



## The ultimate workout

To let off steam, Cognoids play Ultimate Frisbee each workday. A4

A 'Play Hard' tradition: Discs have been flying at company headquarters for 20+ years.



Fake news is no joke: This is a parody of USA TODAY.

## USA Today or Cognex Today

Company's unique approach to annual report turns boredom into entertainment. A3

# Newsline

News Life Sports Money

## The ABC's of RD&E

Cognex is serious about maintaining its technology leadership. In 2018, the company reinvested \$116M in research, development, and engineering. A2

## Culture vultures

Cognex has appointed a Minister of Culture (MOC) at each of its largest offices worldwide. Their role: host holiday parties and social events, oversee local community donation programs, assist with recognition programs—and excel at their day jobs too! A3



## A little off the top

The Cognex Cut the Crap (C3) initiative cuts down on needless bureaucracy in company processes. More than 250 ideas were submitted by employees. A4



## Pump up the volume

Sources indicate that the machine vision leader intends to continue to outperform market growth in the coming years. A6

## USA Today Snapshots

### What the...?

6 odd applications for Cognex machine vision



- 1: Gauge size of English muffins.
- 2: Ensure quality of cosmetics.
- 3: Examine beer kegs for leaks.
- 4: Verify assembly of coffin handles.
- 5: Identify and package frozen pizzas.
- 6: Check sex of chickens before they're born.



www.cognex.com

# Cognex reports ninth consecutive year of record revenue

Technical innovation drives global leader's plans for future growth

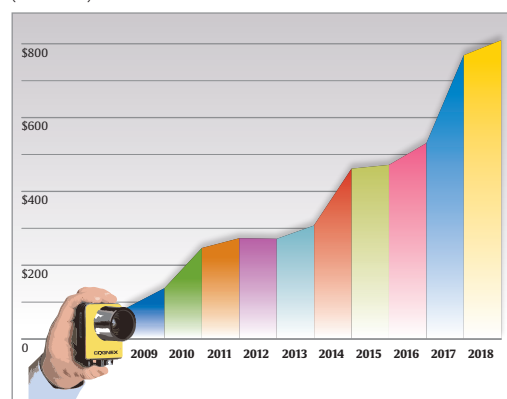
By Rob Willett  
Chief Executive Officer  
COGNEX CORPORATION

NATICK—Cognex reported its ninth consecutive year of revenue growth in 2018, with good performance across most end markets and great performance in some newer markets, such as logistics. The company was also highly profitable, reporting operating and net margins of 27%.

This growth follows an exceptionally strong 2017, when massive investments in Cognex vision by a few large customers in OLED and smartphone manufacturing led to a 45% increase in our top line. When these customers scaled back their investment in 2018, we were left

## Cognex 10-Year Revenue History

(in millions)



**A proven track record:** Developing new products and expanding the company's target market have led to impressive results.



A deeper understanding: CEO Rob Willett reflects on Cognex's accomplishments during 2018 and shares his vision for the future.

with a challenging hill to climb. Cognex more than made up the difference thanks to substantial contributions from the rest of

our business. Excluding revenue from those large consumer electronics customers, Cognex's year-on-year revenue growth was 18%.

Technology leadership and innovation continue to be important drivers of our success. Our reputation among the most sophisticated factory automation engineers in the world has never been better. They recognize Cognex as the technology leader in the industry and a trusted long-term partner for their vision and ID needs.

As a result, we're now engaging with higher levels of engineering and management at the global companies we serve and

discussing programs that are increasingly ambitious in scope and long-term in duration.

## 2018 end market review

Here's a rundown of how Cognex fared in each of our three major end markets in 2018:

### Logistics

Logistics is a large and rapidly expanding market for Cognex, thanks in part to exploding growth in global e-commerce. In the new environment of same-day delivery and rapid supply chain adaptation, companies are investing heavily in automation to help move goods quickly and increase competitiveness. More and more of that automation is enabled by Cognex's image-based barcode readers, which are displacing older laser technology in this space.

In 2018, our revenue from logistics showed remarkable strength, increasing by more than 50% over 2017, for a total of more than \$100 million. In addition to the many opportunities for Cognex ID in logistics, we are also uncovering new applications for our vision capabilities, such as measuring package dimensions and distinguishing between boxes, poly bags, and other packaging.

Our strategy for developing

See RECORD REVENUE on page A2

## 10 Years and Counting

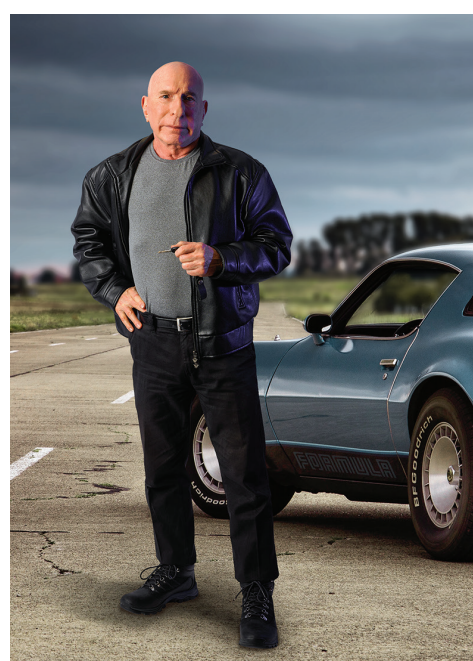
### Looking Back

CEO Rob Willett recently celebrated his 10th year with Cognex. During that decade, he successfully led the team to deliver compounded annual revenue growth of 15% while fully embracing—and advancing—the company's unique work culture.

**A Man of Real Character:** Willett has dressed as a saxophone player, cowboy, and even Marty McFly in celebration of Cognex's culture and creative annual reports.



## Up close and technical with Dr. Bob



**Rear view mirror:** Shillman founded Cognex not to get rich, but to work with smart, energetic, goal-oriented people.

Known for his forward-thinking approach, the founder of Cognex takes a rare look back at the company's modest beginnings.

### By Jack Hammer

Robert J. Shillman, Ph.D. ("Dr. Bob" to friends) is the visionary entrepreneur who started Cognex Corporation, a pioneer and the world's leader in the machine vision industry. Chances are, many items that you use every day are made with the help of machine vision technology.

The Cognex story can be traced all the way back to Dr. Bob's college days at MIT in the early 1970s. His doctoral research focused on determining how people recognize the letters of the alphabet with the objective of implementing those rules on a computer to enable it to read, independent of type style or even if handprinted.

Fast forward to 1981. Still driven by his passion for machine vision, Dr. Bob took a leap of faith, left academia and invested his life savings of \$86,000 to start a company with the goal of building computers that

could not only read, but could also inspect objects via a video camera.

He named the new venture Cognex (derived from "cognition experts"), and he persuaded two MIT graduate students—Bill Silver and Marilyn Matz—to join him by offering them free 10-speed bicycles... hey, whatever it takes. He also included stock options that eventually made them millionaires, but that's another story.

"I didn't start Cognex to become rich; I started my own company because I wanted the freedom to work on whatever I wanted. I also wanted a place that was filled with smart, energetic, and creative people who enjoyed what they were doing, who liked to have stretch goals, and who worked hard to accomplish those goals," said Dr. Bob.

Dr. Bob continued, "And I wanted to work for a company where the manage-

See UP CLOSE on page A5

# Engineered to Move Fast!

Cognex moves *FAST* on production lines and responding to customer requests.

