

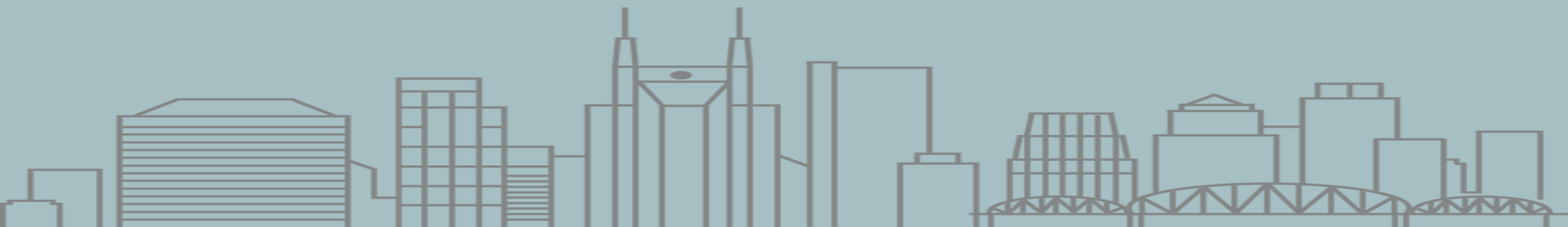
A stylized, colorful illustration of a city skyline with various skyscrapers and buildings in shades of blue, green, yellow, and purple. The background is a solid light blue.

North Carolina Future City Program: Increasing a Statewide Program Mission, Presence, and Participation to Ensure Institutional Legacy

Lisa M. Thompson, DEOL Candidate
July 9, 2019

Background

- Future City NC Region (FCNC) established in 2001 by voluntary group of professional engineers
 - Covers the entire state and part of Virginia
 - Affiliated with the National Future City Competition
 - All funding provided through sponsorships and donations
- Program is designed for 6–8th grade students
 - Create a city meant to answer a challenge; 100 years in the future; project-based learning, uses the engineering design process & project planning to, “make the world a better place.”
- Since 2013, an official outreach program within The Engineering Place inside the College of Engineering (CoE) at NC State University

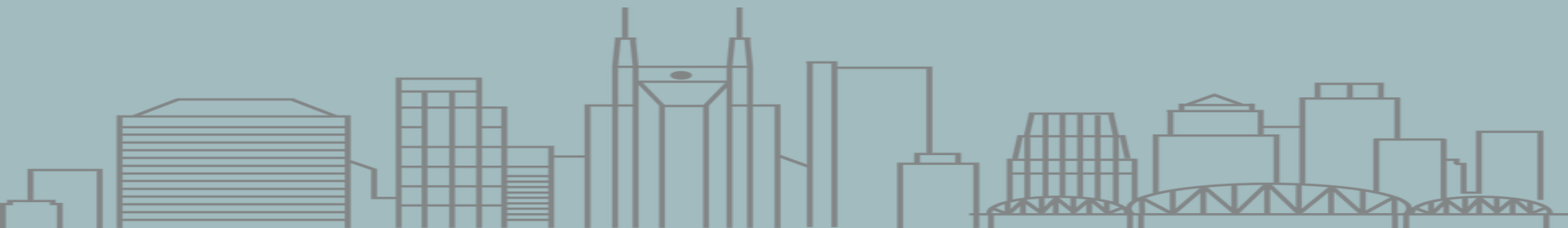


Purpose

- Framework for increased presence and participation of currently non-participating NC counties
 - Collaboration with Steering Committee
 - Mission/Vision statements to ensure
 - clarity of purpose
 - pathway for legacy through best-practices

Specific Challenges

- Increase participation in the Future City Program
- “Participation” and “matriculation” are *not* synonymous
 - increase numbers of represented *counties* containing schools that *matriculate* to competition
 - Increase overall *participation* by county

