

BI trendek

Budapest BI Fórum 2022

Arató Bence
Ügyvezető, BI Consulting





Arató Bence

A BI Consulting igazgatója, két évtizedes szakmai múlttal az adattárházak, BI és analitika területén

- **Adatstratégiai tanácsadás**
Adat- és BI stratégia kialakítása, architektúratervezés, eszközválasztási tanácsadás, pályáztatás, minőségbiztosítás, mentoring
- **Oktatás**
A BI Akadémia vezető oktatója (DW/BI architektúrák, Big Data technológiák, adatmodellezés, adatvizualizáció). A CEU vendégtanára.
- **Publikációk**
Az Adat.blog és a Dataviz.hu szerkesztője
- **Rendezvények**
A Budapest BI Fórum, a Budapest Data Fórum és a Budapest ML Fórum konferenciák vezető szervezője





Általános trendek

Gartner Top Data and Analytics Trends for 2022



Activate Dynamism and Diversity

- Adaptive AI Systems
- Data-Centric AI
- Metadata-Driven Data Fabric
- Always Share Data



Augment People and Decisions

- Context-Enriched Analysis
- Business-Composed D&A
- Decision-Centric D&A
- Skills and Literacy Shortfall



Institutionalize Trust

- Connected Governance
- AI Risk Management
- Vendor and Regional Ecosystems
- Expansion to the Edge

[gartner.com](https://www.gartner.com)

Source: Gartner
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Gartner Top Data and Analytics Trends for 2022



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Institutionalize Trust

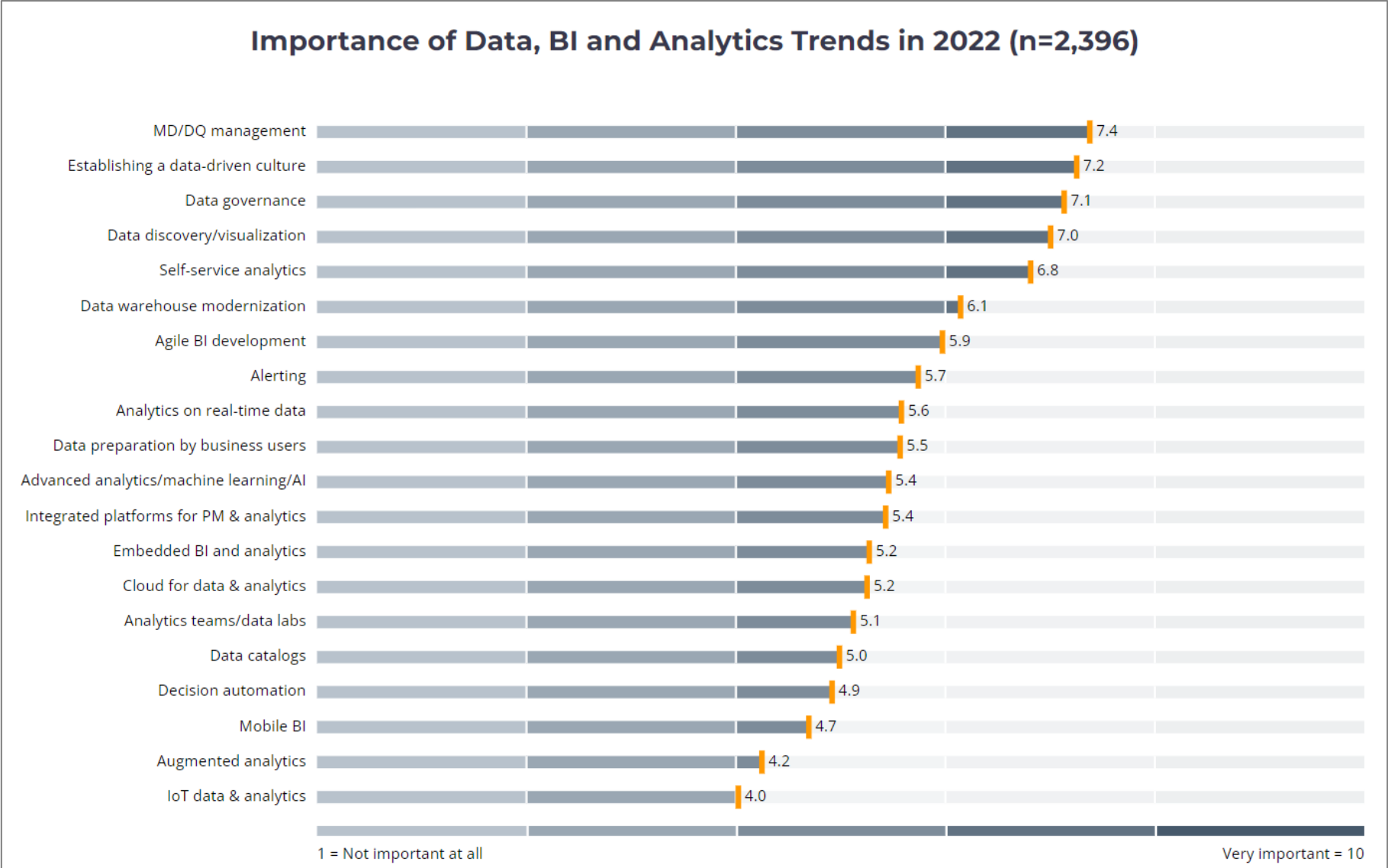
- Connected Governance
- AI Risk Management
- Vendor and Regional Ecosystems
- Expansion to the Edge

Data, BI & Analytics Trend Monitor 2022

The world's largest survey of data, BI and analytics trends

BARC Research Study





Importance of Data, BI and Analytics Trends in 2022 (n=2,396)