Try a pair of Cognex sneakers today and see how *FAST* you move!

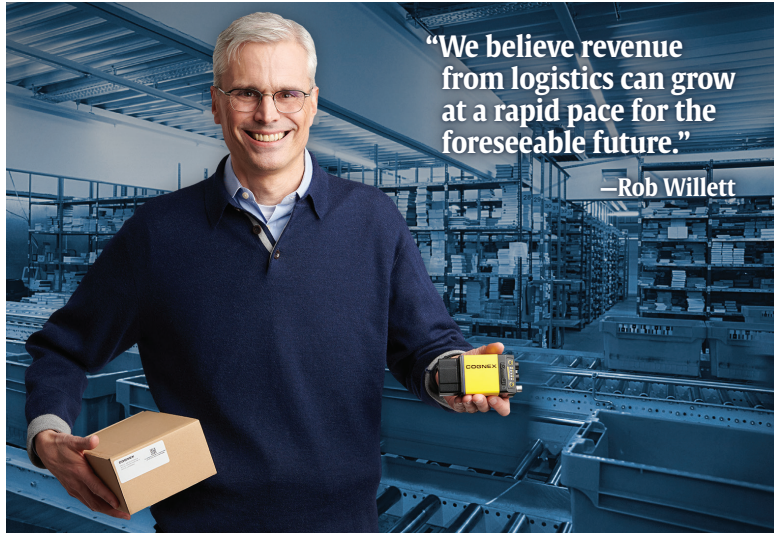
## COGNEX



#THINKYELLOW!



# Cognex reports record revenue



"We believe revenue from logistics can grow at a rapid pace for the foreseeable future."

—Rob Willett

**Flying off the shelves:** Cognex's image-based barcode readers are helping e-retailers keep up with customer demand for same-day product deliveries.

Continued from page A1

this market is similar to the one we used successfully in the factory automation market nearly 20 years ago: drive adoption by educating customers and integrators on the value of our technology, while also learning from each installation about what customers need and how to make our products easier for them to use.

One challenge we face is the need to provide more engineering support to customers as they transition to vision from the older laser technology. While that is slightly dilutive to margins in the near term, we believe it's worth the cost in order to win market share and introduce our technology to customers. As of the date of this report, we expect overall gross margin to improve as we move through the back end of 2019.

With our continued strong performance and industry-leading products, we believe revenue from logistics has the potential to grow at a rapid pace for the foreseeable future.

## Consumer Electronics

In 2018, our revenue from consumer electronics was negatively impacted when a small number of large OLED and smartphone customers scaled back their investments after a very active 2017.

However, Cognex sells into a very broad consumer electronics ecosystem, which is one of the largest and most sophisticated markets for machine vision. Cognex customers include a wide array of brand owners (who design devices for consumers), contract manufacturers (who make devices), machine builders and OEMs (for equipment used to make devices), and their supply chains and equipment makers. Our products are employed throughout the entire manufacturing process, from the lowest level component to packaging for the completed device.

Cognex continues to uncover new customers, new applications, and new business in this sector, and we believe our opportunities are strong in the medium and long term.

## Automotive

Following two consecutive years of growth well exceeding 10% and a strong start to 2018, automotive revenue began to slow in the second half of the year. For the full year we fell just short of the 10% growth we expect from our automotive business over the long term. However, our longer-range view for this market remains positive based on three emerging

trends that are expected to drive growth for Cognex vision and ID.

### Increased investment in electric vehicles

After years of speculation, electric vehicles are beginning to move towards production, with Tier One manufacturers and brand owners announcing major investments. Manufacturing these vehicles and their component parts—like lithium-ion batteries—requires dedicated production lines, and we are working to make sure those processes include vision and ID products from Cognex.

### Shift from sedans to SUVs

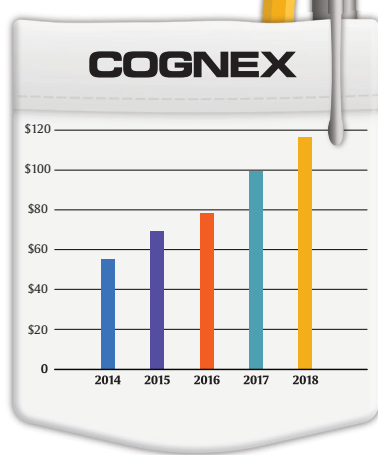
In 2018, Ford Motor Company announced it would cease production of all but two sedans in North America and transition production to SUVs to meet changing consumer tastes—a shift that will require investment in new automation as plants are outfitted to produce new models. This change is symptomatic of an overall industry trend towards different models which has helped to drive increases in automation spending among our customers.

### More electronic features in cars

Your car's fender is no longer just a piece of metal, and its side view mirror is no longer just glass. These components have evolved into complex pieces of electronic equipment with sensors for collision avoidance, lane-keeping, and blind spot detection. Assembling

## RD&E Investment

(dollars in millions)  
Cognex sustains its technology leadership by consistently investing in RD&E.



these complex components requires the kind of advanced manufacturing enabled by Cognex vision and ID, and we anticipate new demand for our systems as manufacturers adapt their lines to integrate more electronic features in the future.

## Capturing demand in new market segments

Cognex is constantly developing new market segments that hold promise for future growth. Two of the most significant of these markets for Cognex are 3D vision and life sciences.

### 3D Vision

3D vision is an exciting new market which we believe has the potential to grow 50% year in the long term. Even though our currently small revenue base in this market was negatively impacted by lower investment from OLED display and smartphone manufacturers in 2018, we remain confident about our prospects.

Early in 2019, Cognex introduced several technically advanced new products that expand our offering in this space. These new products help us address a more diverse range of 3D inspection applications, and when added to our existing 3D product line and a sales force increasingly well trained to sell 3D, they will put Cognex in a stronger position to execute on this market's growth potential.

### Life Sciences

In life sciences, Cognex vision is integrated into lab equipment used largely for in vitro diagnostic testing. Each time Cognex is designed into a piece of equipment, it generates a stable, predictable revenue stream for many years post launch.

I'm happy to report that momentum for Cognex in life sciences is beginning to grow. We have now been designed into almost 50 machines launching into this market, with 20 new projects won in 2018 alone. The largest of these wins was an OEM project with a major European healthcare company which is expected to generate several millions of dollars of revenue each year for Cognex starting in 2021.

### Up-and-Coming New Markets

Another emerging trend in our business is the increasing use of machine vision in markets such as consumer goods and food manufacturing that have historically been slower to adopt our technology. While individually these markets still represent a small percentage of our total business, we believe orders from these customers will continue to increase as our products become less expensive and easier to deploy and maintain.

In addition, Cognex's MX™ series mobile terminal—a handheld device that enables users to employ their smartphones for industrial barcode reading—is gaining traction. While the contribution to our overall top line is still relatively small, it is a market that holds promise for the future.

## Investing in our future

I am a strong believer that strategic investments in our organization help Cognex maintain its market-leading position. In 2018, those investments took three major forms: Developing our technology; expanding our sales coverage; and strengthening our infrastructure.

### Ensuring our Technical Leadership

Our commitment to technology leadership remains a key priority for Cognex. The company regular-

## 2018 Revenue by Region

(percentage)



\*Includes revenue from a customer in Europe for Cognex products used in production processes in Greater China.

ly contributes between 10% and 15% of revenue to RD&E. In 2018 we invested a record \$116 million (14% of revenue), an increase of 17% over 2017.

