Why Do Startups Innovate Better than Design Firms, and What Can We Learn from Them?

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Curated by Danny Veerkamp (Thoughtforms)

Northeast Sustainable Energy Association (NESEA)
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BECOMING AN AGILE INNOVATIVE ORGANIZATION
Barbra BatShalom BE21

Link to murmuration video (with music!)
https://www.youtube.com/watch?v=YjDYE5CUb7Q
Things that have contributed to bringing me to this point and motivated me to question this paradigm!
When you hear “startup culture”, what defining characteristics do you think of?
A startup culture values creative problem solving, open communication and a flat hierarchy.

In startup cultures, these core values tend to reflect the ethos of the people who worked for the business in the early days. Because new businesses must adapt quickly to internal and external market pressures in order to survive, a startup culture also promotes business agility and adaptability as being key virtues. We are all facing the need to adapt!!
Part 1
1. DIG INTO WHAT AGILE IS
2. DEFINE 4 CORE AREAS AND COMPARE

Part 2
3. APPLY DISCUSSION IN AN EXERCISE
4. DEBRIEF
UPGRADE TO AN Agile OPERATING SYSTEM
to accelerate growth while minimizing risk

McKinsey&Company have tons of articles online (free, but need to create a log in)
GUIDING PRINCIPLES OF THE AGILE MANIFESTO

1. Top priority: satisfy customer thru early and continuous delivery of value
2. Welcome changing requirements, even late in process – Agile harnesses change for competitive advantage
3. Deliver (working software) frequently, test and adapt
4. Team members with different expertise collaboratively
5. Build projects around motivated individuals and ensure they have the necessary support, trust and stability
6. The most efficient and effective method of conveying information immediately (!) within a team is face to face conversation
7. Outcomes (working software) are the primary measure of progress – is your “work product” meeting intention at every stage?
8. Agile processes promote sustainable workflow “design” to avoid burnout – ability to maintain a constant pace indefinitely
9. Continuous attention to technical excellence & good design enhances agility (scrum ensures proactive problem solving)
10. Simplicity – the art of maximizing the amount of work NOT DONE is essential – by timing collaboration, feedback loops as needed.
11. The best architectures, requirements, designs emerge from self-organizing teams – design autonomy into problem solving.
12. Team reflects on how to be more effective at regular intervals, tunes and adjusts behavior accordingly.

…and applies to (enlightened) corporations outside of our industry
THERE ARE 5 TRADEMARKS OF AGILE ORGANIZATIONS

- Internally driven commitment for every project
  - Trademark: North Star embodied across the organization
  - Organizational agility practices:  
    - Shared purpose and vision
    - Sensing and seizing opportunities
    - Flexible resource allocation
    - Actionable strategic guidance

- Stable, empowered, QC and clear process role
  - Trademark: Network of empowered teams
  - Organizational agility practices:  
    - Clear, flat structure
    - Clear accountable roles
    - Hands-on governance
    - Robust communities of practice
    - Active partnerships and eco-system
    - Open physical and virtual environment
    - Fit-for-purpose accountable cells

- Feedback Loops
  - Trademark: Rapid decision and learning cycles
  - Organizational agility practices:  
    - Rapid iteration and experimentation
    - Standardized ways of working
    - Performance orientation
    - Information transparency
    - Continuous learning
    - Action-oriented decision making

- People first, anytime feedback, soft skills
  - Trademark: Dynamic people model that ignites passion
  - Organizational agility practices:  
    - Cohesive community
    - Shared and servant leadership
    - Entrepreneurial drive
    - Role mobility

- BIM, material research, spotty adoption
  - Trademark: Next generation enabling technology
  - Organizational agility practices:  
    - Evolving technology architecture, systems, and tools
    - Next-generation technology development and delivery practices
People need to be directed and managed, otherwise they won’t know what to do—and they’ll just look out for themselves. There will be chaos.

To deliver the right outcome, the most senior and experienced individuals must define where we’re going, the detailed plans needed to get there, and how to minimize risk along the way.

To achieve desired outcomes, leaders need to control and direct work by constantly specifying tasks and steering the work of employees.

Technology is a supporting capability that delivers specific services, platforms, or tools to the rest of the organization as defined by priorities, resourcing, and budget.

When given clear responsibility and authority, people will be highly engaged, will take care of each other, will figure out ingenious solutions, and will deliver exceptional results.

We live in a constantly evolving environment and cannot know exactly what the future holds. The best way to minimize risk and succeed is to embrace uncertainty and be the quickest and most productive in trying new things.

Effective leaders empower employees to take full ownership, confident they will drive the organization toward fulfilling its purpose and vision.

Technology is seamlessly integrated and core to every aspect of the organization as a means to unlock value and enable quick reactions to business and stakeholder needs.
BENEFITS OF AGILE

BENEFITS OF ADOPTING AGILE
We continue to see many benefits realized by companies adopting Agile. The theme of the top 5 reported benefits is speed and adaptability. This corresponds with the top reported reasons for adopting Agile.