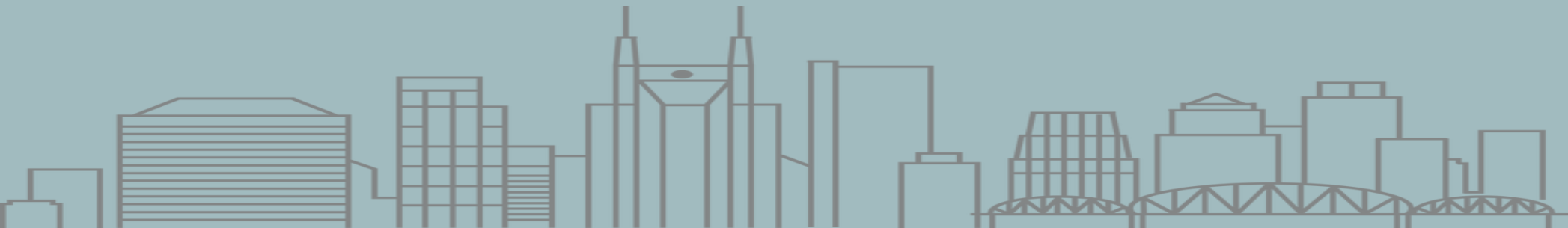


Informed Through Participation

- Member of Steering Committee for over 8 years
- Continued questions of growth and sustainability without a clear plan

Project Scope

- Create a framework to strategically increase the number of unique counties participating
 - Increase the number of unique schools matriculating to the competition
- Create a Mission statement that aligns with NC State College of Engineering/The Engineering Place and National Engineers Week Future City Competition
 - Vision, as well as Values and Beliefs statements
- Outline a framework for growth and sustainability to ensure institutional legacy for FCNC



Project Approach

Targets addressed through a Statement of Work (SoW) presented to the Executive Director (ED) and members of the Steering Committee; outlined as SMART goals; yearly competition cycle leveraged to ensure attainability

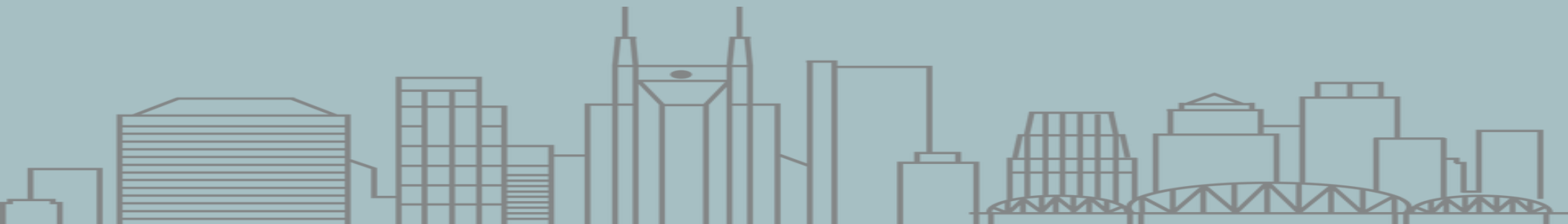
- SMART Goal I addressed creating a strategic plan to increase participation
 - “Band of participation,” survey, state conference, quality assurance plan
- SMART Goal II addressed creating Mission/Vision/Values/Beliefs statements
 - Retreat designed and delivered; aligned roles and goals
- SMART Goal III addressed communications plan and social media policy
- SMART Goal IV addressed plan performance and sustainment



Work Plan

SoW narrative timeline described as, “Kick-off”, “Build Phase,” “Growth Analysis Phase,” and, “Project Hand-Off Phase”; ultimately written as SMART Goals:

- Process and products were created to answer the SMART Goals;
- Shared with the ED for any needed changes;
- Shared with Steering Committee for same; and
- Any amendments/edits needed were addressed before submission to Consultancy Coach



