

# **SANE Transit Technology Roadmap**

**CSSEI**

**Ron Swenson, INIST  
Burford Furman, San José State University**

**May 2016**



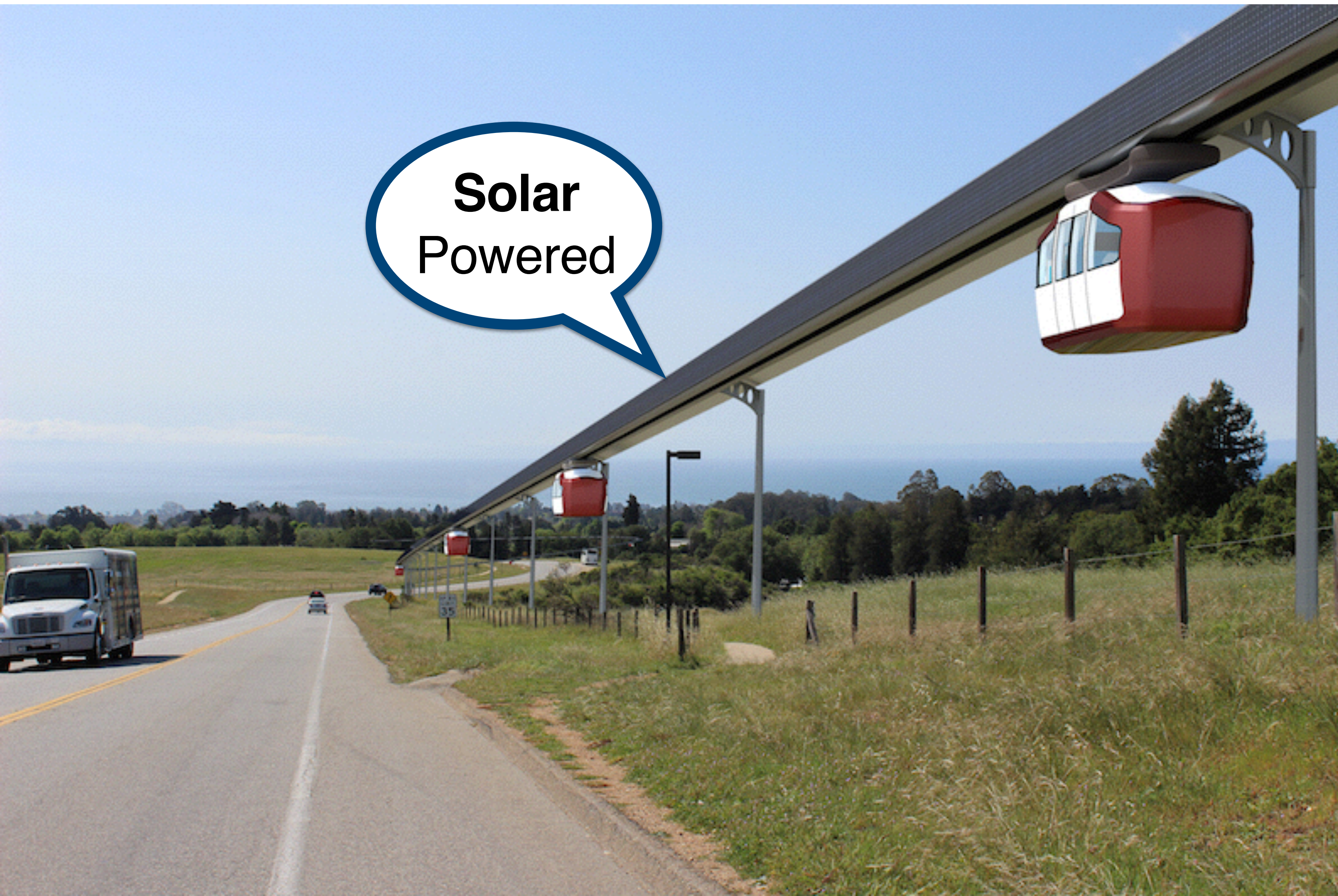


