

A Workplace Journey 35 years and beyond

IFMA

Minneapolis, MN
Jan 31, 2019

**PERKINS
+ WILL**

1984



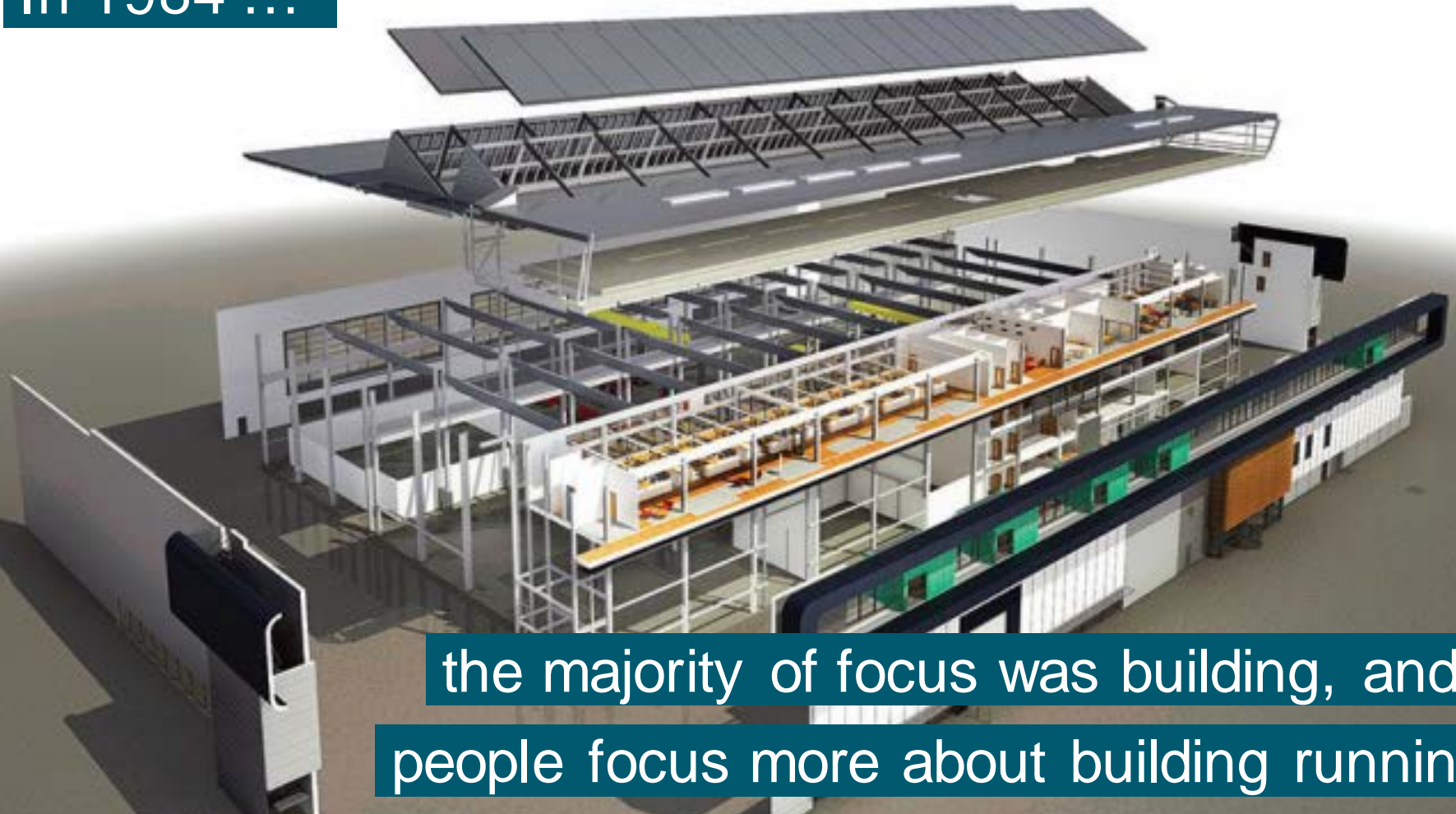
George Graves at Podium
Sources from IFMA

CHANGES IN WORK ENVIRONMENT OVER DECADES



The diminishing size of the cubicle didn't help its plummeting popularity. The average cubicle shrunk between 25% and 50% in size between the mid-1980s and mid-1990s, according to The Washington Post.

In 1984 ...



the majority of focus was building, and
people focus more about building running

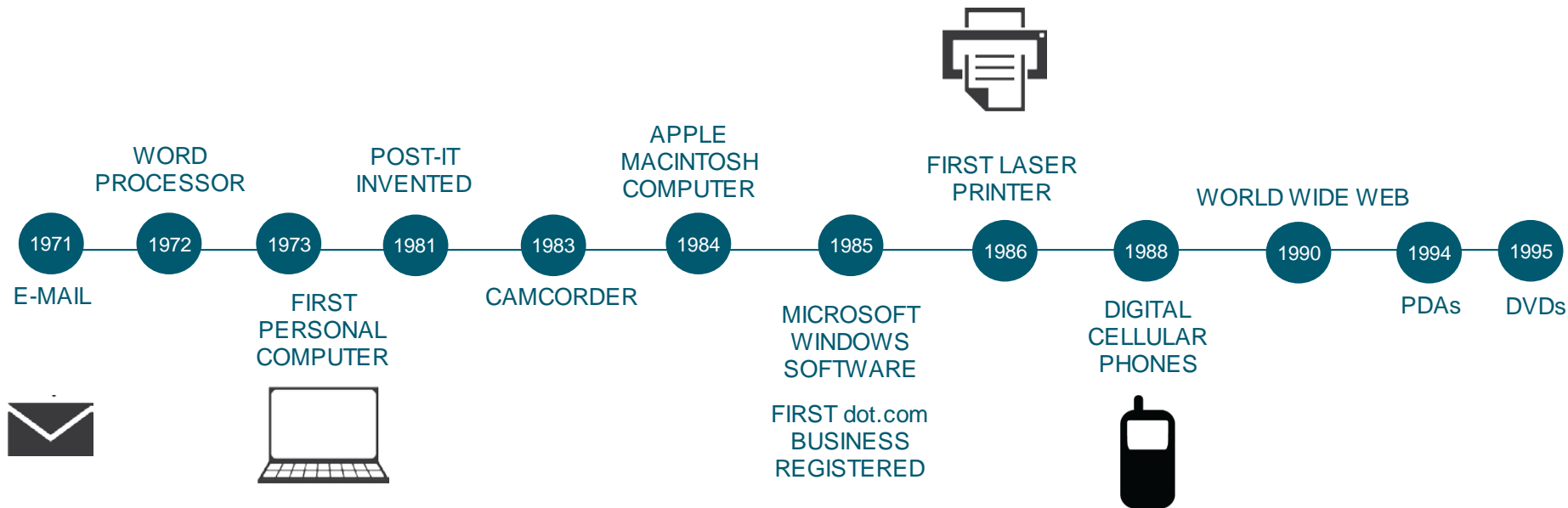


In 1984 ...

there was no degree program for FM

TECHNOLOGY TRENDS

1970's to 1990's (JIVE, 2016)



TECHNOLOGY TRENDS

2000's to 2015 (JIVE, 2016)



2001

GPS



2003

SKYPE



2007

APPLE
PHONE



2012

GOOGLE DRIVE
(commonplace file-sharing
platforms)

2013

MAINSTREAM
COLLABORATION
TOOLS AND APPS



2015

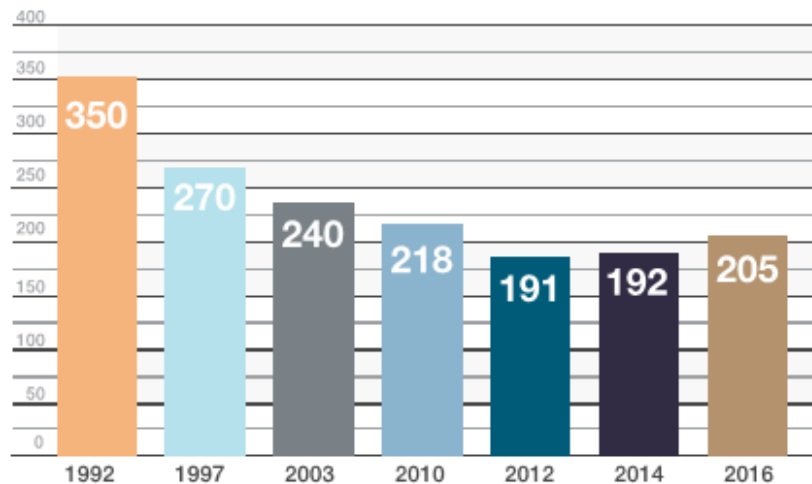
STANDING
DESKS

In 1997, Steelcase survey found 93% of participants who worked in cubicles wanted to switch workspaces.

