

How to Get Pharma Leaders to Wrap Their Minds—and Their Arms—Around Advanced Analytics

Experts from Roche-Genentech, Amgen and Jazz Pharmaceuticals tell us how they garnered leadership's buy-in for their companies' advanced analytics programs

By Shreyas Murthi



The business of pharma is becoming more data-driven—from R&D to commercial—yet many pharma companies still struggle to garner leaders' buy-in to build and operate the analytics programs that they need to fuel their success. They face tough challenges, including overcoming skepticism, proving the program's value and scalability, finding the right talent and ensuring organizational collaboration.

At [ZS's 2018 Impact Summit in Chicago](#), I had the pleasure of speaking with three pharmaceutical professionals who have successfully implemented advanced analytics programs at their companies. Christy Gaughan, head of advanced analytics within global product strategy for Roche-Genentech, created a new advanced analytics group at her company and has extensive experience building analytics programs to drive business decisions. Vishnu Madiletti, head of U.S. data science for Amgen, has developed a technology ecosystem that evokes Silicon Valley. Greg Megdadi, senior director of business intelligence for Jazz Pharmaceuticals, is helping his smaller pharma company keep pace with the industry's push toward data-driven decision-making. Here's an edited transcript of our conversation:

Q: As you've won over leadership and executed advanced analytics programs, what have been some of the challenges you've faced?

VISHNU MADILETTI: Because we live in a world with so much AI in it already, I was surprised by the skepticism. We did the proof of concept and we presented use cases, and

leadership said, 'How do we know this will work?' So then we showed them proof—and we still do, frequently—but there's tremendous value in that executive sponsorship. And then change management for end users means you have to keep making your case to the whole organization, and that's still something that's a constant effort as well.

CHRISTY GAUGHAN: At Roche, our most senior people are completely on board, so it's more managing their expectations than it is trying to influence them. My biggest challenge, as I build out a team, is trying to remove barriers for them. I want to hire people who get to do really cool data science work, and spend most of their time on the fun analytics. I don't want them to spend the majority of their time doing data management. I think the challenges are more about managing people on a day-to-day basis who are butting their heads up against the old way of doing things. How do we make sure that they have the energy and the motivation to keep doing that? Then as they deliver, spending time with the executives to make sure that they believe in the difference we are making for the business.

GREG MEGDADI: I think one of the important things in winning over leadership, especially in a small- or medium-sized pharma company, is really understanding where the organization has

been. What are the core priorities of the organization? How is that organization performing, and where does the organization want to go? At a previous organization I worked for, advanced analytics were not a priority for us because we were performing so well that we outperformed our forecasts and goals. There was no need to look at anything. But when you're

looking at smaller margins, or changes in your business, then you have conversations with senior leaders about trying to plan for the future [and data and insights become a necessity].

Q: How about ROI? Does leadership want to see ROI before they're willing to go beyond a proof of concept?

CG: I think it depends. For example, Roche had a need to move to a new CRM platform. In that case, I'm saying, 'OK, what analytics do we need in that process?' Leadership isn't asking about specific ROI. They just want to know that our

focus areas align with the business. It's more like: 'Here, these are the big Roche initiatives. These are the [analytics] projects we're going to work on to help solve some of those things.' And it just becomes an easier conversation.

VM: For us, we can demonstrate ROI for proofs of concept, but it's more important to show the business outcome when we scale. We're in the process of doing that right now successfully, but it's always a challenge to show, so we'll do a couple of experiments that show value and then we do a larger pilot. It's clear after that how well it might scale. It's a process that's been effective so far.

GM: For us, because we have limited resources, we spend a lot of time working on the day-to-day. Our ability to invest in resources to bring things that bear future return is challenging. With these proofs of concept around advanced analytics, we really have to think about where we can get the most value, like tying them to key brand strategies. We've also tied proofs of concept to key commercial corporate initiatives. We're never really asked to think about ROI in that sense, but I think that when we bring these concepts and ideas to senior leadership, it's more important that we can tie them to something that's really top of mind for them.

