

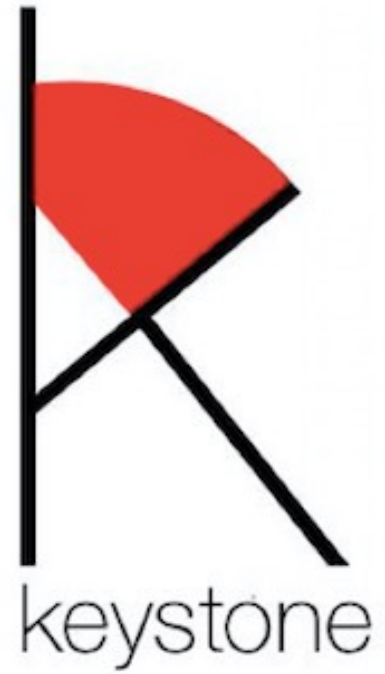
Maglev Transportation

to enable the development of

Sustainable Cities

ideas@keystone.ventures





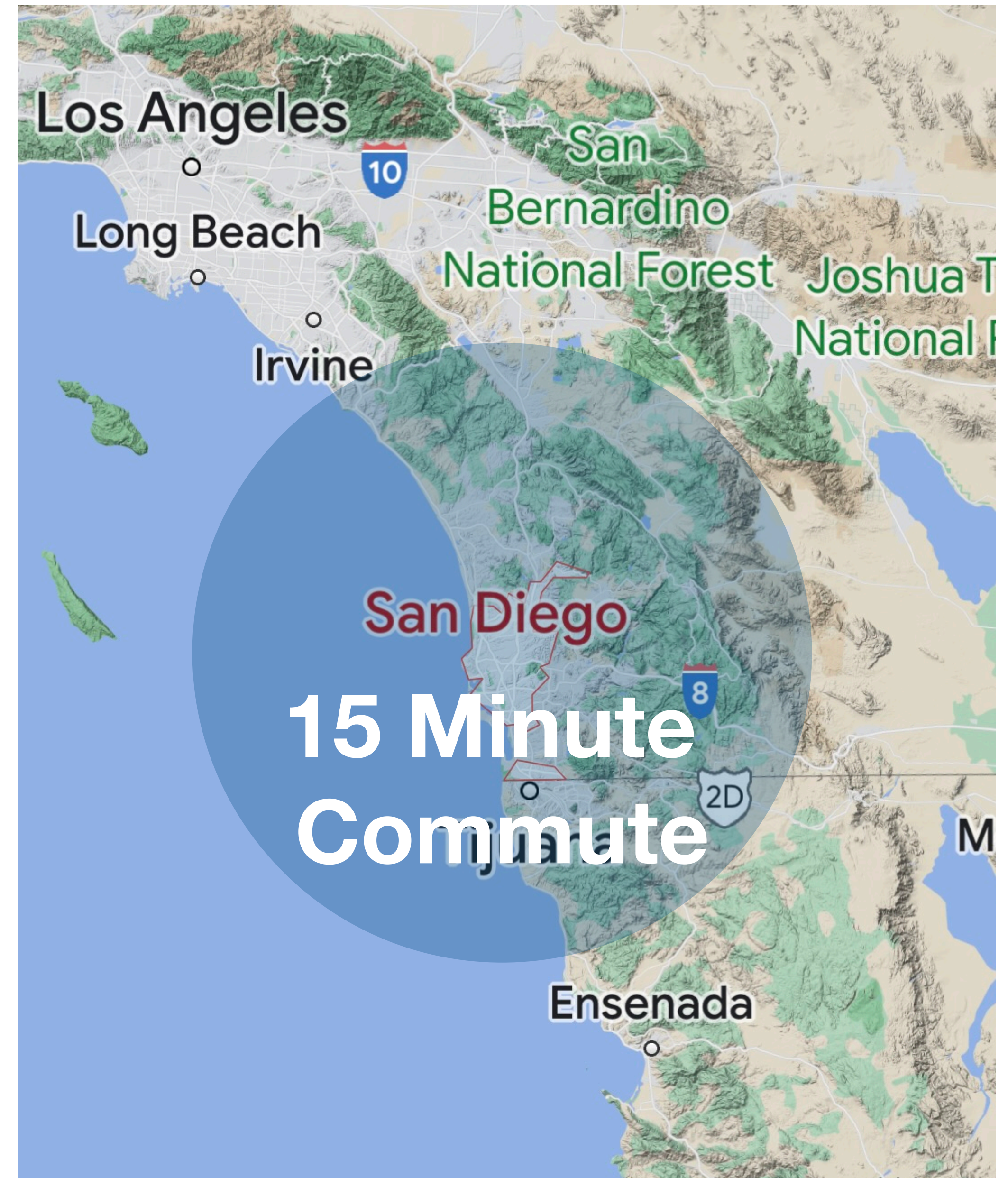
Our Helix Maglev

- Faster: 250 mph
- Cheaper: \$16M/mile, 8 cents per passenger mile
- High ridership: 20,000+ PPHPD
- Easier to build anywhere
- Zero emissions

