

# Institutional Investor



**Financial firms and markets have always been awash in data. Now managing and making sense of it has become a business in itself, and the industry's top technological innovators are aggregating data and deploying advanced analytical tools to set themselves apart.**

## ARE FINANCIAL SERVICES COMPANIES REALLY INFORMATION

technology companies? They are certainly IT-driven; the biggest banks and buy-side firms each budget billions of dollars annually for IT and employ thousands, in some cases tens of thousands, of software engineers and other technologists.

Amid the explosion in what is commonly known as big data, the financial technology leaders spotlighted in *Institutional Investor's* Tech 40 are underlining the "I" in IT.

This year's elite include exchange company executives like Nasdaq's Adena Friedman, No. 1 following her elevation to CEO and the implementation of a new architecture called the Nasdaq Financial Framework; Intercontinental Exchange (ICE) chairman and CEO Jeffrey Sprecher (No. 4); and CBOE Holdings president and COO Chris Concannon (No. 15). They and heads of non-exchange trading venues, such as fixed-income platforms MarketAxess Holdings (Richard McVey, No. 23) and Tradeweb Markets (Lee Olesky, No. 22), point out that they have been selling data products all along. But the volumes are unprecedented; customers are demanding more, better, and faster analytics and insights; and technologies are emerging and evolving to fill the bill.

Friedman notes that data and computing speed fueled online brokerage and automated trading, starting in the 1990s. "What is different today is the ability to utilize data, to take advantage of greater processing capability and network capacity," she says.

"It seems like a lot of people are just waking up to the data story — it has always been a focus of ours," says Concannon, a former Nasdaq colleague of Friedman's who joined CBOE when it acquired Bats Global Markets, where he was CEO, in February.

Sprecher has described ICE as a "network and content" business. In 2015, ICE acquired Interactive Data Corp., now part of the ICE Data Services unit, which accounted for a third of last year's \$5.96 billion in total revenues. ICE is not alone among Tech 40 companies — others are Bloomberg (Shawn Edwards and Vlad Kliatchko, No. 6) and London Stock Exchange Group (Chris Corrado, No. 31) — in bulking up its index business through acquisitions.

Another major index player, IHS Markit (Lance Uggla, No. 5), is explicitly

a big-data and analytics company; the financial industry-focused Markit merged last year with IHS to form the \$3.5 billion-in-revenues, self-styled "information powerhouse" with 50,000 corporate and government customers.

Mike Chinn (No. 30), president of S&P Global Market Intelligence, draws a distinction between data and analytics: "A spreadsheet is data. A model that gets you to a decision is analytics."

Michael Spencer (No. 8), who built ICAP into the world's biggest inter-dealer brokerage, has sold off the traditional voice business and now runs NEX Group, a fintech company consisting of two principal parts: the NEX Markets trading platforms and NEX Optimisation, formerly ICAP's post-trade risk and information services division, which includes "life cycle management and information services to optimize portfolios, control risk, and reduce costs."

Capital markets firms got a head start in complex analytics with the high-performance kdb+ database developed by Kx Systems, a subsidiary of First Derivatives, and now other sectors like aerospace and pharmaceuticals are catching on. "We are making substantial investments in R&D, marketing, and direct and indirect sales channels to bring our technology to new markets," says Kx and First Derivatives CEO Brian Conlon (No. 36).

The Tech 40 ranking was compiled by *Institutional Investor* editors and staff, with nominations and input from industry participants and experts. Four primary sets of attributes were evaluated: achievements and contributions over the course of a career; scope and complexity of responsibilities; influence and leadership inside and outside an organization; and pure technological innovation. Ten profiles appear in the following pages, and all 40 can be viewed online at [institutionalinvestor.com](http://institutionalinvestor.com).

Of the 40 entries, 31 were in the Tech 50 ranking last year. Their 2016 ranks are shown, and the rest are designated "PNR" (previously not ranked).

