ANTICIPATING RISK, REGULATING TECH

A Playbook for Ethical Tech Governance

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INSTITUTE FOR THE FUTURE

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“Technology generates as many new problems as new solutions.

Most of the problems we will have in the future are going to be caused by the **technologies that look like solutions** to us today.”

–KEVIN KELLY, *The Inevitable*

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Future-proofing
to avoid post-traumatic innovation

Or, **How to avoid accidentally becoming the world's next great supervillain**

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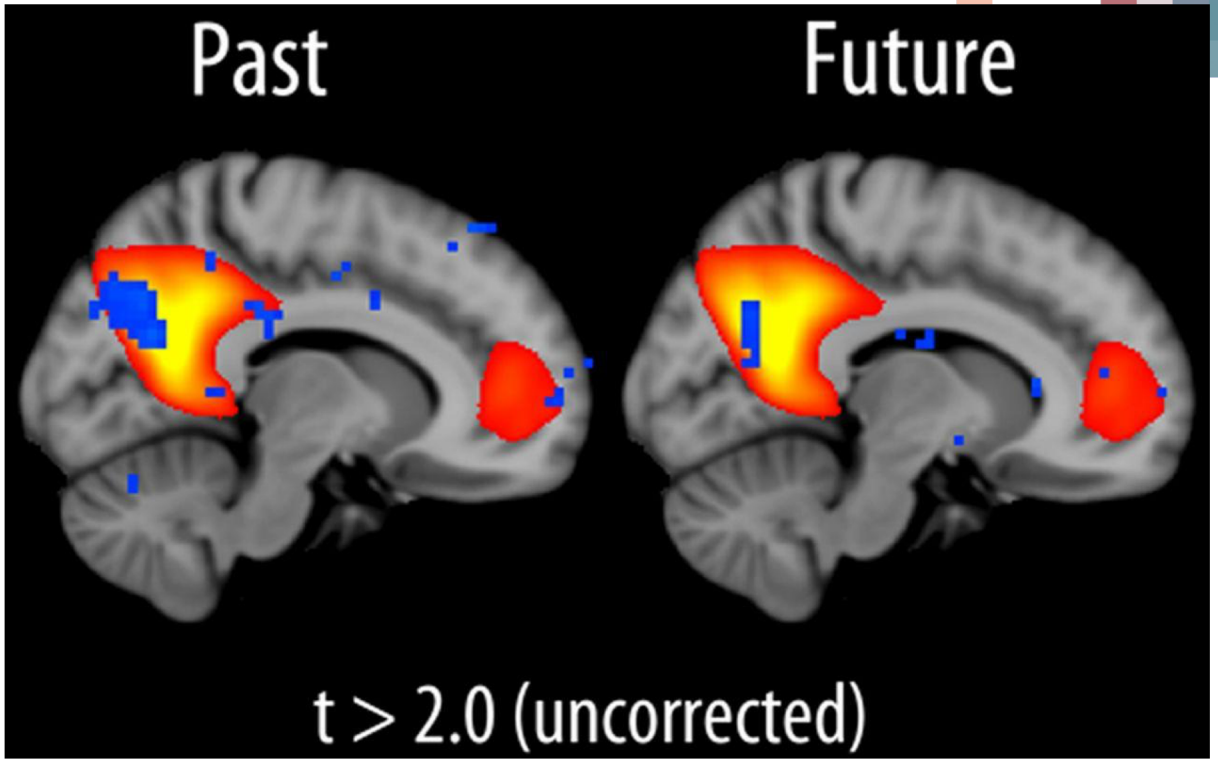
We can’t predict the future.

We can learn how to think about the future systematically, anticipating and acting on risk, and turning uncertainty into inspiration for action.

We tend to think about the future based on the past



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POLL: What word(s) come to mind when you think about ethics and technology?

Enter your reply by scanning the QR code below, or by going to the link in the Slack channel.

