Young Elephants

Conversations with founders & CEOs

Interviews by Matthias Riechert
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EXCLUSIVE EXTRACT

Judges Scientific
David Cicurel, CEO

Matthias Riechert (L) and David Cicurel (R)

Overview

Judges Scientific was founded by David Cicurel, the current CEO, in 2002. Judges listed on the AIM exchange in January 2003 and raised £2 million at 95p from family, friends and an institutional investor who took a 9.9% stake in the company. After changing its business model to a buy and build in the scientific instrument sector, Judges was readmitted in May 2005 and raised £1.3 million at 100p. Since listing in 2003, the company has grown organically and through acquisitions, resulting in a phenomenal stock performance of 26.2% CAGR, including dividends (as of December 29, 2023).

History

Matthias Riechert

Hello David. I'm very excited to learn more about your story as the founder of Judges Scientific. We search for young elephants that can grow earnings for a long time. Judges has produced an outstanding track record over its history. But let's start with how did you come up with the idea for Judges?

David Cicurel

In an ideal world I would like to be able to say that I wanted to do a buy and build, I looked at all the sectors in the economy and I found the scientific instrument sector and I thought it was great, and then I found all the reasons why it was great. But life is not like this. You need something you can either call luck or intuition or the hand of God helping you, whatever your belief is. But the truth is that you only realise a lot of things afterwards. So, I had this holding company which I created for something completely different, and that something completely different stopped working three months after we launched the company because it was tied to acquiring undervalued public companies and suddenly public companies became overvalued. Instead of wanting to take companies private, I wanted to find a business to put into a public company.

I think a lot of buy and builds-up are based on buying businesses and installing people trying to improve the business. That is something that I didn't like because I spent a lot of my life as a company doctor sorting out these situations. But this involves a lot of uncertainty in timing and success. So, I knew I didn't want to have this. I looked at many businesses and quite by chance, I found Fire Testing Technology which was the first deal we did. So, I was lucky rather than intelligent in finding this sector.

CEO

David Cicurel has been CEO of Judges Scientific since inception. He is the largest shareholder and owns 11.2% of the company. Prior to starting Judges, David spent most of his career as a turnaround specialist and subsequently as a value investor with his own funds. He has been responsible for several corporate recovery exercises including two UK public companies, International Medial Communications plc and International Communication and Data plc.

DIVIDEND ADJUSTED STOCK PRICE (£)

26.2% CAGR and 100 bagger!

Chart 1: Source: Yahoo finance. Data as of December 29, 2023.

Business model and products

Since 2005, the company has acquired 22 scientific instrument firms. The company aims to buy niche, sustainable businesses at sensible prices. Once acquired, subsidiaries need to meet performance criteria that support sustainable sales, profit, and cash generation.

Matthias **Please tell us more about the sector and why you operate in this industry.**

David You need some factors in place to succeed. One is a good trend, so you need to be in an industry which will grow. Basically, the elephant must be in Africa or in Asia. In Alaska, it's not going to work unless you are a mammoth but even the mammoths didn't survive. So that's the first thing: good environment, good growth. And that's something I perceived when I analysed Fire Testing Technology. The drivers were great. Our businesses usually benefit from growth in universal education and also from the constant desire to improve what people do and want to measure. But FTT had something else.

And that is about security. Everything that you have in this room for example is part of that. I mean the bulk of what's in this room is tested probably with one of our instruments. Although we don't know it when we buy the items, but the foam… I mean, the most dangerous thing in this room is probably the foam in the chairs and all the cabling. Ceilings are often made with plates which are very flammable, and the carpets and of course the table because it's plastic. It looks like wood but it's IKEA, so it's not wood. Everything which is plastic is cheap and cheerful and nice – but it burns. So, one factor is having good drivers.

A second factor is the size of the industry. You need to have a lot of deals. I found there were 2,000 companies in the measurement sector in the UK, so I thought we're going to be able to find some companies as some of them must be for sale. The people who sell us their businesses have had them for 20 years. They typically leave a big company when they are 40 to start their own business, and when they're 60 or 65, they want to sell. And if they keep them for 20 years, it means that if you have a total of 2,000 companies, with every year, you have a hundred companies changing hands just in the UK. That's something that I checked before going in and I thought it was good.

