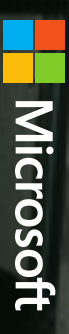


Office

How Workplace Analytics Will Enable the Future of Work

Ryan Fuller, GM Office 365, Microsoft | Former CEO, VolvoMetrix

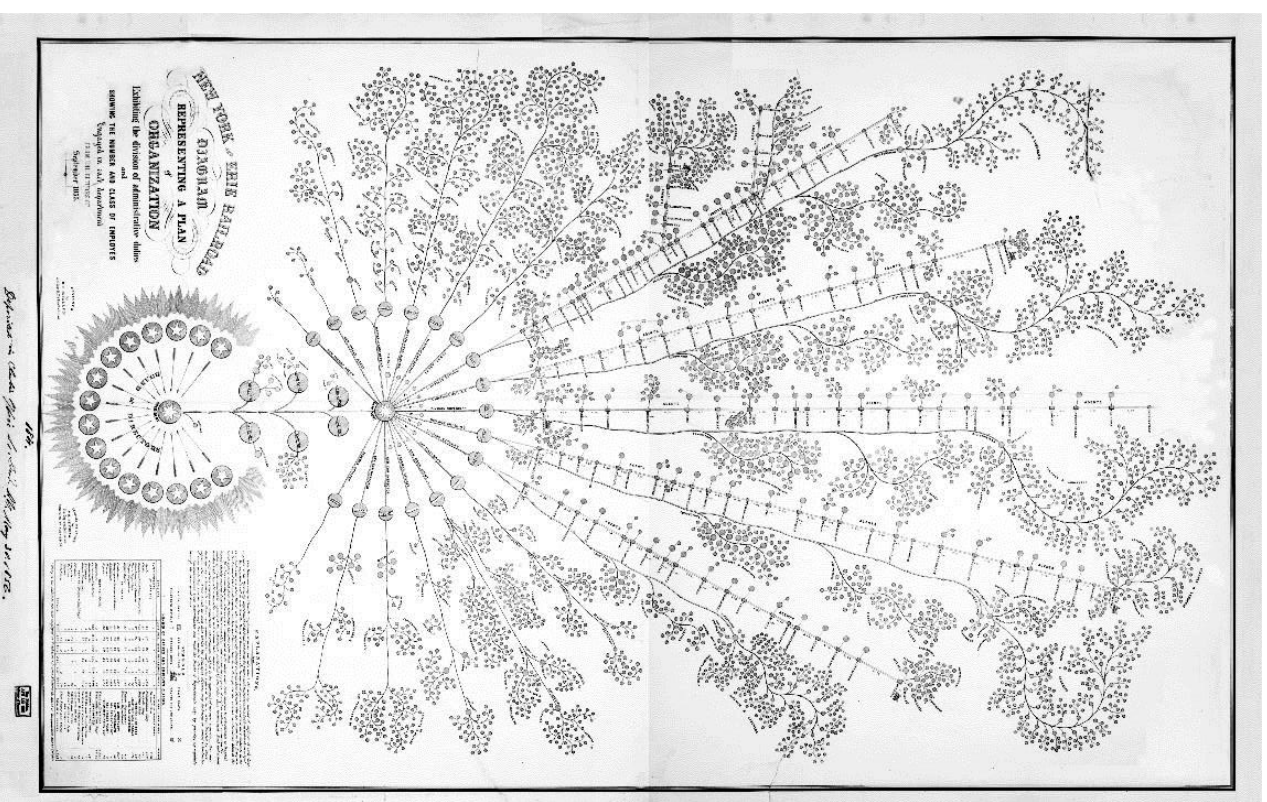
May 4, 2017



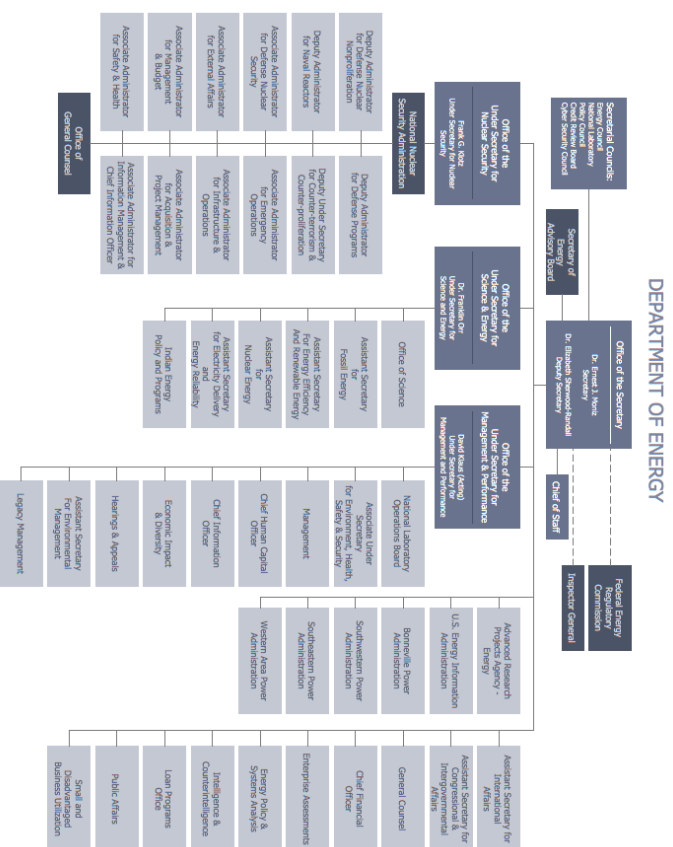
First modern org chart:

New York and Erie Railroad

C. 1854



How does your business work?



Autodesk Research

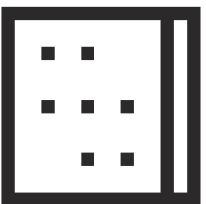
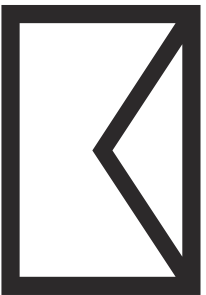
<http://www.autodesk.com/research>



How does it work?

Leveraging data from Office 365

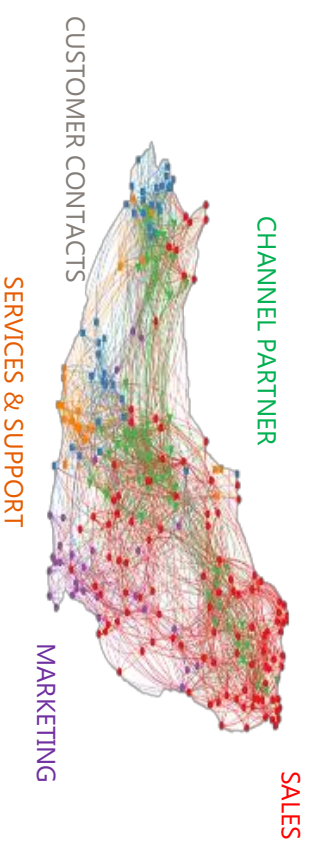
We use calendar and email data, which typically provides **20+ hours** of time use data per week for every knowledge worker in the organization



Visibility into 20+ hours per week

Combine with organizational data to map collaboration

Organizational data lets us analyze **every meeting and message** between all internal or external domains: teams, customers, vendors, and partners

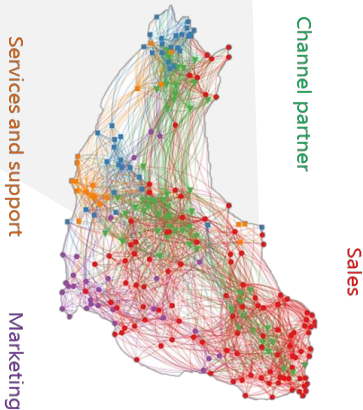


Explore network strength, silos, and patterns

Metrics unavailable anywhere else

We transform email and calendar data into metrics that can be used to identify organizational inefficiencies, understand how much employees are collaborating and with whom, cost out expensive processes, and predict engagement, attrition, performance, NPS and revenue.

