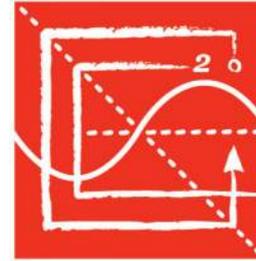


ECL-USA SUMMIT 12 THE ENGINEERING FIRM OF THE FUTURE (2030)



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NCEES

*advancing licensure for
engineers and surveyors*

- Black & Veatch Foundation
- C&S Engineers
- Degenkolb
- GMB
- Jose Guerra Inc.
- Kyle V. Davy Consulting
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- MSA Professional Services
- Pinyon Environmental
- Power Engineers
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- Kyle Davy, Kyle V. Davy Consulting
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- Amy Squitieri, Mead & Hunt
- Elizabeth Stolfus, P.E., Stolfus & Associates
- Bill Stout, P.E., Gannett Fleming



ECL – USA MISSION

The Engineering Change Lab - USA is a **catalyst for change within the engineering community**, helping it reach its highest potential on behalf of society.



PROVOCATEUR PRINCIPLES STATEMENT

- Treat one another in ways that promote trust and mutual respect.
- Be open minded, actively seeking outside information and new perspectives.
- Create a protected sense of inquiry to enable new, essential ideas to emerge and be considered.
- Nurture an inter-connected atmosphere with representation and participation from across the whole system of the engineering community.



Summit 12 Focus Groups - Objectives

- Develop a picture of over-arching core values and aspirations of engineers within engineering companies (consulting engineering firms).
- Examine both personal and organizational values.
- Compare and contrast findings across age cohorts.
- Assess degree of alignment between individual and organizational values and aspirations.

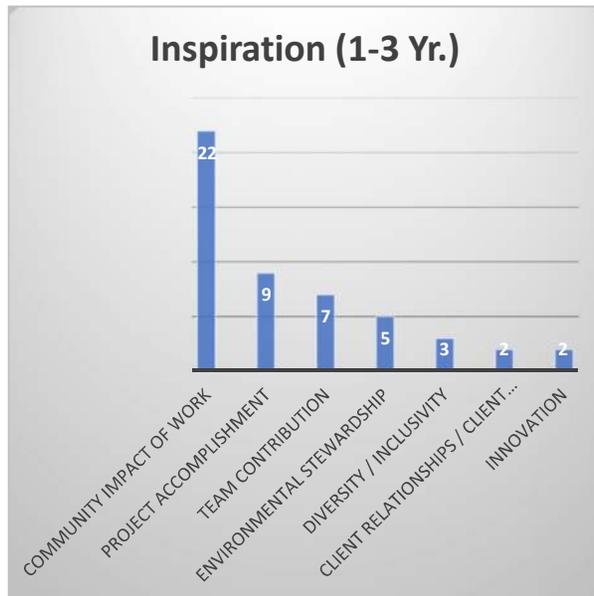


Summit 12 Focus Groups - Process

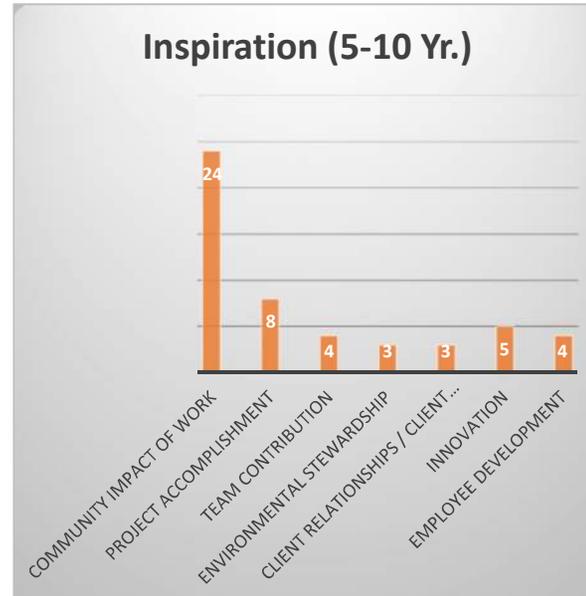
- Age Group Cohorts
 - 1-3 Year (3 groups / 22 participants)
 - 5-10 Year (3 groups / 22 participants)
 - 20-25 Year (2 groups / 11 participants)
- 55 Participants
- 12 Firms Represented
- Open-Ended Questions



