

# EXPERT ANSWERS

SUBJECT MATTER EXPERTS TAKE ON YOUR QUALITY-RELATED QUERIES

## THIS MONTH'S QUESTION

During a conference call with Wall Street analysts, our CEO was asked, "How will climate change affect company stock?" Afterward, the senior vice president of my division asked me to come up with a plan for addressing climate change. The topic is so big I don't know where to start. **Is there a simple model for approaching this challenge?**

## OUR RESPONSE

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After retiring as a quality improvement (QI) practitioner, I joined the Maryland Climate Leadership Academy and earned a certificate as a Climate Change Professional. Over the past three years, I've conducted more than 30 workshops with ASQ sections to introduce a climate change model designed to piggyback on Six Sigma, lean and other QI programs.

It's a simple five-part model called Five Teams for Climate Action—or 5T (see Figure 1).<sup>1</sup> Complexity lies in the details, however. Here are the teams involved in the model:

1. **Strategy team:** Develops climate action/sustainability plan.
2. **Adaptation team:** Protects vulnerable assets.
3. **Mitigation team:** Lowers greenhouse gas (GHG) emissions.
4. **Reporting team:** Manages GHG data.
5. **Opportunity team:** Innovates new products and services.

### Learn the lingo

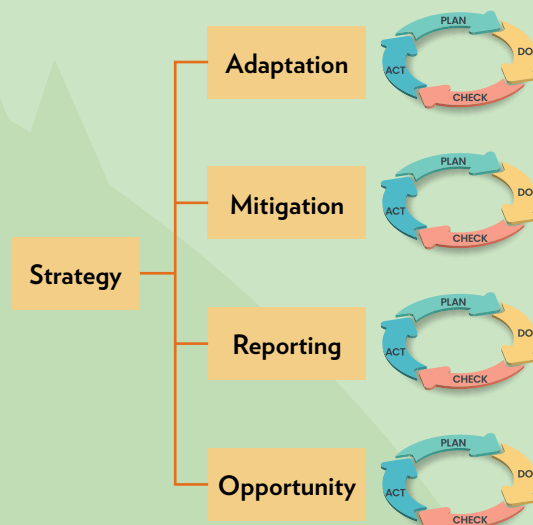
The best place to start is to build a climate change/sustainability vocabulary and self-confidence. Use the list of resources in the online sidebar "The Boss Gave You an Assignment" (which can be found on this column's webpage at [qualityprogress.com](http://qualityprogress.com)) as a study guide.

### 5T checklist

Skip or modify the steps in this 5T checklist based on the complexity of your task and the competence of your staff. Also, it's OK to have some fun!

FIGURE 1

## Five teams for climate action and sustainability





## 1. Strategy team (motivating the enterprise).

- Find senior managers who are predisposed to work on climate change/sustainability. Learn the CEO's perspective.
- Run away and hide from climate deniers.
- Articulate your personal climate story. I have two: My mom's apartment was wrecked by Hurricane Wilma and my high school buddy lost his home in Hurricane Sandy. Encourage others to tell their climate stories.
- Study scientific reports to identify how climate change will affect your business model, including the Intergovernmental Panel on Climate Change report assessment by international scientific community and the National Climate Assessment by federal agencies.
- Consider financial risks such as business interruptions, cost of repairs and increased insurance premiums, as well as regulatory, litigation and reputational risks.
- Prepare a storyboard.
  - How burning fossil fuel causes CO<sub>2</sub> emissions.
  - How CO<sub>2</sub> emissions cause climate change.
  - How climate change causes extreme weather conditions.
  - How extreme weather conditions disrupt operations, suppliers and customers.
- Determine a process for empowering, training and supporting project teams.
- Identify funds for team training and support.
  - Training and quality budgets.
  - Marketing budget (for low-emission bragging rights).
  - Energy budget (biggest budget and quickest to show return on investment).
- Deliverables (business unit level).
  - Storyboard describing how climate change can affect company stock.
  - Training and support plan for teams focusing on adaptation, mitigation, reporting and opportunity.
  - Team dashboards.