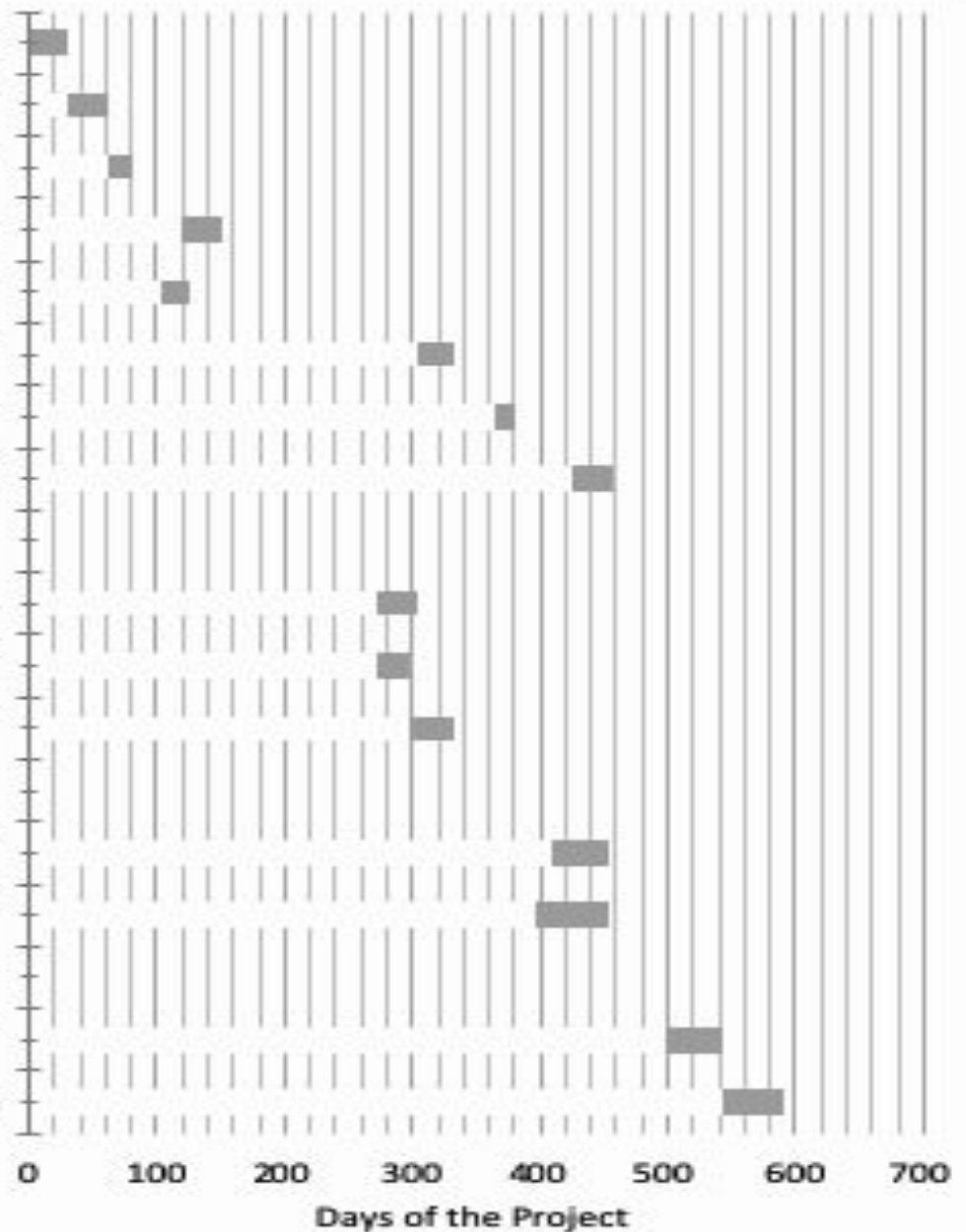
FCNC SMART Goals Timeline

- A. Build a band of contiguous counties
 - A.1. Contact target counties and invite to competition
 - A.2. Create "Lunch and Learn" information session; present at Regional Competition
 - A.3. Deploy "satisfier" and outreach survey
 - A.4. Create presentation and deploy during NC Middle Years Educators Conference
 - A.5. Analyze goal: 50% increase of new participating counties
 - A.6. Quality Assurance Plan Developed
 - A.7. Analyze goal: 30% increase in matriculating counties

- B.1. Collaborate with Steering Committee Members
- B.2. Create agenda and protocols to complete the work; present and facilitate at retreat
- B.3. Participate in collaborative discussions based on the outcome of retreat and B.2. goals

- C.1. Communications plan focuses on types of social media platforms to utilized to align with M/V/V/B...
- C.2. Social Media Policy created, approved, and put into effect for Regional Competition

- D.1. Comprehensive overview submitted as Milestone 10
- D.2. Sustainment Statement created and submitted