# We are developing S.A.N.E. Transit Networks — Solar, Automated, Nonstop, Elevated





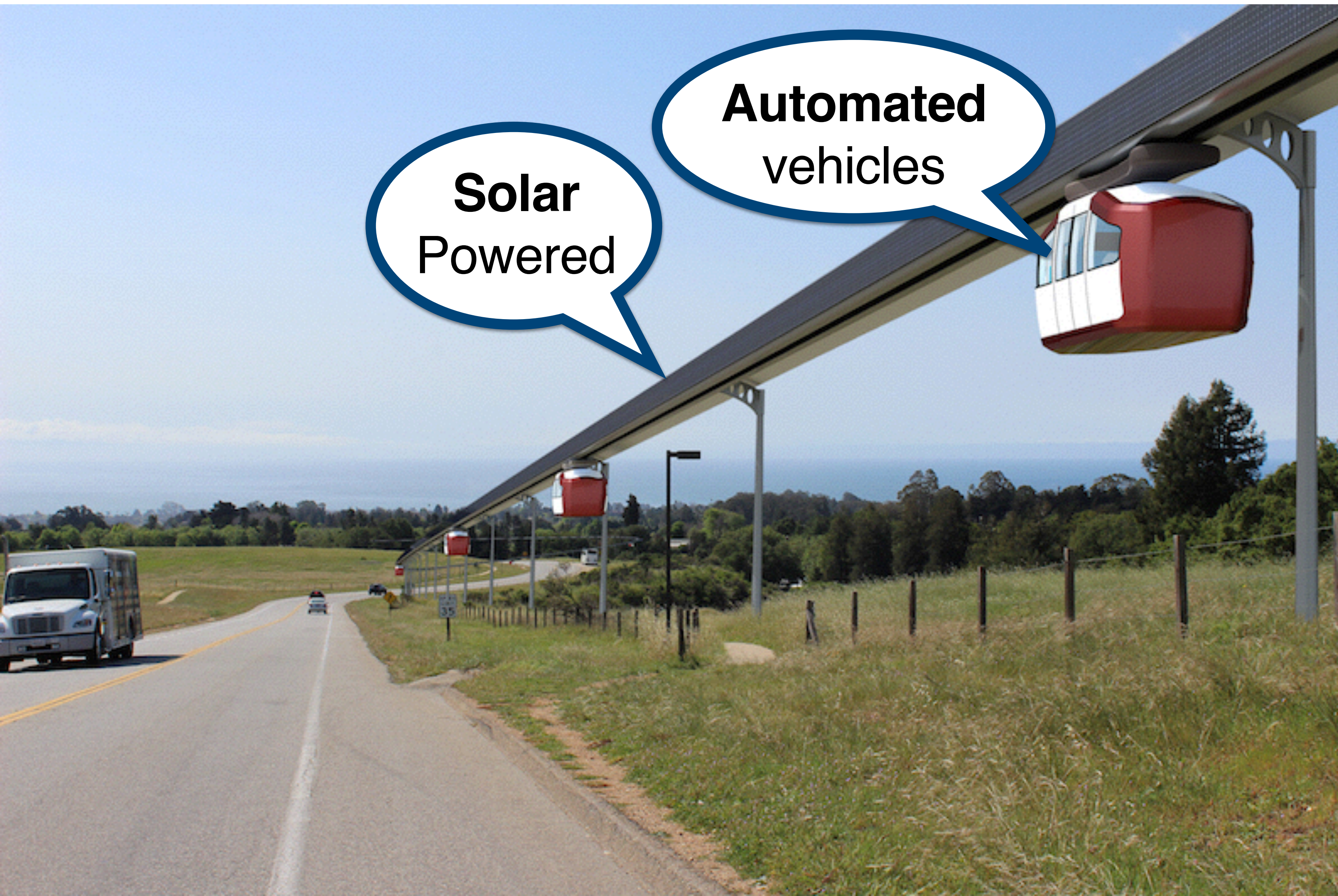
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**S**