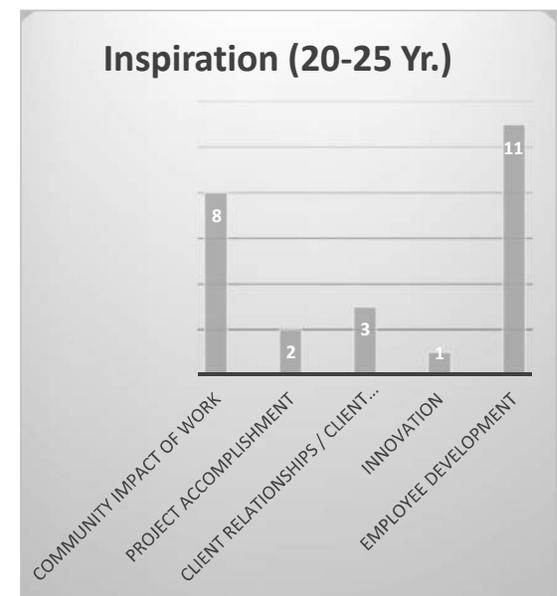
Questions 1 & 2. What do you find most inspirational about your work as a part of the engineering community?



- Seeing the impact of my work – a new hospital in an under-served community, the retrofit of a major bridge, a new bike lane program in my neighborhood, the commissioning of a new substation, etc.



- I questioned my career choice for the first three years, but now I see the impact of my work in the community.
- Seeing the willingness of those in the industry to help others, we should be proud to be nerds.



- Seeing the impact of our designs on people's lives regardless of their status.
- I was inspired by the passion of those I learned from and now I have taken on that teaching role.

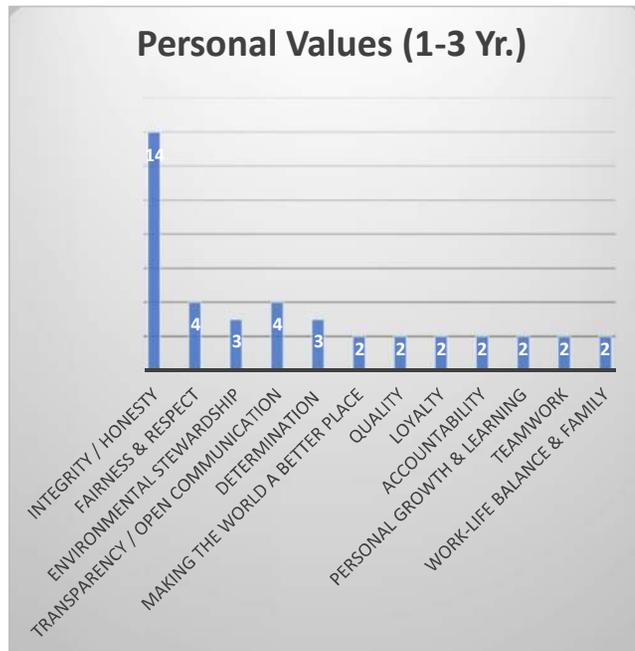
Questions 1 & 2. What do you find most inspirational about your work as a part of the engineering community?