Creates fast access to **Inexpensive Land**

fewer restrictions
less NIMBY
less Red Tape
economies of Scale

up to 35% less cost
for new **Housing**

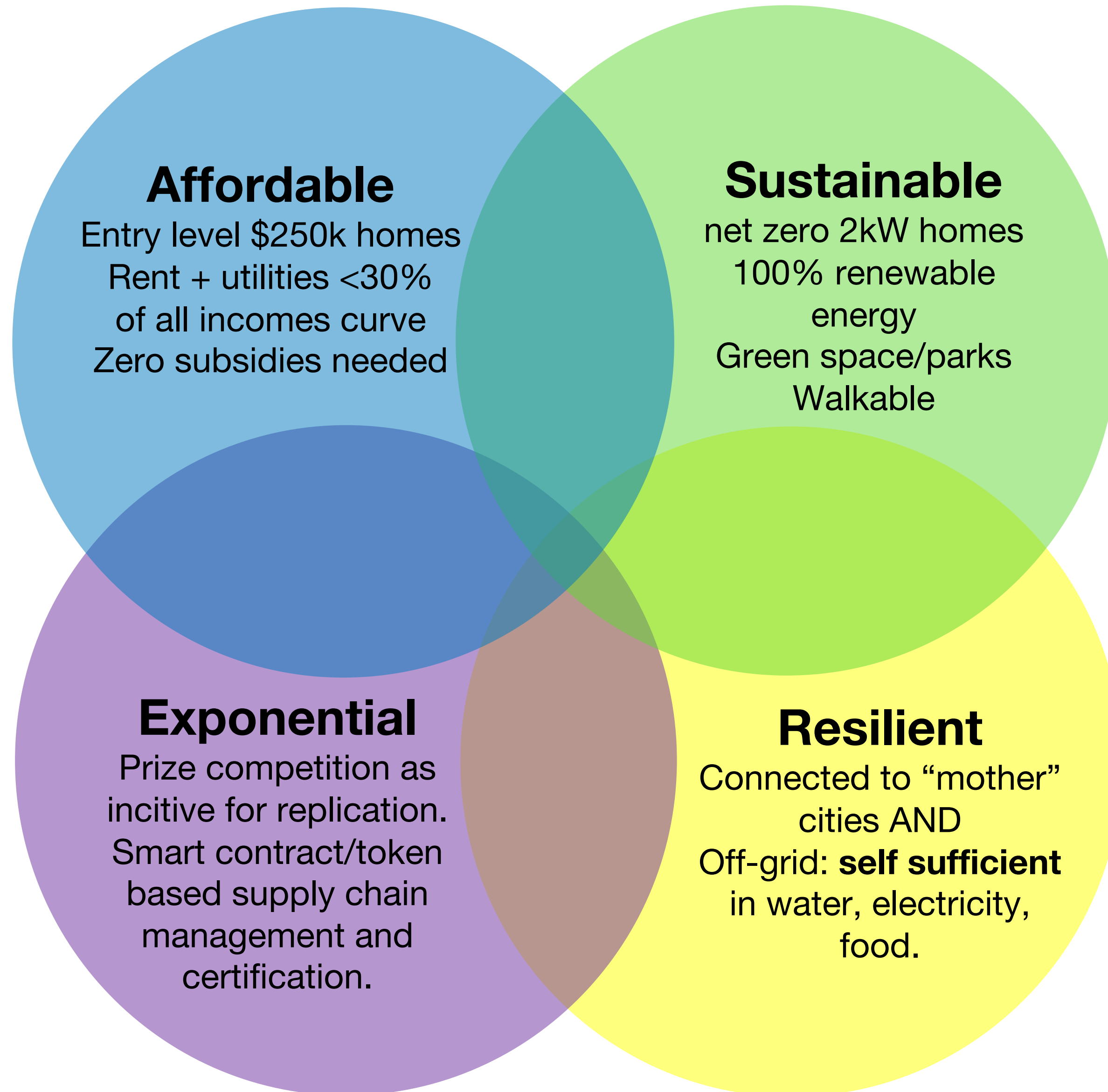


With helix maglev, cities get access to build satellite communities similar to Google's Sidewalk Toronto project (35,000 housing units)



Multi-goal performance by design

Keystone specifications



Example: San Diego Sustainable City

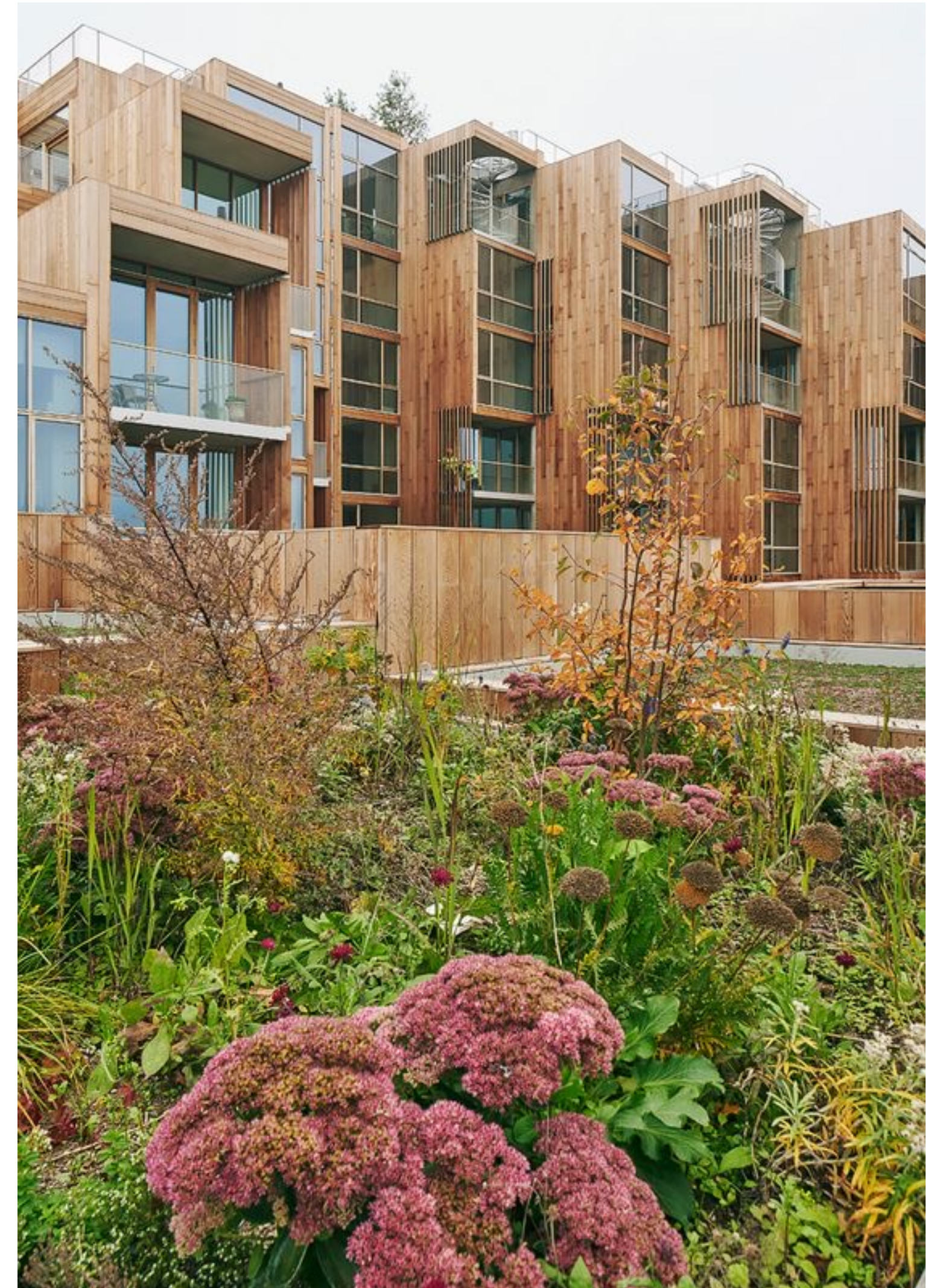
- Use California High Speed Rail (HSR) Right of Way (RoW) to connect **San Diego to Los Angeles** w/helix maglev (**\$15 single ride, 40 minutes non-stop, available 24/7**).
- Use **inexpensive land near RoW** (e.g. xx 14,000 acres near xx) to develop a 20,000 units TOD (@\$250,000/unit = Capex \$5B).
- **SD-CSC project pays for the transportation system to/from SD** (\$500M, 10% of capex).
- Master planned community has high quality of life, mixed use services (**\$2 single ride, 6 minutes to downtown or beach, 24/7**).
- **Private developers compete** to DBFO the Project in a PPP with government RoW.
- TOD Precedents. Toronto (Google): 35,000 units, Arlington, VA: 47,000, Singapore: 45,000, Vienna 11,000.



