Voting on team rooms

1. On your mobile device, use your favorite QR Code reader* to navigate to http://etc.ch/TCRQ

2. Answer the question to start the poll

*On most phones, taking a picture of the code will activate your QR reader
How to Design and Build Agile Team Rooms that Rock!

PRESENTED BY
Kathy Aragon and Alfred Lorber, SNL

WITH ADDITIONAL CONTENT FROM
Andrea Hanson, Dekker/Perich/Sabatini Design
Gina Furrow, Facilities Engineering PM, SNL
Outline

Good and Bad Team Room Design – Voting
Why Team Rooms?
Industry Terms and Nomenclature
Practical Advice on Creating Your Team Room
Good and Bad Team Room Design – Vote Again & Discuss
Key Elements of Design and Implementation
Good and Bad Team Room Design – Voting

Why Team Rooms?

Industry Terms and Nomenclature

Practical Advice on Creating Your Team Room

Good and Bad Team Room Design – Vote Again & Discuss

Key Elements of Design and Implementation
Voting on team rooms

1. On your mobile device, use your favorite QR Code reader* to navigate to
http://etc.ch/TCRQ

2. Answer the question to start the poll

*On most phones, taking a picture of the code will activate your QR reader
OMP Project - Star Trek NG room
OMP Project – 894 Mezzanine
894 Mezzanine v2.0
Good and Bad Team Room Design – Voting

Why Team Rooms?

Industry Terms and Nomenclature

Practical Advice on Creating Your Team Room

Good and Bad Team Room Design – Vote Again & Discuss

Key Elements of Design and Implementation
That is while there is value in the items on the right (bottom), we value the items on the left (top) more.
Agile principles

Customer Satisfaction  Welcome Change  Deliver Frequently  Working Together  Motivated Team  Face to Face

Working Software  Constant Pace  Good design  Simplicity  Self Organisation  Reflect and Adjust

Lean-Agile principles
SAFe® Lean-Agile principles

#1 - Take an economic view

#2 - Apply systems thinking

#3 - Assume variability; preserve options

#4 - Build incrementally with fast, integrated learning cycles

#5 - Base milestones on objective evaluation of working systems

#6 - Visualize and limit WIP, reduce batch sizes, and manage queue lengths

#7 - Apply cadence, synchronize with cross-domain planning

#8 - Unlock the intrinsic motivation of knowledge workers

#9 - Decentralize decision-making
The Design Community agrees… get out of the single person office

A growing body of research shows the benefits provided by one’s ability to shape the work experience by choosing the type and location of workspace, and capability to modify workspace features: lower psychological and physiological stress, higher individual and group performance, faster business process time, and greater employee satisfaction.


https://www.knoll.com/knollnewsdetail/adaptable-by-design
Physical distance attenuates human communication

At 35 feet, you might as well be in a separate building

Good and Bad Team Room Design – Voting

Why Team Rooms?

Industry Terms and Nomenclature

Practical Advice on Creating Your Team Room

Good and Bad Team Room Design – Vote Again & Discuss

Key Elements of Design and Implementation
Workspace definitions in the design community

A collaboration workspace

- Where an employee goes to collaborate with others
- Outside of an employee’s normal workspace
- Varies widely in appearance and function
An agile* workspace

- Where an employee spends the majority of their day

- Provides a balance of multiple spaces that support multiple work modes

* agile ≠ Agile team

In the “literature” agile workspace = agile workplace = agile office = agile working
Workspace definitions in the design community

Open Office

- **Like** an agile workspace
  - where an employee spends the majority of their day

- **Unlike** an agile workspace
  - only one work mode: Collaboration

*Only one mode results in 😞 employees*

Has a bad name in the design and business worlds

**Why It's Time to Ditch Open Office Plans**
- Aytekin Tank, *Entrepreneur*, February 7, 2019

**Open office plans are as bad as you thought**

**The impact of the ‘open’ workspace on human collaboration**
- Bernstein ES, Turban S., *Phil. Trans. R. Soc. B* 373: 20170239, 2018
Workspace definitions in the design community

Open Office


**The impact of the ‘open’ workspace on human collaboration**

- Bernstein ES, Turban S., *Phil. Trans. R. Soc. B* 373: 20170239, 2018
Agile workspaces: Provide a balance of spaces to support the five work modes

