March for Science
Path Forward Proposal

BACKGROUND

In an unprecedented show of grassroots solidarity for science, between January and April of 2017, over 600 cities organized and executed non-partisan marches to celebrate science and to "call for science that upholds the common good and for political leaders and policy makers to enact evidence based policies in the public interest." With an estimated attendance of over one million humans, this was an historic moment for the scientific community and society.

Following the march there was an international week of action where attendees were asked to take action in support of science like donating science supplies to local schools, writing or calling their local representatives in support of science based policies, learning science based skills, and participating in local science outreach programs.

In the month following the week of action several structural gaps were identified in the movement's organizational structure specifically related to interaction and communication between the national organization and the large assortment of city leadership teams. In an effort to bridge this gap and facilitate a transition process, working groups consisting of city leaders and national organization team members have formed to determine the path forward on organizational structure, financial/legal framework, mission/values, engagement, and communications.

PURPOSE

This proposal provides a suggested framework for our path forward as a movement and includes details around Mission, Values, Engagement, and Structure. This proposal is presented as a draft and a living document, intended to be a starting point for dialogue and not a conclusive solution.

AUDIENCE

This proposal is intended for the city leadership team members and national team members currently and actively participating in the March for Science transition process. This proposal is not intended for external distribution.

SCOPE

This proposal covers Situational Analysis, Mission, Brand, Structure, Engagement, and Funding for City Leadership Teams, Regional Networks, and the National March for Science Organization. This proposal is meant to be a high-level framework that helps guide further discussions toward concrete details for immediate implementation.

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SITUATIONAL ANALYSIS

Strategic Analysis

There are currently several large, well established, science based communities that fill specific roles for the advancement of science:

Science advocacy
- American Association for the Advancement of Science, Union of Concerned Scientists, National Center for Science Education, Federation of American Scientists, The Planetary Society, The Science Coalition, etc.

Conservation/Environmental advocacy
- Nature Conservancy, Sierra Club, Defenders of Wildlife, National Audubon Society, etc.

Professional Organizations
- American Geophysical Union, American Chemical Society, Institute of Electrical and Electronics Engineers, Society of Women Engineers, Women in Engineering, National Society of Black Engineers, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science, etc.

STEM education
- FIRST Robotics Competition, Project Lead The Way, STEM Education Advocacy Group, Techpoint Foundation, etc.

Tactical Evaluation

There are no groups focused on the adaptation of science as a tool to bridge the ideological divide.

There are very few groups focused on affecting cultural change around the perception of science.

There are few groups focused on cultivating political candidates from the field of STEM professionals.