<table>
<thead>
<tr>
<th>Benefit</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to manage changing priorities</td>
<td>70%</td>
</tr>
<tr>
<td>Project visibility</td>
<td>65%</td>
</tr>
<tr>
<td>Business/IT alignment</td>
<td>65%</td>
</tr>
<tr>
<td>Delivery speed/time to market</td>
<td>60%</td>
</tr>
<tr>
<td>Team morale</td>
<td>59%</td>
</tr>
<tr>
<td>Increased team productivity</td>
<td>58%</td>
</tr>
<tr>
<td>Project risk reduction</td>
<td>51%</td>
</tr>
<tr>
<td>Project predictability</td>
<td>50%</td>
</tr>
<tr>
<td>Software quality</td>
<td>46%</td>
</tr>
<tr>
<td>Engineering discipline</td>
<td>44%</td>
</tr>
<tr>
<td>Managing distributed teams</td>
<td>41%</td>
</tr>
<tr>
<td>Software maintainability</td>
<td>35%</td>
</tr>
<tr>
<td>Project cost reduction</td>
<td>26%</td>
</tr>
</tbody>
</table>
Agile performance units excel most often at strategy and people-related practices, and they outperform all other units in stability and dynamism.

<table>
<thead>
<tr>
<th>Stable practices</th>
<th>Dynamic practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actionable strategic guidance</td>
<td>Information transparency</td>
</tr>
<tr>
<td>92</td>
<td>87</td>
</tr>
<tr>
<td>Shared vision and purpose</td>
<td>Rapid iteration and experimentation</td>
</tr>
<tr>
<td>91</td>
<td>81</td>
</tr>
<tr>
<td>Entrepreneurial drive</td>
<td>Continuous learning</td>
</tr>
<tr>
<td>91</td>
<td>80</td>
</tr>
<tr>
<td>Shared and servant leadership</td>
<td>Flexible resource allocation</td>
</tr>
<tr>
<td>89</td>
<td>79</td>
</tr>
<tr>
<td>Standardized ways of working</td>
<td>Open physical and virtual environment</td>
</tr>
<tr>
<td>89</td>
<td>78</td>
</tr>
<tr>
<td>Cohesive community</td>
<td>Sensing and seizing opportunities</td>
</tr>
<tr>
<td>88</td>
<td>75</td>
</tr>
<tr>
<td>Fit-for-purpose accountable cells</td>
<td>Technology, systems, and tools</td>
</tr>
<tr>
<td>85</td>
<td>62</td>
</tr>
<tr>
<td>Performance orientation</td>
<td>Role mobility</td>
</tr>
<tr>
<td>82</td>
<td>60</td>
</tr>
<tr>
<td>Action-oriented decision architecture</td>
<td>Active partnerships and ecosystem</td>
</tr>
<tr>
<td>82</td>
<td>56</td>
</tr>
<tr>
<td>People</td>
<td>Structure</td>
</tr>
<tr>
<td>44</td>
<td>26</td>
</tr>
<tr>
<td>Technology</td>
<td>Process</td>
</tr>
<tr>
<td>44</td>
<td>38</td>
</tr>
</tbody>
</table>

% of respondents whose performance units follow given practice

- Agile performance units, n = 560
- All other performance units, n = 1,985
Compared with their agile counterparts, bureaucratic performance units are far behind on their dynamic practices.

% of respondents whose performance units follow given practice

<table>
<thead>
<tr>
<th>Practice</th>
<th>Bureaucratic performance units, n = 697</th>
<th>Agile performance units, n = 560</th>
<th>Percentage-point difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid iteration and experimentation</td>
<td>29</td>
<td>81</td>
<td>-52</td>
</tr>
<tr>
<td>Technology, systems, and tools</td>
<td>17</td>
<td>62</td>
<td>-45</td>
</tr>
<tr>
<td>Continuous learning</td>
<td>36</td>
<td>80</td>
<td>-44</td>
</tr>
<tr>
<td>Sensing and seizing opportunities</td>
<td>35</td>
<td>75</td>
<td>-40</td>
</tr>
<tr>
<td>Role mobility</td>
<td>20</td>
<td>60</td>
<td>-40</td>
</tr>
<tr>
<td>Information transparency</td>
<td>20</td>
<td>87</td>
<td>-37</td>
</tr>
<tr>
<td>Flexible resource allocation</td>
<td>42</td>
<td>70</td>
<td>-37</td>
</tr>
<tr>
<td>Performance orientation</td>
<td>49</td>
<td>82</td>
<td>-33</td>
</tr>
<tr>
<td>Active partnerships and ecosystem</td>
<td>56</td>
<td>88</td>
<td>-33</td>
</tr>
<tr>
<td>Open physical and virtual environment</td>
<td>49</td>
<td>83</td>
<td>-29</td>
</tr>
</tbody>
</table>

In bureaucratic units, respondents report room to improve how they execute certain stable practices.

