

Workplace Trends:

- Experience
- Health/Wellness
- Productivity

Facility Factors:

- Temperature
- Lighting
- Air Quality



>40K sensors



Deloitte's Edge, Amsterdam

Building controls are like Lego blocks

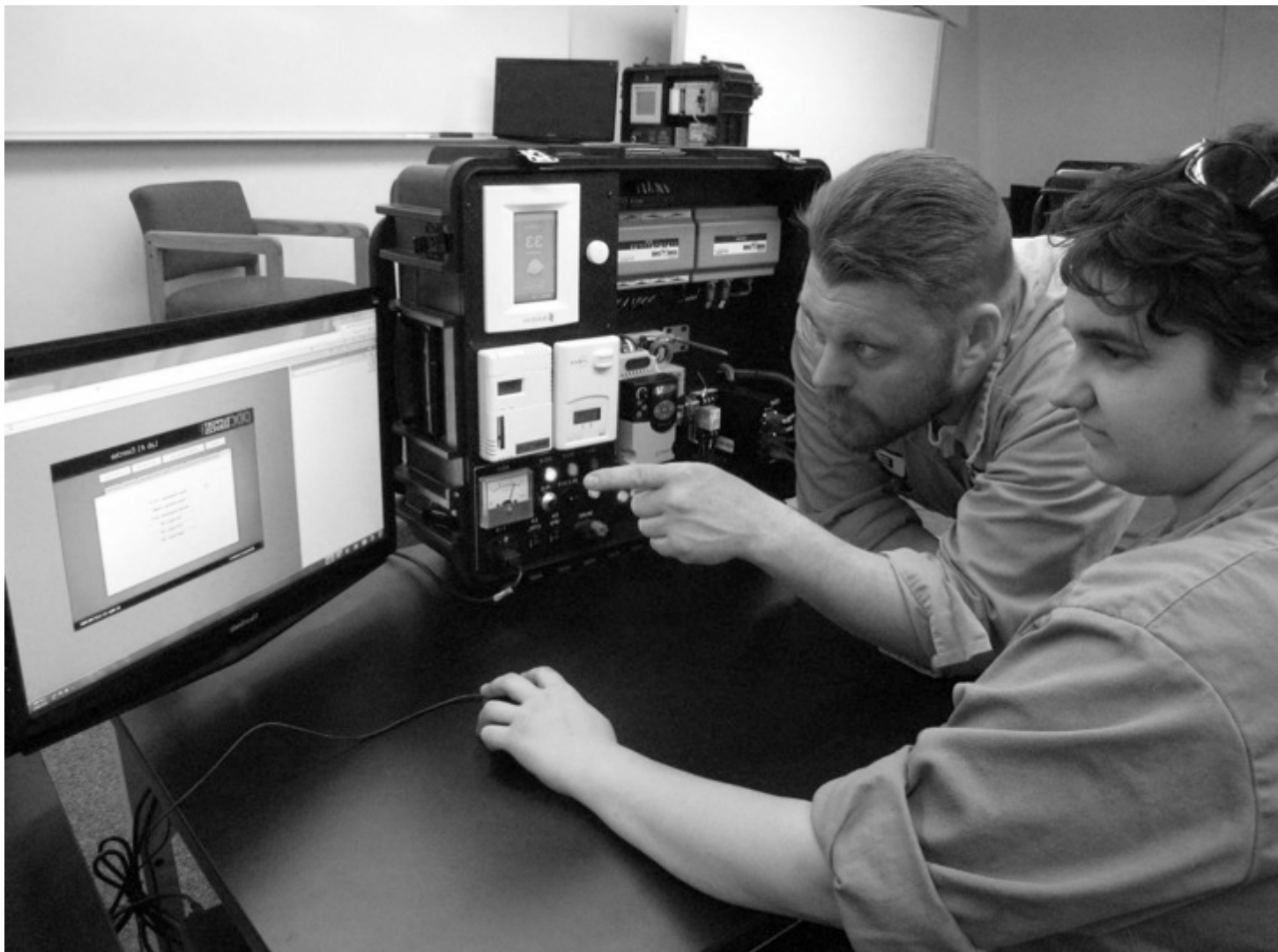




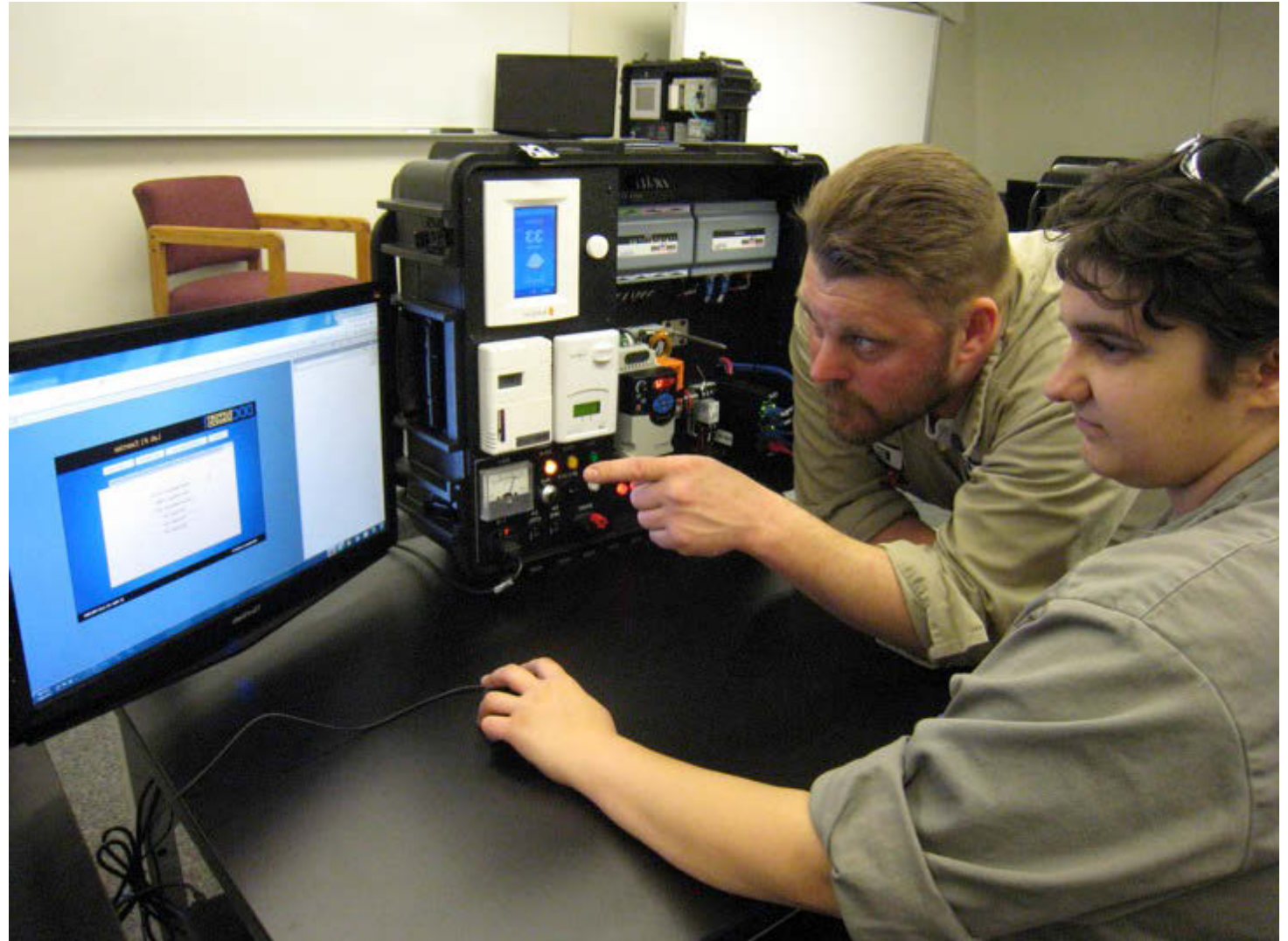
It takes a **Lego master** to make them into something useful..