Among the most notable Cognex product introductions resulting from this investment in 2018 were:

- **DataMan® 470**, a high-performance fixed-mount barcode reader that has been rapidly adopted in the logistics industry as well as in general manufacturing. The DataMan 470 was the most successful product launch in Cognex history in terms of customer response and sales generated in its first two quarters.

- **The In-Sight® 9000 series**, a powerful line of smart cameras that incorporates ultra-high-resolution capability previously available only in more complex vision systems.

- **VisionPro® ViDi™**, a software package that integrates Cognex VisionPro software and the powerful deep learning technology we acquired with our 2017 purchase of ViDi Systems. This new package enables sophisticated customers to more easily implement deep learning in their applications and use it with other industry-leading Cognex vision tools.

Deep learning is probably the most exciting technological innovation to be introduced into industrial machine vision in the past 20 years. The technology is expanding our target market by enabling us to address applications where traditional, rule-based vision cannot be applied or would require thousands of engineering hours to implement.

Cognex is the leader in applying this new technology to industrial machine vision. Deep learning is generating great interest and enthusiasm among both Cognoids and our customers, and that interest will continue to grow as more customers get up and running with our deep learning tools and move this new technology from their labs to their production lines.

### Expanding Sales Coverage

When I'm asked to name the sales opportunities that Cognex loses, I always say "the ones where we're not present." I am confident that when Cognex is in the mix, chances are excellent that we will win the business based on our outstanding technology, reputation, ease-of-use, and support. Our biggest challenge is making sure Cognex is one of the options in front of customers when they are making a decision.

With that in mind, we continued to expand our direct sales and support organization in 2018, increasing the team's headcount by 32%. We also continued our investments in supporting and improving our distributor network. Adding more Salesoids and developing our distributor network increases our coverage and enables us to connect with more potential customers.

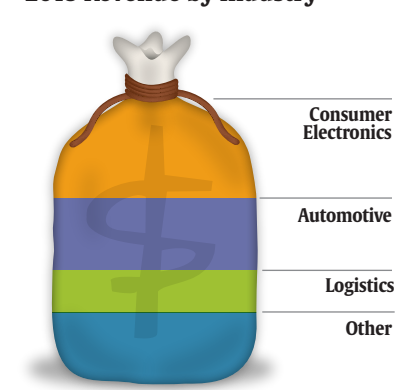
"Deep learning is probably the most exciting technological innovation to be introduced into industrial machine vision in the past 20 years."

—Rob Willett

## Scaling Our Organization

In addition to expanding sales coverage, Cognex made investments in the company's infrastructure to help us more effectively serve global customers and scale with our growth. Our most important investment in this area last year was the implementation of a new enterprise business system, SAP®. This was a major step in a multi-year undertaking to upgrade our information business systems, standardize global business operations, increase the quality and analytical value of the data we use to manage Cognex, and integrate standard processes across multiple geographies.

## 2018 Revenue by Industry



## Ready to grow

Cognex is a growth company with industry-leading image-based products that enable the automation of manufacturing and distribution processes. We are at the forefront of applying deep learning techniques to machine vision, and we continue to lead the way in our industry.

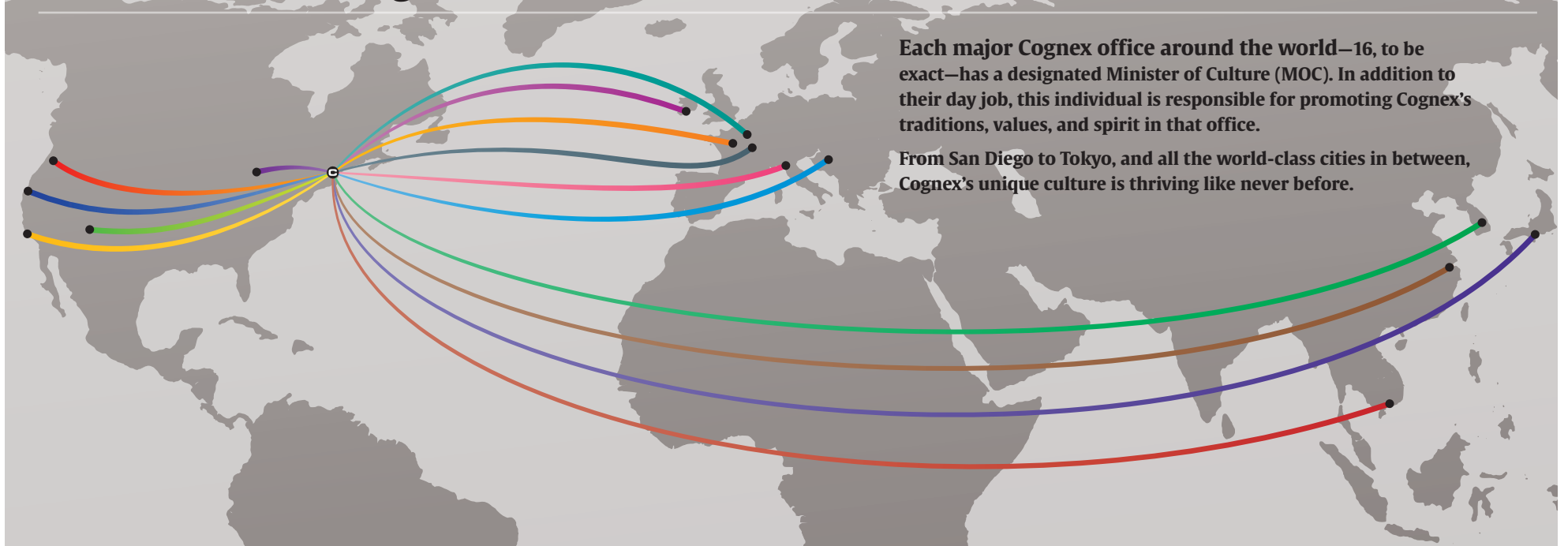
As we went to press, a slowing Chinese economy and lower automotive sales in the Americas were creating uncertainty. While these are near-term concerns for us, over the long term we believe that market potential and Cognex's continued industry leadership will enable us to significantly grow the company.

In 2019, we will continue to focus on developing the fundamentals that have led to our success:

- Industry-leading technology;
- A talented, dedicated, and engaged team of global Cognoids;
- A strong financial position that gives us the flexibility to invest in our growth strategies and deliver long-term shareholder value.

I look forward to reporting back to you on our progress next year. ■

## The vast reach of Cognex culture



Each major Cognex office around the world—16, to be exact—has a designated Minister of Culture (MOC). In addition to their day job, this individual is responsible for promoting Cognex's traditions, values, and spirit in that office.

From San Diego to Tokyo, and all the world-class cities in between, Cognex's unique culture is thriving like never before.