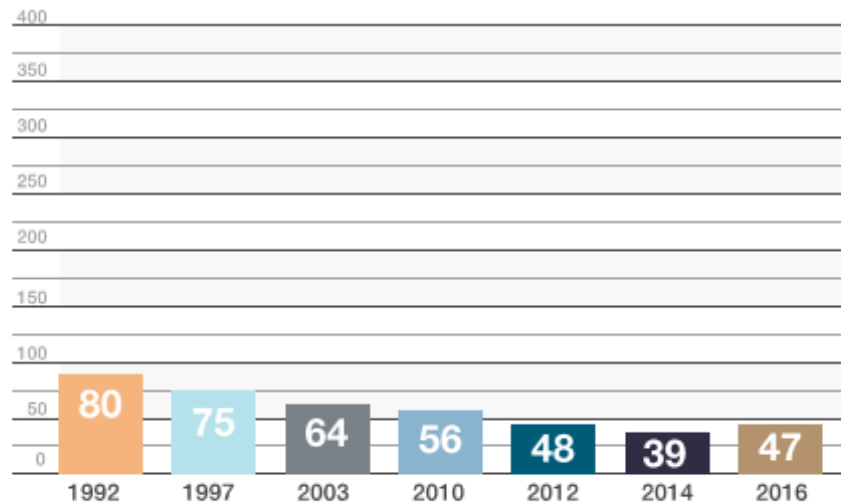


SPACE TRENDS

Area: USF/P
w/ amenities

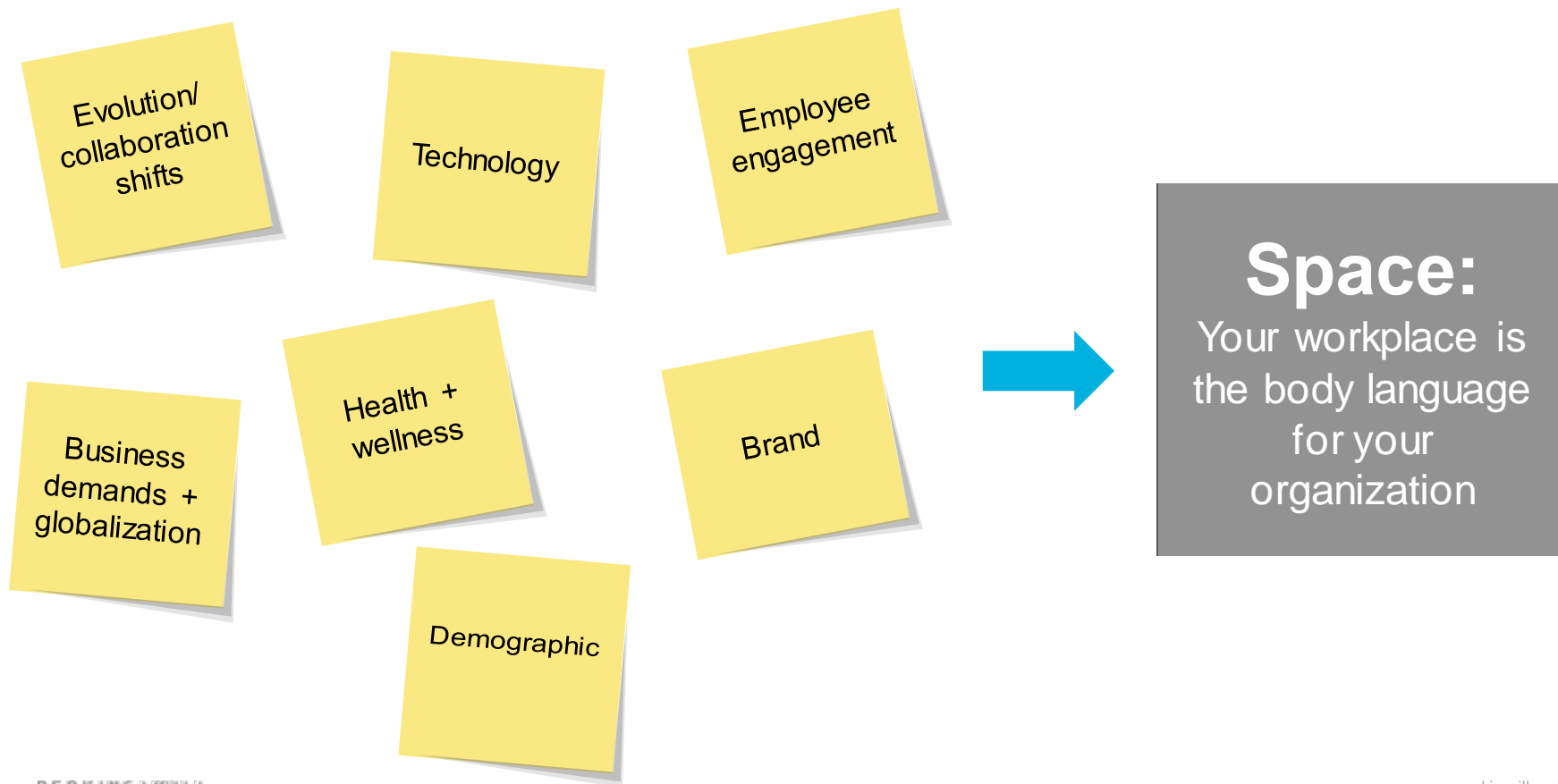


Square Footage Workstation



Source: Jacobs Workplace Performance Strategies, 2018

Forces in the workplace



Revenue pressures
Demand for innovation
Speed of decisions
Global competition
Brand alignment
Global teams
Complex problem solving



Future of technology

Using cloud, Wi-Fi everywhere, power available, multifunctional furniture, touch displays, social networking, ad-hoc video conferencing, intelligent, integrated, intuitive solutions.