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Anticipate the **long-term social impacts** of the tech today to protect our **most essential public goods**:

truth

democracy

privacy

economic security

equality

mental health

public safety

humanity's well-being

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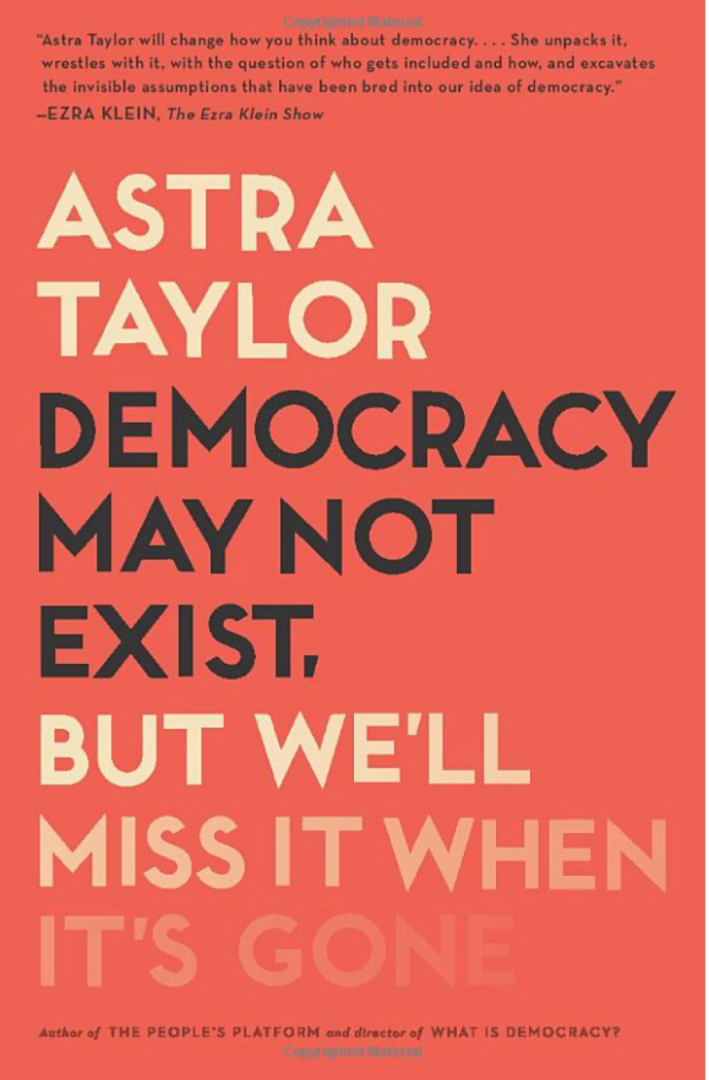

freedom	equality
spontaneity	structure
conflict	consensus
expertise	mass opinion
inclusion	exclusion
local	global
coercion	choice
present	future

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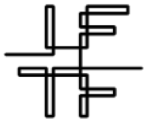
A Playbook for

Ethical Technology Governance



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What is in the Playbook?

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Playbook Contents

- Risk Zones
- Scenarios
- Decision Tree
- Discussion Questions
- Further Reading