The **Early Days** of the
Computer Revolution





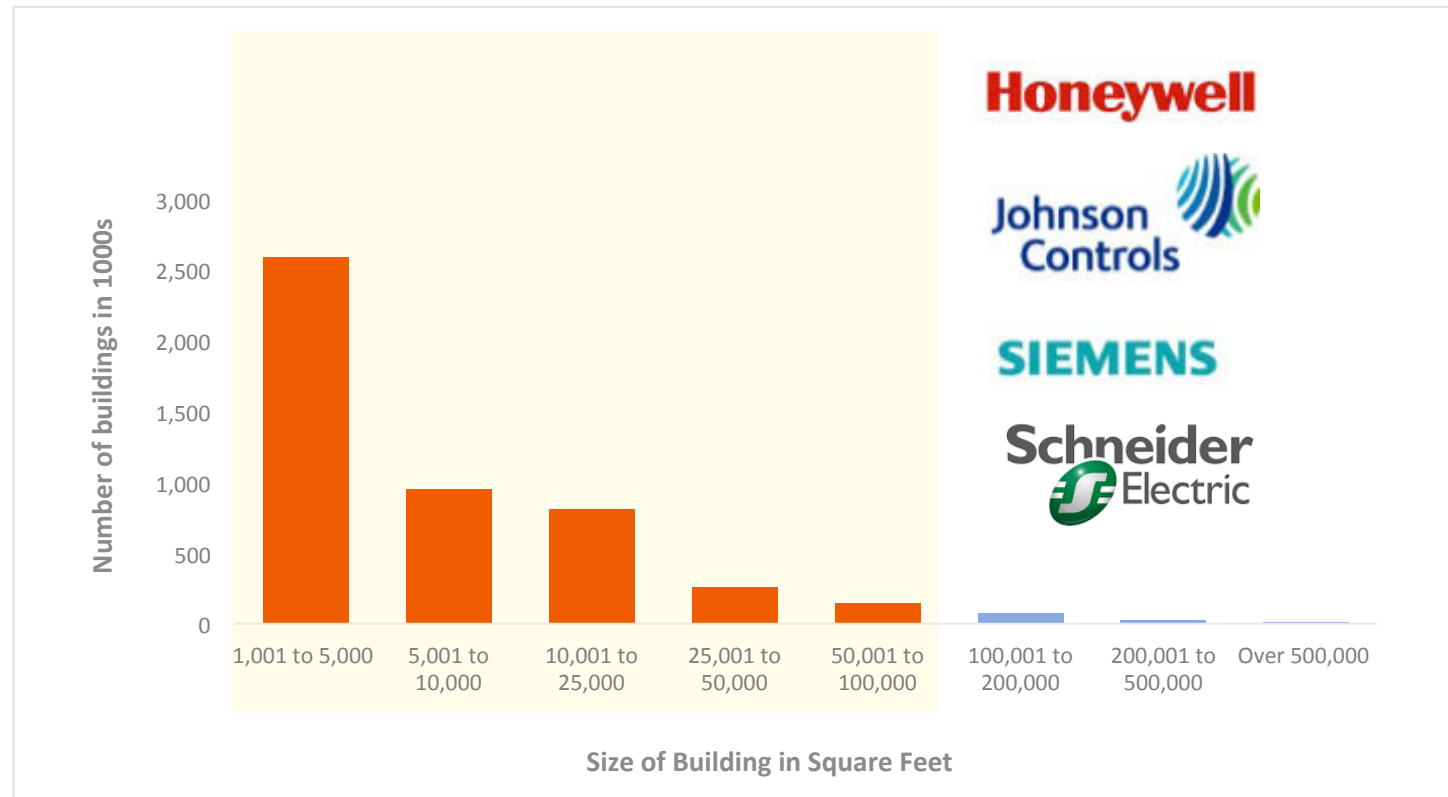
Relived **Even Today** in
Building Automation



The **installed cost** for building controls in new construction is **5x** of what it should be



Building Management Systems Historically Too Expensive for Small Buildings



Strategy #1
non specialized
technicians deploy the
system in a **fraction of**
the time



Picture: Bob The Builder [@pinterest](#)

So easy, even a
5th grader can
install it!





+



KHANACADEMY

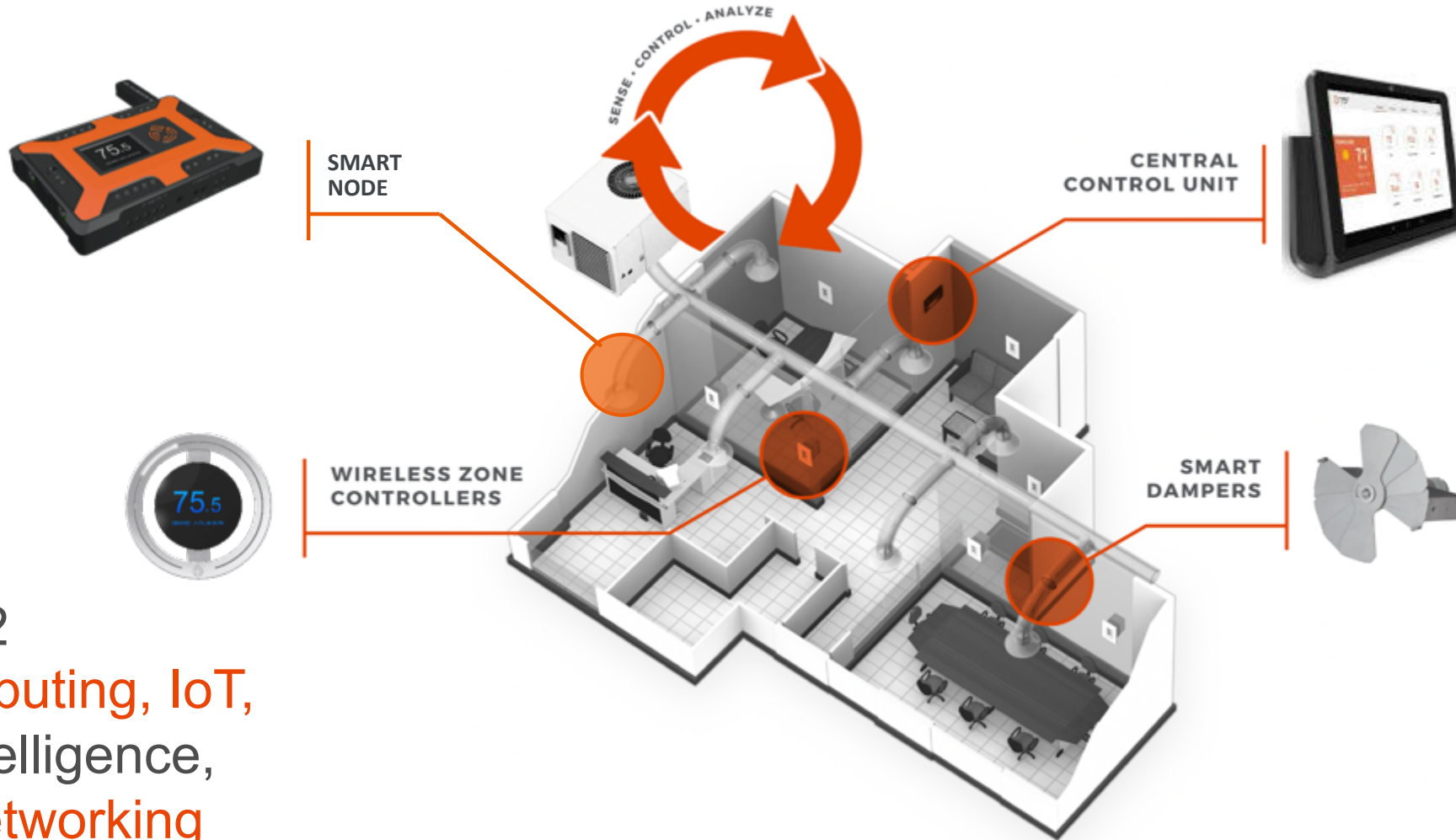
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Vertically
Integrated
Intuitive Solution