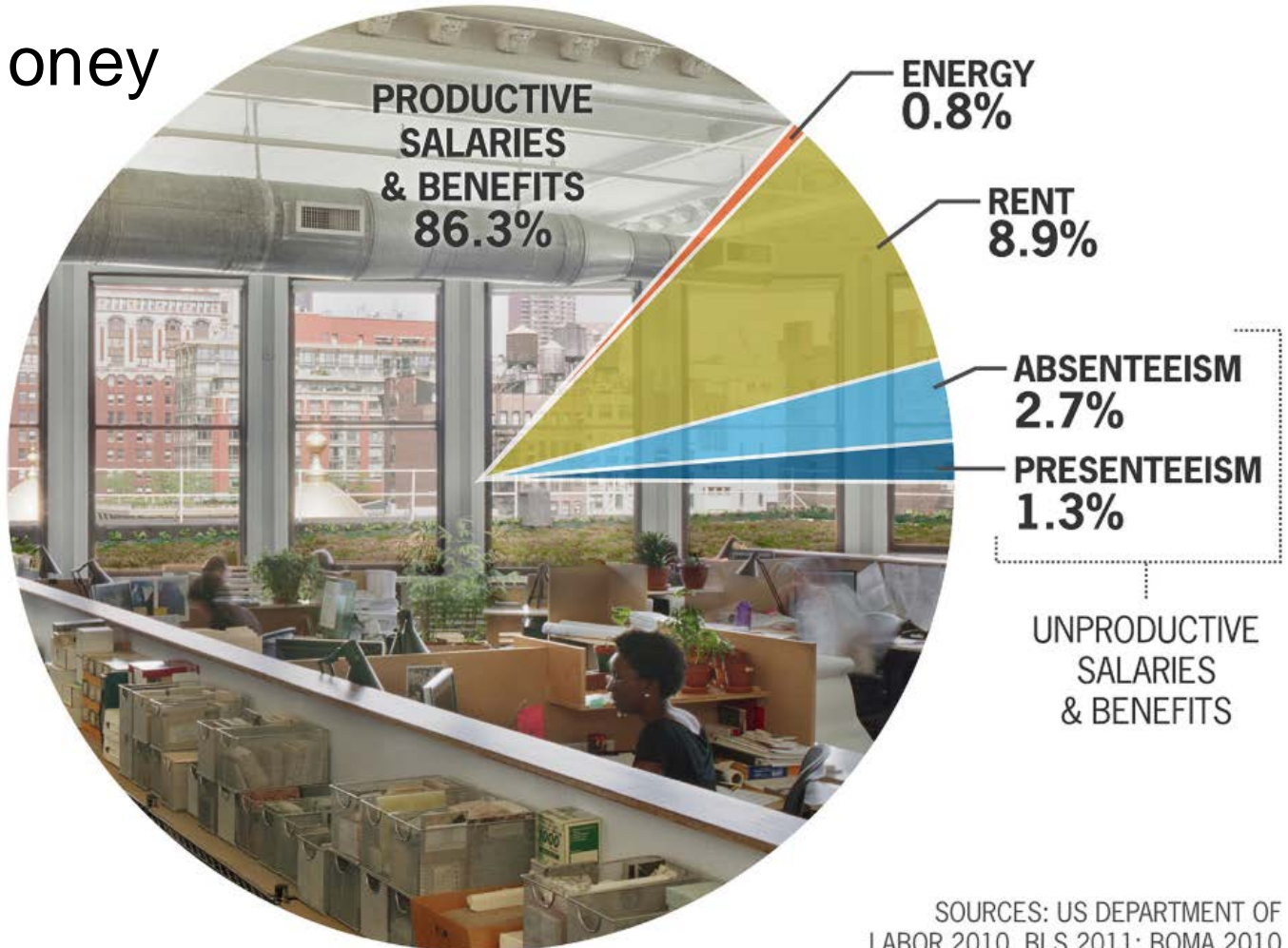
In 2005 **1%** of Americans owned a smart phone. In 2016 that number is **75%**



Technology has transformed the work environment
and how information is shared.

Only **30%**
of U.S. employees
strongly agree that they
have the materials and
equipment they need to
do their work right.









Follow the Money





Focus is shifting
from building to the people

2020 INTO THE FUTURE

 WHO	1945-1960 Baby Boomers	1961-1980 Generation X	1981-1995 Generation Y	1995-Today Generation Z
 VALUES	Security	Balance	Freedom	Stability
 TECH	Adaptors	Adaptors	Digital Natives	Technoholics
 ICONIC PRODUCT				

2020+

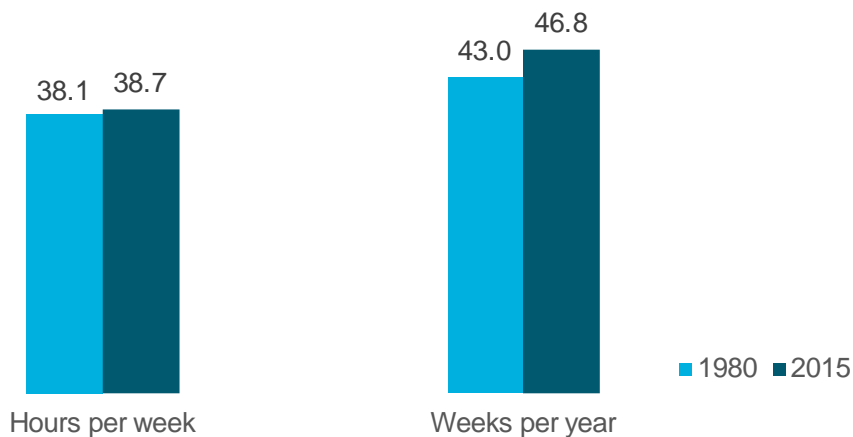
8%

28%

33%

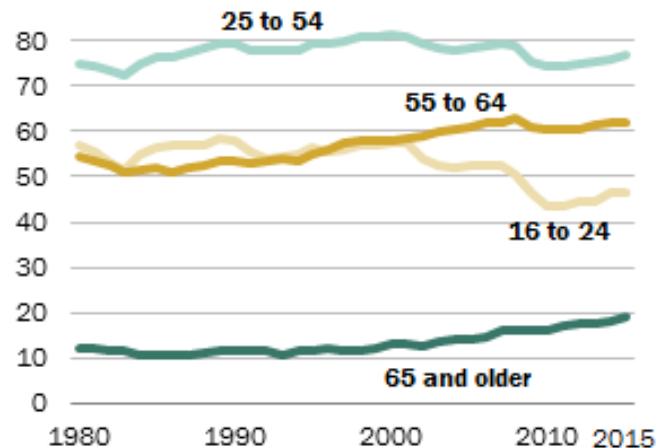
31%

PEOPLE ARE WORKING HARDER AND LONGER



Workers are putting in an average of nearly **4 more weeks** of work annually

The typical workweek has increased to **38.7 hours** in 2015 from **38.1 hours** in 1980

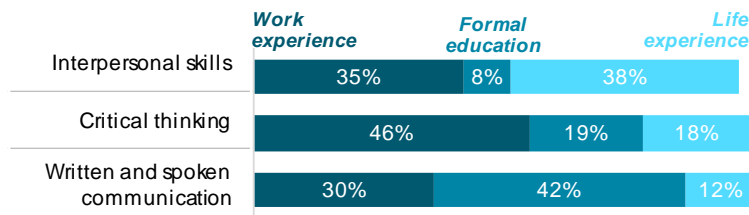


A rising share of the population ages 65 and older is working from **12%** in 1980 to **19%** in 2015

WORKFORCE CHANGES

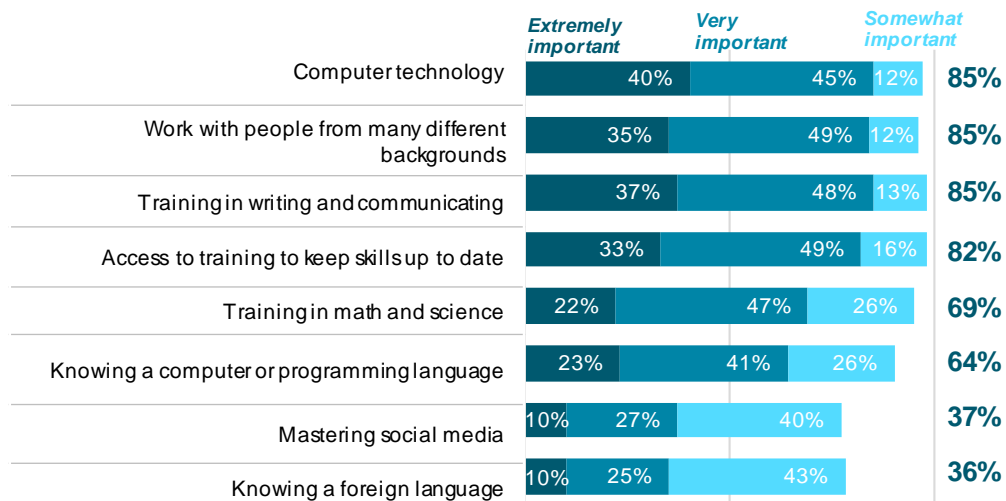
Skills & Traits

How and what they learn



Workers who rely heavily on interpersonal skills, critical thinking and good communications skills report that they acquired these skills in different settings