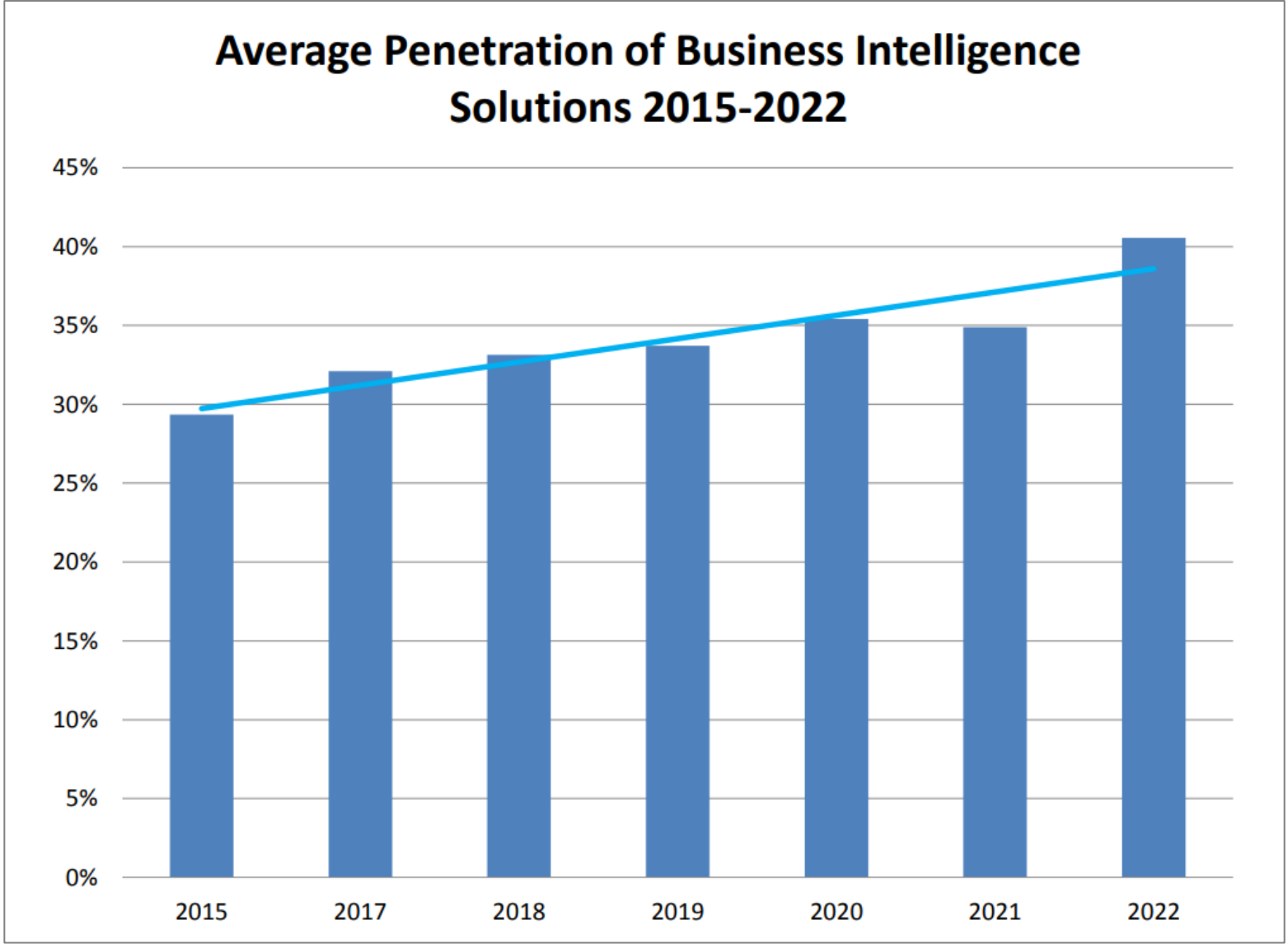
May 31, 2022

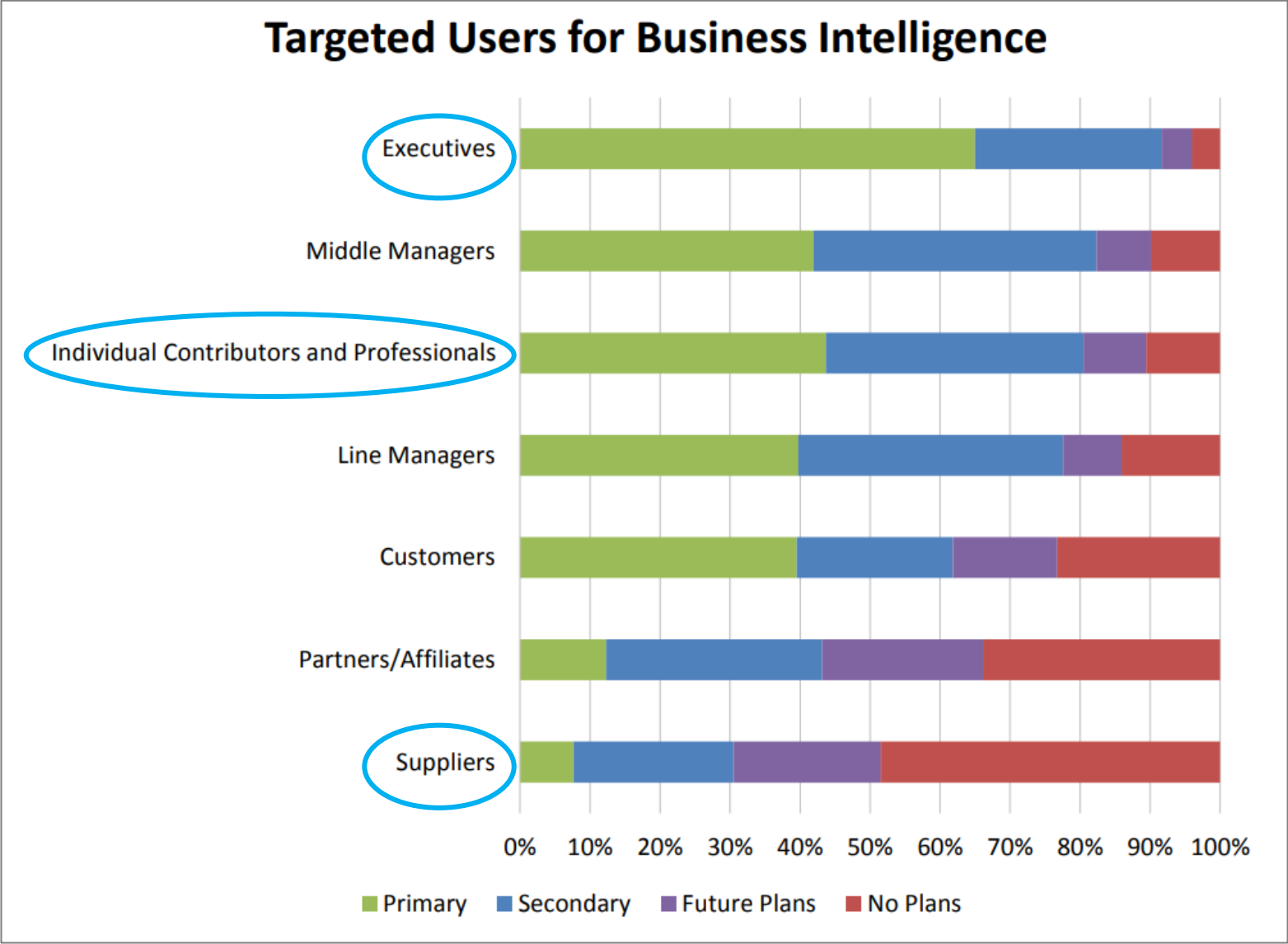
Dresner Advisory Services, LLC

Wisdom of Crowds® Business Intelligence Market Study

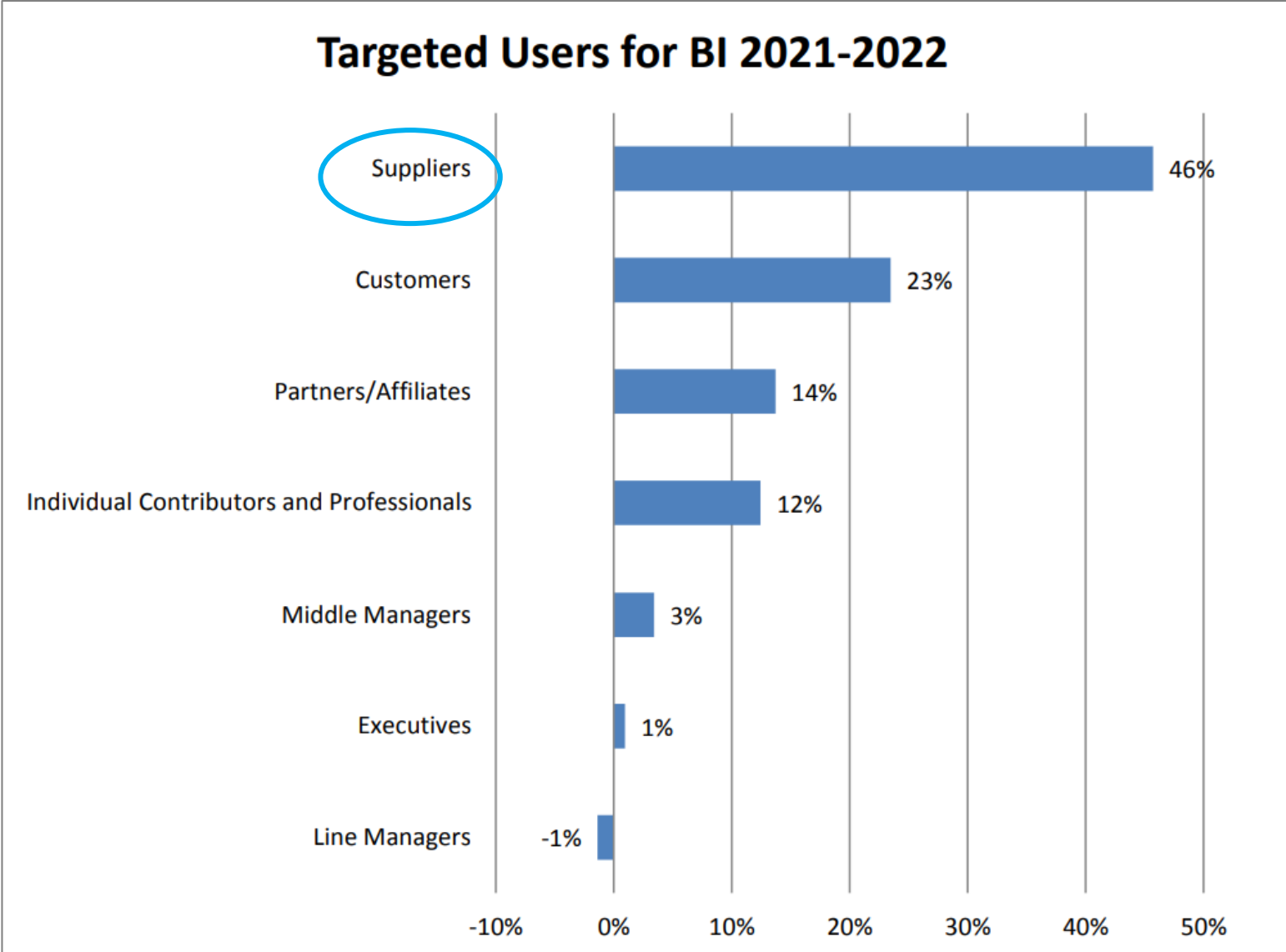
2022 Edition

Dresdner Wisdom of Crowds® BI Market Study





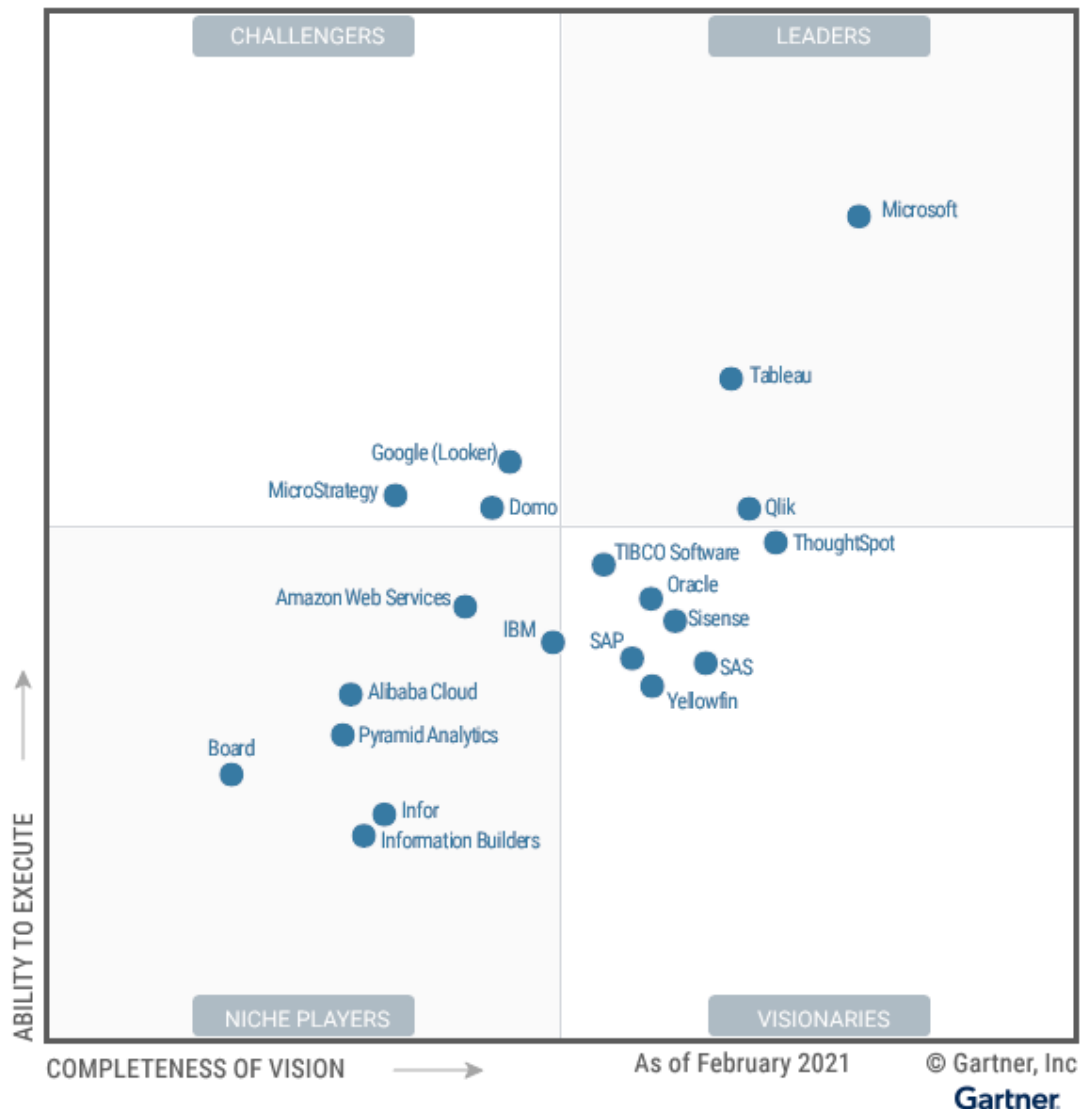
Dresdner Wisdom of Crowds® BI Market Study





Szállítók

Gartner - Magic Quadrant for Analytics and BI Platforms



2021



2022

Gartner - Magic Quadrant for Analytics and BI Platforms



2021



2022

Critical Capabilities for Analytics and Business Intelligence Platforms

Published 3 May 2022 - ID G00748451 - 41 min read

By Kurt Schlegel, Rita Sallam, [and 8 more](#)

Data and analytics leaders should begin provisioning capabilities that support analytic consumers as well as authors. This research will help guide their choices of vendor solutions in the analytics and BI space.

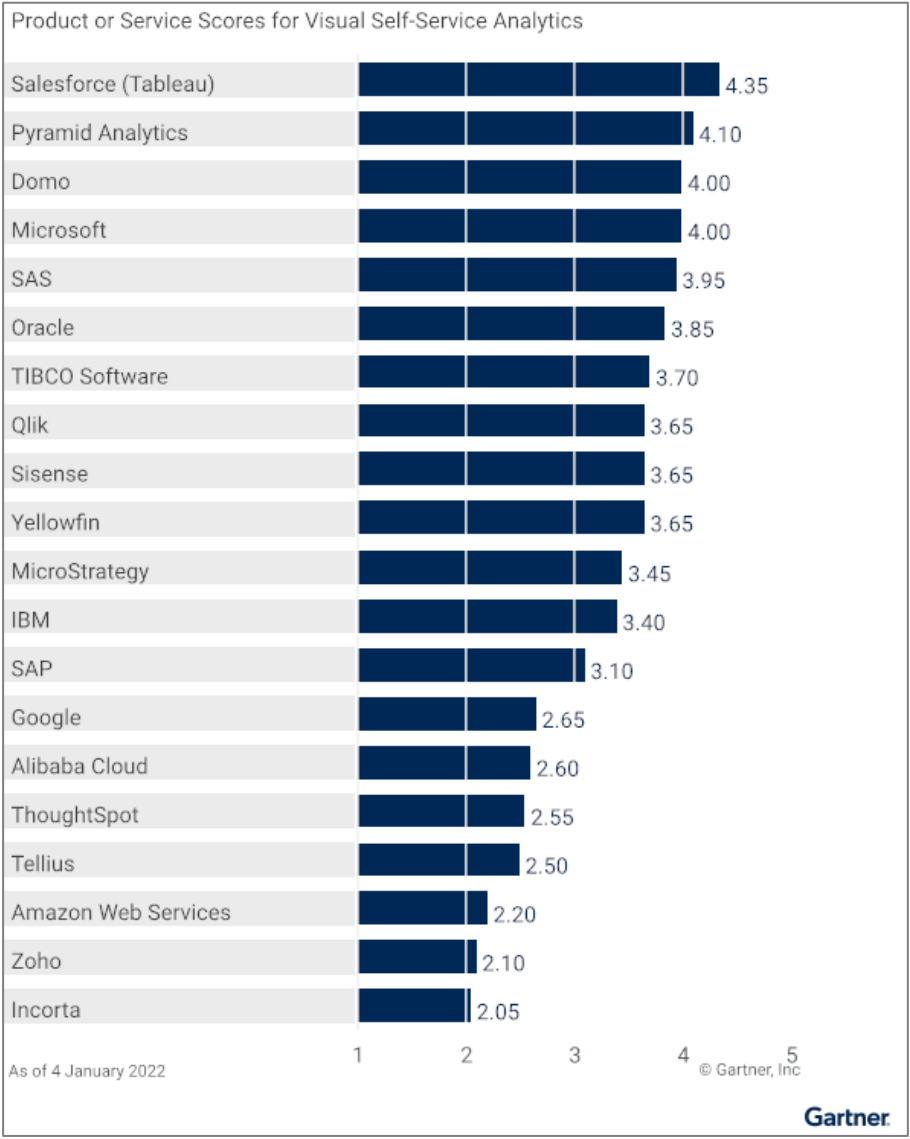
Overview

Key Findings

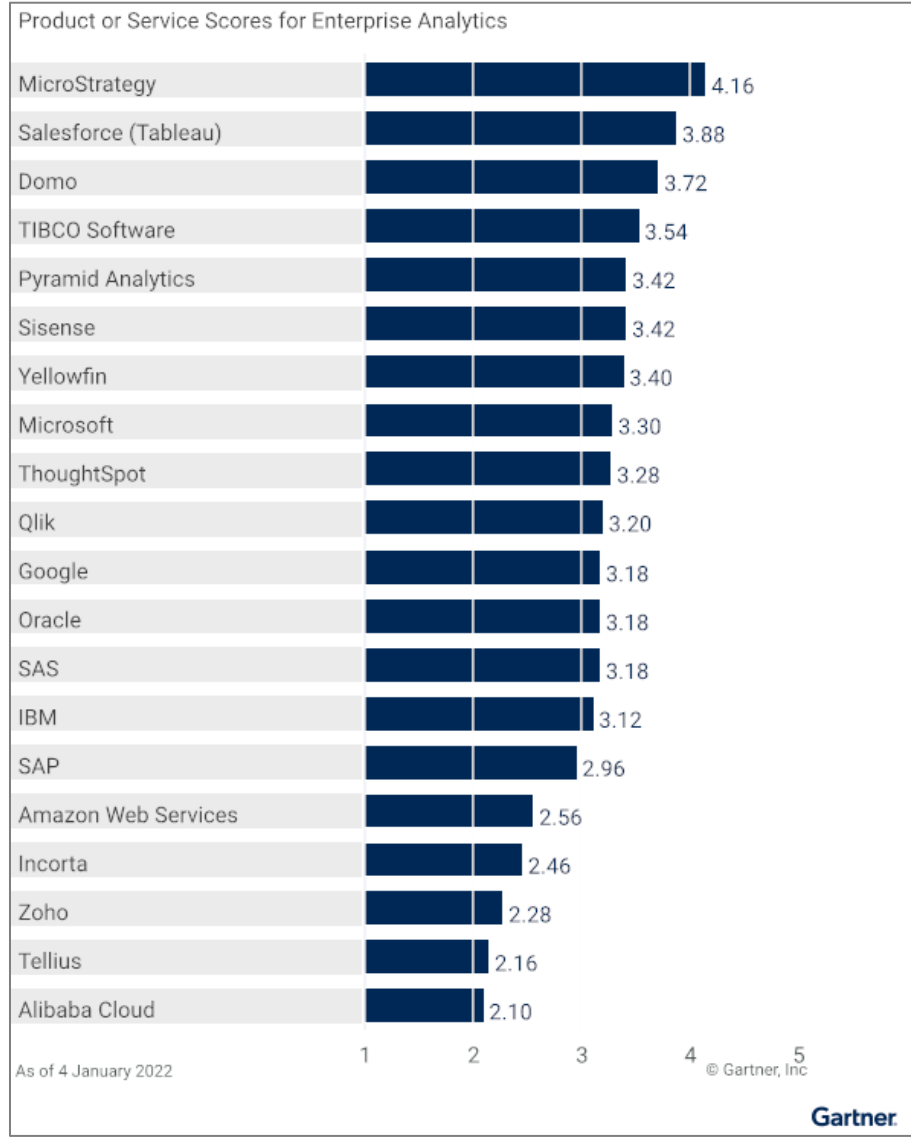
- Buyers often consider ecosystem (cloud, database, application) compatibility as more important than the functional differentiation of the platform. But best-of-breed features and competitive pricing are still important buying criteria.
- Data storytelling, automated insights and reporting are the most differentiated capabilities based on standard deviation of the capability scores for all 20 vendors. Data source connectivity, security and catalogs are the least differentiated.