CG: I also think it depends on your stakeholder. Our IT organization is really into agile [methodology], so when I talk to the senior leaders in our IT organization, they just say, 'Let's just get some scrum teams, and let's do some stuff, build it and do some proofs of concept.' For the project I'm working on now, my sponsor is the head of finance for ex-U.S., so when I sit down with him, he wants to see a longer road map. On the business side, the brands want things as fast as possible, and their focus is on immediate business results. Then it's more about managing expectations. No matter what, I need to have that plan of how I'm going to scale a proof of concept.

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-CHRISTY GAUGHAN

Sometimes we build the demo ourselves, but we also require every vendor to build on our platform, too.

Q: If I'm a leader, should I invest in a new team with a pure focus on advanced analytics, artificial intelligence and machine learning? Or should I retrain existing analytics teams?

CG: My position is global, but my focus is really ex-U.S. That means we're thinking, How do we take the things that we've been doing in the U.S. and apply them in the next largest countries, and then the countries after that? But you can't scale data science one by one for the ex-U.S. countries. It's too small. Even if they hire one data science person, that person will get frustrated because they'll end up spending all their time explaining what they do, and trying to get the data they need. So the plan isn't to have data scientists sitting across a lot of these countries. We're thinking about building a hub that can help these countries on this journey. Once that is up and running, then we will think about the evolution model. In the meantime, we are focused on how we leverage an analytical platform to serve up machine learning to them without someone

Q: A proof of concept can look amazing but then fall apart when it's integrated with the infrastructure. When you're bringing a proof of concept to the leadership team or to the business, how do you prove to them that it will work on the infrastructure?

VM: That's exactly why we built a new platform. Then everything that is done is done on our one platform. When we have a proof of concept, we do the demo, but we do it on our platform, on our data. That's how you can get it to scale.

there knowing machine learning. We've been more focused on that.

GM: When you think about making these investments, you start with: What's the value? What's the need? Given our size, we're a little bit challenged again. For us, the way we approach it is that we do some things internally, in terms of developing our data strategy, investing in the infrastructure and technology, upscaling the current talent, and bringing in new technologies to help there. But our best bet is to leverage partnerships instead of bringing in a new team.

Q: And what about training your existing team on new technologies and new approaches?

CG: When I had my U.S.-based team, I had 60 people who were in advanced analytics. On that team, I had people who were in pharma for 20 years. Some of them loved SAS. They grew up on it. They never wanted to learn Python. Then I had people who were younger on my team who were saying they had no interest in SAS. They wanted to use Python. They wanted to use R. So we created a data lake at Genentech. It connected to anything. They could use SAS. They could use Python. That's the thing: I want my teams to be able to use what they want to solve the problem sitting in front of them. And then the funny thing is, the old-school people who wanted to use SAS ... as they're engaging with some of the younger folks using Python and R, they're saying: 'Oh, that looks cool. You're doing stuff that I can't do.' So they're naturally moving anyway.

VM: From our perspective, it's this whole analytical workbench, which is a new way of thinking. Once you have a data lake in there, you give different types of tools and access to different sets of your analysts. Especially if you are a global model, there will be a huge variation in skill sets. That whole infrastructure model is where lots of countries are going.

Q: How do you foster innovation and collaboration, and ensure that leadership from one function is aware of the work being done in another?

GM: Being a smaller company means that we get a lot of “rogue” innovation happening. That’s not a bad thing but can be streamlined internally within a company. I think it’s why we’re much more focused now on creating a single [analytics] environment in a platform.

VM: We have collaboration groups. We collect ideas. We share from the experiments that

Analytics is maturing from informing the business to driving the business. Data is replacing gut instinct, making an advanced analytics program a must-have for modern-day pharma organizations—and the key to their continued success. To get leaders to buy in and sign on, these experts have all found success with proofs of concept that are closely aligned to business objectives and, as Christy noted, making sure that the leaders believe in the difference that analytics teams can make.

we do. We have many of these across many brands, even in commercial.

CG: At Roche, we have something called RAAN: Roche advanced analytics network. From an individual contributor perspective, it’s engaging because it’s run like a hackathon. The hackathon pulls them in, then they engage and learn about what is going on across a wide variety of advanced analytics teams. For me, I know many of the leaders in the organization, and I meet with them on a regular basis so we can keep them informed and find synergies.

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