



# ConnectSF

Scenario Planning

SPUR SF

June 13, 2018

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# Today's Agenda

- Overview of ConnectSF
  - Doug Johnson, San Francisco Planning Department
- Why Scenario Planning?
  - Nicole-Anne Boyer, Adaptive Edge Consulting
- What Did We Learn?
  - Chester Fung, Arup
- Q&A
  
- Theory, Practice, Challenges, and Breakthroughs
  - Nicole-Anne Boyer
- Possibilities for Other Planning Projects
  - Chester Fung
- What's Next for ConnectSF?
  - Doug Johnson
- Q&A

An aerial photograph of San Francisco, California, showing the city's dense urban landscape and the San Francisco Bay in the background. The image is overlaid with a semi-transparent teal color. The text "ConnectSF Overview" is written in a white, serif font across the center of the image.

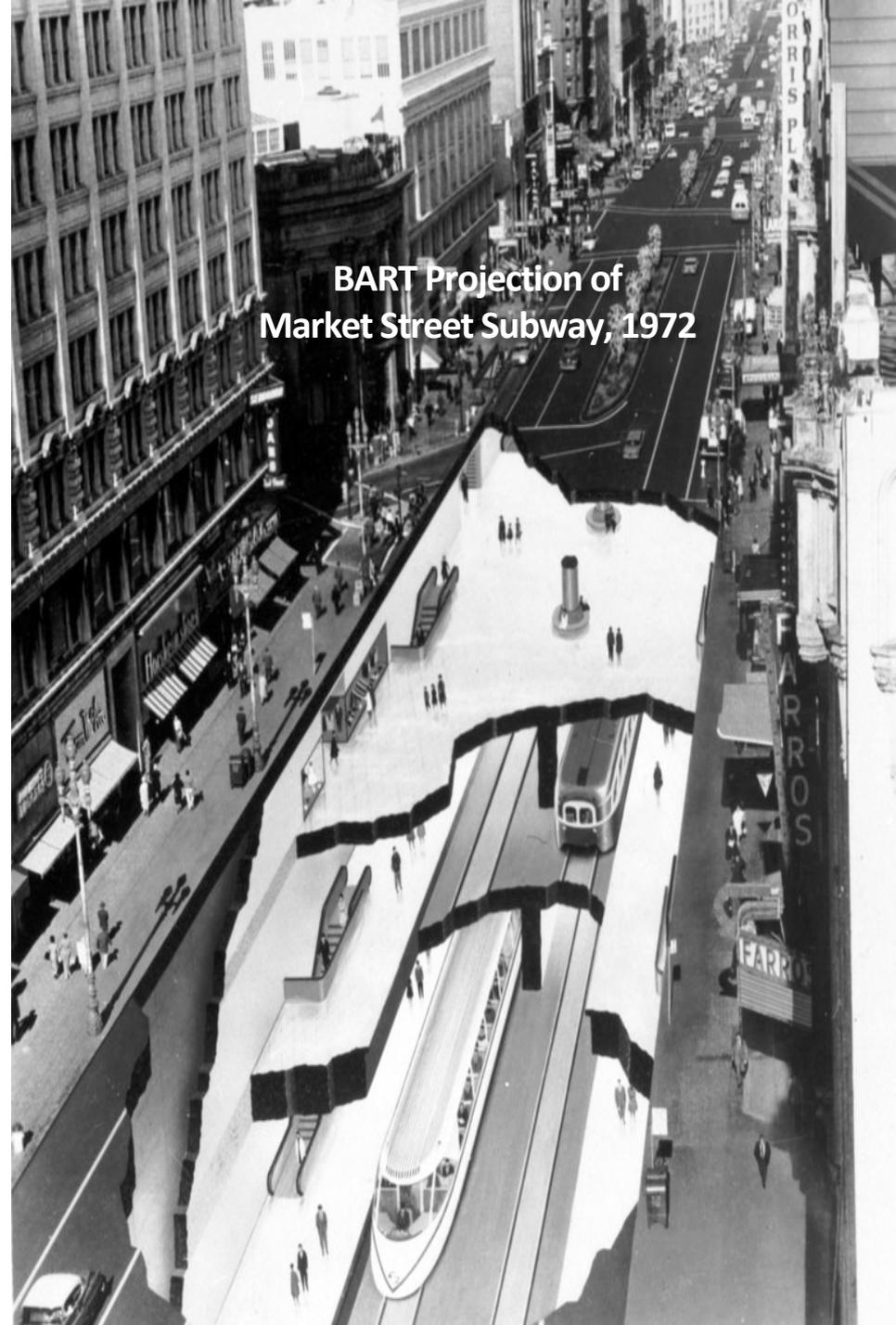
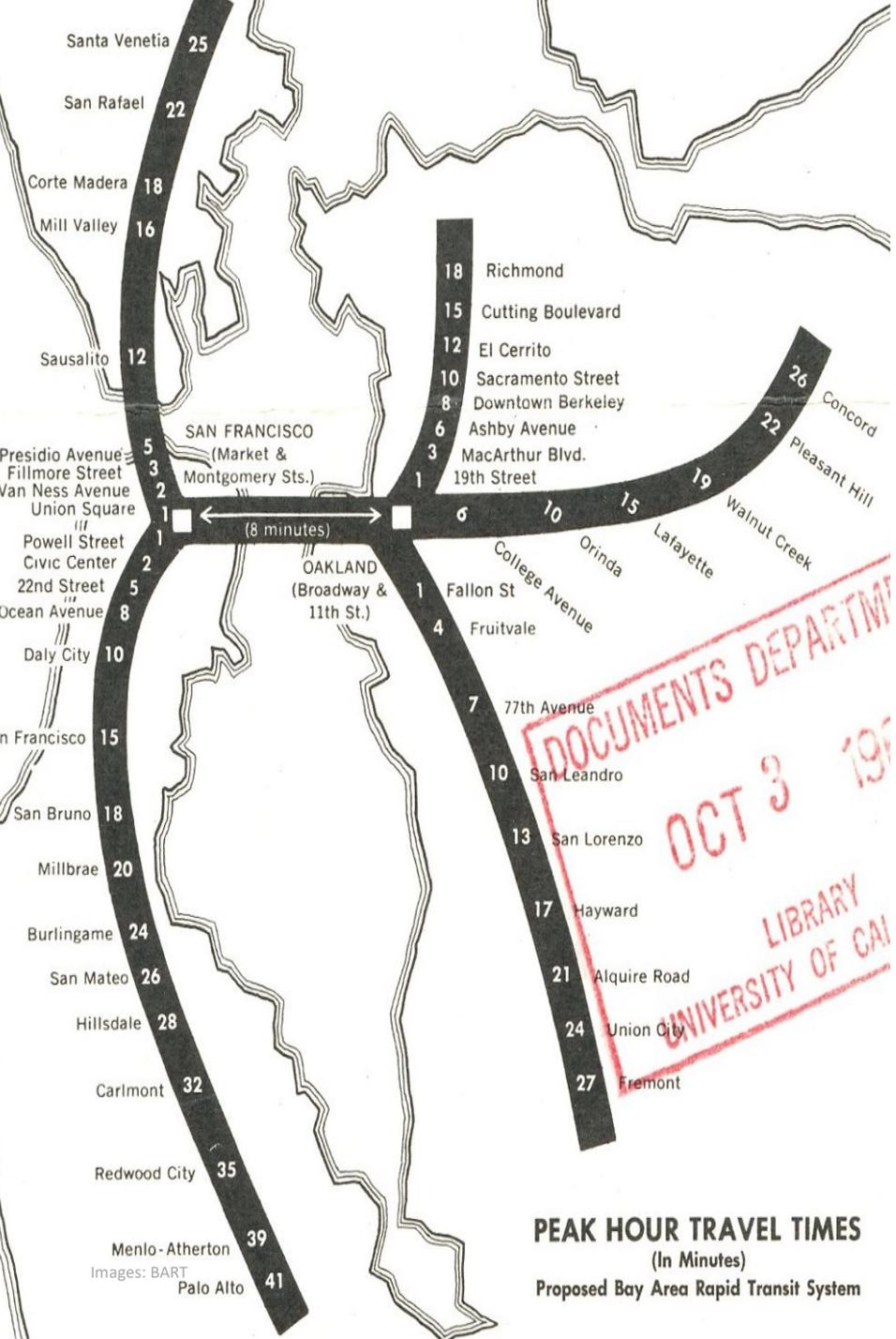
# ConnectSF Overview