- Natick, MA (Headquarters)
- Portland, OR
- Cupertino, CA
- San Diego, CA
- Boulder, CO
- Milwaukee, WI
- Cork, Ireland
- Paris, France
- Aachen, Germany
- Karlsruhe, Germany
- Milan, Italy
- Budapest, Hungary
- Ho Chi Minh City, Vietnam
- Shanghai, China
- Seoul, Korea
- Tokyo, Japan

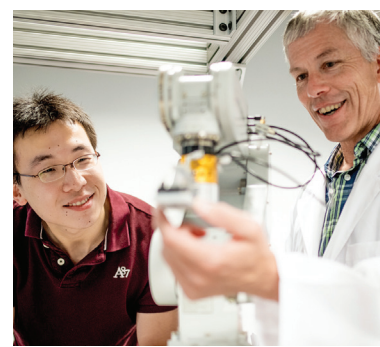




### New dress code is announced

Cognoids dress up in costume to celebrate Halloween, the company's favorite holiday.

**Wackier the better:** Offices close early to hand out prizes for the best costumes.



### Is there a doctor in the house?

More than 50 Cognoids have earned a Ph.D. or doctoral degree!

**Task masters:** Well over 400 employees have a Master's degree on their walls.

### At your service



**Sheila DiPalma**  
Senior Vice President of Employee Services

Sheila is responsible for talent recruitment, compensation, benefits, payroll, corporate communications, and employee development.

While other companies refer to Sheila's position as *Human Resources*, Cognex prefers to call it *Employee Services*, because the primary function is to support and develop the talented Cognoids who invest their time and creativity in Cognex.

Sheila's appointment as a corporate officer reflects the value the Board of Directors places on Cognex's unique culture and its strategic importance to the company's success.

### Cognoids by the numbers

- 5** Average employee tenure in years
- 10** Percentage increase in the number of women in engineering roles over past 3 years
- 15** Percentage of Cognoids with the company 10 years or more
- 21** Age of youngest Cognoid
- 37** Average age of workforce
- 78** Age of oldest Cognoid

### Cognex salutes machine vision



**Nyuk! Nyuk! Nyuk!:** Adopted from *The Three Stooges*, Cognoids perform the Cognex salute and recite the words, "To preserve and enhance vision."



## Candidates flock to Cognex in droves

Quirky culture attracts top minds in machine vision

By Brook Lynn Bridge

NATICK—More job candidates than ever before strode through the doors of Cognex in 2018 with resumes in hand. All of them were eager to land a position at the company known for its occasionally quirky, often zany, and always inspirational work culture. The company's motto is a clear statement of its culture: Work Hard, Play Hard, Move Fast.

Candidates who land jobs at Cognex are referred to as Cognoids. "Cognoids are our most important asset," said Sheila DiPalma, Cognex's Senior Vice President of Employee Services.

"The top minds in the field recognize Cognex as a place where they can work on cutting-edge technology and develop novel machine vision solutions that make a real difference in factories and dis-

"Cognoids are our most important asset."

—Sheila DiPalma

tribution centers around the world. The only thing smarter than our vision and ID products are the people who stand behind them."

**Wanted: Positive Thinkers**

The recruiting philosophy at Cognex starts with a simple premise: hire smart, action-oriented people who have a positive attitude about work, and about life in general.

Cognex believes that attitude is a little thing that makes a big difference. "If the choice is between hiring a person with a positive attitude or hiring a person with a particular skill, I'll take the person with the positive attitude. You can teach skill, but you can't change attitude," DiPalma said.

### Cultural Events

Cognex is proud of its creative culture—and that unique culture is one of the reasons people choose to work at Cognex.

For example, each year you'll find a building full of Cognoids dressed in costume celebrating Halloween, the company's favorite holiday. Other offbeat events include a summer afternoon each year when Dr. Bob drives up in a real ice cream truck dressed as the Cognex "Good Humor Man" and hands out free ice cream to Cognoids.

"We enjoy being silly on occasion," explained DiPalma. "Laughing at ourselves helps create an informal, collaborative environment and that attracts the type of people we want."

Don't let the fun and games fool you, though; Cognoids take their work very seriously. "We empower our team to have fun, but also to do the right thing. The idea is to get Cognoids motivated around common objectives and see them deliver results," said DiPalma.

And that's how the company can recruit the best of the best, which ensures that Cognex remains a leader in the machine vision industry. ■

### Turning boredom into entertainment

## Annual reports with attitude



We live in an age where information is available at our fingertips. If investors want to learn about a company's financial condition, they can simply go online for the data. It begs the question: Are printed annual reports for public companies still necessary?

It turns out the answer is yes, even in the digital age. Realizing that the federal regulation mandating annual reports isn't going to be rescinded anytime soon, Cognex thinks creatively to find ways to comply and still have fun.

### Making Lemonade from Lemons

It's quite clear that the company treats the annual report as more than just a recitation of numbers and statistics. Instead, Cognex strives to create annual reports that showcase the company's unique culture and innovative spirit.

"We figured, if we have to comply, let's make lemonade from lemons!" said Dr. Bob Shillman, chairman and founder of Cognex. "Most annual reports are mind-numbingly dry and boring. But that's not Cognex. We're a collection of motivated and talented people, and we want our annual reports to reflect that."

A perfect example is the company's latest annual report, which is what you're holding right now. Obviously masquerading as a USA TODAY® newspaper, the Cognex 2018 Annual Report is a parody intended to show off the company's unconventional side—and hold the reader's attention at the same time.

### A History of Humor

Cognex has been spoofing famous publications, pop culture icons and current events in their annual reports for the past 20 years. Truth be told, it's gotten to the point where many Cognex shareholders look forward to the document each year just to see the company's latest angle—and, of course, have a hearty laugh. Some find Cognex annual reports so interesting that they collect them. We hear earlier reports have even been for sale on eBay®.



"Lighten up, we're just having fun!"

—Dr. Bob

Cognex's annual reports have been honored with a slew of awards over the years, including the prestigious MerComm ARC Award, the world's largest international competition honoring excellence in annual reports, and the League of American Communications Professionals "Top 100 Worldwide" Vision Award for best-in-class practices.

The only ones who aren't thrilled with Cognex's outrageous annuals are the attorneys for the publications being parodied. "We receive letters, and my response to them is, 'Lighten up, we're just having fun!'" said Shillman. "Imitation is the sincerest form of flattery." ■

# COGNEX TODAY WORLD TOUR

Touring the top "Play Hard" activities at Cognex offices in 2018



### Portland, OR Soccer and Smoothies

Portnoids created their own fitness program called CogFit, a series of eight weekly Play Hard events. Employees received a point for each event they attended, with the chance of winning a grand prize at the end. Events included kickball, soccer, and smoothie-making!



### Milwaukee, WI Paddle On

Milwaukee Cognoids took to the water for their Play Hard event. The group spent the day paddling the Milwaukee River, which cuts through the heart of the city. Not only was it a fun cardio workout, but people also got to see their historic downtown from a brand new perspective.



### Cork, Ireland Corknoids Cool Down

Corknoids took a break from Working Hard to enjoy an ice cream social. Their treat of choice was the ever-popular "99," which is a cone with ice cream and a chocolate stick. Good thing the mobile ice cream van had plenty of napkins, as the only thing more plentiful than the ice cream was the sunshine!



### Karlsruhe, Germany Oktoberfest

Karlsruhe Cognoids continued their annual tradition of attending Oktoberfest, the world's largest folk festival. The group gathered with partygoers under an enormous tent to celebrate in style. There was beer, music, dancing, food—and, of course, more beer!



### Seoul, South Korea Non-Stop Fun

Cognoids from the Korea and Vietnam offices are still buzzing with excitement over their outing in Namhae. The group came together for a three-day event filled with non-stop activities like deep-sea fishing, paragliding, and games of agility and coordination.