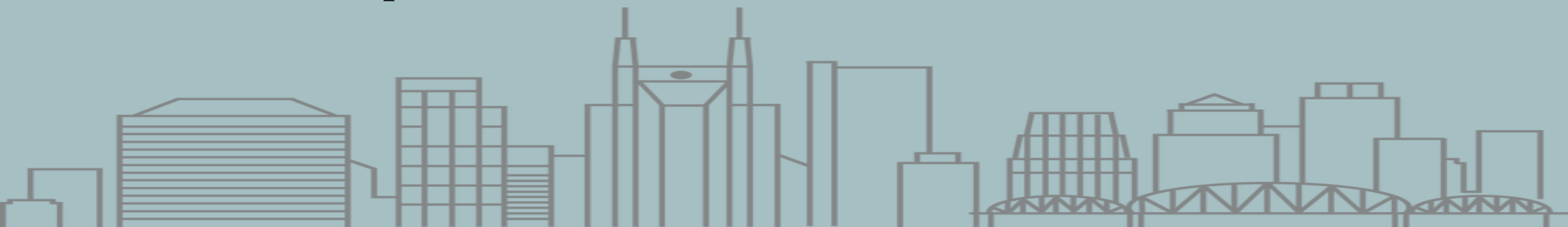


Risks

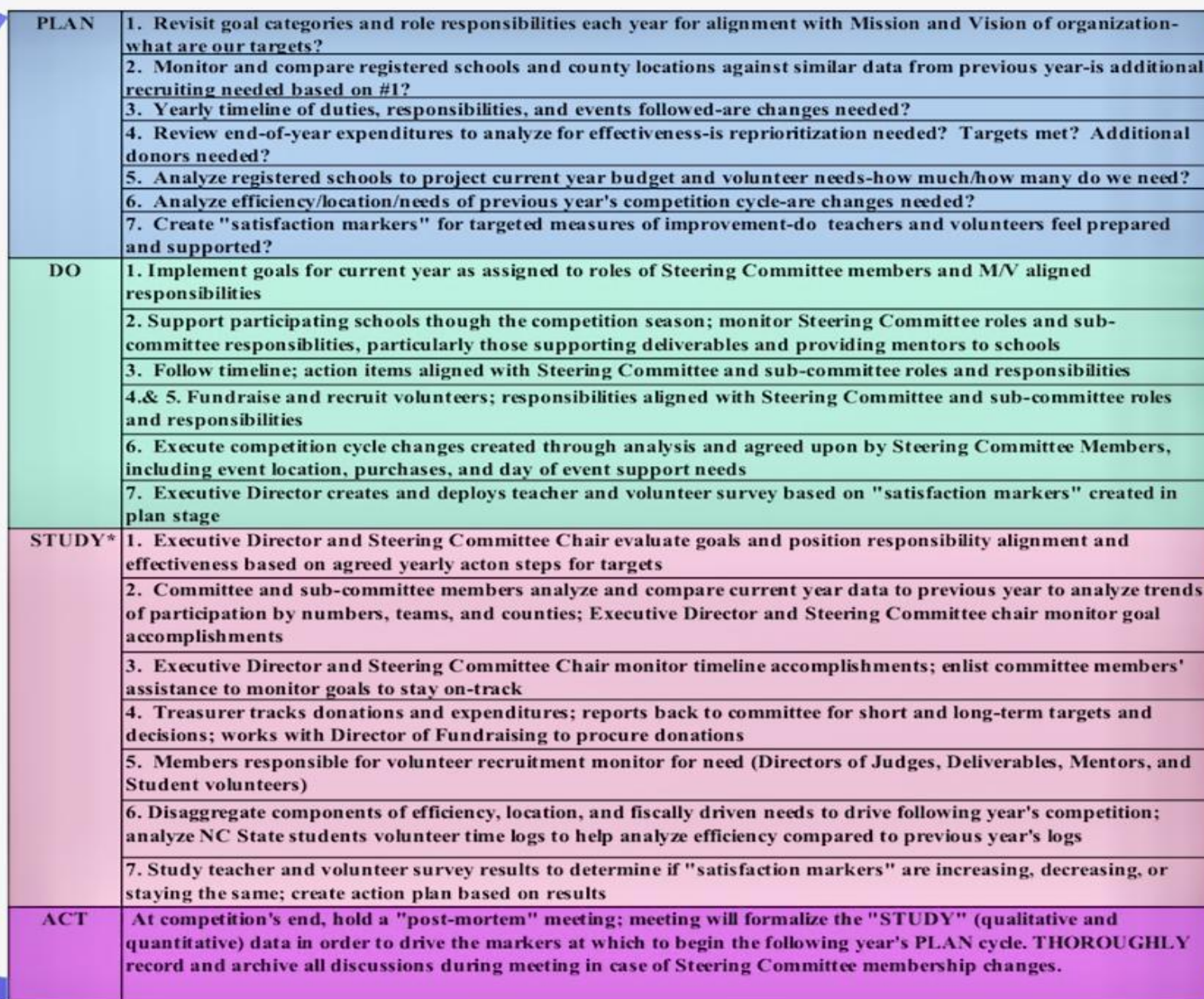
- Possible decrease in funding would affect many areas
 - Inability to cover costs
 - Inability to build savings buffer for following year(s)
- Lack of regard for/knowledge of adopted M/V/V/B statements could create
 - Loss of focus
 - Goals with no purpose
 - Lack of legitimacy could affect donations
- Leadership/membership fatigue
 - Loss of members—loss of networked/historical relationships