CUSTOMER & PARTNER RELATIONSHIPS			INTERNAL RELATIONSHIPS		MANAGEMENT & DEVELOPMENT		BUSINESS PROCESSES
Time spent with customer	Customer support cost	Customer time investment	Internal network size	Internal network breadth	1:1 manager meetings	Executive facetime	Process cost
Customer network size	Customer network depth	Customer network breadth	Time in meetings	Time in email	Leadership interactions	Training & coaching	Geographic fragmentation
Network insularity	Network altitude	Network velocity	Geographic insularity	Department network depth	Network velocity	Network efficiency	Process dispersion
Executive facetime	Product team relationships	Team relationships	Vendor dependency	Recurring meeting ratio	Manager centralization	Time fragmentation	Process velocity
Specialist mix	Account team consistency	Support concentration	Organizational load index	Time to think	Network centrality	Customer centricity	Process duration



New solutions for big problems

Address
Collaboration
Overload



Break Down
Organizational
Silos



Up-level
Manager
Practices



Accelerate
Acquisitions



Root Out
Process
Inefficiencies



Drive Sales
Productivity



Transform the
Employee
Experience



Workspace
Planning



New solutions for big problems

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Inefficiencies



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Productivity



Transform the
Employee
Experience



Workspace
Planning



Workspace planning use cases



1

Measure the success of space allocation and understand how the environment influences employee behaviors

2

Proactively plan for future allocation at the site and floor levels to drive positive outcomes

3

Proactively design for buildings to match the environment to employees' behaviors

Workspace planning use cases

1

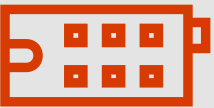
Measure the success of space allocation and understand how the environment influences employee behaviors

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3

Proactively design for buildings to match the environment to employees' behaviors





Customer: Workplace Strategy Manager at Corporate Real Estate Partner

- Full-time consultant at Microsoft
- Help teams relocate
- Looking for success measures to evaluate moves

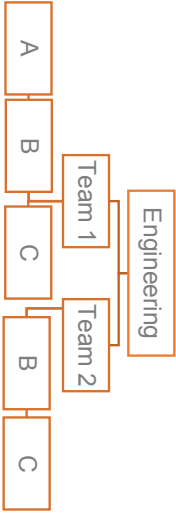
Team consolidation

How do you evaluate the success of an office move?



Situation

- Two groups moved to new environments in 2015
- Intended to study behavior changes to see if move brings **collaboration improvement** in the work environment

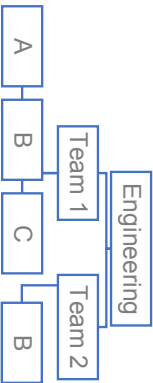


← Move Date



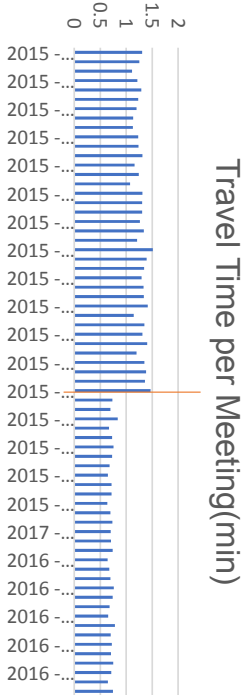
Data at a Glance

- Move occurred on **9/18/2015**
- Number of employees moved - **1266**



Goal

- Both moves were "**migration activity**," (no change in business structure during the move)
- Allows for **before-after** comparison



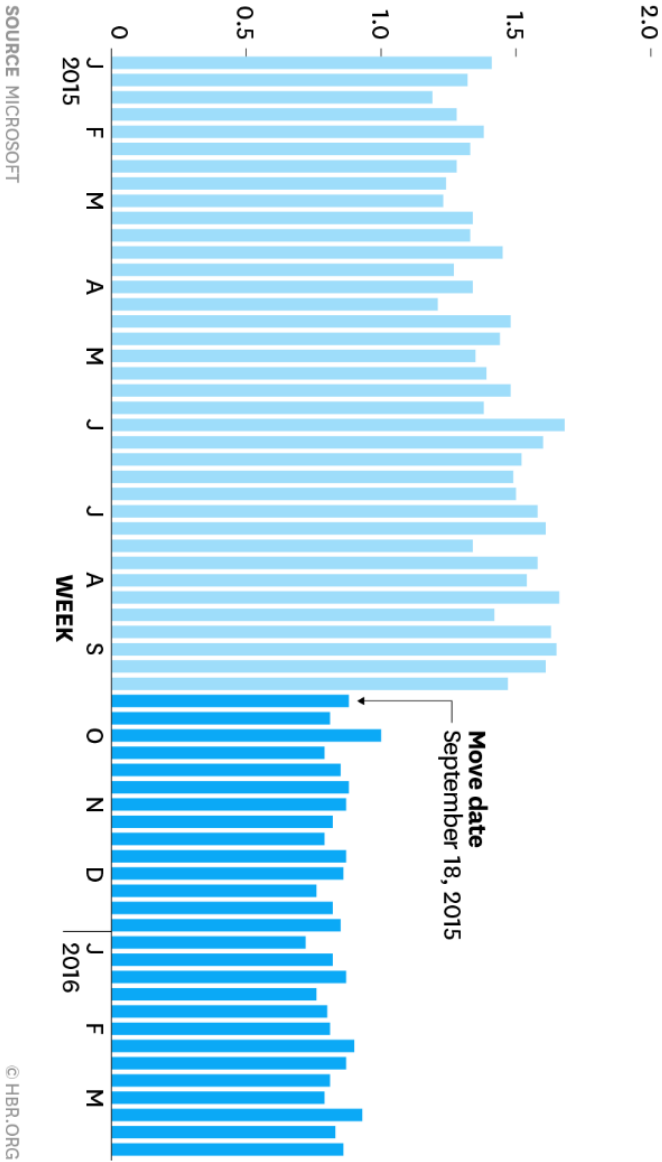
Before & after the move

46% less travel time per meeting

100 hours saved per week

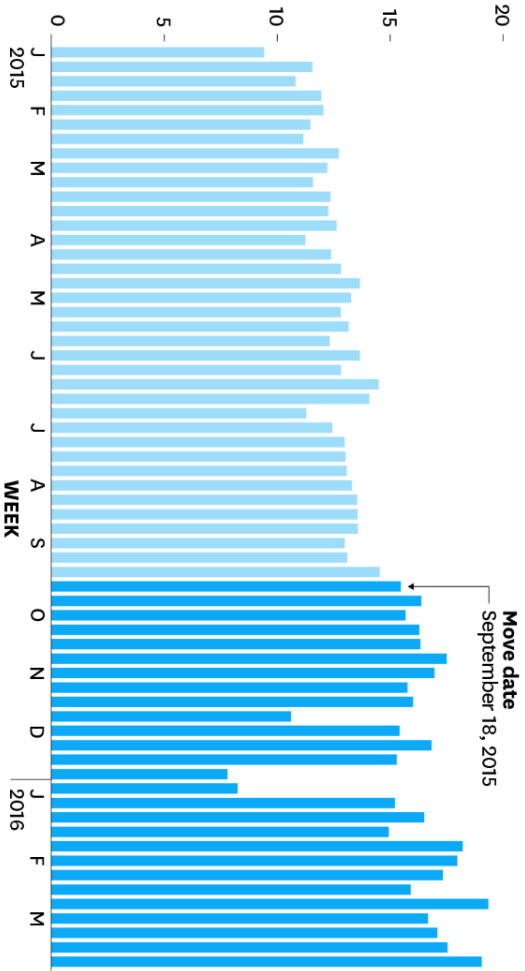
\$520,000 saved per year in employee time