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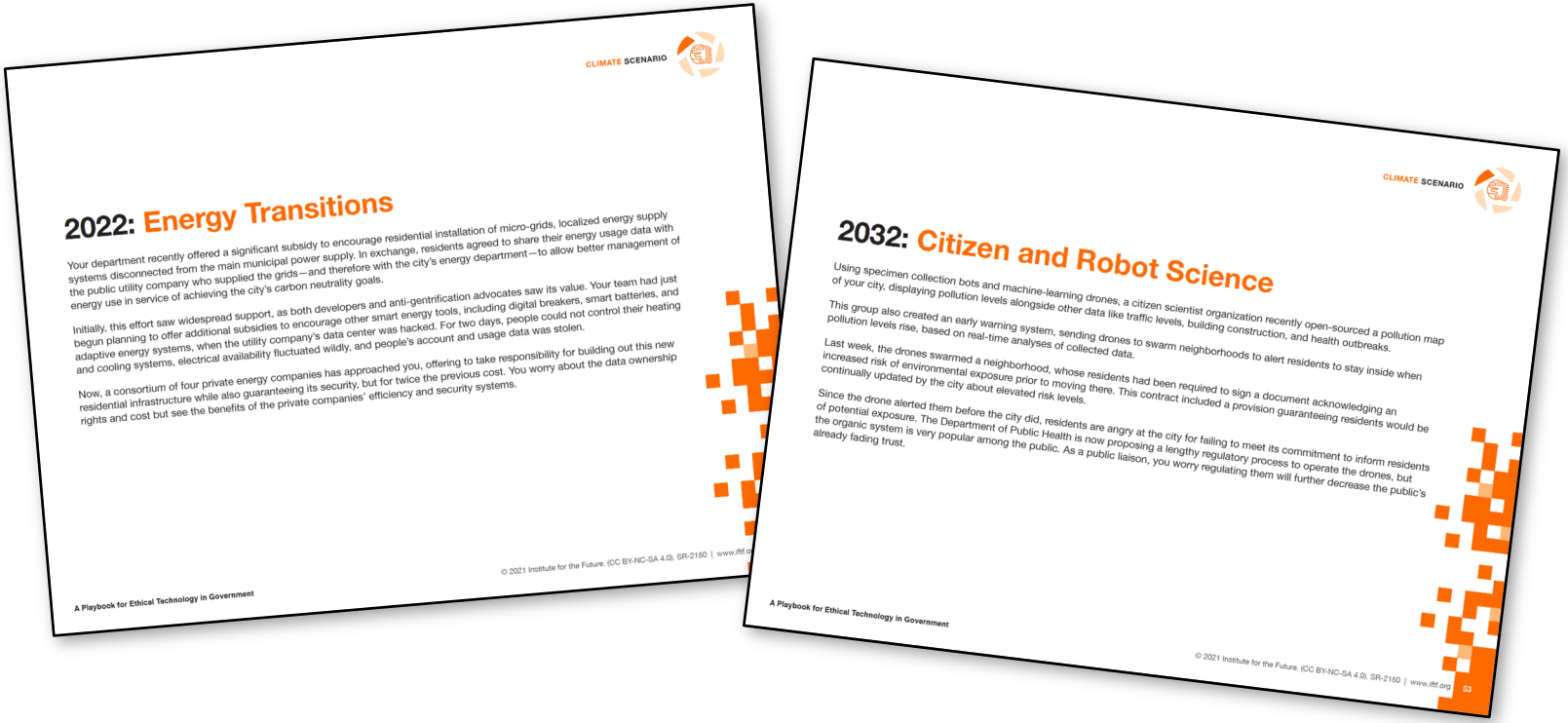
2 Scenarios



CLIMATE SCENARIO

2022: Energy Transitions

Your department recently offered a significant subsidy to encourage residential installation of micro-grids, localized energy supply systems disconnected from the main municipal power supply. In exchange, residents agreed to share their energy usage data with the public utility company who supplied the grids—and therefore with the city's energy department—to allow better management of energy use in service of achieving the city's carbon neutrality goals.

Initially, this effort saw widespread support, as both developers and anti-gentrification advocates saw its value. Your team had just begun planning to offer additional subsidies to encourage other smart energy tools, including digital breakers, smart batteries, and adaptive energy systems, when the utility company's data center was hacked. For two days, people could not control their heating and cooling systems, electrical availability fluctuated wildly, and people's account and usage data was stolen.

Now, a consortium of four private energy companies has approached you, offering to take responsibility for building out this new residential infrastructure while also guaranteeing its security, but for twice the previous cost. You worry about the data ownership rights and cost but see the benefits of the private companies' efficiency and security systems.

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CLIMATE SCENARIO

2032: Citizen and Robot Science

Using specimen collection bots and machine-learning drones, a citizen scientist organization recently open-sourced a pollution map of your city, displaying pollution levels alongside other data like traffic levels, building construction, and health outbreaks.

This group also created an early warning system, sending drones to swarm neighborhoods to alert residents to stay inside when pollution levels rise, based on real-time analyses of collected data.

Last week, the drones swarmed a neighborhood, whose residents had been required to sign a document acknowledging an increased risk of environmental exposure prior to moving there. This contract included a provision guaranteeing residents would be continually updated by the city about elevated risk levels.

Since the drone alerted them before the city did, residents are angry at the city for failing to meet its commitment to inform residents of potential exposure. The Department of Public Health is now proposing a lengthy regulatory process to operate the drones, but the organic system is very popular among the public. As a public liaison, you worry regulating them will further decrease the public's already fading trust.