% of respondents whose performance units follow given action

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<th>Agile performance units, n = 560</th>
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</thead>
<tbody>
<tr>
<td>Performance orientation</td>
<td>43</td>
<td>80</td>
<td>-37</td>
</tr>
<tr>
<td>Employees provide each other with continuous feedback (either formally or informally) on their behavior, progress, and/or outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance is measured against cross-functional business metrics and targets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared and servant leadership</td>
<td>59</td>
<td>90</td>
<td>-31</td>
</tr>
<tr>
<td>Leaders encourage employees to work together by incentivizing team-oriented behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leaders invest in development of their employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fit-for-purpose accountable cells</td>
<td>58</td>
<td>88</td>
<td>-30</td>
</tr>
<tr>
<td>Unit establishes small teams with full end-to-end accountability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teams are formed and/or dissolved based on unit’s most important strategic priorities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Agile Organization is dawning as the new paradigm. Rather than organization as “machine”, the agile organization is a living organism.

Organizations as living organisms

Like the cells in an organism, the basic building blocks of agile organizations are small fit-for-purpose performance cells. Compared with “machine models”, these performance cells have greater autonomy and accountability, are more multidisciplinary, are more quickly assembled (and dissolved), and are more clearly focused on specific value-creating activities and performance outcomes.
REFLECTS “DUAL OPERATING SYSTEM” APPROACH TO CHANGE MANAGEMENT

“CBIS Framework” by L.Sharp, adapted in part from J.Kotter, is licensed for open sharing and adapting under Creative Commons CC BY-AS 4.0
AGILITY & THE SMARTPHONE: AN ANALOGY

The phone’s fixed hardware platform and space for new apps mirrors the agile organization’s stable backbone and dynamic capability to add, abandon, replace and update “apps”.

Together, these allow the organization to respond quickly to market changes.

*Jazz Improvisation!*
LET’S DIG IN TO THREE “BUCKETS” OF ISSUES:

- PROCESS
- OFFICE CULTURE
- MANAGEMENT
<table>
<thead>
<tr>
<th></th>
<th>STARTUPS/ENLIGHTENED CORPS</th>
<th>DESIGN &amp; CONSTRUCTION FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem finding</strong></td>
<td>No jumping to solutions - KNOW that the client doesn’t “see” the whole problem so focus on really understanding it first.</td>
<td>Haven’t seen it happen yet.</td>
</tr>
<tr>
<td><strong>Consistent goal setting</strong></td>
<td>Absolutely set, revisited, tested - throughout</td>
<td>Larger firms #fail with consistency, many timid to push</td>
</tr>
<tr>
<td><strong>Feedback loops throughout</strong></td>
<td>Constant Feedback = quality decision making</td>
<td>Feedback is sporadic and value is lost</td>
</tr>
<tr>
<td><strong>Use of resources (LEED/consultants)</strong></td>
<td>Just-in-time resources deployed when/where needed</td>
<td>Use the wrong resources / wrong time – or underuse critical resources (MEP)</td>
</tr>
<tr>
<td><strong>Roles: Scrum Master (process leader)</strong></td>
<td>Roadmap + Scrum Master – job is quality of process</td>
<td>It’s the luck of the draw – process is not qualitatively “designed”. NO scrum master at all (process person)</td>
</tr>
<tr>
<td><strong>Collaboration Effectiveness</strong></td>
<td>Collaboration Effectiveness is...<strong>MEASURED</strong></td>
<td>We say we collaborate, but we don’t (measure it)</td>
</tr>
<tr>
<td><strong>Create Teams (not groups)</strong></td>
<td>Attention is paid to quality of team (structure/culture/building trust)</td>
<td>Trust, psychological safety or mutual accountability – “We don’t have time to do that stuff”....don’t measure impact</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>Innovation is built in as an expectation</td>
<td>Many firms are afraid of it – few build it in to biz ($)</td>
</tr>
<tr>
<td><strong>Lessons Learned / continuous improvement</strong></td>
<td>Lessons learned captured constantly and inform next cycle.</td>
<td><strong>We keep selling our past mistakes.</strong> And get away with it. 2030 Firms are beginning to use DDx to learn.</td>
</tr>
<tr>
<td><strong>Stability – all on same page</strong></td>
<td>Teams are stable, share understanding of goals &amp; process</td>
<td>Larger firms lack stability – people pulled on and off – clueless about history, goals, context – can’t provide as much value</td>
</tr>
</tbody>
</table>
# MANAGEMENT