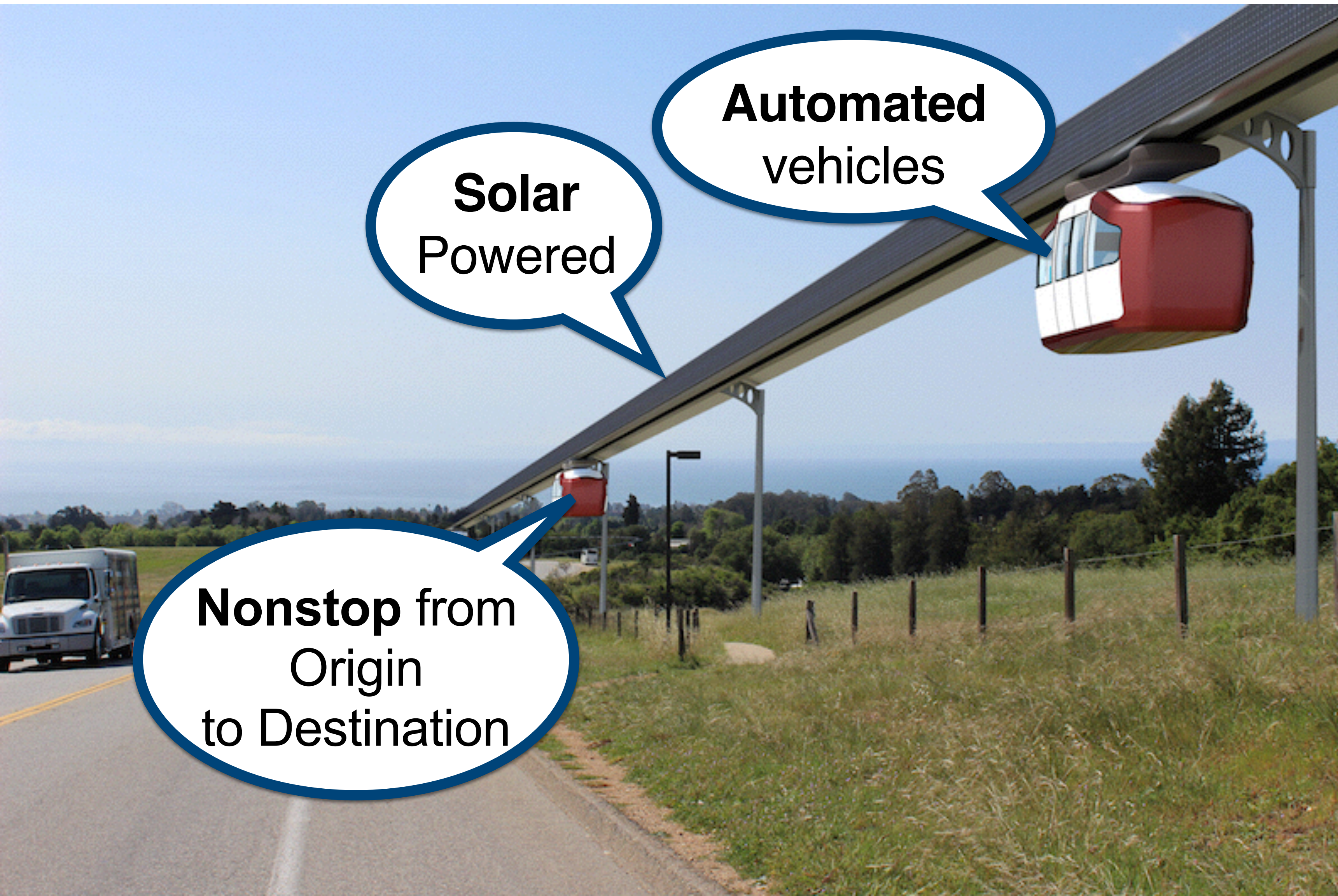
# We are developing S.A.N.E. Transit Networks — Solar, Automated, Nonstop, Elevated



