

MINDSHARE

2025 10-11 SEP

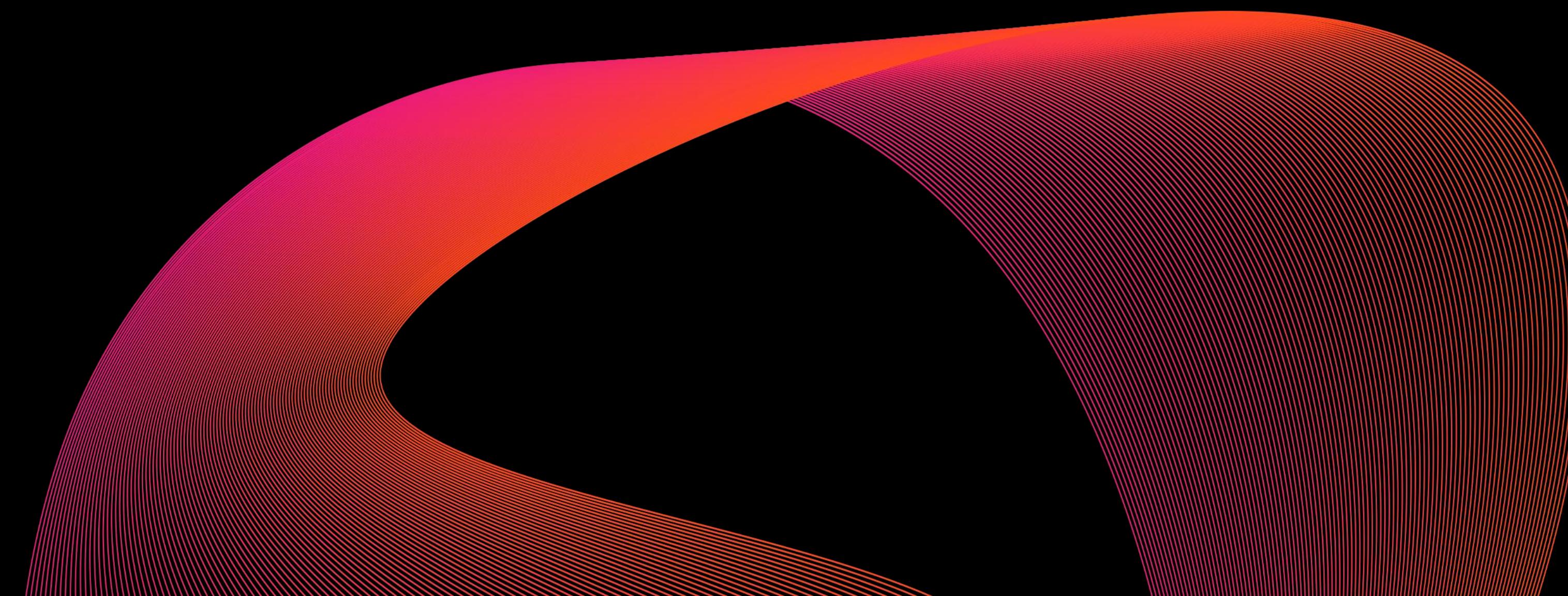
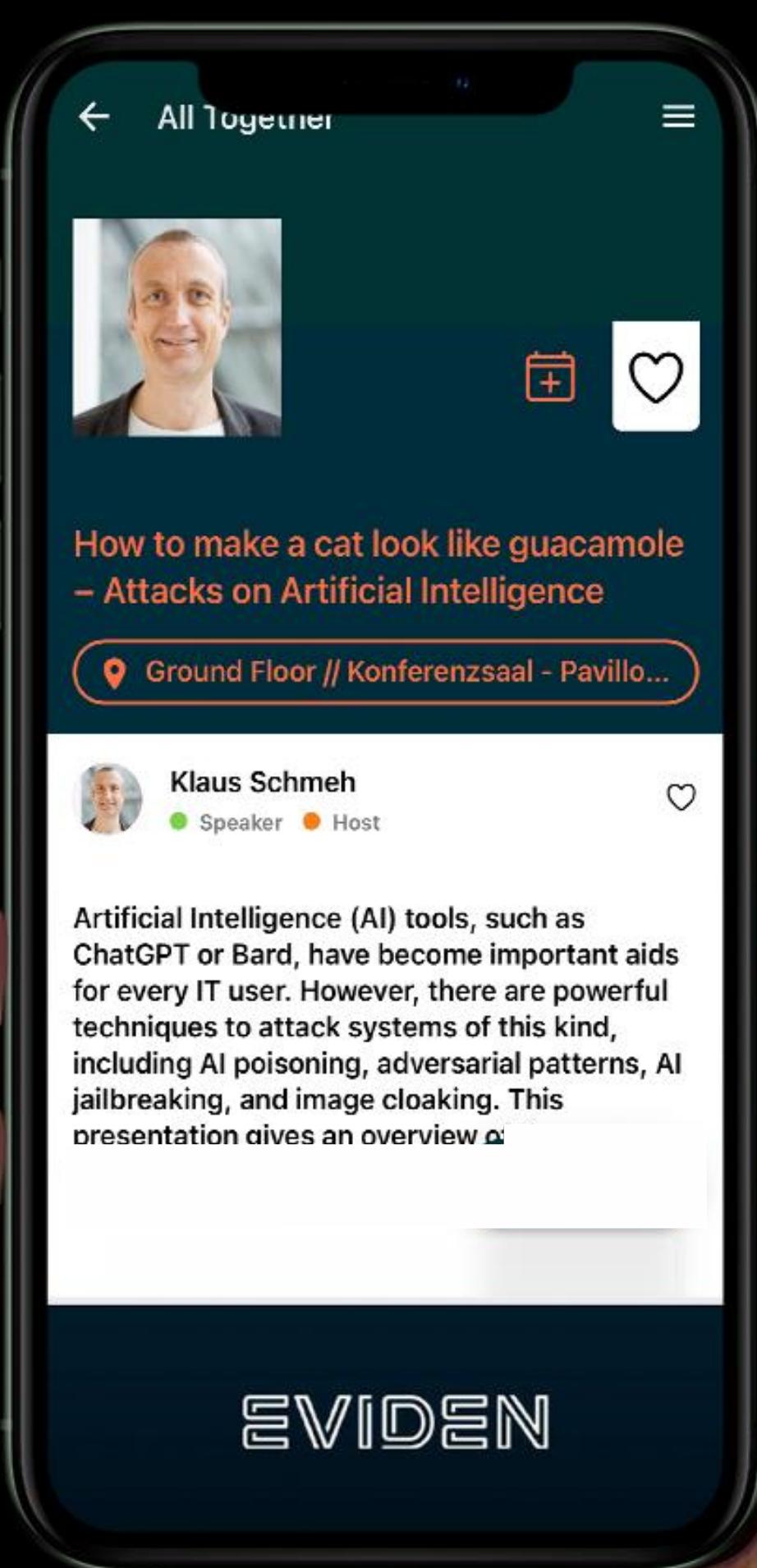
Securing  
Identity for  
our Digital  
Future