Why scale is important

20k + units

- **Cost efficiency**, economies of scale allow affordable home prices.
- **Catalyst**: Climate Technologies urgently need pilot cases to demonstrate commercial viability (break egg<>chicken cycle) eg. geothermal, heat pumps, car-free.
- Allows access to **inexpensive land** far from cities (development pays for transportation infrastructure).
- **Sustainable infrastructure** improves efficiency with critical mass (water, food, electricity)
- **Sense of place**, multiple services and unique features
- **Social Diversity**, cultural, economic, racial, age, sexual, knowledge, crafts, experts, etc
- Scale **accelerates adoption** green solutions globally (new supply chain, experts, train others, green jobs)



UC Berkeley

Berkeley Housing

Off-site manufacturing at scale is one the keys to build inexpensive housing at scale:

Same or better quality

20% lower construction costs



20% - 40%
LESS EXPENSIVE

40% - 50%
FASTER

500+
LOCALS TRAINED &
EMPLOYED

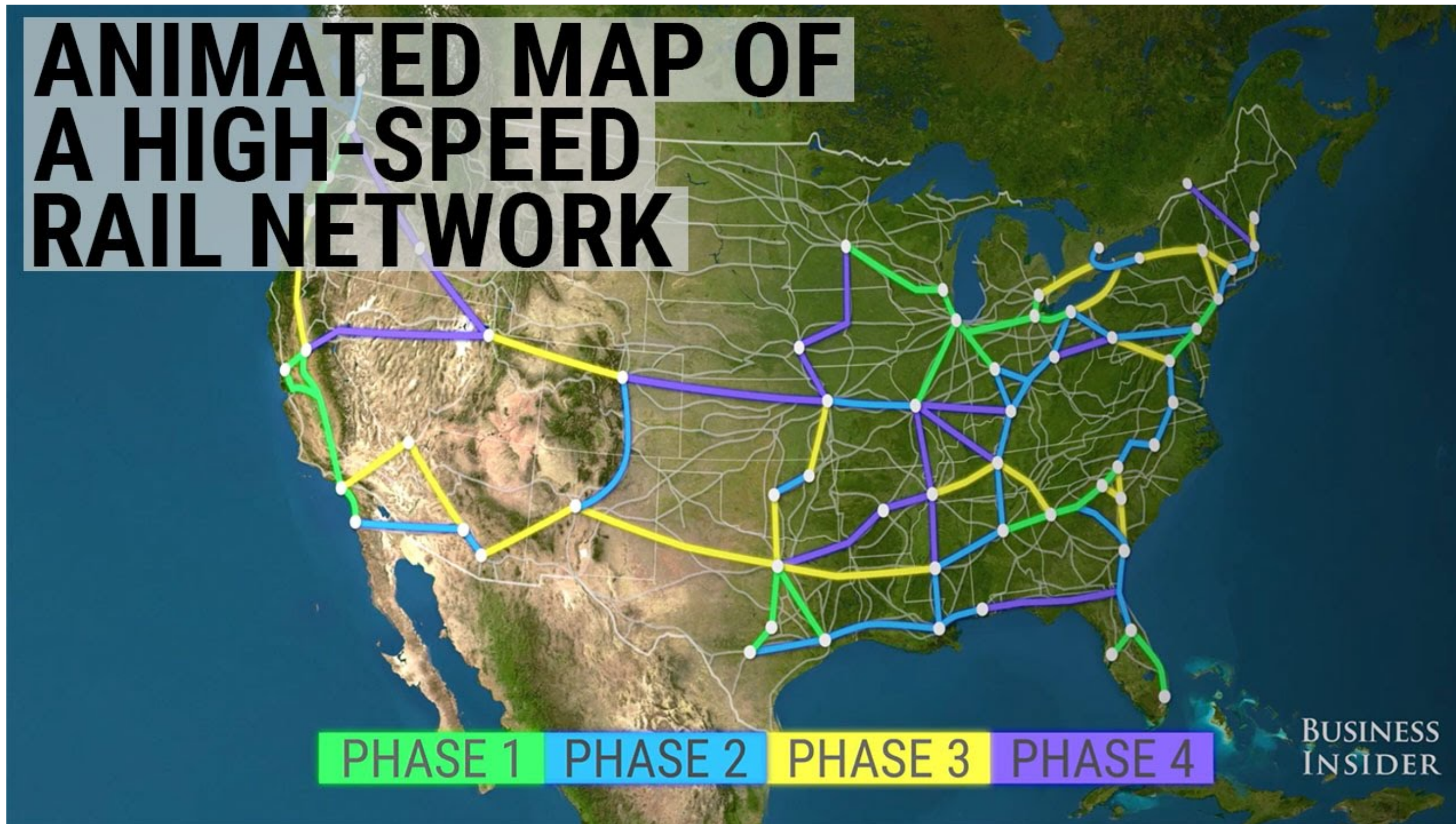