AVG TIME SPENT
TRAVELING/MEETING/EMPLOYEE



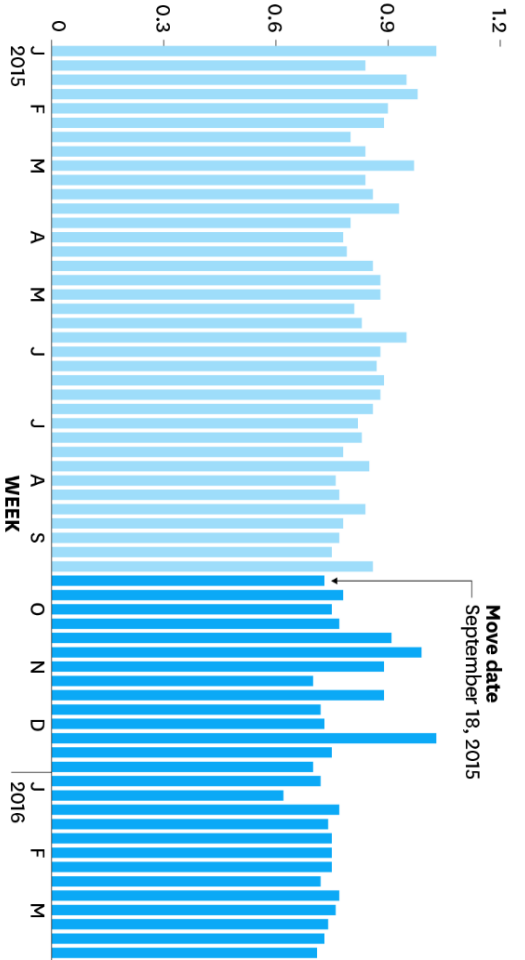
Before & after the move

AVG NUMBER OF MEETINGS/EMPLOYEE



29% more meetings

AVG MEETING DURATION/EMPLOYEE



13% shorter meetings

Workspace planning use cases

1

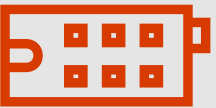
Measure the success of space allocation and understand how the environment influences employee behaviors

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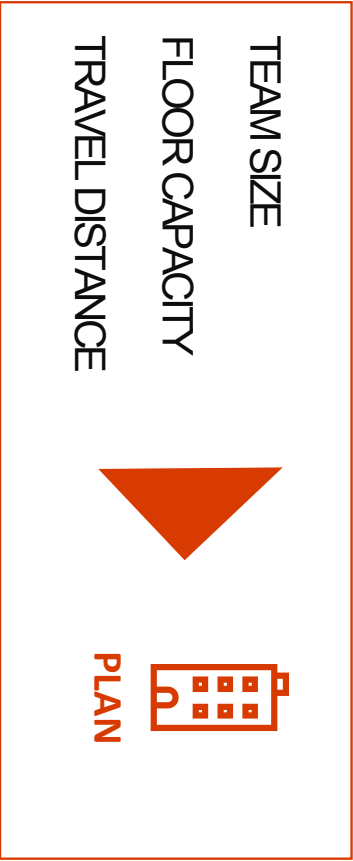


Customer: Business Manager

- 10 years at Microsoft
- Business manager for 1900+ engineers
- Relocated team to temporary location in 2016
- Moved team back to original location in 2017

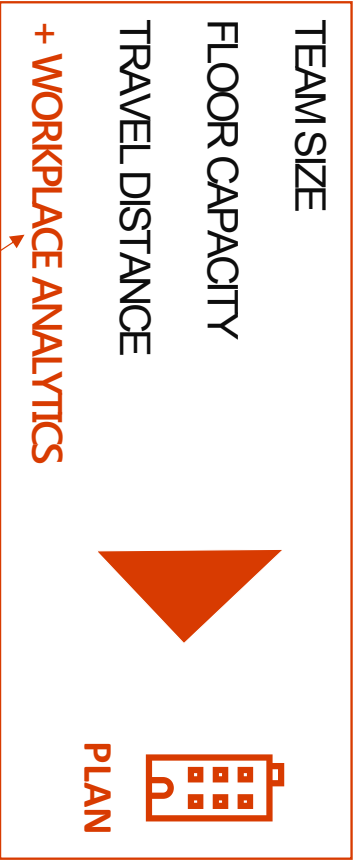
Floor level planning

HOW IT USED TO WORK



- Hours to design seating plan variations
- Iterate 3 weeks with leadership team
- Very political process

NEW APPROACH



COLLABORATION TIME

	Team 1	Team 2	Team 3
Team 1	10 hr	8 hr	8 hr
Team 2	10 hr	6 hr	4 hr
Team 3	5 hr	3 hr	15 hr

Define collaboration
patterns between teams

Quantify team size &
location capacity

Input distances & unique
floorplan requirements

spaceplanni × +

← → ↺ | spaceplanning.microsoftworkplaceanalytics.com:3838/sample-apps/spaceplanningtest

Space Planning

Overview Optimize Space

Iterations (pick the best one from # of sub-optimal solutions)

1

Generate Floor Plan

Keep Changes

Define Teams

Team Collaboration

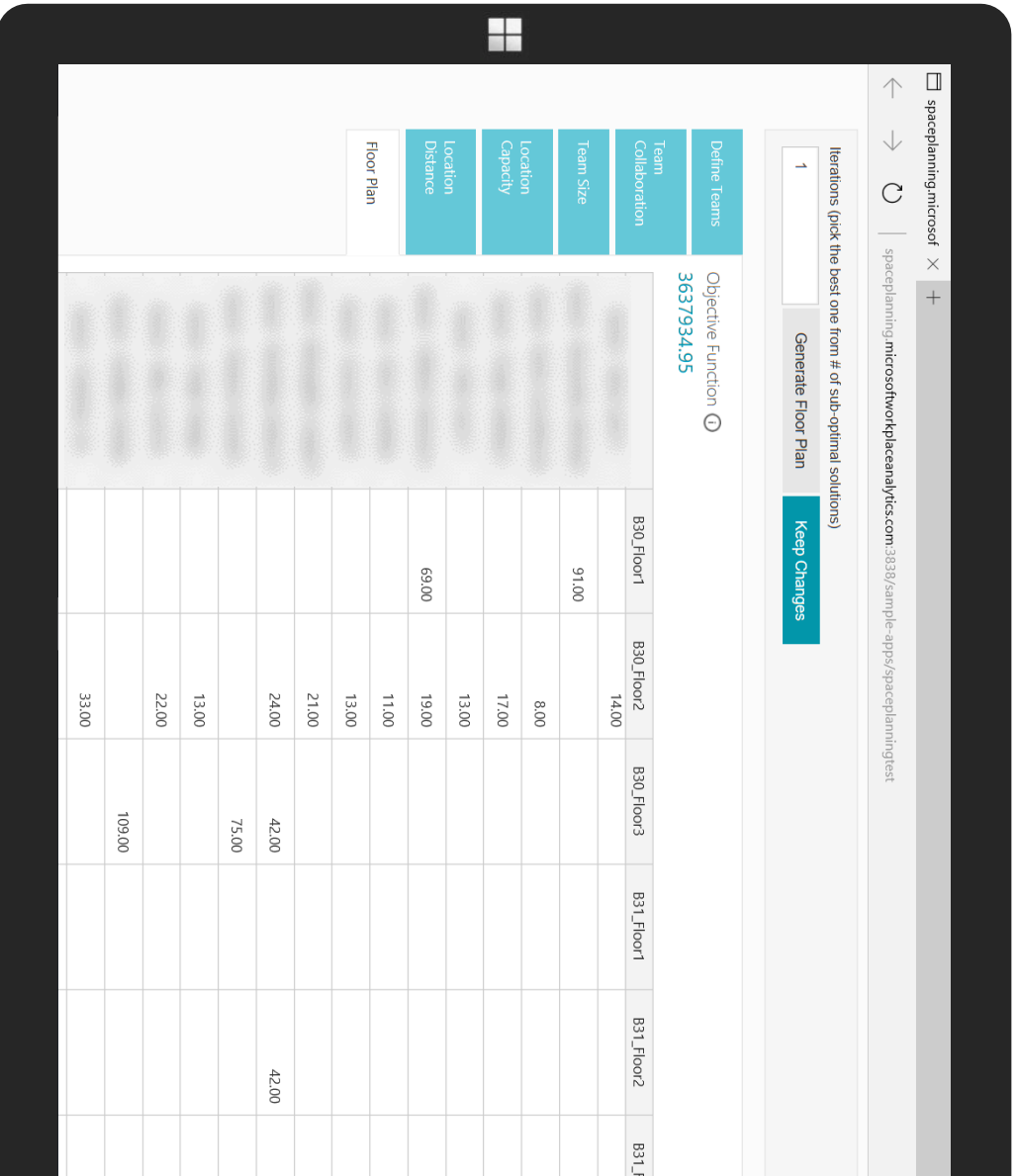
Team Size

Location Capacity

Location Distance

Floor Plan

	Row Labels	Gaurav..Ayres,Lynn.C	Gaurav..Boysenko,Michael.I	Gaurav..Burfin,EvaBrittaka	Gaurav..C
1		5000	1189	1036	
2		1605	5000	1171	
3		1035	1028	5000	
4		1035	1035	1073	
5		1024	1024	1076	
6		1341	1308	1271	
7		1072	1050	1053	
8		1030	1032	1046	
9		1030	1027	1078	
10		1196	1276	1188	
11		1140	1214	1141	
12		1040	1023	1081	