CYBERSECURITY  
LEADERSHIP FORUM

# MINDSHARE AGENDA



GET APP

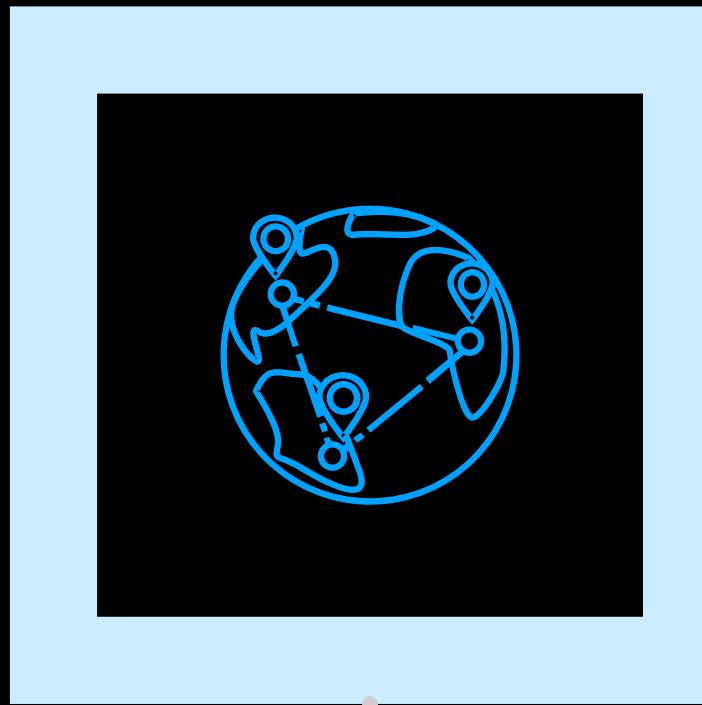


Felix Reichmann,  
Ruhr University Bochum

Too Good to Be True: The  
Impact of Inaccurate  
Cybersecurity Marketing

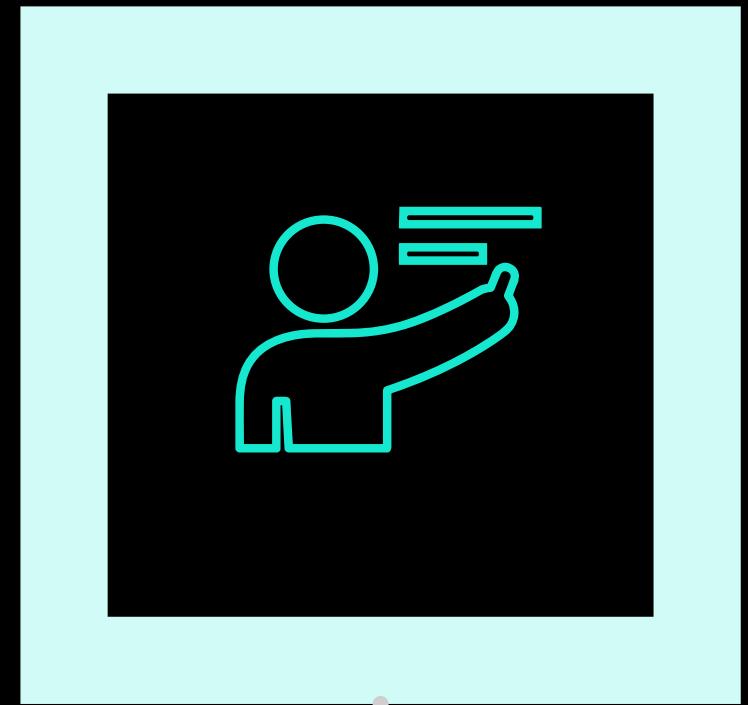
# Our Studies

We investigated the spread of cybersecurity information. We performed two exemplary studies in the B2B and B2C sectors