Critical skills



Source: Survey of U.S. adults conducted May 25-June 29, 2016

DESIGN FOR EXPERIENCE

Create a **dynamic and responsive** environment that engages the **physical, emotional, intellectual and aspirational** elements of work:

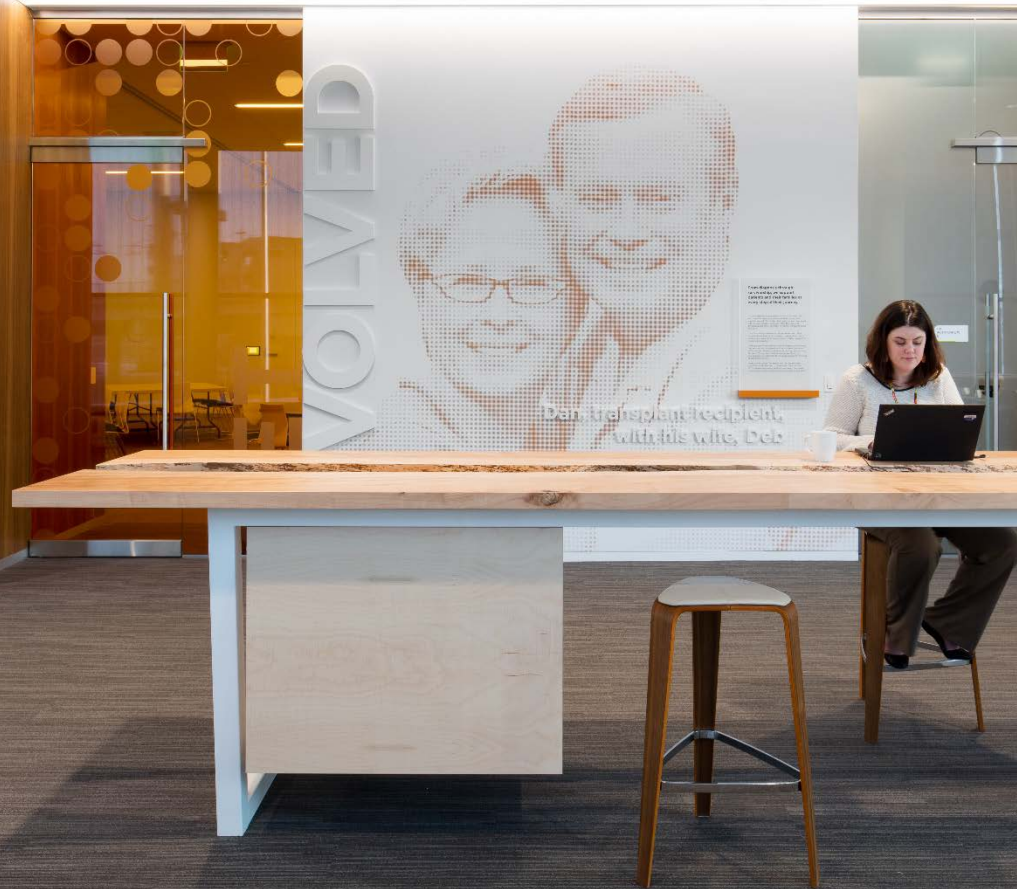
1. Inspire a Greater Purpose
2. Spark New Connections
3. Support Diversity
4. Promote Well-Being

The background of the entire image is a dense, overlapping arrangement of numerous open books. The pages are mostly aged and yellowed, with some showing signs of wear and discoloration. The text on the pages is small and dense, typical of older printed works. The books are laid out in a way that creates a textured, layered effect, with some pages more prominent than others.

① Inspire a Greater Purpose //

Why am I here?

INSPIRE A GREATER PURPOSE

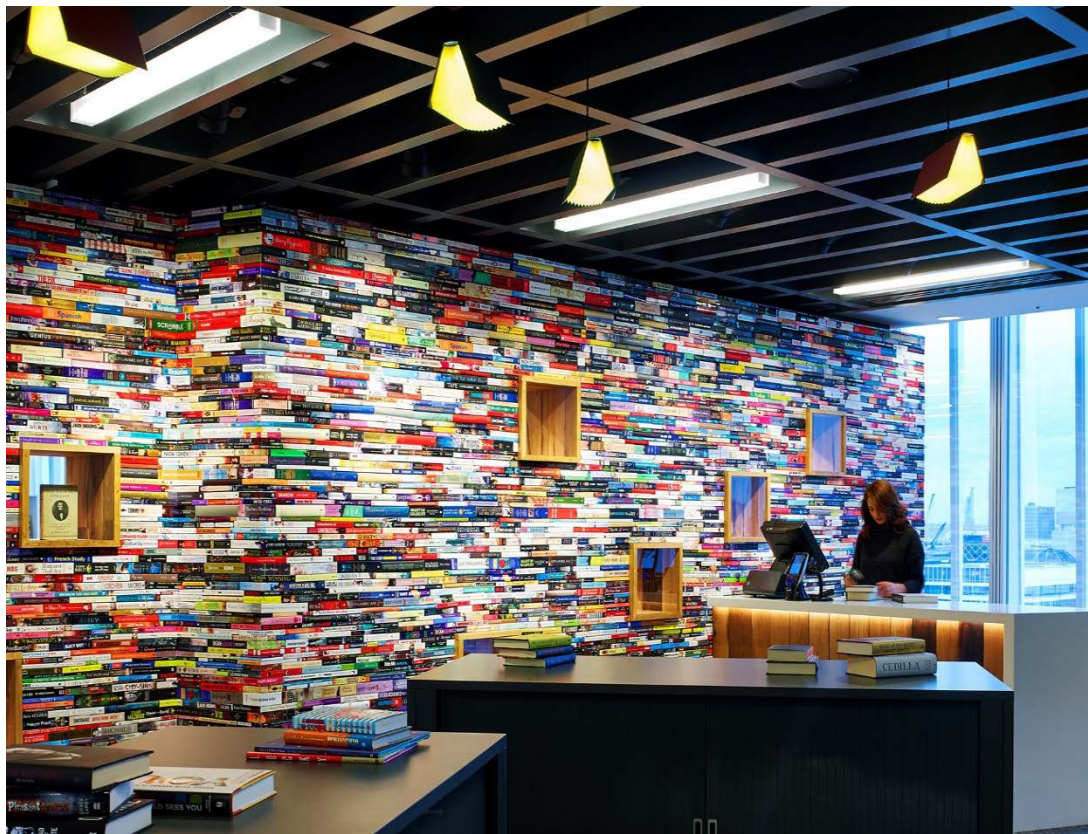


INSPIRE A GREATER PURPOSE // ENGAGEMENT

70% of employees in America are disengaged. Why go to the office? If **meaning and purpose infiltrate** the workplace, employees will seize it.

Only about 4 in 10 employees know what their company stands for and what makes its brand different from its competitors'.

Source: "Why Your Company Must Be Mission-Driven,"
Gallup News





② Spark New Connections //

A Network of Limitless Connections.

SPARK NEW CONNECTIONS // FACE-TO-FACE

Creating space for **social contact** will build **strong business relationships** and promote trust among team members.

Those who had an opportunity for 15 minutes to chat and socialize with coworkers showed a **20% increase** in performance.

Source: "Why You Need to Actually Talk to Your Coworkers Face-to-Face," [FastCompany.com](https://www.fastcompany.com/4048111/why-you-need-to-actually-talk-to-your-coworkers-face-to-face)

PERKINS+WILL



SPARK NEW CONNECTIONS // A PHIGITAL WORLD

It's no longer work/life balance; it's phigital. For Gen Z, the **real world** and **digital work overlap**. Virtual is reality.

91% of Gen Z say that a company's "technological sophistication would impact their decision to work there."

Source: *Gen Z @ Work*, David and Jonah Stillman


PERKINS+WILL



Support Diversity//

Maximize Human Potential.