PLANNING TIME



Faster with
evidence-based plan

Room	Category	Area (sqm)	Volume (m³)	Height (m)	Light (lux)	Temp (°C)	Humidity (%)	Acoustic (dB)	View (m²)
1	Office	1000	1000	1000	1000	1000	1000	1000	1000
2	Office	1000	1000	1000	1000	1000	1000	1000	1000
3	Office	1000	1000	1000	1000	1000	1000	1000	1000
4	Office	1000	1000	1000	1000	1000	1000	1000	1000
5	Office	1000	1000	1000	1000	1000	1000	1000	1000
6	Office	1000	1000	1000	1000	1000	1000	1000	1000
7	Office	1000	1000	1000	1000	1000	1000	1000	1000
8	Office	1000	1000	1000	1000	1000	1000	1000	1000
9	Office	1000	1000	1000	1000	1000	1000	1000	1000
10	Office	1000	1000	1000	1000	1000	1000	1000	1000
11	Office	1000	1000	1000	1000	1000	1000	1000	1000
12	Office	1000	1000	1000	1000	1000	1000	1000	1000



SATISFACTION



Higher engagement &
satisfaction among teams

What we know today

- People are a company's most important asset
- The way people spend their time is very predictive of positive & negative business outcomes
- Orgs have a limited ability to instrument or influence these activities today
- New data is required to enable levers, like space planning, that lead to improved collaboration



**What happens
when you use the
data at your
fingertips?**



TESSLE

What happens
when you use the
data at your
fingertips?



