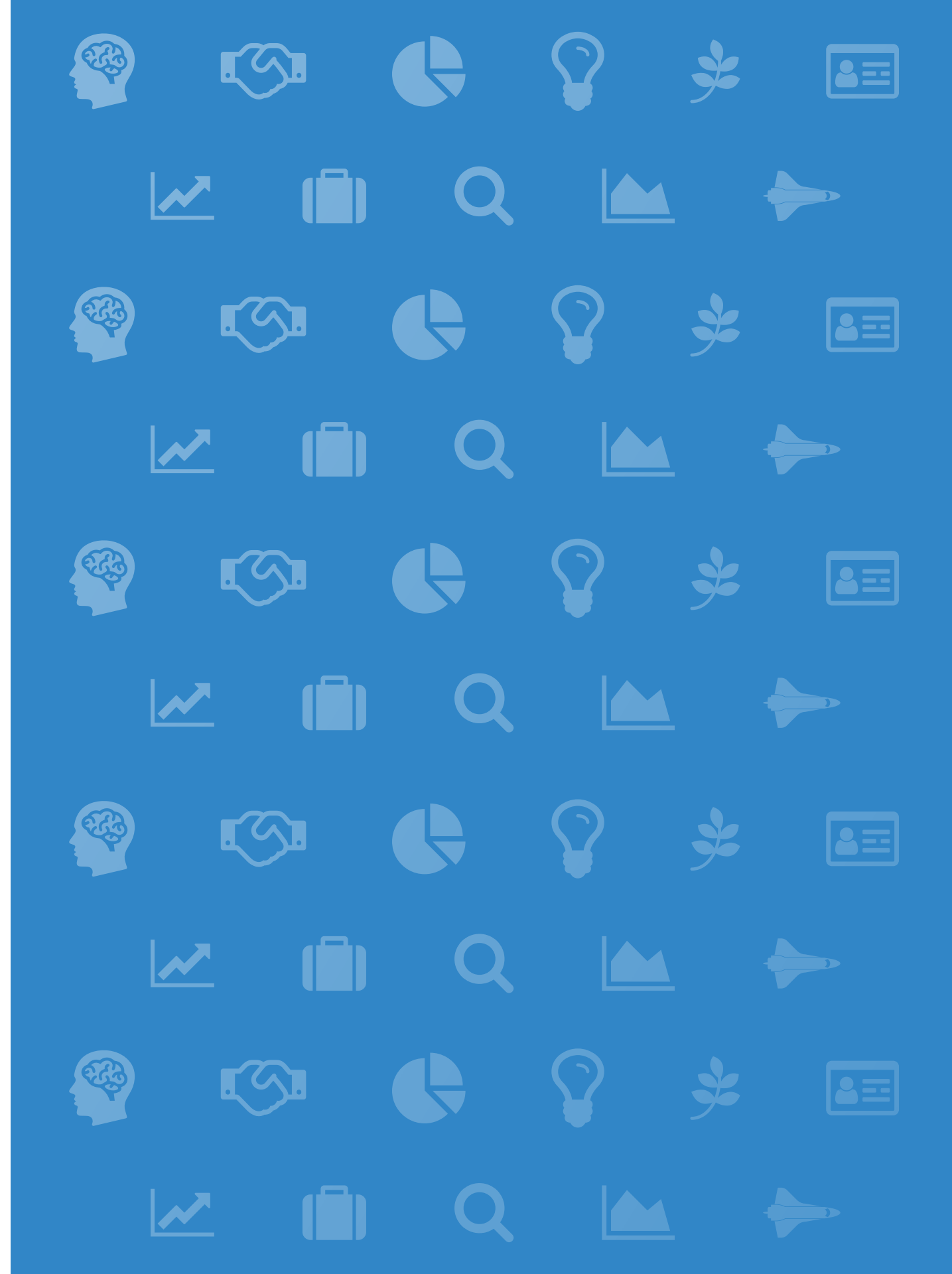
What we found: 70% of respondents believe both data and intuition are important when evaluating investments. Late stage VCs show the strongest appetite for data-driven investing, with 50% citing data as extremely important and the primary resource for evaluating and sourcing all investments.

