What do local government staff say?

Evaluating California's local reach code adoption and implementation process

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Photo by Grant Porter from unsplash.com

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Agenda

01
Context

02
Survey Results

03
Discussion

04
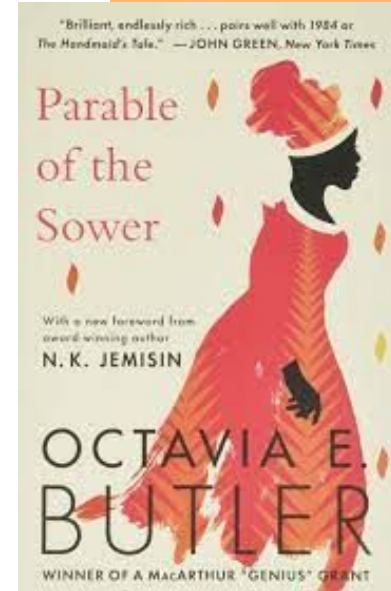### Facilitated Q & A

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Objectives for Today

After the presentation the audience will be able to:

1. Gain new insight on the CA reach code adoption and implementation process
2. Identify nascent trends across jurisdictions
3. Provide feedback on the next steps for understanding new construction reach code adoption and implementation

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"All that you touch You Change. All that you Change Changes you. The only lasting truth Is Change."
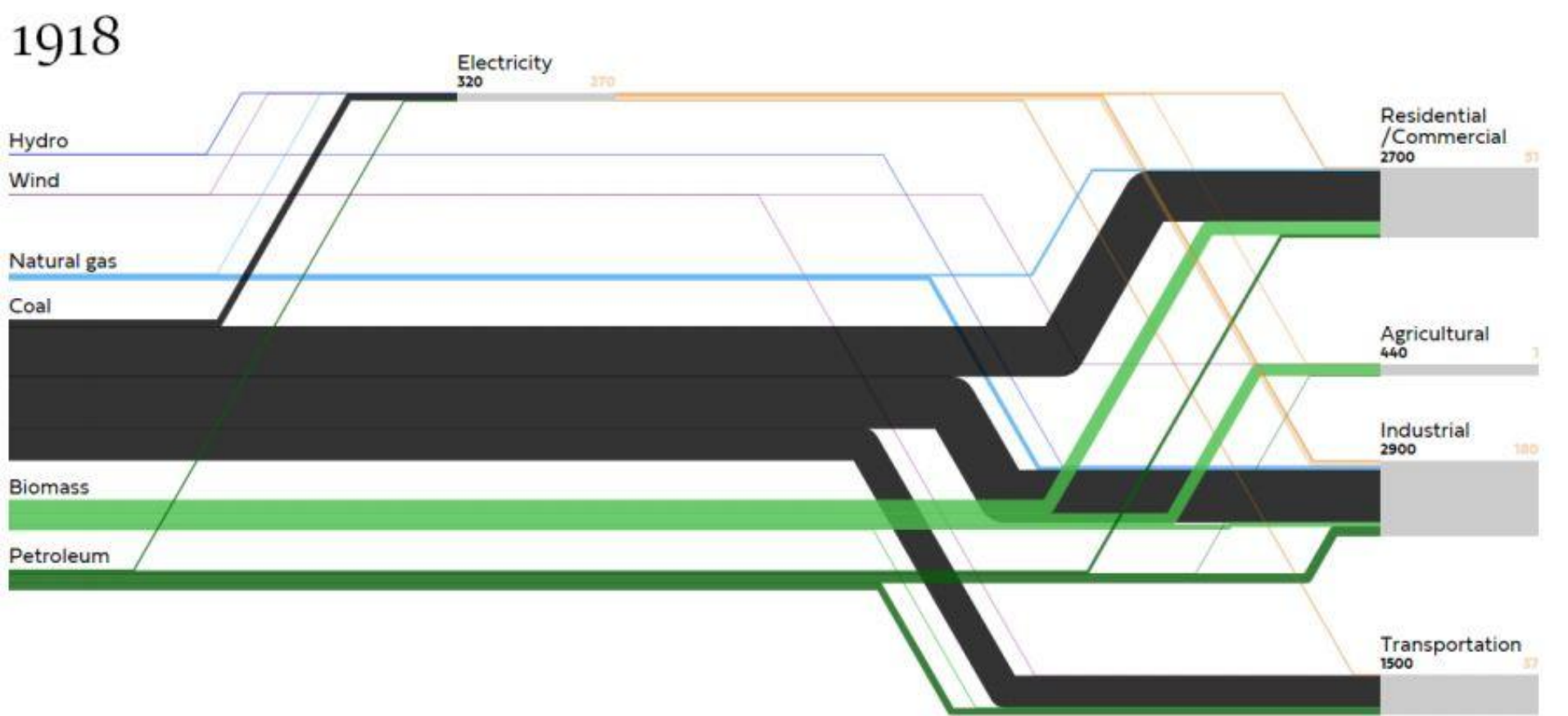
– Octavia E. Butler, Parable of the Sower

"Brilliant, endlessly rich . . . pairs well with 1984 or The Handmaid's Tale." —JOHN GREEN, New York Times