Richmond District, 1880s



Lincoln Way near Sunset, 1908



# Purpose

*ConnectSF aligns our agencies through a ground-up process to identify long-term transportation projects and policy priorities*

## About the Program

- **50-year transportation vision** created with city agencies (**we are here**)
- Phase 2 is about the **projects** and **policies** needed to achieve the vision
- Phase 3 includes San Francisco two transportation **policy and action oriented documents**



# Process

SPRING 2017

SUMMER 2017

FALL 2017

WINTER 2017-18



Pop-ups and Surveys



Input on Scenarios



Public Outreach



Public Outreach on Plans and Studies



Co-Learning and Futures Primer



Scenario Building Workshop



Scenario Check-in



Strategic Implications Workshop



Guidance on Plans and Studies



Conduct Research



Develop and Refine Scenarios



Study Technical Implications



Policy  
Implementation and Funding  
Plans for People, Roads and Tra

# Outreach Summary



FOCUS  
GROUPS

**125** PARTICIPANTS

**3** LANGUAGES OFFERED: CHINESE, ENGLISH, SPANISH

**1** YOUTH GROUP



ONLINE  
SURVEYS

**5,300** RESPONDENTS

**4** LANGUAGES OFFERED: CHINESE, ENGLISH, SPANISH, FILIPINO



TARGETED  
OUTREACH

**60+** ORGANIZATIONS  
ENGAGED

**470** POP-UP VISITORS

**700** POP-UP RESPONSES



Getting around SF and the region is easy and fast

Safe, clean, and secure

Authentic civic engagement that reaches all groups

Affordability

Active, effective government

Retain what makes San Francisco special

# What we heard from San Franciscans

Photo: Linda Meckel

# YOUR PLAN.



# REALITY.

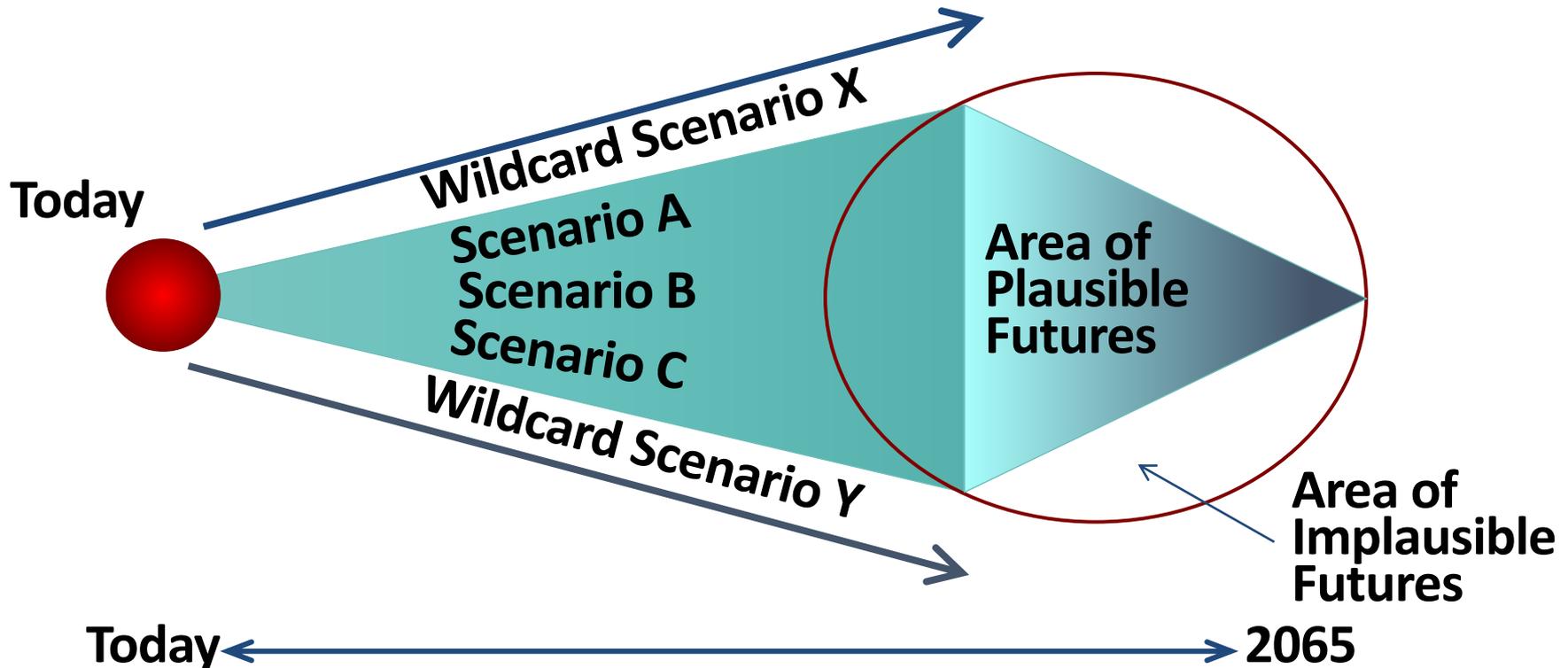


An aerial photograph of a city skyline, likely San Francisco, with a teal overlay. The image shows a dense urban landscape with numerous buildings, including a prominent skyscraper with a pointed top (the Transamerica Pyramid). The text "Why Scenario Planning?" is overlaid in white, serif font on the left side of the image.

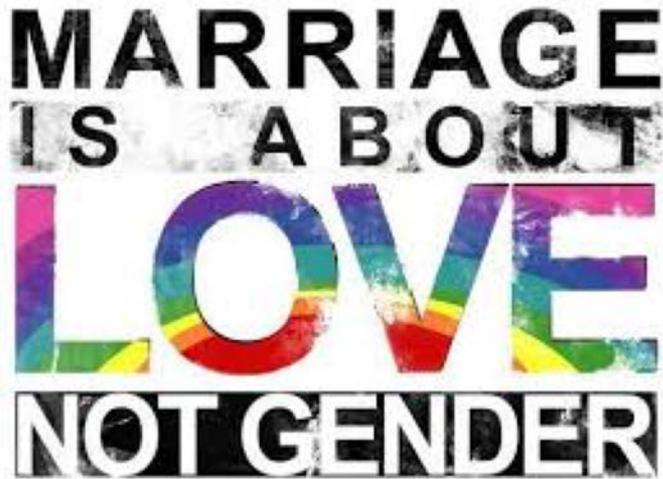
# Why Scenario Planning?