**S A**



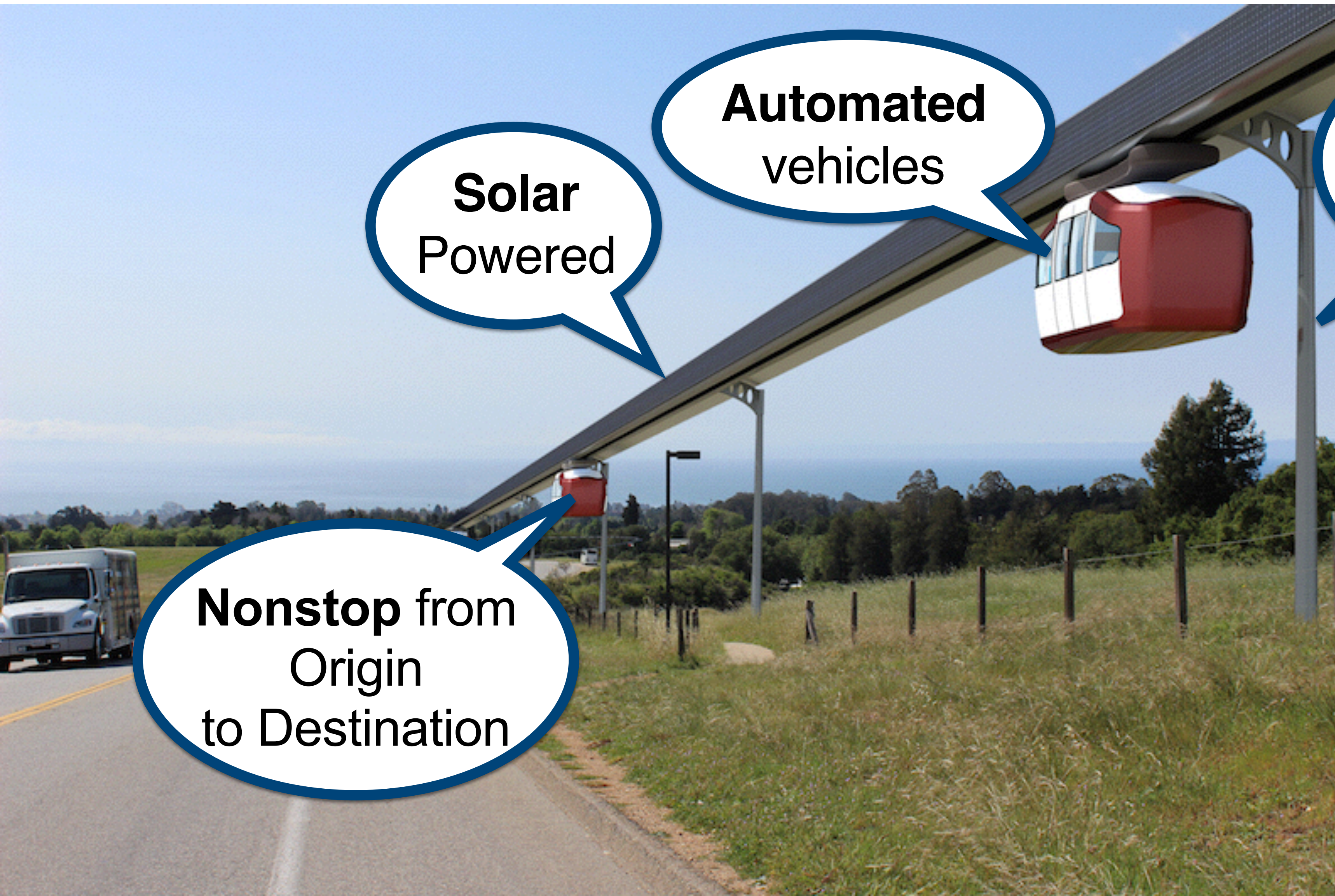
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**S A N**