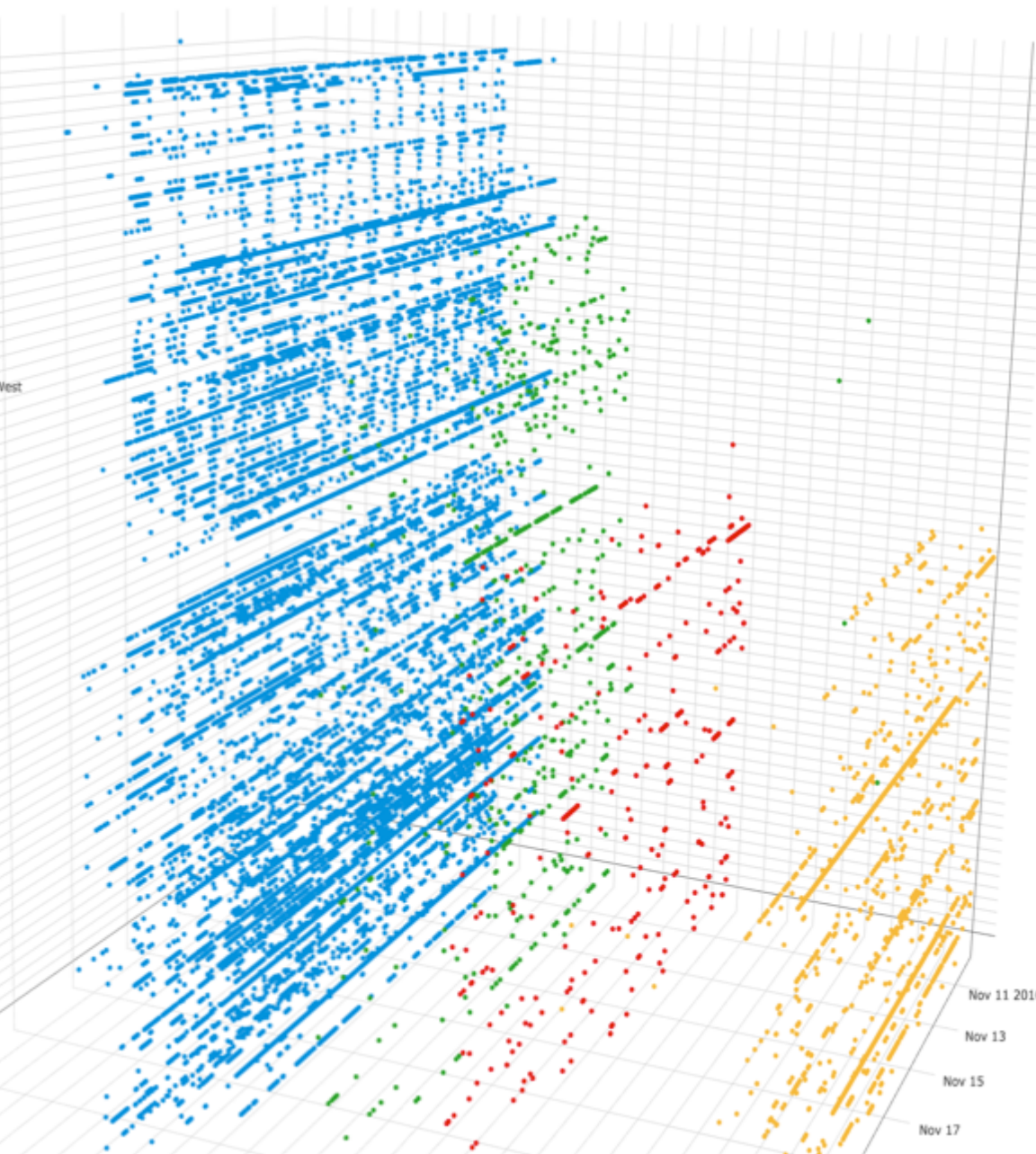
Great Remote
Education

Disrupt Building
Automation



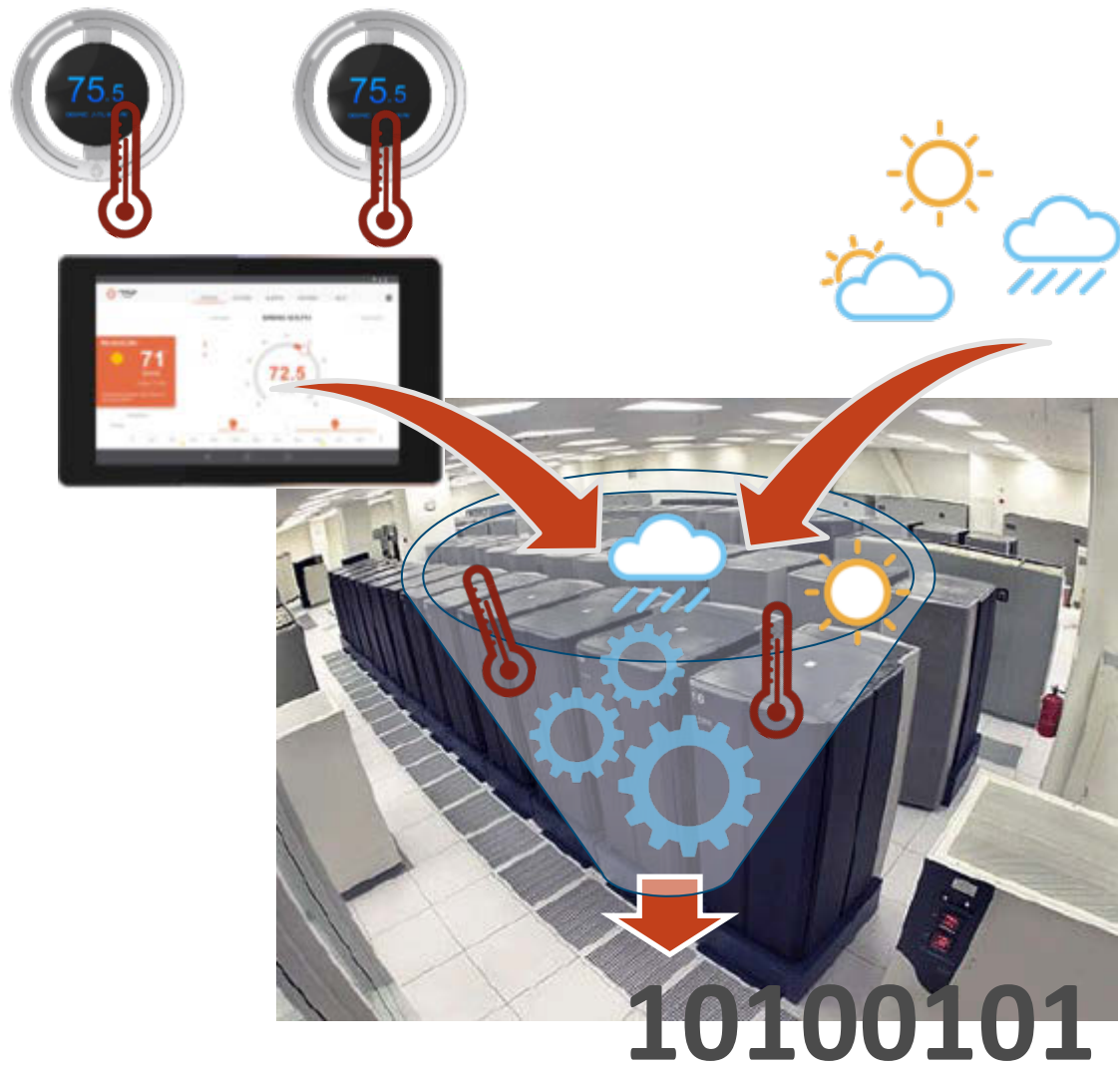
Strategy #2
Cloud computing, IoT,
artificial intelligence,
wireless networking