# What is scenario planning? Why use it?

1. A structured method for **thinking about the future** and making flexible long term plans and decisions under conditions of *uncertainty and complexity*



# Preparing for Unpredictable and Predictable Surprises



**Social Transformations**



**California's Drought**



**Transformative Technologies**

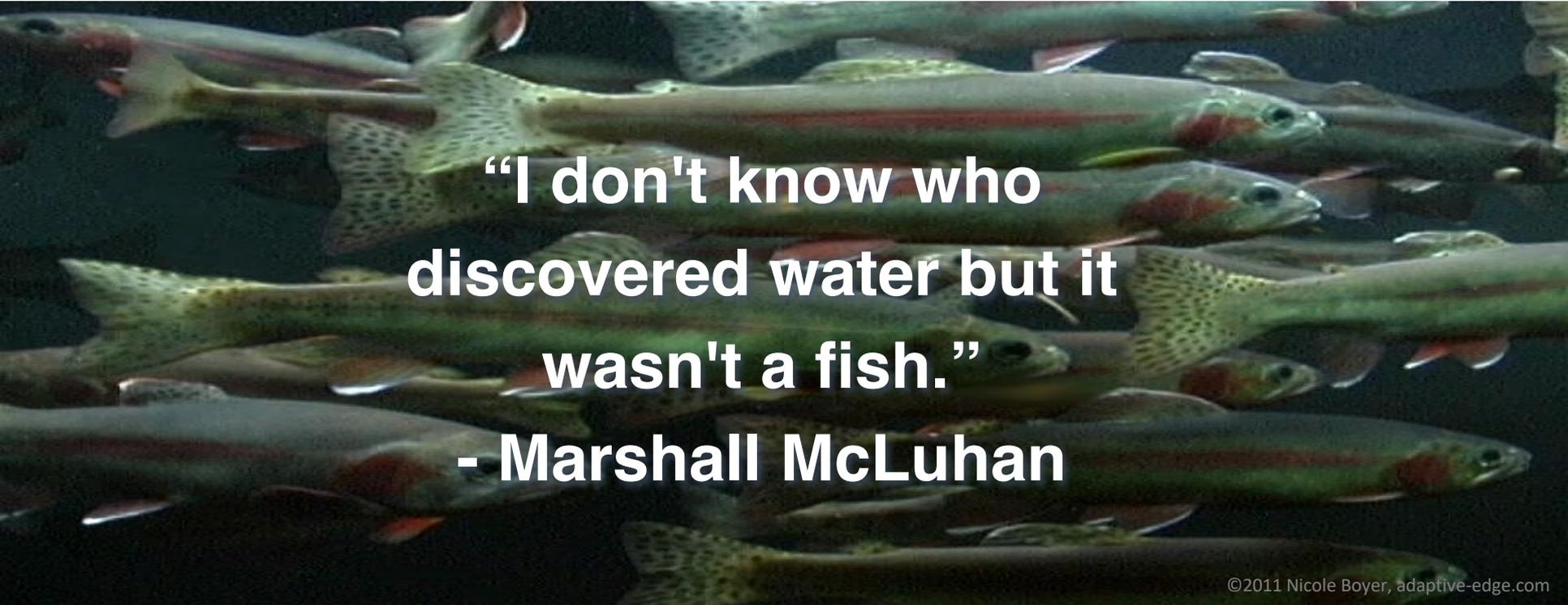


**V**olatile  
**U**ncertain  
**C**omplex  
**A**mbiguous

"the new  
normal"

# Scenario Planning: Why use it?

- 2. An innovative thinking** tool to help see new possibilities and to unlearn overcoming outdated ideas about the future

A school of rainbow trout swimming in dark water. The fish are silvery with a prominent red stripe along their sides and some have spots on their backs. They are moving in a coordinated pattern.

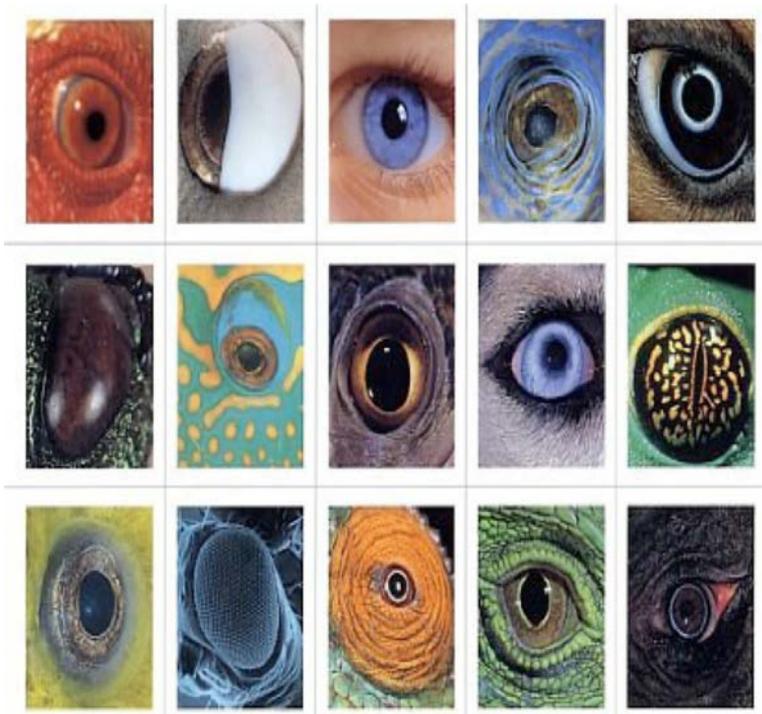
**“I don't know who  
discovered water but it  
wasn't a fish.”**

**- Marshall McLuhan**

# Scenario Planning: Why use it?

**3. Collaboration tool** for diverse groups to think and act together around “stuck” future challenges

-> A form of *participatory foresight*



“Change is  
disturbing when it  
is done to us,  
exhilarating when  
it is done by us.”

Elizabeth Roth Kantor

# In Sum: Scenarios...

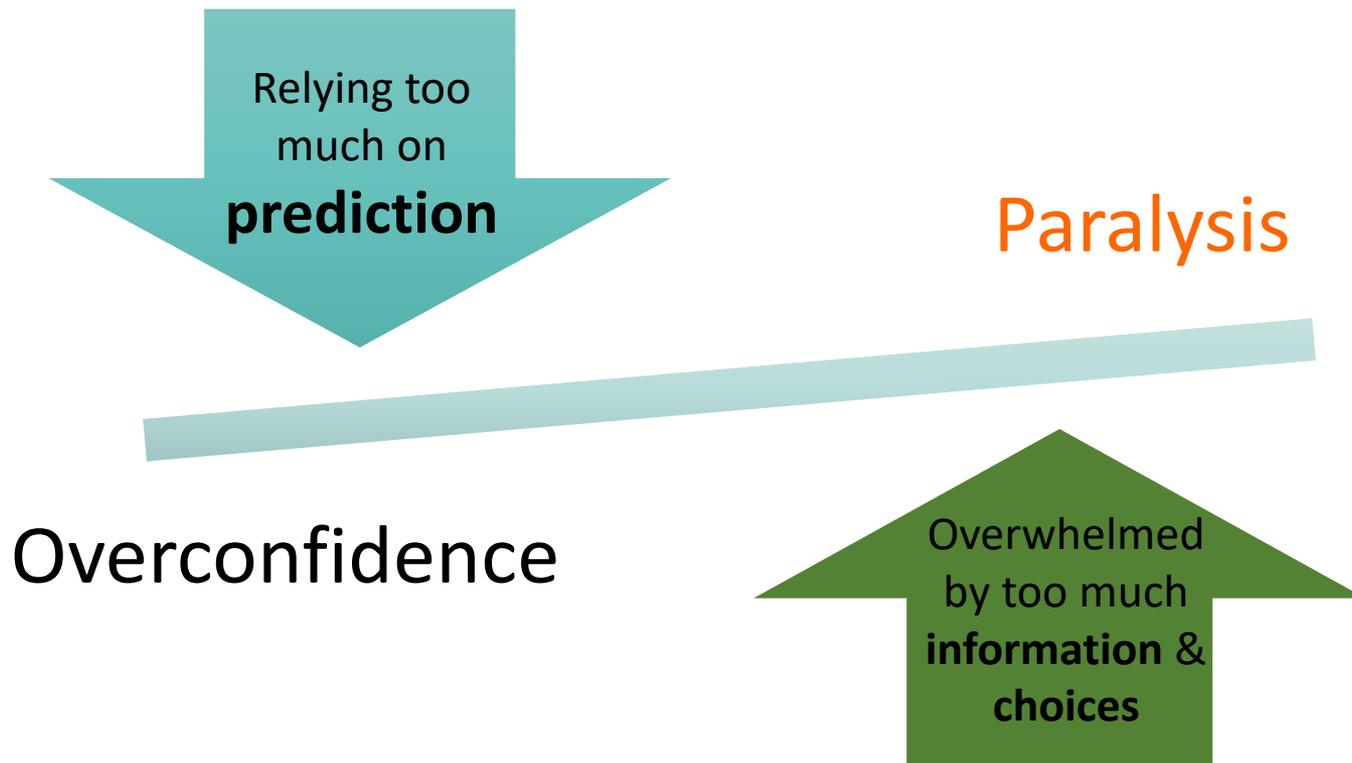
## ARE

- Multiple possible futures
- Hypotheses
- Stories
- Designed to shift our thinking
- Customized to context