<table>
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<th>STARTUPS/ENLIGHTENED CORPS</th>
<th>DESIGN &amp; CONSTRUCTION FIRMS</th>
</tr>
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<tbody>
<tr>
<td><strong>Leadership (Scrum Master - process leader)</strong></td>
<td>No - and disconnects between leader/execution teams “We always…” Vs. “We never…”</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>“Anytime feedback”, non-hierarchical overlay</td>
</tr>
<tr>
<td><strong>Change Management</strong></td>
<td>Constant change is a recognized condition, embraced</td>
</tr>
<tr>
<td><strong>Metrics &amp; KPIs</strong></td>
<td>Know what to measure but create alternative feedback loops to capture what’s outside the “lens”. Unnecessarily repeated work is not tolerated!!</td>
</tr>
<tr>
<td><strong>Collaboration Effectiveness</strong></td>
<td>Collaboration Effectiveness is...MEASURED</td>
</tr>
<tr>
<td><strong>Knowledge Management</strong></td>
<td>Attention is paid to quality of team (structure/culture/trust)</td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>Mutual accountability is mandatory, measured, and built into the ‘design’ process.</td>
</tr>
<tr>
<td><strong>Structure, Team stability</strong></td>
<td>Core structure exists, but adaptable and flexible – teams are stable and not randomly pillaged.</td>
</tr>
<tr>
<td><strong>Organizational Excellence</strong></td>
<td>This is an explicit focus with people tasked to watch, listen and coordinate efforts to stay on track. “Two companies in one – one to serve client and one to be the best org possible”. <em>Southwest/Starbucks – treat employees like clients and they will serve clients better.</em></td>
</tr>
<tr>
<td></td>
<td>STARTUPS/ENLIGHTENED CORPS</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Values driven</strong></td>
<td>Stated values manifest in concrete actions, management and treatment of staff.</td>
</tr>
<tr>
<td><strong>Staff as most valued asset</strong></td>
<td>Act like it’s true (because it is!). In addition to free food, ping pong and silly stuff – people are empowered, asked for “anytime feedback” and no one is too junior to have a good idea or pre-empt a problem they detect.</td>
</tr>
<tr>
<td><strong>Internally driven best practices</strong></td>
<td>Not even a question. We set the standard so we can deliver the best to our customers. <strong>NO FEAR.</strong></td>
</tr>
<tr>
<td><strong>“Challenge the process” and innovate</strong></td>
<td>Culture of constantly challenging the process with intention of optimizing it all the time.</td>
</tr>
<tr>
<td><strong>Collaboration as a value</strong></td>
<td>Collaboration internally, sharing knowledge etc. IT IS MEASURED!!!!</td>
</tr>
<tr>
<td><strong>Tangible/visible evidence of values, priorities everywhere.</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>People are mutually accountable to each other</td>
</tr>
<tr>
<td><strong>Develop staff capabilities with intention</strong></td>
<td>People are constantly learning more, intentional development paths, mentoring.</td>
</tr>
<tr>
<td>STARTUPS/ENLIGHTENED CORPS</td>
<td>DESIGN &amp; CONSTRUCTION FIRMS</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>PROCESS</td>
<td></td>
</tr>
<tr>
<td>Feedback loops throughout</td>
<td>Constant Feedback = quality decision making</td>
</tr>
<tr>
<td>Scrum Master (process leader)</td>
<td>Roadmap + Scrum Master – job IS quality of process</td>
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<tr>
<td>Lessons Learned/continuous improvement</td>
<td>Lessons learned captured (at closeout) and inform next (2030)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>CULTURE</td>
<td></td>
</tr>
<tr>
<td>Values</td>
<td>Values manifest in work (“collaboration”)?</td>
</tr>
<tr>
<td>Staff as most valued resource</td>
<td>Staff – burn out, chaos, leaders cry</td>
</tr>
<tr>
<td>Lack intention (show what counts)</td>
<td>Problem solving kills “problem finding”</td>
</tr>
<tr>
<td>Asking the wrong questions and...</td>
<td>Don’t challenge the process</td>
</tr>
<tr>
<td>Not asking the most import. Q’s</td>
<td>Timid</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONAL DEVELOP’T</td>
<td></td>
</tr>
<tr>
<td>Leadership and other human skills</td>
<td>Invest in human skills (PM, leadership, strategic thinking)</td>
</tr>
<tr>
<td>Life-work balance</td>
<td>Keep staff sane (@work, @ home)</td>
</tr>
<tr>
<td>Community building @ work</td>
<td>Autonomy &amp; Accountability – balance</td>
</tr>
<tr>
<td>Courage</td>
<td>Cross train, interdisciplinary</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>MANAGEMENT</td>
<td></td>
</tr>
<tr>
<td>Structure &amp; management</td>
<td>Agile Organizational Models</td>
</tr>
<tr>
<td>Leadership</td>
<td>Leadership at all levels, different flavors</td>
</tr>
<tr>
<td>Communication</td>
<td>“Anytime feedback”</td>
</tr>
<tr>
<td>Change Management</td>
<td>Change Management is a discipline</td>
</tr>
<tr>
<td>Pivoting adapting (culture)</td>
<td>Unnecessarily repetitive work not tolerated</td>
</tr>
<tr>
<td>Metrics and KPIs</td>
<td>Cross functional teams organic</td>
</tr>
<tr>
<td>Knowledge Management</td>
<td>Pivot and adapt constantly (too much?)</td>
</tr>
<tr>
<td>ACCOUNTABILITY</td>
<td></td>
</tr>
<tr>
<td>Structure/management calcified, unresponsive</td>
<td>Structure/management calcified, unresponsive</td>
</tr>
<tr>
<td>Leadership – top heavy</td>
<td>Leadership – top heavy</td>
</tr>
<tr>
<td>Communication stagnant</td>
<td>Communication stagnant</td>
</tr>
<tr>
<td>Change management (who what now?)</td>
<td>Change management (who what now?)</td>
</tr>
<tr>
<td>Metrics/KPIs – invisible losses abound</td>
<td>Metrics/KPIs – invisible losses abound</td>
</tr>
<tr>
<td>Silos pretending to be cross functional teams</td>
<td>Silos pretending to be cross functional teams</td>
</tr>
<tr>
<td>Pivot and adapt? Agile as a concrete bunker</td>
<td>Pivot and adapt? Agile as a concrete bunker</td>
</tr>
</tbody>
</table>
OUTCOMES

VS.