Change Process

CONNECT HUMANS WITH OUR SCIENCE NARRATIVE **[VIA EVENTS & MEDIA]**

EMPOWER THEM WITH KNOWLEDGE **[VIA TRAINING]**

MOBILIZE THEM TO TAKE ACTION **[VIA VOTING & VOLUNTEERING]**

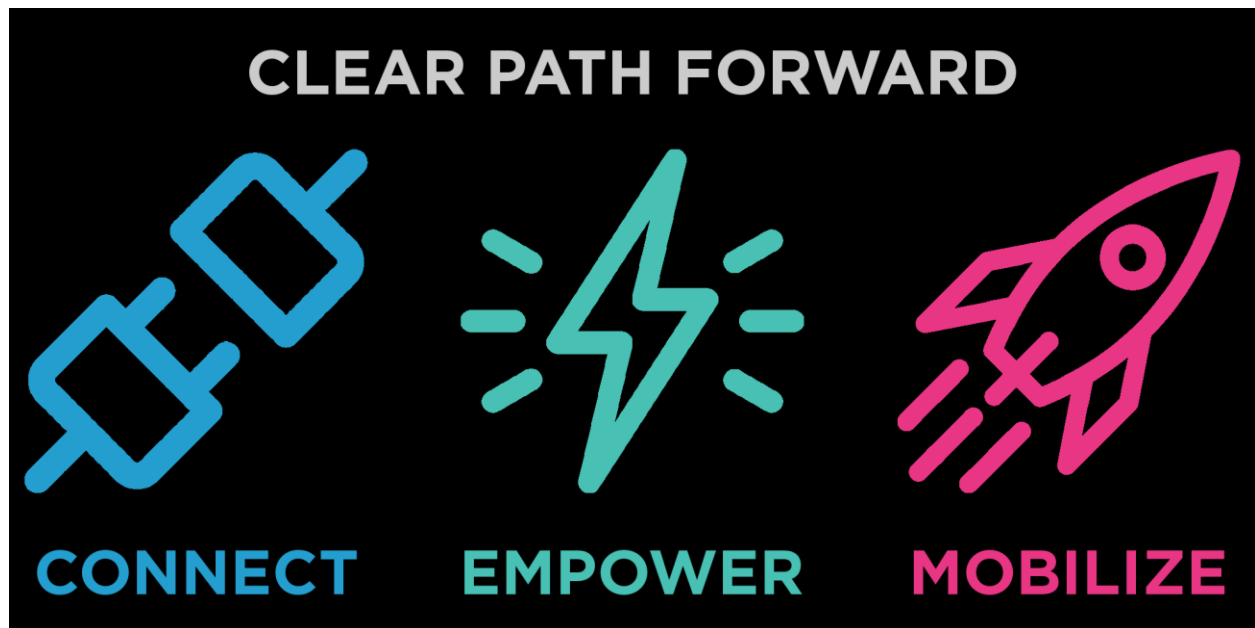- SCALES OF INFLUENCE

    Local > Regional > National

- LEVELS OF INFLUNCE

    Non-Scientists > Science Enthusiasts > Science Advocates

- SPHERES OF INFLUENCE

    Popular Culture/Media > Academia > Government/Industry

MISSION

Strategic Vision

- SCIENCE IS FOR EVERYONE
  - Science **connects** humans at the most fundamental level; which transcends all our ideological, cultural, and political differences.
- KNOWLEDGE IS POWER
  - Science **empowers** humans to understand and improve the world around us; it is our moral imperative to share this tool across every corner of the globe.
- WE ARE THE CHANGE
  - Science **mobilizes** humans with its innate optimism; it allows us to see the world as it could be, if we choose to use it for the common good.

Core Values

- We are a positive movement.
- We are an inclusive movement.
- We are a nonpartisan movement.

Tactical Objectives

- Change public perception of science
- Change corporate practice that works against the public good
- Change policy that undermines our mission
- Build sustainable network of science advocacy
- Increase scientific and technical literacy
- Raise public funding for science and education

BRAND

Brand Tonality
Defiant Optimism

Brand Aesthetic
TBD

Brand Narrative
Human beings across the world feel disenfranchised by the forces of our modern society. We have lost faith in the classic institutions of power.

Individuals don't feel they can make a difference against the vast array of institutions acting against them. Working class families work harder than ever but can not seem to get ahead.

We sit at a moment in history where humanity is more capable than ever to solve our deepest problems, thanks to advances in science in technology, but nothing seems to change.

We believe it can change.

We believe you are the one with the power.

We believe that you can reclaim your sovereignty through small acts of change:

> Learning science based skills, using that skill to help a friend or neighbor, sharing that knowledge by mentoring others in your community.

These small acts of defiant optimism inspire those around you, they inspire your community to realize their true potential as agents for change.

Once we begin to realize that we, the people, have the power;