Gartner - Kritikus képességek (2022)

Visual Self-Service Analytics

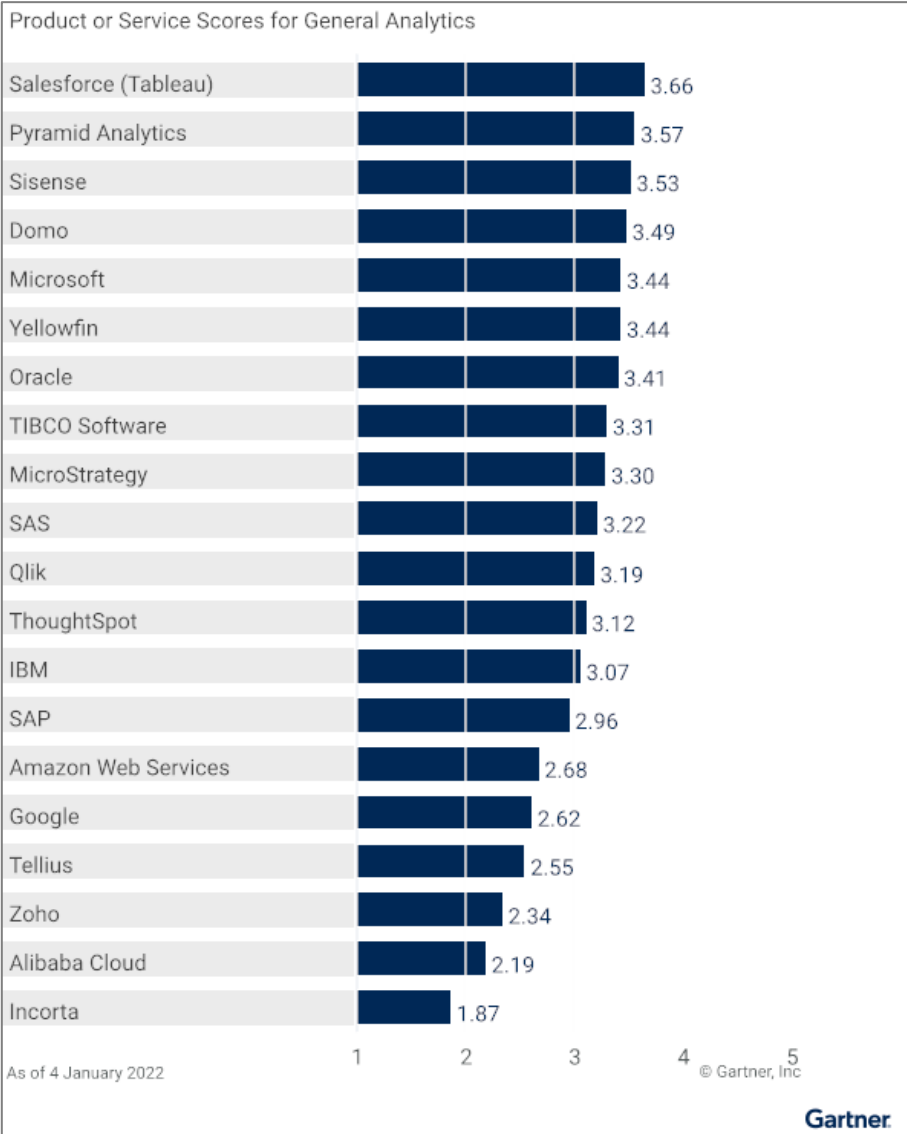


Enterprise Analytics

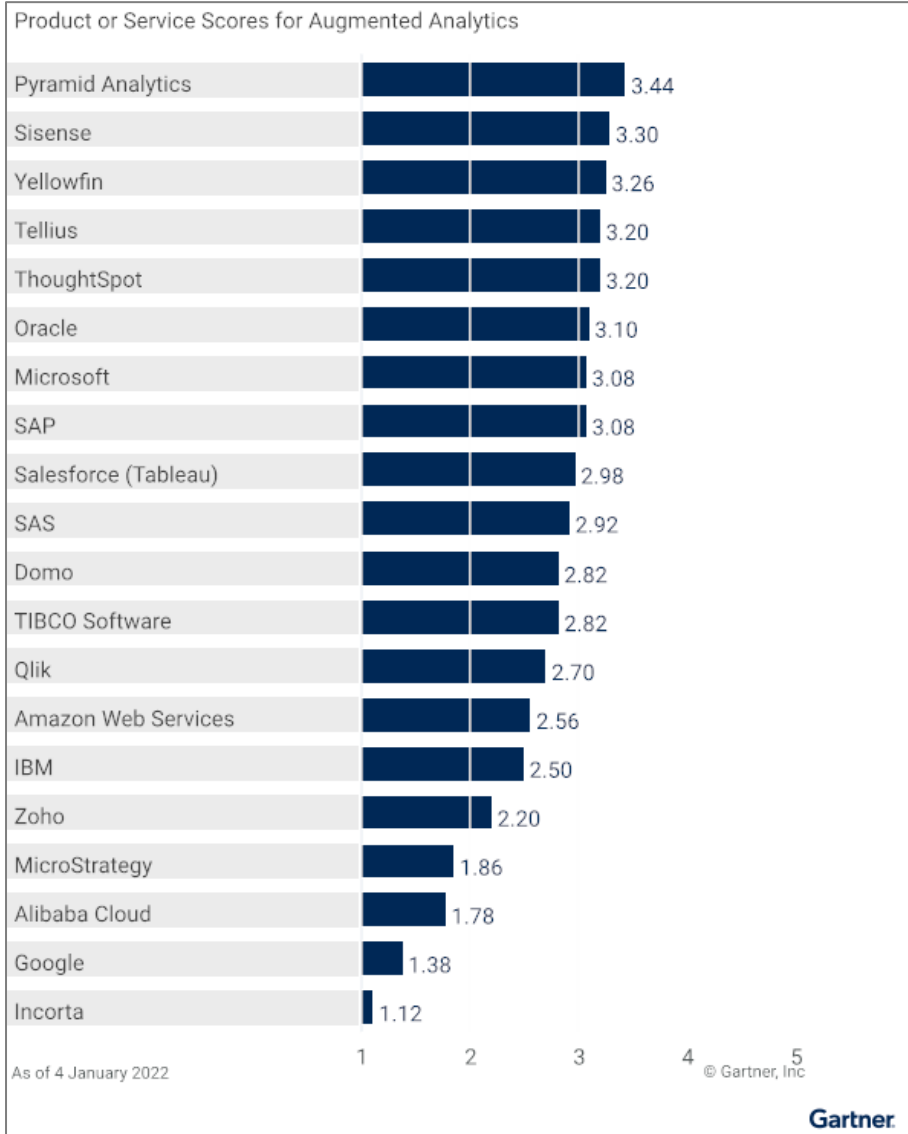


Gartner - Kritikus képességek (2022)

General Analytics



Augmented Analytics



BARC BI Survey 23

BI-SURVEY.com Home Tool Comparisons Product Reviews Analyzer Eco Maps BI Insights Blog About

About The BI & Analytics Survey

The BI & Analytics Survey 23 follows on from 20 successful editions of The BI – and former OLAP – Surveys.

Based on a sample of over 1,900 survey responses, The BI & Analytics Survey 23 offers an unsurpassed level of user feedback on 24 leading [business intelligence solutions](#).

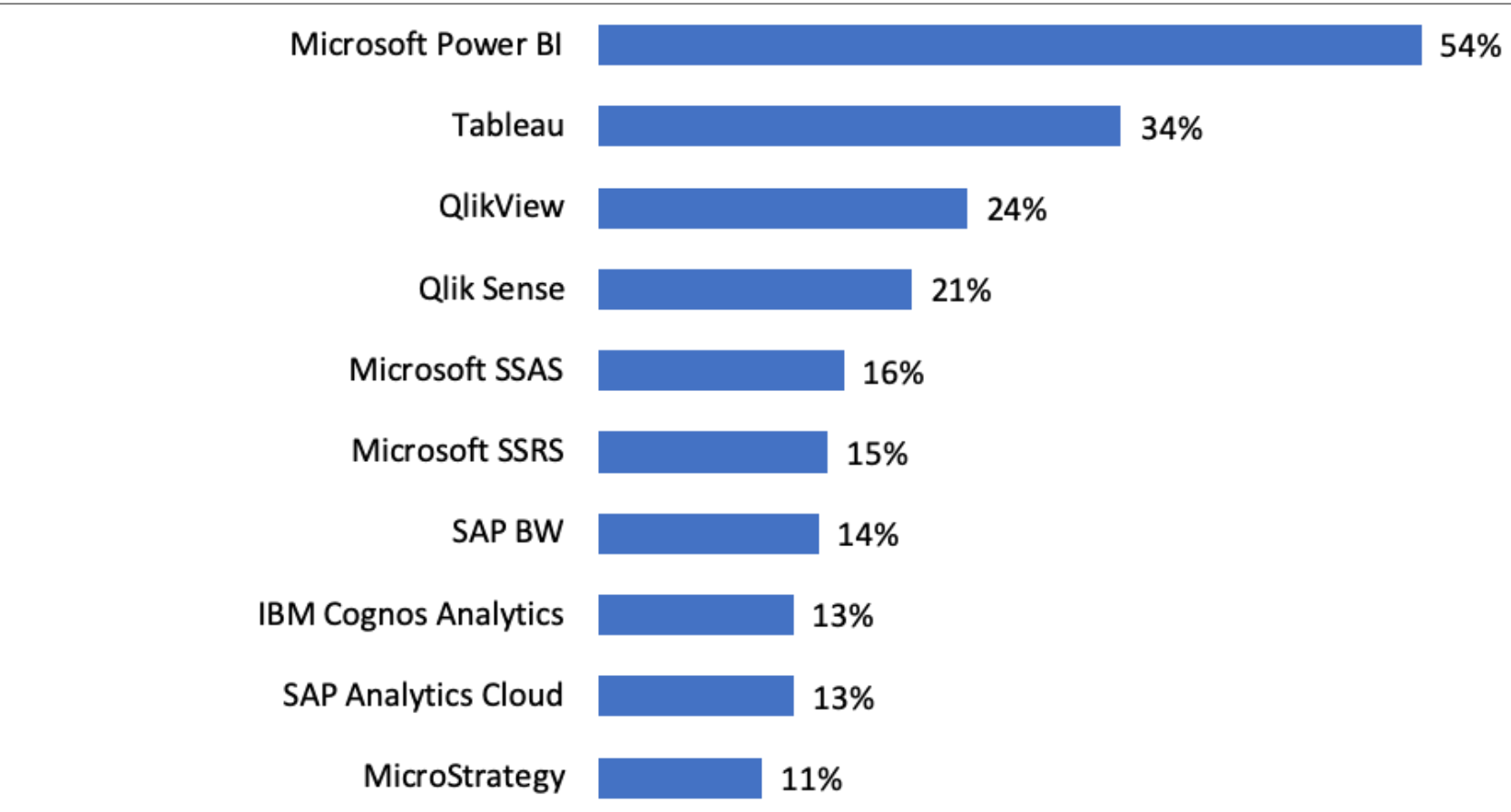
Our research covers issues ranging from the purchase cycle right through to deployment, including critical information on performance levels, scalability and problems encountered.

Click the links below for in-depth descriptions of our survey methodology, the sample, the KPIs, the peer groups and much more:

[Sample, KPIs and methodology](#)

 1,951 Respondents	 24 BI and Analytics Products
 84 Countries	 21 Years

Which products has your organization evaluated? (Top 10)





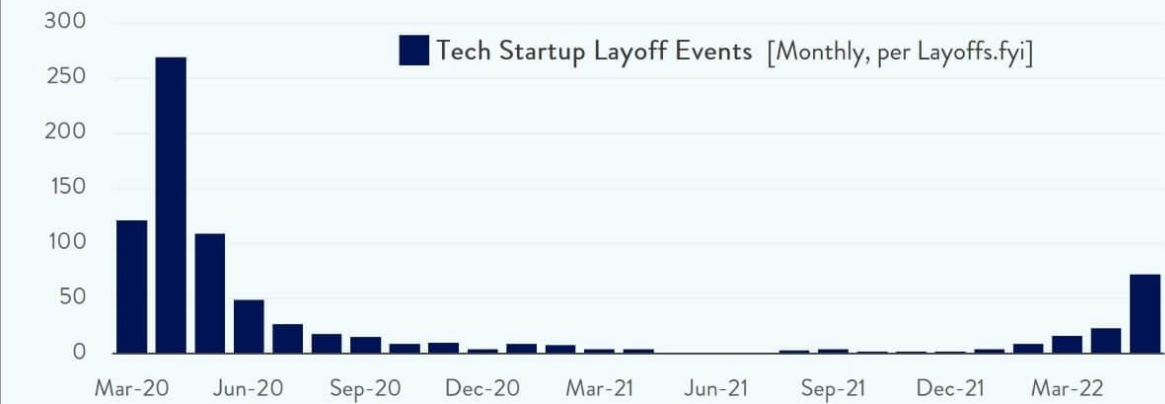
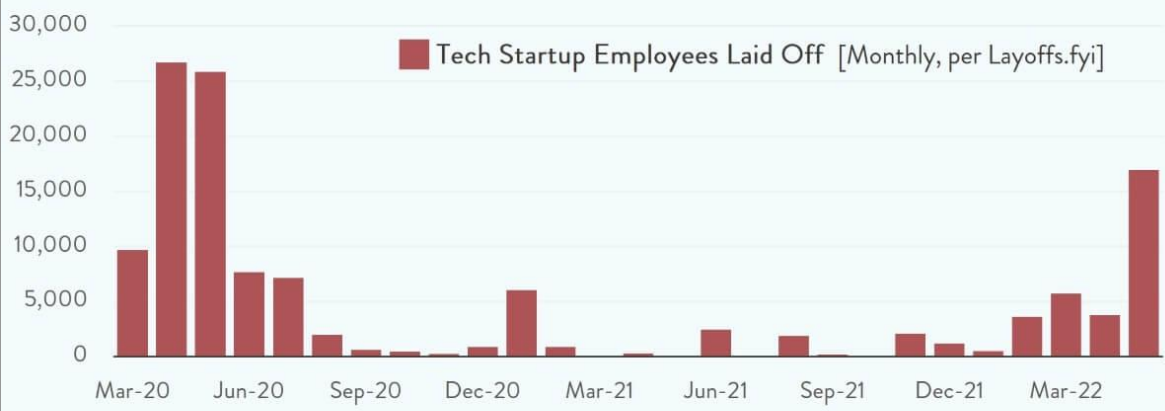
Akvizíciók és tőkebefektetések

- Hatalmas forrásbőség (USA), könnyű finanszírozás
- „Snowflake” effekt
- Minden második VC pitch: „We are the open version of X (expensive enterprise software)”
- Open Source (újra) népszerűsége
 - Egyre több a jól használható open source eszköz
 - A Modern Data Stack jelentős része ilyen
- Cloud alapú új üzleti modell
 - Hagyományosan: open core + fizetős extrák, support
 - Új modell: open source szoftver + fizetős felhőszolgáltatás

Trendek - 2022

- Gazdasági helyzet
 - Recesszió, infláció, tőzsde lejtmenetben, leépítések
- Tőzsdei kibocsátások (IPO)
 - Halasztás vagy felfüggesztés a jellemző
- Felvásárlások
 - Stratégiai és taktikai felvásárlások továbbra is történnek
 - Legalábbis 2022. első félévében még történtek
- Tőkebevonások
 - Jó pályán lévő cégek továbbra is kapnak pénzt
 - De a korábbi évek bőségének vége