Constraints

- Relationship between CoE and FCNC benefits both organizations, but constraint to personnel (ED) and student volunteers if not modulated
- Platform for active and archived files
 - Unaffiliated platform needed so as not tied to an outside organization or one individual
 - Storage and potential costs of platform



Quality Assurance Plan

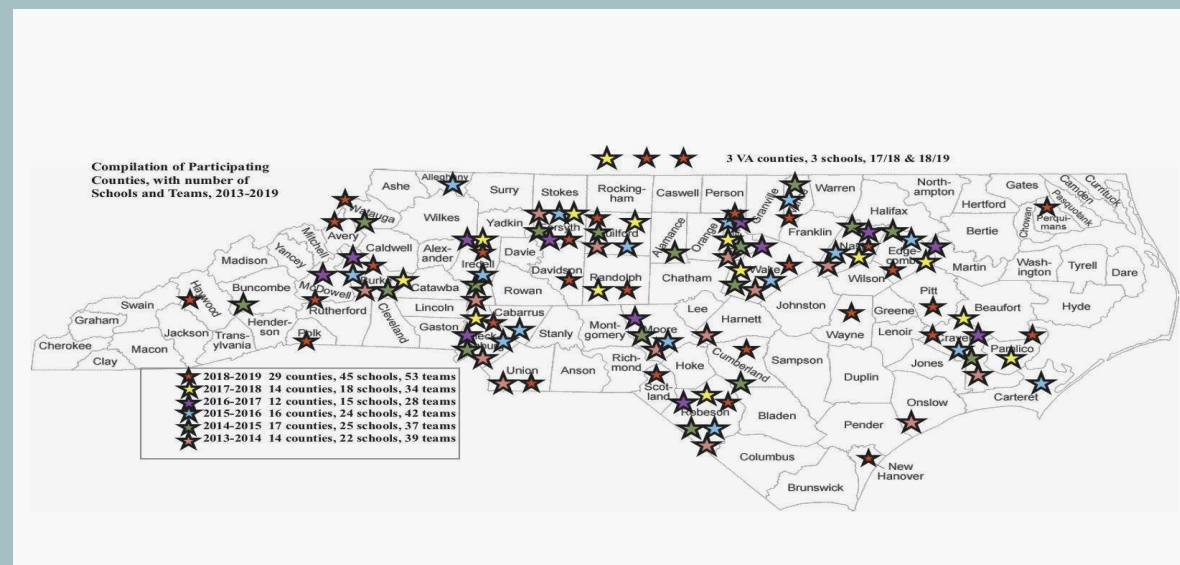
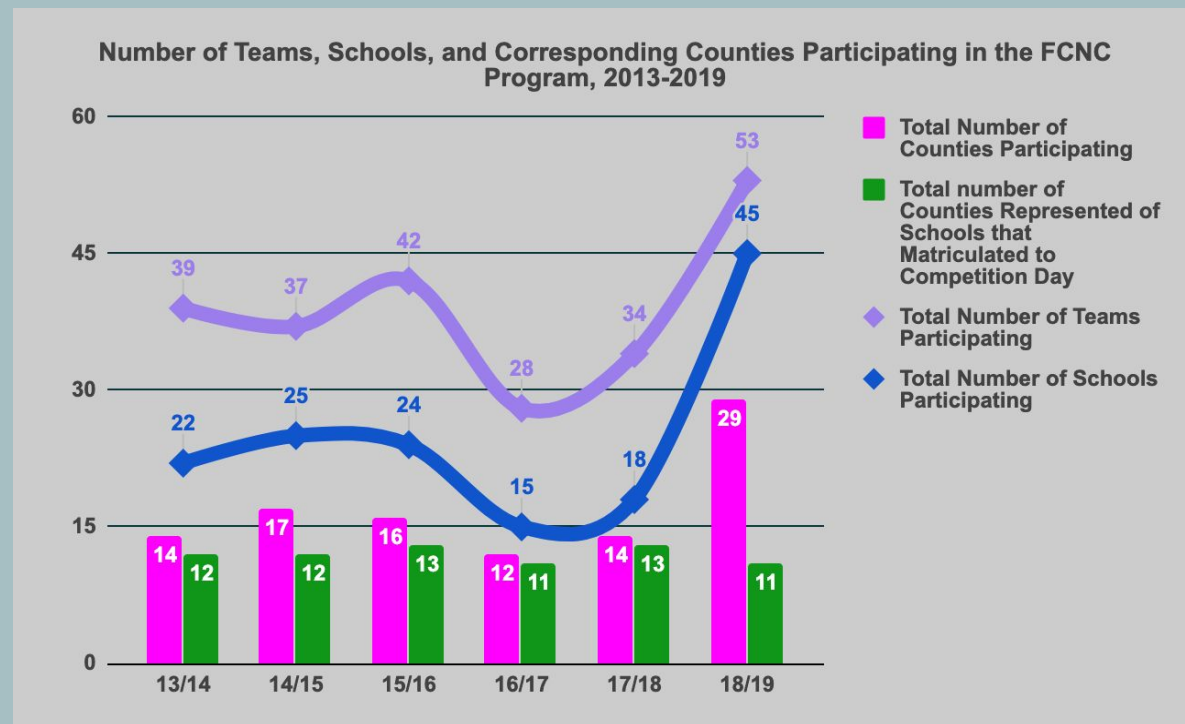