## 2. Much like the rest of the institutional investment industry, VCs are tech laggards.

What we found: Nearly 64% of all respondents do not currently leverage machine learning to inform venture investment decisions; however, of this group, 50% plan on adopting and increasing usage in the future.

## 3. Early-stage investors rely most heavily on intuition/personal relationships compared to late-stage investors.

What we found: Angels and early-stage VCs are roughly 20% more likely to lean on personal networks for investment decisions than late-stage VCs and CVCs, which rely more heavily on financial databases.



# Current data usage habits



# Findings

59%

of respondents said their personal network was the most valuable resource for sourcing and evaluating investment opportunities

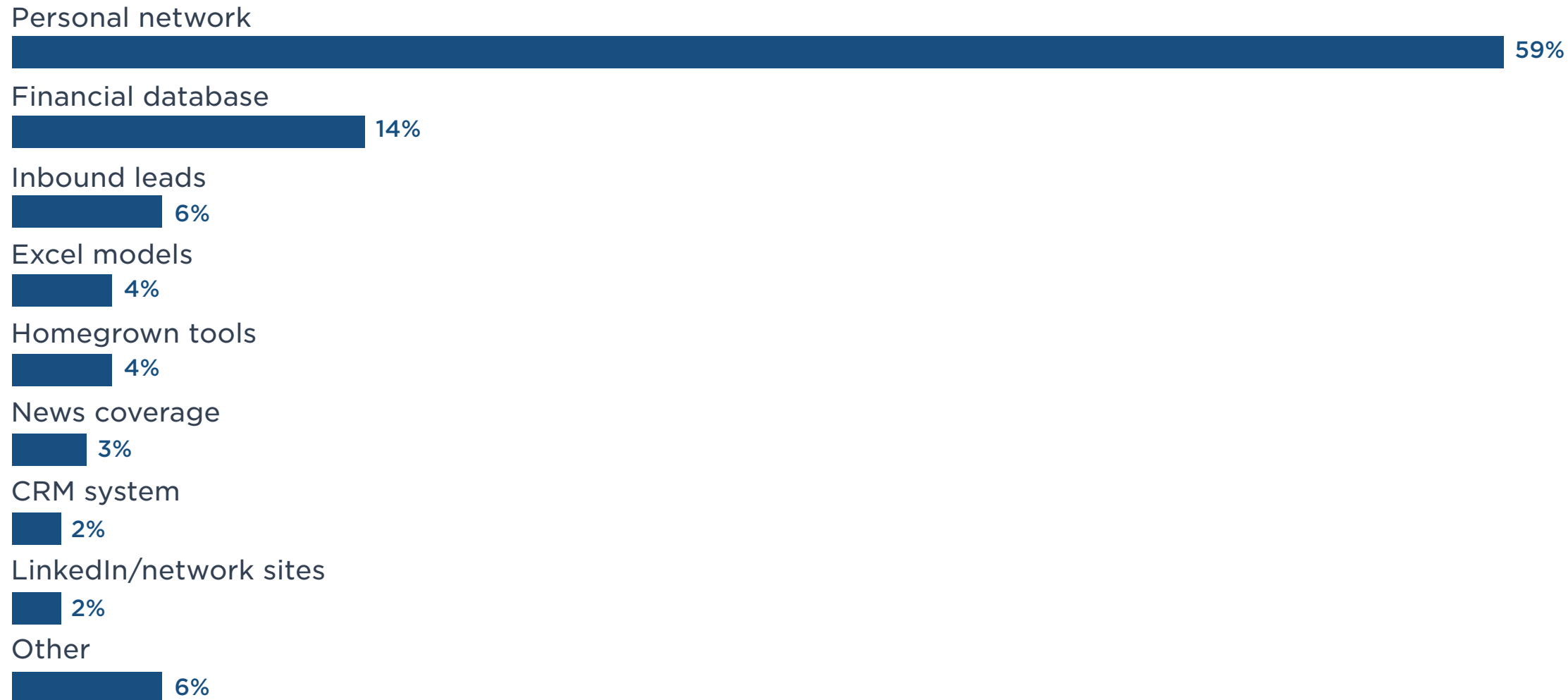
Angels, early-stage VCs and late-stage VCs said they leverage data most often to refine their investment thesis

European and Asian VC firms report leveraging data to source investments more frequently than US VC firms