BUSINESSILLUSTRATOR.COM
1. PROCESS
WHAT’S THE FIRST STEP IN YOUR DESIGN PROCESS?
Thinking about problem-finding

Well-defined
Strategy
Tactics
Algorithm
Pattern-matching

Ill-defined
Definition
Exploration
Experimentation
Evaluation

Observation
Single field
F' fresh eyes
Pushing the envelope

Analogy
Cross-field

Convergence
Bringing together

Problem-solver

Problem-finder

Creativity techniques

Hmm... Maybe problem-finding is why I like the communities around Emacs, Quantified Self, and coding for fun...
Impacts
Challenges
Assets
Stakeholder
SWOT

Desired
Future State

Priorities &
Strategies
Including change management

© 2011 The Natural Step
The Scrum Software Development Process

Inputs from customers, team, managers & execs.

- Product Owner
- The Team

1-4 week Sprint

- Sprint Master
- Daily Stand Up Meeting
- Sprint Review
- Finished Work
- Sprint Retrospective

Product Backlog

1. Prioritized list of what is required: features, bugs...

2. Sprint Planning Meeting

Team selects starting at top as much as it can commit to deliver by end of Sprint

Task Breakout

Sprint end date and team deliverable do not change
- Scrum master: Process Quality Focus
- Feedback Loops: daily/weekly/monthly
- Goal DRIVEN defined
- Standards drive
- Collaboration effectiveness measured
- TEAMS
- VALUE Creation
- Innovation (...is an outcome)
What is a Scrum Master?

- Serves Others
- Holistic Approach
- Builds Community
- Shares Decision-Making
The traditional or “Waterfall” approach to product management treats each stage as separate and sequential. Agile methods use iterative work cycles or sprints. The main difference is driven by outcomes; the Waterfall method focuses on ‘getting it right’ from creator’s standpoint, and Agile methods wants to iterate quickly to get more input and feedback.

When dealing with ambiguity and uncertainty – waterfall is not your friend, agile is. We have IDP but have never really transitioned....
Highly Collaborative

Business As Usual

Graphic credit: The Integrative Design Guide to Green Buildings 7Group, W. Reed
DOES YOUR FIRM HAVE A METHODOLOGY? DOES IT ENABLE ACHIEVING YOUR GOALS?
This is one sample of a “roadmap” that I described in the session, that a team CO-creates together with an owner, and key consultants. **Objectives of a tool like this:**

- Create a crystal clear, shared understanding of goals, sequence of activities to achieve them, interactions (who needs to do what when, whose eyes are on it, who approves, etc.).
- Buy-in and mutual accountability — the ACT itself of creating this lays the foundation for owning it.
- Clarifying any gaps or overlaps in scope — identifying where they are and addressing that as early as possible.
- Often helps the client see things they may not have realized or paid attention to (esp. for the team’s needs) and identifying barriers that owner has to deal with for the team to be successful (early on).

(no early “charrette” or kick off is complete without doing this!)
SPI’s INSIDE-OUT CHARRETTE™ and SUPER CHARRETTE TO SOLVE OVERCONSTRAINTS

INNOVATE THE PROCESS TO INNOVATE THE OUTCOME

INSIDE OUT:
PART 1: scatter! Individual perspectives
equal voices, perspectives
PART 2: synthesize! The process of
integrating key ideas to optimize bldg. systems. Integration

SUPER CHARRETTE:
7-day sprint – finish SD!
2. CULTURE

HOW TANGIBLE / VISIBLE IS YOUR COMMITMENT?
PERSONAL DEVELOPMENT

- **Stability** (you “own” your project)
- **Cross training** (Wight & Co.)
- **Technical skills**
- **Human skills**
  - leadership
  - communication
  - team effectiveness
  - project management
  - negotiation
  - giving/receiving feedback
- **Intentional mixing of the two:**
  
  *being a learning organization*
  
  (using crits to teach how to give/receive feedback)
PEOPLE! The most (only) valuable asset of any firm

Principals and PMs of larger firms are miserable, trying to manage teams when they are up against their staff being pulled on and off projects constantly, executives coming in and making decisions (stepping on authority), clients being allowed to constantly disrupt agreed-upon plans (other industries and smart firms either don’t allow this or charge a premium for this!). This is NOT inevitable. This is a design problem. If it’s our goal to protect our most valuable asset, how would the structure, management and business model of our firms change and adapt?????