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*The Tech 40 was compiled under the direction of Senior Contributing Editor Jeffrey Kutler. Individual profiles were written by Kutler, Asia Bureau Chief Allen T. Cheng, and Senior Writers Imogen Rose-Smith and Julie Segal.*



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## NEIL KATZ

Managing Director

D.E. SHAW GROUP

LAST YEAR: 19

Innovation is systematic within D.E. Shaw & Co., the \$42 billion alternative-investment firm founded in 1988 by computer scientist and computational finance pioneer David Shaw. Rather than reacting to the latest trends in the IT world, D.E. Shaw relies on the continuous experimentation of its decentralized IT teams, whose good ideas may catch on across the firm. A few years ago, for example, a more efficient framework for quote distribution and market-data dissemination was developed by one group and eventually adopted by others, says managing director Neil Katz, 45, who has been with D.E. Shaw since his 1994 graduation from Stanford University. Katz, who earned degrees in electrical engineering and quantitative economics, manages a team of more than 250 technologists. They participate in hackathons, including an annual competition in India that exposes developers to technologies that might be useful in their regular work. There are also occasional hack weeks in New York, where people are encouraged to work on projects outside their regular priorities. “We’ve seen some real breakthroughs when people put aside their normal workflow and turn to whatever side projects interest them,” Katz says.

## The Rest of the Tech 40

RANK		NAME	TITLE	FIRM
2016	2017			
14	11	Michael Bodson	President and Chief Executive Officer	Depository Trust & Clearing Corp.
PNR	12	Terrence Duffy	Chairman and Chief Executive Officer	CME Group
15	13	Charles Li	Chief Executive Officer	Hong Kong Exchanges and Clearing
PNR	14	Sean Belka	Director of Fidelity Labs	Fidelity Investments
16	15	Chris Concannon	President and Chief Operating Officer	CBOE Holdings
PNR	16	Guy Chiarello	President	First Data Corp.
PNR	17	Steven Lieblich	Chief Technology Officer	Citadel
18	18	David Rutter	Chief Executive Officer	R3CEV
17	19	Blythe Masters	Chief Executive Officer	Digital Asset Holdings
PNR	20	Alfred Spector	Chief Technology Officer	Two Sigma Investments
19	21	Neil Katz	Managing Director	D.E. Shaw Group
20	22	Lee Olesky	Chief Executive Officer	Tradeweb Markets
21	23	Richard McVey	Chairman and Chief Executive Officer	MarketAxess Holdings
26	24	David Gledhill	Group Chief Information Officer and Head of Group Technology and Operations	DBS Bank
22	25	Seth Merrin	Chief Executive Officer	Liquidnet Holdings
25	26	Antoine Shagoury	Global Chief Information Officer	State Street Corp.
PNR	27	Peter Brown & Robert Mercer	Co-Chief Executive Officers	Renaissance Technologies
27	28	Lou Eccleston	Chief Executive Officer	TMX Group
PNR	29	Peter Cherecwich	President, Corporate & Institutional Services	Northern Trust Corp.
31	30	Mike Chinn	President	S&P Global Market Intelligence
40	31	Chris Corrado	Chief Operating Officer and Chief Information Officer	London Stock Exchange Group
38	32	Neal Pawar	Chief Technology Officer	AQR Capital Management
33	33	Gary Norcross	President and Chief Executive Officer	Fidelity National Information Services
34	34	Steven O'Hanlon	President and Chief Executive Officer	Numerix
35	35	Sebastián Ceria	Chief Executive Officer	Axioma
41	36	Brian Conlon	Chief Executive Officer	First Derivatives and Kx Systems
37	37	Tyler Kim	Global Head of Fund Services	MaplesFS
36	38	Michael Cooper	Chief Technology Officer	BT Radianz
48	39	Robert Schifellite	President, Investor Communication Solutions	Broadridge Financial Solutions
42	40	Jim Minnick	Chief Executive Officer	eVestment