# We are developing S.A.N.E. Transit Networks — Solar, Automated, Nonstop, Elevated



**Solar  
Powered**

**Automated  
vehicles**

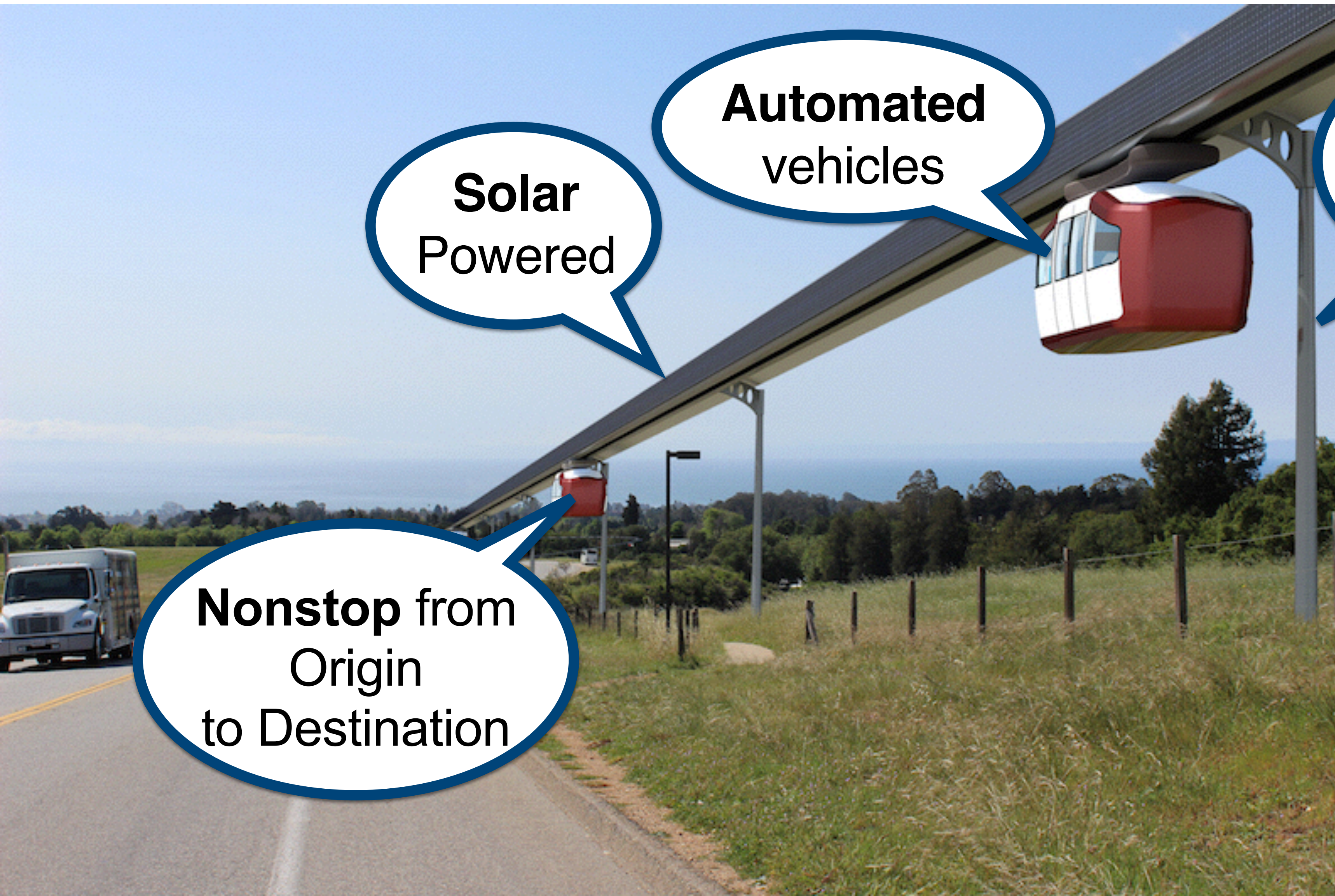
**Elevated**

**Nonstop from  
Origin  
to Destination**

