



How to do analytics at scale: 10 tips from data leaders

Data is as central as any other pillar of your business. Scaling data analytics to an adaptable, enterprise-wide data architecture demands more than raw technical skill. Organizations need an integrated approach to analytics to manage data complexity at scale.

This guide is a curated collection of insights from seasoned data leaders, each sharing practical strategies and guiding principles that have proven essential to scaling analytics at their organizations.

From fostering transparency with non-technical stakeholders to structuring teams with DevOps principles, these tips reveal how organizations can avoid common pitfalls and instead empower teams across the business to work with data.

As you dive into this guide, consider these elements of a roadmap for the processes, tools, and mindsets that can transform your organization's approach to analytics at scale.

One

Start with business impact, and design your team accordingly



Raman Singh
Engineer Manager, Analytics,
Symend

In the past, data teams were often isolated from the business side, focused solely on collecting data while leaving its interpretation to others. Today, though, **integrating data teams into specific business domains transforms their role**: they become close, strategic partners within the business. Embedding data experts in each domain allows them to align directly with the business context, ensuring that data is both relevant and actionable.

When data teams are embedded, they know exactly which data to collect, how to transform it effectively, and how best to present insights that directly solve business needs. This proximity to business users unlocks a more substantial, measurable impact on business outcomes, driving data's value far beyond simple collection.

Two

You're more versatile than you think



Katie Claiborne
Founding Analytics Engineer,
Duet

When it comes to scaling data organizations, data leaders should know that analytics engineers are so versatile. They have the business context of analysts, but they've also picked up these more technical engineering skills. They can be a bridge between data analytics and software engineering, but it goes further than that. As you scale, **lean on your analytics engineers and their skillset to flex into infrastructure problems that might traditionally call for a DevOps engineer**. Analytics engineers have the skills to solve their own infrastructure problems. Embrace moving your data team up the stack.



Three Lean on DevOps principles



João Antunes
Lead Engineer, Roche

The first thing to stop doing is thinking about technology. It's not about technology. It's about people, processes and then technology.

The first thing to address is the problem of how disconnected people can start working in a more connected way. We had multiple teams using different technologies, but more importantly, the ways of working were different. We had teams working in waterfall, we had teams working in agile, working in one-week sprints, other teams working in three-week sprints. How do we get these people all on board into the same ways of working?

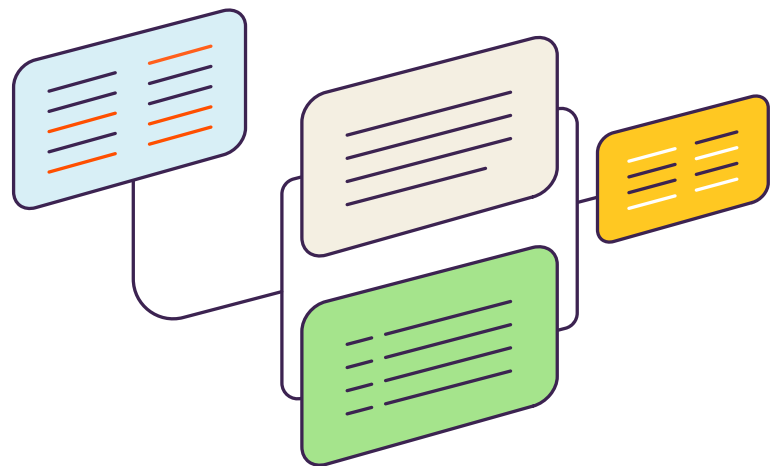
DevOps—or its spinoff DataOps—is a must have nowadays. It's easy to build new solutions. What's hard is to maintain and scale those solutions in the long run. If you don't have a solid DevOps or DataOps process in place, you're not going to go far. You need to change the culture to embrace DevOps.

And then obviously technology comes into the picture. We wanted something that is code based because for us CI/CD was non-negotiable. Why? Because it embeds reliability into the release process and ultimately enables scaling. On top of that, even though our scattered data teams were using different technological stacks, all of them had something in common—everyone knew SQL. But again, it's not only about technology.