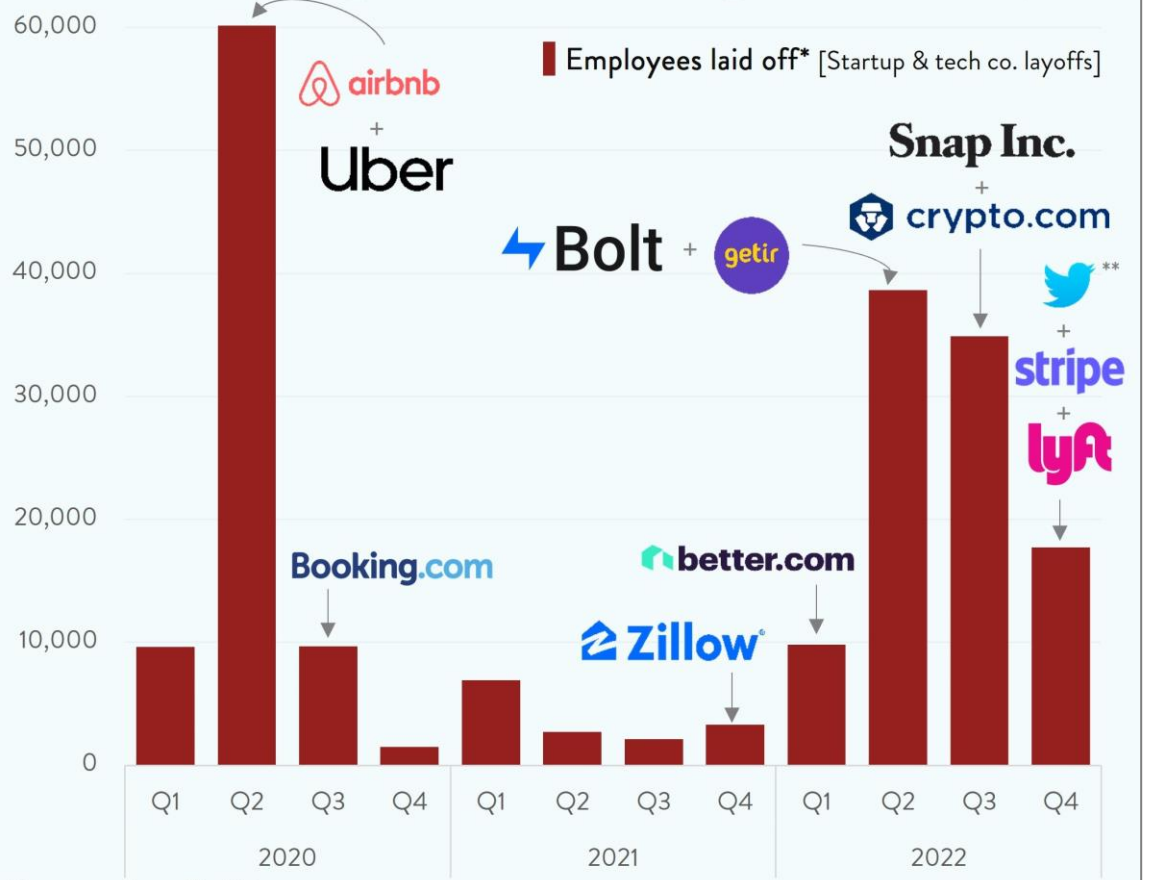
Layoffs At Technology Startups Are Starting To Rise Again



Source: Layoffs.fyi



The List Of Tech Companies & Startups With Layoffs Just Keeps Growing



Source: layoffs.fyi

**Twitter layoffs estimated at 2,000



*Logos for selected high-profile layoffs

IPO

MARKETS

The IPO market went from 'boom to bust' in 2022. Here's what's driving the massive slowdown

PUBLISHED FRI, SEP 23 2022.1:34 PM EDT



Noah Higgins-Dunn
@HIGGINS-DUNN

SHARE    

From the best of times, to the worst of times: The market for initial public offerings has fallen off a cliff in 2022.

Investors faced with high inflation and rising interest rates have ditched high-flying growth stocks and turned to safer, more profitable alternatives.

The decline has been striking given the record level of proceeds raised through public markets just a year prior. U.S.-listed companies raised over \$155 billion in proceeds in 2021 through their initial public offerings, according [to data from EY and Dealogic](#). In the first half of 2022, they only raised \$4.8 billion.

U.S.-listed companies raised over **\$155 billion** in proceeds in 2021 through their initial public offerings

In the first half of 2022, they only raised **\$4.8 billion**.

Why Jim Goodnight still has SAS on path to IPO



Jim Goodnight, co-founder and CEO of SAS.

SAS Institute marches on with IPO plans despite market turmoil

...Executives from SAS Institute, an analytic software provider that employs 4,000 people at its Cary headquarters, [reiterated its plans](#) to go public in 2024.

Qlik Technologies Looks to Go Public Again

By Luisa Beltran Jan. 6, 2022 3:17 pm ET

Text size  



Thoma Bravo acquired Qlik in 2016.
Dreamstime

Qlik Technologies, a data analytics company that is backed by the private-equity firm Thoma Bravo, plans to return to public markets.

On Thursday, Qlik said it has confidentially submitted a draft registration statement to the Securities and Exchange Commission for an initial public offering. The company, based in

King of Prussia, Pa., said it hasn't determined how many shares it would sell or their price range.

Felvásárlások

Felvásárlások

- 2019-20 során jelentős konszolidációs hullám
 - Salesforce – Tableau, Google-Looker, Tibco-Information Builders
- Azóta inkább a taktikai felvásárlások jellemzők (platformbővítés)
 - A Qlik sorozatban veszi a kisebb-nagyobb cégeket
 - A Tableau data storytelling-re specializálódott céget vett
- 2022-ben is folytatódik a konszolidáció



[Demo](#)

Gartner Yellowfin Scores **Top 3 in Augmented Analytics** Use Case in 2022 Gartner Critical Capabilities for Analytics & BI Platforms. [Read More](#)

Analytics made simple. Beautifully simple.

Transform your business or software through data.

Solve data complexity with automation, data storytelling, collaboration and beautiful action-based dashboards that are simple to use, allowing more people to see, understand and do more with their data.

[Try it Now](#)

[▶ Yellowfin Walkthrough](#)



NEWS

Yellowfin acquired by B2B software specialist Idera

The formerly independent analytics vendor hopes to expand its customer base by getting acquired, while its app development tools made it attractive to its new parent company.




By [Eric Avidon](#), News Writer

Published: 31 Jan 2022

Yellowfin was acquired by Idera Inc., the parent company of 30 B2B software vendors.

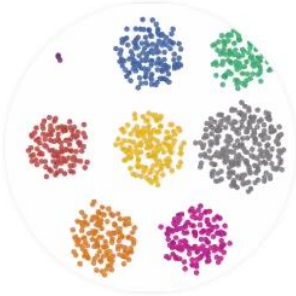
Financial terms of the acquisition, finalized Jan. 28, were not disclosed.

Yellowfin, founded in 2003 and based in Melbourne, Australia, is an analytics vendor with more than 3 million end users. Its wide-ranging platform's advanced capabilities include embedded analytics, natural language processing and data storytelling.

Features Examples Pricing Sign upABOUT BLOG CAREERS HELP SIGN IN


Easily turn your data into stunning charts, maps and interactive stories.

[View examples.](#)



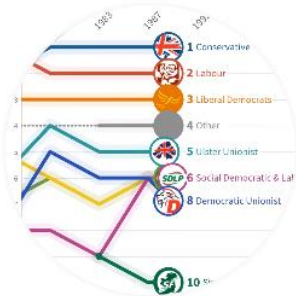
Engage your audience

Create agency-quality data graphics and animated stories that bring your data to life.



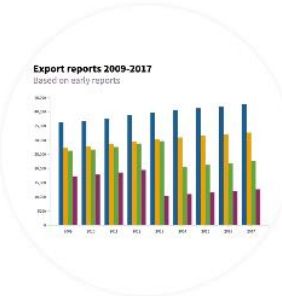
Empower the whole team

Flourish is easy enough for anyone to use. Start with a template and drop in data.



Embed, share, present

Create seamless embeds, magical presentations, or engaging content for social.



Your brand, your style

Get custom themes so everything has your logo, fonts, colours and styles.

Canva acquires Flourish in mission to tell better stories with data

Christine Hall @christinemhall / 3:29 PM GMT+1 • February 2, 2022

 Comment

 Image Credits: Canva

[Canva](#) on Wednesday said it closed on its acquisition of Flourish, a London-based data visualization startup. Financial terms of the deal were not disclosed.

The acquisition comes as the visual communications company reached over 75 million monthly active users, up over 30 million in the past 12 months.

Flourish, founded in 2016 by Duncan Clark and Robin Houston, provides data visualization tools so that companies, like BBC, Sky, Deloitte and Moody's, can turn data points into easily digestible charts, graphs and visuals. The company, which brings over 800,000 customers into the Canva fold, raised about \$1 million in venture capital, [according to Crunchbase](#).

Cliff Obrecht, co-founder and COO of Canva, told TechCrunch that all of Flourish's 44 employees would be joining the company.

Cloud Gallery Components Community Docs Blog Sign in Sign up

A faster way to build and share data apps

Streamlit turns data scripts into shareable web apps in minutes.
All in pure Python. No front-end experience required.

Try Streamlit now Sign up for **Streamlit Community Cloud**

```
1 import streamlit as st
2 import mymodel as m
3
4 st.write("""
5 # Sales model
6 Below are our sales predictions
7 for this customer.
8 """)
9
10 window = st.slider("Forecast win
11 st.write|
```

My App - Streamlit


Sales model

Below are our sales predictions for this customer.

Snowflake acquires Streamlit for \$800M to help customers build data-based apps

Ron Miller @ron_miller / 11:44 PM GMT+1 • March 2, 2022

 Comment

 **Image Credits:** TothGaborGyula / Getty Images

[Snowflake](#) helps customers store and manage oodles of data in the cloud without cloud vendor lock-in. [Streamlit](#) is a startup that developed a [popular open source project](#) for building data-based apps. Seems like a pretty good match, and today Snowflake announced it was acquiring Streamlit for \$800 million.

Benoît Dageville, co-founder and president of products at Snowflake, said the company became familiar with Streamlit as customers were using it, as were people in-house, and as they talked it seemed increasingly like a good fit. “We have both the same vision — Streamlit and Snowflake — which is all about democratizing access to data. I would describe it very simply as making it super easy to interact with data,” Dageville told me.

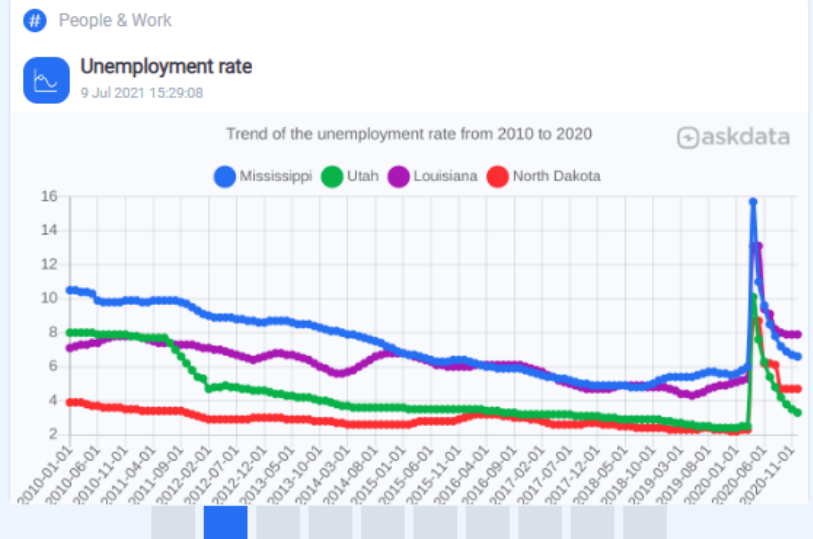
He said that Streamlit fills in a big missing piece in the platform by allowing data scientists and others to interact with the data and build apps that bring the data to life for non-technical users. Snowflake has all the technical pieces for accessing and managing the data in the cloud, but they lacked a native data visualization piece, and that’s what they’re getting with Streamlit.

Query, explore, and share data at ease

Askdata is the first platform that makes data interaction frictionless.

[Request Demo](#)

[Learn more](#)



Featured workspaces



Leaseplan



ISTAT



U.S. BLS



The World Bank



EUROSTAT




AskdataCovid



Our World In Data



NYT Covid19

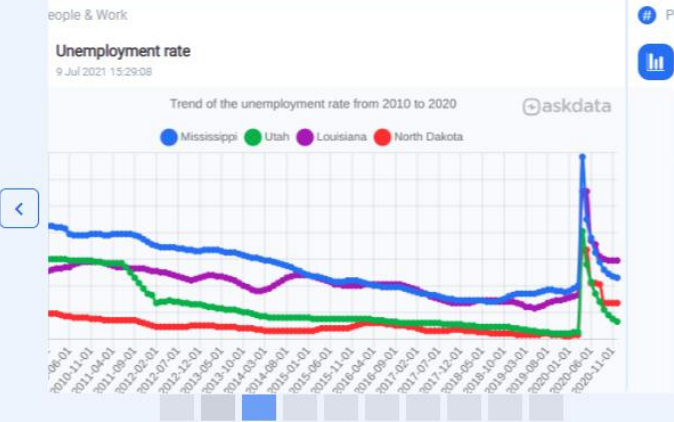


AskData is now part of SAP, read the press release here

**Query, explore, and share data
at ease**

Askdata is the first platform that makes data interaction frictionless.

[Request Demo](#) [Learn more](#)



The screenshot shows a data visualization interface. At the top, it says 'people & Work' and 'Unemployment rate'. Below that, it indicates the date '9 Jul 2021 15:29:08'. The main chart is titled 'Trend of the unemployment rate from 2010 to 2020' and features four data series: Mississippi (blue), Utah (green), Louisiana (purple), and North Dakota (red). The x-axis represents time from 2010-01-01 to 2020-11-01. All series show a significant upward spike in early 2020, with Mississippi reaching the highest peak. The interface includes a left navigation arrow and social media icons on the right.

Befektetések

Data collaboration startup Observable raises \$35.6M funding round



BY MARIA DEUTSCHER

Observable Inc., the developer of a cloud-based platform for visualizing and analyzing data, today announced that it has raised a \$35.6 million funding round led by Menlo Ventures.


The investment also included the participation of Sequoia Capital and Acrew Capital. San Francisco-based Observable has raised a total of \$46.1 million in funding to date.

Observable provides a data collaboration platform of the same name that enables users to turn information into graphs and run analyses. To start a new analytics project in the startup's platform, users create a document dubbed a canvas. The canvas contains the code and data visualizations used in the project, which multiple team members can edit at the same time thanks to built-in collaborative authoring features.

Business intelligence and analytics firm Pyramid Analytics raises \$120M

Kyle Wiggers @kyle_i_wiggers / 12:00 PM GMT+2 • May 9, 2022

 Comment

 Image Credits: OstapenkoOlena / Getty Images

Business intelligence is an increasingly well-funded category in the software-as-a-service market. By handling large amounts of data to analyze and benchmark lines of business, BI promises to help identify, develop and otherwise create new revenue opportunities.

Pervasive BI remains elusive, but [statistics](#) on the category reveal that about a third of employees use BI tools for analytics to inform strategy. The big data and business analytics market could be worth \$684 billion by 2030, [according](#) to Valuates Reports, if such outrageously high estimates are to be believed.