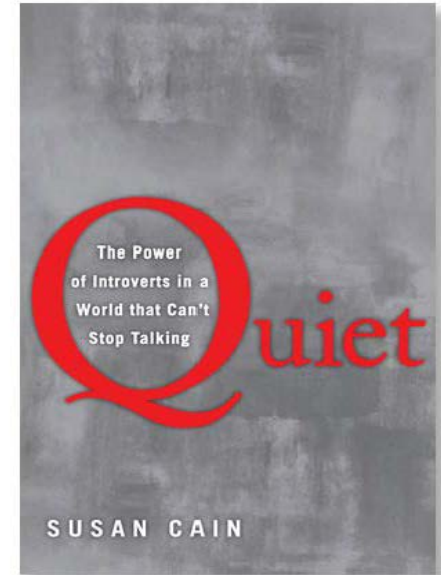
Balancing Collaboration with Focus



WORKSTYLES

Find your productivity sweet spot.
The optimal level of ambient activity for productive work is informed by the individual, task and environment..

70 decibels
-or the equivalent to a
normal conversation at 3'-
is the ideal level of ambient
sound for creative
thinking.




CELEBRATE DIVERSITY// CHOOSE YOUR OWN ADVENTURE

While a highly structured, tightly scheduled workplace may be perceived to foster productivity, a **more relaxed, unstructured environment unlocks creativity.**

97% said their best ideas come to them while in the shower, on vacation, taking walks, enjoying a glass of wine, or just doing nothing.

Source: *The Workplace of the Future: Connected, Collaborative, Creative*, Cisco Blogs
PERKINS+WILL



A photograph of a modern, multi-level office interior. The space features a large, wide wooden staircase with blue and green cushions. To the left, there is a lounge area with blue sofas and white armchairs. The background shows multiple levels of the building with glass railings and people walking. The overall design is open and collaborative.

Employees who can move to different areas while working are 1.3 times more likely to be engaged than employees who cannot.

Source: "State of the American Workplace," Gallup

a g - i l e

'ajəl/

Adjective

1. Able to move quickly and easily.



Co-working
could account for

30%

of corporate office
portfolios by
2030

④ Promote Well-Being //

Maximize Human Potential.





Americans, on
average, spend
approximately
90% of their time
indoors.

Sources: The National Human Activity Pattern Survey (NHAPS)

PROMOTE WELL-BEING // ROI

Wellness is the next Trillion Dollar industry as employers invest in healthy living programs and employees take more responsibility for optimizing their own health.

59% of workers are physically depleted, emotionally drained, mentally distracted, and lacking meaning and purpose.

Source: *What is Quality of Life at Work?* HBR.org & The Energy Project



PROMOTE WELL-BEING // NEUROSCIENCE & DESIGN

Science will play a role in devising dynamic responses to environmental elements such as **color, acoustics, and lighting** to optimize performance for all human conditions

The World Health Organization states that 20% of an individual's health status is a direct result of the quality of their environment.



PROMOTE WELL-BEING

59%

of workers are
physically depleted,
emotionally drained,
mentally distracted,
and lacking meaning
and purpose.

Sources: Harvard Business Review & The Energy Project (2016)



STRATEGIES AND SYSTEMS



1,200+

LEED ACCREDITED
PROFESSIONALS



32

FITWEL
AMBASSADORS



22

WELL ACCREDITED
PROFESSIONALS

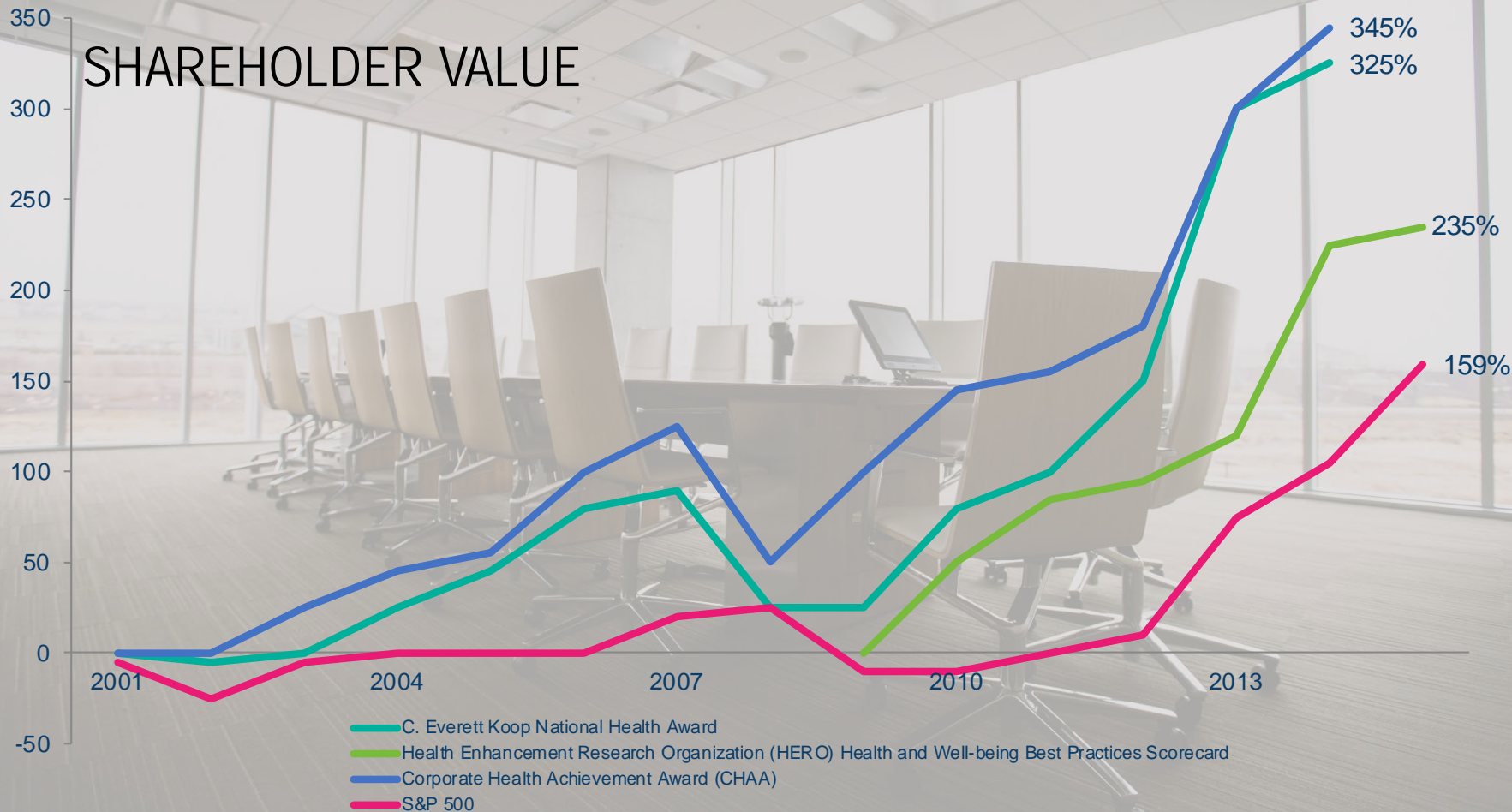


58

RELi ACCREDITED
PROFESSIONALS

SHAREHOLDER VALUE

% Return



IS OPEN PLAN DEAD?

“Face to face interaction decreased by an average of 69%”

“Email exchanges, as before, increased by an average of 36%”

“Benefits of enhanced ‘ease of interaction’ were smaller than the penalties of increased noise level and decreased privacy resulting from open-plan office configuration”



**Harvard
Business
Review**



**Queensland University
of Technology**

A large elephant is standing in an office environment, its trunk reaching down towards a desk. The office is filled with desks, chairs, and computer monitors. The entire scene is overlaid with a semi-transparent orange filter. The text 'ARE WE MEETING PERFORMANCE EXPECTATIONS?' is written in large, white, sans-serif capital letters on the left side of the image.