Conclusions

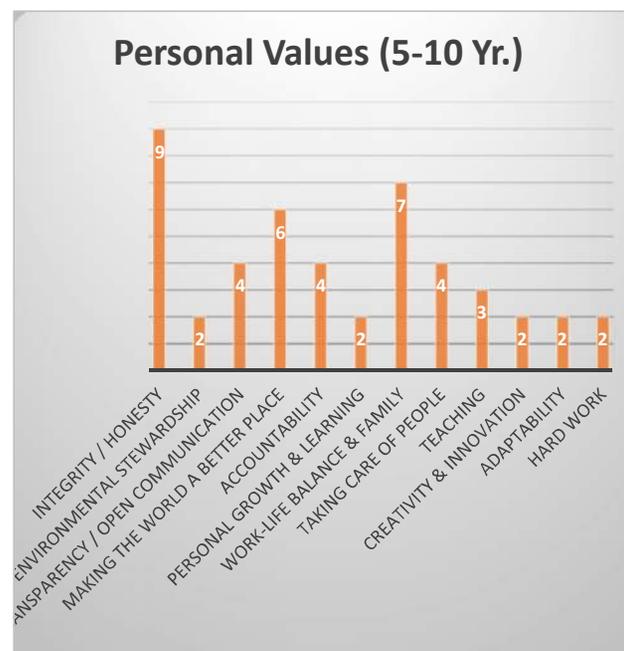
- Importance of Community Impact of Work across all cohorts.
- Sense of Contributing to Project or Team important to 1-3 year cohort.
- Increased emphasis on Developing Others in 5-10 year and 20-25 year cohorts.
- Environmental Stewardship noted in all cohorts but not dominant value.



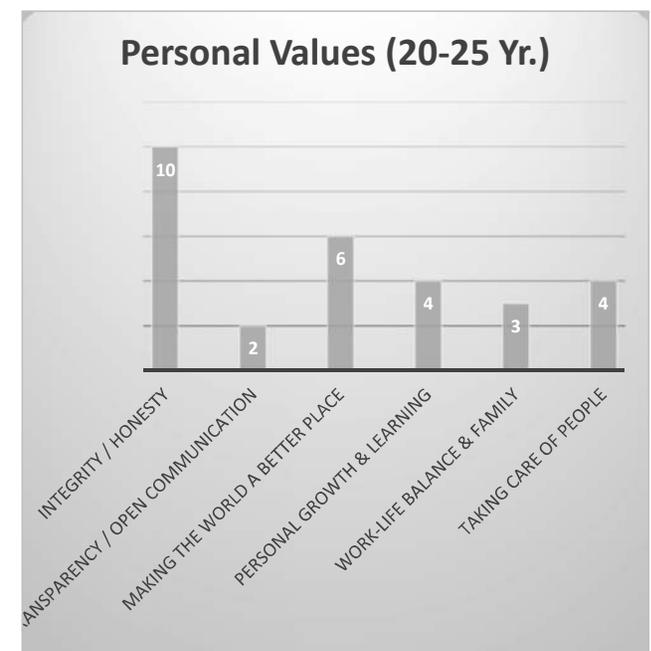
Question 3. What are the 2 or 3 most significant personal beliefs and values that you use to guide your ongoing work as an engineer?



- Integrity, including environmental integrity that avoids waste of valuable resources.
- Equity – economic, racial, gender.



- Faith, family, society and the earth.
- Family, honor, service to clients and the public.



- Sense of responsibility to self, company, engineering, and the public.
- Taking care of people, respecting others, and looking at stumbles as learning opportunities.

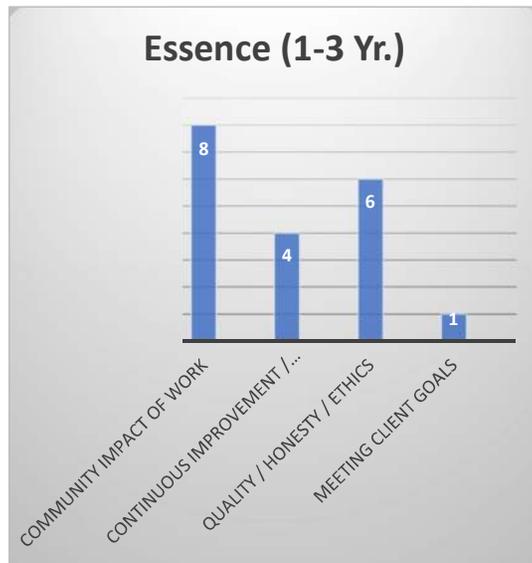
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Conclusions