The segment contains too many vendors to count — a few include [Noogata](#), [Fractal Analytics](#), [Tredence](#), LatentView and [Mu Sigma](#). But be that as it may, there's plenty of capital to go around — as evidenced by [Pyramid Analytics'](#) latest funding round. Pyramid, which bills itself as a “decision intelligence” platform, today announced that it raised \$120 million in Series E financing co-led by H.I.G. Growth Partners, Clal Insurance Enterprises Holdings and General Oriental Investments at a “nearly” \$1 billion valuation. Co-founder and CEO Omri Kohl said that the fresh cash will be used to expand Pyramid's global presence, hire new employees, and enhance the company's existing software products.

NEWS

Accelerating Innovation: Anaconda Announces Financing for the Future

SEP 20, 2022

By Angela Pierce

As the most popular platform for Python data science, our team has always supported individual users and enterprises in their journey towards insight-based solutions. This year, we took that commitment even further with our acquisition of [PythonAnywhere](#) and our rollout of [PyScript](#), a JavaScript framework that allows users to create Python applications in a browser. By extending the reach and accessibility of Python, PythonAnywhere and PyScript helps our industry take a giant leap toward democratizing data science—and we're proud to be part of that change.

...we are pleased to announce that Anaconda has closed up to **\$60 million in new funds and accounts managed** by BlackRock....

Cégvilág

RStudio, consider a product rebranding / name change?

R Admins Posit Connect branding



mbacou

1  2019-07-09

Not a question, but a remark about RStudio's current branding and positioning strategy.

In the process of establishing a new data science team and operations for a financial tech startup, I'm running into the usual DevOps/Data Science cultural divide, facing strong prejudices against R as a viable language/ecosystem for production models and client-facing solutions.

Our entire analytical infrastructure relies on (community edition) RStudio Server/Shiny Server/OpenCPU/plumber at the moment (including ETL for business intelligence), and these pieces have performed well so far -- I would only concede that Shiny does not come with standard drilldown/through widgets out of the box, and is not (yet?) a replacement for a BI-centric tool.

Nonetheless after a review of collaborative data science platforms (incl. Domino, Knime, Cloudera, Dataiku, DataRobot, etc.) RStudio Server/Connect did not even make the 1st cut (even though the majority of these platforms actually include RStudio Server). The only

RStudio is now Posit!

11/02/2022



New Name,
Same DNA

RStudio is now Posit.

Inside Google Cloud

Google completes Looker acquisition

February 13, 2020



Data Analytics

Introducing the next evolution of Looker, your unified business intelligence platform

October 11, 2022

Today, we are **unifying our business intelligence product family under the Looker umbrella**. Looker is the name you'll hear us use when talking about our Google Cloud business intelligence products, as we bring together Looker, Data Studio, and core Google technologies like artificial intelligence (AI) and machine learning (ML). And starting today, **Data Studio is now Looker Studio**. With this complete enterprise business intelligence suite, we will help you go beyond dashboards and infuse your workflows and applications with the intelligence needed to help make data-driven decisions.

Announcing funding of \$26.9M. [Read our blog post to learn more about Omni](#)

omni

About

Blog

Get Access

Introducing Omni, the new generation of business intelligence

Combining the consistency of a shared data model with the freedom of SQL.



Colin Zima



Chris Merrick



Jamie Davidson

August 16, 2022



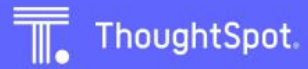
World

The slide features a dark blue background with a stylized world map composed of light blue dots. Various colored circles (red, orange, yellow, purple, white) are scattered across the map and background. A prominent red diagonal line runs from the top right towards the bottom right. A dark red horizontal band is positioned across the middle of the slide, containing the title text. The bottom right corner is a light gray area with a low-poly geometric pattern.

Tech trendek

Dashboards

A dashboard halála (2021)



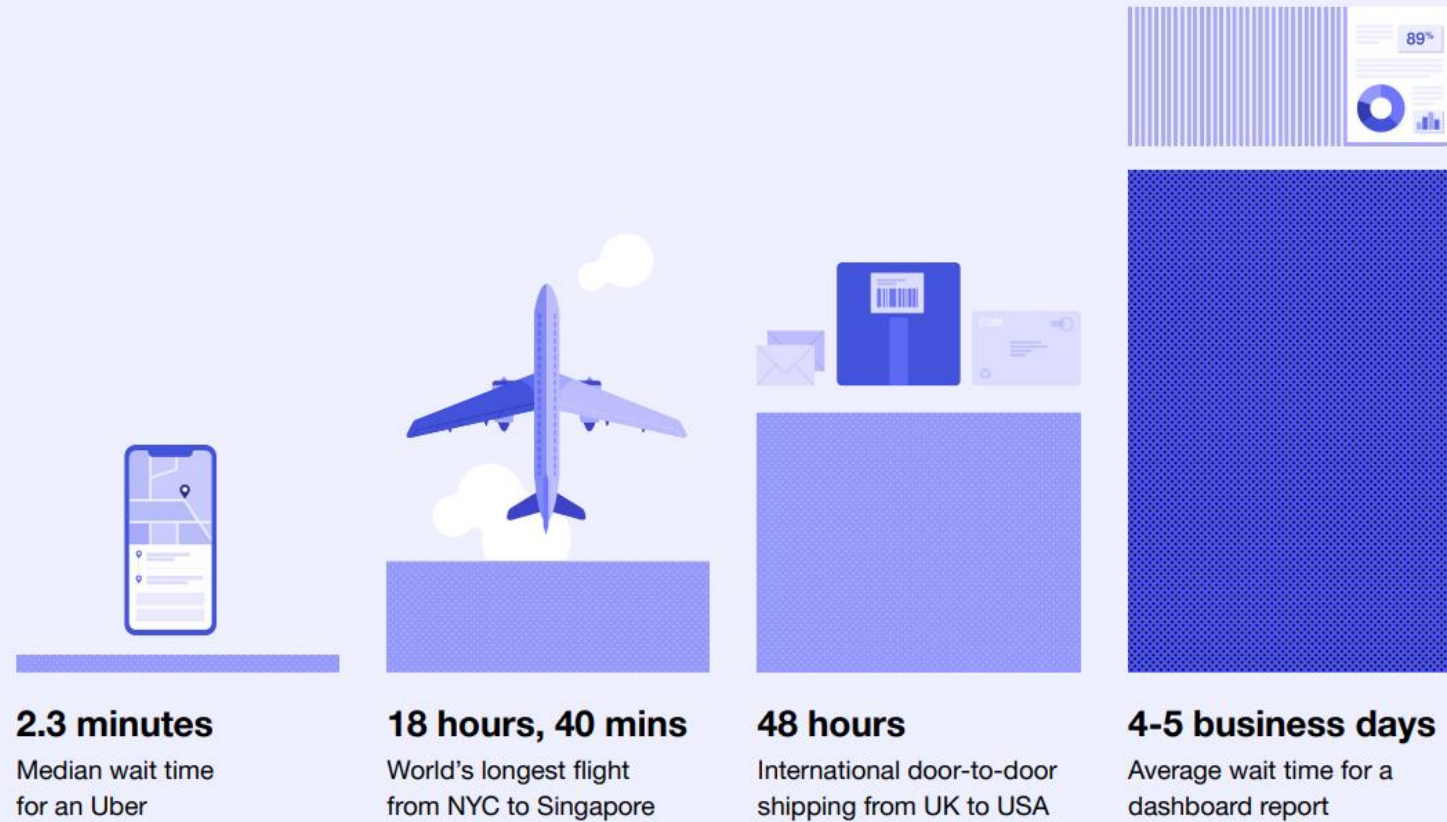
Dashboards are dead.

How modern cloud analytics is
delivering personalized insights for all



A dashboard halála (2021)

Dashboards vs. modern world speeds



Uber source, Flight from NYC to Singapore source, International shipping source



CASE STUDIES

Delivering Dashboards as Code: An Illustrative Case Study Using dbt and Preset

Shreesham Mukherjee August 01, 2022



Subscribe

Preset offers a rich UI from which you can manage your databases, datasets, charts, dashboards, and more, allowing technical and non-technical users to build assets and find the answers they need. There are times when you need more control over these assets – you want to manage them as code so you can benefit from version control systems, code review, continuous deployments, and more.

In a series of recent posts, our engineer Beto Dealmeida showcased the workflow of managing Superset database connections, datasets, charts, and dashboards as code:

- [Managing Apache Superset Assets as Code with Preset](#)
- [Creating Custom Assets in Apache Superset Programmatically Using Preset](#)
- [dbt and Preset](#)

Dashboard as code

Learn / Azure / Azure portal documentation / ⊕ 💬 ✎ ⋮

Programmatically create Azure dashboards

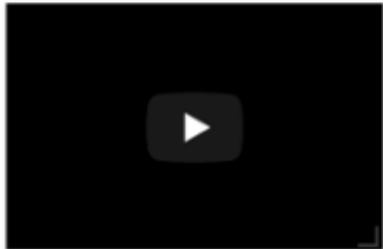
Article • 06/20/2022 • 11 minutes to read • [15 contributors](#) 👍 Feedback

This article walks you through the process of programmatically creating and publishing Azure dashboards. The sample dashboard shown below is referenced throughout the document.

Azure Virtual Machines [Edit](#)

Overview

New team members should watch this video to get familiar with Azure Virtual Machines.



Test VM Dashboard [Edit](#)

Contoso

This is the team dashboard for the test VM we use on our team. Here are some useful links:

- [1. Getting started](#)
- [2. Troubleshooting guide](#)
- [3. Architecture docs](#)

Semantic layer

Headless BI (2021)

- A probléma: a különböző üzleti metrikák számítására és szolgáltatására nincs egységes, központi forrás
- Pedig metrikák egyre több helyen kellene
 - BI szoftverekben (jellemzően több is van)
 - Data Science környezetekben
 - Operatív rendszerekben (API hozzáférés)
- Kialakul a mocsár, mindenki magának definiálja a metrikát
- A megoldás: „Headless BI” megoldások
 - Vizualizációs képességek nélküli BI szoftver
 - Más néven Metric Store vagy Metrics Layer

The future of BI is Headless



ZD

Follow



Mar 19 · 5 min read



I work for GoodData and have been focused on multi-tenant analytics for more than a decade. By multi-tenant analytics, I mean a use-case when analytics is shared with external companies: customers, channel partners, suppliers, or other business partners.

Our analytics widgets and self-service analytics tools are usually embedded in applications or web portals. However, there are always tenants who have already adopted a specific BI tool or platform and want to integrate it with our analytics. Initially, we were serving these customers by exporting data from our platform to import them into their BI. Besides the obvious latency that this (often manual) process adds, we've run into many consistency issues. Our customers had to recreate many measures, reports, and dashboards in their tool. The numbers that their users were getting from our embedded analytics and the 3rd party tool were often inconsistent. Our customers also complained about duplicated efforts to define the same objects on two different platforms.

How Airbnb Achieved Metric Consistency at Scale

Part-I: Introducing Minerva — Airbnb's Metric Platform



Robert Chang

Follow



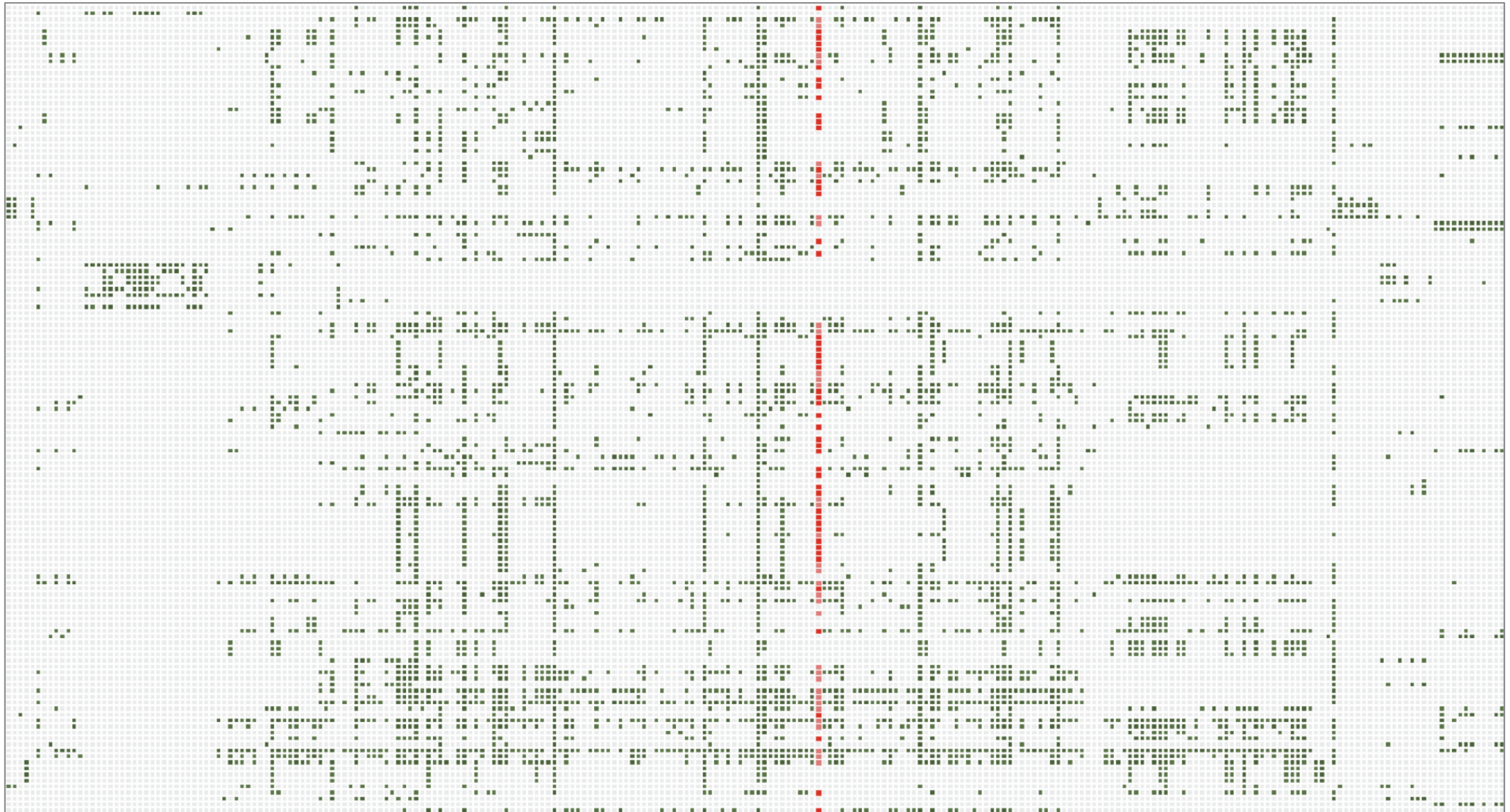
Apr 30 · 12 min read



By: [Amit Pahwa](#), [Cristian Figueroa](#), [Donghan Zhang](#), [Haim Grosman](#), [John Bodley](#), [Jonathan Parks](#), [Maggie Zhu](#), [Philip Weiss](#), [Robert Chang](#), [Shao Xie](#), [Sylvia Tomiyama](#), [Xiaohui Sun](#)