Linden Hills : Linden Hills Studio RTU 2
 75F Office : Main Room
 South Lodge : Diner
 dge Library : Fossil Ridge Heat Pump 2
 ! Linden Hills : Linden Hills Lobby RTU 3
 ate-IGH : I-State-IGH-RTU8-Core
 ! Linden Hills : Linden Hills Studio RTU 1
 er 13 Maplewood : Unit 2 Northeast
 er 13 Maplewood : Unit 3 Southeast
 state Companies HQ : Safety RTU 2
 horn 5328 : Orland Park Main Dining
 State Blaine : I-State Blaine Parts
 -MN Work Area : Salo-MN Conf. 5-8
 onghorn 5328 : Orland Park Bar
 SMIF Center #2 : SMIF South #1
 SI Upper West : PESI Lower West
 il Ridge Library : Fossil Ridge AHU 6
 13003 N.E. : Northeast Lobby RTU 3
 BF 29688 : BF 29688 Kitchen
 ch 2nd Fl West : Carley Midwest Psych 2nd Fl West
 SMIF Center #2 : SMIF North #3
 anagement HQ : Commercial Management HQ
 ESI Upper West : PESI Lower East
 erimeter Offices : APEC Perimeter Offices
 Magnet 360 : Magnet 360 RTU 3
 EL East External : STIFEL East External
 BF 31836 : BF 31836 Dining
 SMIF Center #2 : SMIF Center #2
 Lewis & Clark : Lewis & Clark West
 YF 13009 : Loring Park Studio
 Lewis & Clark : Lewis & Clark Mid
 te-IGH : I-State-IGH-RTU5-S Warehouse
 te-IGH : I-State-IGH-RTU2-N Warehouse
 Build 1 : South Lodge
 MAT West : MAT West
 Interstate Companies HQ : IT RTU 1
 Ravenna's building : Demo kit
 BF 2935 : BF 2935 Kitchen
 Times Centre : TOI Noida unit-2
 Times Centre : TOI Noida Unit-1
 te-IGH : I-State-IGH-RTU10-E Perimeter
 Magnet 360 : Magnet 360 RTU 4
 e-IGH : I-State-IGH-MAU1-Mechanical Bay
 s. Flipkart Ware House : Flipkart Unit 3
 okler 13 Maplewood : Unit 1 Northwest
 Weiss South : Weiss South
 BF 23074 : BF 23074 Dining
 Longhorn 5328 : Orland Park Front
 I-State Blaine : Mike's Office
 East Charthouse : East Charthouse
 testbot1 : testbot1
 BF 4672 : BF 4672 Kitchen
 BF 15843 : BF 15843 Dining
 Weiss South : Weiss North
 I-State Blaine : I-State Drivers Lounge
 Android : Jaspinder
 PESI Upper West : PESI Upper East
 ialo-MN Work Area : Salo-MN Work Area
 BF 32358 : BF 32358 Kitchen
 o Corporate AHU-5 : Davisco Corporate AHU-4
 4/s. Flipkart Ware House : Flipkart Unit 2
 75F HQ : RTU 3
 ate-IGH : I-State-IGH-RTU9-NE Perimeter
 BF 32358 : BF 32358 Dining
 rstate Companies HQ : RTU 3 Reception Area
 rstate Companies HQ : Reception RTU 3
 BF 32290 : Kitchen
 andem main offices : Tandem main offices



Millions of data points

...every day



Compatible With Many Systems



<http://www.75f.io/how-it-works>

Complete Building Intelligence



HVAC CONTROL
& AIR QUALITY



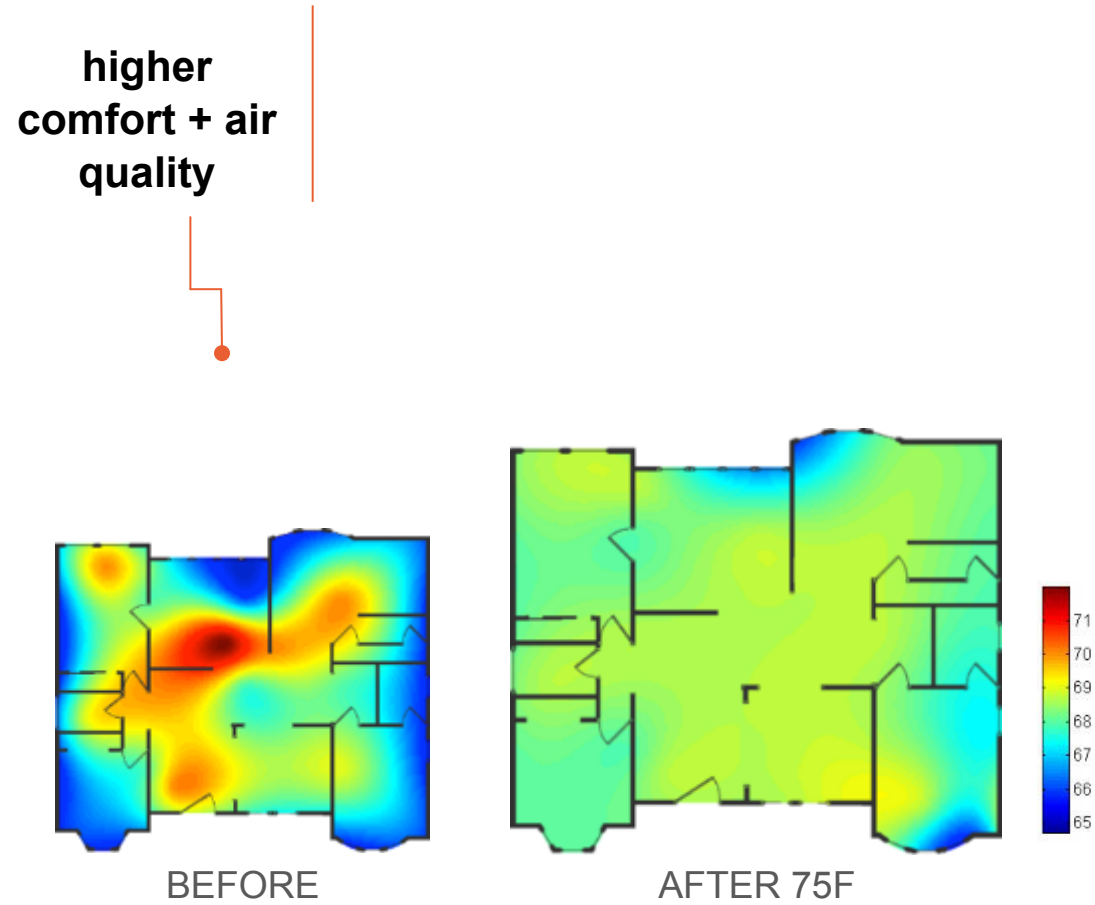
LIGHTING



ENERGY
MANAGEMENT



In Summary...