The third thing is a feature that we are always looking for in all our deals, which many people don't find easy to understand, is cash conversion. It is important because a buy-and-build model typically is an arbitrage between your own multiple of your shares and what you pay for acquisitions.

SECTOR CRITERIA

1) Good environment, good growth
2) Large pool of acquisition targets
3) High cash conversion

The financial engine

Matthias **Please tell us more about the economics. How do the economics of a deal look like and how does that translate into shareholder value?**

David If your public company is valued at 20 times, you're buying things on 10 times, you're doubling your money. I mean, that is easy. For years now, we have been paying say five times and getting debt for two-and-a-half times. That's what we were paying. If you pay five times, you get 20% on your money. If you spend 2.5 to 3% on the debt you raise to finance the investment, there's a much better arbitrage but it works only once because now you got all these earnings, but you can't pay the bank with earnings. You can pay the bank back only with cash. If your earnings are all receivables and stock and goodwill and this and that, it doesn't help you repay the bank. And when you do your next deal, you have to issue shares and you're back to what I described before.

When I found the first company, I took a spreadsheet to see how quickly I could repay the debt. I expected to pay four times to buy it. We actually paid a bit more, but say we put up a pound of equity and the bank put up 3 pounds of debt at day one. With that I could repay the bank in 5½ years. I thought that's brilliant. But it only worked

because the business produced cash. So that really taught me a lot about cash conversion and how important it is in our particular way of developing the business.

> It's really important to check if a buy-and-build model is based on equity issuance or on debt and repayment of debt.

The bank accepted the deal structure with four times EBIT and lending me three times EBIT. Actually, they were lending me three times EBITDA, but it was the same figure since the business is capital light. We don't have a lot of depreciation in our businesses. Interest at that time was 7%. It means if you're going to repay the loan in 5½ years, you multiply your money by four in 5½ years. After that you own the whole company. You double your money in two years, nine months. That's not bad, no? So, I thought, that's a model I like.

I knew that if I could double my money every two years and nine months even without growth and I was in a sector with growth, I knew I would do well. That's what I knew. And I knew there was a good pond of deals and that we would find deals. Did I think we could multiply the value by 90 times in 17 years? Not quite, in terms of that, I didn't. But I thought we could make good money.

M&A deal economics

Matthias **How do you think about the trade-off between investing into growth organically versus inorganically through deals?**

David The problem hasn't really occurred because all these companies are very cash-generative, but we would consider organic growth projects. The MD would have to convince us. Let's say you pay 5 million for a business because it produces a million, and suddenly the guy says, "Okay, next year I will produce nothing because I want to invest that million in physical things which are costing money or maybe research and development to launch something new." He really must have a very good case to demonstrate. Look, they know what we expect, which is to get our money back in three years. They don't come usually with something saying, "I have something fantastic, but it could take you 10 years." And frankly, if they came with that, I think I would probably say "no."

> We pay four, five, six times for a business, and we want to pay only three times for an organic growth project. Because it never finishes, never, never, never on time.

It is very erratic what these projects produce. And the companies we bought generally produce what we saw when we bought them, and more and more every year, so we can't assume that R&D is going to give us that. If you shoot for a payback of three years, you will end up with four, five years probably. It's going to take a bit more time than people think. *(The hurdle for internal re-investment is higher than for external M&A.)*

Matthias **With Geotek you recently did a large deal at a slightly higher multiple than normal. What was your thinking behind it?**

David For a deal that has a lot of the things you like, you accept that you have to pay more. One aspect was size because we accumulated a lot of deal equity as we were not finding enough deals. I already knew that from time to time we're going to have to do a big deal. Then there wasn't a lot of competition for this deal. For a private equity fund this business was difficult to finance because of the impact of Covid on its financial results. We don't borrow non-recourse, so the whole profitability of the group is devoted to repaying the bank, which makes a big difference.

I think we helped them to sell the company two years earlier than they would have done in a competitive environment. A lot of things could

happen in two years, mostly if you are 70. The seller was 70. So worst case, you could die during these two years. It's worrying, no? If you don't want to leave the wife a business without a leadership, it's difficult. But we really liked, apart from the size, that it doesn't have many competitors. I think paying seven times for a business that size which hasn't got a lot of competitors was a good deal, but we also had the capital to do it.