Life-work balance
Cross train in different disciplines (Wight & Co model)
Leadership and other “human” (non-technical) skills
  - challenge the process
  - invite ideas from anywhere
  - manage conflict
  - communication skills,
  - persuasion negotiation

There’s plenty of empirical data to support this strategic direction. Gallup, the research firm, recently did a meta-analysis across 199 studies covering 152 organizations, 44 industries, and 26 countries. It showed that high employee engagement brings an uplift of every business performance number. Profitability up 16%, Productivity up 18%, customer loyalty up 12% and quality up an incredible 60%.

Goleman, in his book Primal Leadership
The emotional “climate” can impact a company’s profitability and business performance by 20-30%. Eerily familiar the parallelism that orientation of a building can impact its energy consumption up to 30%
Crits – giving and receiving feedback.
Cultural transformations have many avenues, here are some examples of things you can do:

**Interpersonal / leadership:** take every opportunity to acknowledge and recognize individuals for behavior or achievements that are consistent with the desired culture and values of your firm. Encourage input and feedback from anyone (no matter their “level”). (and address people whose behavior is in conflict!)

**Tangible evidence:** such as pEUI “walls” (real or virtual) where active projects post their energy/carbon reduction targets in high traffic areas – to stimulate critical thinking, dialogue and debate (“Why is your project tracking pEUI of 32 and ours is still at 57??”), or Challenge wall – where innovation challenges are posted or articles are questioned, or “EUI” title block added to drawings, identify places people will unavoidably run into the content every day – like Learning in the Loo or Loo Learning (see next slide for an example).

**Engage people:** in active problem finding/solving/ideation (see diagram below) – example, firm involves many staff in “redesigning” project delivery process to align with internally driven corporate performance goals.

This doesn’t happen frequently, but when it does, everyone experiences engagement, feeling like their input is valued and heard, shared understandings develop and there’s more “ownership” over any solution.

**Internal award programs:** best performing project, best solution to a hard problem, most improved EUI for a project type....

**Over-arching reachable, but challenging goals:** think fundraising thermometer – individual project goals are good, but really getting people motivated happens when everyone is interdependent in the firm to achieve an overarching goal (i.e. if you are a 2030 signatory, set an interim goal and challenge all to hit).
“LOO” LEARNING! (a ‘captive audience’…)

Here’s one example of a topic we created content for, for a CA firm....

1. WHAT AND HOW?

Successful daylighting depends on the optimized integration of systems, technologies, constructive and sometimes human behaviour. While not all of these components are required for every daylighting design, one or more of the following are typically involved:

- Daylight optimised building form (orientation and massing)
- Climatic response in façade to wall area ratio and envelope design
- High performance glazing
- Daylighting optimised fenestration design
- Skylights (passive or active)
- Tubular daylight devices
- Daylight extraction devices
- Solar shading devices
- Daylight-responsive electrical lighting controls
- Daylight-optimised interior design (such as furniture design, space planning, and room surface finishes)

Most important is building massing and orientation, since that (and early or late) can be changed in new daylighting component. A facade is a facade and can be built in a facade that optimally directly integrated with the original building design. It may not be possible to apply all the strategies in a retrofit project. Achieving good daylight design depends on early integration of interior design and architecture.

If the project allows, consider a building footprint that maximizes southern and northern exposure, and minimizes eastern and western exposure. A floor depth of more than 10 feet from south to north has been shown to be viable for daylighting. A maximum facade facing due south is the optimal orientation. Deviation from due south should not exceed 15 degrees in either direction for best use of solar access and ease of control.

2. BE CAREFUL

Be careful! You don’t want to create problems with unintended consequences that might need solutions. Glass curtain wall building may be easy but usually create more problems than they solve. Problems for one building are often the solutions for another. For example, too much good daylighting. Windows seem to have increased the problem of solar gain in a particular building and you need to look at the role that glazing plays. Identify two strategies. First, using tinted glass (or use of high-reflective glass) to help reduce solar gain by allowing light to enter but not to be absorbed.

3. COLLABORATION

Working with clients, first, try and encourage the client to articulate what they care about in terms of visible health, well-being, and productivity. If this is possible, it will be helpful to draw out their interests so that you can connect our daylighting strategies to their interests. Working with clients, the focus needs to be on how to really boost the ambient “design” approach and the easy-to-use components to make them feel something unique and cozy. It is hard to understand the building or operator’s feel, so you need to understand the building operator’s feel. Most design is to the appropriate level of technical design of the operator. Some problems will occur. Good solutions are not completely cost-dependent; you can achieve good results with highly expensive or cost-effective, or less expensive, or less effective. As you work with other aspects of design, it will be important to understand and the awareness of how to feel about the design, if it may have in a more holistic and technical design, or if it is a new opportunity will need work.

4. QUESTIONS TO ASK:

- What would tend to be accessible in engaging in (or major spaces) with me? How can electric lighting be reduced by installing daylighting?
- What would be a case for design decisions other than building the environment?
- How will people operate the building? What is the relationship between users and spaces? How can we build in a process to design the environment?