x

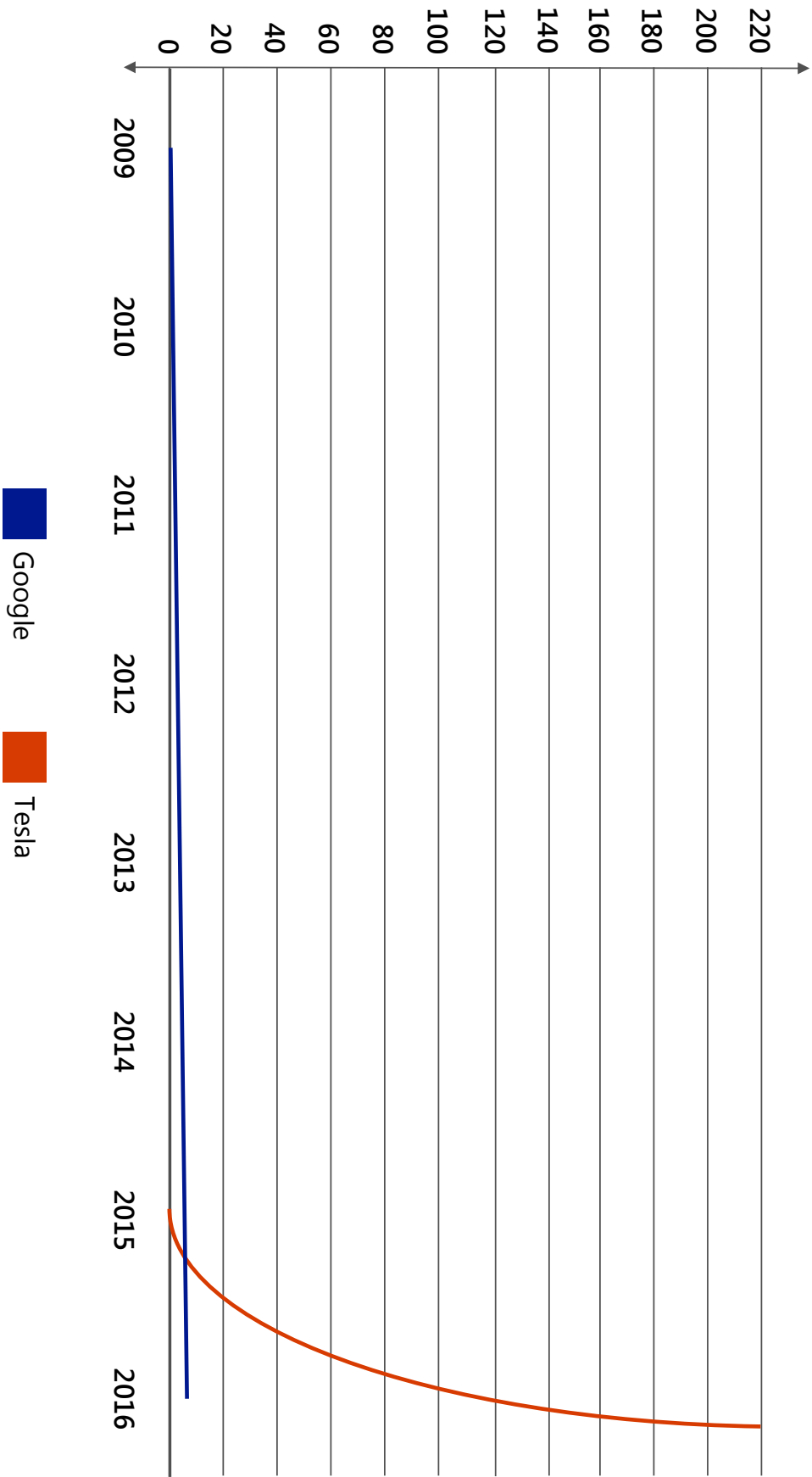
54



x

70,000

MILLIONS OF MILES ON AUTOPILOT





Microsoft

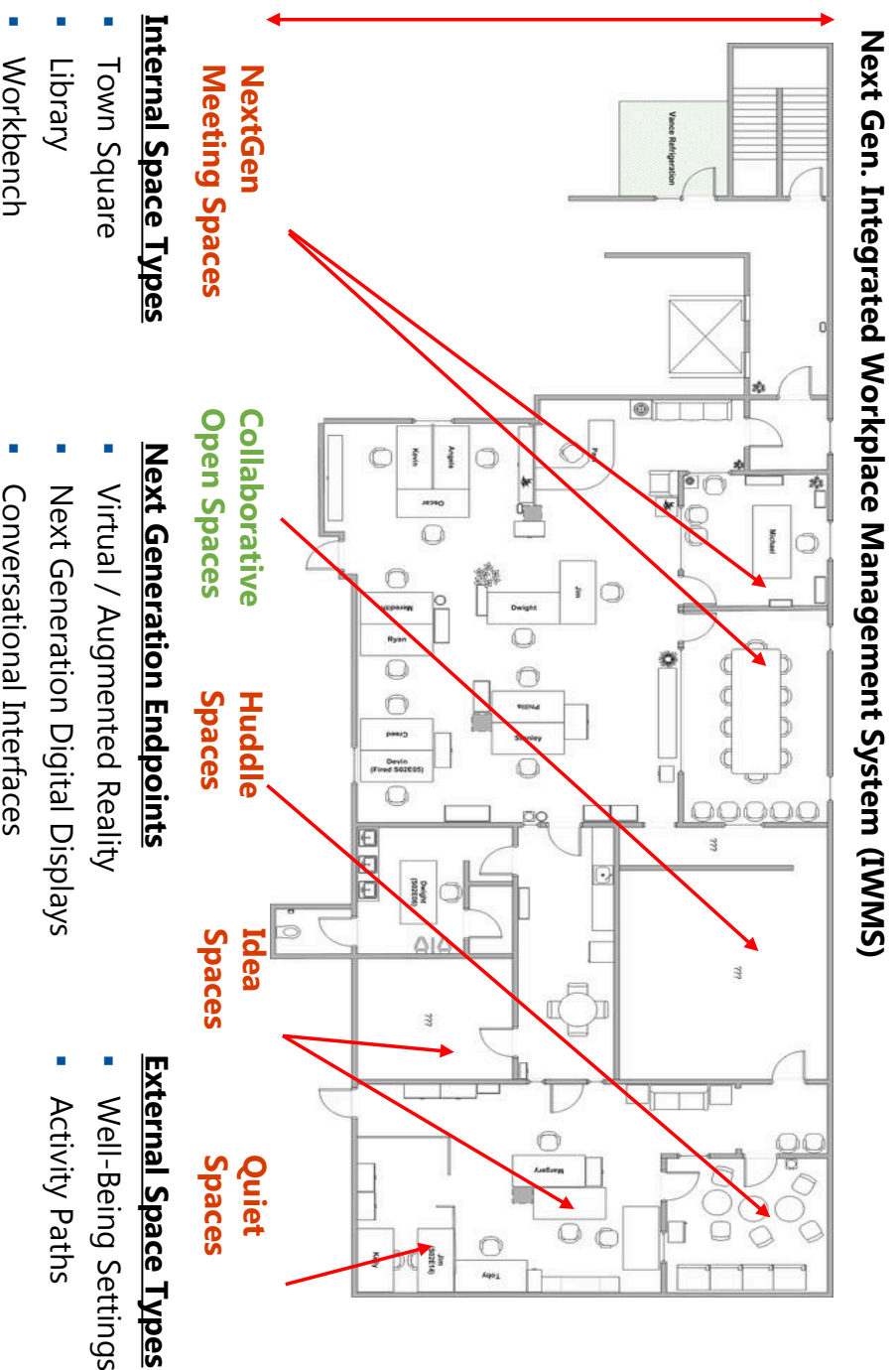


Customer: Portfolio Strategist at Architecture Firm

- Consultant at Microsoft
- Strategic planning for a 20,000+ organization at Microsoft
- Conduct surveys & utilization studies to guide design

Workspace conference room planning

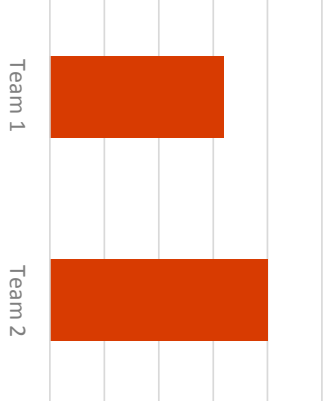
- **Examine pattern** of how each team hosts meeting **previously**: meeting size, peak time, etc.
- **Meeting size** suggests type of conference room required
- **Peak time** gives concept of the **maximum demand** of conference room



