

Novartis AG

Novartis's new chief sets sights on 'productivity revolution'

Vas Narasimhan aims to put medicines and data science at core of drugmaker's business



Vas Narasimhan, chief executive-designate, wants to tap data to overhaul the way Novartis conducts its drug trials © FT montage / Bloomberg

SEPTEMBER 25, 2017 by Sarah Neville and Ralph Atkins

The incoming chief executive of [Novartis](#), Vas Narasimhan, has vowed to slash drug development costs, eyeing savings of up to 25 per cent on multibillion-dollar clinical trials as part of a “productivity revolution” at the Swiss drugmaker.

The time and cost of taking a medicine from discovery to market has long been seen as the biggest drag on the pharmaceutical industry's performance, with the process typically taking up to 14 years and costing at least \$2.5bn.

In his first interview as CEO-designate, [Dr Narasimhan](#) says analysts have estimated between 10 and 25 per cent could be cut from the cost of trials if digital technology were used to carry them out more efficiently. The company has 200 drug development projects under way and is running 500 trials, so “that will have a big effect if we can do it at scale”.

Dr Narasimhan plans to partner with, or acquire, [artificial intelligence](#) and data analytics companies, to supplement Novartis's strong but "scattered" data science capability.

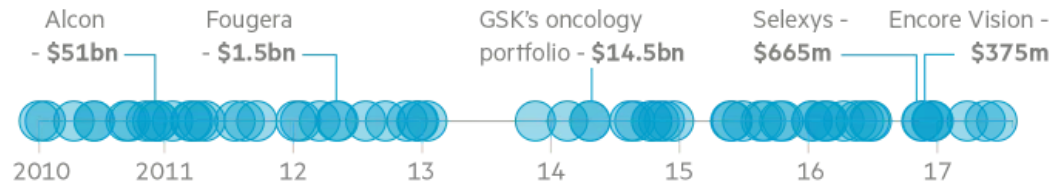
Separately, he faces a number of decisions that will determine the structure of the business he will inherit from outgoing chief executive Joe Jimenez in February.

Key choices include whether to sell a 36.5 per cent stake in its [consumer joint venture](#) with GlaxoSmithKline; whether to [spin out Alcon](#), its eyecare unit; and whether to sell its longstanding stake, amounting to 6 per cent of outstanding shares, in Roche, its Basel neighbour and rival. This stake has been valued at about \$14bn.

M&A at Novartis: what next?

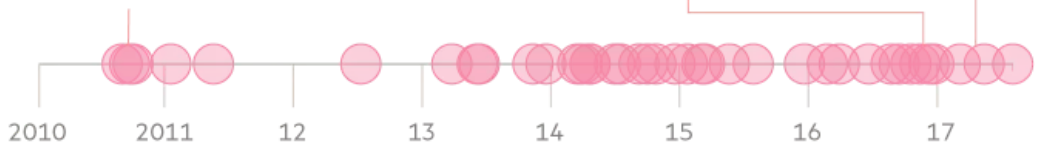
Selected deals

Acquisitions and investments



Divestments

Rights to
Enablex \$400m



Source: Bloomberg

Last year 67 per cent of Novartis's \$48.5bn revenue came from its innovative medicines division, made up of pharmaceuticals and oncology.

David Epstein, who spent 20 years at the drugmaker, latterly as head of pharma, and is now an executive partner at Flagship Pioneering, a venture capital business, says: "If you look at . . . where the growth and real profits have come from, it's almost all coming from the pharma part of the business. So the question is: what do you gain by having a generics business, what do you gain by having Alcon?"

Previously Mr Jimenez has said that a spin out of Alcon could fetch between \$25bn and \$35bn. It says it would dispose of only 60 per cent of the business it bought for just over \$50bn in 2010.

With months to go before he takes the helm, Dr Narasimhan, whose current role is global head of drug development at Novartis, declines to discuss his view on what he terms these “adjacencies”. He says, however: “I really think of our future as a medicines and data science company, centred on innovation and access.”

He must now decide where Novartis has the capability “to really create unique value . . . and where is the adjacency too far?”

Sales at Sandoz, the company’s generics business, fell 5 per cent year on year in the second quarter to \$2.5bn, the only part of the business to come in below analysts’ expectations, reflecting pressures on [generic drugmakers](#) worldwide.

Emphasising the role of Sandoz in providing access to medicines at lower cost to hard-pressed health systems, Dr Narasimhan says: “Over time we’ll have to keep evaluating how we want to engage on access, but right now, I think we are committed to continuing to invest in the Sandoz business.”

Does he need the cash pile that would be generated by selling off these parts of the business to realise his big data vision? He says: “Right now, on data science, I feel like it’s much more about building a culture and a talent base . . . And then I can answer better questions about what we may or may not need to do externally.”

The pharma industry has been [slower than most](#) to embrace the potential of technology to reduce costs and improve margins. During his eight-year tenure, however, Mr Jimenez is seen as having put Novartis in the vanguard of pharma’s digital push.