Once we begin to improve our communities and see our power in action;
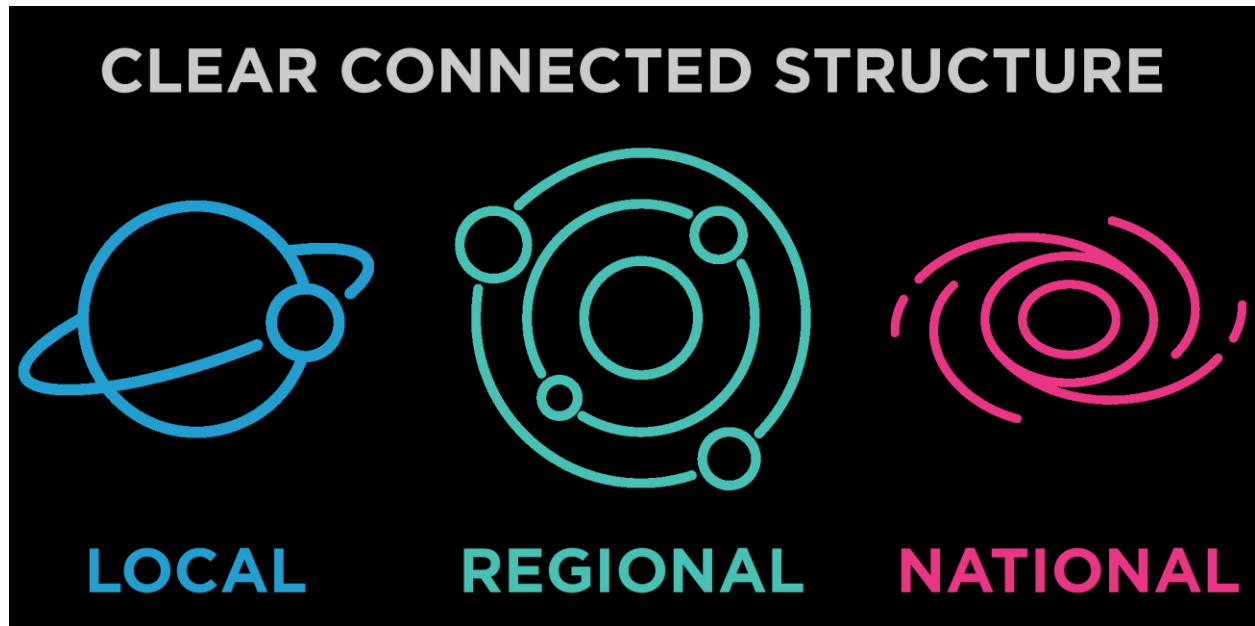
Then we have no choice but to mobilize…

Mobilize to fundamentally improve our society.

Brand Statement
Learn your power.

STRUCTURE

Structure Concept

Local cities build their orgs and connect students with MFS chapters at universities

Regional networks empower city leadership by enabling resource sharing

National org mobilizes partners to amplify local and regional efforts

Keys to Success

- Institutional transparency, clear lines of communication, leadership at every level
- Feedback mechanisms, continuous improvement, measurable success
- Common vision, shared values, defined objectives

Decision Making Framework

At each level, leadership has the power to make decisions with full latitude if it aligns with the movement's mission (strategic vision, core values, and tactical objectives).

If leadership operates outside of this single rule, enforcement comes from the level directly below them:

- City Leaders will take action if a Regional Director operates outside of the mission
- Regional Directors will take action if National Org operates outside of the mission
- National Chairs will take action if City Leaders operate outside of the mission

If there is a question about an action, or the mission itself, leadership is always able to ask the level directly above them, and an open forum can be held if the mission needs adjusted.

ENGAGEMENT

LOCAL (City Leadership)
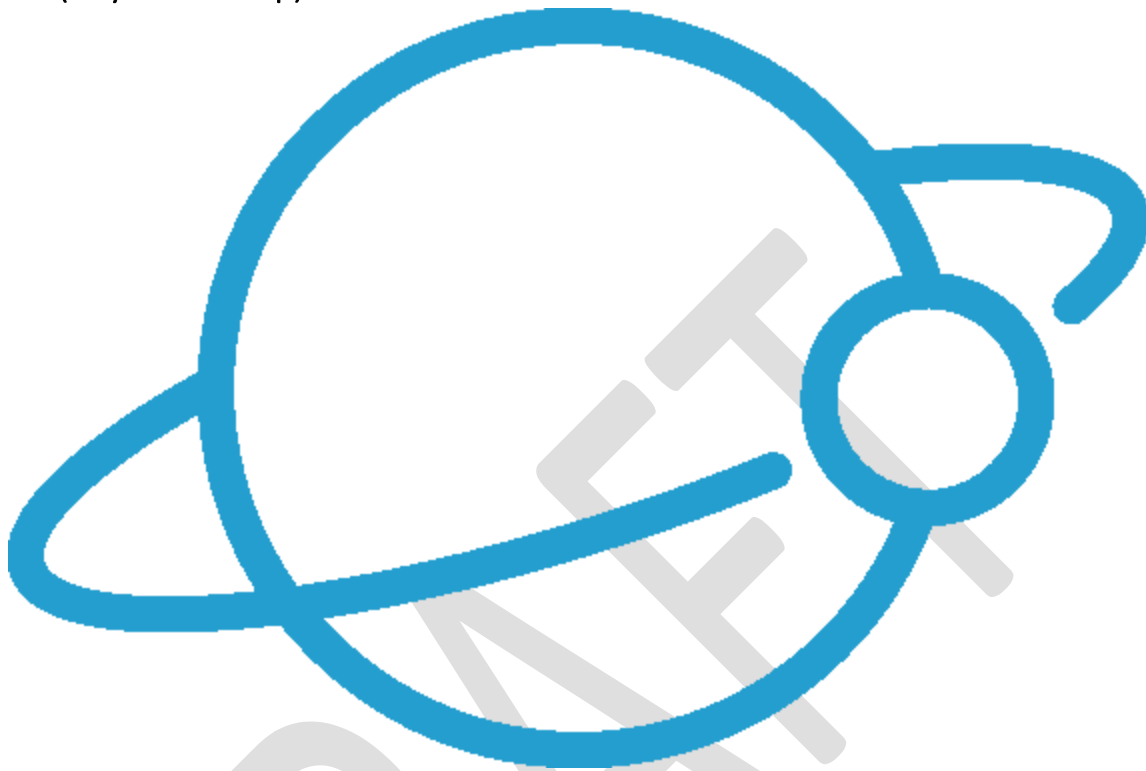
CONNECT
- Connect non-scientists with our brand
- Empower them with our narrative
- Mobilize them to join our movement