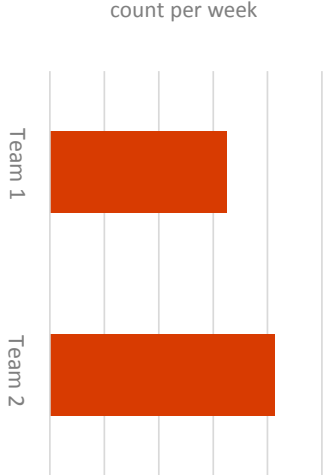
Information Source: Gartner

Different teams work in different ways

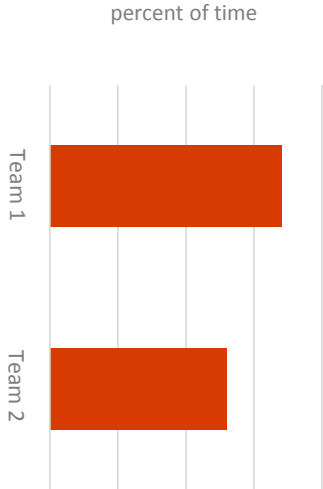
Number of meetings



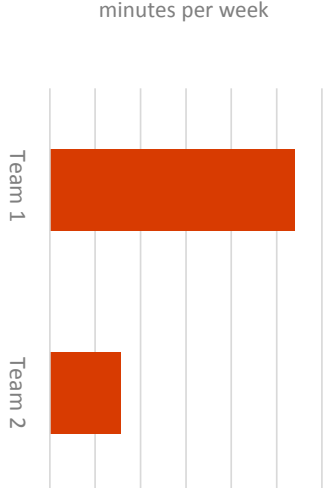
Ad-hoc meetings



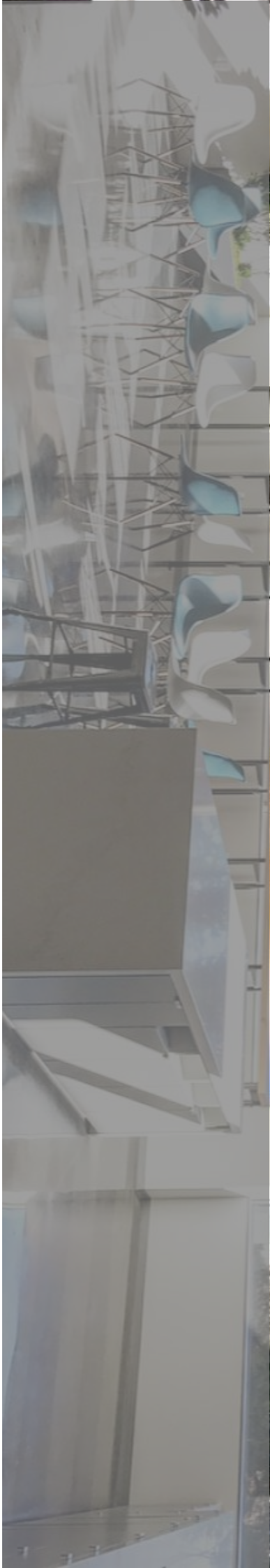
Functional insularity



Manager 1:1s

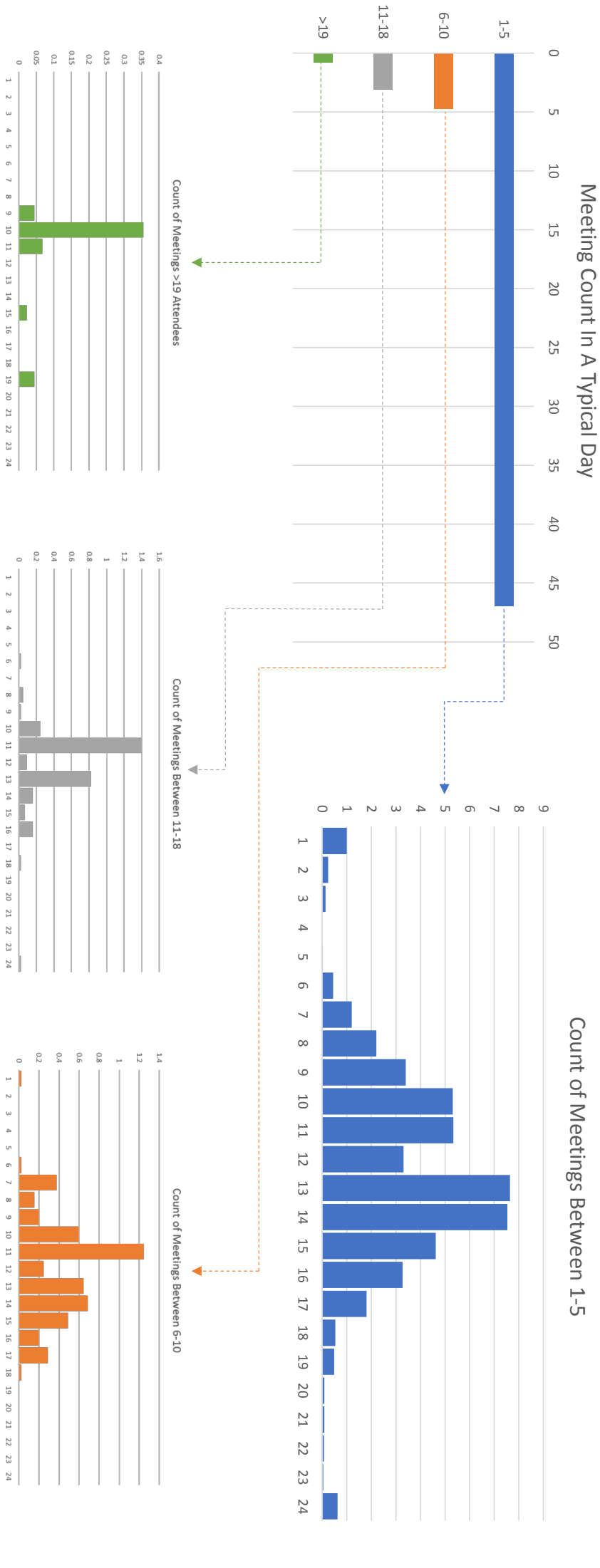


Data is collected from 85 Team 2 and 35 Team 1 employees at Microsoft non-Puget Sound Location, over 14 months time period.
Functional Insularity is % of measured time spent collaborating with other people in the same L3 manager group



Conference room demand in a typical day

A guide to types of conference rooms needed for unique teams



Workspace Planning Use Cases

1

Measure the success of space allocation and understand how the environment influences employee behaviors

2

Proactively plan for future allocation at the site and floor levels to drive positive outcomes

3

Proactively design for buildings to match the environment to employees' behaviors





PLANNING TIME

Iterations (pick the best one from # of sub-optimal solutions)

Weeks

High

SATISFACTION



Hours

Low

Faster with evidence-based plan

Higher engagement & satisfaction among teams

Define Teams		Team Collaboration		Team Size		Location		Location Distance		Floor Plan	
1	Gaurav - Ayres	5000	1189	36	1045	1036	1062	1023	1099	1030	1096
2	Gaurav - Borysenko, Michael I	1605	5000	71	1237	1199	1062	1023	1099	1030	1096
3	Gaurav - Burlin, Rita Ka	1035	1028	00	1095	1093	1062	1023	1099	1030	1096
4	Gaurav - Chugh, Deep S	1035	1035	73	5000	1071	1062	1023	1099	1030	1096
5	Gaurav - Clark, Laura T.	1024	1024	076	1070	5000	1062	1023	1099	1030	1096
6	Gaurav - Feliberti, Vanessa C.	1341	1308	1271	1208	1178	1062	1023	1099	1030	1096
7	Gaurav - Jaspeth, Heather	1072	1050	053	1067	1062	1062	1023	1099	1030	1096
8	Gaurav - Limont, David P.	1030	1028	040	1019	1023	1062	1023	1099	1030	1096
9	Gaurav - MacLaughlin, Joseph T.	1030	1027	070	1115	1099	1062	1023	1099	1030	1096
10	Gaurav - Novitskey, Robert R.	1196	1276	1188	1180	1162	1062	1023	1099	1030	1096
11	Gaurav - Simpson, Russell L.	1140	1214	1141	1135	1096	1062	1023	1099	1030	1096
12	Gaurav - Singh, Sanvya	1040	1023	1081	1040	1030	1062	1023	1099	1030	1096

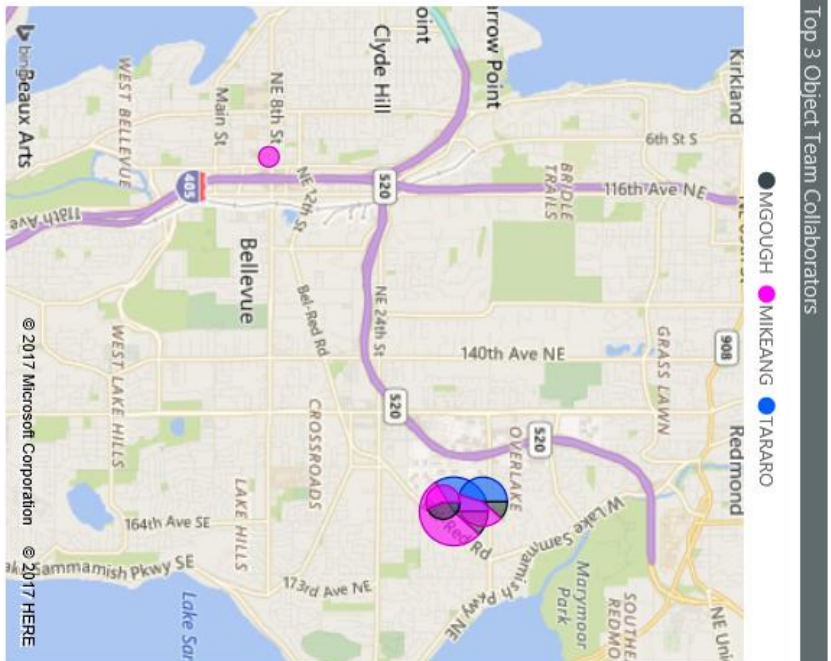
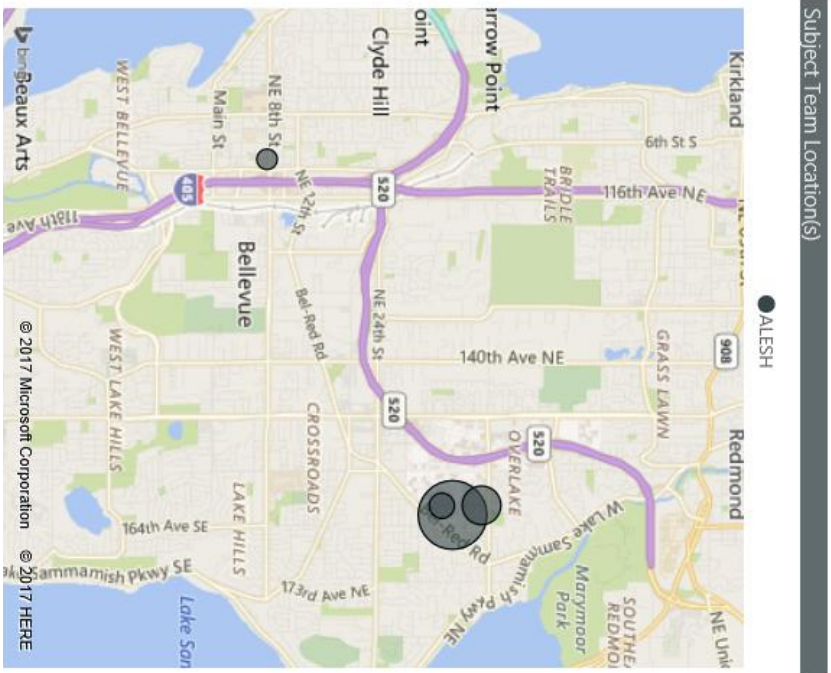


Customer: Workplace Strategy Manager at Corporate Real Estate Partner

- Full-time consultant at Microsoft
- Used badge data for strategy planning
- Pain point - badge entry volume correlates with
café locations