Matthias **With increasing size, it becomes more difficult to reinvest all available cash in lucrative deals. How do you deal with this challenge?**

David We never feel pressured to buy anything we find just because we haven't bought something for a year. We don't feel that pressure. But during the period from 2017 to 2019, we created a lot of deal equity. It was so much that we were able to give 8-12 million back to shareholders as a dividend before the general election because we thought the government would steal 10% of that. Let's better put the capital in our shareholders' pockets than in the government's pocket. Eventually it didn't happen, and we were able to do three deals in a short period of time, at the beginning of '20. *(Deal equity is the amount of capital the business can deploy into acquisitions at a specific point in time.)*

But once you've spent all your deal equity, you're starting to think about issuing shares. The temptation is, of course, that you want to do every deal and grow in size but you forget about the return. If you really think of what creates shareholder value, it's the deals for which you don't have to issue a lot of equity. We actually issued a bit of equity in our Geotek acquisition as part of the earn-out, but it was to give them an incentive since seven times for a deal that size is not much. But when you do a deal, you use part of your deal equity, and of course this deal used an enormous part of our deal equity, but because we refinanced at the same time and the banks gave us three times instead of 2½ times, we reconstituted our deal equity. So essentially, if we finance the deal through cheap debt at the group level, the returns for our shareholders are still very decent.

I have this spreadsheet I use for myself, and I've known for a while that we'd need a bigger deal from time to time if we cannot find enough small ones. What will I do with the excess money? When you do that spreadsheet over the next 10 years, you realise that if you do a big deal like this every year, we'd have to raise a lot of equity. You can't do one every year. So a large deal has a very good effect, but you can't do them the whole time.

I've been saying from time to time, that we've got to do a big deal. And of course, when you get to the Halma size, you have to do a big deal every two or three months and pay 12 times, which is what they're doing. When interest rates are going up, then it becomes a bit different because if you have to pay 5% on your debt and you have to start paying 12 times, you make much less. If you're paying 12 times, you make 8% on your money and if you pay five in interest, you only make 3% difference. You become like a bank.

This is not the business we're in. We are very far from that. And I think I made it clear that we would maybe do a big deal if we found one, which we did, but we'd keep doing the small deals because they create a lot of value. And at this point, they do move the needle. People

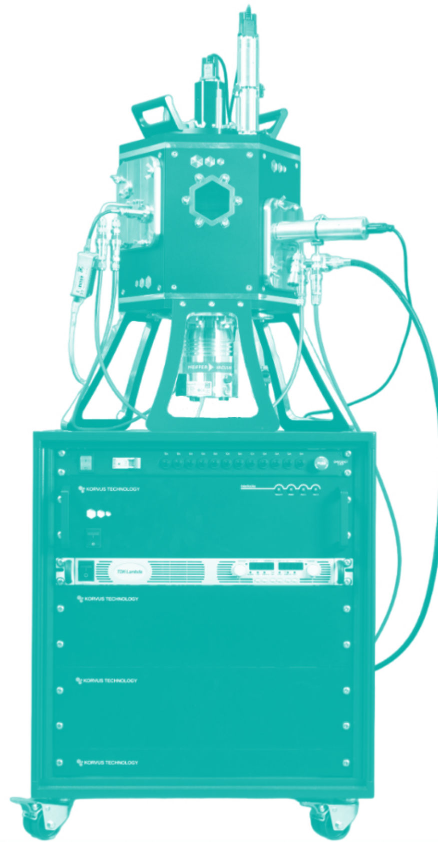
REINVESTMENT INTO CAPEX AND ACQUISITIONS 2015–2022 (£M)

	2015	2016	2017	2018	2019	2020	2021	2022	Overall
Cash from operations	6.6	4.6	10.5	13.3	16.9	12.2	17.4	21.8	103.4
Cash deployed in capex	0.5	0.8	0.7	1.0	1.3	1.3	2.7	6.4	14.7
Cash deployed in acquisitions	7.6	6.4	7.1	0.6	0.1	11.4	0	43.2	76.4
Reinvestment rate	**123%**	**156%**	**74%**	**12%**	**8%**	**104%**	**16%**	**227%**	**88%**