EMPOWER
- Connect science enthusiasts with our network
- Empower them with training
- Mobilize them to become science advocates

MOBILIZE
- Connect science advocates with our movement
- Empower them with our vision
- Mobilize them to affect change in their community

City leadership connected by regional networks

- CONNECT NON-SCIENTISTS WITH OUR BRAND
  - STRATEGY: Build a brand that changes public perception via compelling story telling

- EMPOWER THEM WITH OUR NARRATIVE VIA **OUTREACH EVENTS**[1] AND/OR **LOCALIZED MEDIA**[2]
  - TACTIC: Host events that inform/educate people while also building network
    - Science Celebration Parade; STEM Expo including other advocacy groups, universities, and industry; City-wide cleanups; Regional conferences
  - TACTIC: Create localized media that humanizes science and communicates its value to everyday people especially focused on local area

- MOBILIZE THEM TO JOIN OUR MOVEMENT [*BECOME SCIENCE ENTHUSIASTS*]
  - GOAL: Increased membership

- CONNECT SCIENCE ENTHUSIASTS WITH OUR NETWORK [*SCIENCE ADVOCACY GROUPS*]
  - STRATEGY: Gain influence in policy decision making across multiple channels
  - STRATEGY: Build an infrastructure to sustain and foster action at all levels of advocacy

- EMPOWER THEM WITH **COMMUNICATION TRAINING**[3] AND/OR **CANDIDATE TRAINING**[3]
  - TACTIC: Train scientists to communicate their work & value of that work on social media
  - TACTIC: Train scientists to run for office

- MOBILIZE THEM TO BECOME SCIENCE ADVOCATES [*TRAINED ADVOCATES/CANDIDATES*]
  - GOAL: Obtain leverage over policy at the local level

- CONNECT SCIENCE ADVOCATES WITH OUR MOVEMENT [*TRAINED ADVOCATES*]
  - STRATEGY: Take several small manageable actions at the local level with a grassroots movement for high visibility

- EMPOWER THEM WITH OUR VISION
  - TACTIC: Cast a clear positive vision that inspires people to take action

- MOBILIZE THEM TO **AFFECT CHANGE IN THEIR COMMUNITY**[4]
  - GOAL: Affect change in local communities

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[1] See Appendix A for example events