Satellite cities have been done before,
see Vienna

<https://youtu.be/twfrEpHeLfw>



Further Possibilities

TODs High-Speed Network



- 100 projects in the US = 5 M housing units = 100% US housing deficit.
- World network: technology/cost/design adapts to every income, weather and technology level.
- Network effects (in value, diversity, flexibility, resilience)

Scaling up net zero housing projects

- New climate technologies and business models need to be “**exponential by design**” in order to respond to climate change scale (**51 billion tons /yr**) and investment market needs (**\$130 Trillion**).
- Keystone high-speed low-cost transportation enables the **development of hundreds of net zero TODs** that address the market of new **homes for a growing urban population** worldwide.

**Bloomberg
Green**

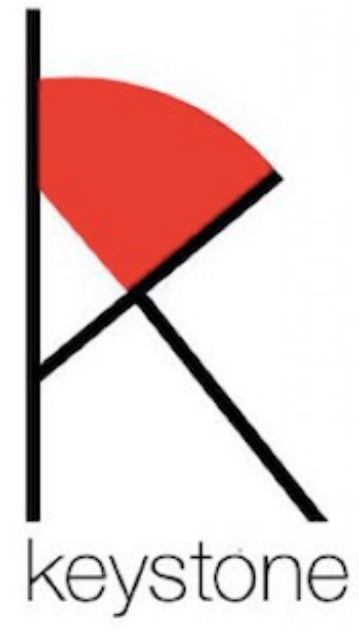
[Explore the Data Dash >](#)

Carney Unveils \$130 Trillion in Climate Finance Commitments

by Tom Metcalf and Alex Morales

Updated on November 3, 2021 4:55 AM





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