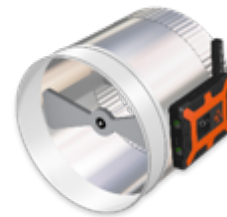
In Summary...

**higher
comfort + air
quality**

**80% labor
savings**



Traditional VAV Controller



75F Smart
Damper

In Summary...

**higher
comfort + air
quality**

**80% labor
savings**

**10x faster to
install**



In Summary...

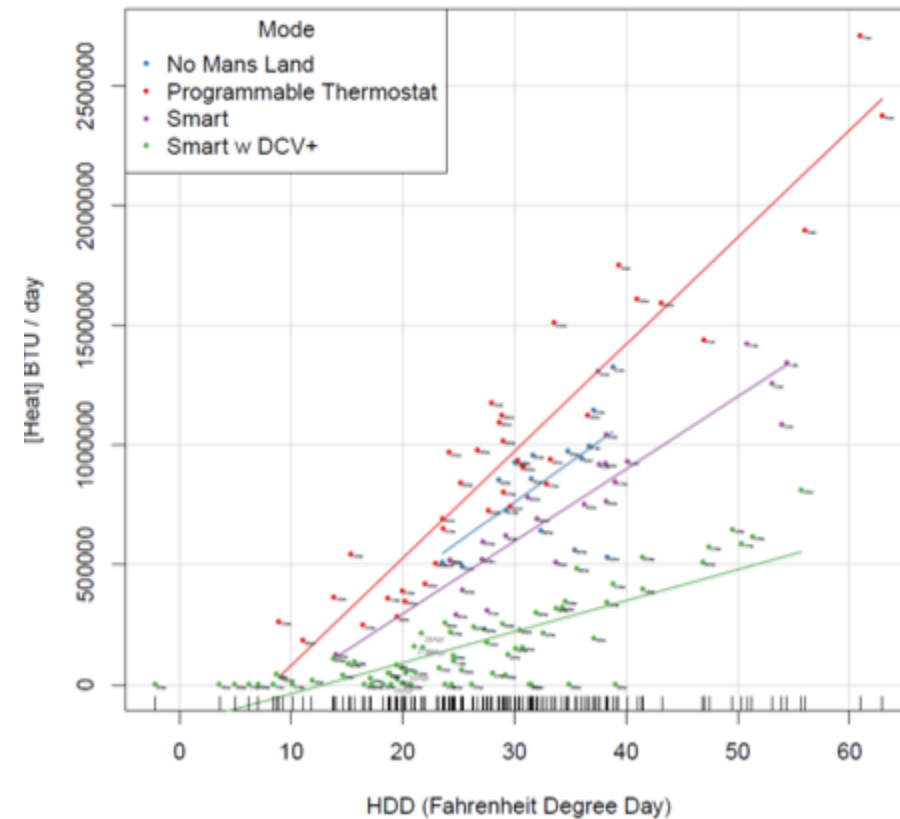
higher
comfort + air
quality

80% labor
savings

10x faster to
install

30 -70%
energy
savings

GTI North Zone - actual energy consumed



Facility Managers have Live Insight

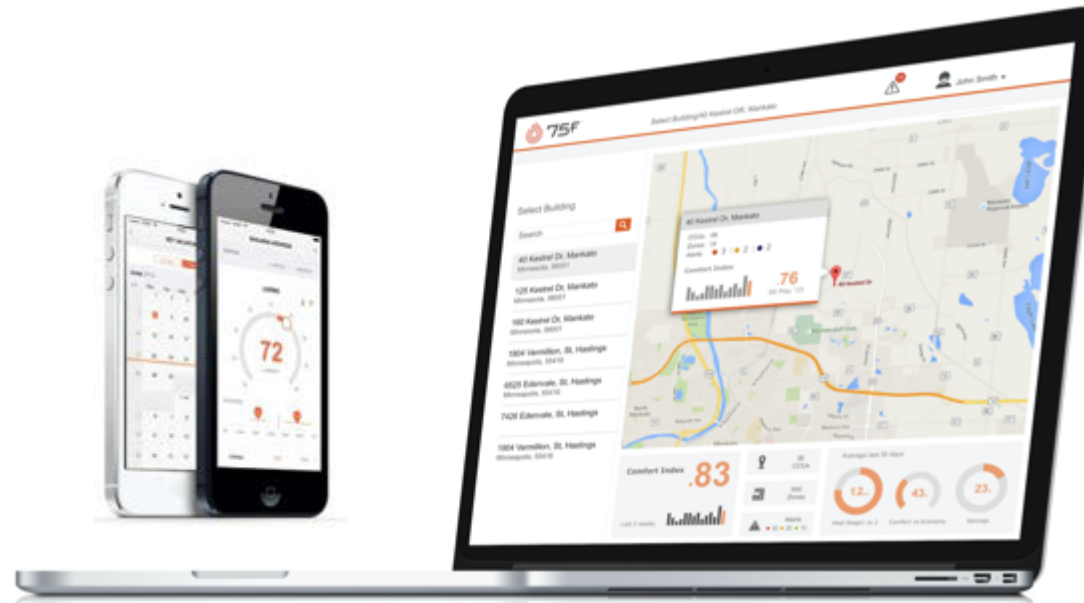
higher
comfort + air
quality

80% labor
savings

10x faster to
install

30 -70%
energy
savings

live insight





Richard White



Select Building

Rockler #41 Kennesaw

425 Ernest W. barrett Pkwy NW
Kennesaw, Georgia, 30144

Rockler 13 Maplewood

1872 Beam Ave
Maplewood, Minnesota, 55109

Rockler 40 Garland

584 W Interstate 30, #403
Garland, Texas, 75043

Rockler 30 Houston

3265 Southwest Fwy
Houston, Texas, 77027

Rockler 6 San Diego

8199 Clairemont Mesa Blvd
San Diego, California, 92111

Rockler 14 Minnetonka

12995 Ridoedale Dr.



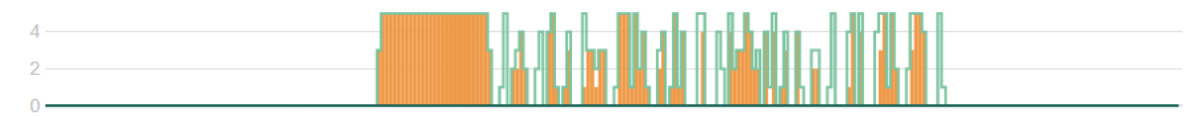
94 Average last 30 days

View HeatMap

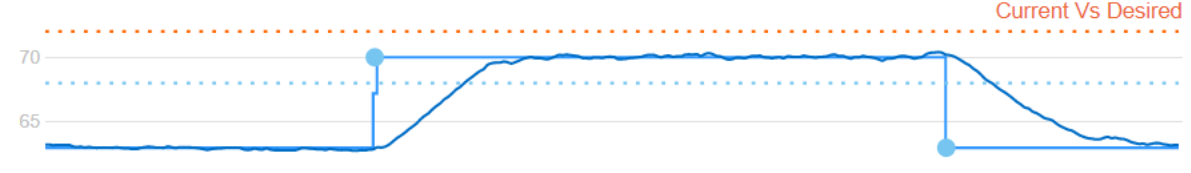
Main

North performance for 2018-02-19 to 2018-02-19

Mon 19 03 AM 06 AM 09 AM 12 PM 03 PM 06 PM 09 PM



DAB (2000)