## [1] VPN Providers

In a study, we investigated who a VPN is claiming to protect against what

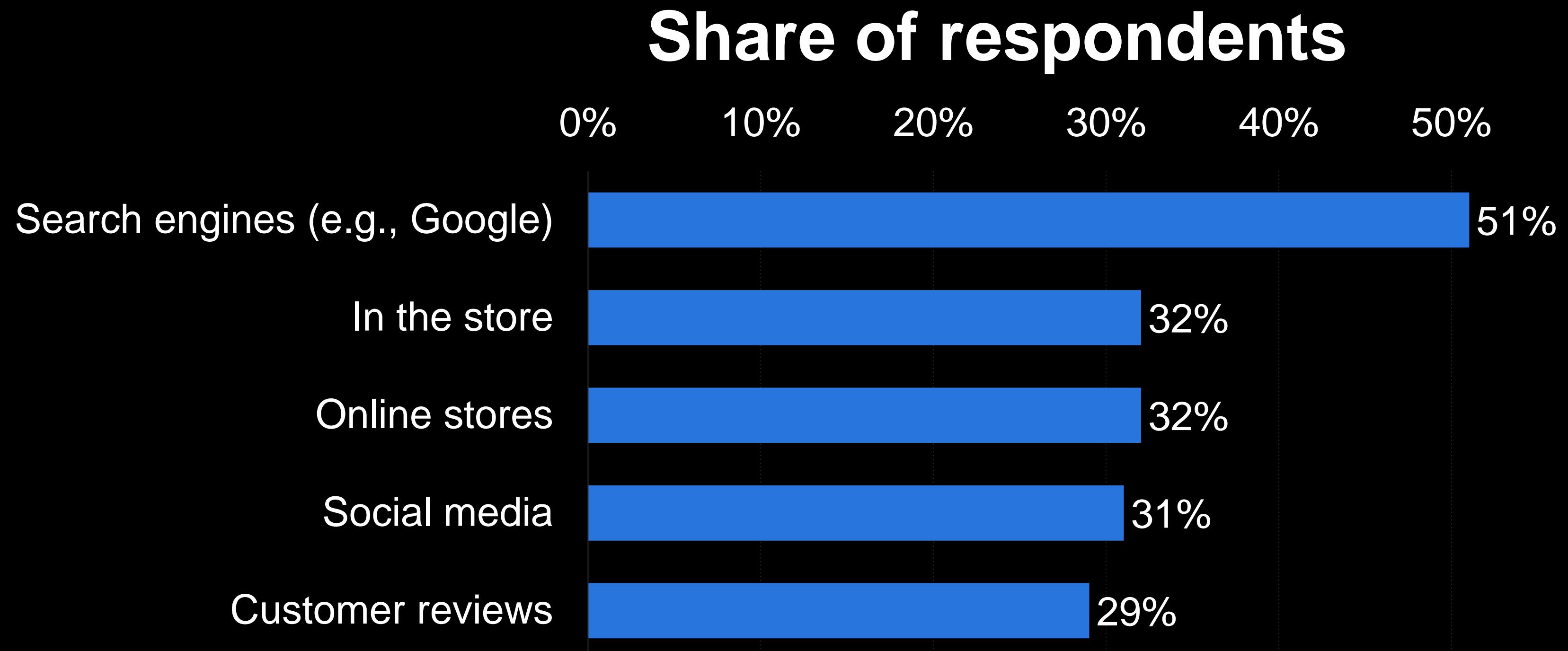


## [2] Security Awareness & Training Vendors

We evaluated the information Security Awareness & Training Vendors provide on their websites

# Sources of Information

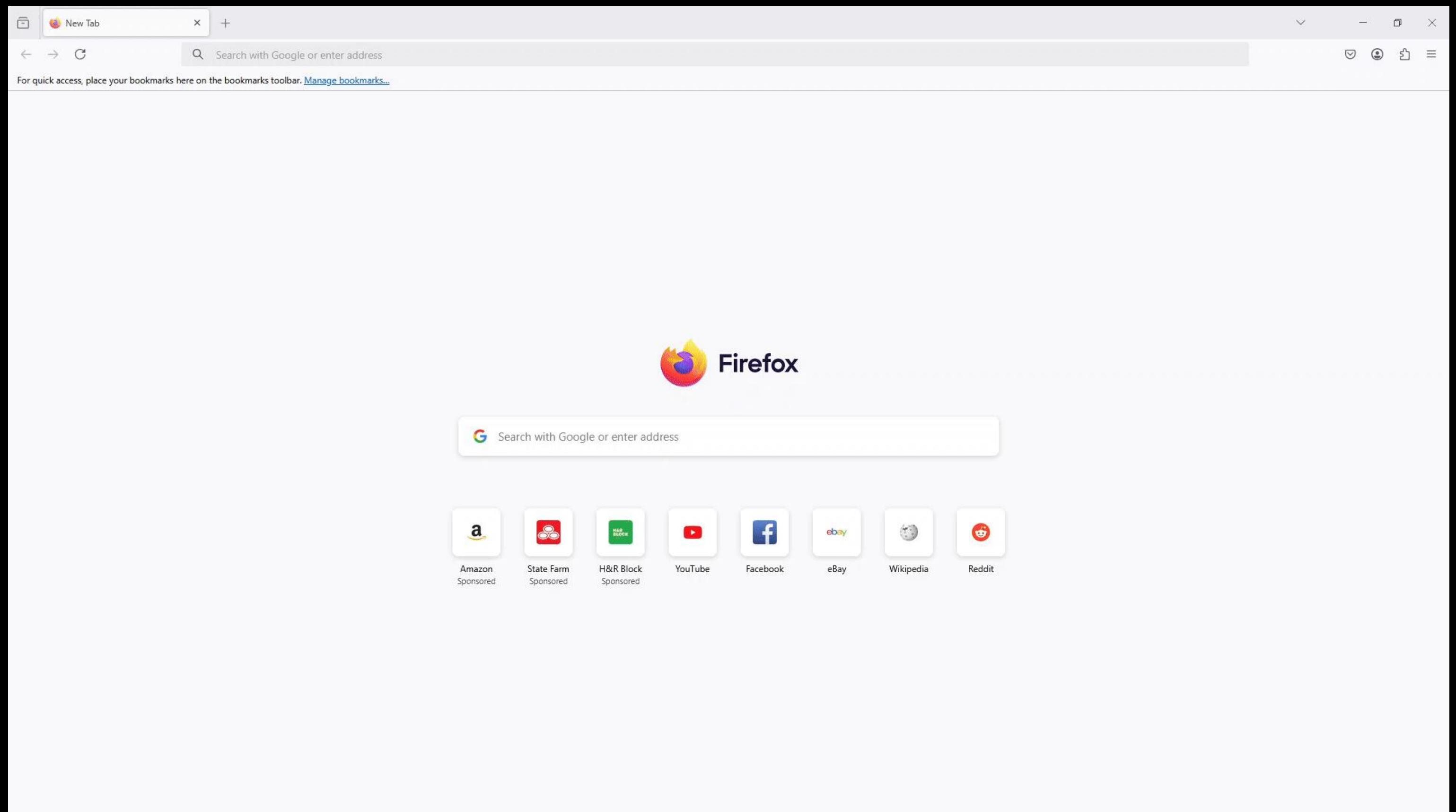
People primarily inform themselves about products online.  
Most of them use search engines to gather information



**Note(s):** United States; July 2024 to June 2025; 18-64 years; 13689 respondents  
**Source(s):** Statista Consumer Insights; ID 997051

# Methodology

We aimed to align with actual consumer behavior. They typically use search engines to gather information



# Methodology

We aligned our approach with user behavior. This enabled the identification of websites that users are likely to encounter

①

## Gathered Search Terms from Practitioners

Imagine you have decided that you want to start using a VPN solution in your private life. What words or phrases would you search for, to find the VPN provider that best fits your personal needs?