[2] See Appendix B for examples of media

[3] See Appendix C for example training

[4] See Appendix D for examples of what success looks like

REGIONAL (Regional Network)
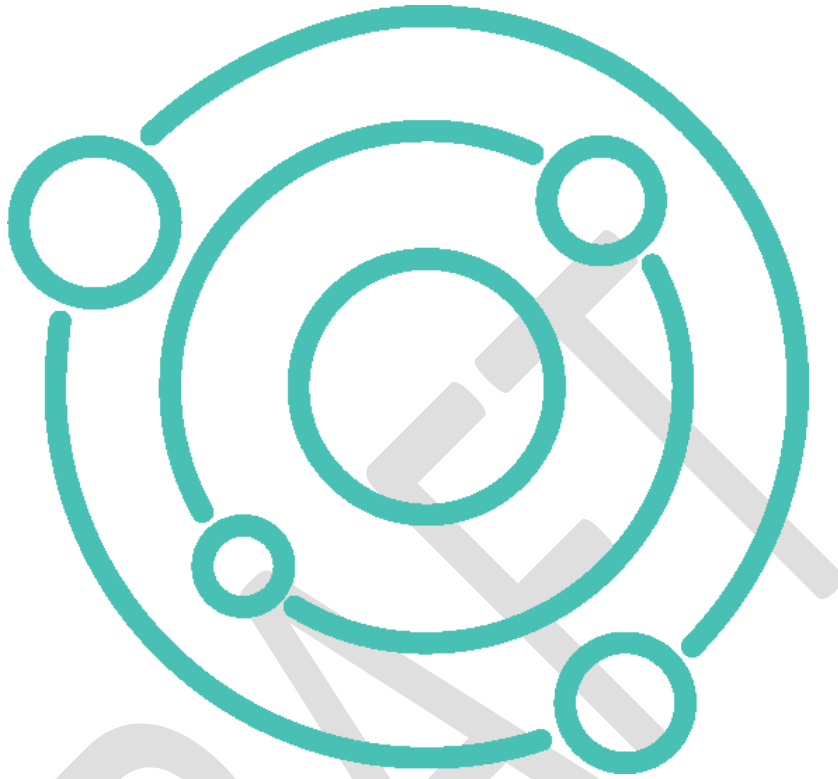
CONNECT	• Connect students (k-12) with our brand • Empower them with our narrative • Mobilize them to become scientists
EMPOWER	• Connect students (uni) with our network • Empower them with advocacy training • Mobilize them to take action for science
MOBILIZE	• Connect professors with our movement • Empower them with our mission • Mobilize them to create targeted research papers

Regional networks empowered by national org

- CONNECT STUDENTS (K-12) WITH OUR BRAND [*STORY TELLING*] [*TRAINED ADVOCATES*]
    - STRATEGY: Build an infrastructure to sustain and foster action at all levels of advocacy
    - STRATEGY: Fortify society against future attacks on science

- EMPOWER THEM WITH OUR NARRATIVE **VIA CLASSROOM EVENTS**[1]
    - TACTIC: Send trained STEM professionals into classrooms to humanize science and change the perception of what a scientist is

- MOBILIZE THEM TO BECOME SCIENTISTS
    - GOAL: More students going into the STEM fields
    - GOAL: Ensure next generation understands and appreciates science
    - GOAL: Improved perception of science

- CONNECT STUDENTS (UNI) WITH OUR NETWORK [*SCIENCE ADVOCACY GROUPS*]
    - STRATEGY: Prepare pipeline with next generation of scientifically literate advocates/voters

- EMPOWER THEM WITH **ADVOCACY TRAINING**[3]
    - TACTIC: Train college students in science advocacy
    - TACTIC: Hold voter registration events at universities

- MOBILIZE THEM TO TAKE ACTION FOR SCIENCE [*VOTE/VOLUNTEER*]
    - GOAL: More scientifically literate advocates/voters

- CONNECT PROFESSORS WITH OUR MOVEMENT [*TRAINED SCIENTISTS*]
    - STRATEGY: Gain influence in policy decision making across multiple channels

- EMPOWER THEM WITH OUR MISSION
    - TACTIC: Communicate our mission clearly to researchers to target key areas of interest for policy makers and lobbyists

- MOBILIZE THEM TO CREATE **TARGETED RESEARCH PAPERS**[4]
    - GOAL: Research used by policy makers to improve decision making and policy

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[1] See Appendix A for example events

[2] See Appendix B for examples of media

[3] See Appendix C for example training

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NATIONAL (National ORG)

CONNECT	• Connect thought leaders with our brand • Empower them with our narrative via media events • Mobilize them to change perception
EMPOWER	• Connect industry with our network • Empower them with outreach traning • Mobilize them to change practice
MOBILIZE	• Connect politicians with our movement • Empower them with our research papers • Mobilize them to change policy

National org mobilizes our partner network

- CONNECT THOUGHT LEADERS WITH OUR BRAND [*STORY TELLING*]
    - STRATEGY: Gain influence in policy decision making across multiple channels
    - STRATEGY: Partner with thought leaders (podcasts, TV personalities, writers, etc.) to shift the national dialogue around science