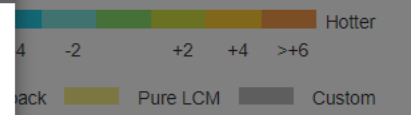
Current Temp

63.0

Desired Temp



Status : In Energy Saving Setback of 63.0F Changes to 70.0F at 09:00 AM



Building Orientation

Systems

- Rockler HQ - Art/ Call Departments
- Rockler HQ - Lower Level East

- Home
- Dashboard
- Energy
- Alerts
- Settings
- Help

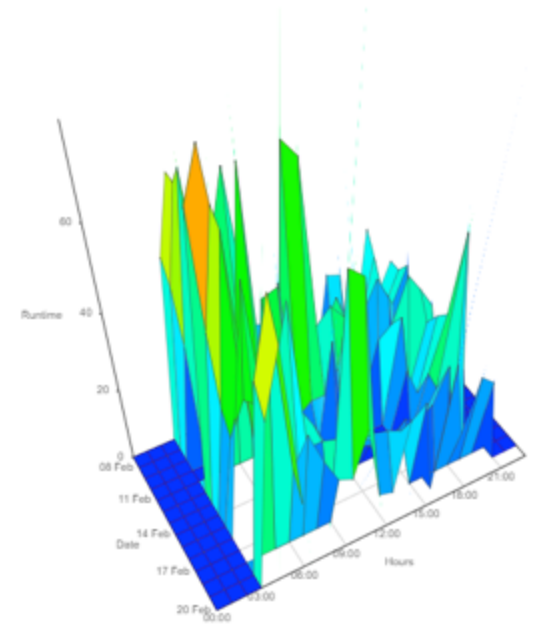
Energy usage for 2018-02-07 to 2018-02-20



0% OAO energy savings
0 BTU saved

100.0% free cooling savings
24h 54m of free cooling
1,494 kWh saved

Cooling | Heating



Systems

Rockler HQ - Art/ Call
Departments

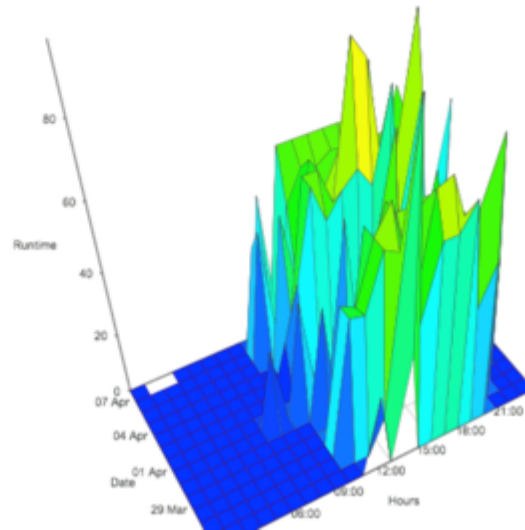
Energy usage for 2017-03-26 to 2017-04-08



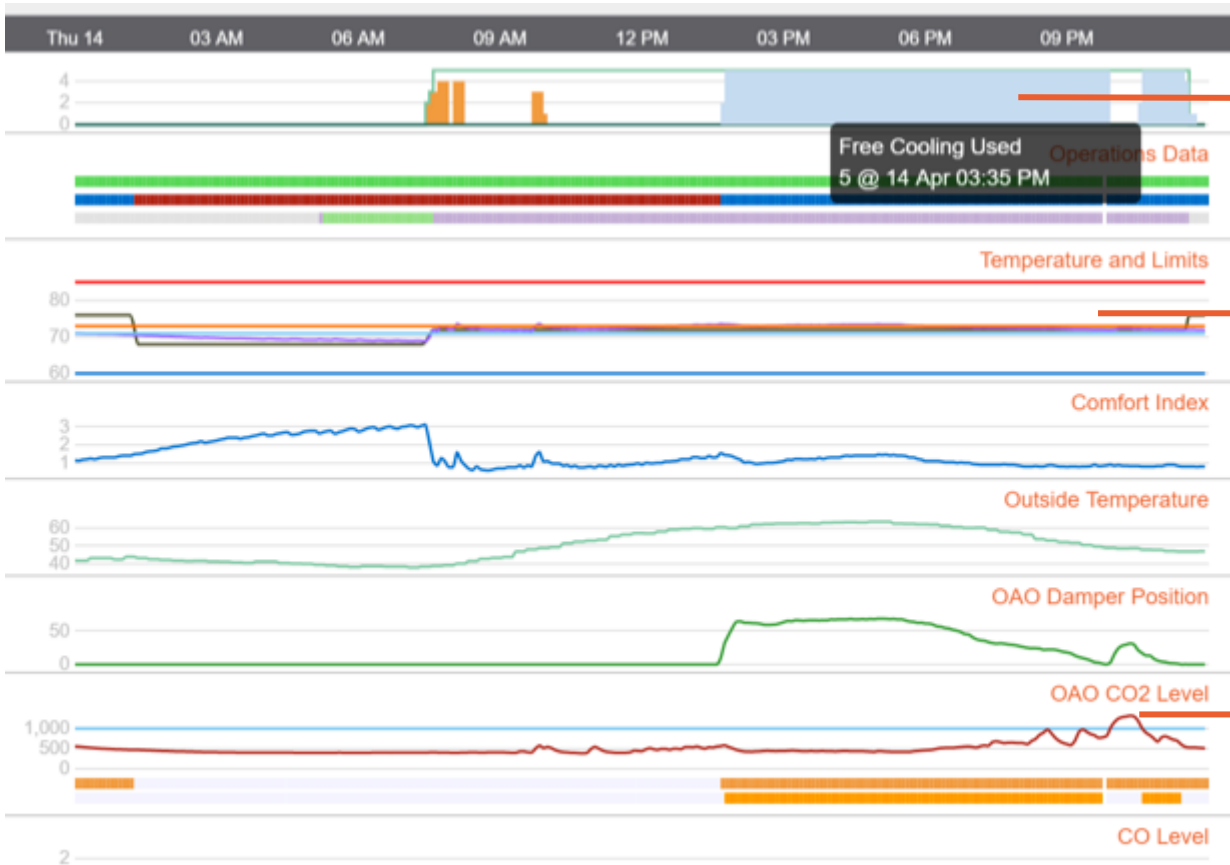
74.9% OAO energy savings
11,289,178 BTU saved