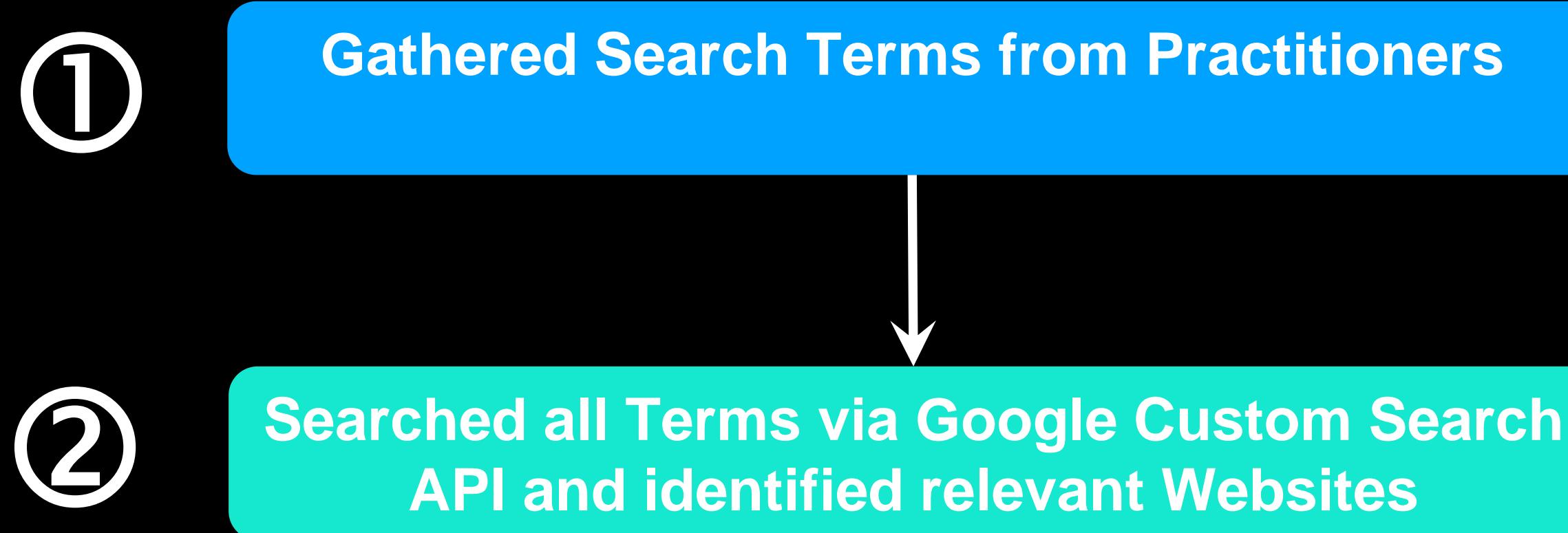
Please list at least five search terms you would enter into Google Search.

- A search term may consist of multiple words.
- Please enter English search terms only.

Search Term 1  
Search Term 2  
Search Term 3  
Search Term 4  
Search Term 5  
Search Term 6  
Search Term 7  
Search Term 8  
Search Term 9  
Search Term 10

# Methodology

We aligned our approach with user behavior. This enabled the identification of websites that users are likely to encounter