5. RESOURCES:

- Daylighting Guide for Architects (available from the American Institute of Architects)
- Daylighting Design Guidelines (available from the Illuminating Engineering Society)
- Building with Light (available from the Lighting Research Center)
- Daylighting Design: A Sourcebook of Architectural Lighting Design (available from the Architectural Lighting Society)
- Daylighting Design and Application (available from the Daylighting Design Institute)
Values manifest (behavior aligns!)
Everyone’s input matters
Internally driven goals
Problem FINDING first
Mindset – start at zero
Courage
Innovation is life
Stagnation is death
We adapt
Dysfunction is not tolerated
3. ACCOUNTABILITY

HOW DO YOU KNOW…….?
A TALE OF ACCOUNTABILITY (IN REAL LIFE).....

They focus is on teaching a new way of thinking plus a “belt and suspenders” back up. They set a clear expectation – you have X time to get good at this and then EVERYONE is expected to do it.... Or else.

1. A sustainability coordinator must be assigned by PM. If none assigned, it’s the PM by default.

2. First Step: You can’t bill or OPEN accounting to post time to a project UNLESS you’ve done certain steps. #1 is a “sustainability goal plan” prior to SD. The system won’t let you go on until you do.

3. They created a boiled down (7 things to set goals on in every project before you start designing) with lots of support - and What Financial Story to tell.

4. Second step is during design: There are 2 design reviews: at SD and DD. Sust. Dir. attends both. You can NOT present to a client unless you did the design review.

5. QA is done by a Central Production Director who reviews and gives a SUSTAINABILITY SCORE (see dashboard). If the score is low, then SD gets alerted by email and can step in and find out why and support as necessary. This is a BACKSTOP if review is not ‘perfect’. The CEO gets copied if the score is super low. When this happened the first time, the Team leader jumped right on it – figured out how to solve the issue by end of week! (Wash, rinse, repeat – same process in DD).

6. Project reviews: There are monthly meetings on ALL projects (they have 100 concurrent projects) and they do 40 meetings. Those are billed to the project.
7. Design Pin Ups: There is one for every Friday. It helps make employees BRAVE and FEARLESS (they use this to teach teams how to give and receive feedback constructively – and other skills).

8. Celebrate successes: Every PM who succeeded was celebrated!! Big Show-n-tell! “Internal top 10 design award” Best work gets recognized and shown as an example to the rest of the firm!!!

9. HR came up with automating annual review with new app. Shows list of all your projects with docs attached. THIS YEAR includes your QA Score and the question: How did you influence outcome? Encourage advocacy (as part of review)

10. They did a quiz to find out what everyone knows and they got a 94% success grade. 10 questions like “what is EUI?”. Then “What are the top 10 things you can do to impact EUI?”

11. Rotations – (like Wight & Co.) Everyone rotates thru the “CORE” (sustainability) team for 2 weeks (about 20 hours or so). This is focused time deeply on sustainability. Then survey and quiz on what they learned, then debrief to reinforce that we do this ALL the time!!! (good to do on “down time” between projects) It’s a deep immersion experience and done for ALL levels of project staff!!! 100 out of 161 people will do it by end of this year, including business service people. 80% of 160 are project staff.

12. Double benefit: Also normal things like lunch n learn sessions – they feature YOUNGER staff intentionally – that messages to senior people to TAKE NOTICE – create a sense of urgency (or reinforces it) “hey, these young people are eating my lunch!!!”
DO YOU KNOW HOW YOUR PROJECTS ARE DOING??

Birdseye monitoring and tracking: Every Monday, the SD gets a status on all projects. Early on, 78% of projects that started as they should, began to “drift”. But because they were tracking and watching, they were able to pop in and do a course correction with the team.

They step in and do correction if needed BUT then they CHARGE their time to that project so there is an incentive to NOT need intervention!!!! There are consequences!

They communicated this with total transparency from the beginning plus they use all of their back stops.

Within 2 weeks of the drifting – the 78% went up to 86%. The goal is to keep variability within 5% (they have a GOAL!)
4. COLLABORATION EFFECTIVENESS

HOW CAN YOU MEASURE IT?
**MEASURING TEAM / COLLABORATION EFFECTIVENESS: PROCESS**

1. Setting norms – charter
2. Evaluating at key points, predetermined
3. Informal feedback channels as needed

Achieving collaboration effectiveness involves a few steps. First – establishing a baseline and a shared understanding of concepts, language, objectives and desired outcomes (norms, a group “charter”). This will be the touch stone that you measure your team’s effectiveness against.

Second, determining when and how you will evaluate yourselves – formally and informally. Having a few times for more formal feedback loops that are planned is key in larger teams – with a second means defined for informal “anytime” feedback. Midpoints to major milestones are a good time, and at project closeout (assuming you DO a closeout!).

Also, keep in mind that groups have different stages as they evolve into a true team (especially if the people involved include “new” people who have not worked together before).