57.4% free cooling savings
90h 31m of free cooling
3,514 kWh saved

Cooling | Heating Include Free Cooling



Benchmark
across all the
sites in the
portfolio



Free Cooling –
Efficiency by not using
mechanical cooling

Humidity Control for
Building Health

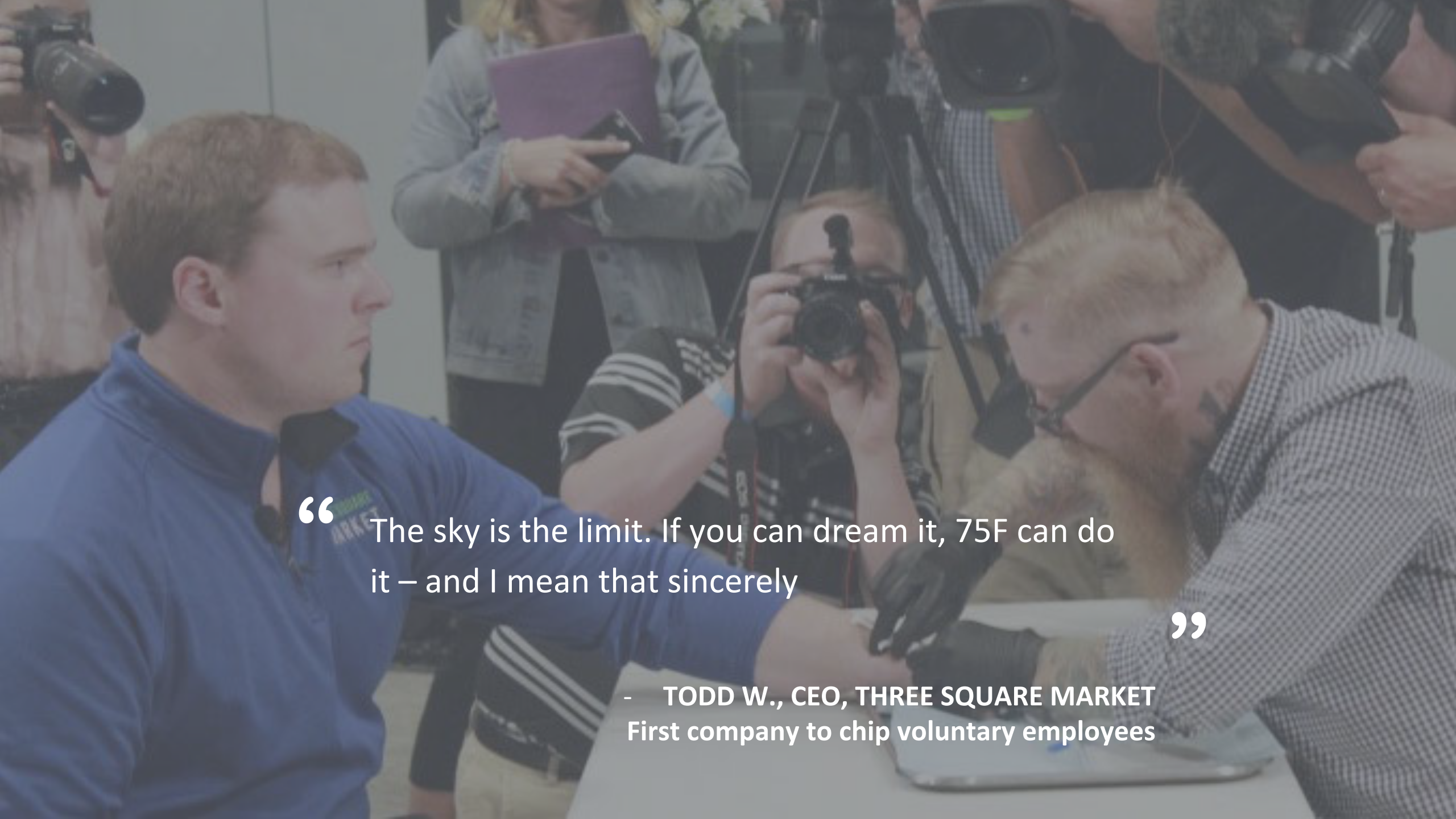
Outside Air
Optimization (Damper
positioning and Co2
monitoring)

Pipeline



Current Customers





“ The sky is the limit. If you can dream it, 75F can do it – and I mean that sincerely

”

- TODD W., CEO, THREE SQUARE MARKET
First company to chip voluntary employees

- 3D Printing
- Artificial Intelligence (AI)
- Augmented + Virtual Reality (AR/VR)
- Big Data + Analytics
- BioTech
- Blockchain
- Computing
- Education
- Energy
- Environment
- FinTech + Cryptocurrency
- Food
- Games
- Healthcare
- Internet of Things (IoT)
- Marketing
- Mobile
- Real Estate
- Space Tech
- Stuff-as-a-Service (aaS)
- Top Lists

Top 100 Most Disruptive Companies in the World in 2017



Cas Proffitt - [✉](#) [🐦](#)

🕒 2017-06-08 12:00







Address the **triple bottom line**

\$2

\$20

\$20

0

Energy savings

Building Health

Employee Productivity

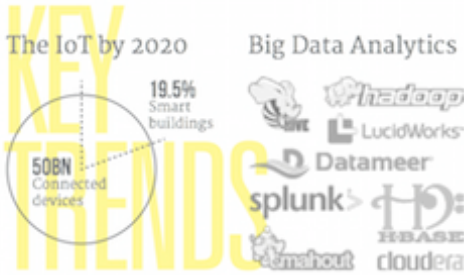
The Space

BIG DATA FOR SMART BUILDINGS



Emerging Solutions

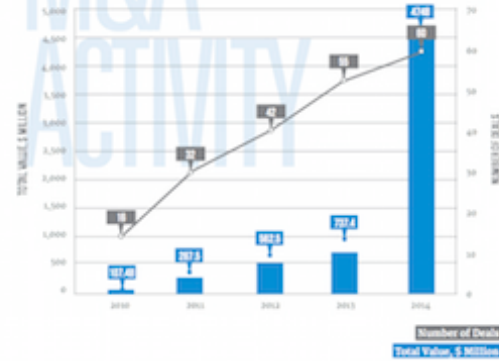
- DASHBOARDS & DATA VISUALISATION
- FAULT MONITORING & DETECTION
- PREDICTIVE ANALYTICS
- BUILDING OPTIMIZATION



- Energy Efficiency
- Operational Efficiency
- Tenant Satisfaction
- \$75BN market by 2020



BIOT and Building related Big Data Deals Completed from 2010 to 2014



\$75B
by
2020



Bob French

bob@75F.io
651.261.3942



Saving energy,
never felt better

The Tools of Change – 2017 Product Plan

Jan

Custom Tablet and New UI



Software Features

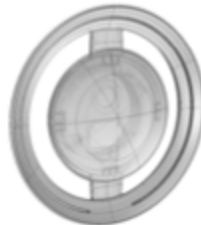
- Pre-configuration codes
- Hot water controls
- VAV (variable air volume) control

May

New Controller and Sensor



Smart Node



Intelli Remote Sensor

Enhanced Modules



Temperature, Humidity and Light room module

Oct

Introduce Managed Services

Software Features

- Multi-tenant buildings
- Indoor lighting level control

Service Enhancement

- Offer hardware as a service

IN THE SPOTLIGHT



The 75F team at Google with the 75F plane in the background



75F CEO Deepinder Singh was invited to the White House to speak on Energy Conservation



Deepinder Singh sits on a panel on Capitol Hill to address why entrepreneurship is rising in Minneapolis with Senator Mark Warner and Rise of the Rest.



75F has made the technology so simple anyone can turn into an installer – no HVAC certification required. Both congressman Tim Walz and Senator Franken easily set up the system in 5 minutes





Minnesota entrepreneur seeks greater role for efficiency in climate fight

White House officials heard from a Minnesota entrepreneur in December that energy efficiency should be a greater part of a federal effort to reduce greenhouse



75F owner Deepinder Singh poses with 75F's entryway mural.



Award Winning Technology



75F deployed on a national scale would save

564
Trillion
BTUs/year

75F could save 564 Trillion BTUs/year – the same as...