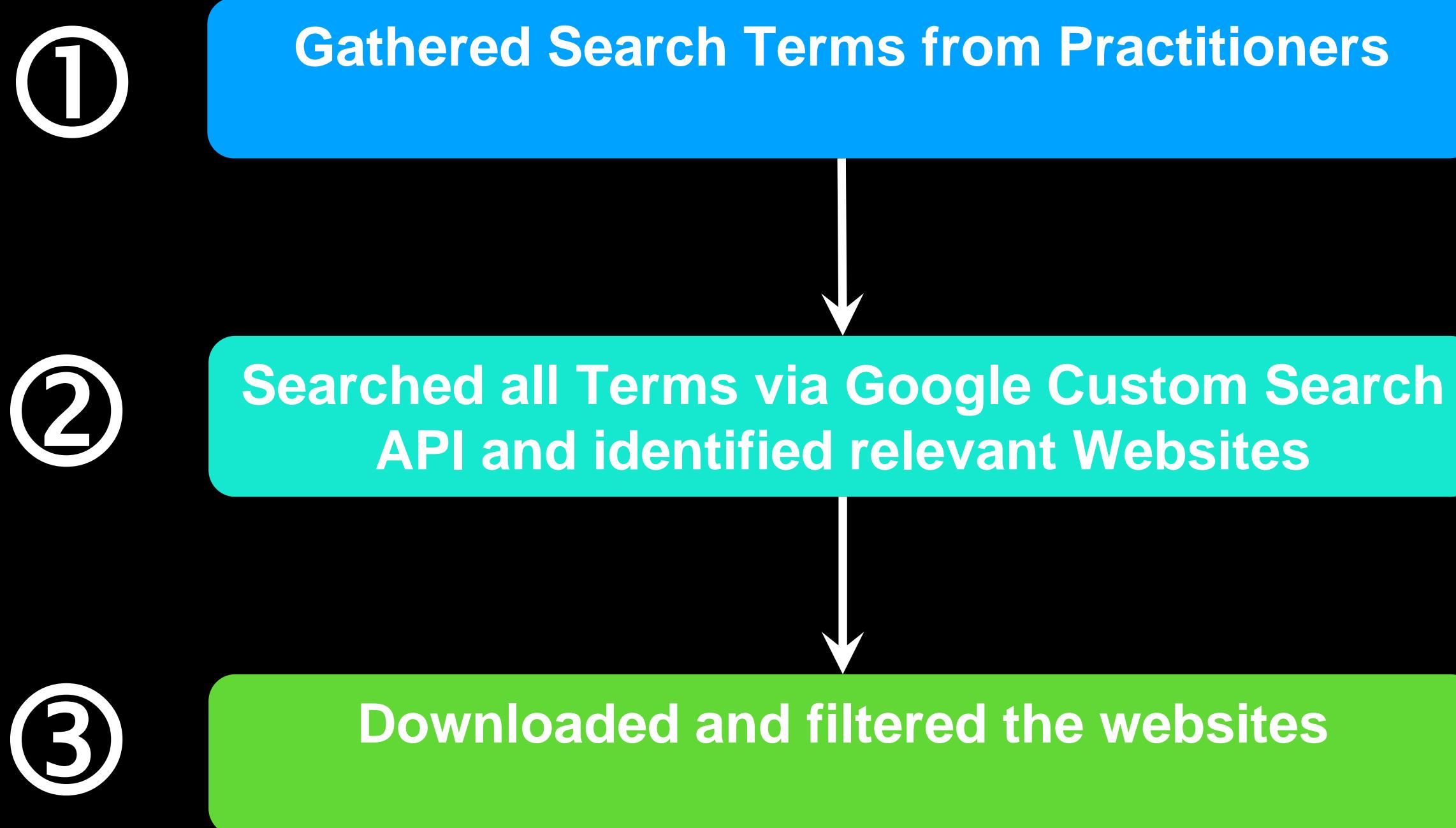
## Google Custom Search API



```
},
"queries": [
  "request": [
    {
      "title": "Google Custom Search - vpn",
      "totalResults": "1070000000",
      "searchTerms": "vpn",
      "count": 10,
      "startIndex": 1,
      "inputEncoding": "utf8",
      "outputEncoding": "utf8",
      "safe": "off",
      "cx": "70b5e944b68404858",
      "gl": "gb"
    }
  ],
  "nextPage": [
    {
      "title": "Google Custom Search - vpn",
      "totalResults": "1070000000",
      "searchTerms": "vpn"
    }
  ]
],
```

# Methodology

We aligned our approach with user behavior. This enabled the identification of websites that users are likely to encounter



## Google Custom Search API

Filtered for keywords on websites

VPN Study: “private network” OR “vpn”

SAT Study: “security”

# Security Awareness Vendors

We identified 59 different vendors from 3 different countries.  
They still use the framing of humans as the weakest link

- We identified 59 Vendors offering Services when searching from Germany, Austria, and Switzerland
- Some vendors continue to frame humans as the weakest link. This perspective has long been outdated in research
- Measurements play a crucial role, yet customers often rely solely on vendors' metrics to assess success. Objective, vendor-independent data would provide a more reliable basis for high-quality evaluation.

# VPN Paper

We identified 4 kinds of problematic claims providers make.  
These can foster incorrect mental models

**1** **Incomplete Descriptions Hinder User Understanding**

**2** **Generic and Over-Promising Statements**

**3** **Misleading and Wrong Information Fosters Wrong Mental Models**

**4** **VPN Products are Not Clearly Defined as Standalone Solutions**

“

Protect yourself properly.