It's really about getting people and process in place and then thinking about the technology. It takes a lot of convincing and many after-hour meetings (especially if your teams are spread across four different time-zones). But eventually you will start to gain momentum and start scaling. Once we had a solid foundation in place, it became easier and easier for us to go to a new country and say, "These are our ways of working and here's why you should accommodate these in your lifecycle." There was a clear tangible benefit.

Now we have all the workstreams deploying their production-grade pipelines on top of our data platform. The tech leads of each of these teams come together in the same sprint planning sessions, in the very same stand-up sessions, and in the very same sprint retrospective sessions. We guarantee that we are aligned on the roadmap and execution, and that we don't reinvent the wheel.

Even though we're a large team made up of many smaller project-specific workstreams, we deliver together as one unified team every two weeks—not every six months—and this in itself was a big mindset change.



Four

Protect your data architecture with focus



Scott Parent
Director of Data & Analytics,
Eleanor Health

My advice is to focus. I've led three different data teams and have learned that it is really easy to get distracted by things that seem important, but may not be essential to the quality of your data architecture. Learning how to resist that temptation and stay focused on the strategy is a valuable data leadership skill.

If you chase individual problems, you'll look at your architecture a year later, and it will be a brittle set of solved problems, but it doesn't help you solve the big problems. You'll likely have really slow analytics because you're solving everything from scratch every time. You'll also run the risk of quality issues, because it's

a lot harder to govern the quality of that data. If you haven't put governance into place to figure out metric definitions, you will inevitably find two people with very similar metrics, but very different views of the business.

Focus on the key problems that drive the most value for the business, and then treat those problems like modular building blocks that you use to build all the analytics out of. You will have a lot more flexibility one year down the line to deliver data products faster.

Five

Transparency breeds empowerment



Valentinas Mitalauskas
Lead Analytics Engineer,
Hostinger

Iterate and communicate with stakeholders as much as possible, and don't make your data warehouse and modeling experience a black box.

You should be able to explain to any stakeholder what's happening with the data inside the warehouse. It's just simple things happening—here's the lineage, here's one table, you join another table, and here's your KPI. It's not magic. That's where you need to be as transparent as possible to your stakeholders—as data teams, as data leaders—to gain the confidence that we all strive for.

Once you're transparent and once you get more people involved into your data project, then you will see data analysts

and analytics engineers be born in other teams. You see people get much more into data inside the marketing team, inside the finance team, even inside the HR teams.

If you bring in that transparency, that ease of use, that ease of giving them the control of their data that they're producing, that's when they feel empowered, and that's when they want to contribute and build their own data products and not rely on the data team. Sometimes data teams can be a bottleneck. Being transparent and enabling them and giving them the ownership is really empowering.

Six

Start thinking about data literacy early



Mathias Lavaert
Principal Platform Engineer,
DPG Media

For us, the main problem to scale our organization was data literacy and whether our stakeholders were technically able to work with data.

We push everything to SQL, and it works for us, but it's not the best for everyone. dbt makes it easy to build data pipelines, but you still need a lot of knowledge on how to construct a reliable, data pipeline. We educate our stakeholders as much as possible

to support them in growing their skills. We recommend a lot of courses that are online to our stakeholders.

Our major focus is helping teams move forward, educating them, and building a foundation of best practices that are easy to follow. **Onboarding your data stakeholders with adequate training empowers them to work more closely with your data team, and saves you a lot of time later.**