Today’s workforce is changing rapidly, demanding different ways of working. The typical day is filled with a wide range of interactions, from focused, independent work to collaborative team work. We refer to these varying interactions as work modes. People spend time collaborating, learning, socializing, and resting as well as focusing.
COLLABORATION: Equal Exchange – One on One Rooms

Technology rich
Not reservable
COLLABORATION:
Diverse Viewpoints – Huddle Rooms

Technology rich
Not reservable
3-6 persons
Often same size as an office - interchangable
COLLABORATION: Diverse Viewpoints – Enclosed Conference Rooms

- Small conference 4-6 per
- Medium conference 8-10 per
- Technology rich
- Reservable
- Capacity varies
COLLABORATION: Diverse Viewpoints – Open Collaboration

Not reservable
Ad hoc
Supports brainstorming

Credit: Steelcase
Agile workspaces:

Provide a balance of spaces to support the five working modes:

1. **Collaboration**
2. **Focus**
3. **Learn**
4. **Socialize**
5. **Respite**
Focus: Focus Rooms

Head down work = acoustic and visual privacy
Technology rich
One person
FIVE WORKING MODES

COLLABORATION

FOCUS

LEARN

SOCIALIZE

RESPITE
LEARN: Multipurpose Rooms

Technology rich
Flexible
Training
Agile workspaces: Provide a balance of spaces to support the five working modes.

- Collaboration
- Focus
- Learn
- Socialize
- Respite
SOCIALIZE:
Lounge / Eat
FIVE WORKING MODES

COLLABORATION
FOCUS
LEARN
SOCIALIZE
RESPITE
RESPITE: Rejuvenate / Restore
Essential elements of an agile workspace

- The design community also discusses agile workspaces in terms of 5 essential elements
- Each element supports one or more work modes, except for Resources
- They are physical spaces

**Agile Workspace**

- **Open Plan**: Physical freedom to reconfigure
- **Touchdown**: For transient workers who are not in the office all day
- **Breakout**: Impromptu teamwork; less confining than a conference room
- **Quiet Zone**: Small, individualized spaces
- **Resources**: A place for printers/copiers, books, etc.

More Information: *Top 5 Elements of an Agile Workspace*
### Some possible mappings between Work Modes and Essential Elements

<table>
<thead>
<tr>
<th>Work Modes (what workers need)</th>
<th>Essential Elements (physical space that provides it)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborate</td>
<td>Touchdown</td>
</tr>
<tr>
<td>Focus</td>
<td>Quiet Zones</td>
</tr>
<tr>
<td>Learn</td>
<td>Open Plan</td>
</tr>
<tr>
<td>Socialize</td>
<td>Breakout</td>
</tr>
<tr>
<td>Respite</td>
<td>Resources (storage and materials)</td>
</tr>
</tbody>
</table>
Why did we cover Designer Nomenclature?

So this **DOESN’T** happen!

And this **DOES!**
Let’s recap:

1. Workspace types
   - Collaboration workspace
   - Agile workspace
   - Open office

2. Agile workspace nomenclature
   - Work modes
   - Essential elements
Good and Bad Team Room Design – Voting
Why Team Rooms?
Industry Terms and Nomenclature
Practical Advice on Creating Your Team Room
Good and Bad Team Room Design – Vote Again & Discuss
Key Elements of Design and Implementation
Collaboration workspaces in order of increasing benefit to teams

“Standup” room
- A place where Agile teams can consistently have Daily Standup meetings
- Include a dedicated wall where teams can have persistent artifacts

Easily scheduled meeting room
- A place where Agile teams can easily and on short notice reserve meeting space
- Need white boards and accessible computer with projector or large display

Shared Work Room
- A place where agile teams can meet on a cadence and do work together
- Must have needed computer infrastructure and white boards
- A place shared with other teams via scheduling (M,W; T,Th; AM-PM; etc.)

Dedicated Work Room
- Just like a shared work room, but dedicated to one team
The workspace with the most benefit to teams

**agile workspace**

- A place where teams spend their entire day
- Everything needed to do their work is available
What is an Agile *team* room?