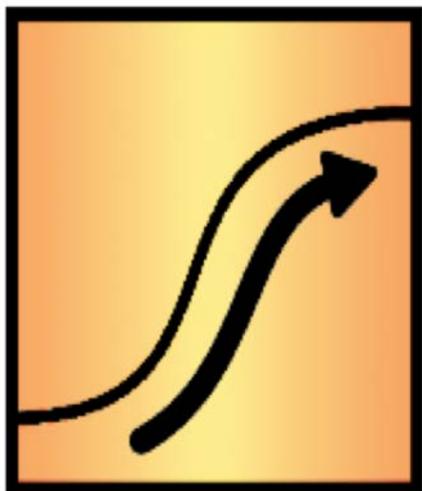
## ARE NOT

- Single futures
- Predictions
- Plans
- Designed to reinforce certainty
- “Off the shelf”

# Scenario planning navigates a balance

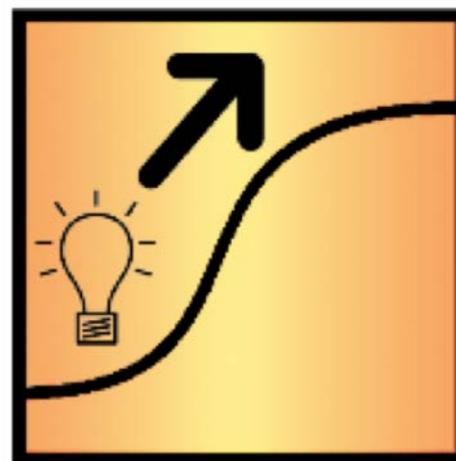


# A Tool for Planning & Collaboration: Scenario Planning Helps Us do BOTH



## Adapt to the future

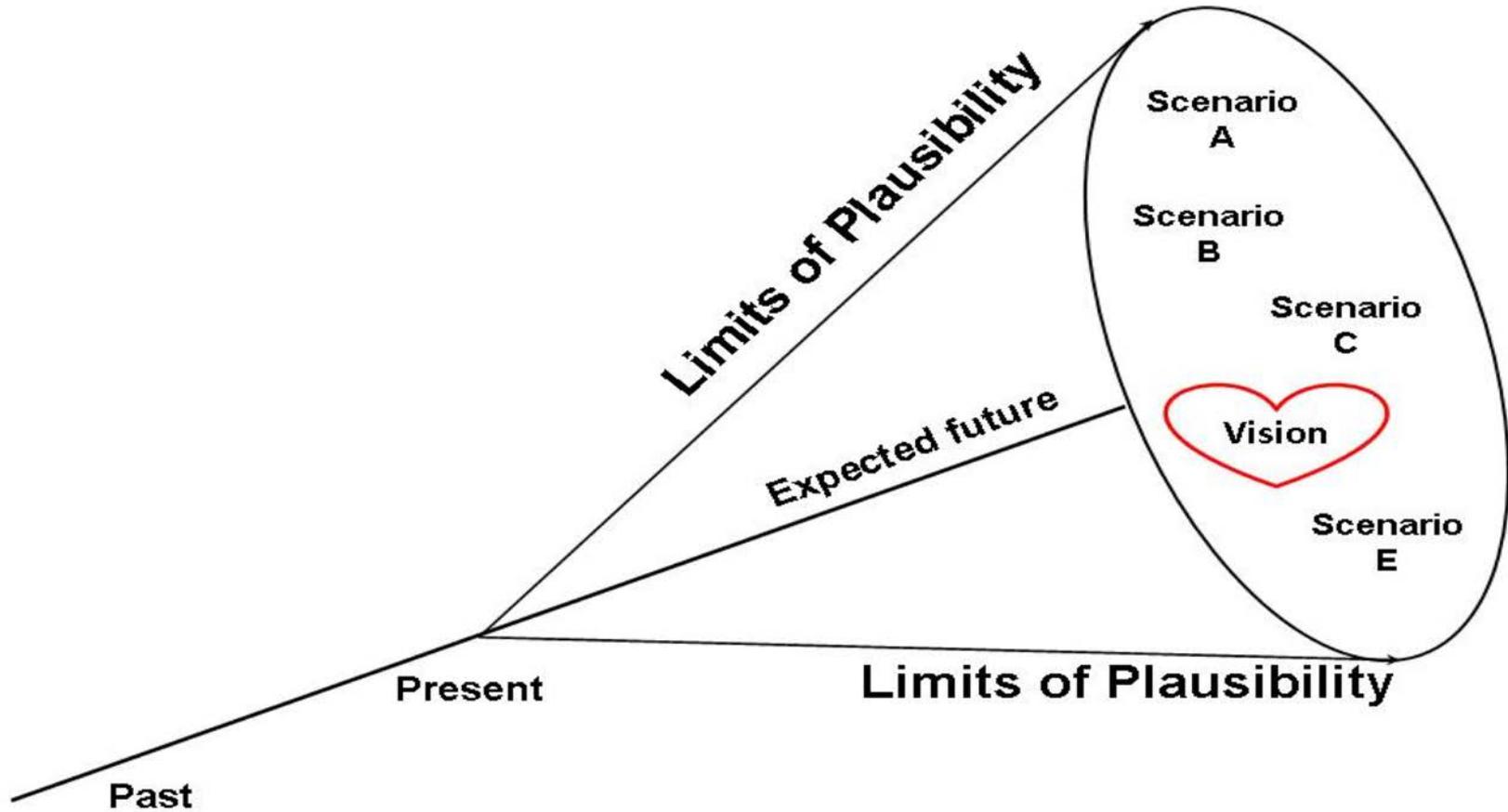
- Analytical Skills
- Strategic Risk Frame
- About **anticipating & adapting**



## Shape the Future

- Imaginative Skills
- Possibility Frame
- About **co-creating new realities**

# Balancing adaptive & normative stances

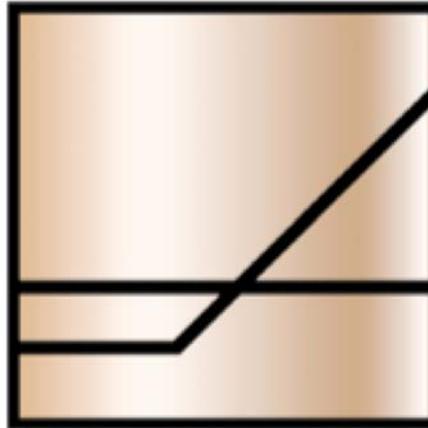


# From Scenarios to “Backcasting” the Vision

Scenario	Value
1.	+
2.	+
3.	+
4.	+

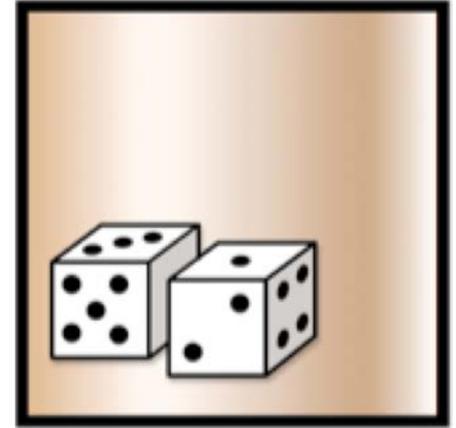
## No-regrets moves

Strategic decisions that have positive payoffs in any scenario.