Separately, Mr Jimenez tells the FT that Novartis has “a huge database of prior clinical trials and we know exactly where we have been successful in terms of centres around the world recruiting certain types of patients, and we’re able to now use advanced analytics to help us better predict where to go . . . to find specific types of patients.

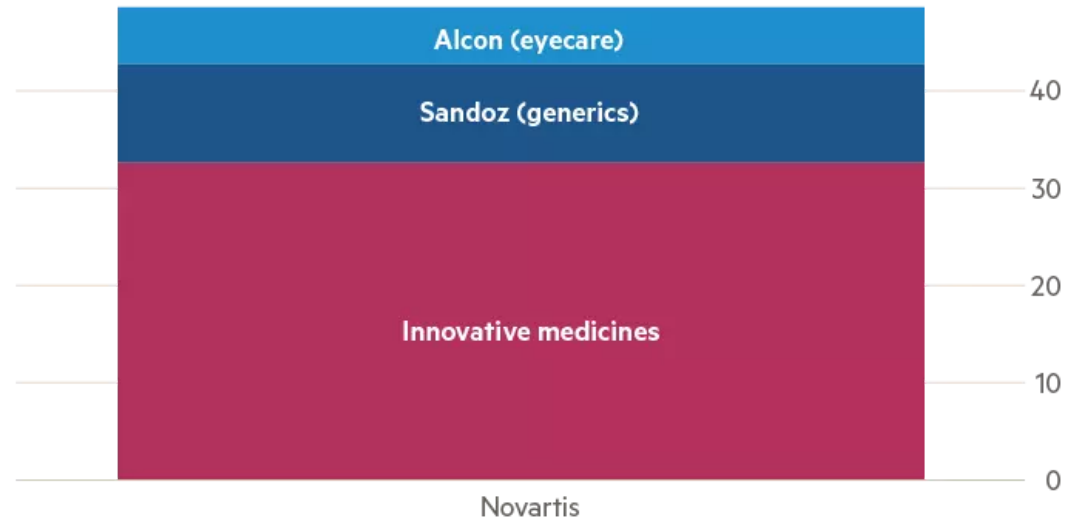
“We’re finding that we’re able to significantly reduce the amount of time that it takes to execute a clinical trial and that’s huge . . . You could take huge cost out.”

Dr Narasimhan cites one inspiration as a visit to Disney World with his young children where he saw how efficiently people were moved around the park, constantly monitored by “an army of

[Massachusetts Institute of Technology-]trained data scientists”.

Novartis

Revenues, 2016 (\$bn)



Source: company
© FT

He has now harnessed similar technology to overhaul the way Novartis conducts its global drug trials. His clinical operations teams no longer rely on Excel spreadsheets and PowerPoint slides, but instead “bring up a screen that has a predictive algorithm that in real time is recalculating what is the likelihood our trials enrol, what is the quality of our clinical trials”.

“For our industry I think this is pretty far ahead,” he adds.

More broadly, he is realistic about the likely attrition rate. “We will fail at many of these experiments, but if we hit on a couple of big ones that are transformative, I think you can see a step change in productivity.”

Internationalist vision

In Vas Narasimhan, the board of Novartis has found a chief executive whose professional background forms a striking contrast with that of his predecessor.

A former senior executive at HJ Heinz, [Joe Jimenez](#) was steeped in the fast-paced, customer-focused world of consumer industries.

Dr Narasimhan is an internationalist physician who graduated not only from Harvard's medical school but also its Kennedy School of Government, counts the head of the World Bank as a mentor and spent three years as a consultant for McKinsey.

Andrew Baum, global head of healthcare at Citigroup, says: "Joe is a commercial guy, with no R&D and minimal industry background and I think there was a sense that however much he tried, he was just too disconnected from the science. I think having Vas . . . will put the science more at the core, which is how the company was initially conceived . . . so I think it's a bit of an R&D takeover."

Speaking to the Financial Times, 41-year-old Mr Vas suggests childhood visits to his grandparents, who lived in villages in India, shaped his world view.

His paternal grandmother gained only a first-grade education but raised 11 children, all of whom achieved at least master's degrees, he says.

Among them was his father, a chemist, who came to the US "with really nothing" and built his life in Pittsburgh where Dr Narasimhan was born.

"In a kind of eastern philosophical tradition, I wasn't raised to believe that material wealth was going to give me fulfilment. It's actually having impact [by] having a core purpose," he says.

He cites as a mentor Richard Cash, from Harvard's school of public health, who helped to prove the benefits of oral rehydration therapy for cholera sufferers, "which has saved hundreds of millions of children all around the world".

In medical school, meanwhile, a major influence was [Jim Yong Kim](#), then a faculty member but now president of the World Bank, with whom he worked in Africa on HIV/Aids treatments and multi-drug resistant tuberculosis in Peru. "He always had this question, 'shouldn't everyone have the right to live a good life, or a healthy life?'"

Dr Narasimhan adds: "So all those experiences were formative in me . . . How do we impact the world through innovation and medicines, and how do we find technology that you could then disseminate to large populations?"