Closing **29** coal fired power plants



Keeping **22,400,000** cars off the road

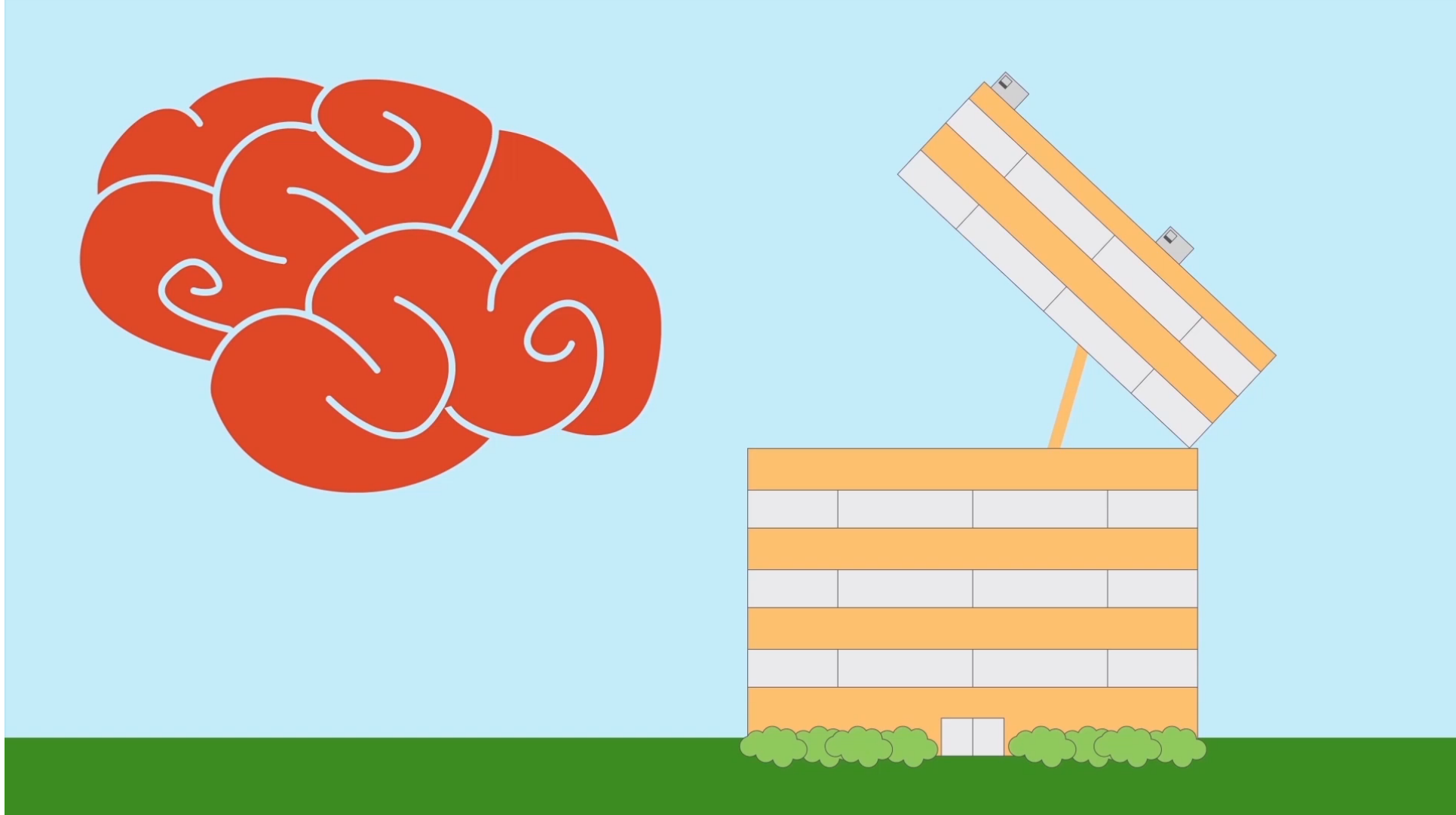


Saving **267,000,000** barrels of oil

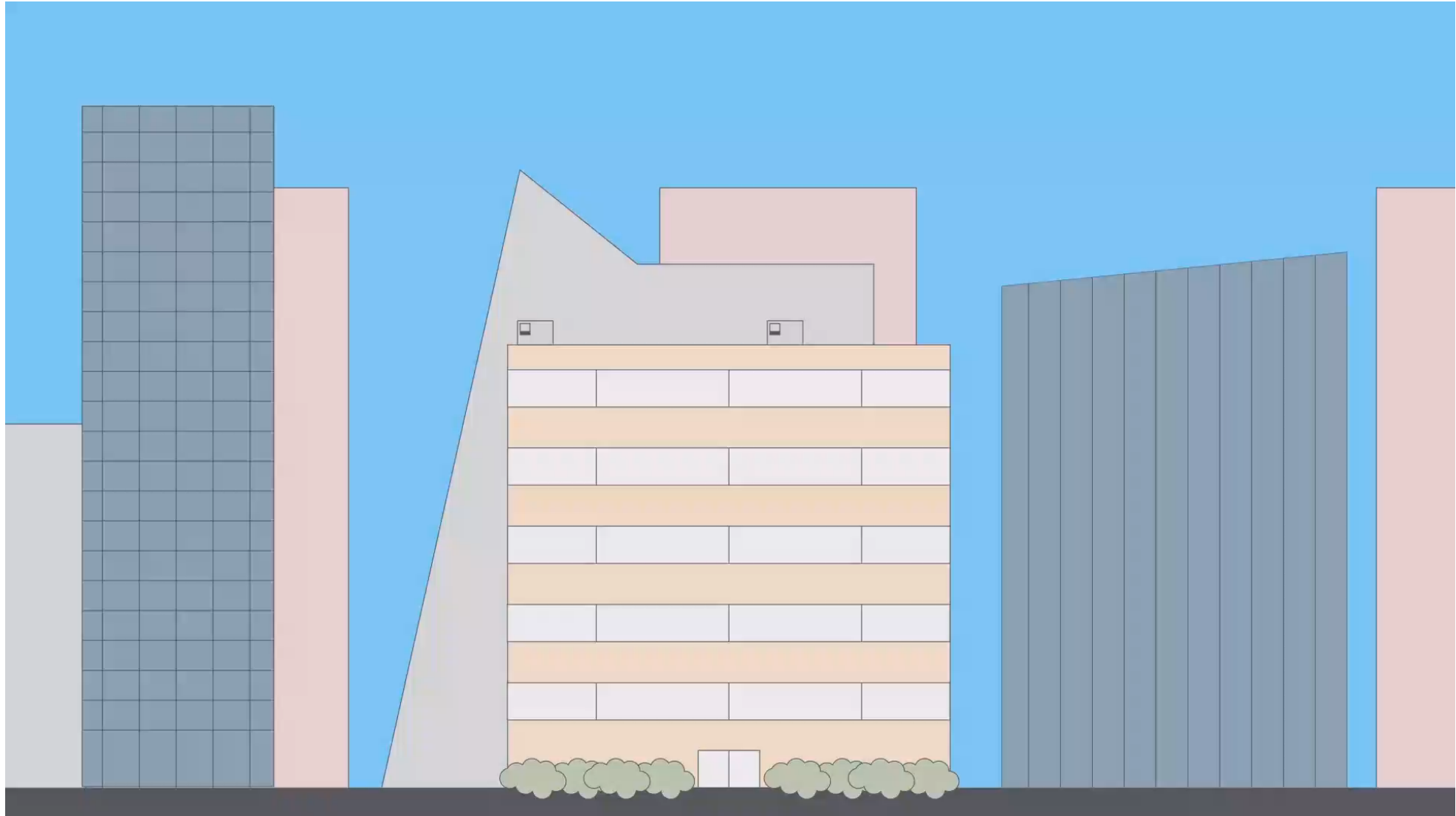
Appendix – alternative slides



Beneficial to Humans



Air Quality



Reduce Carbon Emissions

Energy Usage