## Options

Decisions that yield a significant positive payoff in some outcomes & a [small] negative effect in others.



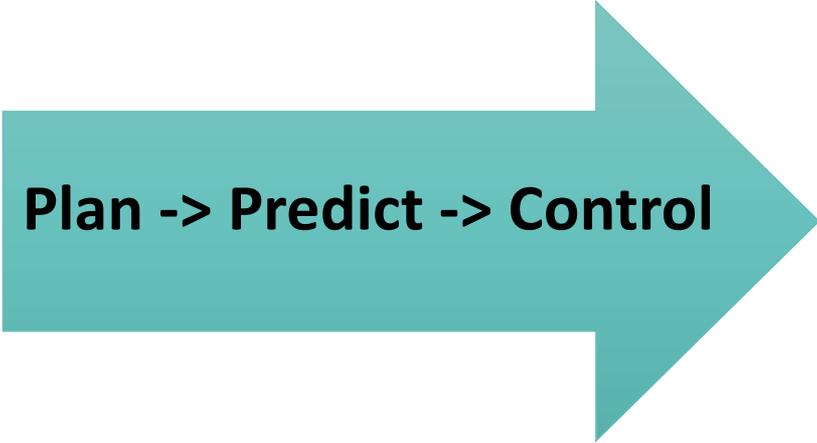
## Big Bets

Focused strategies with positive payoffs in one or more scenarios but a negative effect in others.

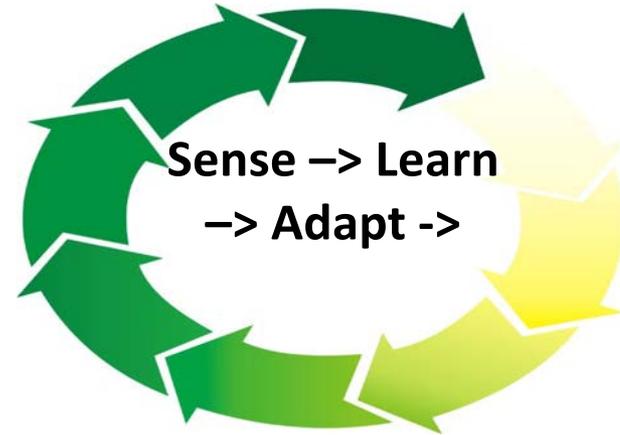
“There are two main purposes of scenarios: one is to avoid regret; the other is positive and creative – to see new strategic options that you were previously not aware of.”

**-Pierre Wack**, one of the pioneers of scenario thinking at Royal Dutch Shell

# Changing Planning Paradigm



**Plan -> Predict -> Control**



- Linear
- Static
- About the “Plan”
- About prediction
- About answers & experts

- Dynamic
- About the “strategic conversation”
- About managing uncertainty
- About collaboration and continuous learning

# Learning for the future

“**Adaptive learning** is the ultimate aim of scenario work because it signals an organization [or group] that learns and changes from its own experience to navigate a constantly changing context.”

- Chermack (2015: 85)



An aerial photograph of San Francisco, California, showing the city's dense urban landscape and the San Francisco Bay in the background. The image is overlaid with a semi-transparent teal color. The text "What Did We Learn?" is centered in the upper half of the image in a white, serif font.

What Did We Learn?

# What Did We Learn?

- Drivers of Change
- The Four Future Scenarios
- Strategic Implications

# Drivers of Change

## Learning About Possible Changes

- ‘Co-Learning’ Events
  - Future of Mobility
  - Future of Work
  - ‘Tensions of Change’ in an SF neighborhood
- Two Futures Task Force Workshops
  - Scenario-Building
  - Strategic Implications



# Drivers of Change

ConnectSF Givens	ConnectSF Uncertainties
<ul style="list-style-type: none"><li>• Climate change, resource scarcity, and natural disasters</li><li>• Demographics</li><li>• Earthquake risk</li><li>• Aging infrastructure</li><li>• Public distrust in government</li><li>• Rapid technological change</li></ul>	<ul style="list-style-type: none"><li>• Regional Economy</li><li>• 21st Century Infrastructure</li><li>• Changing Mobility Landscape</li><li>• Public Health Influences</li><li>• Lifestyle Choices and Values</li><li>• San Francisco's Adaptive Capacity</li><li>• <b><i>Inequality and Polarization</i></b></li><li>• <b><i>Governance</i></b></li></ul>