It is where an Agile team gathers… … and it spans a spectrum from

- **simple, low use**
- **all day, high utilization**

That is …. **stand up room**

**agile workspace**
Standup room to agile workspace

Professional

DIY

Standup Room  Conference Room  Work Room  Agile Workspace
Standup room to agile workspace

Professional

DIY

Standup Room  Conference Room  Work Room  Agile Workspace
Standup room to agile workspace

Professional

DIY

Standup Room  Conference Room  Work Room  Agile Workspace
Standup room to agile workspace

Professional

DIY

Standup Room  Conference Room  Work Room  Agile Workspace
Standup room to agile workspace

Professional

DIY

Standup Room  Conference Room  Work Room  Agile Workspace
Standup room to agile workspace

- Standup Room
- Conference Room
- Work Room
- Agile Workspace

Professional vs. DIY
Standup room to agile workspace
Standup room to agile workspace

Professional

DIY

Standup Room  Conference Room  Work Room  Agile Workspace
From standup room to full agile workspace

Sierra Mechanics SoS Team

Standup Room  Conference Room  Work Room  Agile Workspace
Standup room to full agile workspace

OMP SAFe Team
Good and Bad Team Room Design – Voting

Why Team Rooms?

Industry Terms and Nomenclature

Practical Advice on Creating Your Team Room

Good and Bad Team Room Design – Vote Again & Discuss

Key Elements of Design and Implementation
Voting on team rooms

1. On your mobile device, use your favorite QR Code reader* to navigate to http://etc.ch/TCRQ

2. Answer the question to start the poll

*On most phones, taking a picture of the code will activate your QR reader
OMP Project - Star Trek NG room
Positives seen in picture

- Collaboration via Open, Conference and Huddle rooms
- Easy to reconfigure desks within confines of power/networking lattice
- All walls are whiteboard walls
- Resource via mobile cabinets

Negatives seen in picture

- Power and networking in lattice not easily reconfigured
- Can get noisy despite sound abatements
Positives not seen in picture

- Additional Resources: movable bookcases
- Socialize (with kitchen) and Respite in next room

Negatives not seen in picture

- Sound leakage between conference room and open collaboration area due to open ceiling airflow requirements (This was a known design tradeoff)
- Writeable walls are difficult to keep clean
- Portable building challenges:
  - Squeaky floor
  - Challenging climate control
  - Wind noise

Our Vote Avg: 5
OMP Project – 894 Mezzanine
Positives seen in pictures

- Collaboration via extremely large Open area
- Focus via cubicles along the sides
- Ample power and networking via poles allows multiple furniture configurations
- Movable furniture

Negatives seen in pictures

- Could be noisy because of many people in large room with no barriers
- Only two work modes supported
- 30 year old ambiance due to use of recycled furniture and age of the space
  - Was remodeled soon after
Positives *not* seen in pictures

- Collaboration via Huddle and Conference
  - At far end of open area

- Socialize supported via kitchen and breakout areas

- Resource via large supply room and bookcases throughout the area

- Very, very quiet due to carpet, sound absorbing roof tile and sound soak on cubicle walls

Negatives *not* seen in pictures

- Cubicles along walls were not for team room occupants
  - Were for a different project
  - This caused friction between the projects
    - “You guys talk and laugh too much”

**Our Vote Avg: 4**
894 Mezzanine v2.0
Positives seen in pictures

- Socialize and Focus areas
- Ample Focus areas via cubicles

Negatives seen in pictures

- No Open Collaboration (is a cubicle farm)
- Non-cubicle Focus areas lack acoustical privacy
- Huddle areas are very exposed
Positives *not seen in pictures*

- Conference supported at far ends of the space
- Socialize supported via kitchen and breakout areas
- Modern furniture and feel due to recent remodel
- Ample Resource areas

Negatives *not seen in pictures*

- Room’s “vibe”
  - Room is not built for continuous collaboration, only collaboration during breakout sessions
- Very little configuration flexibility
- Bad deployment of technology in Open Collaboration areas
  - One area had two large screen monitors with no way to drive them

*Our Vote Avg: 2*
Positives seen in pictures

- Supports Open Collaboration
- Furniture can be easily moved
- Whiteboards on all walls