PLAN	<ol style="list-style-type: none"> 1. Revisit goal categories and role responsibilities each year for alignment with Mission and Vision of organization-what are our targets? 2. Monitor and compare registered schools and county locations against similar data from previous year-is additional recruiting needed based on #1? 3. Yearly timeline of duties, responsibilities, and events followed-are changes needed? 4. Review end-of-year expenditures to analyze for effectiveness-is reprioritization needed? Targets met? Additional donors needed? 5. Analyze registered schools to project current year budget and volunteer needs-how much/how many do we need? 6. Analyze efficiency/location/needs of previous year's competition cycle-are changes needed? 7. Create "satisfaction markers" for targeted measures of improvement-do teachers and volunteers feel prepared and supported?
DO	<ol style="list-style-type: none"> 1. Implement goals for current year as assigned to roles of Steering Committee members and M/V aligned responsibilities 2. Support participating schools though the competition season; monitor Steering Committee roles and sub-committee responsibilities, particularly those supporting deliverables and providing mentors to schools 3. Follow timeline; action items aligned with Steering Committee and sub-committee roles and responsibilities 4.& 5. Fundraise and recruit volunteers; responsibilities aligned with Steering Committee and sub-committee roles and responsibilities 6. Execute competition cycle changes created through analysis and agreed upon by Steering Committee Members, including event location, purchases, and day of event support needs 7. Executive Director creates and deploys teacher and volunteer survey based on "satisfaction markers" created in plan stage
STUDY*	<ol style="list-style-type: none"> 1. Executive Director and Steering Committee Chair evaluate goals and position responsibility alignment and effectiveness based on agreed yearly action steps for targets 2. Committee and sub-committee members analyze and compare current year data to previous year to analyze trends of participation by numbers, teams, and counties; Executive Director and Steering Committee chair monitor goal accomplishments 3. Executive Director and Steering Committee Chair monitor timeline accomplishments; enlist committee members' assistance to monitor goals to stay on-track 4. Treasurer tracks donations and expenditures; reports back to committee for short and long-term targets and decisions; works with Director of Fundraising to procure donations 5. Members responsible for volunteer recruitment monitor for need (Directors of Judges, Deliverables, Mentors, and Student volunteers) 6. Disaggregate components of efficiency, location, and fiscally driven needs to drive following year's competition; analyze NC State students volunteer time logs to help analyze efficiency compared to previous year's logs 7. Study teacher and volunteer survey results to determine if "satisfaction markers" are increasing, decreasing, or staying the same; create action plan based on results
ACT	At competition's end, hold a "post-mortem" meeting; meeting will formalize the "STUDY" (qualitative and quantitative) data in order to drive the markers at which to begin the following year's PLAN cycle. THOROUGHLY record and archive all discussions during meeting in case of Steering Committee membership changes.