*Yourself should be protected, but against what?*

**80% of all websites describe what should be protected, but only about half of the pages against whom.**

# VPN Paper

We identified 4 kinds of problematic claims providers make.  
These can foster incorrect mental models

**1 Incomplete Descriptions Hinder User Understanding**

**2 Generic and Over-Promising Statements**

**3 Misleading and Wrong Information Fosters Wrong Mental Models**

**4 VPN Products are Not Clearly Defined as Standalone Solutions**

“

If someone is trying to spy on your browsing activity [...]

*Who is meant by **someone**?*

Wordings like “Anybody”, “Someone”, “Interested Individuals”, “Everyone” or “Full Anonymity” are highly interpretive and may not be fulfillable

# VPN Paper

We identified 4 kinds of problematic claims providers make.  
These can foster incorrect mental models

**1 Incomplete Descriptions Hinder User Understanding**

“

It hides your IP address from prying eyes like your ISP [...]

**2 Generic and Over-Promising Statements**

*Even with a VPN, the ISP still can see the source IP address.  
Otherwise, networking won't work*

**3 Misleading and Wrong Information Fosters Wrong Mental Models**

**False or misleading information can foster incorrect mental models**

**4 VPN Products are Not Clearly Defined as Standalone Solutions**

# VPN Paper

We identified 4 kinds of problematic claims providers make.  
These can foster incorrect mental models