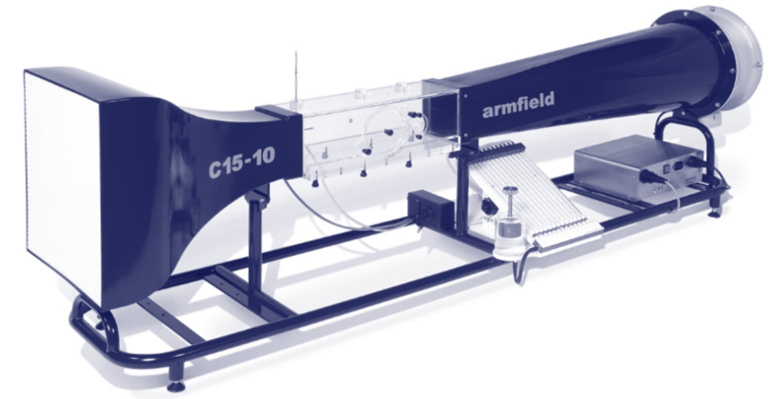
Table 1: Source: Capital IQ. Data as of December 29, 2023.

SELECTED JUDGES SCIENTIFIC SUBSIDIARY PRODUCTS

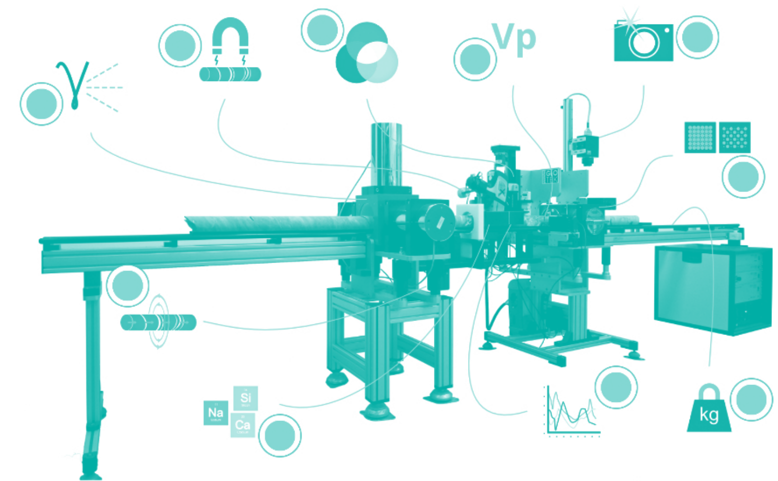
FTT's (Fire Testing Technology Ltd) Cone Calorimeter is a fire testing apparatus designed to measure the heat release rate and other critical fire-related parameters of materials. It is a crucial tool in fire science and research, particularly in understanding the fire behaviour of various materials and assessing their fire safety characteristics.



Korvus Technology's PVD system. PVD stands for Physical Vapor Deposition, and a PVD system is a type of equipment used in the thin film deposition process. The PVD process involves the deposition of a thin film coating on a substrate material through the physical processes of vaporization and condensation.



Armfield's Computer Controlled Subsonic Wind Tunnel is a specialized device designed for aerodynamic testing and research. It provides a controlled environment for studying the effects of airflow on various objects, such as aircraft models, automotive components, or other structures.



Geotek's Multi-Sensor Core Logger (MSCL-S) is a versatile tool for studying rocks and sediment. It's like a high-tech scanner that can be used for various projects like exploring minerals or understanding past climates. The MSCL-S is easy to adapt because it can use different sensors, and it works well in remote places or even on ships.

always say, "Do they move the needle?" They do move the needle, but they don't allow you to spend all that deal equity.

So that's the thing. If you do only small deals, they will move the needle, but you end up with massive surplus capital, and what do you do with it? You give it to shareholders, or you do a big deal. There's no choice really. We are allowed to borrow three times, and I think that if we had to stop doing business with China, we'd be on three times, so I'm not looking for a big deal to surely stay safe within our limits in case there are issues with China. I think we are going to do small deals. If in the next 12 months, we just manage to reduce our leverage from two times to one time, and China hasn't crossed the Taiwan Strait, we'd be in a completely different position.

The compounding runway

Matthias **With that in mind, how do you think about the future from here?**

David We're a medium-size elephant. When we started, we were really a puppy, and now we have only three times more shares than when we started.

Our size has gone up from 2 million to more than 500 million, so it's like 250 times bigger for just three times more shares.