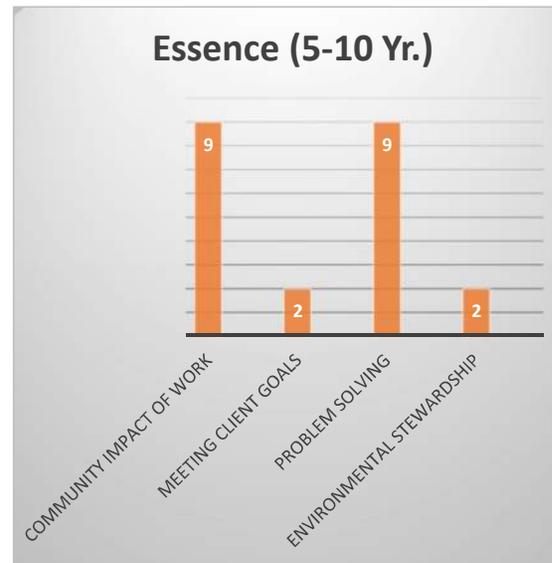
- *Integrity / Honesty* as a dominant core value across all cohorts.
- *Making the World a Better Place* (similar to Community Impact) present for all cohorts, but given increased emphasis by 20-25 year cohort.
- *Work-Life Balance* values present for all cohorts, but strongly emphasized by 5-10 year cohort.
- *Environmental Stewardship* noted by all cohorts, but not expressed as a dominant personal value.



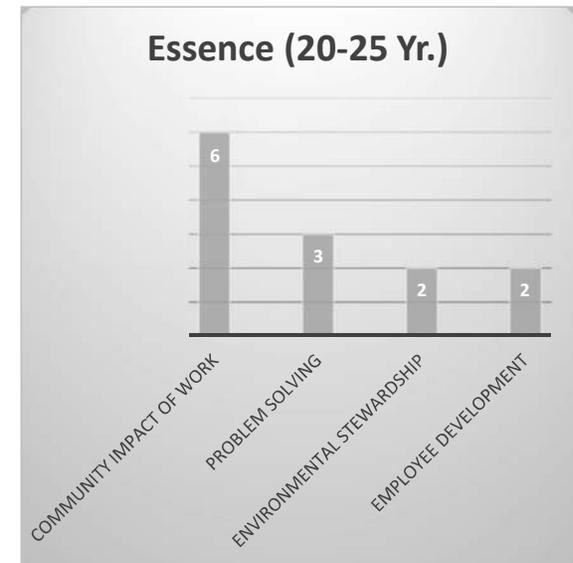
Question 4. In a phrase, what do you experience as the core value or essence of your work as an engineer or member of the engineering community?



- We design the future.
- Far-reaching impact of our work on society – need to take quality and safety seriously.



- Socially responsible problem-solving.
- Safe-guarding the natural environment while building communities.



- Provide valuable solutions for society and inspire young talent.
- Protecting public health and restoring the environment.