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Discussion Questions

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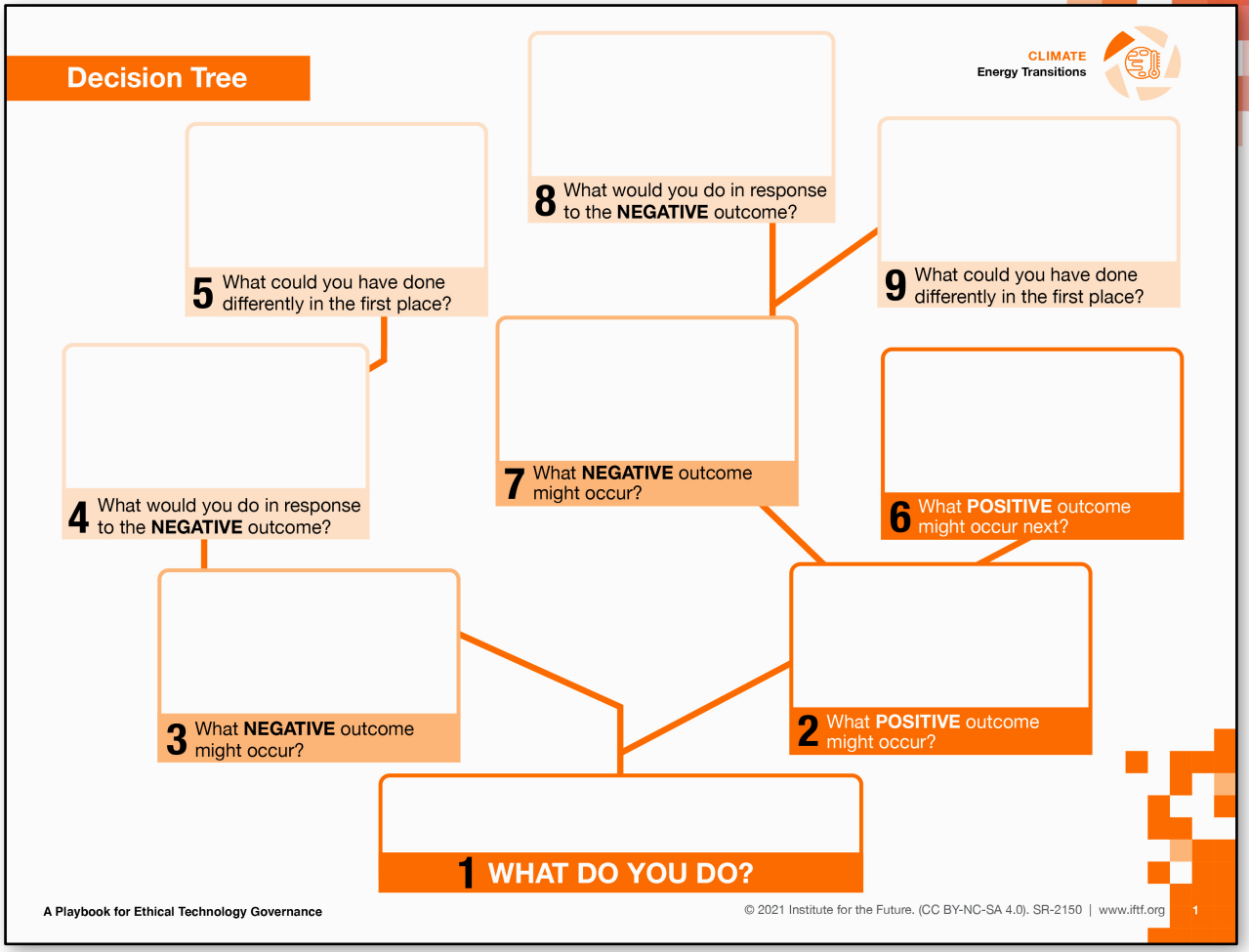

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Signals of Change

Concrete observations about how the world is changing, today.

- New practice, policy, or technology
- Event, local trend
- Something that *catches our attention* and points to larger implications

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Risk Zone 5:

CLIMATE

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Climate: Scenario 2032

- Citizen scientists have created an open-source pollution map of your city, along with “early warning drones” that alert residents when pollution levels rise, telling them to stay inside.
- Recently, the drones swarmed a neighborhood with a warning before the city informed residents of potential toxic exposure.
- The Department of Public Health proposes a lengthy regulatory process for the drones; residents are protesting the new proposed rules, arguing they won’t get health information when they need it.