- EMPOWER THEM WITH OUR NARRATIVE VIA **MEDIA EVENTS**[1] [2]
    - TACTIC: Create our own web series, podcasts, infographics, etc. around a unified aesthetic to can permeate other popular media

- MOBILIZE THEM TO CHANGE PERCEPTION
    - GOAL: Change public perception of science

- CONNECT INDUSTRY WITH OUR NETWORK [*SCIENCE ADVOCACY GROUPS*]
    - STRATEGY: Build an infrastructure to sustain and foster action at all levels of advocacy
    - STRATEGY: Build strategic partnerships in industry

- EMPOWER THEM WITH **OUTREACH TRANING**[2]
    - TACTIC: Teach companies how to communicate their science to the pubic
    - TACTIC: Teach companies how to hold STEM outreach events to improve public image

- MOBILIZE THEM TO CHANGE PRACTICE
    - GOAL: Encourage improved environmental and consumer safety practices

- CONNECT POLITICIANS WITH OUR MOVEMENT [*TRAINED SCIENTISTS*]
    - STRATEGY: Leverage our influence to change policy

- EMPOWER THEM WITH OUR RESEARCH PAPERS
    - TACTIC: Provide sympathetic policy makers with our research papers

- MOBILIZE THEM TO **CHANGE POLICY**[4]
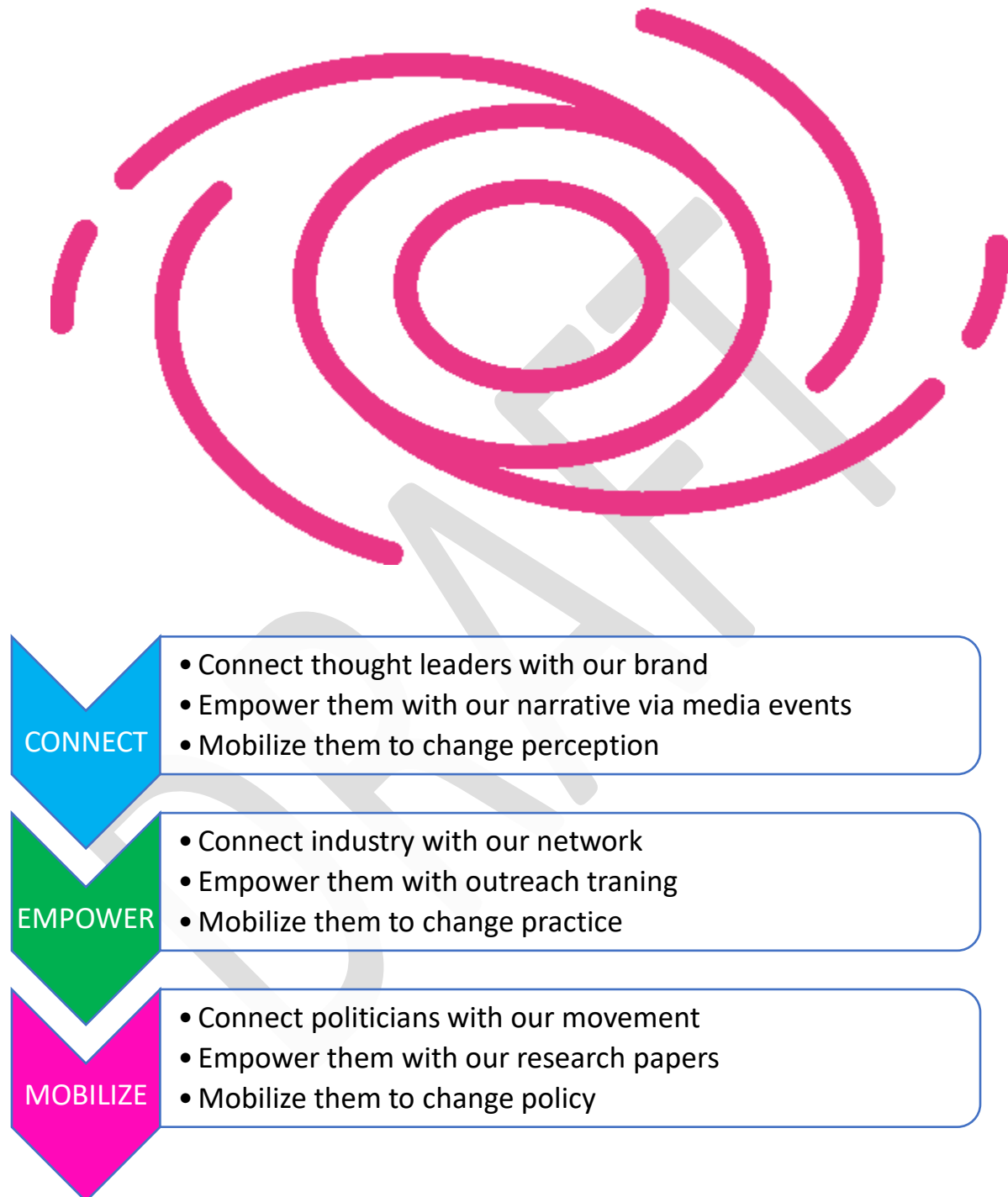   - GOAL: Change policy