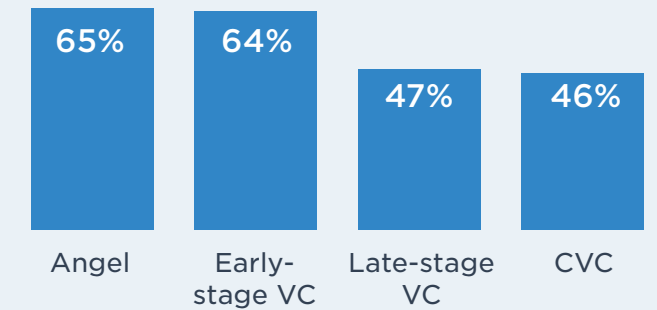


## CURRENT DATA USAGE HABITS

# What's the most valuable resource your firm uses to source and evaluate venture capital investment opportunities?



## Investors that listed personal network as most valuable



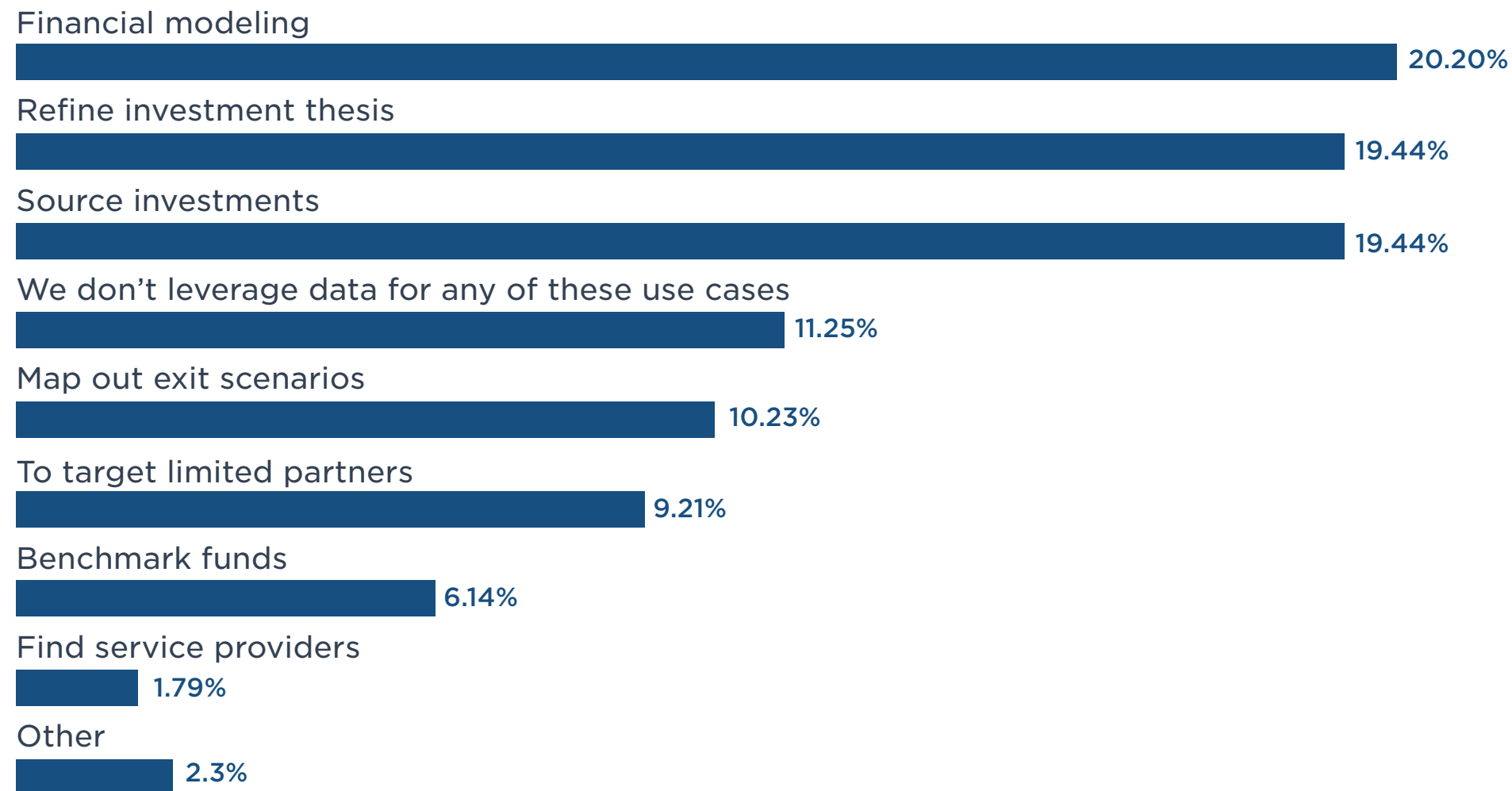
Early-stage VCs are 20% more likely to rely on their personal network than late-stage VCs and CVCs, who rely more on a financial database as their top resource.