If you add all the dividends we've paid over the years, we probably reached a hundred times for shareholders, so I think we've done well with shareholders. I think we still have a lot to go. The problem with size is that it is harder to compound at the same rate as when you are small. I think, okay, we multiplied by 250 times, and I'm not saying we will repeat that in the next 17 years, but we could theoretically be like Halma in 17 years and then we will beat them because it took them three times 17 years, not two times.

You can't produce the same return on shares when you're a 10-billion-pound company than when you are a half a billion-pound company. We're not there yet but I think if we keep growing there will be a time when growth will slow down.

Pricing is quite dependent on size. In the early days, we were able to buy companies making up to a million pounds and pay four times because we had no competition. Now we have competition, so sometimes we have had to pay a bit more. We paid six times for businesses making a million. But we're pushed by the fact that now we have a competitor.

Why is it better to buy bigger businesses? Well, it's simpler afterwards. We bought 20 businesses. They're now consolidated into 17. Some of them have been consolidated because that's the nature of what we bought. But it would be easier if we only had five. Our COO Mark Lavelle would have an easier job if we owned five businesses instead of 17. There are advantages to doing bigger deals rather than smaller deals, but you have to pay more. So that's the trade-off, isn't it? You will pay a higher multiple for a bigger deal, and theoretically you should have a deeper management structure. A business making half a million maybe just is one guy and some employees who do what they're told, really. But if you buy a company like Geotek, you can't run it that way when you have employees in Salt Lake City and you have employees in Brazil. You have a deeper structure of leadership. Theoretically, they should give you less work, but you pay more, so you start with a lower return.

Matthias **What are your most important financial KPIs?**

David One of the things which is the key to all our thinking is ROTIC. We grew that ROTIC in the early years up to 2012 to 46%. *(ROTIC: Return on total invested capital.)* We bought businesses for four, five times maximum. The first deal was nearly five times in the end because the burden of doing a reverse takeover was a lot. So we started at 20% and we ended up with 47% or 46% with organic growth. And then we bought one business that had big, colossal growth. We paid three times

in 2009 when it was making half a million. We paid a million and a half and now it earns 3 to 4 million a year.

We use our shareholders' money to buy businesses, and we must have a return on these businesses. ROTIC is counted before central cost, so when we get 46% and if we have a very lean central cost, our shareholders should be doing well. If you do more deals and bigger deals, you reduce your central cost in proportion, of course. Every time you do a big deal at a high multiple, you have a cliff in the ROTIC, and then it starts growing again. Sometimes you have a bad year, and everything goes down, or it's Covid and then everything goes down. But recently, we've concluded that we can stay around 30. But we've given up the idea of going to 46. With our size we need to do some bigger deals. If we could find 20 companies making half a million a year, we could aspire to the fullest. We just can't find them, so if you do bigger deals this metric will not be as high. We were around 30 but now we've done a big deal we're going to go down like eight points. That's the mechanical effect of doing a big deal.

RETURN ON TOTAL INVESTED CAPITAL (ROTIC) 2006–2022

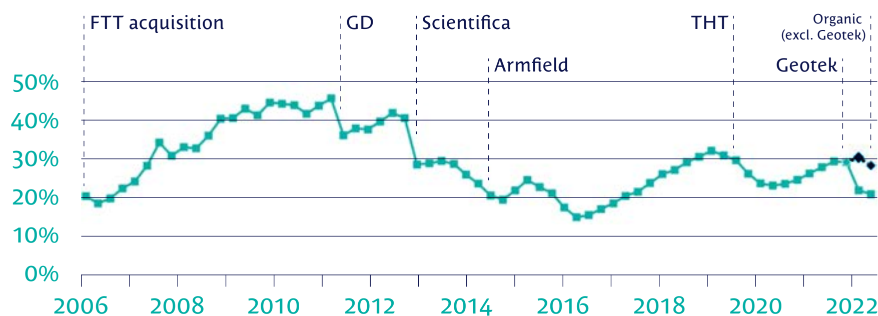


Chart 2: ROTIC is reported as trailing 12 months and excludes central costs and the effect of R&D capitalisation. Source: Judges Investor Presentation. Data as of September 20, 2023.