### Boulder, CO Bad-Axe Cognoids

Cognoids in Boulder experienced the rush of axe throwing! After a brief demo and a few practice rounds, Cognoids went head-to-head to see who was the most accurate with their axe. No Cognoids were harmed during this Play Hard event!



### Natick, MA Intra-Office Olympiad

Members of the global Finance team competed in their own intra-office competition. Cognoids from five international offices challenged each other in seven thrilling events: eating doughnuts on a string, making paper clip trains, chair racing, target tossing, trash can basketball, corn hole, and a relay race. Team Ireland took home the gold!



### Aachen, Germany Boulders and Beers

Aachen Cognoids mastered rock climbing during their popular Play Hard event. The group geared up and raced each other to the top of the boulder in no time flat. After some intense climbing, the Cognoids were ready to enjoy dinner together.



### Shanghai, China Murder Mystery

Cognoids from the Shanghai office transformed into detectives for a murder mystery Play Hard event. Dressed as different characters, team members attended a fictitious party where the murder took place. No one was above suspicion! The group worked together to solve the crime and reveal the culprit.



### Tokyo, Japan Up, Up, and Away

Tokyo Cognoids reached new heights with their indoor skydiving Play Hard event. After suiting up and completing a brief training session, Cognoids entered a wind tunnel to experience the awesome power of flight.





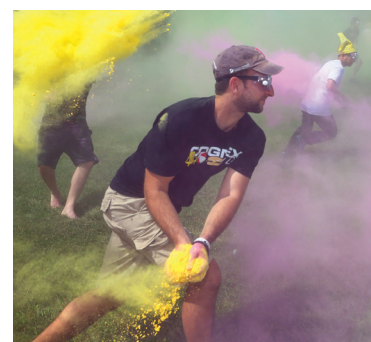
# Sports



**A bubbly mood:** When Cognex achieves a milestone, employees gather for a celebratory toast.

## Celebrate like champs

If professional sports teams celebrate victories with champagne, why can't Cognex?



**True colors:** Natick Cognoids battle it out during a Play Hard activity.

## Chalk it up to competition

Cognoids compete with everything they've got—including powdered chalk.



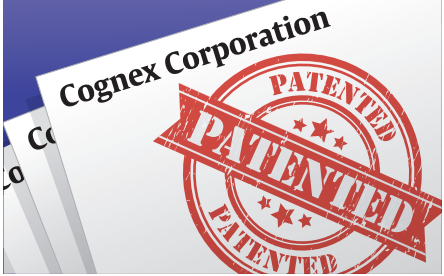
## The race to stay ahead

Cognex keeps competitors at bay by constantly investing and innovating. This strategy enables the machine vision leader to gain more knowledge and expertise. In 2018, the company hit full stride with record revenue.

## USA Today Snapshots

### By the Numbers

Cognex holds more than 1,000 patents issued and pending.



## All-star team announced

### Cognex Board of Directors:

**Robert J. Shillman**  
Chairman & Chief Culture Officer  
Cognex Corporation

**Patrick A. Alias**  
Senior Vice President  
Cognex Corporation

**Eugene Banucci**  
Founder, Former Chairman  
& Chief Executive Officer  
ATMI, Inc.

**Theodor Krantz**  
Vice President & Chief Financial Officer  
Airmar Technology Corporation

**Dianne M. Parrotte**  
Independent Consultant

**Jerry A. Schneider**  
Financial Expert, Business Consultant,  
and Philanthropist

**Anthony Sun**  
Former Managing General Partner  
Venrock Associates

**Robert J. Willett**  
President & Chief Executive Officer  
Cognex Corporation

### Cognex Executive Officers:

**Robert J. Shillman**  
Chairman & Chief Culture Office

**Robert J. Willett**  
President & Chief Executive Officer

**John J. Curran**  
Senior Vice President  
& Chief Financial Officer

**Sheila DiPalma**  
Senior Vice President, Employee Services

# President's Award champions named for 2018

By Eileen Dinn

NATICK—A favorite aspect of Cognex's corporate culture is its focus on celebrating employees' individual and collective accomplishments—in fact, recognition is one of the company's core values. This tradition of honoring success culminates each year with the President's Awards, Cognex's most significant recognition.

A total of 28 individual Cognoids across the globe received a President's Award in 2018 for their contributions to the company's overall success. Their extraordinary achievements ex-

emplified Cognex's values and dedication to excellence.

"These are our top performers," said Cognex President and CEO Rob Willett. "They pushed themselves beyond their day-to-day responsibilities to make important contributions to projects, to our customers, to our business, and to their fellow Cognoids. So of course, they deserve to be recognized."

The ceremonies took place during the annual meetings at each office. In addition to being recognized with awards, the winners also received cash prizes! ■



**Crap-cutting has its rewards:** Natick Cognoid Natalie Crosier is awarded a golden scissors trophy for her winning idea.

## Cognoids rewarded for their "crap" ideas

### Cognex Cuts the Crap (C3) initiative draws 291 submissions worldwide

Launched three years ago, the Cognex Cuts the Crap (C3) initiative identifies and eliminates needless bureaucracy that eats up Cognoids' time and slows down company progress. In 2018, Cognoids around the world submitted an astounding 291 ideas, each focused on removing an obstacle that prevented them from Moving Fast, the third element in the company's Work Hard, Play Hard, Move Fast motto.



**Subtle hints:** CEO Rob Willett persuades the team to think lean.

Creative Cognoids came up with an incredible range of timesaving suggestions. Among them were removing the Reply All button to minimize emails, replacing manual systems with electronic ones, and even renaming conference rooms to avoid confusion.

The Crap Cutting Committee—a panel comprised of Cognex executives and lead-ernoids—had their hands full sifting through the innovative solutions. In the end, 13 Cognoids were recognized for ideas that were implemented by Cognex.

In true Cognex fashion, the winners were rewarded for their cerebral calisthenics. Seven Cognoids received the top prize of \$3,000 while six received \$1,500. Congratulations to everyone who stepped up to the plate and helped Cognex cut crap in 2018! ■

### Office origin of winning ideas

- Berlin, Germany
- Budapest, Hungary
- Cork, Ireland
- Karlsruhe, Germany
- Massachusetts, USA
- Milton Keynes, UK
- Minnesota, USA

## Ultimate Frisbee takes flight in Massachusetts

### Flying discs appear at company headquarters

NATICK—With a flick of the wrist, Cognex employees are re-energizing themselves in the middle of the workday. They're playing Ultimate Frisbee, a sport that flies under the radar for many athletes, but to Cognex employees at the company's headquarters in Natick, Massachusetts, it's the only sport that matters.

Cognoids have been competing on the same field just outside the main building for more than two decades. On any given day, you can see employees in shorts and T-shirts sprinting, diving, and just generally mucking it up. It doesn't matter what the weather is, either. Rain, snow, slush, extreme heat—nothing stops these hardy Cognoids from getting their Ultimate Frisbee fix.

Requiring equal parts strategy and athleticism, Ultimate Frisbee is a fun alternative to an indoor gym. Who needs an elliptical machine when you can run around outside chasing a Frisbee with your friends? It's

an incredible pick-me-up, too! Cognoids feel invigorated after a game—both physically and mentally.