Negatives seen in pictures

- Open Collaboration is the only work mode supported
- Technology poor
- Effectiveness of room dividers is unclear
- Furniture is very basic
Positives *not* seen in pictures

- None

Negatives *not* seen in pictures

- Room dividers are unmovable and ineffective for visual and acoustic separation
- Power and network only on the walls
- Designed by a manager with no input from occupants, who then left the company

Our Vote Avg: 1
Positives seen in pictures

- Supports multiple work modes: Open and Huddle Collaboration, Socialize
- Whiteboard walls and mobile whiteboards
- Technology rich
- Custom lighting

Negatives seen in pictures

- Crowded space
- Work modes not supported: Conference, Respite, Focus, Learn
- Limited Resource areas
Positives *not* seen in pictures

- Other work modes supported just outside of the room

Negatives *not* seen in pictures

- Noise can be a problem
  - Low ceilings and carpeting help
- Is just a large room with two doors, no windows
- Power and network only on the walls

“*I can feel software being made*”
- Dean Leffingwell (Team Room Visit 4/23/19)
Good and Bad Team Room Design – Voting

Why Team Rooms?

Industry Terms and Nomenclature

Practical Advice on Creating Your Team Room

Good and Bad Team Room Design – Vote Again & Discuss

Key Elements of Design and Implementation
Key Elements of Design and Implementation

- Team Engagement
- Actual Requirements Gathered at Sandia
- Implementation
  - Teams
  - Lessons Learned
  - Security
- Concluding Remarks
Team Engagement - Approaches

- **Mockups**
  - Help to visualize design choices

- **Design renderings**
  - Bring concepts and design choices to “life”

- **Inspiration from nature, movies, eras, etc.**
  - Incorporate as a design theme

- **Requirements**
  - Solicit, categorize, prioritize, and communicate

- **Conduct surveys**
  - Ask team to choose furniture, room themes, color schemes, etc.

- **Field trips to other spaces**
  - See people at work in the space
  - Get ideas for designs and what won’t work for your team
Team Engagement - Mockups – Huddle Room Size
Team Engagement: Mockups – Desk Size and Type of Chair, 3D Rendering
Team Engagement: 3D Design Renderings
Team Engagement: Inspiration
Team Engagement: Implementation of Inspiration
Team Engagement: Requirements

Solicit...
Team Engagement: Requirements

Categorize...
Prioritize

Dot Vote...
Communicate...

May include reference material:

“A new study should be the final nail for open-plan offices”

“Research: Cubicles are the absolute worst”
Team Engagement: Conduct Surveys
### Team Engagement: Conduct Surveys

#### Wells above Whiteboards Pattern & Color

<table>
<thead>
<tr>
<th>Title</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern: Orange/Green (1,3)</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>Pattern: Turquoise/Blue (5)</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>No Pattern: Orange/Turquoise/Blue (2,4)</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>No Pattern: Orange and Blue (6)</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
<tr>
<td>2: Other (leave comment below)</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
<td>☐️</td>
</tr>
</tbody>
</table>

#### Summary

<table>
<thead>
<tr>
<th>Question</th>
<th>Total Votes</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern: Orange/Green (1,3)</td>
<td>6</td>
<td>3.7</td>
</tr>
<tr>
<td>Pattern: Turquoise/Blue (5)</td>
<td>3</td>
<td>2.96</td>
</tr>
<tr>
<td>No Pattern: Orange/Turquoise/Blue (2,4)</td>
<td>5</td>
<td>3.09</td>
</tr>
<tr>
<td>No Pattern: Orange and Blue (6)</td>
<td>8</td>
<td>3.92</td>
</tr>
<tr>
<td>2: Other (leave comment below)</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

---

#### Teamroom and Large Conf. Room Chairs

- **Team room Mockup “Red Chair”**
  - Gesture model: 442A30 77.74
  - Comments from Shannon Bliss from Business Environments:
    - "I don't feel like the seat pan goes back far enough for me on the Aria or Gesture"
  - "not on our standards program and we do not stock that chair"
  - Other comments:
    - Chosen by residents of TS/TT5/TT3 - Alfred
    - LCD has these, and people like them, even Zach who is 6’7" - Alfred