Lastly, it can be helpful to do a quick version of personality and/or conflict assessments (DiSC, Thomas Kilman KPI) early on to give individuals a safe way of revealing and discussing their personal styles and a common (non-judgmental) language to do so especially when issues come up.
Bruce Tuckman’s model on group development

Tuckman’s model applied to tech...

**SWOOP Teams Maturity Model**

- **Forming**
  - Key Statistics
  - User Activity
  - Channel Activity
  - Team Persona
  - Team Network Map

- **Storming**
  - Interactive Users
  - Key Player Dependency
  - Response Rate
  - Most Engaging Posts
  - Stability
  - Team Persona
  - Team Network Map

- **Norming**
  - Two-Way Relationships
  - Curiosity Index
  - Mention Index
  - Key Player Dependency
  - Stability
  - Team Persona
  - Team Network Map

- **Performing**
  - Key Player Dependency
  - Two-way Relationships
  - Stability
  - Team Persona
  - Team Network Map
  - Team of Teams Network Map (Enterprise Tab)

- **Team Characteristics Over Time**
  - Digital Team created
  - Single Leader
  - Membership fluid
  - Team Purpose identified
  - Will appear ‘Disconnected’

- **Disconnected**
  - Single Leader
  - Group type agreed
  - Membership and stakeholders identified
  - Group norms identified
  - Single Leader Teams and Forums need not mature beyond this stage

- **Self-Directed Team**
  - Single leader gives way to self-direction
  - The core is well formed and self-directed
  - Self-directed team is the core
  - Community has a ‘gallery’ engaged through a self-directed core

- **Team of Teams Hub**
  - Team identified as a ‘Hub’ in the ‘Team of Teams’ network.
1. **QUANTITATIVE METRICS** (things you can count and measure)
   - Someone (with the appropriate skills and personality) is RESPONSIBLE for the quality of the process (may wear two hats, but one is focused on process).
   - The number of times people think/share ideas or suggestions outside of their discipline (MEP engineer suggesting siting/massing) can be “counted”.
   - A project Roadmap is co-created as a deliverable of very early meeting – outlining the sequence of interactions to achieve project goals, feedback loops.
   - Project goals are articulated and documented and included in the roadmap explicitly wherever decision making sequence is outlined.
   - Every significant decision is informed by specific data and agreed upon metrics (those should be trackable from outset, goals thru analysis and POE)
   - The number of innovative suggestions about the process itself and how to optimize it to achieve a better outcome.
   - The data! What was achieved – especially super achievement above or beyond the initially established goals!

2. **QUALITATIVE INDICATORS** (things you can observe and share anecdotally)
   - Group engages in adequate ‘Problem Finding’ before jumping into ‘Problem Solving’
   - Team members listen deeply, closely to each other and respond (first) with empathy to any situation, especially conflict. Seeking to understand first.
   - Preconceived notions do not drive or define problem finding OR solving.
   - Team establishes trust and psychological safety with each other at the earliest possible.
   - Everyone has equal ability and authority to share ideas, make suggestions and challenge the process (with the intent to continuously improve it).
   - People feel empowered, autonomous and competent to contribute their knowledge and think “beyond their silos”.
   - The team has a shared understanding of the vision, goals and desired outcomes for the project and those are consistently reiterated and/or tied into the workplan or roadmap so no one loses sight of them.
EXERCISE

Choose a topic that resonates most with you now – and you will self-organize into groups of 3-5 to ‘design’ solutions! Compete to see who can come up with the most compelling ideas – we will vote after debrief!!

1. **People’s Value**: Imagine people were your firm’s most valuable asset – how might the structure and management of your firm change to reflect that? How would the firm function differently if it were designed to achieve that goal?

2. **Metrics & KPIs**: How can you capture what you don’t see outside of what you are measuring? How can you build a feedback loop for ‘open’ feedback?

3. **Collaboration Effectiveness**: How can you get the most out of collaboration? How might you measure the effectiveness of your teams (qualitative & quantitative)?

4. **Continuous Improvement**: How can you systematically capture lessons learned? 2030 Signatories – how do you leverage DDx data? What feedback loops could your firm put in place to create processes for continuous improvement?

5. **Accountability**: Carbon? EUI? Health? Project Budget? How will you know? How can you know what’s going on – especially in time to help anyone struggling?
What do you commit to focus on tomorrow?
Every day, we make choices . . .

There’s never been a better time to BE the CHANGE that Margaret Meade described.

We need to be BRAVE. **Failure is not an option.**

Challenge the process. Always.
Help everyone around you to be their best.
DISRUPT the status quo (it sucks)
  its broken
  it doesn’t work
  it doesn’t create (enough) value
SCRUM it.
Roadmap every project – iterate feedback loops.
Mindset – START at zero. No wusses.
SHOW CLIENT the gap between them and zero.
Don’t accept living with dysfunction.

ASK: What if... What would it take to....

Problem FINDING – don’t jump to “solutions”

**Viva La Revolution!**
THANK YOU!

Screen shot this and email for a list of resources & bibliography

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...and let’s connect on LinkedIn 😊