According to Sheila DiPalma, Senior VP of Employee Services, the Ultimate Frisbee tradition fits right in with the company's

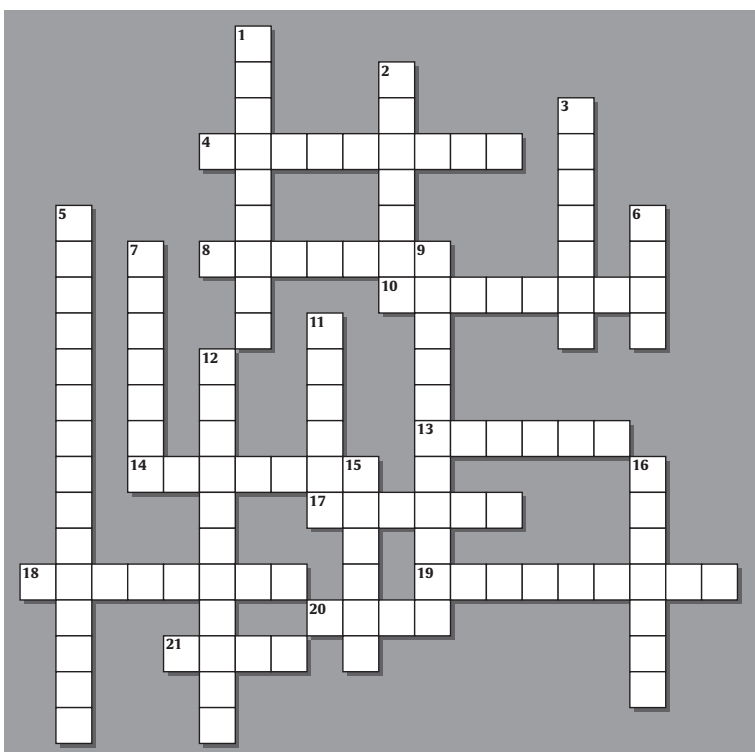


culture. "We couldn't be happier with it," she said. "Part of our motto is 'Play Hard,' and that's what we encourage Cognoids to do!" ■



**Slipped discs:** Flinging the Frisbee around enables Cognoids of all ages to work up a sweat—and sharpen their collaboration skills.

## Cognex Crossword



### Across

- 4 \_\_\_\_\_ of Culture (hint 'M')
- 8 President and CEO
- 10 Dr. Bob's last name
- 13 Cognex brand color
- 14 Name of Cognex barcode readers
- 17 Headquarter location
- 18 Paid quarterly by Cognex since 2003
- 19 Cognex's favorite holiday
- 20 How Cognoids move
- 21 The only way to play

### Down

- 1 Fast-growing market for Cognex products
- 2 Type of intellectual property protection
- 3 SVP of Employee Services
- 5 Popular sport among Cognoids
- 6 Cognex stock symbol
- 7 A Cognex employee
- 9 Cognex anniversary
- 11 Cognex's CFO
- 12 MOC gathering
- 15 CGNX trades on this exchange
- 16 Cognex is derived from Cognition \_\_\_\_\_

## JUMBLE

Unscramble these five Jumbles, one letter to each square, to form five ordinary words.

GTBUED  
 ○ □ □ □ □ ○  
 NIVTES  
 ○ ○ ○ □ □ □  
 IRPFOT  
 □ ○ □ □ □ ○  
 XGOCEN  
 □ ○ □ □ □ ○  
 TMYSES  
 ○ □ □ □ □ ○

This is going to be the best Cognex vision system ever!



THE COGNEX ENGINEER WEARS EYEGLASSES BECAUSE HIS GOAL IS —

Now arrange the circled letters to form the surprise answer, as suggested by the above cartoon.

Answer here:

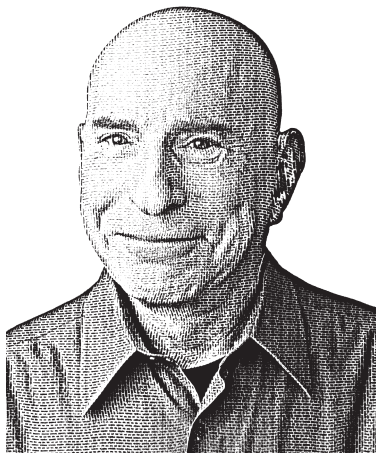
○ ○ ○ ○ ○ ○  
 ○ ○ ○ ○ ○ ○

See solutions on page A6



# Opinion Better to leave the free market alone

Cognex Chairman Dr. Robert Shillman asks, "What's the purpose of a publicly traded corporation?"



I've been reading your Money section as well as other business-focused publications for many years. Lately, there has been quite a lot of discussion about the faults of our capitalistic system and the purpose of publicly traded corporations. As the Chairman of Cognex Corporation, the company that I founded over 38 years ago and

which became public in 1989, I want to express my concern over this trend of bashing both our free enterprise system and our businesses which have thrived under that system for the past 200 years.

I'd like to start by quoting Thomas Sowell, a noted economist and Senior Fellow at Stanford University's Hoover Institution:



"Much of the social history of the Western world over the past three decades has been a history of replacing what worked with what sounded good."

Today, what "sounds good" to an increasing number of people are "democratic socialism," "a living wage," "fighting global warming," "reducing income inequality," "open borders and immigration," "sustainability," and "oversight over corporations, in particular regarding environmental, social, and governance issues (ESG)."

I'm not given enough space here to discuss all the above issues, so I'll just focus on the last one: oversight over corporations and the purpose of publicly traded corporations.

Oversight over anything can take many forms; it can range from simple to complex, from mild to severe. When it comes to corporations, oversight can range from simply requiring companies to report on their efforts, to the onerous terms in government legislation such as that proposed in The Accountable Capitalism Act (Senate bill 3348) introduced by Senator Elizabeth Warren in August of 2018. If passed, that bill would, essentially, put the federal government in control of all U.S. corporations...both public and private...having revenues greater than \$1 billion. If you think that this is an exaggeration, then read the bill yourself.<sup>1</sup>

As Warren's proposed legislation shows, there is an increasing desire to hold corporations accountable to all their "stakeholders," not just to their shareholders. This Stakeholder Theory is in stark contrast to the Shareholder Theory that was articulated by Milton Friedman many years ago, which states that the role of a corporation is to serve its shareholders by making as much profit as possible (in today's terms, he would say that the role of a corporation is to increase shareholder value as much as possible). Until recently, Friedman's



view held sway, but as Warren's proposed legislation shows, it is under intense attack.

Fortunately, neither the U.S. government nor its agencies, such as the SEC, have yet taken steps to influence or control how companies choose to function with regard to ESG issues. Unfortunately, that is not the case for large, institutional fund managers. These managers currently control over 80 percent of the market value of the Russell 3000 and the S&P 500 and, therefore, they hold significant power over their portfolio companies, via their proxy votes, which they use to pressure "their" companies to include ESG factors when making business decisions.<sup>2</sup> This is despite the fact that the companies in their portfolios are not really their companies; the actual individual shareholders who own shares in the mutual funds are the real owners of those companies. And I'm quite certain that the proxy departments of those funds do not solicit input from those shareholders regarding how to vote their proxies. If they asked

"By making our stakeholders richer, each of them can do whatever they wish to make the world a better place."