- **Team room Mockup “Blue Chair”**
  - Conf. room chair #1
  - Leap model: 492/10179 97.70
  - Comments from Shannon:
    - "Leap is the best in my opinion. Fits 4’-9 to 6’-4 heights and the seat depth goes back far enough that I can fold my legs under the chair comfortably..."
    - "Most popular by far [at Sanders] is the Leap chair. This is recommended and prescribed through Ergo as well."
    - "On J17"
  - Other comments:
    - Chosen by residents of TS/TT5/TT3 - Alfred
    - LCD has these, and people like them, even Zach who is 6’7" - Alfred

- **Conf. room chair #2**
  - Aria model: 491/410 77.16
  - Comments from Shannon:
    - "I don't feel like the seat pan goes back far enough for me on the Aria or Gesture"
    - "not on our standards program and we do not stock that chair"
Team Engagement: Conduct Surveys

<table>
<thead>
<tr>
<th>Title</th>
<th>4th</th>
<th>3rd</th>
<th>2nd</th>
<th>1st</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern: Orange/Green (1,3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pattern: Turquoise/Blue (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Pattern: Orange/Turquoise/Blue (2,4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Pattern: Orange and Blue (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2: Other (leave comment below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Summary**

<table>
<thead>
<tr>
<th>Question</th>
<th>Total Votes</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern: Orange/Green (1,3)</td>
<td>6</td>
<td>2.37</td>
</tr>
<tr>
<td>Pattern: Turquoise/Blue (6)</td>
<td>3</td>
<td>2.92</td>
</tr>
<tr>
<td>No Pattern: Orange/Turquoise/Blue (2,4)</td>
<td>5</td>
<td>3.00</td>
</tr>
<tr>
<td>No Pattern: Orange and Blue (6)</td>
<td>8</td>
<td>3.87</td>
</tr>
<tr>
<td>2: Other (leave comment below)</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Team Engagement: Field Trips
Team Engagement: Field Trips

Dekker/Perich/Sabatini (DPS) Albuquerque Office
Team Engagement: Field Trips

Agile Team Rooms at Sandia
Requirements – **Must Have** (Top 5 from two teams)

**Team 1**
- (4) Plenty of *network bandwidth*
- (4) *Large screens* for standups, code reviews, design sessions, lynda.com, etc.
- (4) *Dual monitors* for all developers (24" 1920x1200 minimum)
- (4) Computers with uniform and consistent *project environment*
- (3) *Whiteboards, Whiteboards, Whiteboards*. Including modular whiteboards, Whiteboard wall etc.

**Team 2**
- (7) *Whiteboards on walls*
- (5) *Furniture*: Sit/Stands, Ergonomic Chairs
- (5) *Monitors*: No reflections, Dual 27” 2560x1440 or Single 34” curved 3840x1440
- (4) *Balance* between collaboration and privacy
- (3) *Linux Workstations*

*Value in () indicates the number of votes cast*
Requirements – Nice to Have (Top 5 from two teams)

Team 1

- (5) Video screens for information radiators (build and test status)
- (5) Dual 30" 2500x1600 monitors for all developers
- (5) Area to make private phone calls
- (4) Rolling whiteboards with acoustic damping on opposite side
- (3) Whiteboard wall

Team 2

- (11) Kitchen/Dining Area with food and water cooler (including Nacho Bar)
- (8) Noise-canceling headphones
- (5) Visitor desks and loaner laptops and/or desktops
- (3) Storage for loaner laptops and desktops
- (4) Whiteboard Printer or Camera
Requirements – Showcase (Top 5 from two teams)

Team 1
- (4) **Patio**, tables so can eat outside
- (4) Conference room with very **high quality telecom**
- (4) **Breakout area furniture**
- (3) **Outdoor workspace** between buildings
- (2) **White and grey noise** for each area with on/off and volume

Team 2
- (11) Theme: **Eiger mountain range**
- (7) Panini Press
- (6) Meditation/Mindfulness/Sleep (**VR headsets** for meditation/mindfulness, Sleep Pods)
- (4) Simple sharing with **remote collaborators** (video/desktop/whiteboard)
Team Engagement
Actual Requirements Gathered at Sandia
Implementation
Concluding Remarks
Implementation: Who is involved in designing and building?