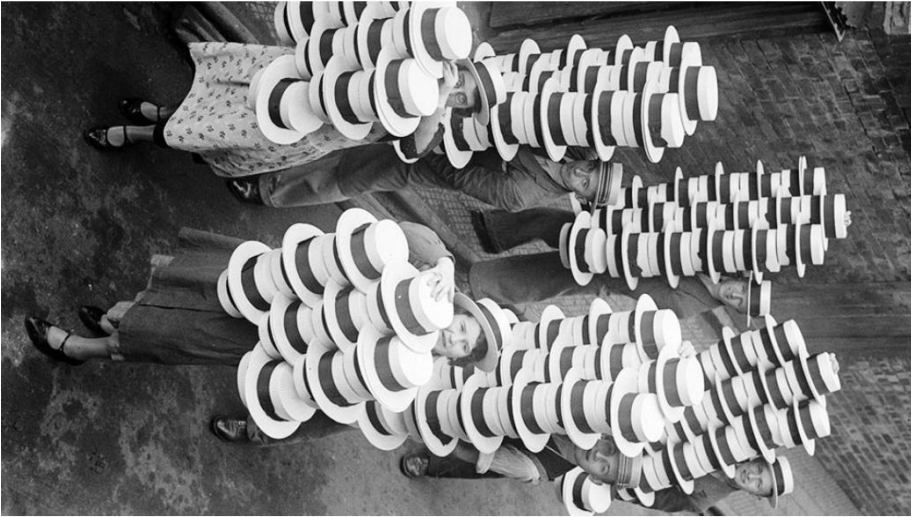
OPG - Top Teams' Principal Collaborators

<https://msic.powerbi.com/groups/me/dashboards/bfcd7749-5be7-4fcc-80bd-dc2612b7dfb4>





CASE: Model behaviors of top salespeople



Top performers behave very differently from their peers when interacting with customers & internal colleagues





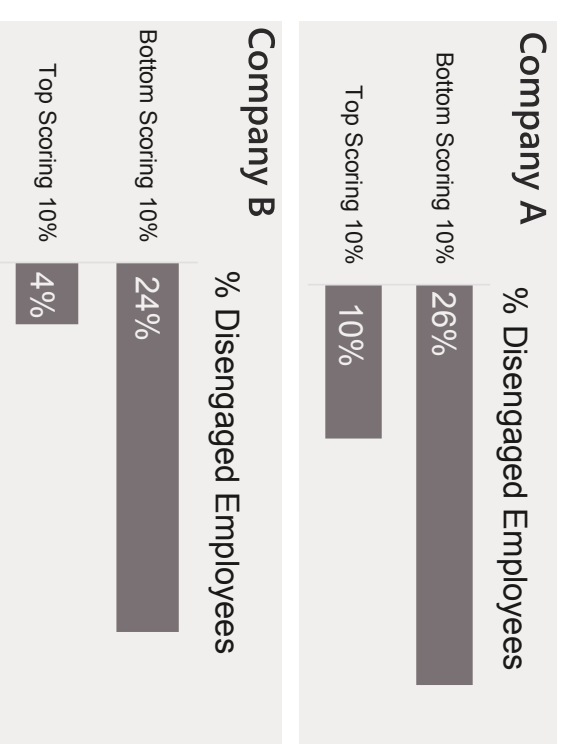
What Great Managers

OPTION #1

"...we wanted to understand what made managers of highly engaged employees different than the rest on a day-to-day basis."

- Managers **lead by example** when it comes to working hours
- Managers need to ensure **even allocation** of work
- Effective managers maintain **large internal networks** across their company
- One-on-ones remain vital
- Managers are **also engaged** at work

Research: 2 Fortune 100 companies
Key Finding: Engagement score using WPA KPIs predicts employee disengagement



Workspace Planning Use Cases

1

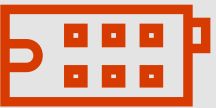
Measure the success of space allocation and understand how the environment influences employee behaviors

2

Proactively plan for future allocation at the site and floor levels to drive positive outcomes

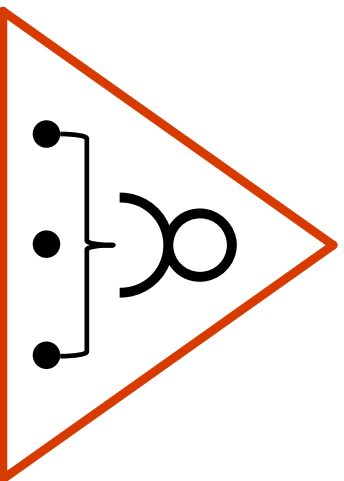
3

Proactively design for buildings to match the environment to employees' behaviors



OPTION #2

LEAD BY EXAMPLE
WITH THEIR
WORKING HOURS



WHAT DO MY
MOST EFFECTIVE
MANAGERS DO?

MAINTAIN LARGE
INTERNAL NETWORKS
ACROSS THEIR
COMPANY

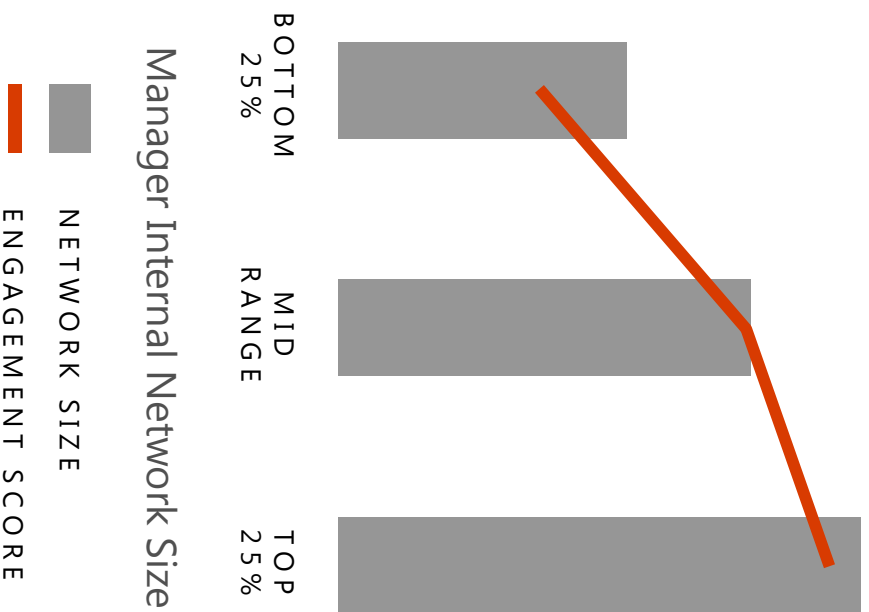
INVEST IN ON-
BOARDING, COACHING, &
EQUITABLE EMPLOYEE
WORK ALLOCATION

OPTION #2 CONT'D

+ 85%

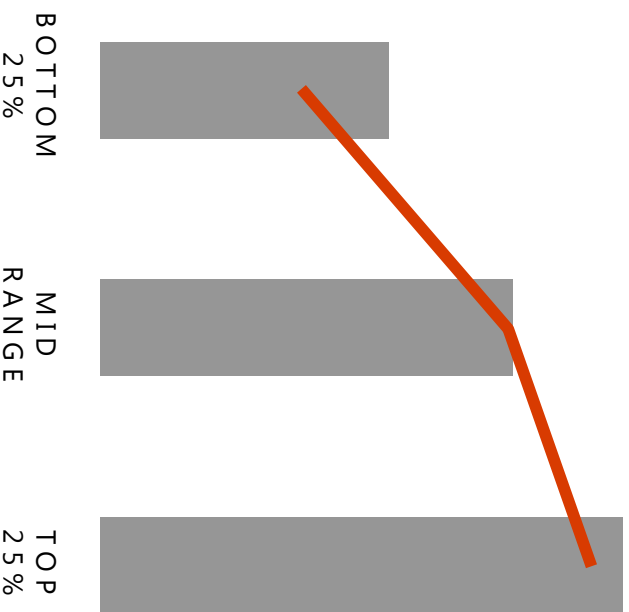
+ 7%

WHAT DO MY
MOST EFFECTIVE
MANAGERS DO?