## 2. Adaptation team (managing risk).

- Incorporate climate change into existing risk management methods.
  - Understand that anthropogenic (man-made) climate makes it more difficult to rely on historic climate data.
  - Determine scope, including stakeholders and interested parties.
  - Identify potential climate hazards.
- Understand the vulnerability/risk relationship.
  - Is the asset exposed to climate hazard? Yes. > Is the asset sensitive to a climate hazard? Yes. > Does the asset have adaptive capacity? No. > The asset is vulnerable.
  - Is a hazard likely? Yes. > Will the effect be bad? Yes. > The asset is at high risk.
- Grade the risk of multiple assets (dashboard) and select a demonstration project.
- Conduct a demonstration project.
  - Identify high-risk assets.
  - Investigate solutions. Explore industry literature. Conduct focused research (interviews with subject matter experts and potential vendors). Conduct a tabletop exercise to consider countermeasures, technology, insurance and relocation. Identify potential stranded assets. Document new knowledge.
  - Show alternative ways to protect asset. Capture organizational learning. Prepare management presentation.
    - Deliverables: a plan to identify and protect vulnerable assets, a demonstration project and a vulnerable asset adaptation dashboard.





### 3. Mitigation team (preventing GHG emissions).

- Provide technical training.
- Review case studies.
- Conduct industry research (trade associations, competitors, suppliers, customers, government and nonprofits). How does our industry lower its carbon footprint? Identify a pilot project. Determine current carbon footprint, identify and test methods to lower GHG emissions, track and report results.
- Consider outside expertise for complex solutions.
- Deliverables: plan to identify and lower GHG emissions, demonstration project, GHG emissions dashboard.



### 4. Reporting team (tracking voluntary and required reporting obligations).

- Understand the U.S. Environmental Protection Agency's Scope 1, 2 and 3 emissions.
- Research reporting standards.
  - Global Reporting Initiative standards (covers multiple areas).
  - Greenhouse Gas Protocol (covers CO<sub>2</sub> emissions).
  - International Organization for Standardization (ISO) and climate change.
    - *ISO 14001—Environmental management systems, ISO 14064—Greenhouse gases, ISO 14020—Environmental statements and programs for products, ISO 20121—Sustainable events, ISO 21930—Sustainability in buildings and civil engineering works and ISO 50001—Energy management.*
- U.S. Securities and Exchange Commission reporting on climate and environmental, social and governance risks and opportunities.
- Research data management systems.
- Conduct data-gathering tests. Track with existing tools and use run charts.
- Deliverables: reporting plan, preliminary report and reporting dashboard.



### 5. Opportunity team (profiting through innovation).

- Provide case studies showing climate-friendly products.
- Teach and apply an IDEO-style new product development process.
  - Choose a design challenge. Collect team knowledge and assumptions. Plan and conduct research. Consider comments, observations, takeaways, stories, learnings and other data. Create insight statements. Ask, "How might we?" Determine prototypes. Test and iterate.
- Deliverables (how to profit from climate change challenge): plan for a new offering, prototype testing and dashboard of possibilities.

#### Call to action

To be assigned a climate change project is a gift. As W. Edwards Deming wrote, "Personal transformation is discontinuous, sudden. Once transformed, one may thereupon work toward transformation of his own organization."<sup>2</sup> This fits well with advice from the Headspace meditation app: "To discover a sense of purpose and to act on it can help us live a happy and contented life."<sup>3</sup> Welcome to the climate change challenge! **QP**

#### ACKNOWLEDGEMENT

The author thanks Dave Arndt, Bill Gordon and Sonal Singh, for reviewing this response.

#### EDITOR'S NOTE

Visit this article's webpage at [qualityprogress.com](http://qualityprogress.com) for references noted in this response, as well as links to additional resources.

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