Headless BI (2021)



The Rise of Semantic Layer

September 29, 2022 20 min read

Data Insights

The Rise of the Semantic Layer: Metrics On-The-Fly

 Simon Späti

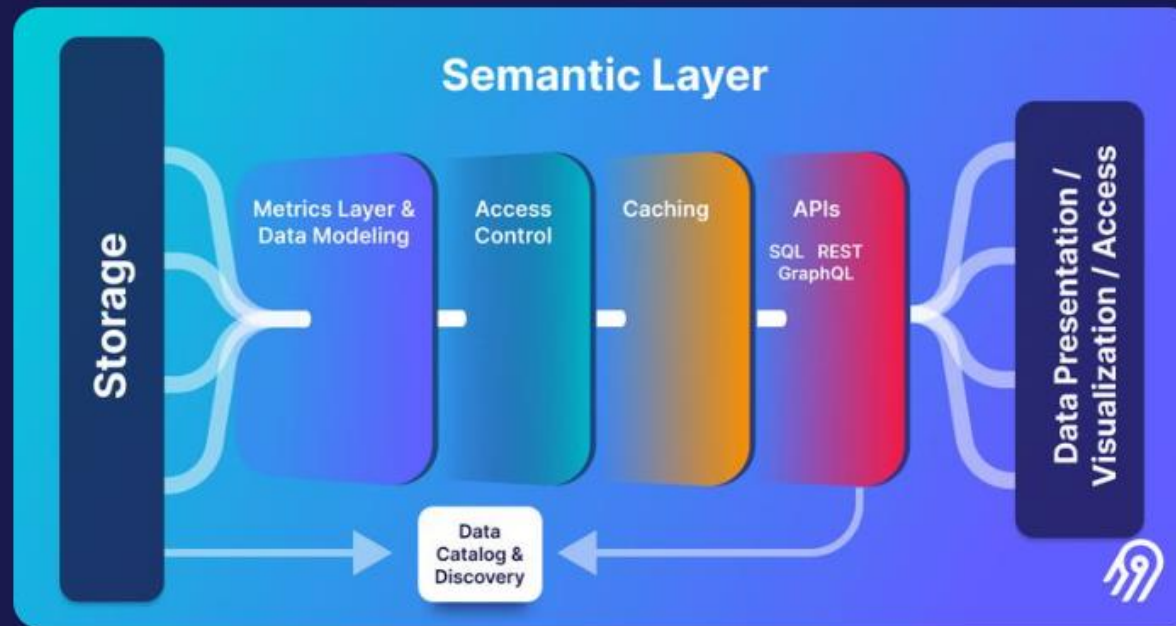


Table of contents

- What is a Semantic Layer?
- The History of a Semantic Layer
- The Rise of the Semantic Layer
- Trends: What Tools Are Out There for Building a Semantic Layer?
- Problems of a Semantic Layer
- What's the Difference to OLAP, Data Cataloging, Virtualizations, or Mesh
- Will the Semantic Layer Get More Adoption?

Related posts

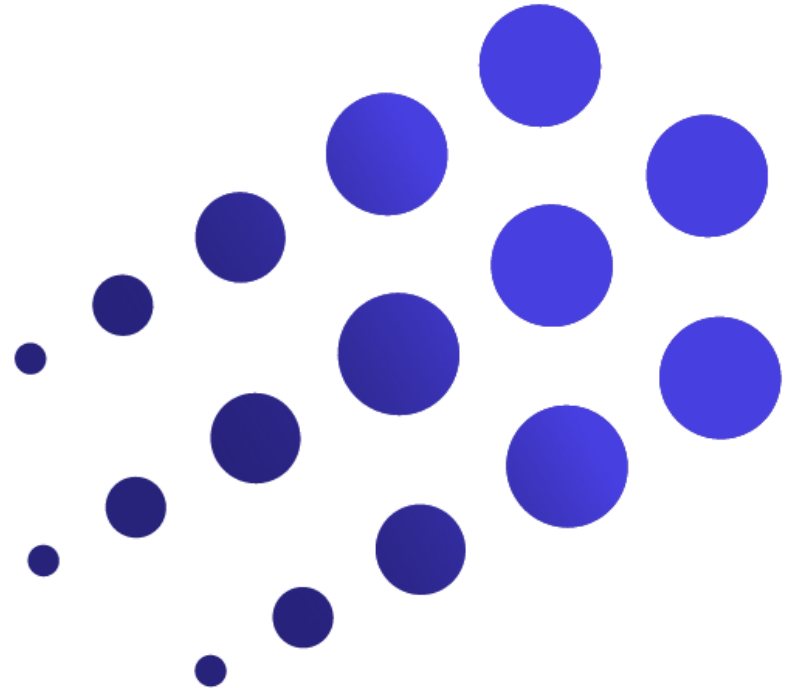
<https://airbyte.com/blog/the-rise-of-the-semantic-layer-metrics-on-the-fly>

Introducing MetricFlow, Transform's open source metric framework.

Build and maintain all of your metric logic in code. Get consistent metrics across every team and every tool.

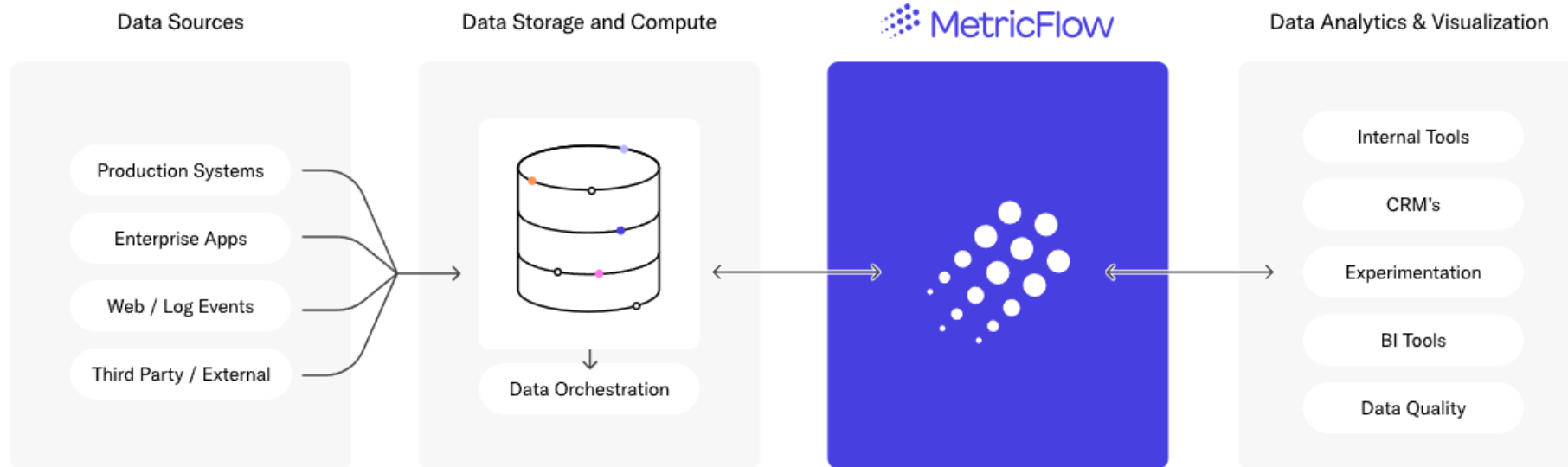


Read our Docs



MetricFlow

Your open source metrics layer



MetricFlow is a metrics layer that sits on top of your data warehouse. Define “metrics”—like active users, revenue, and net dollar retention—in code. Then use the same logic across your entire organization. In MetricFlow, you define these metrics in YAML and export them as REST endpoints.

Write once, query anywhere with the dbt Semantic Layer

Sharing a little more on our plans for the dbt Semantic Layer.



Drew Banin

26 Jul 2022

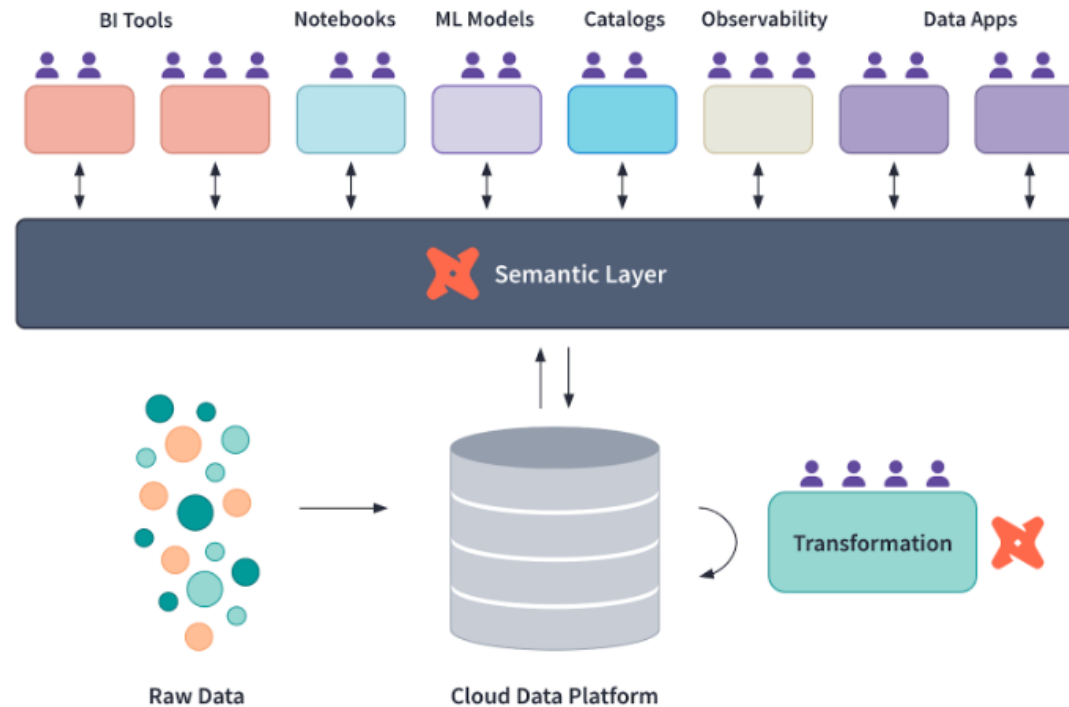


dbt Semantic Layer

Extending the dbt workflow

The dbt Semantic Layer is the interface between your data and your analyses: A platform for compiling and accessing dbt assets in downstream tools.

Data practitioners can define [metrics](#) in their dbt projects, then data consumers can query consistently defined metrics in downstream tools.



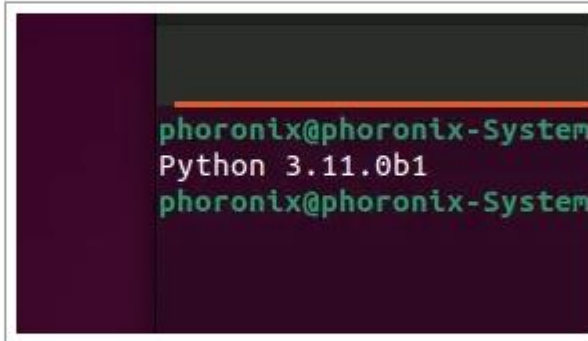
Python evolution

Python performance

Python 3.11 Performance Benchmarks Are Looking Fantastic

Written by [Michael Larabel](#) in [Software](#) on 6 June 2022. [Page 1 of 4](#). [65 Comments](#)

Last month Python 3.11 Beta 1 was released as their first preview of this major update to the Python programming language. Besides new language features and other improvements, Python 3.11 performance is looking fantastic with very nice performance uplift over prior Python 3.x releases.

A terminal window with a dark purple background and a red horizontal line. The text displayed is: phoronix@phoronix-System, Python 3.11.0b1, and phoronix@phoronix-System.

```
phoronix@phoronix-System
Python 3.11.0b1
phoronix@phoronix-System
```

Python 3.11 has been baking support for task groups in asyncio, fine-grained error locations in tracebacks, the self-type to return an instance of their class, TypeVarTuple for variadic generics, and various other features.

Besides changes affecting the Python language itself, Python 3.11 has been landing performance work from the "Faster CPython Project" to speed-up the reference implementation. Python 3.11 is 10~60% faster than Python 3.10 according to the official figures and a 1.22x speed-up with their standard benchmark suite.



Run Python in Your HTML

```
<html>
...
<py-script> print('Now you can!') </py-script>
</html>
|
```



Examples

[Click here](#) for example projects



Documentation

[Click here](#) for PyScript documentation



Install

[Click here](#) for instructions

Please be advised that PyScript is very alpha and under heavy development. There are many known issues, from usability to loading times, and you should expect things to change often. We encourage people to play and explore with PyScript, but at this time we do not recommend using it for production.

Shiny for Python

Shiny makes it easy to build interactive web applications with the power of Python's data and scientific stack.

- **Approachable:** Write your application in Python; no web development skills required.
- **Flexible:** Built from the ground up to support custom layouts, styles, and the modularity required for full-fledged applications, all from Python.
- **Performant:** Uses reactivity to efficiently handle data processing and minimize expensive re-computations.

Note! Shiny for Python is currently in Alpha. It may be unstable, and the API may change. We're excited to hear your feedback, but please don't use it for production applications just yet!

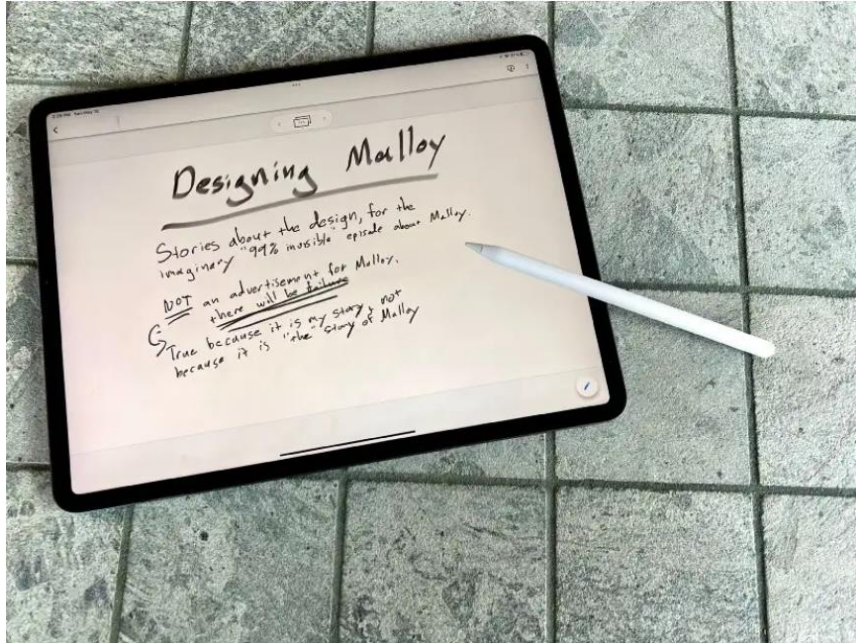
Get Started

Examples

Better SQL

Better SQL

Designing Malloy 0 — Introduction



I'm working on a new query language for data. It is called Malloy. This language, in an ideal future, would replace SQL for most interactions with data involving humans. I've decided I want to write about this work, because I am pretty proud of it, and there are stories I want to tell about the design.