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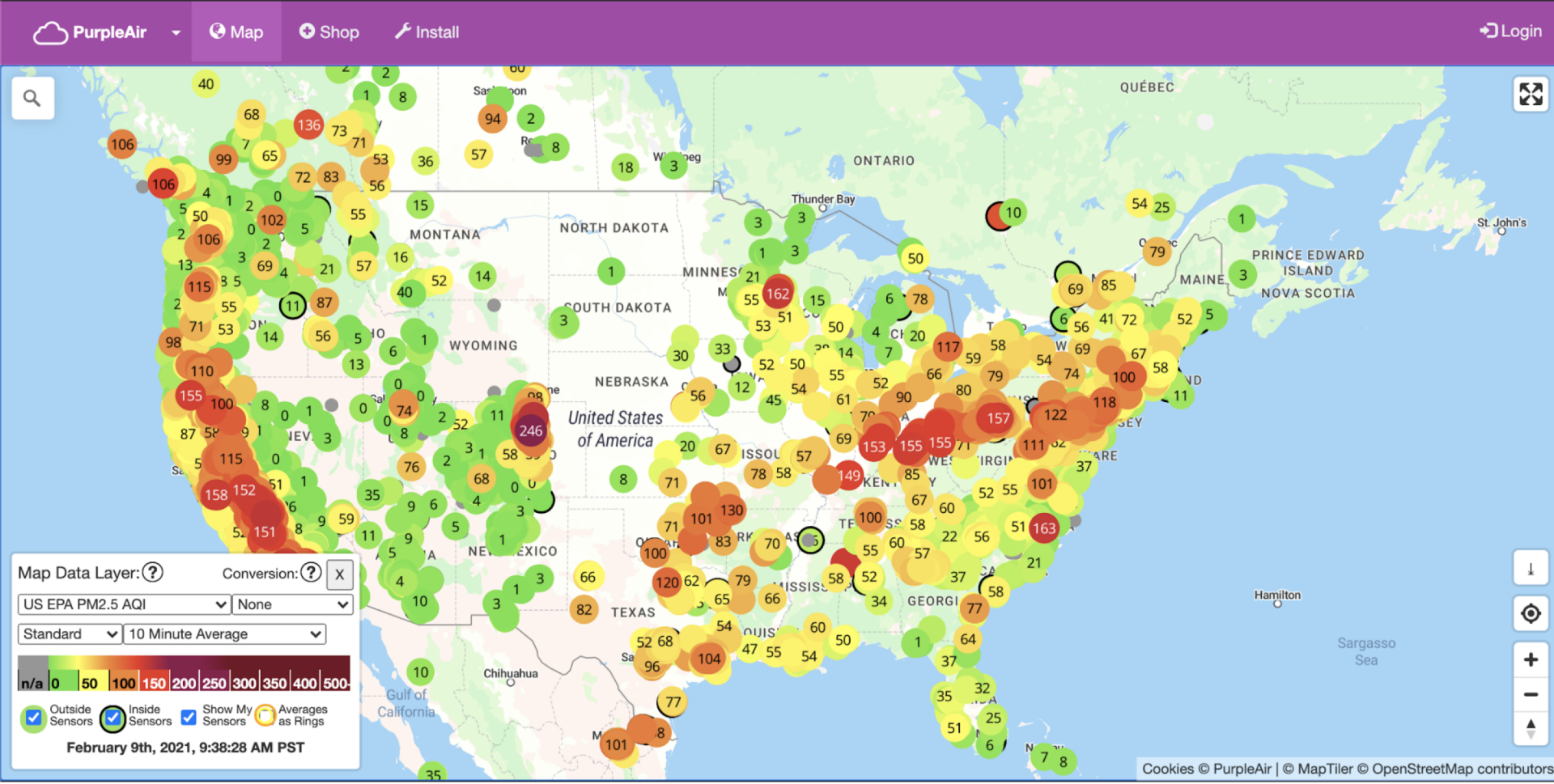