Culture

David — The other thing that one must be careful about is not to lose the entrepreneurial spirit you're starting with. That's even more important. There are a lot of fashions these days with public companies. And when you become a bigger company, you're under pressure to accommodate all these new fashions which are not basically intrinsic to your business. We in comparison still run the business very much on the same model that we started with on day one.

We own niche businesses in a growth sector. Not everything has growth, by the way, in the scientific world, but we try to find those which have growth, of course. And the one way to destroy them is to move them physically. You buy a business, it's in one place, you put it in another place, you've usually lost it. And we did move some businesses because of growth. But if you move them too much, they start being very problematic because they're very reliant on a small number of people. We have 600 people and we bought 20 businesses, it's an average of 30 employees per business. See? Not a lot. I think Warren Buffett says this, "Buy businesses which could be run by a fool because one day it will." It's true, no? In the history of every business, at one point, there's a fool running it. If it can survive, it's good. But if you have a good MD, you're definitely going to do better. We always like to have a good MD, not the guy who sold it because he wants to retire. This is our model. This is why we have sellers making deals with us.

If we can find an MD inside that is usually the best solution, and most often that's it. Sometimes he has to wait, sometimes we send a guy in for a period of time to coach him, sometimes we have to recruit outside. If you recruit outside, success is not 100% certain.

It is much easier to distinguish a good company from a bad company than to select a good MD instead of a bad one.

> For companies you can look at the figures over three to four years. But there are no such figures for managers. You only have a CV and references. Are people always genuine with their references? Some people like to be nice. They're not going to say he was horrible. I never had a bad reference on anybody. And people only give you the names of people who are going to say good things. It's difficult. But you need a good MD and you need to let him run the show. This is our philosophy because we can't put all these companies together and merge them into one super-mechanical organization. You have to give people the faith and trust them and they trust you.

Ideally, we find a guy who's inside. He understands the instruments and the scientific community in which the company is operating, but sometimes it's not the case, and so sometimes we move MDs around. They're typically engineers or scientists, but MD's also need a bit of understanding of people. We like to trust them. But the MD has to trust his or her own guys and be able to lead. And we coach them also. You have Mark Lavelle, who's our COO. He coaches them, he advises them.

> We need to create a general atmosphere of entrepreneurship so that people at all levels feel that they are doing what is good for the company, which in turn is good for themselves.

The new MD most often is a number two who wants to be number one. When they take over, they learn new things. A lot of them have ideas which their number one didn't want to do. Suddenly, when you tell them, "Look, you are the boss and you can run this company" they breathe as they can try new things that they haven't been able to do before. This creates a lot of motivation.

ADJUSTED EARNINGS PER SHARE 2012–2022 (£/SHARE)

Through the combination of disciplined capital allocation, a strong culture and steadfast execution of their strategy Judges has created tremendous value for shareholders. The stock has achieved the rare status of a '100 Bagger' and compounded at 26.2% since inception.

Chart 3: Source: Judges Scientific annual reports. Data as of December 29, 2023.

Matthias **How do you find the right shareholders?**

David I wasn't very experienced in the city when I started this. I explained that our business is in a lot of niches and by nature, the niches are not very synergistic. For instance, we have one company selling stuff to shampoo companies that twist hairs, and they pull hairs and see whether the dye spoils them. And you ask, "What synergy could this have with this other company which makes high-vacuum equipment?" The answer is zero. The more niche, the less synergy they have with any other business. So our business is not based on synergies.

When I started it was not easy because nobody wanted to see us. It was a nightmare. When I prepared a presentation all our advisors said, "Okay, but why don't you put a slide in on synergies?" I said, "Because we are not buying up convincing synergies." Then they said "Yeah, but people want to hear about

synergies." Then I said, "Look, the people who want synergies, we don't want them as shareholders." I think the whole corporate entourage is geared to cosmetics. Everything has to be packaged and dressed up, and once it's synergies or it's ESG, or all these other things.

We want shareholders who really understand what we do and what we don't do. For instance, we don't have sticky revenues. If people want stickiness, they should not buy our shares. We don't want them. You only have good shareholders if you tell shareholders exactly what you do and you stick to what you do, and if you change it, you tell them. Otherwise, you don't have good shareholders.

Matthias **Thank you very much David.**

www.pr-realvalue.com

With special thanks to Jakob Bollenberger, who helped with this interview as part of his internship at P&R.

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