*#2: Data to be compared: previous year's participation of counties, schools, and # of teams matriculating to the competition vs. registering and not competing; key performance indicators would be to increase (by no less than 2) counties new to the current year vs. previous year, as well as an increase in schools and/or teams matriculation to the competition; for number of schools, the key performance indicator would be determined by number of teams the current venue can accommodate; this last consideration will determine which will need to change-number of schools or location of event

Results

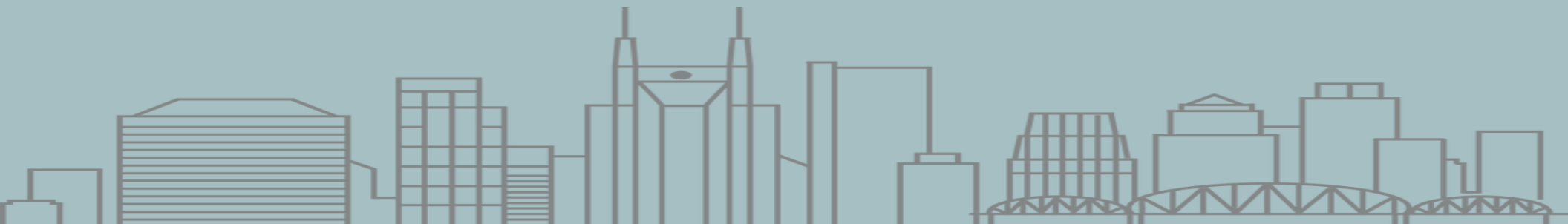
- Total number of counties increased, matriculating to competition flat; clear view of participating counties
- Culture of the organization codified through the M/V/V/B statements
 - Roles aligned with tasks/goals
- Clarity around internal and forward facing communications
 - Understanding of social media purpose and power
- Sustainment Statement as hand-off of consultancy



Benefits

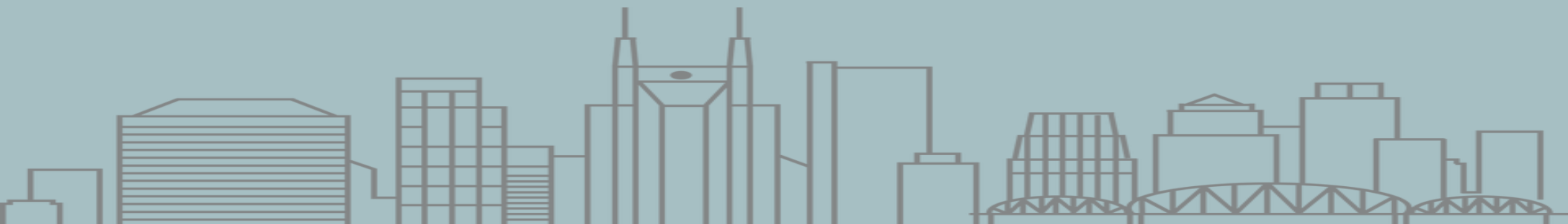
In order of impact: M/V/V/B, data generated, sustainment plan, communications plan

- Considerations: list of goal ideas was produced during the retreat for the M/V/V/B, some of which were:
 - Continue to recruit schools by inviting non-participants as guests; create a vehicle for teachers to see a condensed version of competition cycle; analyze outreach to counties with lowest per capita income;
 - Build community awareness and resources for support; build stakeholder capacity for involvement and “selling” the program
- Initiatives:
 - Sustainment Statement data in white paper proposal to expand remote outreach offices of The Engineering Place
 - Partnership with NC Museum of Natural Sciences