ARE WE MEETING PERFORMANCE EXPECTATIONS?

Access · Adjacencies · Architecture · Sound · Light · Temperature



BRAIN BASED DESIGN

NEURO-ARCHITECTURAL INTERACTIONS



1. LIGHT

Visual System

2. SOUND

Auditory System

3. LOCATION

Spatial Awareness

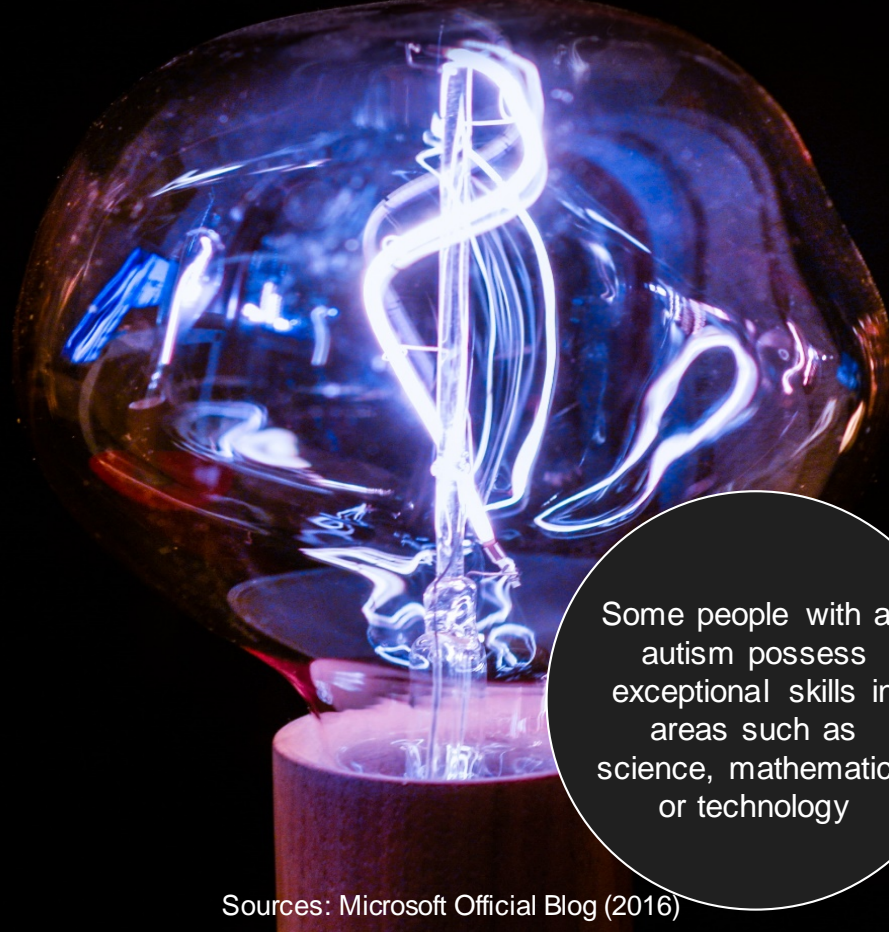
4. ACTION

Movement + Memory

5. COGNITION

Thinking + Performance

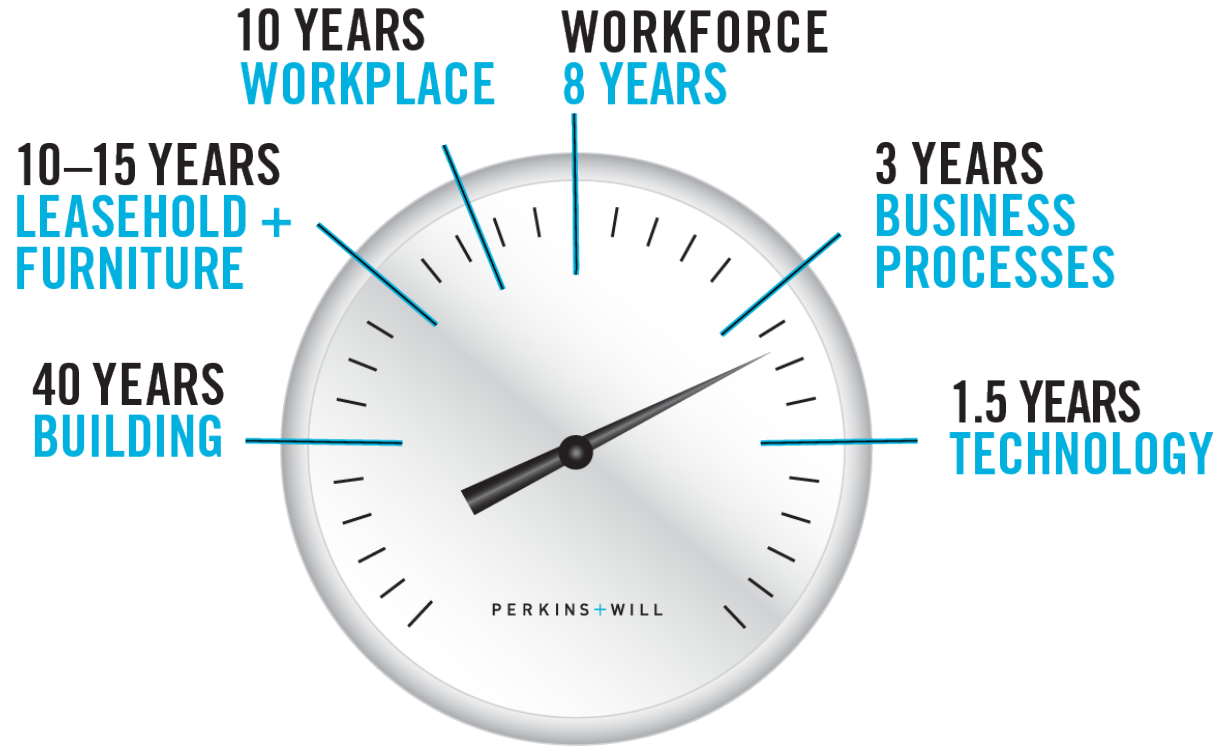
Neurodiversity as a Competitive Advantage



Some people with an autism possess exceptional skills in areas such as science, mathematics or technology

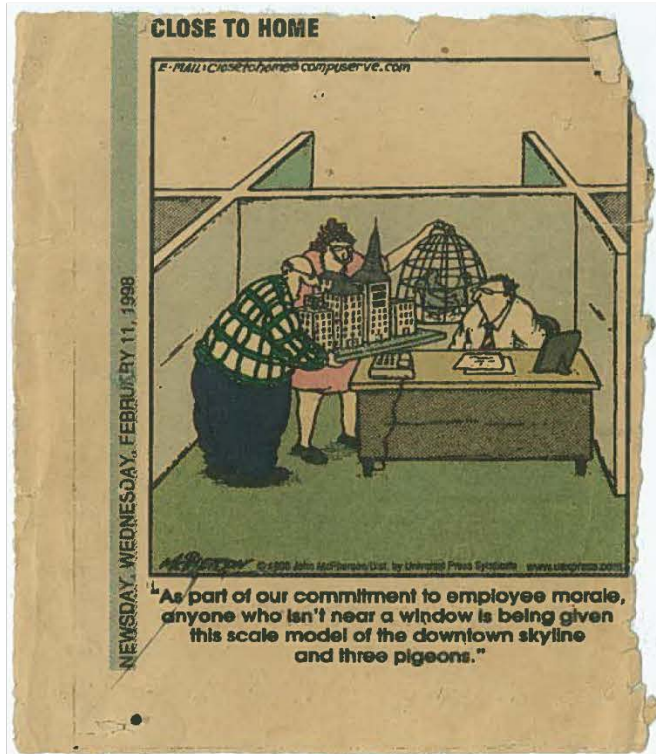
Microsoft launched a pilot program to hire people with autism. In the months since the program began, Microsoft has hired 11 new employees who have autism

Flexibility + Adaptability



Work is changing faster than workplace.