- Facilities
- SMEs
- Occupants
- Financial
- Design/Architecture
- Construction
Implementation: the people

Occupants
- People who will be using the space
- Identified spokespeople who can represent occupant’s needs, typically SMs and POs
  - These folks may be the Occupant Representatives on the Coordination Team

Facilities
- People in the corporate facilities organization who manage space, including design and construction policies and procedures

Design/Architecture
- Outside designers and architects for the space
- May be internal to a large organization
Implementation: the people

**Financial**
- People making financial decisions and authorizing payments

**Construction**
- People who will do the actual demolition and construction

**Subject Matter Experts (SMEs)**
- People with specialized knowledge or experience
  - Cyber Security
  - Physical Security
  - IT infrastructure
  - Audio/Visual
  - Agile and/or Agile Team Room
Implementation: Who coordinates the people?

Coordination Team

Facilities
SMEs
Financial
Construction

Design/Architecture

Occupants
Implementation: The Coordination Team

- A “hub” of communication between people involved with designing and building
- Ensures that everyone gets information needed, when needed
- Comprised of:
  - Occupant Representatives
  - Facilities Project Manager
  - Agile, Team Room SMEs
- One person may have multiple roles
Implementation: the Coordination Team’s interactions with other teams

- **All Teams**
  - Invites all teams to attend the Agile Review ceremony
  - Sends regular status and results from the Agile Review as part of a communication plan

- **Occupants**
  - Requests and receives requirements gathered from surveys, brainstorming, field trips, etc.
  - Facilitates design meetings between Occupants and Design/Architecture to iteratively refine team room design

- **Facilities**
  - Attends Facilities’ meetings held to coordinate between Design/Architecture, Construction and Facilities
    - These occur to satisfy corporate policies, procedures and best practices

- **Design/Architecture**
  - Attends design meetings; these are in addition to the meetings with the Occupants
    - At Sandia, this interaction is coordinated by the Facilities PM

- **Financial**
  - Attends financial meetings in which monetary status, schedule, etc. are discussed

- **Construction**
  - Visits construction site multiple times a week
    - At Sandia, attended by Coordination Team members that can make decisions; coordinated by the Facilities PM
Implementation: Lessons learned

Occupants MUST be involved in the design!
- Get occupant feedback early and often
- Put occupants and designers together to design in real-time
- Meetings with all stakeholders are good for hammering out final details

Create a Questions/Decisions Page
- You will be making lots of small decisions and some large ones that you will need to refer to often
- Document the following for questions and corresponding answers along with decisions made:
  - Date, people involved and any notes

Concrete examples of furniture and room setup are crucial to visualizing the space
- Tour other spaces as much as possible to see both overall implementations and individual items
- Mockups are extremely useful, especially for setups that can’t be seen on a tour
- Use renderings to help visualize the design
- Bring in samples (chairs, tables, fabrics, colors, etc.) and have occupants choose

Design for flexibility
- Occupants will want to change layout as they learn to utilize the space
Implementation: Lessons learned

Infrastructure details have a high impact

- Whiteboard walls wear out in heavy use areas, consider “real” whiteboards
- Developers love the dark; provide dimmable lights and multiple lighting zones
- Truly flexible network and power is hard to achieve
- Plan ahead so that power and networking are available and reliable on day-one of moving in
- Shy away from high-tech, expensive solutions that occupants may not use; experiment first

Communicate with stakeholders

- As much as possible, even if it is simply “no change”
- Centralize all information in one place, like a wiki
- Capture results from Reviews, document and disseminate

Set up Team Agreements for occupants

- Rules of engagement, e.g. cell phone use, loud conversations, etc.
- Agree on a no-change policy for the layout for a time period after moving in (day one of occupancy)

Run Coordination Team as an Agile team

- If using Kanban, incorporate Scrum ceremonies on a cadence
- Backlog is the list of work needed to coordinate with the other teams
Corporate Facilities and Construction teams move at their own pace

- You can’t count on accelerating your schedule by hurrying them
- Tour the construction site early and often