European and American VC firms stated they value their personal networks at a higher rate than Asian VC firms, which reported using a financial database more frequently to source investments.



# What is your firm's most common use case for leveraging data?



Angels, early-stage VCs and late-stage VCs said they most often leverage data to refine their investment thesis.



When leveraging data, European and Asian VC firms report using it for sourcing investments (24% and 23% respectively), more than US VC firms (19%).

# Sentiment towards leveraging data



# Findings



More than a third of respondents said they use data to source all VC investments



A majority of VC investors believe investing will always involve a mix of data and intuition



## SENTIMENT TOWARDS LEVERAGING DATA

# How important is data to your firm when evaluating venture capital investments?

Somewhat important. We use data to source some venture capital investments.



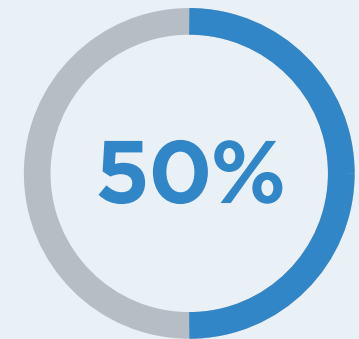
Extremely important. We use data to source all our venture capital investments.



Not important at all. We do not use data to source venture capital investments.



I don't know.



of late-stage VCs believe data is extremely important.



Asian and American VCs are the most reliant on data (46% and 37% respectively), while investors in Europe are the least reliant (33%).



# Which is more important to you when evaluating venture capital investments?

Both data and intuition



Data (ex. deal history, valuation, comps, founder history, etc.)



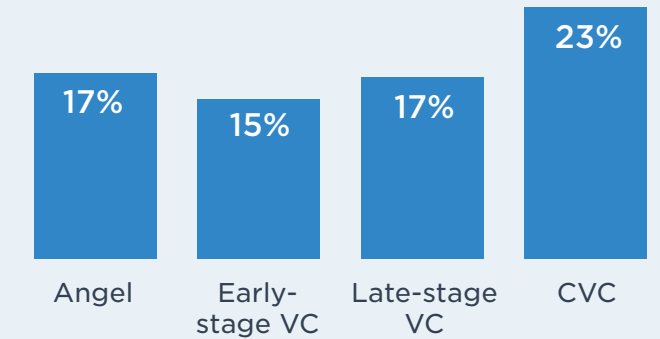
Intuition (ex. gut feeling, personal relationships, etc.)