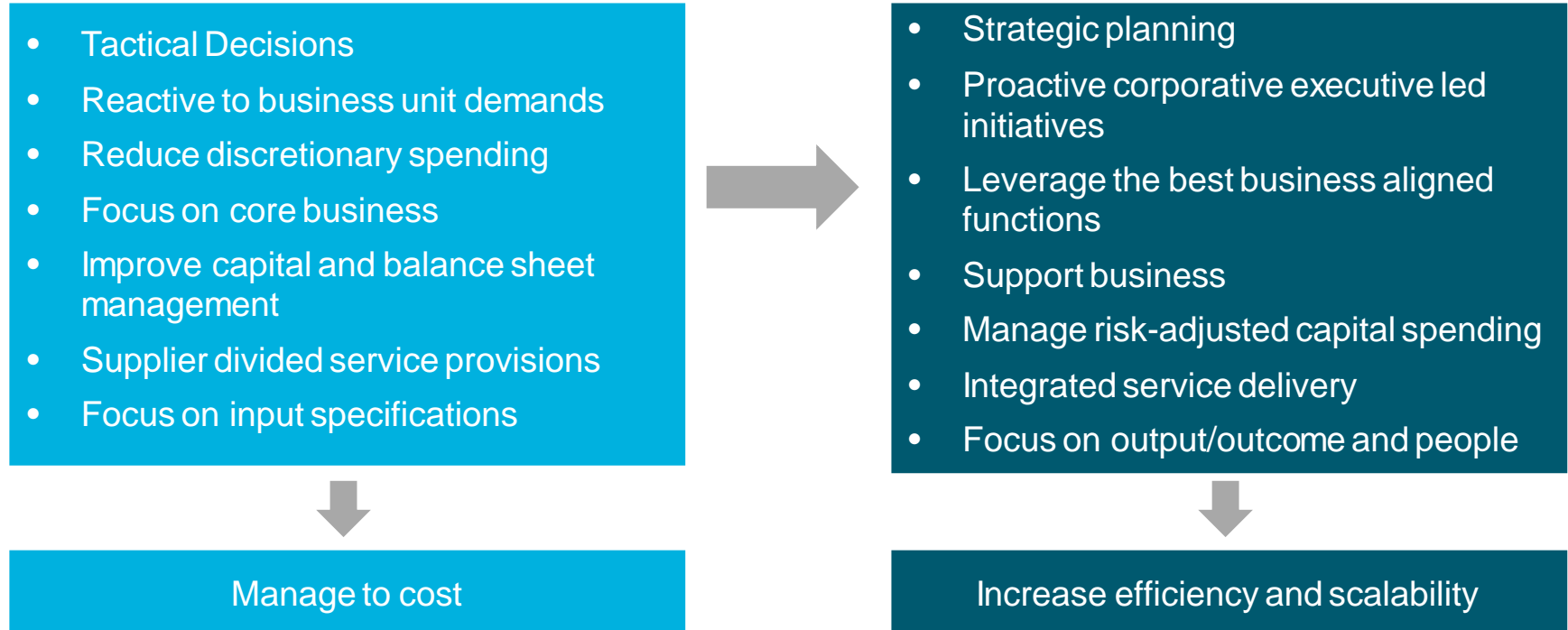
Change Management



CHANGE MANAGEMENT CIRCA 1998

“As part of our commitment to employee morale, anyone who isn’t near a window is being given this scale model of the downtown skyline and three pigeons.”

FOCUS OF FACILITIES MANAGEMENT IS SHIFTING



Source: ISS World Services, 2013

TOMORROW.... WHAT'S NEXT?



Now and in future ...
Internet of Things (IoT)





20%

Overall operating cost reduction



Personal App

By MapiQ

To: Localize colleagues, book rooms (Q4 2018), control light, ticketing and for wayfinding



Building Dashboard

By Nuuka

The most accurate energy monitoring tool in the US.



Guaranteed Energy Consumption

Per year

Produced by solar panels on two roofs



15,000

Sensors

To measure temperature, occupancy, localize colleagues, enable personal light control, track humidity and daylight



New Atrium

"Marketplace"

Combining the four main buildings



75+%

Zero waste to landfill during construction



For Every 1 Tree Removed, 2 Planted



40% Cars off Roads
Via employee shuttles



41% Reduction in Square Footage

325,000 sqf.



50%

Potable water demand reduction target



Company Store

For purchasing Unilever products

Discounted purchasing of the Unilever food, home and personal care products enjoyed by 2.5 billion people globally each year.



IoT Connected Building

Connecting everything



Gym



50% Reduction CO₂ Emission (target)



50% Energy Reduction (target)



1,600 Occupants

Instead of its original 1,000

The new headquarters increases the overall size of the property by 13 percent



New Covered Parking Garage

With 650 parking spaces



16,000 sqf.

Of new atrium

Market place with stadium seating for 2,000 people

Employee



Room
Booking



Indoor
Positioning



Workplace
Finder



Colleague
Finder



Personal
Comfort



Smart
Parking



Comfort that
follows

Facility Manager



Smart
Cleaning



Predictive
Maintenance



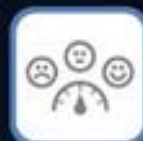
Smart
Security



Asset
Tracking



Building
Analytics



Employee
Satisfaction



Property
Value



Energy
Efficiency



bGrid® API

bGrid® Node



bGrid® Smart Building network

Real Estate Manager



Built in sensors

bGrid®



Lighting



Ventilation



Heating &
Cooling



Blinds



Phone



Etc.