**S A N E**



# We are developing S.A.N.E. Transit Networks — Solar, Automated, Nonstop, Elevated



**Solar  
Powered**

**Automated  
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**Elevated**

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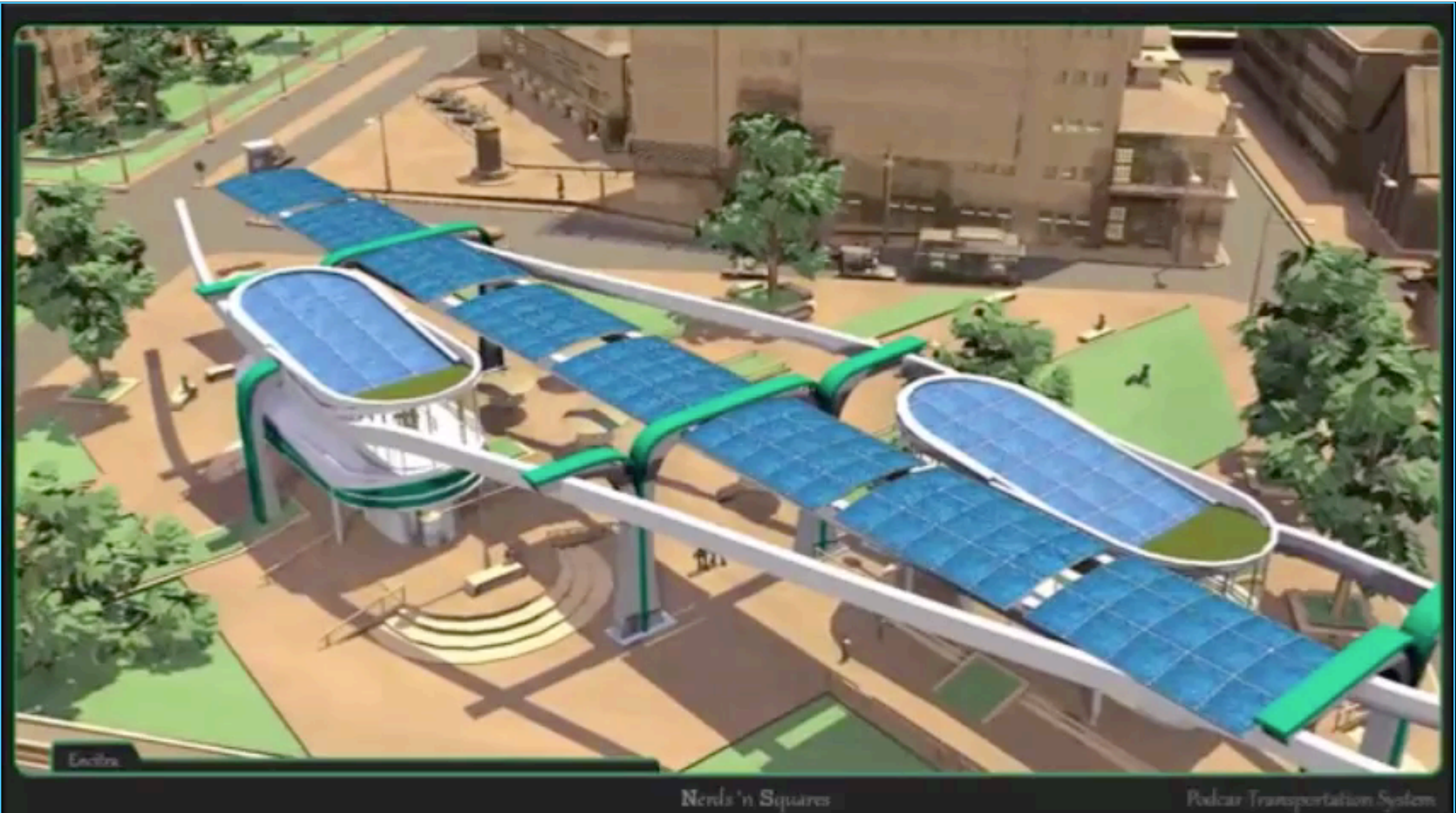
**S A N E**