Other



Investors that listed data only as important

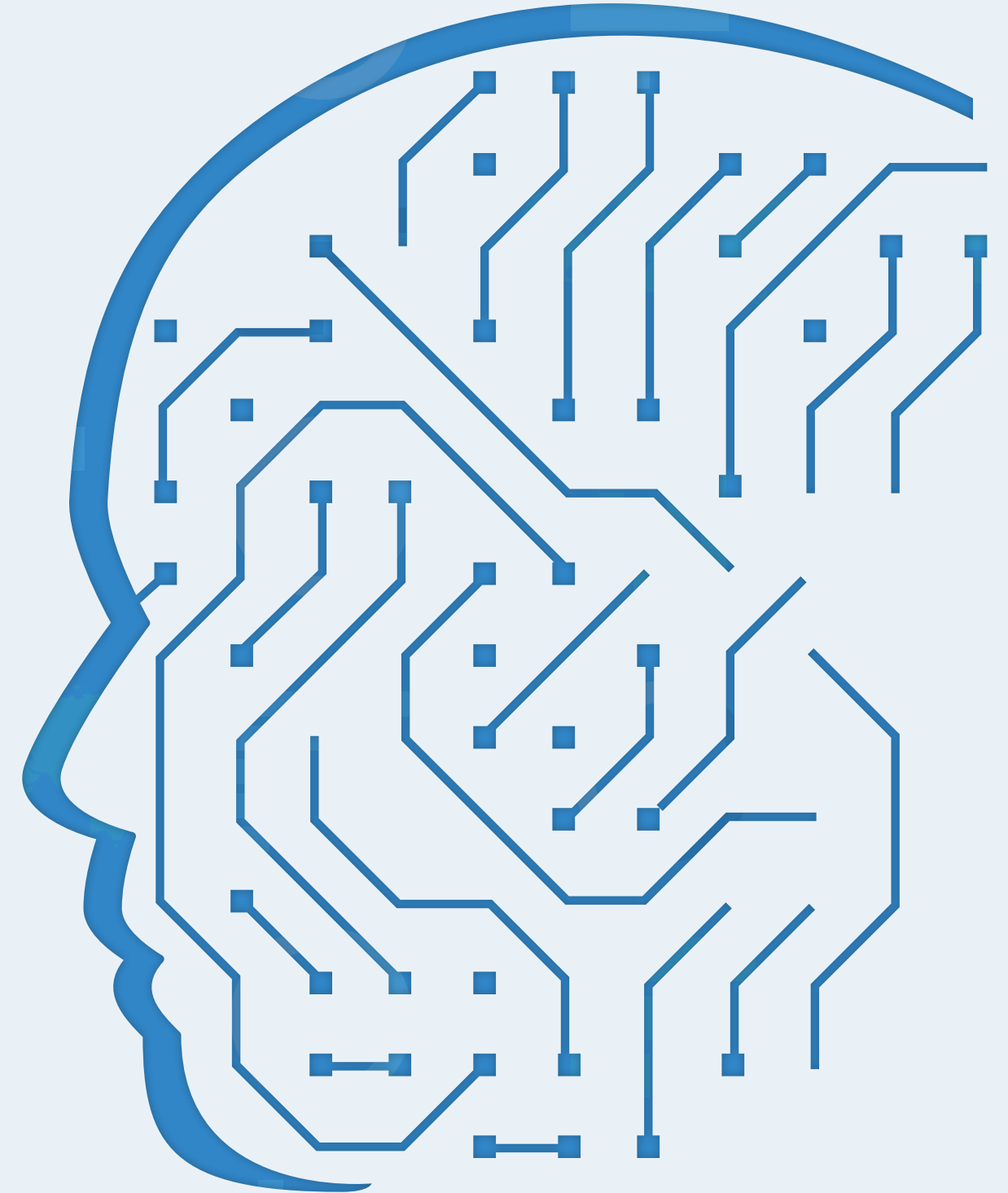


A higher percentage of CVCs stated data alone is most important when evaluating investments.



Nearly a fifth of US VC investors believe data is the most important factor when evaluating investments.

# Future usage of machine learning



# Findings

64%

Nearly two-thirds of respondents do not currently use machine learning to inform their investment decisions



Most VC investors do not believe investments will be fully automated in the future



# Does your firm currently or plan to use machine learning technology to inform venture investment decisions?

Do not currently use and plan on increasing usage



Do not currently use and do not plan on increasing usage



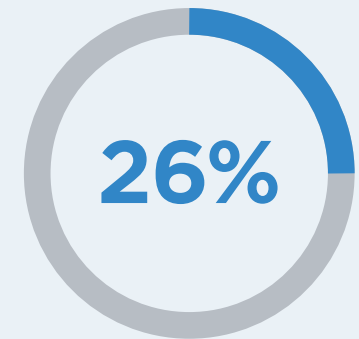
Currently use and plan on increasing usage



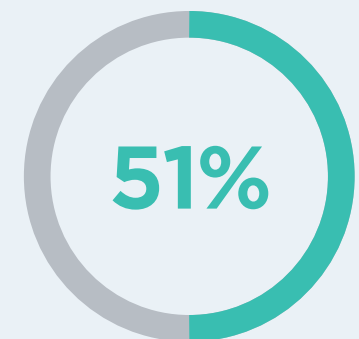
Currently use and do not plan on increasing usage



Other



Nearly 26% of all CVCs and 29% of Asian investors surveyed already use ML, the highest adoption rate of all investor types and regions.