Parable of the Sower

With a new foreword from award-winning author
N. K. JEMISIN

OCTAVIA E. BUTLER

WINNER OF A MacARTHUR "GENIUS" GRANT

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1865

Hydro
Wind
Coal
Biomass
Petroleum

Residential/Commercial 2800
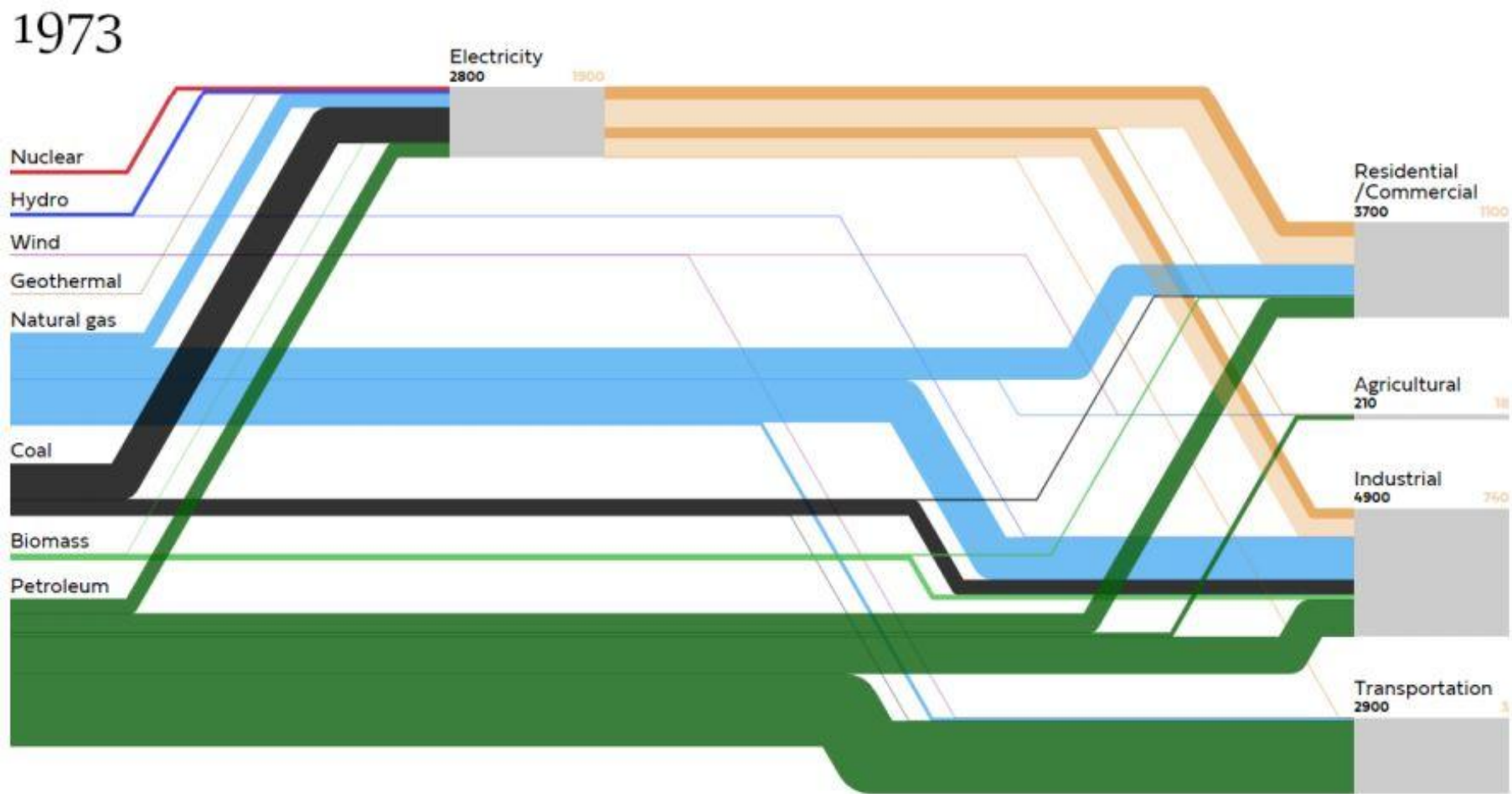Agricultural 370
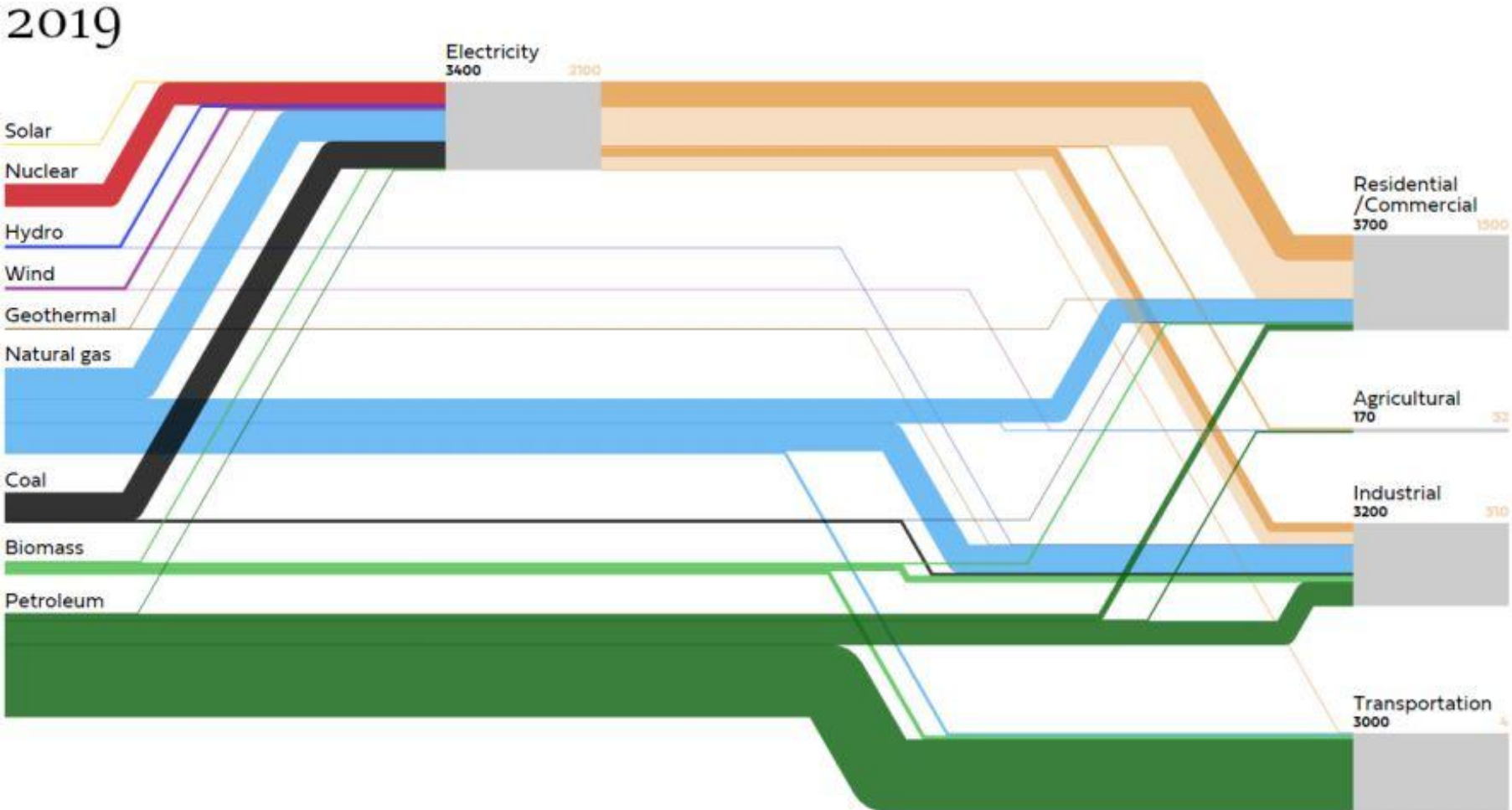Industrial 320
Transportation 170