**SANE Transit will look something like this**



# SANE Transit will look something like this



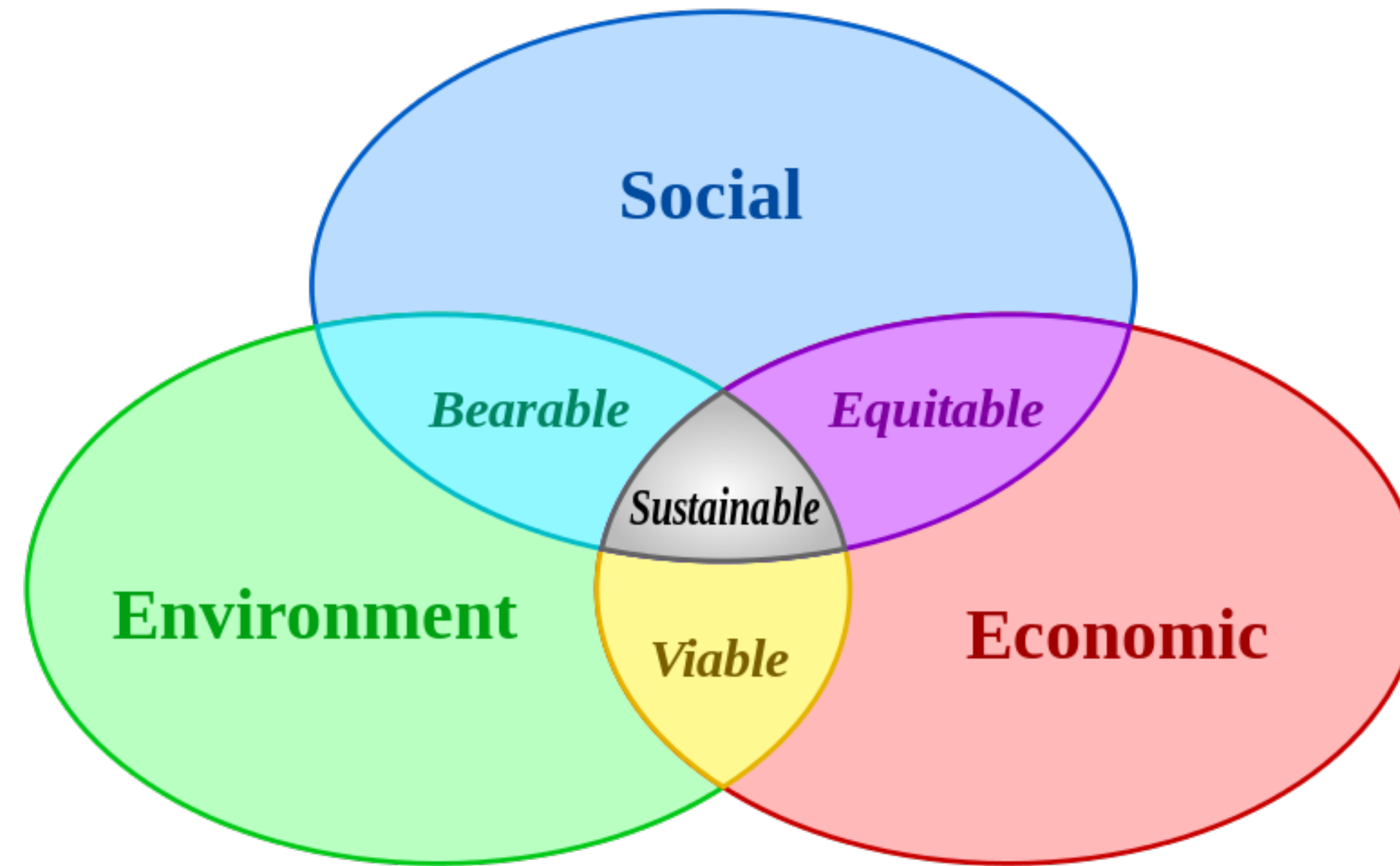
Exterior