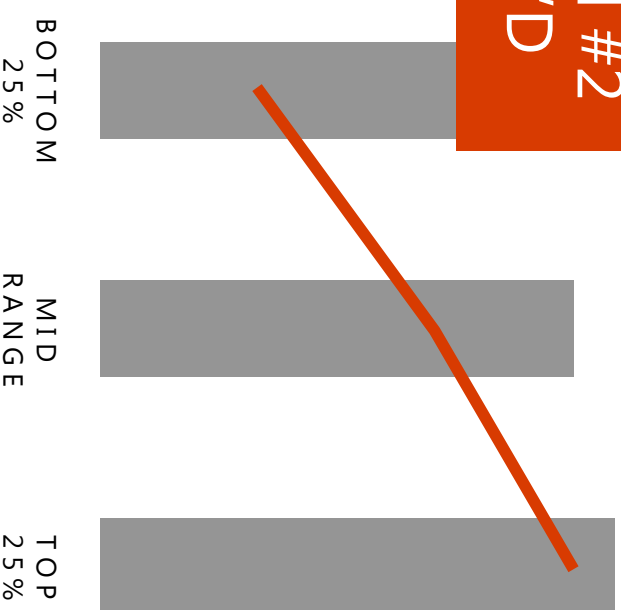


* Employees with networks 110%+
larger than managers are 50% more
likely to be disengaged

OPTION #2 CONT'D



+ 85%
+ 7%



+ 19%
+ 9%

Manager Internal Network Size

■ NETWORK SIZE
— ENGAGEMENT SCORE

* Employees with networks 110%+ larger than managers are 50% more likely to be disengaged

Manager Active Work Week

■ ACTIVE WORK WEEK
— ENGAGEMENT SCORE

* Extreme manager after hours (9+ hours/week) leads to 1.6X higher management disengagement rate

Pros of large manager networks

Employees reporting to managers with large networks are more engaged and have networks up to 85% larger

OPTION #2 CONT'D

Longer working hours

Employees reporting to managers who work longer hours are more engaged and work up to 19% more hours

Cons of small manager networks

Employees with networks 110%+ larger than their managers are 50% more likely to be disengaged

Cons of *too long* a work week

Extreme manager after hours (a consistent 9+ hours/week outside working hours) leads to a 1.6X higher management disengagement rate

ONBOARDING

New employees with no training or manager 1:1s are **4 times as likely** to become disengaged

EVEN WORK ALLOCATION

Employees that work consistently longer hours than their peers are **33% more likely** to be disengaged

COACHING

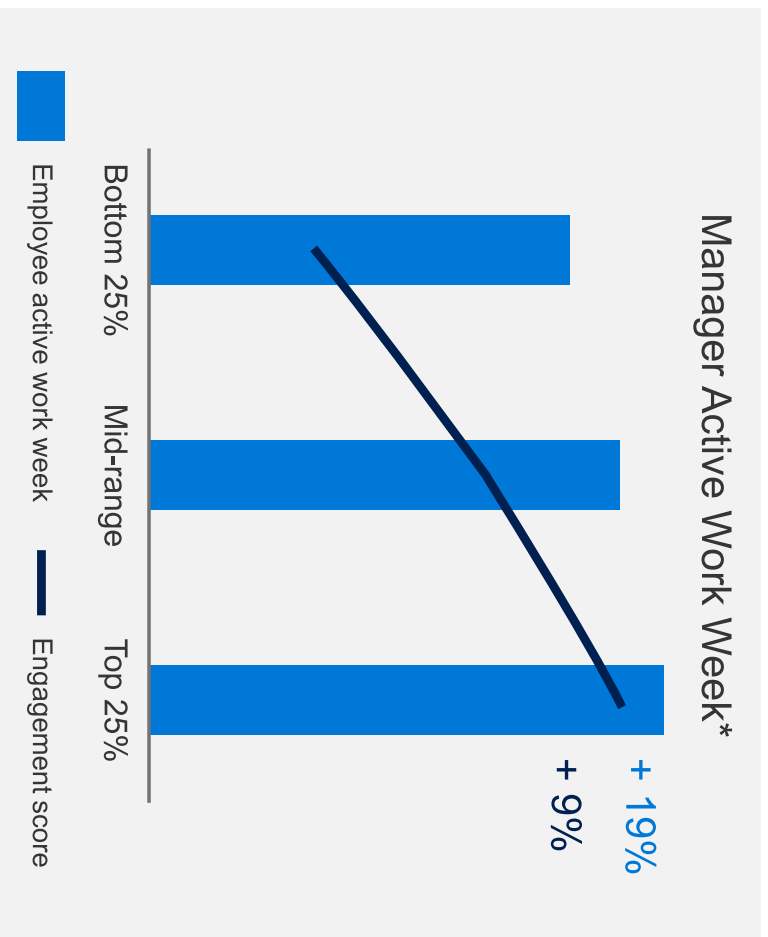
Employees with twice the manager 1:1 hours of their peers are **67% less likely** to be disengaged

FINDING 1

Top managers lead by example to their working hours

OPTION #3

When it comes



Pros of longer working hours

Employees reporting to managers who work longer hours are 9% more engaged and work up to 19% more hours

Cons of *too long* a work week

Extreme manager after hours (a consistent 9+ hours/week outside working hours) leads to a 1.6X higher management disengagement rate

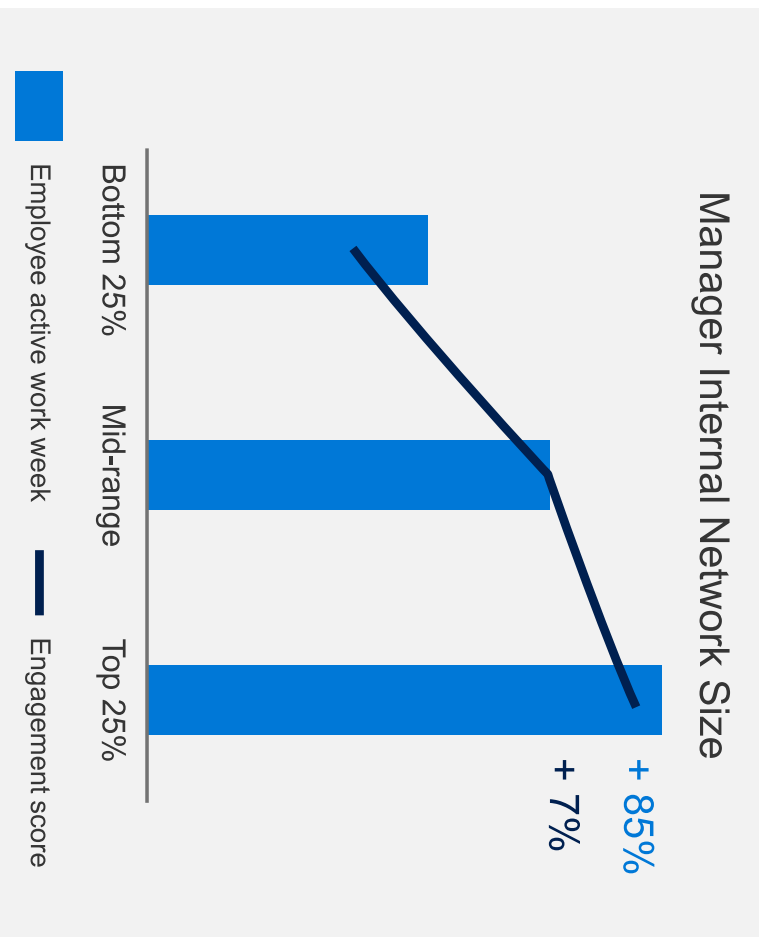
* Active work week is the average amount of time between your first and last email or meeting of the day across the work week

FINDING 2

Effective managers maintain

OPTION #3
CONT'D

internal networks



Pros of large manager networks

Employees reporting to managers with large networks are 7% more engaged and have networks up to 85% larger

Cons of small manager networks

Employees with networks 110%+ larger than their managers are 50% more likely to be disengaged

A Manager has impact on employee engagement

OPTION #3 CONT'D

WORKLOAD BALANCING

Great managers ensure even allocation of work

Highly utilized direct reports that work 120% longer hours than peers are 33% more likely to be disengaged and view leadership 2x more unfavorably

COACHING

Manager facetime matters

Individual contributors with twice the manager 1:1 hours of their peers are 67% less likely to be disengaged

CAREER DEVELOPMENT

Managers grow employees

Individual contributors early in their careers with no manager 1:1s and no training activity are 4X as likely to be disengaged

MANAGER ENGAGEMENT

Employees mimic manager engagement

Disengagement rate of employees reporting to disengaged managers is up to 2x higher than for those reporting to engaged managers