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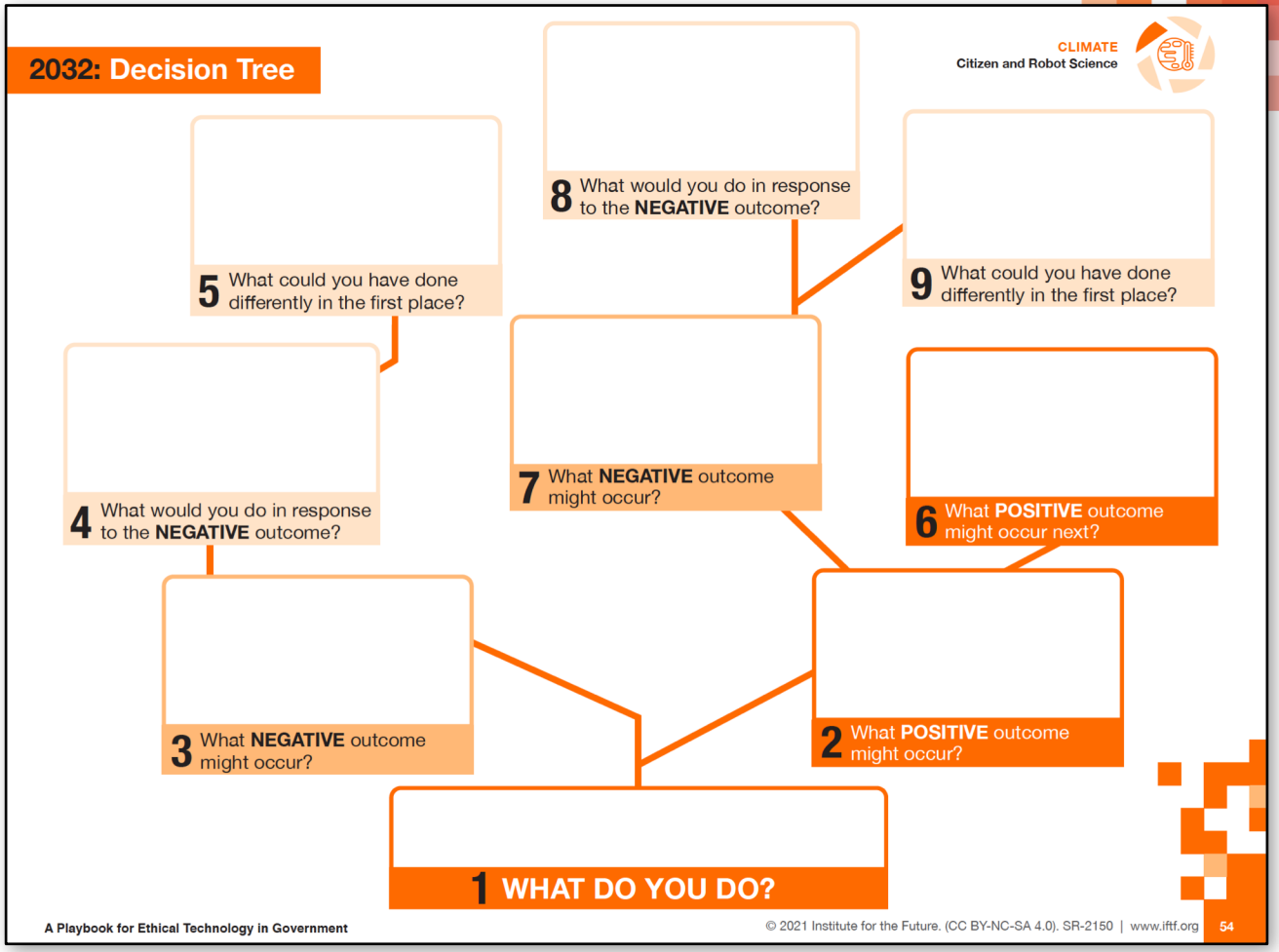