—Dr. Bob

them, "Do you want the board of directors and the managers of your companies to spend time and energy on environmental, social, and governance issues or do you want them to spend all of their time and energy on increasing the value of your shares?" I'm rather sure that an overwhelming number of them would choose the latter. The issue of proxy voting by large institutional shareholders is discussed in detail in a very recent article published in the New York Law Journal which concludes, "The best bulwark against overreach by institutions, proxy advisors, and other activists is a continued focus on the interests of the individual Main Street investor."<sup>3</sup>

To accomplish that, there must be reforms to the proxy process to ensure that those who vote the shares do so in the best interest of the shareholders who own those shares.

In essence, it comes down to the question, "what is the purpose of a publicly traded corporation?" When I searched Google<sup>®</sup> for background on that question, the first article that I came across was by the noted economist, Milton Friedman. In it, Friedman states, "...there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud."<sup>4</sup> I was quite surprised to discover that this position has been around for a very long time (the article was written in 1970—nearly 50 years ago), and, I was also quite surprised that it has been challenged in the past, as it is today.

Where does Cognex stand on the issue of ESG and on the role of our company? The answer is, and has always been since our founding in 1981, in our mission statement, which has two parts:

*To be the largest and most successful company in the world that provides products which incorporate Artificial Intelligence technology for understanding images, and*

*To be a company that exceeds the expectations of its stakeholders...its customers, employees, vendors, shareholders, and neighbors.*

I suppose that the first part of our mission is similar to that of many other companies—every company wants to be first in its field. However, we believe that by being first, Cognex not only makes high profits, but by doing so it also contributes to society. How is that possible? How can making a lot of money be a good thing for society?

Although the company doesn't have any specific programs for helping the environment, fighting global warming or fighting poverty, our products play a very important role in each of these areas. For example, our machine vision sensors and systems enable the production of items that have no flaws or defects...thus eliminating rework and scrap that would

otherwise end up in landfills. They also enable factories to operate efficiently and use less energy and, therefore, create fewer pollutants that harm the environment. And, through our products' key role in enabling automation, which lowers manufacturing costs, we help make it possible for people around the world to purchase products that they would otherwise not be able to afford. And our advanced barcode readers enable on-time and accurate deliveries from major e-retailers and, at an increasing number of airports, we ensure that your luggage arrives on the same flight as you do. Fewer packages to be re-routed, fewer bags lost means less fuel burned and less carbon dioxide in the atmosphere.

The second part of our mission is rather unusual, and Cognex takes that part of our mission as seriously as we do the first.

We strive to take care of all our stakeholders: our customers, our employees, our vendors, our shareholders and our neighbors. For our customers, we provide the highest quality products and services at prices that they can readily afford, and we survey them to ensure that we continue to satisfy their needs. With regard to our employees, we strive not only to give them very competitive compensation packages, but we also work hard to ensure that Cognex is an enjoyable place to work at each day. With regard to our vendors, we pay our bills on time (no kidding!) and we pay fair prices—not necessarily the lowest—for their products and services; we want them to be profitable so that they will

be able to continue to serve us well and enjoy doing so! We even survey our vendors to ensure that our purchasing department treats them as we treat our employees—as valued members of the Cognex team. Regarding our shareholders, they share in our success via quarterly dividends, stock repurchases and, hopefully, through share appreciation. And, finally, regarding our neighbors, we are a model corporate citizen; we've been recognized as one of the most charitable companies in Massachusetts, helping our communities in various ways, beyond

paying taxes. And, as a worldwide corporation, we recognize that we have neighbors around the globe. To help serve their needs, we make meaningful charitable contributions each year to local causes ranging from providing computers to schools and libraries in Natick, Massachusetts to providing seeing eye dogs to the blind in Cork, Ireland.

And, we accomplish all of this without the dictates of government or pressure from fund managers or other organizations.

Milton Friedman would certainly appreciate the first part of our mission statement, because it is about profit. And, although there is no explicit commitment made regarding ESG in the second part of our mission statement, it is clearly implied.

In addition to what Cognex does directly for the environment and for society, our success enables all our stakeholders to "do their own thing" for causes that they find important. By making our stakeholders richer, each of them can do whatever they wish to "make the world a better place," with the products that we sell them, with the salaries and stock option grants that we give them, with the monies that we pay them, and with the dividends and growth stock that they hold.

The free market has worked great for Cognex and for all its stakeholders for the past 40 years; why change it?

*R. J. Shillman*

Robert J. Shillman  
("Doctor Bob")  
Chairman and Chief Culture Officer  
Cognex Corporation

1 Senate Bill 3348, The Accountable Capitalism Act. See: <https://www.congress.gov/bills/115th-congress/senate-bill/3348/text>

2 Corporate Governance Update: Proxy Voting and the Future of Corporations. New York Law Journal, November 29, 2018. See: <https://www.law.com/newyorklawjournal/2018/11/28/proxy-voting-and-the-future-of-corporations/?sreturn=20190002144610>

3 Ibid.

4 The Social Responsibility of Business is to Increase its Profits. The New York Times, September 13, 1970. See: <https://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html>



## Up close and technical with Dr. Bob



**The road ahead:** Shillman takes great pride in anticipating—and avoiding—speed bumps that might prevent Cognex from reaching its goals.

Continued from page A1

ment would tolerate, or better yet, where the management preferred outspoken people like myself who don't care about office politics or bureaucratic rules, but who want to do what's right for the company and for its customers."

Unable to find an existing company like that, Dr. Bob decided to create one himself. And just like that, Cognex was born.

### Guiding Principles

When Dr. Bob started Cognex, he had a specific mission statement in mind. Made up of two goals, this mission statement still guides the company 38 years later:

- To be the largest and most successful company in the world that provides products which incorporate Artificial Intelligence technology (AI) for understanding images, and
- To be a company that exceeds the expectations of its customers, employees, vendors, shareholders, and neighbors.

### Eyes Straight Ahead

Looking in the rear view mirror occasionally is fine for seeing just how far he's gone, but Dr. Bob knows he must

"Success is a journey, not a destination..."

—Dr. Bob

spend most of his time looking at the road ahead to circumvent roadblocks and to set new milestones in technology, revenue, and profits.

"Success is a journey, not a destination, and when we look down the road, we see tremendous opportunities in the years ahead for Cognex in a variety of applications and industries," he concluded. "We're excited about continuing the journey that I started 38 years ago."

Who knows, maybe this was just the first chapter in the Dr. Bob and Cognex story. ■

### Cognex Values



**Customer First**  
Customer satisfaction is our top priority.



**Excellence**  
Good is not good enough; we strive for excellence.



**Perseverance**  
We don't stop until it's done right.



**Enthusiasm**  
We enjoy what we do, and it shows.



**Creativity**  
We delight in being different.



**Pride**  
We are proud of our company.



**Integrity**  
We hold ourselves to the highest ethical standards.



**Recognition**  
We acknowledge those who contribute to our success.



**Sharing**  
When Cognex wins, we all win!



**Fun**  
We play hard to celebrate our achievements.





# Money



**Forward momentum:** Life sciences is a promising market full of growth potential.

## Long-term economic strategy

Cognex enters adjacent markets that hold promise for future growth.



**Home cooking:** Cognex brings its business to a boil by keeping one eye on the future.

## Cognex reveals secret recipe

Customer focus, innovation, and an entrepreneurial spirit are key ingredients in Cognex's "special sauce."

### USA Today Snapshots

#### By the numbers

More than 2 million vision-based products have been shipped since 1981.