More than half of US VC firms surveyed said they are interested in increasing usage of ML in their investment decision making.



# Do you think investment professionals will ever 100% rely on machine learning to evaluate and execute venture capital investments?

No, there will always be some element of intuition in making investment decisions.



Yes, investment decisions will be fully automated in the future.



Other.



Early-stage investors were most optimistic (11.3%) about relying on ML to fully automate investment decisions in the future.



Asian firms were the most optimistic (14.5%) about leveraging ML to automate investments.

Whereas, European firms were the least optimistic (8.5%) about automating investments in the future.



# Takeaways by investor type



## Angel investors

- Rely mostly on personal network to source deals
- Will most likely leverage data to refine investment thesis
- Most adverse to adopting ML to inform investment decisions



## Early-stage investors

- Rely mostly on personal network to source deals
- Will most likely leverage data to refine investment thesis
- Most likely to increase usage of ML to inform investment decisions
- Are most optimistic about relying on ML
- More likely to believe investment decisions will be fully automated in the future



## CVCs

- Rely less on personal network to source deals and more on financial databases
- Will most likely leverage data for financial modeling and sourcing investments
- Are more likely than other VC investor types to state data by itself is most important when evaluating investments
- Most likely to increase usage of ML to inform investment decisions



## Late-stage investors

- Rely less on personal network to source deals and more on financial databases
- Will most likely leverage data to refine investment thesis
- More than half of late-stage VCs claimed data is extremely important
- Somewhat adverse to adopting ML to inform investment decisions

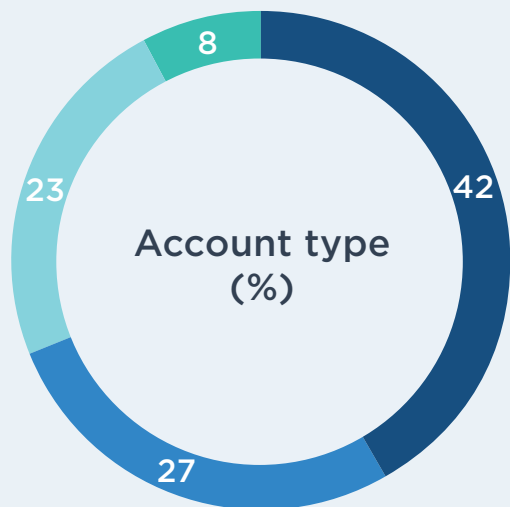


# Survey methodology

PitchBook's *VC Data Usage Survey* was an online survey administered via email to venture capitalists (angel/seed, early-stage and late-stage) as well as corporate venture capital investors in the winter of 2018. To be eligible to participate, respondents must have been employed at an operating firm or company and hold a title directly involved in consulting, sourcing and executing venture capital investments.

The respondent pool, which consisted of 391 people, involved a mix of PitchBook clients and non-clients. If you would like to participate in the next edition of the survey or have any questions about this edition, please reach out to [pr@pitchbook.com](mailto:pr@pitchbook.com).

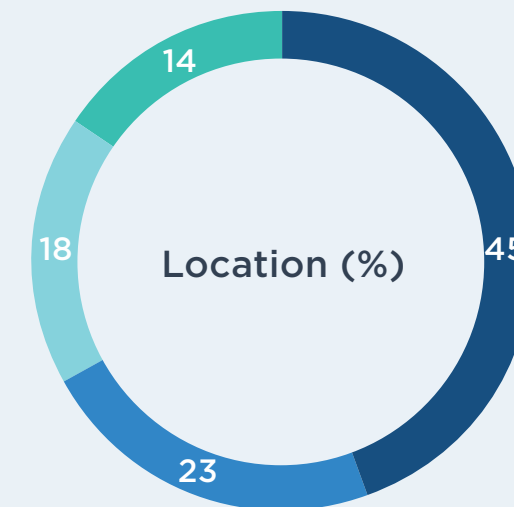
## Breakdown of respondents



- Early-stage VC
- Angel
- Corporate/CVC
- Late-stage VC



- Non-client, does not use a data provider
- Non-client, uses another data provider
- Client



- United States
- Europe
- Asia
- Other