Source: The U.S. Energy History Visualization Project - University of Chicago's Center for Robust Decision-making on Climate and Energy Policy (RDCEP), documented in Suits, Matteson, and Moyer, 2020

1918

Electricity
320   370

Hydro

Wind

Natural gas

Coal

Biomass

Petroleum

Residential/Commercial
2700   57

Agricultural
440   7

Industrial
2900   180

Transportation
1500   57

Source: The U.S. Energy History Visualization Project - University of Chicago's Center for Robust Decision-making on Climate and Energy Policy (RDCEP), documented in Suits, Matteson, and Moyer, 2020

1973

Electricity
2800 · 1900

Nuclear
Hydro
Wind
Geothermal
Natural gas
Coal
Biomass
Petroleum

Residential/Commercial
3700 · 1100

Agricultural
210 · 18

Industrial
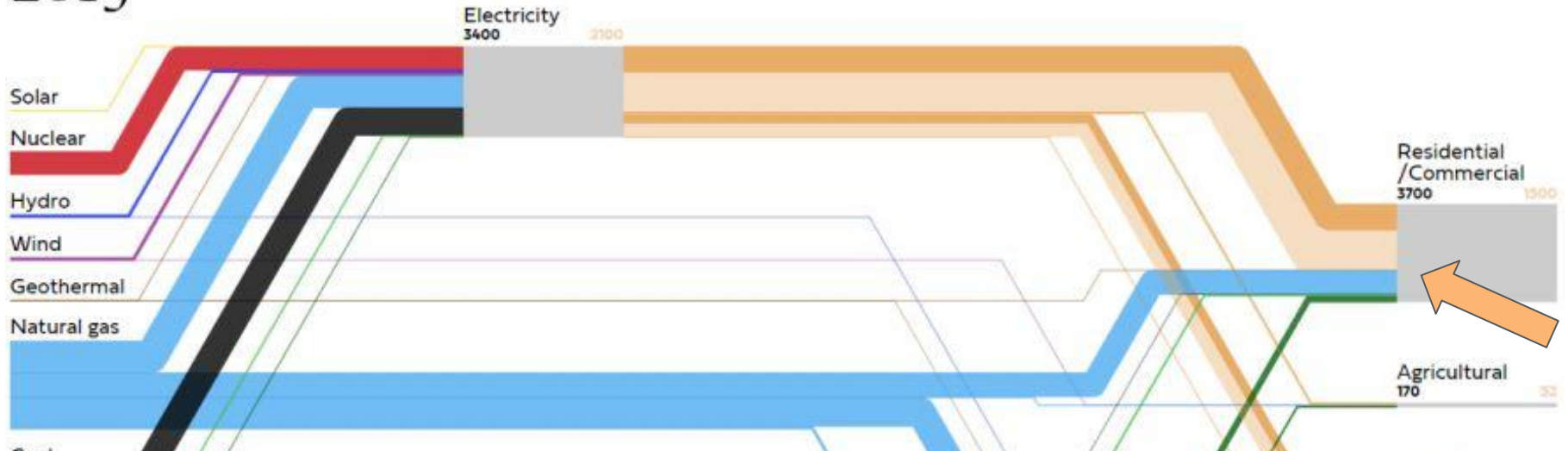4900 · 760

Transportation
2900 · 3

Source: The U.S. Energy History Visualization Project - University of Chicago's Center for Robust Decision-making on Climate and Energy Policy (RDCEP), documented in Suits, Matteson, and Moyer, 2020

2019

Solar
Nuclear
Hydro
Wind
Geothermal
Natural gas
Coal
Biomass
Petroleum

Electricity
3400   2100

Residential/Commercial
3700   1500

Agricultural
170   32

Industrial
3200   310

Transportation
3000   4

Source: The U.S. Energy History Visualization Project - University of Chicago's Center for Robust Decision-making on Climate and Energy Policy (RDCEP), documented in Suits, Matteson, and Moyer, 2020

What are reach codes for new construction?

Zero-emission building ordinances adopted at the local level that exceed statewide code. For this survey, the term reach codes refers to various tools at local governments disposal to advance emissions reductions.


2019

Electricity
3400   2100

Solar

Nuclear

Hydro

Wind

Geothermal

Natural gas

Residential
/Commercial
3700   1500

Agricultural
170   52

1. California Overview

46 Local Governments in California have taken action on New Construction since July 2019

Quantity of Ordinances by Approach

■ Natural Gas Infrastructure Moratorium ■ All-Electric Reach ■ Electric-Preferred
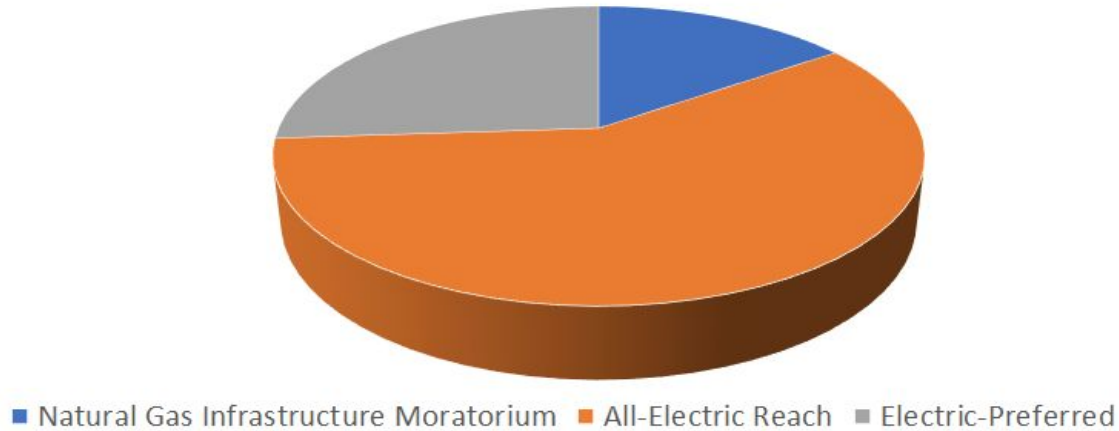
Most cities have opted to use a reach code

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Why new construction reach codes?