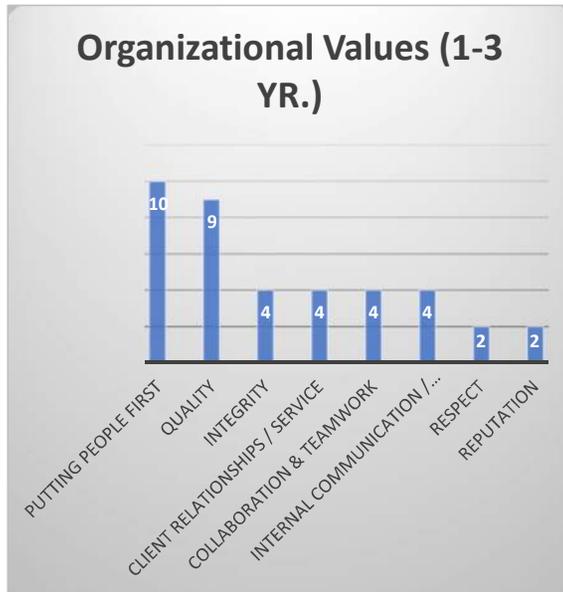
Question 4. In a phrase, what do you experience as the core value or essence of your work as an engineer or member of the engineering community?

Conclusions

- Importance of Community Impact of Work across all cohorts.
- Honesty, Ethics & Quality importance in 1-3 year cohort.
- Problem Solving shows as important element in 5-10 year cohort.



Question 5. Thinking about the organization that you are part of, what do you experience as the core values of your firm?



- Employee Satisfaction (putting people first) and doing what makes sense for all parties.
- Active listening/adaptability (with respect to employees), eliminating competition by stressing common goals.



- Common purpose, commitment to community and one another, respect, family-oriented, empowerment.
- Empowering employees to make decisions, flexible work environment (even before pandemic).



- People first, service (to clients and communities), integrity.
- Taking care of people, giving back to communities, providing challenging opportunities in a growing company.

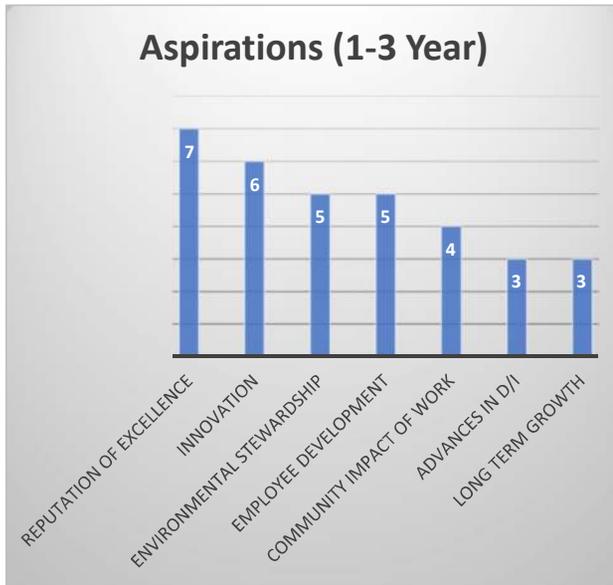
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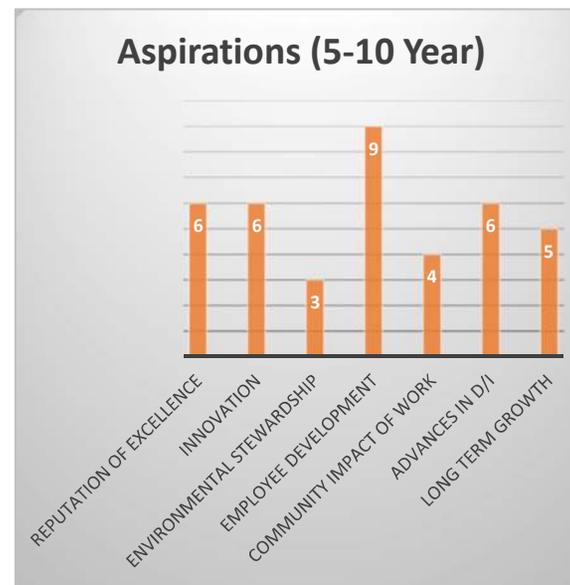
- *Putting People First* (including work-life balance and family oriented culture) as a dominant organization value across all cohorts.
- *Giving Back to the Community* cited by older cohorts as significant.
- *Client Relationships / Service* identified as significant by both 1-3 year and 20-25 year cohorts.
- *Quality* noted by all, but not dominant.