# Key Drivers of Change, as Axes

## Defining the Range of Uncertainty

*Low*

*High*

Small role  
for gov't

Low gov't  
funding

Large role  
for gov't

High gov't  
funding

**SOCIAL - POLITICAL WILL**

Resources,  
wealth  
concentrated

SF residents  
mostly upper-  
income

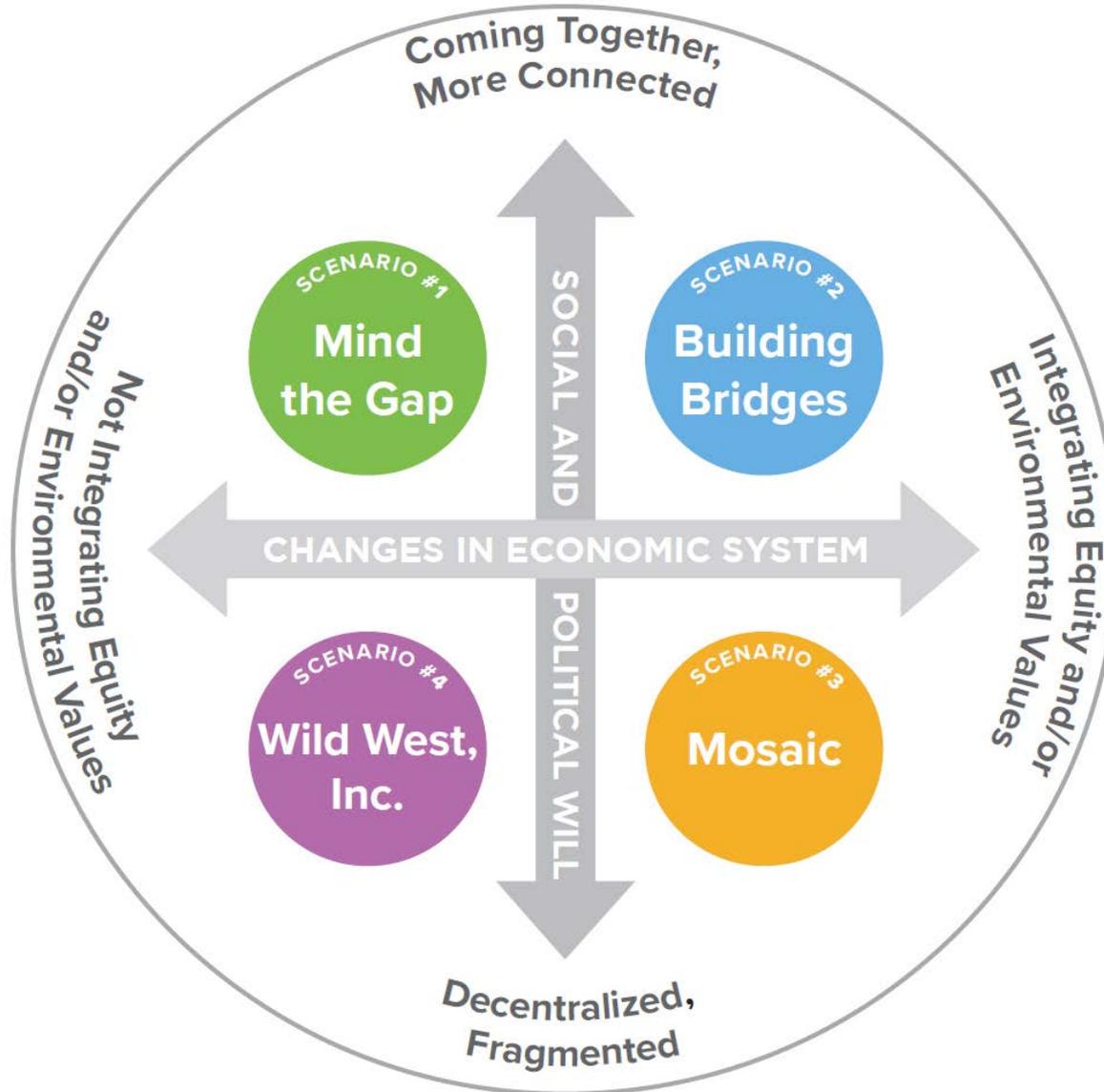
Resources  
distributed  
widely

SF residents  
socio-  
economically  
diverse

**ECONOMIC EQUITY/SYSTEM**

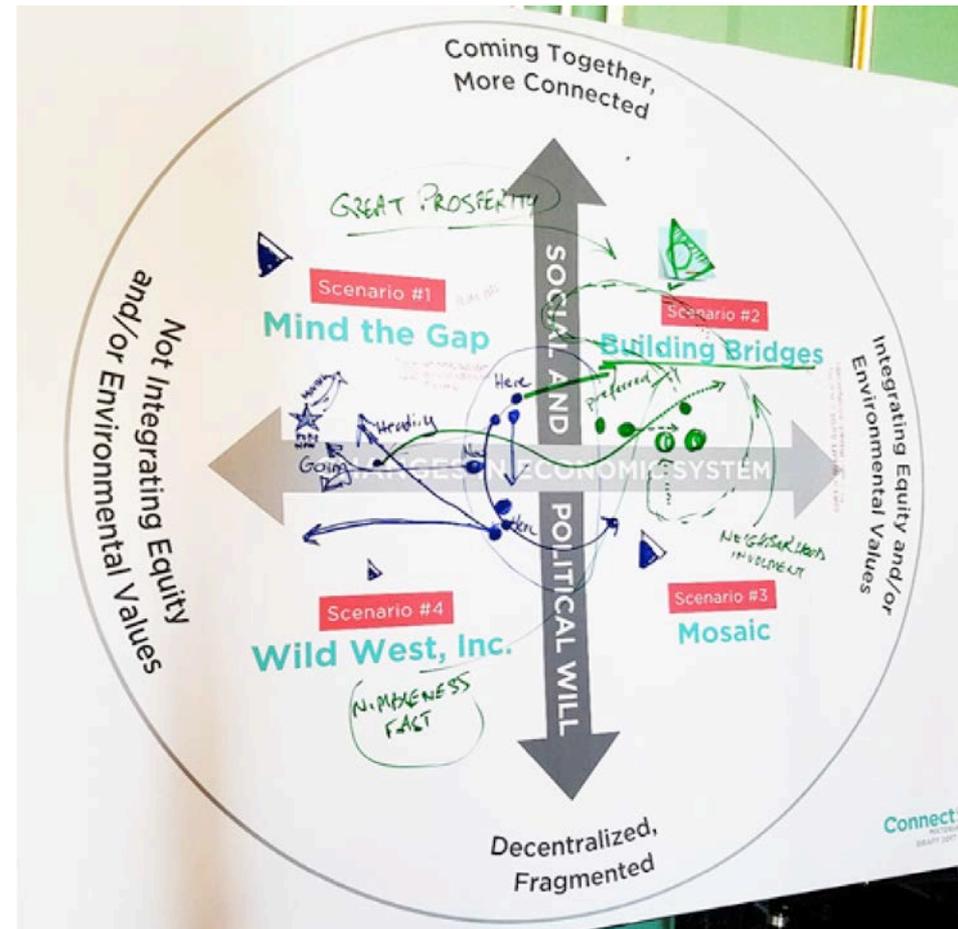
# ConnectSF Scenario Matrix

4 quadrants = 4 possible futures



# Strategic Implications

- Which scenarios are desirable, undesirable?
- How to avoid undesirable scenario(s)?
- How to move toward desirable scenario(s)?
  - Civic engagement
  - Governmental structure, capacity
  - Regulations and policy
  - Transportation funding
  - Transportation innovation
  - Transportation networks and built environment
- Capacity-building



# Implications: Some Performance Metrics

	SAN FRANCISCO TODAY	SCENARIO 1 MIND THE GAP 2065	SCENARIO 2 BUILDING BRIDGES 2065	SCENARIO 3 MOSAIC 2065	SCENARIO 4 WILD WEST, INC 2065
 <b>POPULATION</b> <small>U.S. Census, 2016</small>	<b>870,000</b>	<b>+10%</b> More people	<b>+60%</b> More people	<b>-10%</b> Less people	<b>+40%</b> More people
 <b>RACIAL AND ETHNIC DIVERSITY</b> <small>2015 Five Year American Community Survey</small>	<b>51%</b> People of color	↓↓↓ Less diverse	↑ More diverse	↑↑ More diverse	↓↓↓ Less diverse
 <b>MEDIAN HOUSEHOLD INCOME</b> <small>U.S. Census, 2016</small>	<b>\$81,000</b>	↑↑↑↑ Higher median income	↑↑↑ Higher median income	↓↓ Lower median income	↓ Lower median income
 <b>JOBS</b> <small>SF Planning Commerce &amp; Industry Inventory, 2014</small>	<b>610,000</b>	<b>+50%</b> More jobs	<b>+70%</b> More jobs	<b>-30%</b> Less jobs	<b>+40%</b> More jobs
 <b>MODE SPLIT</b> <small>San Francisco Performance Scorecard, FY 2016</small>	<b>30%</b> Of trips are in an SOV (single-occupancy vehicle)	<b>-20%</b> Lower SOV trip rate	<b>-70%</b> Lower SOV trip rate	<b>0%</b> No change	<b>+30%</b> Higher SOV trip rate
 <b>CONGESTION</b> <small>MTC Vital Signs 2016</small>	<b>8.6%</b> Of vehicle-miles are in congestion	↑↑↑ More congestion	↑↑ More congestion	↓↓ Less congestion	↑↑↑↑ More congestion
 <b>EQUITY OF ACCESS</b> <small>PBA Equity Analysis report, 2013</small>	<b>23 Min.</b> Commute from low-income areas is similar to average commute.	↑↑↑ Longer commute from low-income areas	No change	↑ Longer commute from low-income areas	↑ Longer commute from low-income areas
 <b>TAXES</b> <small>SF property taxes 2015-16, divided by number of residents</small>	<b>~\$2,000</b>	↑↑↑↑ Higher taxes	↑↑↑ Higher taxes	↓↓ Lower taxes	↓ Lower taxes