**Timeline from Sandia Facilities**

- **Scoping Meeting**: 1-2 weeks
- **Design Fee Present**: 2-3 weeks
- **PRD Submit**: 2-3 weeks
- **30% Design Submit**: 4 weeks
- **60% Design Submit**: 8-12 weeks
- **90% Design Submit**: 4-8 weeks
- **IFC Submit**: 2-3 weeks
- **Bid Process**: 2-3 weeks
- **Award**: 1-2 weeks
- **Construction**: 12-24 weeks
- **Tails**: 4 weeks
  - 42 min
  - 68 max
Implementation: And then there is Security…

Always consult with your security specialist. Some things to consider:

- TEMPEST requirements for wireless and wired
  - Specifications regarding leaking electromagnetic emanations
- Networking
- Persistent information on walls: written and electronic information radiators
- Physical access
- Visitors
- Uncleared workers
- Escorting
- Conversations: Open > Private > Secure
- Visual separation: Monitors, information on walls, documents, etc.
- Amplified conversations
- Video conferencing
Implementation: Security - Example mitigations

- Secure access
  - Combinations
  - Badge Swipes

- Sound proofing and masking
  - Sound proofing to the highest level necessary
  - Sound masking (aka white noise)

- TEMPEST
  - Following separation guidelines

- Visual separation
  - Dividers, curtains, mobile partitions/whiteboards, roller shades

- Visual indicators of security level
  - Static signage, dynamic security level indicators, lighting, beacons

- Physical separation
  - Entire areas that have one security level
Implementation: Security - Lessons Learned

- Design security in **from the beginning**

- Tribal knowledge is abundant, and often wrong
  - Do not assume you understand policy
  - You may not realize the flexibility you actually have
  - Find the definitive expert in your corporation who understands principles vs practices
    - If there is any doubt in an answer, keep searching

- Start with the “what,” then move to the “how”
  - Work with the occupants to fully understand the what
  - “We want to hold classified and unclassified meetings, but only videoconference unclassified ones”

- Mitigations are sometimes extremely simple
  - Push security down to the team level
  - Security training for a team-room vs line-of-site escorting
  - Pink noise vs extensive sound proofing
  - Agree that entire section of building will switch classification together, instead of individual portions
  - One “Uncleared Visitor” switch that turns off all information radiators and turns on flashing beacons

- Improve iteratively
  - Go with simple solutions and agree to move to more complex if necessary
High-Level Checklist to get you thinking….

- Identify funding source
- Identify available space
- Identify members of all teams, including occupant representatives (e.g. Team Leads, Scrum Masters and/or Product Owners)
- Create a high-level schedule, including Facilities’ phase gates and financial deadlines
- Determine Agile methodology and create working agreements, backlog, etc. for the Coordination team
- Create a communication plan and incorporate it into Coordination team backlog
- Create a wiki or similar location to serve as a single source and storage location of information
- Establish Occupant team metrics and gather for pre and post occupancy
- Hold kickoff meeting with all teams describing process, roles, responsibilities, meetings, expected attendance, agreements, etc.
- Plan requirements gathering from Occupants team using surveys, brainstorming, field trips, mockups, etc.
- Schedule and conduct design sessions between Occupants and Design/Architecture, inviting other teams as needed
- Negotiate construction visits
Handouts

Can be downloaded here: bitly.com/Agile2019TeamRooms

1. **Read Me** file describing the handouts
2. **Checklist** for creating your team room
   - Detailed version of high-level checklist slide
3. **Facilities schedule**
   - Provides insight into corporate bureaucracy
4. **Sample** Coordination Team Agile **backlog**
5. **Requirements** gathered from multiple teams
6. **Survey results** from OMP agile workspace occupants – post occupation
I work in a team room that rocks!
Questions?
Contact Information

**Kathy Aragon**
Lab-wide Agile SME
Co-Lead Agile CoP
Co-Lead PMO Agile Working Group
10641 - Corporate PMO
Sandia National Laboratories
c: (505) 401-2516
kmarago@sandia.gov

**Alfred Lorber**
Lab-wide Agile SME
Co-Lead Agile CoP
Co-Lead PMO Agile Working Group
10641 - Corporate PMO
Sandia National Laboratories
c: (505) 206-7456
aaporbe@sandia.gov

Tracking Number: 997293
Type: FORMAL - Conference Paper/Poster/Presentation
Title: How to Design and Build Agile Team Rooms that Rock!
SAND Number: SAND2019-8943 C