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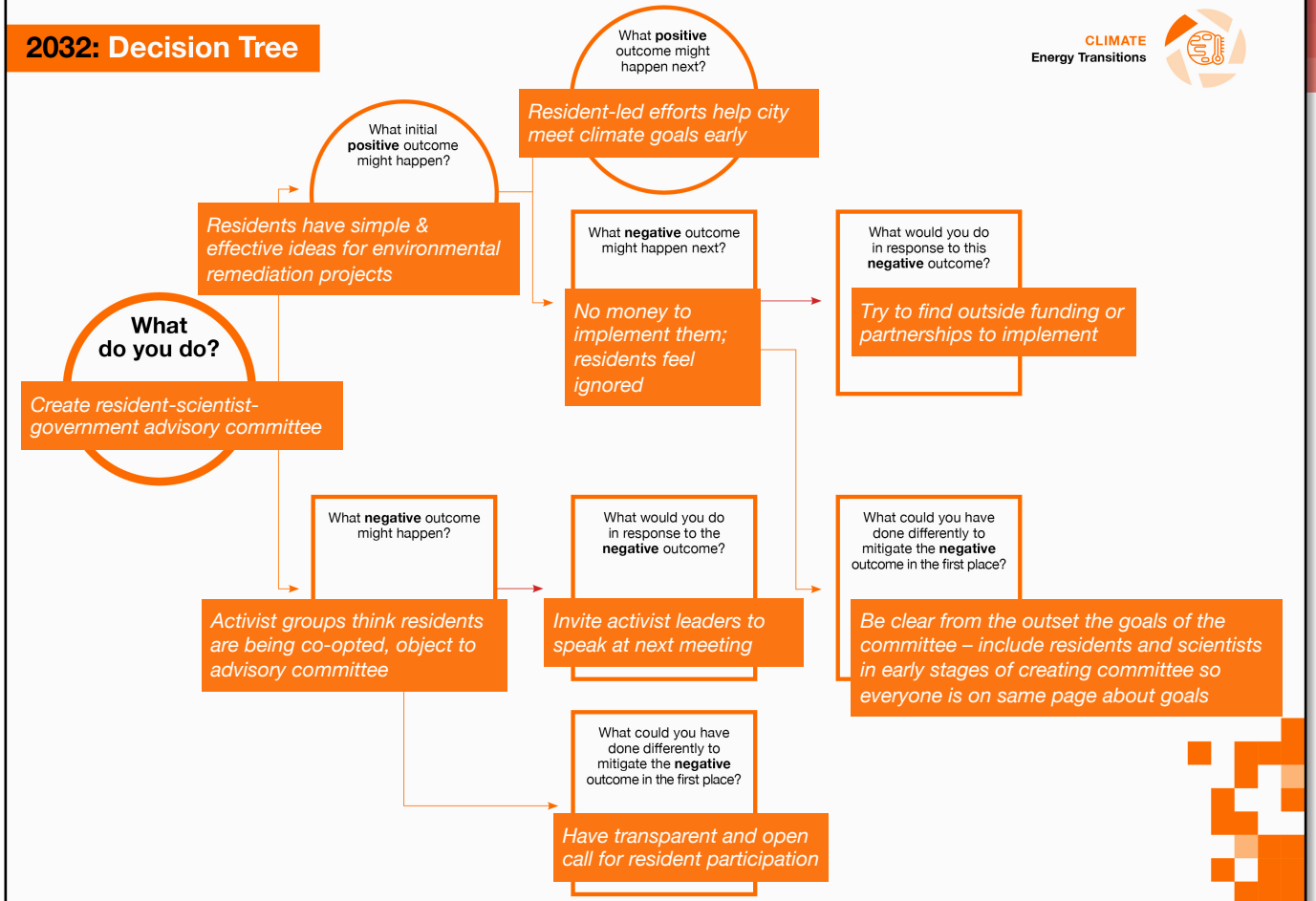
2032: Decision Tree

CLIMATE
Energy Transitions



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Climate 2032:
Questions for Consideration

- If the wisdom of the crowd is trustworthy—and accurate—is it your place to regulate how it spreads its information?

- As a government agent, how would you work with citizen scientists to rebuild trust in your agency?

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> “When something of massive consequence happens that no one predicted, we often say it was simply unimaginable. But the truth is, nothing is impossible to imagine. When we say something was unimaginable, usually it means we failed to point our imagination in the right direction.”
>
> —Jane McGonigal, *Institute for the Future*

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Thank you!

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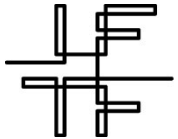

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