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[1] See Appendix A for example events

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FUNDING

A sustainable organization should maintain multiple varied streams of revenue to fund their journey.

Potential Revenue Streams

- Grants
- Donations
- Fundraisers
- Membership
- Brand Monetization

APPENDIX A

Example Events

Example Outreach Events

- Science Expo

  Bring together STEM outreach groups, public institutions (universities, museums, etc.), private companies (tech startups, life science industry, etc.) to showcase the science being done in your community.

- Citywide Cleanup

  Bring together social justice groups, conservation/environmental advocacy groups, and beautification initiatives to create a high visibility event that improves your community in a way that is easily understood by media and non-scientists.

- Women in STEM Walk-IN (IN for Indiana… get it?)

  Partner with your public-school system to have STEM professionals share what they do with middle school classrooms to change students' perception of who can be a scientist.

- Science Summer Camp

  Partner with your public school system to have female STEM professionals volunteer to help teachers empower students with science skills and knowledge, which makes science more accessible and changes students' perception of who can be a scientist.

- Science Advocacy Voter Registration

  Hold non-partisan voter registration events at science locations to increase brand loyalty and encourage mobilization.

Example Scholarship Events

- Essay Contests

  Write an essay detailing how science has helped, empowered, or changed your life.

- Science Communication Challenges

  Create media to communicate a complex scientific topic to the lay-person.

- Innovation Competitions

  Solve a problem in your community using science.

Example Organization Events

- Local City-Halls, Regional Summits, National Conferences

APPENDIX B

Example Media

Podcasts

- Weekly Science Showcase
- Science Stories
- Share your Science

Web Series

- People doing Science
- The Science Behind This
- Why Science Matters

Publications

- Internal quarterly publication for MFS members that highlights innovative outreach and successful initiatives from cities, communicates partnership opportunities in regions, and details opportunities from national org

Infographics

- Take abstract and un-relatable issues facing us and communicate the science behind them in an empathetic and humanizing way

Localized Media

- If a big event is happening in your community, create media explaining the science behind it
- If there are high visibility policies/legislation being discussed in your city or state, create media that makes the science behind it relatable and understandable

Policy Maker Science Grades

- Evaluate the science policies that are put before our representatives
- Track how the vote on these policies
- Assign them a letter grade a publicly publish grade card for, minimum, all national policy makers

APPENDIX C

Example Training

- Communication Training

  This training focuses on teaching scientists how to better manage their public perception and communicate their work to the general public. This would include brand education and social media training.

- Candidate Training

  This training focuses on teaching STEM professionals to run for public office. This would include how to register as a candidate, organize a campaign, build a brand, manage their public perception, raise funds, and mobilize voters.

- Advocacy Training

  This training focuses on teaching anyone passionate about science how to better communicate science and affect change in their community. This would include how to identify un-sound (click-bait) science news, communicate the value of science, combat misinformation/anti-science rhetoric, volunteer/organization leadership skills, and outreach/mobilization techniques and tactics.

- Outreach Training

  This training focuses on teaching industry how to better manage their public perception and communicate their work to the general public. This would include how to hold effective STEM outreach events, which partners in our network best fit with their company for opportunities, and how they can improve the way science is currently communicated by corporate communications professionals.

APPENDIX D

What does success look like?