Malloy

Malloy is an experimental language for describing data relationships and transformations. It is both a semantic modeling language and a querying language that runs queries against a relational database. Malloy currently connects to BigQuery and Postgres, and natively supports DuckDB. We've built a Visual Studio Code extension to facilitate building Malloy data models, querying and transforming data, and creating simple visualizations and dashboards.

Try Malloy

The easiest way to try the Malloy language is the [Malloy Fiddle](#) site. Here you can toggle between saved queries and edit them or write your own against the provided data and models.

PRQL

DOCS LANGUAGE DISCORD CHAT 24 ONLINE FOLLOW @PRQL_LANG 237

BUILD PASSING CONTRIBUTORS 30 STARS 5.3K

Pipelined Relational Query Language, pronounced "Prequel".

PRQL is a modern language for transforming data — a simple, powerful, pipelined SQL replacement. Like SQL, it's readable, explicit and declarative. Unlike SQL, it forms a logical pipeline of transformations, and supports abstractions such as variables and functions. It can be used with any database that uses SQL, since it compiles to SQL.

PRQL can be as simple as:

```
from employees
filter country == "USA"
aggregate [
  max salary,
  min salary,
  count,
]
# Each line transforms the previous result
# `aggregate` reduces each column to a value
# Trailing commas are allowed
```

BI Expansion

[Learn](#) / [Power Platform](#) / [Power BI](#) / [Transform, shape, model data](#) /

Introduction to datamarts

Article • 06/22/2022 • 5 minutes to read • 4 contributors

 [Feedback](#)

Business users rely heavily on centrally governed data sources built by information technology teams (IT), but it can take months for an IT department to deliver a change in a given data source. In response, users often resort to building their own data marts with Access databases, local files, SharePoint sites and spreadsheets, resulting in a lack of governance and proper oversight to ensure such data sources are supported and have reasonable performance.

Datamarts help bridge the gap between business users and IT. Datamarts are self-service analytics solutions, enabling users to store and explore data that is loaded in a fully managed database. Datamarts provide a simple and optionally no-code experience to ingest data from different data sources, extract transform and load (ETL) the data using Power Query, then load it into an Azure SQL database that's fully managed and requires no tuning or optimization.



Tableau Model Builder



Tableau Model Builder

Democratized, Native ML Modeling in Tableau

Build and deploy models in Tableau

All-new Tableau authoring experience for training, understanding, and deploying machine learning models

Guides users through the modeling process to predictions with automatic insights and explanations generated from Einstein AI Platform

Operationalize predictive analytics for consumers with existing Einstein Discovery in Tableau integrations

- Einstein Discovery Dashboard Extension
- Einstein Discovery Analytics Extensions
- Tableau Prep Flows

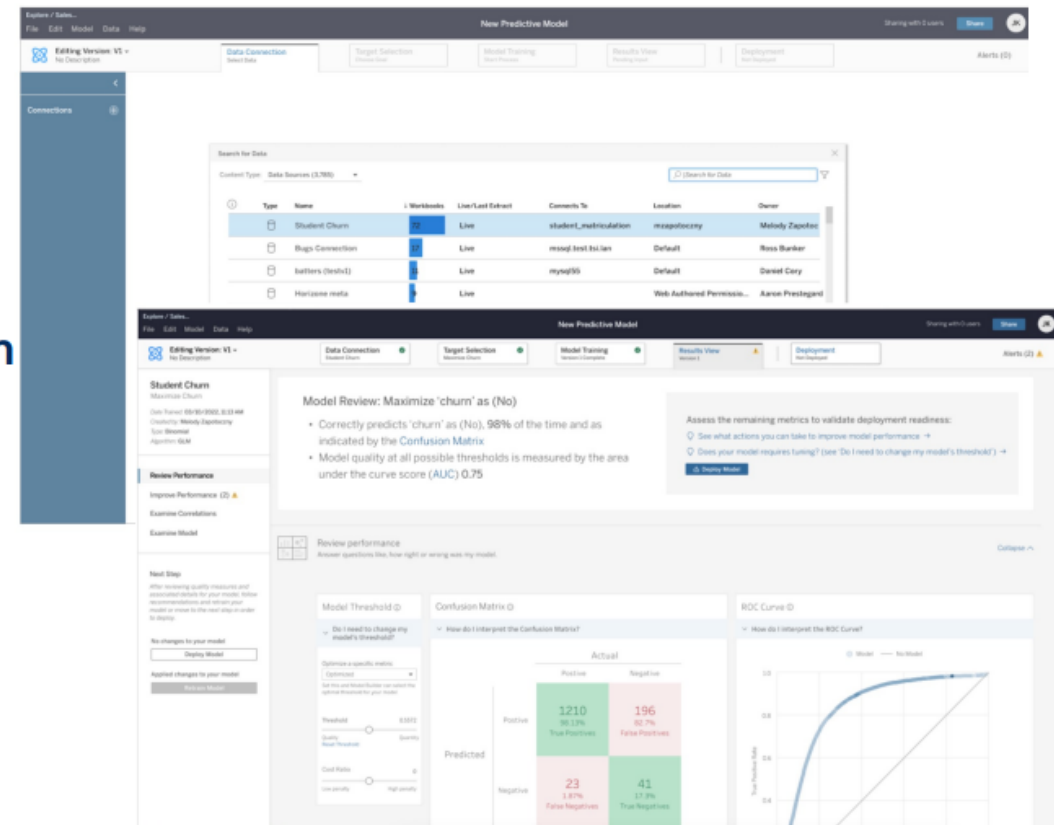


Tableau Model Builder

Explore / Personal Space / New Model

File Edit Model Data Help

New Model

Version 1.0

- 1 Prepare Data
- 2 Define Model
- 3 Train Model
- 4 Review Model**
Evaluate model effectiveness for your use case
- Review performance
- Improve performance Δ6
- Additional performance metrics
- Examine model

Deploy Model
No Model Deployed

Next Step: [Deploy Model](#) →

Version 1.0 Summary

Data: Feeding America
Data run as: Admin
Goal: Maximize 'Needs Ad...sistance' (Yes)
Type: Binomial
Algorithm: Generalized Linear Model
Trained Date: Feb 01 2021, 11:13 AM
Trained Time: 3 mins 12 secs
Trained By: Bobby Brill

4 Review Version 1.0 Model

Model Review: Maximize 'Referred to other Services' as (Yes)

- Model quality at all possible thresholds is measured by the area under the curve score (AUC) 81%
- Correctly predicts 'Referred to other Services' as (Yes), 80% of the time and as indicated by the [Confusion Matrix](#)
- See what actions you can take to [improve model performance](#) before deploying

Review performance

[Collapse](#)

AUC Score

How should I interpret the AUC Score?

0.8129

This model's classification performance on 'Referred to other Services' has an AUC score of 81%

Model Predictions

How should I interpret the predictions for Referred to other Services?

'Referred to other Services' is (Yes)
1541 correct predictions (TP) 346 incorrect predictions (FN)

'Referred to other Services' is (No)
8018 correct predictions (TN) 1846 incorrect predictions (FP)

80% of 'Referred to other Services' is (Yes) predictions are correct.

Top Features

How do I interpret feature importance?

Single female...	6.05%
Monthly Income	5.24%
Age	4.5%
Gender	3.12%
# Dependents	1.68%
# Visits	1.01%
Education	0.934%
Race	0.922%

[Collapse](#)

Improve performance — Apply recommendations and retrain your model.

Tableau Model Builder (preview)



Hazai helyzet

Adatos álláspiac



DataJobs

Karrier az adatok világában

[ÁLLÁSMONITOR](#)[FIZETÉSI KÖRKÉP](#)[ADATOS KÉPZÉSEK](#)

Datajobs Állásmonitor

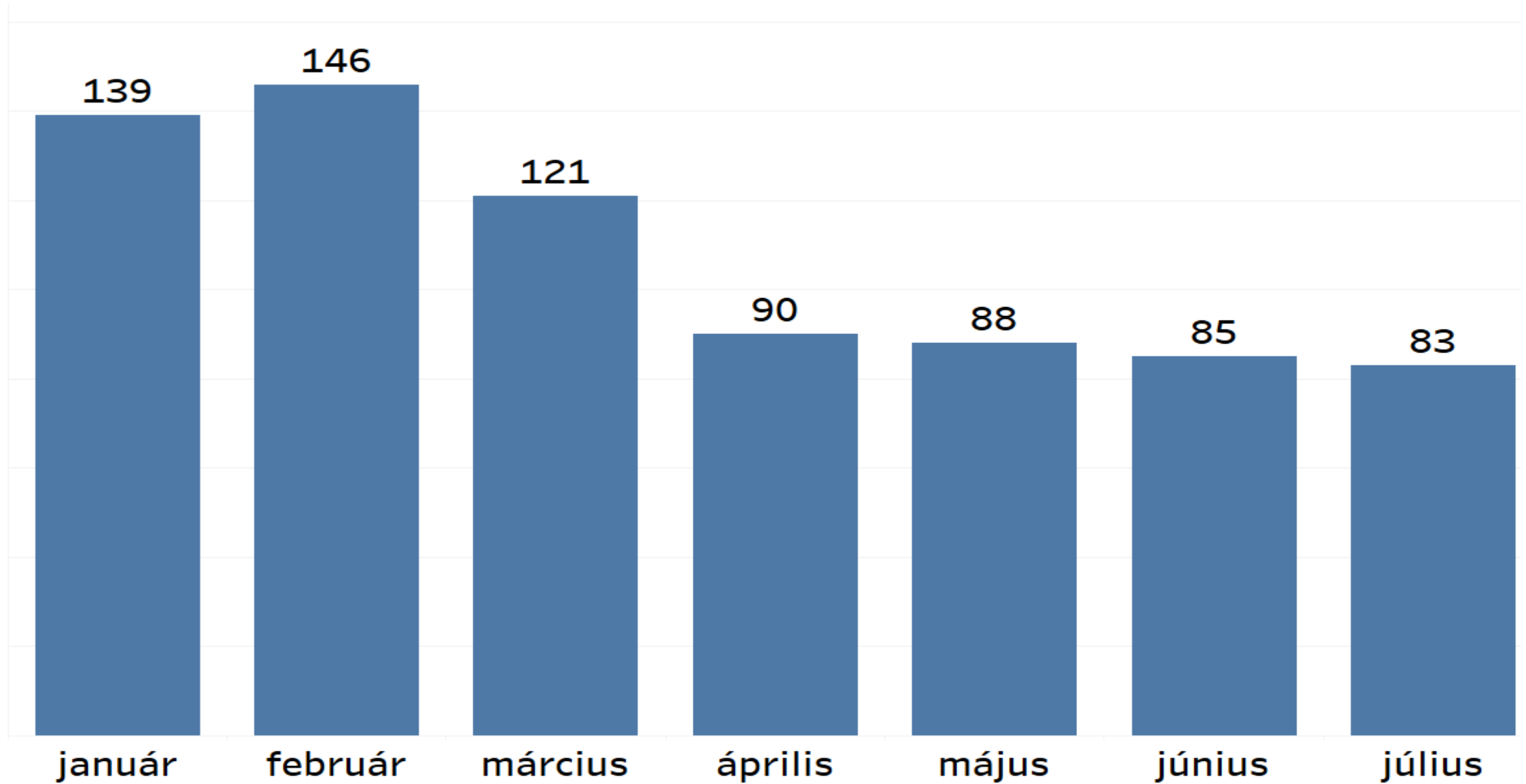
Szűrés:

Pozíció

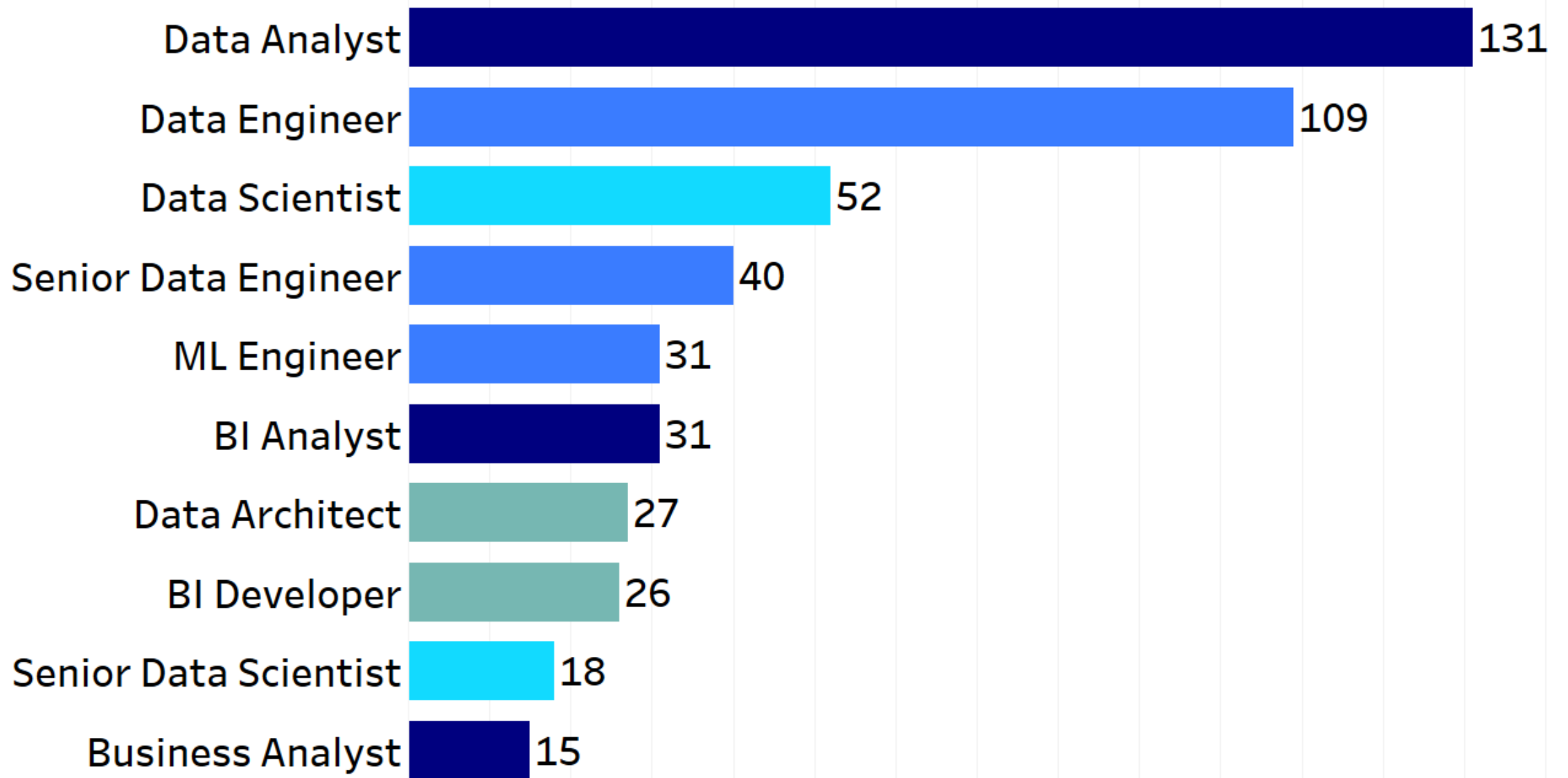
Cég

Dátum	Pozíció	Cég	Skills
2022.11.14.	BI analyst	Groupama Biztosító	SQL
2022.11.11.	Data Engineer	Deloitte	SQL, ETL
2022.11.11.	BI Developer	XAPT	Power BI, SQL
2022.11.09.	Java Engineer for Data & Cloud	EPAM Systems	Java, Docker
2022.11.07.	Data Engineer	Starschema	Python, SQL, Airflow
2022.11.07.	CRM Data Analyst	Publicis Groupe	Power BI, CRM
2022.11.07.	Online Data Analyst	TELUS	
2022.11.06.	Data Analyst	Veeva Systems	
2022.11.02.	Data Engineer	Thermo Fisher Scientific	AWS
2022.11.02.	Senior Data Engineer	The LEGO Group	Python, SQL, AWS, GCP