**1** **Incomplete Descriptions Hinder User Understanding**

**2** **Generic and Over-Promising Statements**

**3** **Misleading and Wrong Information Fosters Wrong Mental Models**

**4** **VPN Products are Not Clearly Defined as Standalone Solutions**

“

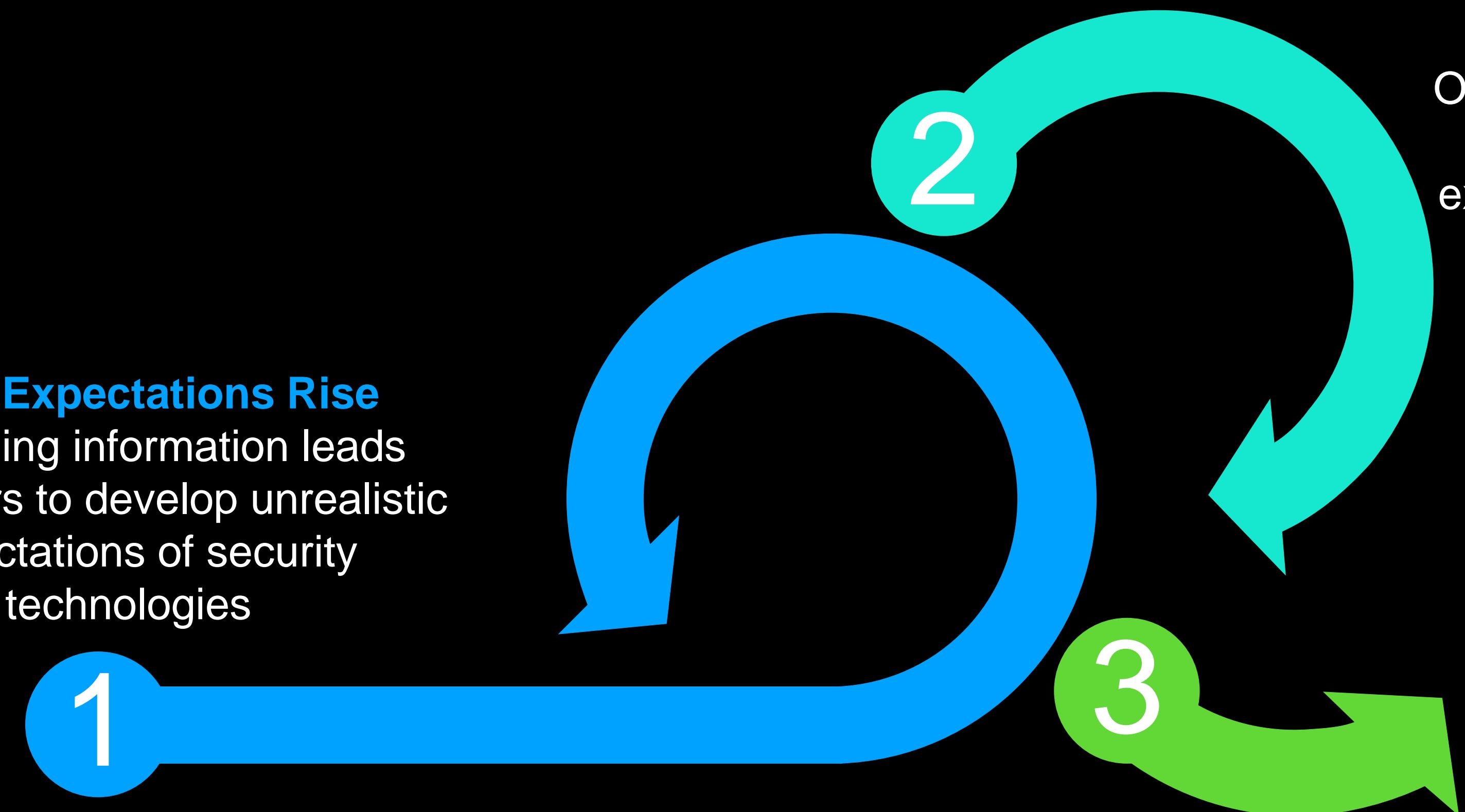
Block ads and malware

*Features like malware protection, DDoS or File Sharing can only be realized with additional technology*

**Mixing technologies supports wrong mental models of VPNs**

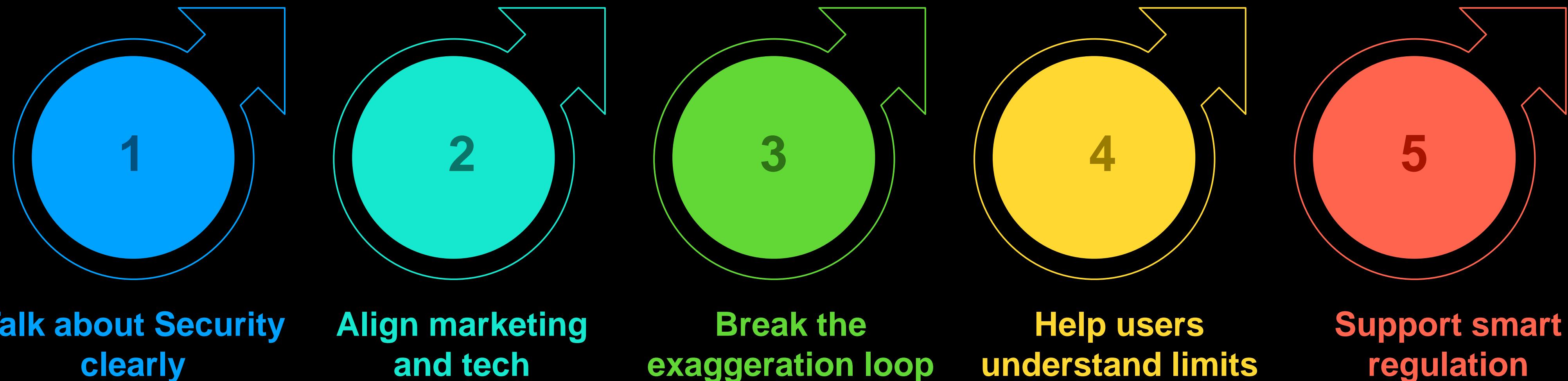
# Implications

False claims create false expectations. Honest providers might feel pressed to follow these overpromises



# Way Forward

Honest communication about security technologies is essential. Clear marketing builds trust and educates users



# Opportunities

Setting realistic expectations fosters trust. It can help to build long-term relationships to customers

## 1 TRUST

Providers who communicate security capabilities realistically foster long-term trust. Instead of overselling, they create credibility

## 2 EDUCATION

Clear communication empowers users and customers to make informed decisions. It strengthens their mental models and enables better adoption of security practices and products

## 3 SUSTAINABILITY

Honest marketing reduces the pressure to match unrealistic claims. This lowers risk exposure and contributes to a healthier, more sustainable cybersecurity ecosystem

## 4 DIFFERENTIATION

Realism becomes a unique selling point. In a market flooded with hype, companies that communicate transparently can stand out and appeal to more mature, security-conscious clients

# Conclusion



## Honest Marketing

If we want to make society secure, we need to pay attention to how we communicate safety

## Clear Communication

When promoting products, we should also take care to differentiate between what a security measure can and cannot achieve

## Implication

Otherwise, false expectations arise, which ultimately harm the entire industry

## Questions

John Musterman  
Eviden Digital Identity  
[john.musterman@eviden.com](mailto:john.musterman@eviden.com)

# MINDSHARE

2025 10-11 SEP

Securing  
Identity for  
our Digital  
Future

CYBERSECURITY  
LEADERSHIP FORUM

## TAKE A MINUTE AND GIVE US FEEDBACK