Health

Safety/ Resilience

Climate

Equity considerations

2. Survey Goal

Evaluate the zero-emission reach code adoption and implementation process in California local jurisdictions.
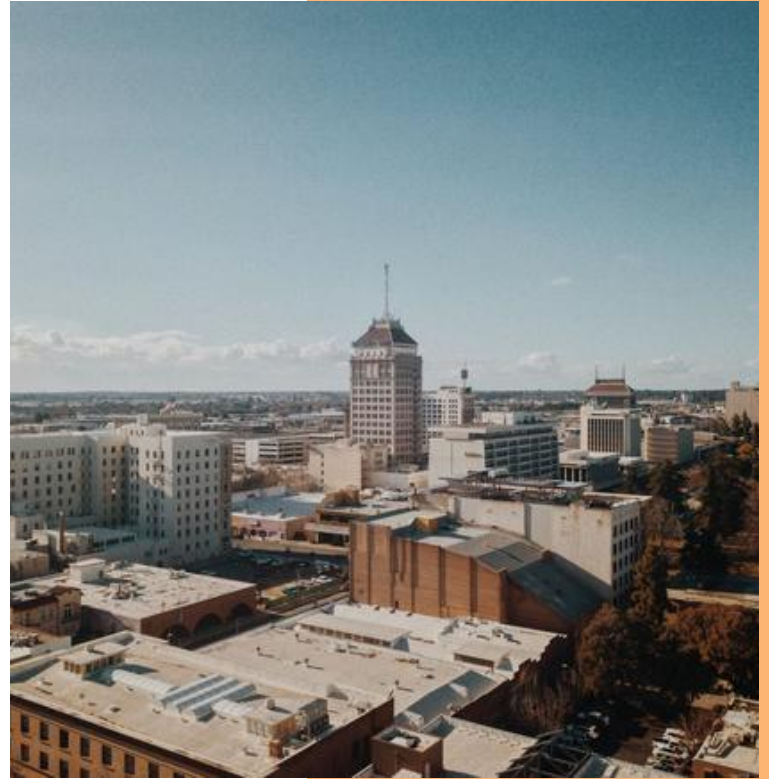

Photo by Grant Porter from unsplash.com

Acterra
ACTION FOR A
HEALTHY PLANET

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2. Survey

Number Reporting	
Sustainability Staff	9
Building Staff	6
Planning Staff	1
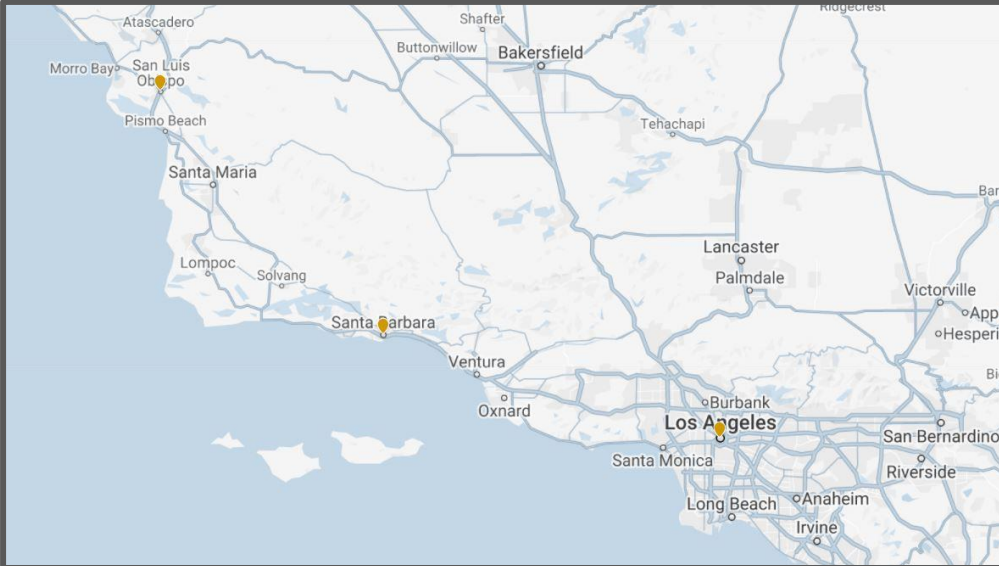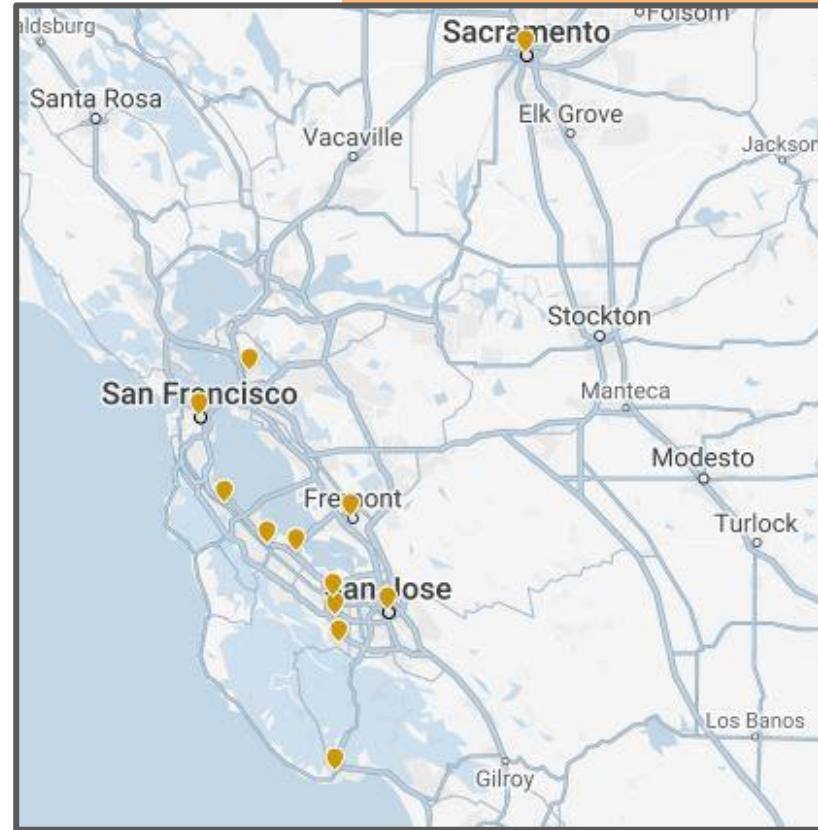
2. Survey