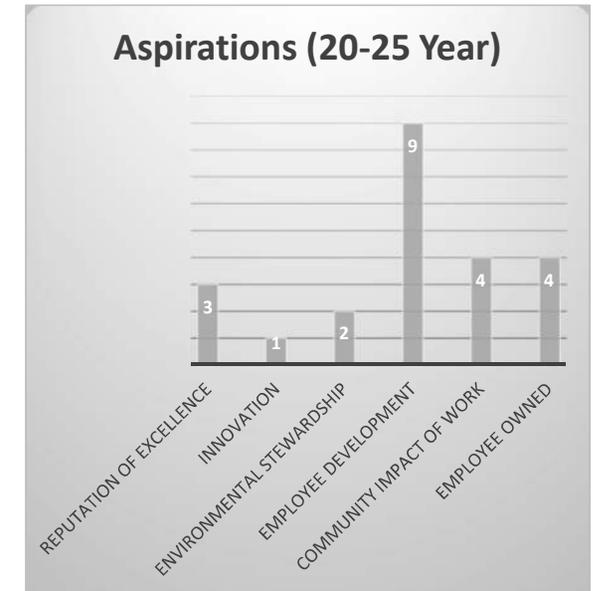
Question 6. Looking ahead ten years, what are your highest aspirations for the engineering firm that you are part of.



- Diverse and evolving with what is happening in the world (technology, sustainability, social change, equity).
- Respected in the community and implementing new technologies to create efficiencies and save lives.



- Offers all services required for projects; values employees in a changing social climate such as becoming more diverse and inclusive.
- Leads the way in helping to diversify our industry.



- Respect for the environment, provides value to communities, and provides an atmosphere for young people to grow and thrive.
- Prioritizes people, helps them grow and develop and offers an opportunity for ownership.

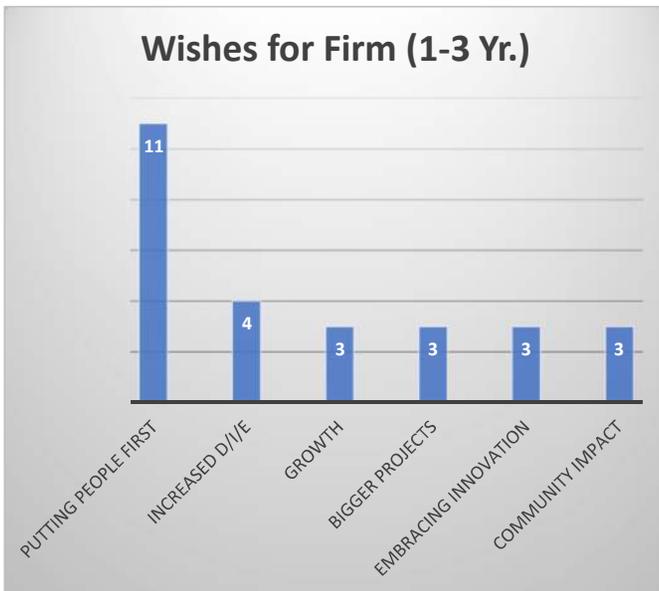
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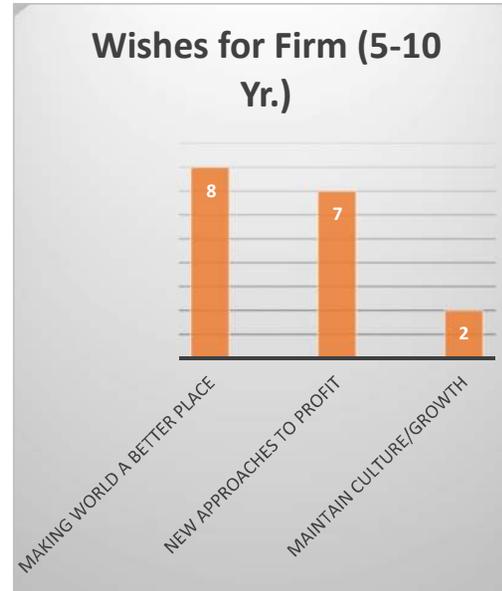
- Employee Development and investments in employees importance across all cohorts.
- Reputation of excellence importance across all cohorts.
- Innovation is important element in 1-3 year and 5-10 year cohorts.
- Environmental Stewardship important particularly in 1-3 year cohort.
- Diversity / Inclusivity important in 5-10 year cohort.
- Employee Ownership important in 20-25 year cohort.