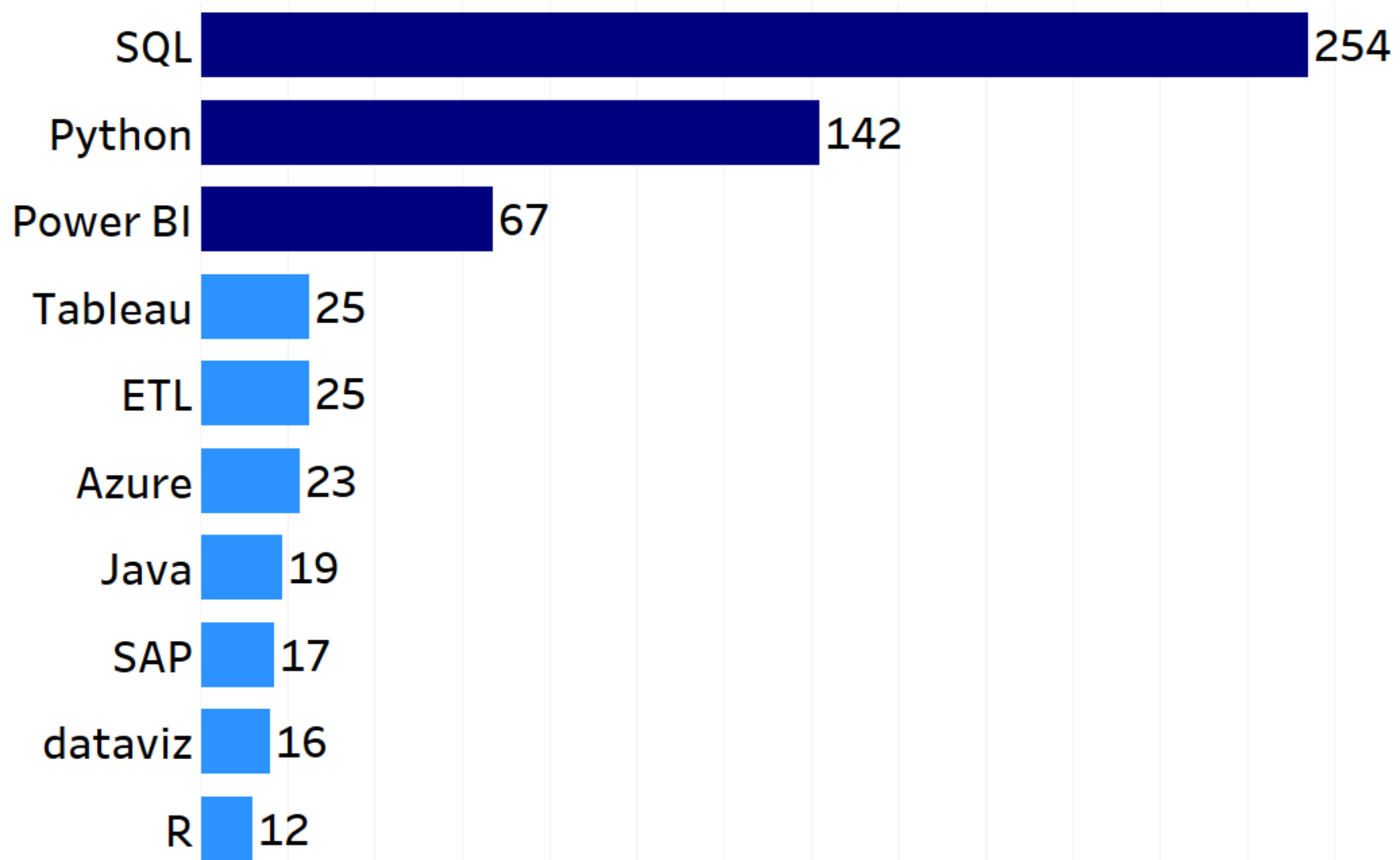
Állások havi eloszlása



A legnépszerűbb pozíciók



A legkeresettebb skillek

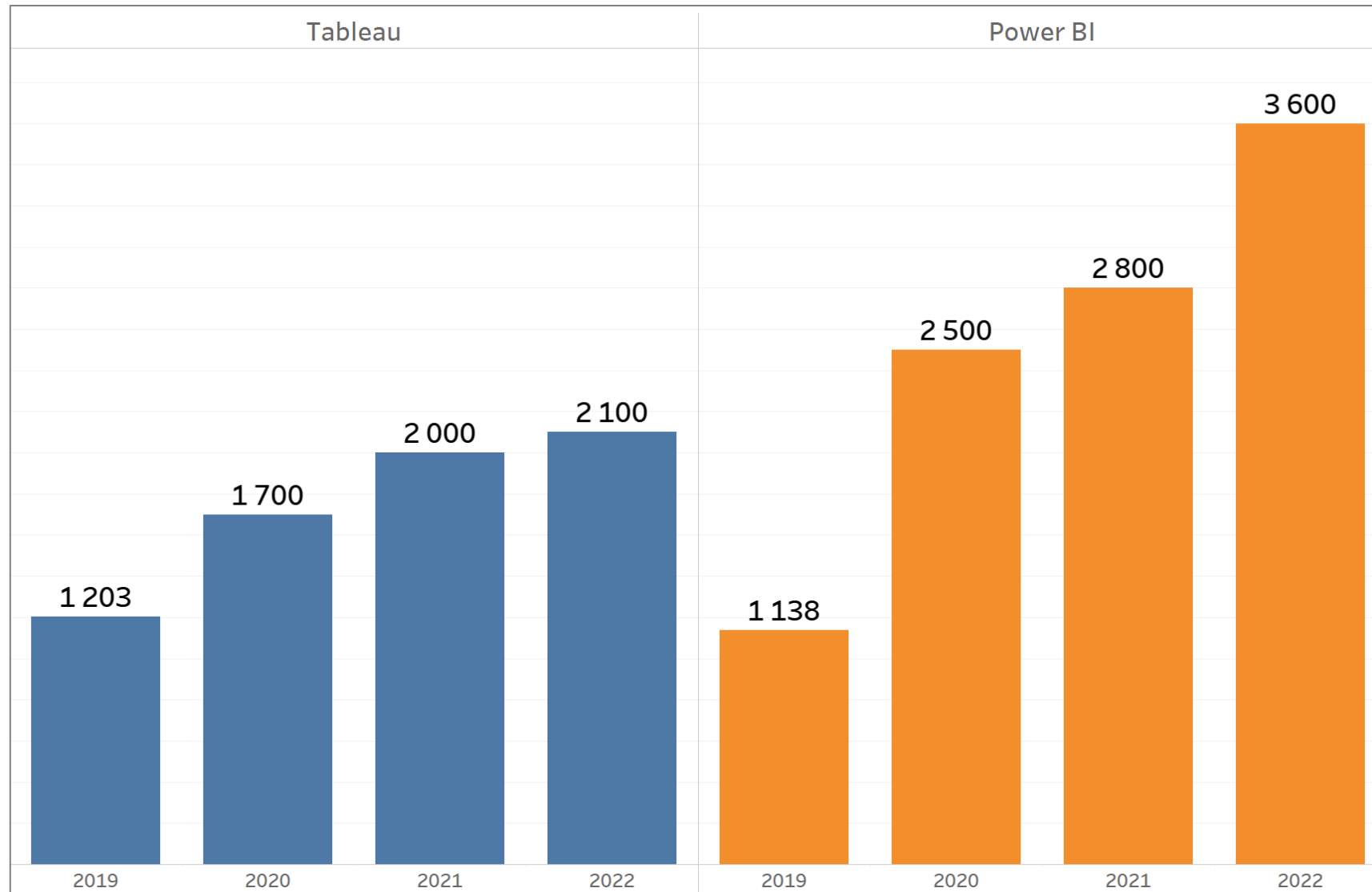


BI felhasználók

Hazai helyzet

- A BI eszközök hazai népszerűségét nehéz felmérni
 - Felhasználó szervezetek számára vannak becslések
 - De a szervezetek között vannak 1 felhasználós és sok ezer felhasználós esetek is
- Saját becslés a hazai BI felhasználók **arányaira**
 - LinkedIn ismerősök profiljai alapján készül
 - Erősen szubjektív, jelentős torzítás lehet benne

Tableau – Power BI trendek (2022)



Nagyságrendi becslés hazai felhasználószám **arányokra**, LinkedIn profilok alapján

Hazai képzések

Power BI tanfolyamok

POWER BI WORKSHOP

POWER BI TANFOLYAM

A Power BI workshop elsődleges célja, hogy a Power BI használatával megtanítsa a határos adatvizualizáció alapjait. A fő fókusz az adatvizualizáción lesz, de a tanfolyamon megismerkedünk az adatelőkészítés és az adattisztítás automatizálásának lehetőségeivel is.

KIHELYEZETT POWER BI WORKSHOP

KIHELYEZETT POWER BI TANFOLYAM

A kihelyezett Power BI workshop egy olyan Power BI tanfolyam, amely keretében a résztvevők a **tantermi Power BI képzés** ismeretanyagát kapják meg saját munkahelyükön, a résztvevőknek leginkább megfelelő időpontban, egy kicsit a résztvevők igényeire szabva.

ON-THE-JOB POWER BI TANFOLYAM

ON-THE-JOB POWER BI WORKSHOP

On-the-job Power BI workshopot egy „saját adatok” tanfolyam, amelyen a résztvevők saját adataikon, saját munkahelyükön, saját problémáik megoldása közben sajátítják el a Power BI használatát, úgy hogy annak eredményeképp előálljon egy élesben működő jelentéscsomag.

Power BI tanfolyamok

Felkészülés a Power BI használatára

PBI-A
Microsoft Power BI tanfolyamok első szint

MENTORÁLT **NORMÁL** LVC E-LEARNING

Képzési forma: **Normál** Képzés hossza: **1 nap (8 óra)** Képzés nyelve: **Magyar/Angol**

2023. FEBRUÁR 13.	2023. MÁRCIUS 31.	2023. SZEPTEMBER 04.
59 000 Ft + ÁFA/fő	59 000 Ft + ÁFA/fő	59 000 Ft + ÁFA/fő
Kosárba	Kosárba	Kosárba

<https://www.training360.com/felkeszules-a-power-bi-hasznalatara-tanfolyam-pbi-a>

POWER BI DESKTOP

ONLINE VIDEÓTÁR HOZZÁFÉRÉS

Végezd el ugyanazt a munkát feleannyi idő alatt!

Rövid videók
Lényegre törő, rövid, gyakorlatias oktatóvideók, hogy bármikor tudj tanulni saját időbeosztásod szerint. A videókat korlátlan ideig bármikor visszanezetheted.

Használható tudás
A jól felépített tematika segítségével olyan gyakorlati tudást szerezhetsz, amit már másnapról használni tudsz a munkád során.

79 900 Ft

Kosárba teszem

<https://excelneked.hu/power-bi-tanfolyam/>

STORYTELLING WITH DATA

1-5 August 2022

The intensive week offers workshops led by internationally renowned experts.

MOME OPEN Data Storytelling Summer University

will bring together data visualisation professionals where you can extend your skills and open up new perspectives. Be part of it!

The event also provides an excellent opportunity to build connections and strengthen the data viz community in the Central European region and beyond.

REGISTER TODAY

Adatvizualizáció





mutasd meg az adat alakját

 OPEN



A KÉPZÉS

Fedezd fel az adatvizualizációk világát: ismerd meg tulajdonságaikat, típusaikat, a bennük rejlő lehetőségeket. Alkoss kreatív alkalmazásokat: sajátítsd el az interaktív média formanyelvét. Mutasd meg új módon az adatok közötti összefüggéseket: Ábrázolj, elemezz, tervezz kóddal, ismerd meg ennek az új területnek az előnyeit, aktuális irányzatait. A tanfolyam során megismerkedhetsz különböző vizualizációs eszközökkel, amelyek használatát a gyakorlatban is megnézzük.

			
Időpontok és helyszín	Tematika	Jelentkezés, tandíj	Telepítendő szoftverek, keretrendszerek
Indulás: 2022. október 14.	- Vizuális nyelv Percepció, színrendszerek, gestalt, taxonómiák, absztrakció	A tanfolyam minimum 12 maximum 14 fővel indul Amennyiben még nem programoztál javascript-ben, ezt az ingyenes online tutorial-t javasoljuk a kezdéshez Kérdés esetén írd e-mailt a adatvizualizacio@mome.hu címre	P5.js a kreatív kódolás belépője Gephi a legnépszerűbb hálózatvizualizációs eszköz Power BI Desktop dashboardok és adatvizualizációk két kattintással Python igen, pythonban is lehet szép dolgokat készíteni
A képzés teljes időtartama összesen 64 óra (egy tantermi óra 45 perc). Az órák péntekenként 14.00-tól 19.00-ig, valamint szombatonként 10.00-tól 17.00-ig tartanak.	- Adatvizualizáció Elterjedt vizualizáció típusok, történeti áttekintés, tervezés, térképek, hálózatok, tangible data	A tanfolyam ára 300.000 forint + áfa Jelentkezési határidő: 2022. október 1.	
Részletes órarend letölthető innen.	- Adatelemzés Kvalitatív, kvantitatív adat, hálózatok, API-k		
A képzés a járványügyi helyzettől függően hibrid módon, a campuson valósul meg, melynek címe MOHOLY-NAGY MŰVÉSZETI EGYETEM 1121 Budapest, Zugligeti út 9-25.	- Interakció tervezés Kognitív vonatkozások, UI, animáció, interface alapok	Jelentkezés	
illetve online, Teams felületen keresztül.	- Vizualizációs eszközök P5.js, Gephi, PowerBI és más technológiák		

MOME OPEN



Thank You