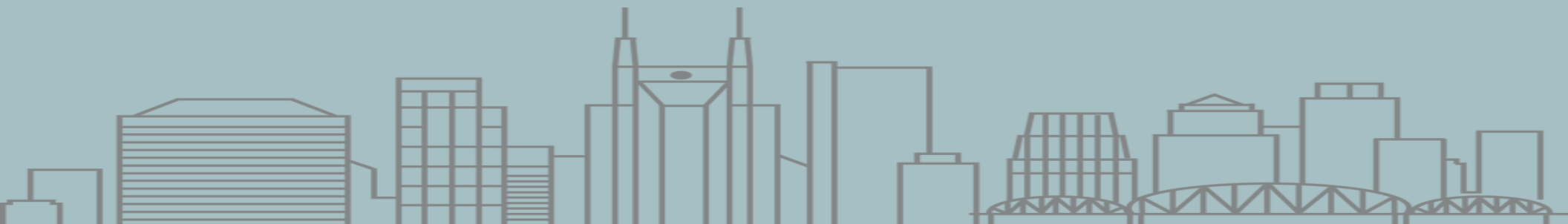
Reflection on Learning

- Knowledge of Lewin's Change Theory and Bridges' Transition Model critical during and after M/V/V/B retreat;
 - "Unfreezing" and "Movement" phases were evident and rapid; refreezing "slushy," becoming more solid
 - Transition-Neutral Zone more uncomfortable for some than others; last year brought action to the Moving Forward phase
- "Differences for an unbiased consultant"
- Growth:
 - Professional: strengthened areas of need (data illustration, collaborative opportunities, recognizing areas within and outside of my control)
 - Personal growth/validation: effective communicator, big picture /detail orientation, voracious learner
- Differently? Read the signs earlier of when to abandon a project



Areas of Future Study

- A comparative study on the effects of Adaptive Leadership in practice: how the practice specifically impacts an organization's externally-facing stages of Lewin's Change Theory, and the impact on individuals' internal transition stages as illustrated through Bridges' Transition Model, in comparison with organizations not led through change via the Adaptive Leadership model
- Longitudinal study of students participating in Future City-matriculating to competition-and the prevalence of engineering as a major declaration and post-secondary career
- Researching other volunteer organizations and partnerships or potential partnerships with institutes of higher learning



References

- Bridges, W., & Mitchell, S. (2000, January). Leading transition: A new model for change. Retrieved October 05, 2017, from <http://www.crowe-associates.co.uk/delivering-change-2/transitions-a-new-model-for-change/>
- College of Engineering. (n.d.). Retrieved April 16, 2019, from <https://www.engr.ncsu.edu/theengineeringplace/programs/>
- [Digital image]. (n.d.). Retrieved from <https://online-learning.harvard.edu/course/citiesx-past-present-and-future-urban-life>
- Future City Competition. (n.d.). Retrieved April 16, 2019, from <https://futurecity.org>
- Future City/DiscoverE Engineering. (2014, January 06). Retrieved from <http://www.discovere.org/our-programs/future-city>
- Future City Program Handbook 2018-2019. (n.d.). The official program handbook for the Future City Competition, 2018-2019. Retrieved from https://futurecity.org/form/resources?download=/sites/default/files/2018-07/2018-2019_Program_Handbook_hi.pdf
- Kritsonis, A. (2004). Comparison of Change Theories. International Journal of Scholarly Academic Intellectual Diversity, 8, 1st ed., 1-7. For Kurt Lewin three-step change model
- Mission and History. (2014, January 06). Retrieved from <http://www.discovere.org/about-us/mission-and-history>
- Morgan, J. (2015, July 20). The 5 types of organizational structures: Part 4, Flatarchies. Retrieved from <https://www.forbes.com/sites/jacobmorgan/2015/07/15/the-5-types-of-organizational-structures-part-4-flatarchies/>
- Schein, E. H. (2010). Organizational culture and leadership (4th ed.). Hoboken, NJ: Jossey-Bass.
- Thompson, L. M. (2017, October 22). Culture change project [Scholarly project]. Retrieved April 16, 2019.
- Thompson, L. M. (2018a, July 21). North Carolina future city program: Increasing a statewide program mission, presence, and participation to ensure institutional legacy statement of work (SoW) [Scholarly project]. Retrieved April 19, 2019.
- Thompson, L. M. (2018b, April 7). Qualitative data project [Scholarly project]. Retrieved April 16, 2019.
- Thompson, L. M. (2018c, April 7). Quantitative data project [Scholarly project]. Retrieved April 16, 2019.
- Thompson, L. M. (2018d, July 20). Social media implementation plan [Scholarly project]. Retrieved April 16, 2019.



Thank you!