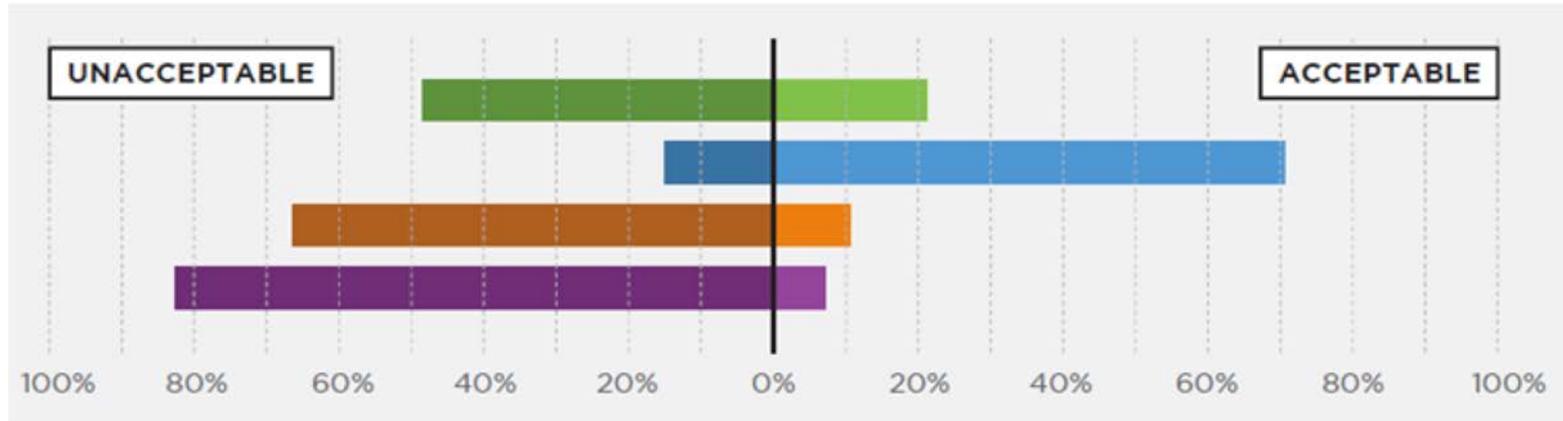
This information is for illustrative purposes for ConnectSF and no other city projects or programs. It is not a forecast.

# Outreach Feedback

Do you think this scenario is acceptable or unacceptable?

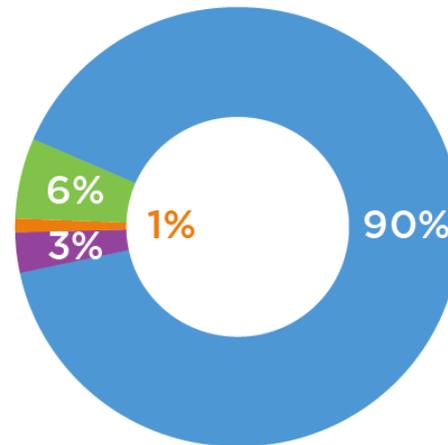


## SURVEYS



## FOCUS GROUPS

What scenario did people most prefer for the future of San Francisco?



Scenarios: ■ Mind the Gap ■ Building Bridges ■ Mosaic ■ Wild West, Inc.

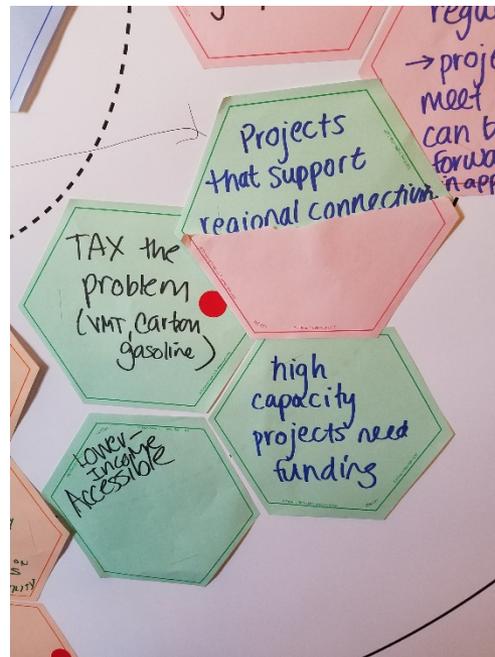
# Reaching 'Building Bridges'

## What Is Needed?

- Visionary leadership
- Equity considered at all stages of planning
- Citizen participation and civic engagement
- Regional thinking and coordination
- Political willpower
- Expanding access to emerging mobility services



Who	Start	Stop	Continue
City	Spatious, collaboration oriented transit agencies	holding efforts to build up	reclaiming open space for both
Economic Development/ Tech	renewable hubs increasing transit	Subsidizing disabled transit workers or employees	reclaiming open space for both
NGO / Business Community	Building housing in office space	University/AVIA	Active ways to get around
All / Public	Exclude public on highways	Shift in part to all conference	after school programs to



An aerial photograph of a city skyline, likely San Francisco, with a teal overlay. The text is centered over the image.

# Theory, Practice, Challenges, and Breakthroughs

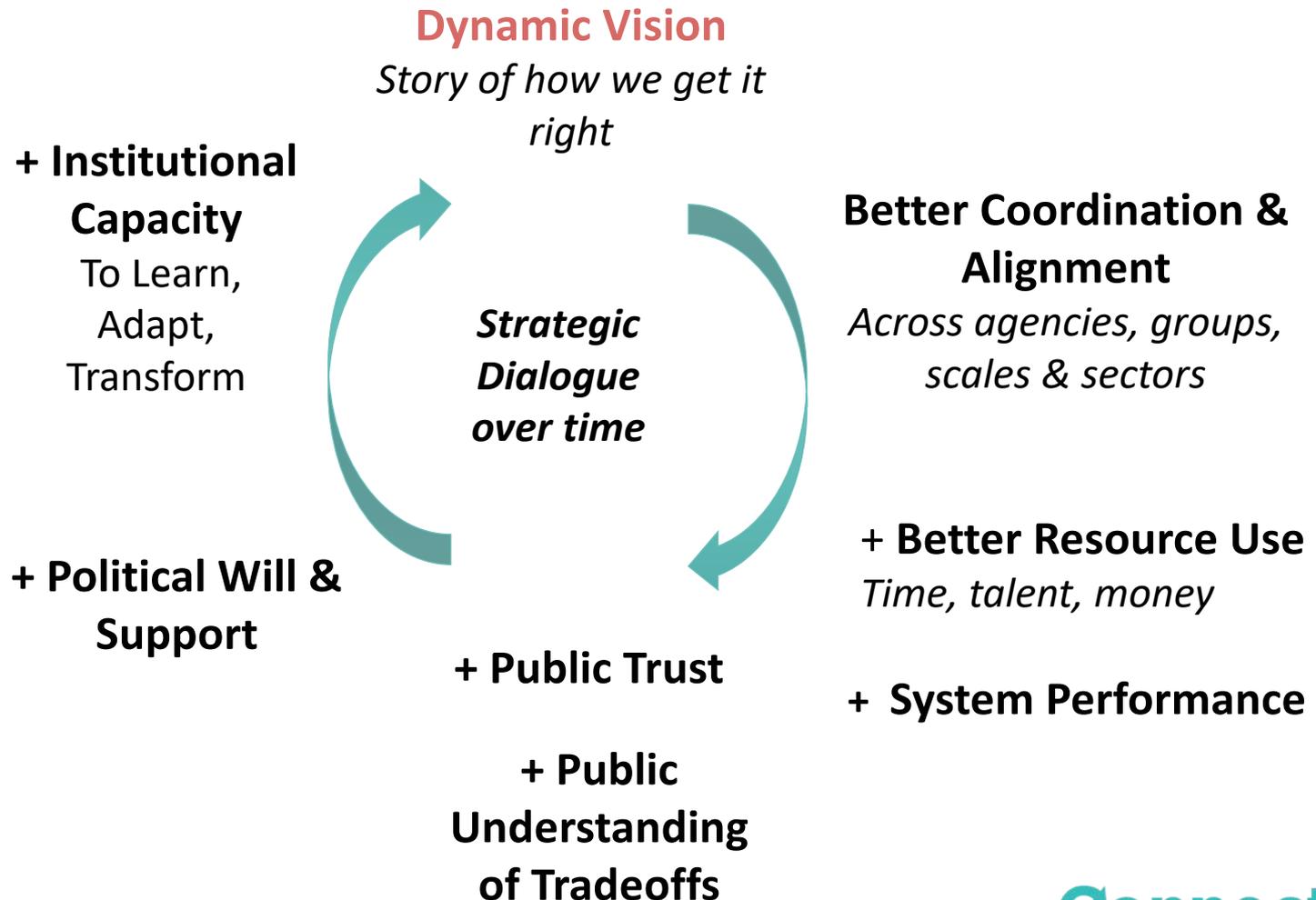
# Connect SF: Desired Outcomes

## From Director's Interviews April 2016

- 1. New Capacities for Shared Decision-Making & Action** that significantly improves SF's ability to do effective, cutting-edge planning, benefiting people in the city in the short and longer-term
- 1. Greater Public Engagement & Understanding** regarding future transportation choices and investments. This includes adding new voices, not just "the usual suspects."
- 2. Greater Political Engagement & Support** across key stakeholders for a robust transportation vision, key choices, and on-going planning for the shorter and longer-term.