Responses by Code Type

- Electric-preferred 6.3%
- All-electric 43.8%
- Gas Moratorium 18.8%
- In development 31.3%

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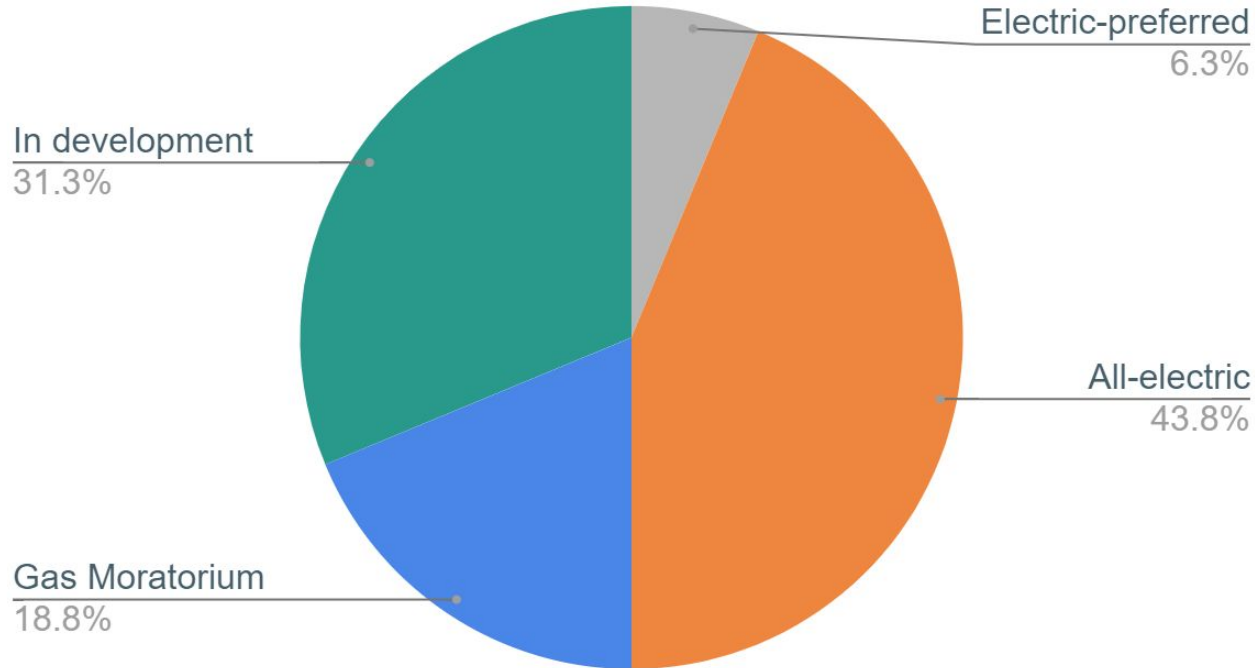
2. Questions

Adoption:
- Connecting with stakeholders
- Improve/change process.
- Additional resources
- How likely to pursue again?

Implementation:
- How many total projects?
- How many mixed use projects?
- How many units?
- How many affordable units?

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On a scale of 1-5, with 5 being most difficult, how difficult did you find each of the following elements of code adoption?