Connects with Everything



iBeacon



Positioning



Asset tracking

TECHNOLOGY TRENDS

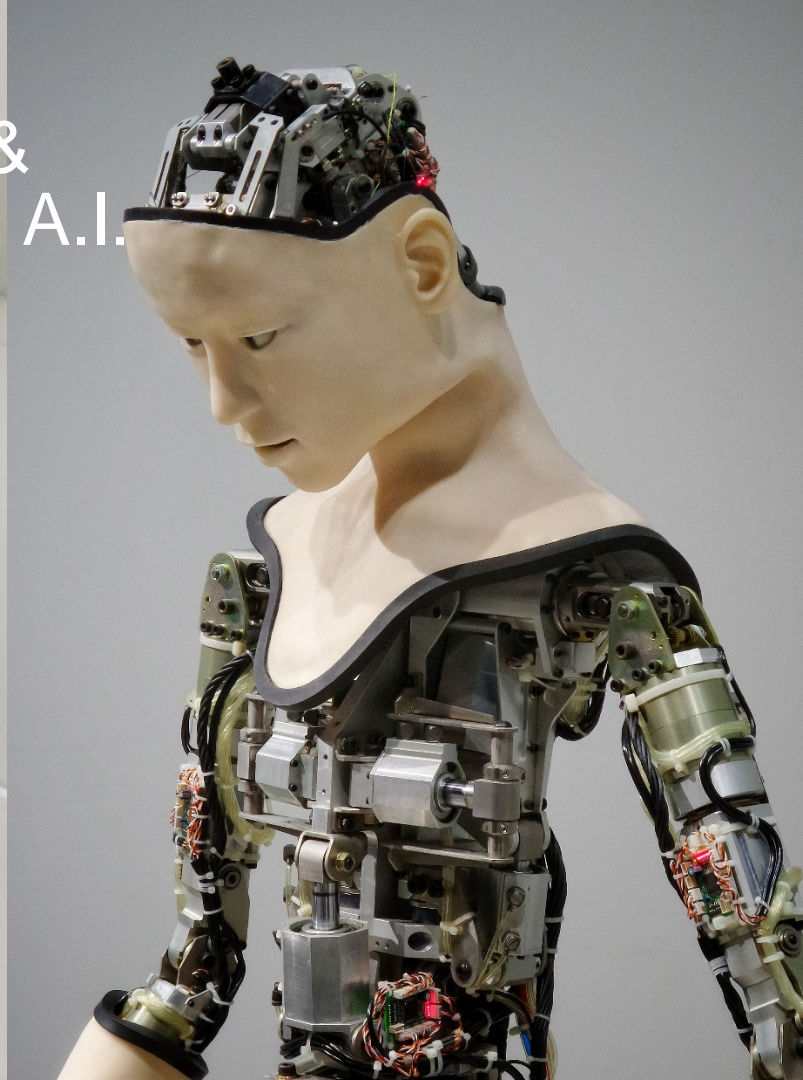
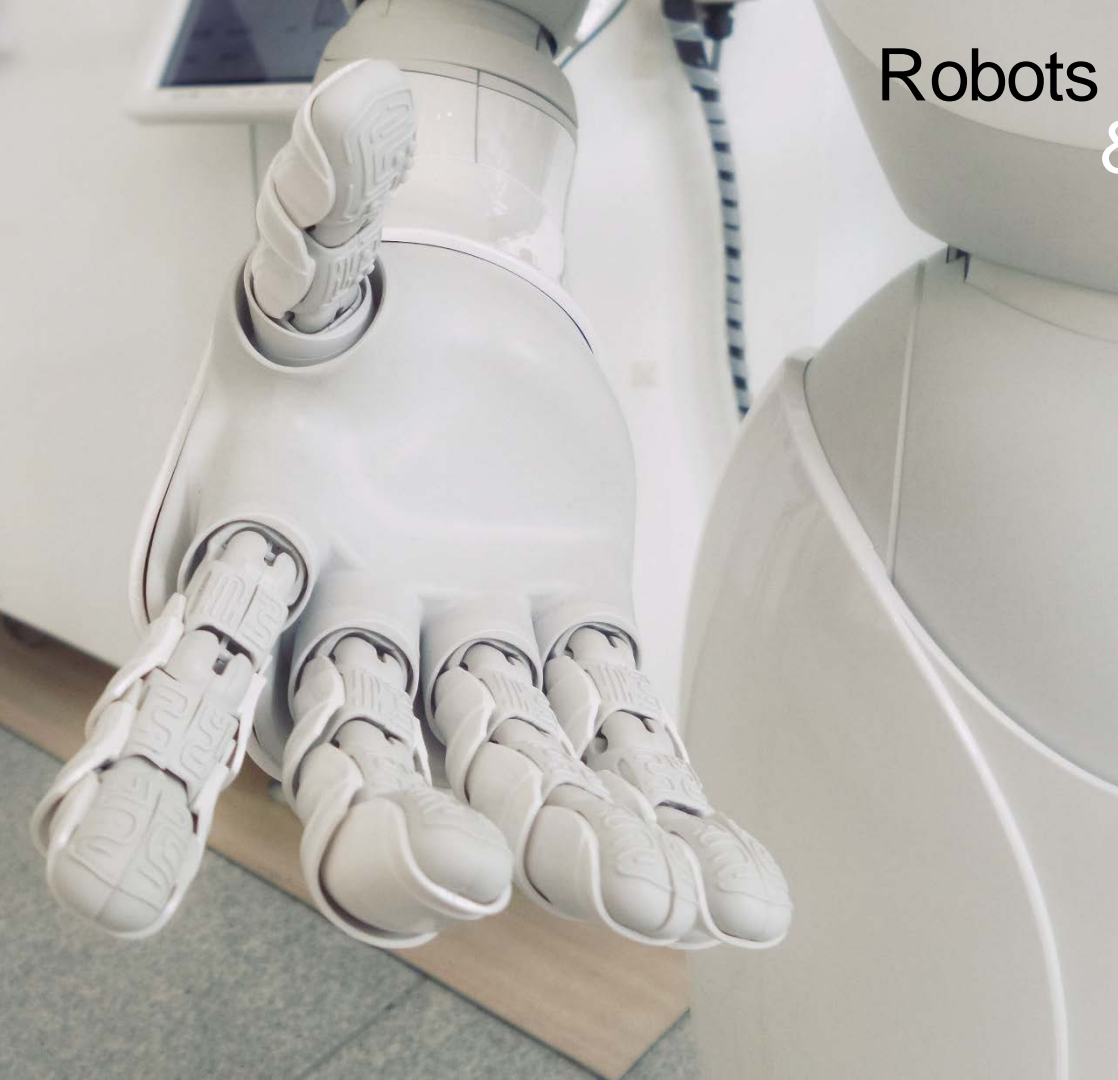
Current to Future (JIVE, 2016)

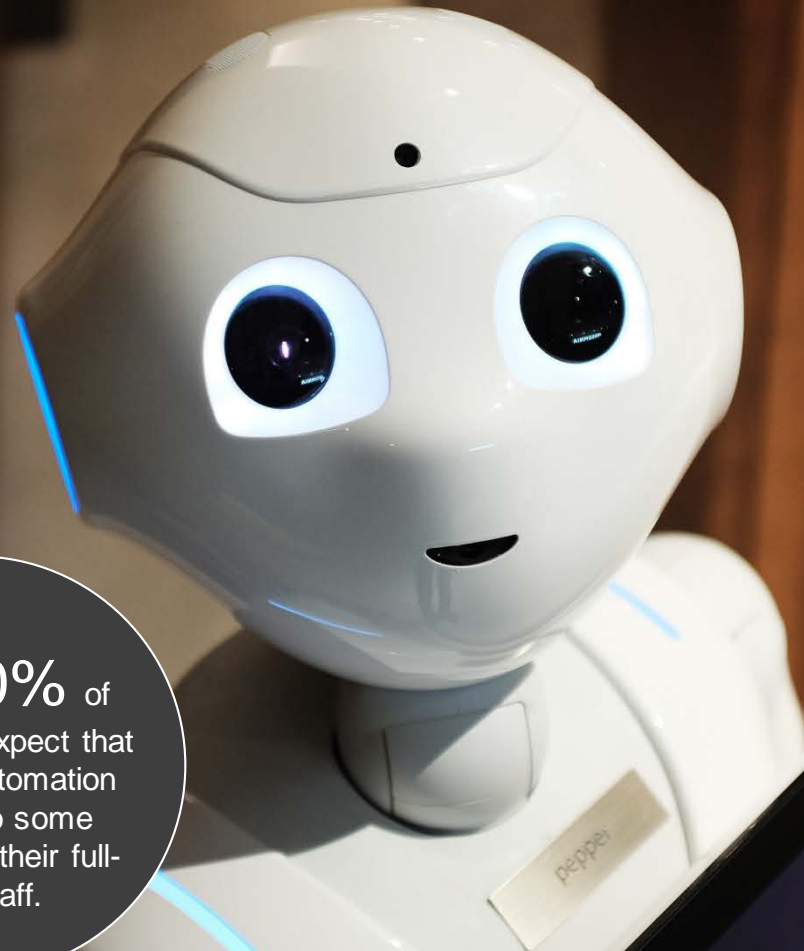


Robots

&

A.I.





By 2025 more than
50% of the total
time spent on labor
will be handled by
machines.


Nearly **50%** of
companies expect that
by 2022, automation
will lead to some
reduction in their full-
time staff.

Sources: The future of jobs 2018 (2018)



New technology doesn't always mean the loss of jobs. We're going to gain jobs as well, but it's guesswork which jobs we'll gain.

New jobs could include operating artificial intelligence-based technology and old jobs could be augmented by it



The top skills show that worker will need
a mix of social and cognitive skills in future

Top 6 skills:

1. Judgement & Decision Making
2. Fluency of Ideas
3. Active Learning
4. Learning Strategies
5. Originality
6. System Evaluation

Sources: Nesta (2013)

Driverless vehicles could eliminate mass transit
and potentially eliminate daily commuter traffic



Workers will spend more time on activities that machines are less capable of
such as managing people, applying expertise and communicating

Sources: McKinsey Global Institute (2017)





A special thanks to my contributors

Fred Atkinson, Allianz

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Securian

And to IFMA!

THANK YOU!