Organization
- Increase in membership
  - Track number of active satellites
  - Track membership within satellites
- Increase in operational budget
  - Publish national and local budgets
- Increase in original content and online engagement
  - Track national and local content initiatives
  - Track social media engagement at national and local levels

Perception and Outreach
- Increase in corporate science outreach programs
  - Measure increase in corporate funding for science outreach programs
  - Measure increase in number of corporate science outreach programs
- Increase in scientific literacy in underserved populations
  - Measure number of students entering STEM fields
  - Measure number of tech-startups in underserved communities
- Improved perception of science, scientists, and the scientific community
  - National polling can be done to determine the increase of trust in science

Policy and Funding
- Increase in funding for scientific research
  - Track national budget science funding
  - Track corporate funding for science research
- Increase in the number of elected officials with STEM backgrounds
  - Track number of elected officials with degree in hard sciences
- Decrease in policies that do not have sound scientific footing
  - Track policies that do not have sound scientific footing

NOTES

1. How do we build a culture throughout our organization that fosters collaboration, grows leadership internally, and spreads organically?
    a. Our goal must be to create a scalable institutional framework.
    b. Our training must include team building, conflict resolution, leadership growth.
    c. Our culture must focus on building trust through interpersonal relationships.
    d. Focus on "bottom up" growth from the local level.
    e. Foster leadership at every level.

2. How do we change the culture around us to foster an environment sympathetic to our narrative?
    a. We must build a trusted brand that is non-partisan and inclusive.
    b. Our strategic leadership should leverage our trusted brand to attract a network of partners to influence change at a distance.
    c. We should not be afraid to change what we are doing, to try new tactics, and to disrupt traditional methods of change.

3. How do we create sustainable growth to truly turn our moment into a movement?
    a. Every college should have an MFS chapter
        i. Membership incentivized through scholarship programs
        ii. Membership incentivized through internship/research opportunities
    b. Every chapter should be encouraged to build their own brand and foster growth, to ensure emotional investment from students.
    c. Hold annual regional and national recognition/award events (e.g. FIRST Robotics).
        i. Celebrate internally: Volunteer of the Year, Best Viral Media, Top Fundraiser, Most Outstanding City, etc.
        ii. Celebrate Externally: Top corporate sponsor, Top advocacy partner, Champion of Science (outstanding person, outside of our movement, promoting science), etc.
    d. Create annual events that build recurring brand recognition.
        i. Scholarship Contests (essays, science fair style, STEM competition, etc.)
        ii. Science/STEM Expos
        iii. Science Parade
        iv. BONUS CHALLENGE: Something no one has done yet
    e. Possibly have a membership structure like professional societies (e.g. IEEE).

4. How do we secure funding for impactful research, events, regional directors, staff, etc.?
    a. Our strategic leadership should identify initiatives generated at the local level (web series, podcasts, outreach programs) that fit known grant criteria and connect those efforts with our grant writing team.
    b. Our regional directors should work with city leaders to provide resources that promote the creation of quality initiatives that support our overall mission.
    c. Our grant writing team should write grants to support this model, sold to potential funders as a program that can foster change through our "bottom-up" regional networks.

5. How do we change the cultural perception of scientists/STEM professionals?
    a. We tell their stories (web series, podcasts).
    b. We communicate their work (infographics, research papers).
    c. We prove their value (outreach events, teaching sessions).

6. What have other groups done right?
    a. NRA: Changed policy; simple clear message with direct ask; membership, shared activates; community; strong lobby, flexed political influence.
    b. PRIDE: Changed cultural perception; shared activities, strong community; parades – normalized perception & brought in allies via celebration; strong subconscious influence via popular media.
    c. FIRST: Robust international volunteer movement; deep industry ties; leadership at all levels, celebrate/recognize/reward volunteers; provide strong resources for teams to build, fundraise, and create unique brand/identity; seasonal competition, shared activity.
    d. JCPES (Joint Center for Political & Economic Studies): Provided reliable & impactful research/studies which made it into hands of policy makers which drove policy discussions; trained candidates to run at all levels.
    e. BORG: Adaptive attack and defense vectors; When faced with new shield technology, it adapts phasors to oscillate at a different frequency to penetrate shield; When faced with new phasor, it adapts shield to block new frequencies; When faced with new technology or tactics, it is assimilated.

7. What other things can we do to be successful?
    a. Local strategy meetings
    b. Strategic Thinking
    c. Become trusted source of information
    d. Be bold, aim high, challenge ourselves to be more than we think possible, strive to fundamentally change our culture, and don't be afraid to fail
        i. "With nothing to lose a step up means everything's for the win" 😊