### Special Insert

An open book: Read more about Cognex in the company's 2018 Form 10-K.



## ESG: One size doesn't fit all companies



**A meaningful approach:** CFO John Curran speaks candidly about ESG.

#### By Rachel Harmony

NATICK—Environmental, social, and governance (ESG) factors are increasingly being prioritized by asset managers. While the motivation is certainly understandable, one big obstacle is the difficulty to benchmark diverse companies using uniform criteria when ESG means different things to different people.

Cognex serves as a great example of a company that, by remaining true to its corporate values, has aligned itself with the broader principles of ESG. "Actually, we've never really thought in terms of ESG," said Cognex Chief Financial Officer John Curran, who joined the company two years ago. "What attracted me to join Cognex is the strong and unique corporate

"Our approach is to find an appropriate balance that's meaningful to Cognex."

—John Curran

culture and the fact that they have always been focused on exceeding the expectations of all of their stakeholders—customers, employees, vendors, shareholders, and neighbors."

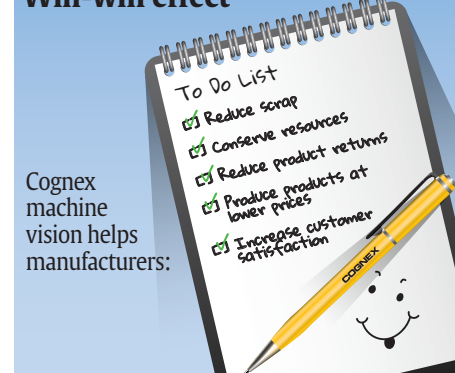
Curran reasons that Cognex's culture and mission will, in turn, drive revenues and profits, and create long-term and sustainable value for the company. For example, the Play Hard part of Cognex's culture makes the company a great place to work and increases employee retention as well as motivation. This is a huge source of value creation for the company.

"Our approach is to find an appropriate balance that's meaningful to Cognex,"

said Curran. "By focusing on what we do best—producing best-in-class products for manufacturers around the world—and making decisions that align with our 10 core values, all our stakeholders will ultimately benefit." ■

### USA Today Snapshots

#### Win-win effect

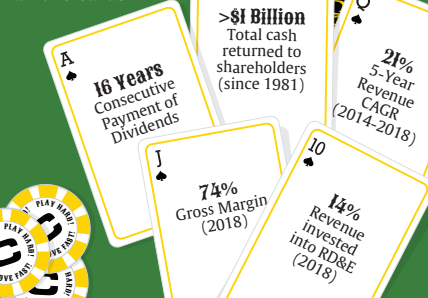


Cognex machine vision helps manufacturers:

### USA Today Snapshots

#### A winning hand

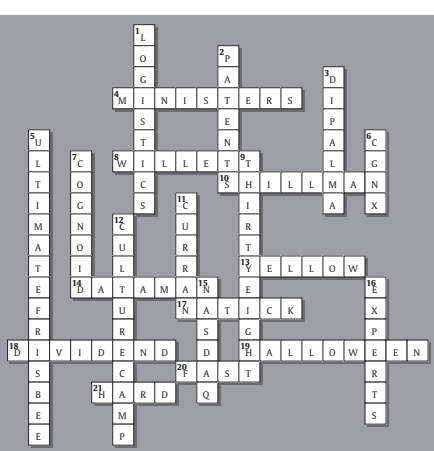
Cognex holds all the cards



### JUMBLE SOLUTION

**BUDGET INVEST PROFIT COGNEX SYSTEM**  
The Cognex engineer wears eyeglasses because his goal is – **BETTER VISION**

### CROSSWORD SOLUTION

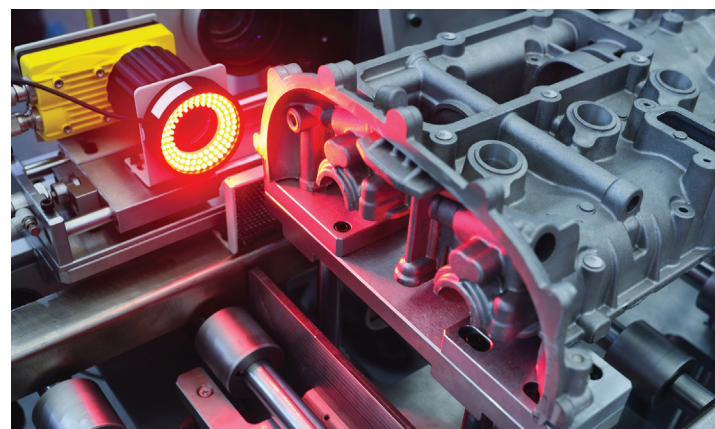


## Cognex leads the way in machine vision

#### By Howie Stank

NATICK—Every day millions of people perform basic tasks that can be done better and more cost-effectively by machines. This reality alone would be enough to drive the growth and adoption of machine vision linked to robotics and advanced automation over many years.

But there are other reasons behind burgeoning machine vision sales. These include a demand for higher quality products, wages rising faster than productivity, labor shortages, a desire for higher throughput, and products that are increasingly becoming



**Well-oiled machine:** The adoption of machine vision is expected to continue for many years, and that's great news for Cognex's future.

too small for human hands to assemble.

#### Bigtime Player

A leading player in the fast-growing machine vision market is Cognex Corporation.

The company focuses on industrial applications where their industry-leading software provides customers with a critical advantage as they strive to reduce costs, bring new technol-

ogies to market, and introduce those technologies into their product lines. The company's achievements in logistics during 2018 show how effective this approach can be.

With a desire to become a much larger company, Cognex's goal is to grow revenue by 20% compounded annually over the long term. Underpinning their success will be the company's unique corporate culture, core values, and entrepreneurial spirit.

#### Growth Spurt

In 2018, Cognex revised upward the estimated size of its target market by 20% to \$3.5 billion. This increase reflects growth in the underlying market and new applications being addressed by Cognex products since their previous estimate was published in 2016.

Importantly, Cognex calculates its own market estimate because there is no reliable third-party data available. They use historical information and take a narrow, conservative view of the applications that can be addressed today by Cognex products. Their market estimate also excludes potential opportunities that may develop over time, as well as those segments the company chooses not to target.

#### A Bright Tomorrow

Overall, Cognex believes that their target market can grow by high single digits in the coming years. Cognex intends to continue to outperform market growth because of superior technology and the strength of customer relationships.

Furthermore, they plan to gain share and expand applications in their current market and enter market adjacencies they believe offer high growth potential and high-margin opportunities for Cognex machine vision. ■

## Information for Cognex Shareholders

NATICK—The Cognex team wants shareholders to know that a copy of the Annual Report on Form 10-K filed with the Securities and Exchange Commission is available free of charge upon written request to Cognex Investor Relations at the address below, or via online request at [www.cognex.com/investor](http://www.cognex.com/investor).

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#### Forward-Looking Statements

This report, including the Chairman's letter and the CEO's letter, may contain "forward-looking statements" within the meaning of the Securities Act of 1933 and the Securities Exchange Act of 1934. For further information, please see the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Form 10-K. A discussion regarding risks associated with forward-looking statements is included under the heading "Forward-Looking Statements." All information in this report is subject to change without notice.

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Wear what the Cognoids wear.

Get yours today!

\* Available sizes: "Tight," "Extra Tight," and "Oh My Heavens, Did You See That?"