Key

Technical

Relational
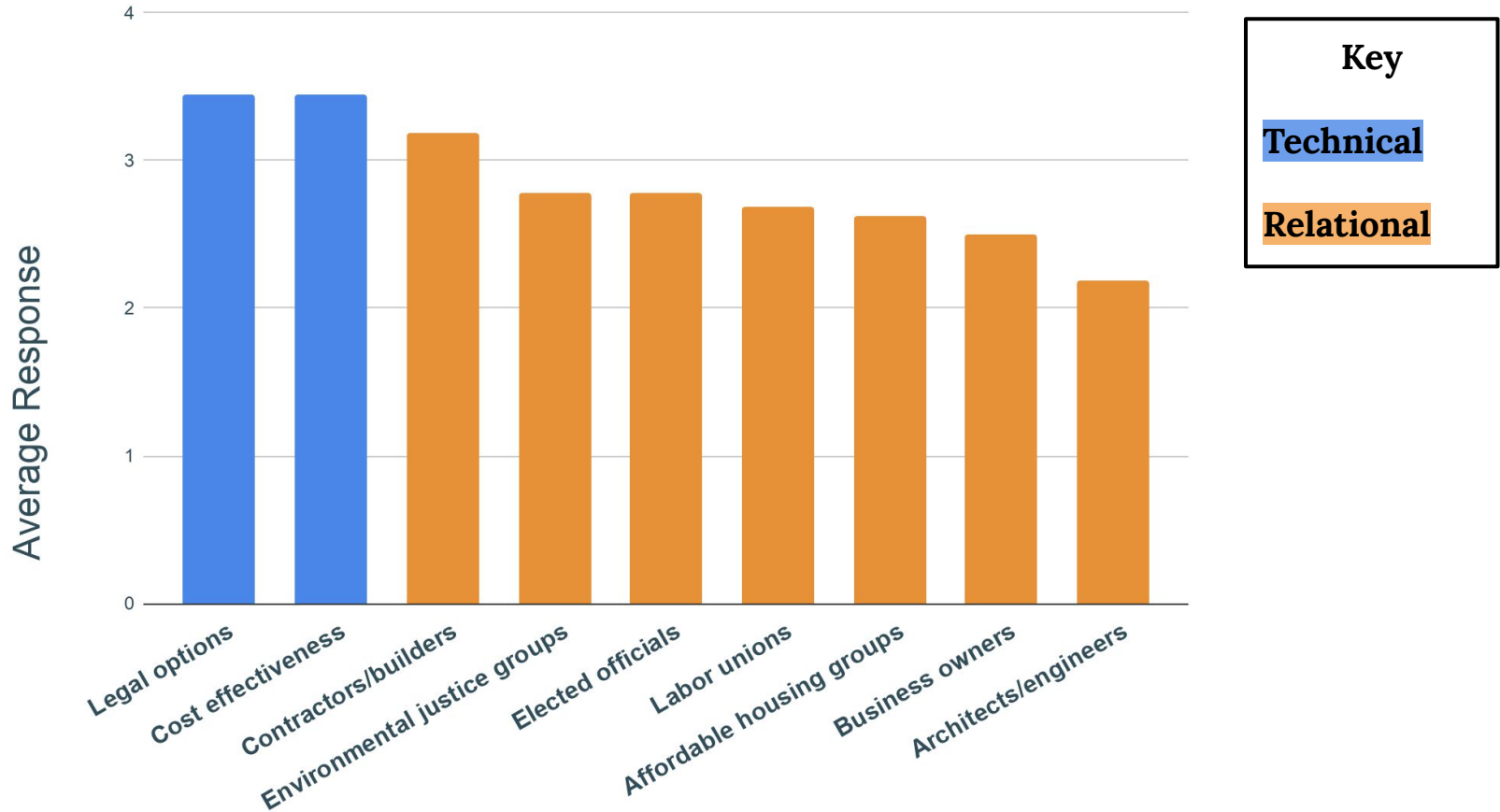
2. Adoption Process Qualitative

What resources are most needed to improve or change the process?

1. **Outreach/Information**
   a. for consumers
   b. for developers
2. **Technical support**
   a. code language
   b. Legal support
3. **All Electric**
   a. Exemptions confusing
4. **Existing building strategy**
   a. Legal
   b. Technical
   c. Political

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How likely are you to pursue a zero-emission building ordinance in your jurisdiction (again) in the 2022 code cycle?
5 = very likely, 1 = not likely

8 out of 9 cities - very likely to re-adopt

2. Implementation

	Number	Percent of Total	Jurisdictions Reporting
Projects approved/constructed	442	100%	8
Mixed Fuel projects approved/constructed	30	6.8%	3
Dwelling units approved/constructed	5269	100%	8
Affordable dwelling units	866	16.4%	8

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2. Implementation

Jurisdictions reporting fossil fuel infrastructure in new construction			
	Number mixed fuel projects out of total approved	**Percent mixed fuel (gas)**	**Type of Ordinance**
Jurisdiction 1	12/60	20%	Electric Preferred
Jurisdiction 2	11/11	100%	All-Electric Reach
Jurisdiction 3	7/29	24.1%	Natural Gas Moratorium

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3. Discussion - Implementation

Examples of Limitations to Mixed Fuel Reporting

- too early to have statistics, likely nearly all will choose gas for cooking.
- We don't track
- We don't collect it on a regular basis

Mixed fuel projects in cities with reach codes

- Opportunities for follow-up
- How are exemptions factoring in? - eg. gas stove and ADUs

Overall

- Policies are in early days of implementation.
- Many are only effective as of a few months ago.
- 93.2% of reported projects were all-electric.

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3. Discussion - Implementation

How many units classified as affordable?

- 16.4% of units reported as affordable
- Jurisdiction reported lack of data or process to track

Greenling Institute Equitable Building Electrification Framework

- Step 3 Develop Metrics and a Plan for Tracking
- How are other equity outcomes being measured?

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3. Discussion - Adoption

- What was the adoption process like?
  - More difficult:
    - Technical - cost effectiveness, legal
    - Relational - contractors/builders, environmental justice groups
  - More straightforward:
    - Relational - architects/engineers

- Alternative modes of assessment?
  - Instead of straightforward to difficult scale, consider "Spectrum of Community Engagement" to Ownership scale *(Rosa Gonzalez, Movement Strategy Center)*
    - Ignore, Inform, Consult, Involve, Collaborate, Defer To

On a scale of 1-5, with 5 being most difficult, how difficult did you find each of the following elements of code adoption?