Seven

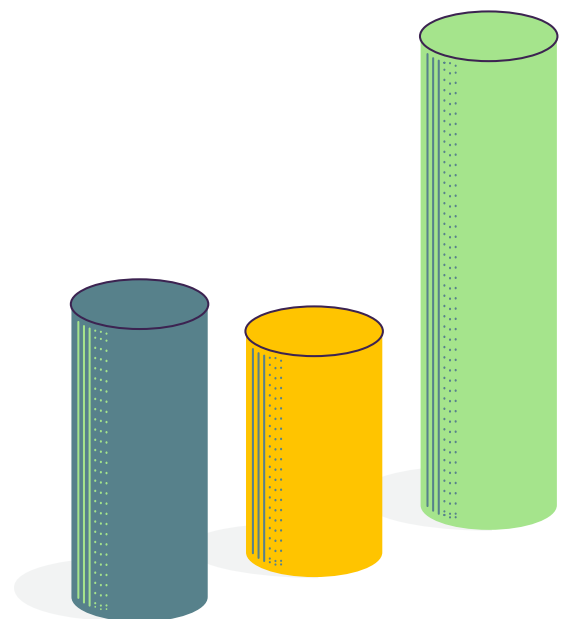
Avoid duplication at all cost



Kyle Salomon
Lead Technical Systems
Analyst, LiveRamp

The best way to scale a data team is to keep everything organized. If you're not organized, you'll find your team recreating new logic from scratch. If they need to iterate on the old logic, that's fine, but don't just create it from scratch. Make sure you're not creating a new Tableau report every time—use existing work. If someone is asking your team a question, 95% of the time someone's already answered the question.

Get rid of that duplicate work. And from there, then you aim for self-service. When someone is asking the same questions week after week, enable them to answer their own question without having to come to you. **Make it really easy for everyone at your company to resolve at least 80% of the questions that come in.**



Eight

Assess your KPIs regularly



Samiksha Gour
Senior Data Engineering
Manager, SurveyMonkey

I diligently put in hours every quarter for performance review and optimization to make my data organization more scalable. For example, in 2023 we decided to bring the marketing analytics platform in-house. Since we had already started the query optimization and performance reviews on the data side, we knew that there was an appetite to consume marketing data without increasing the budget. We bought tons of data from different marketing platforms so we could see the ROI of our campaigns.

We always make sure that we have capacity for performance-tuning our systems. Because of this, we saw there were issues

with the models used for marketing data. We knew we could solve this by creating an in-house marketing media platform and build it without an additional cost.

It made our platform more scalable. Today, the marketing team has a unified data platform. Then the finance team came in and wanted to consume data from the marketing platform to understand ROI, and then product teams came in as well. We don't need to worry about whether data matches between teams, because they are all seeing the same thing.

Nine

A mesh architecture scales across teams



Jonny Reichwald
VP, Analytics Platform,
EQT Group

When we started out, we started out as a very central team, and that had quite a few advantages. We were super fast and communication was super quick because everyone was sitting next to each other. But of course, as you grow and as the team grows, you cannot be one single team.

And then you want to scale out. This is where we found **having multiple repositories and using data contracts and building a mesh on top of that is incredibly useful.** It's key for unlocking more independent teams that can just consume other teams' data without having to know about all of the internal details to create it. It's a huge win for scaling.

Ten

Choose the right tools for the job



Sunny Pachunuri
Data Engineering/Platform
Manager, Endpoint

As a data leader, you have a vision and a desire to accomplish a lot, right? However, it's crucial to start with what matters most. The key aspect to focus on is your tooling, as these are elements you can't easily change later on.

You don't need to get every single tool perfect, but you should emphasize a couple of critical ones: your data warehouse and your transformation tool. Everything else around these can be more flexible, as those tools can change over time. However, you don't want any variability in your transformation tool. If you later need to rearchitect with a new tool, it could cost you a year's worth of time, damaging data trust and negatively impacting business outcomes.

In my experience, adopting open-source solutions is one of the most significant considerations in tool selection. By choosing open-source tools, you avoid being tied to a single vendor and the limitations that may come with that. Moreover, this approach fosters a collaborative environment where contributions from a broader community can lead to continuous improvements.

As a result, you have the opportunity to tailor a solution that not only aligns with your organization's specific needs but also evolves over time, adapting to changes and innovations in the data landscape.

Do data differently.

To see how dbt Cloud can help you scale analytics at your organization, connect with our team for a quick, personalized demo: getdbt.com/contact