# What is ConnectSF Solving for?

## Creating 'virtuous circles'



# What happened in practice?

**Act 1:** Resistance to project by leadership (and others)

- “The 9 Lives of ConnectSF”
- Key Barriers: a) political b) governance c) linear mental models of planners d) low trust e) disbelief in change



# What happened in practice?

- **Act 2:** But the project **wouldn't die!**
  - Because the perceived need was great AND emerging leaders stepped in
- **Act 3:** Successful workshops energized the system -> perceived to be an “innovative engagement experience” for most Future Task Force members
- **Act 4:** *Where we are now* -> Circling back to Scenarios, Institutionalizing Learning and Social capital built

# Why does this work when other methods fail?



# Why does this work when other methods fail?

- It's **story-based**
  - Stories of the future (and present) travel easily; powerful tools for transmitting complex tradeoffs, and mobilizing collective action over time
- It's a systems thinking tool identifying **key levers of change** and depolarizes thinking (*"it's the system not you as person"*)
- It's a **participatory shared learning process** that can transform people's sense of agency and responsibility
- It's an indirect method allowing multiple agendas to coexist
  - **Consensus** is not required for future movement to occur

“Stories are tools for knowing and judging. Change the stories, you change the way we live.”

An aerial photograph of a city, likely San Francisco, showing a dense urban landscape with numerous buildings and streets. The image is overlaid with a semi-transparent teal color. The text "Possibilities for Other Planning Projects" is centered in a white, serif font.

# Possibilities for Other Planning Projects

# Bringing Scenario Planning Principles to Other Planning Projects

- A structured way to think about alternative futures, beyond just extrapolating
  - Example: AVs will make most street-based transit services obsolete. How can we help transportation agencies consider such a future?
- Typical planning:
  - One future, one set of assumptions, one set of projections
- Scenario planning is about multiple possible futures
  - Less important to get to high confidence in one estimate of future performance
  - More important to ‘test’ projects and plans in multiple scenarios
    - Example: Road pricing

An aerial photograph of San Francisco, California, showing the city's dense urban landscape and the San Francisco Bay in the background. The image is overlaid with a semi-transparent teal color. The text "What's Next for ConnectSF?" is written in white, serif font across the center of the image.

# What's Next for ConnectSF?

# The Vision



**Equity**



**Economic  
Vitality**



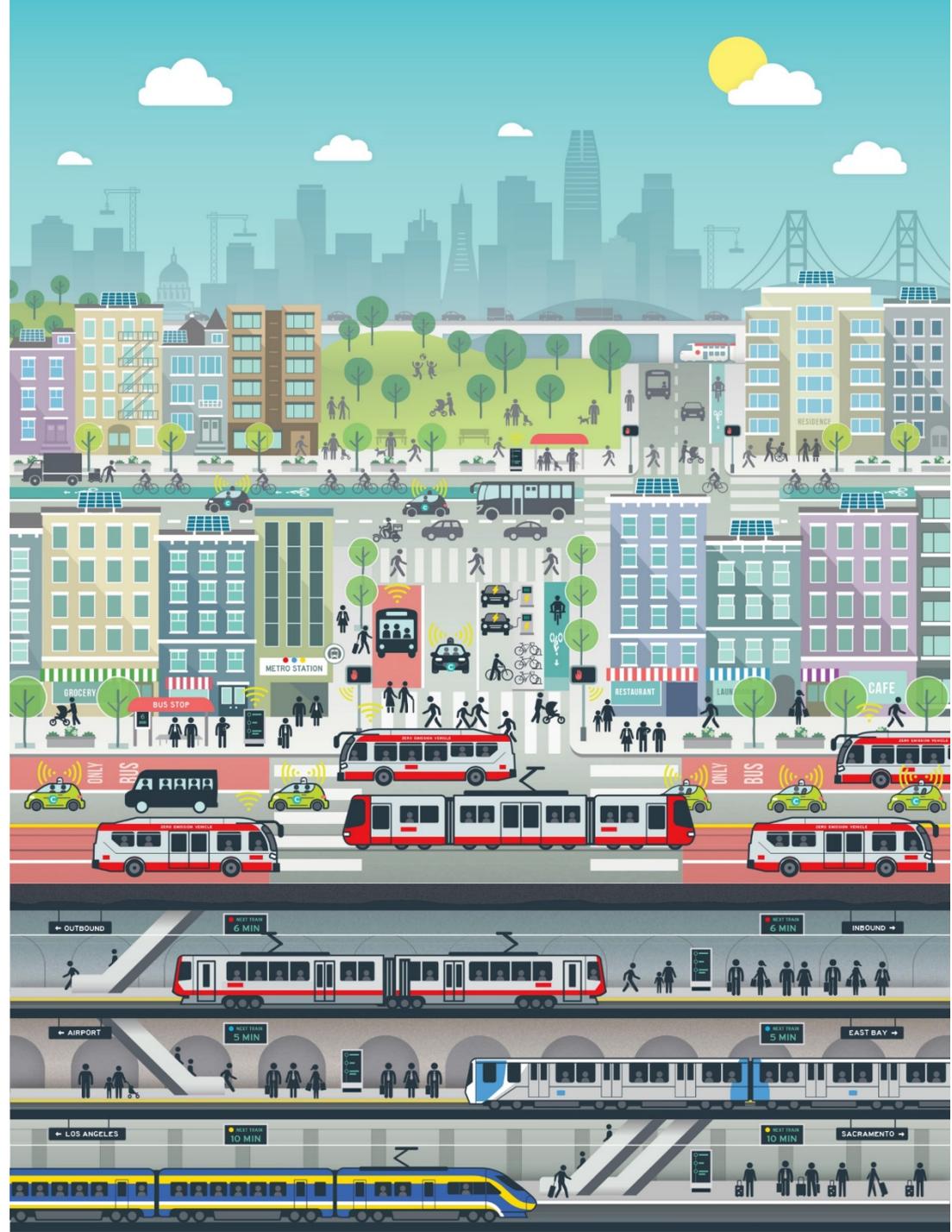
**Environmental  
Sustainability**



**Safety and  
Livability**



**Accountability and  
Engagement**



# Process Findings

- 1) Scenario planning is a strong tool...
- 2) But is difficult to use with “standard transport planning”
- 3) The public wants to know the City is struggling with uncertainty – they are too!

# Recommendations

- 1) Educate with planning assumptions
- 2) Be open to what you discover
- 3) Build adaptive frameworks with your partners



2065 VISION



Transit Corridors Study



Streets & Freeways Study



Countywide Transportation Plan



Transportation Element Update

An aerial photograph of the San Francisco skyline, featuring prominent skyscrapers like the Transamerica Pyramid. The image is overlaid with a semi-transparent teal color. The text 'Thank you' is centered at the top in a white serif font.

# Thank you

[doug.johnson@sfgov.org](mailto:doug.johnson@sfgov.org)

**ConnectSF**