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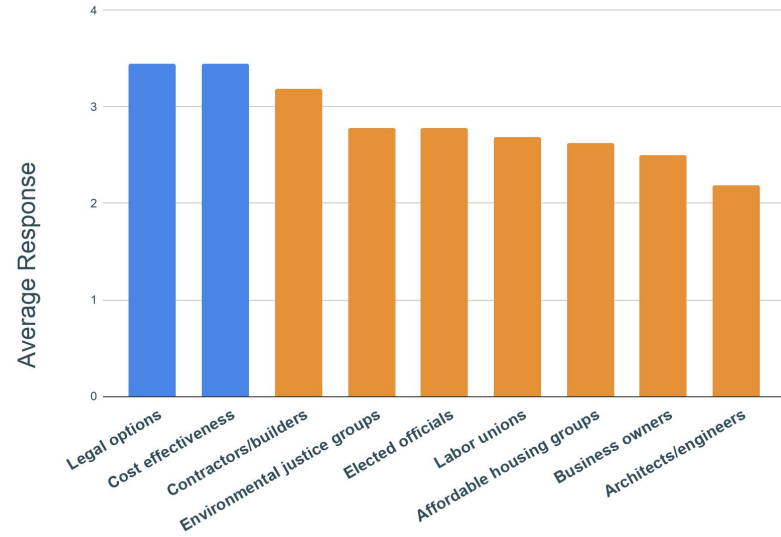
3. Discussion - Adoption
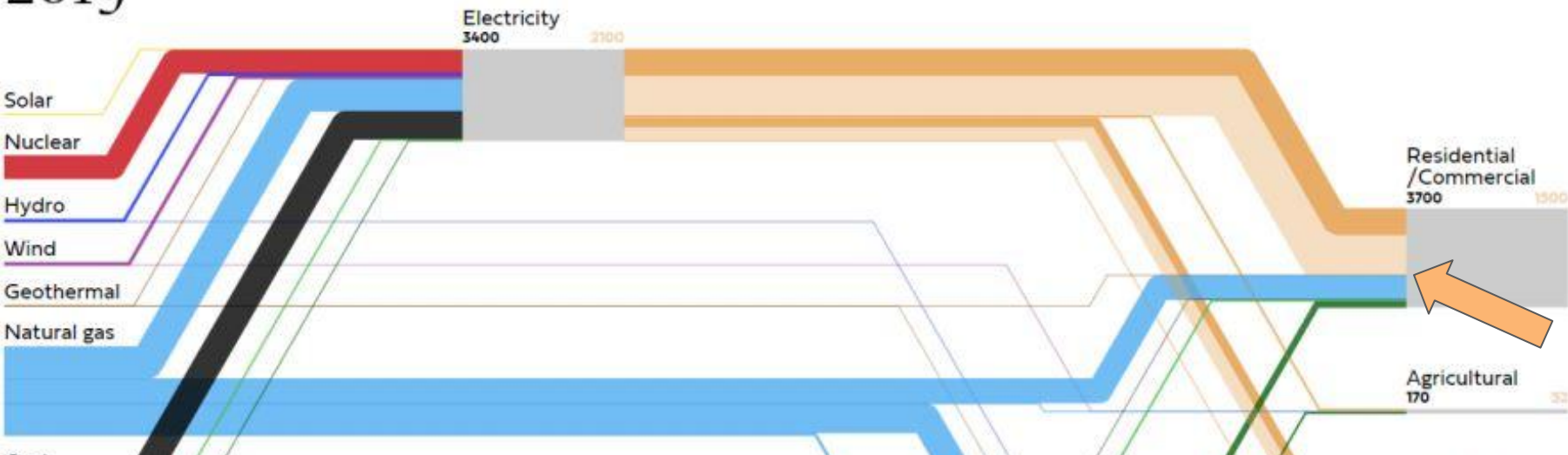
How to improve or change the adoption process?

- Strong willingness to do the process again next time
- Outreach and Education
- Technical and Legal

The need for coordination and knowledge sharing is great feedback for non-profit organizations and government agencies to know as we design programs to incentivize these actions.
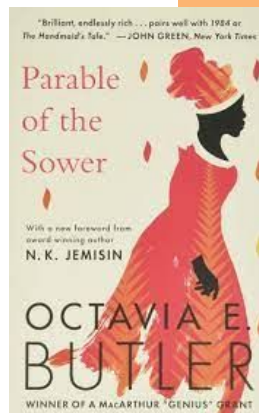
Additional resources
- BDC's Clean Building Compass

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170   32

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4. Q & A

- Synchronous and asynchronous discussion
- Google doc
  - What questions do you have?
  - Are there aspects of the results that surprised you?
  - What other information would be helpful for you?
  - How can we make this information more useful to you?
  - What else would you like to see?

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THANK YOU!

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t @buildingdecarb

Additional Resources

CREDITS: This presentation was created using Slidego, with icons via Flaticon, infographics via Freepik, and images via Pexel and Unsplash.