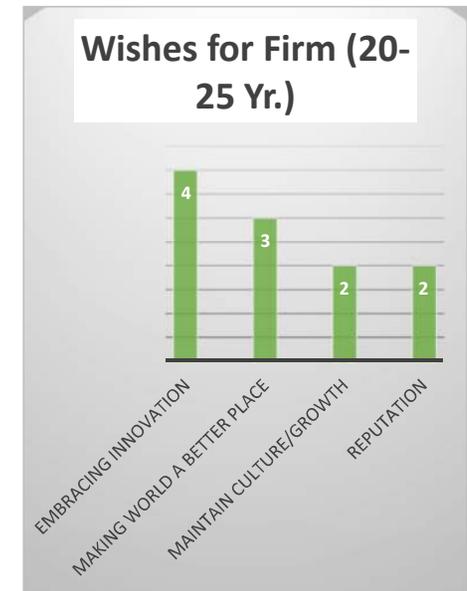
Question 7. Imagine that it is 2030. What wish would you make about the firm and what it has contributed to its community / the world?



- Improvements in diversity / inclusivity across all levels of the company; become more comfortable for people of different backgrounds.
- Employees have control over hours and schedule while maintaining accountability.



- Find new ways to generate revenue outside of billable hours; more time/ flexibility to explore innovation.
- Provided safe, resilient buildings and educate the public about the importance of infrastructure investments.



- Allow our culture to adapt and become more diverse, equitable, and inclusive and more innovative and successful.
- Be a premier firm that attracts a dynamic workforce that makes innovative decisions to change the world.

Question 7. Imagine that it is 2030. What wish would you make about the firm and what it has contributed to its community / the world?

Conclusions

- *Putting People First* and *Increased Diversity and Inclusion* are primary wishes for 1-3 year cohort. Not cited by older cohorts.
- *Making the World a Better Place* and making great things happen a primary wish for older cohorts.
- The 5-10 cohort emphasized a wish for creating and implementing *New Approaches to Profitability*.
- Both older cohorts hoped to *Maintain Our Culture as We Grow*, though not as a primary wish.

Summit 12 Focus Groups – Summary of Findings

- **Making the World a Better Place** and positively impacting communities is the predominant theme – demonstrating the importance of purpose.
- Personal Values
 - **Integrity / Honesty** as fundamental core values.
 - **Work/Life Balance** significant for older cohorts.
- Organizational Values
 - **Putting People First** given high importance.
- Aspirations & Wishes
 - Improvements in **Diversity / Equity / Inclusivity** as a significant wish for the future.
 - **Innovation** significant for younger cohorts.
 - **Environmental Stewardship** is on the radar.
- Alignment
 - High degree of felt alignment between individual and firms.

THE FUTURE IS ENGINEERING



**ENGINEERING
CHANGE LAB USA**

UPCOMING ECL-USA EVENTS

- July 27, 2021. ECL-USA Virtual Open House
- October 11-13, 2021. The Engineering Ideas Institute II, The Colorado Chautauqua, Boulder, CO
 - Engineering in an Age of Acceleration
 - Engineering and Racial Inequality



WHAT WILL BE THE FUTURE OF ENGINEERING?

WHAT WILL YOU DO TO PROTECT THE FUTURE OF THE ENGINEERING COMMUNITY?



Contact Information

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