Nerds 'n Squares

Podcar Transportation System

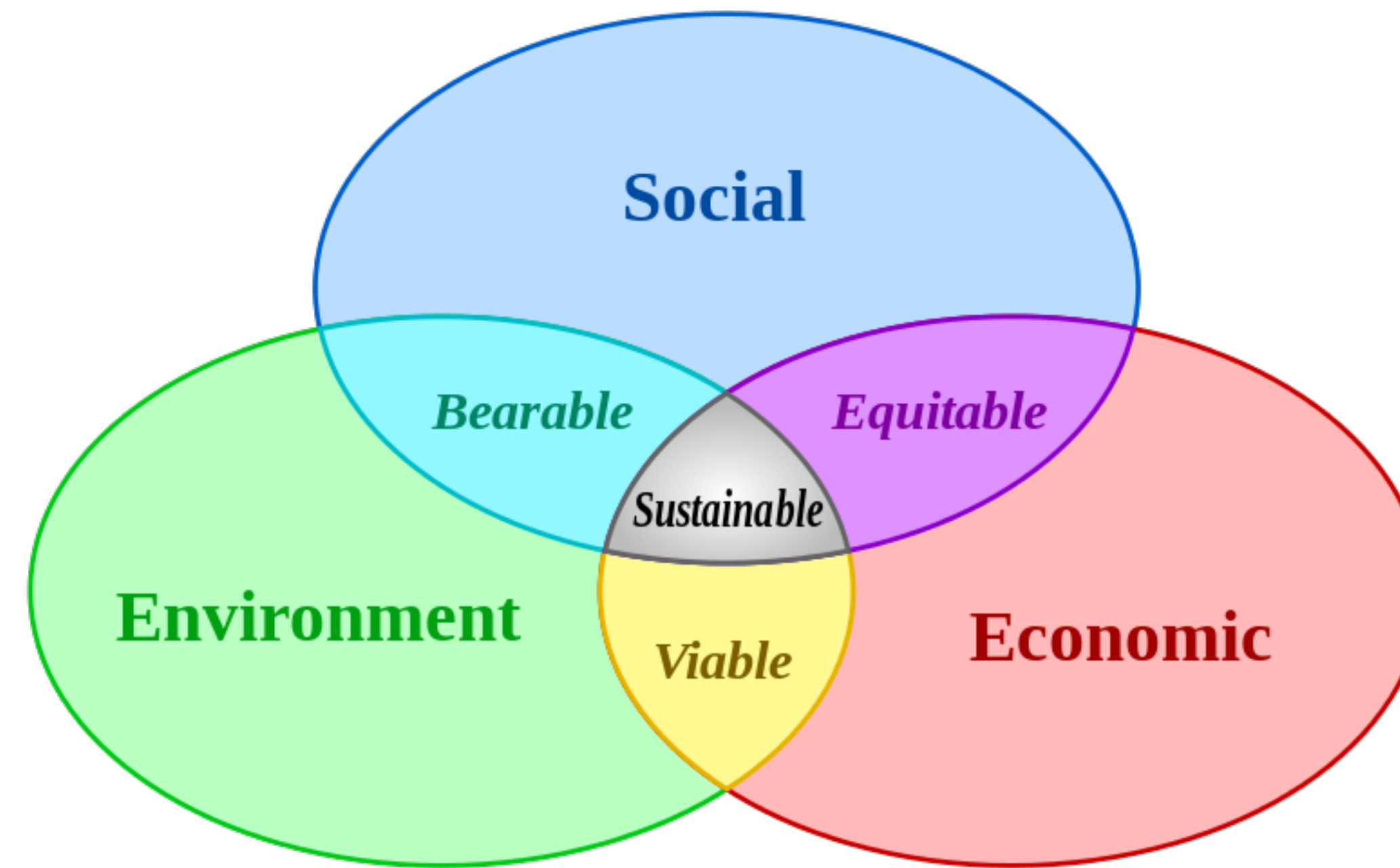


# We hear a lot about *sustainability* these days...





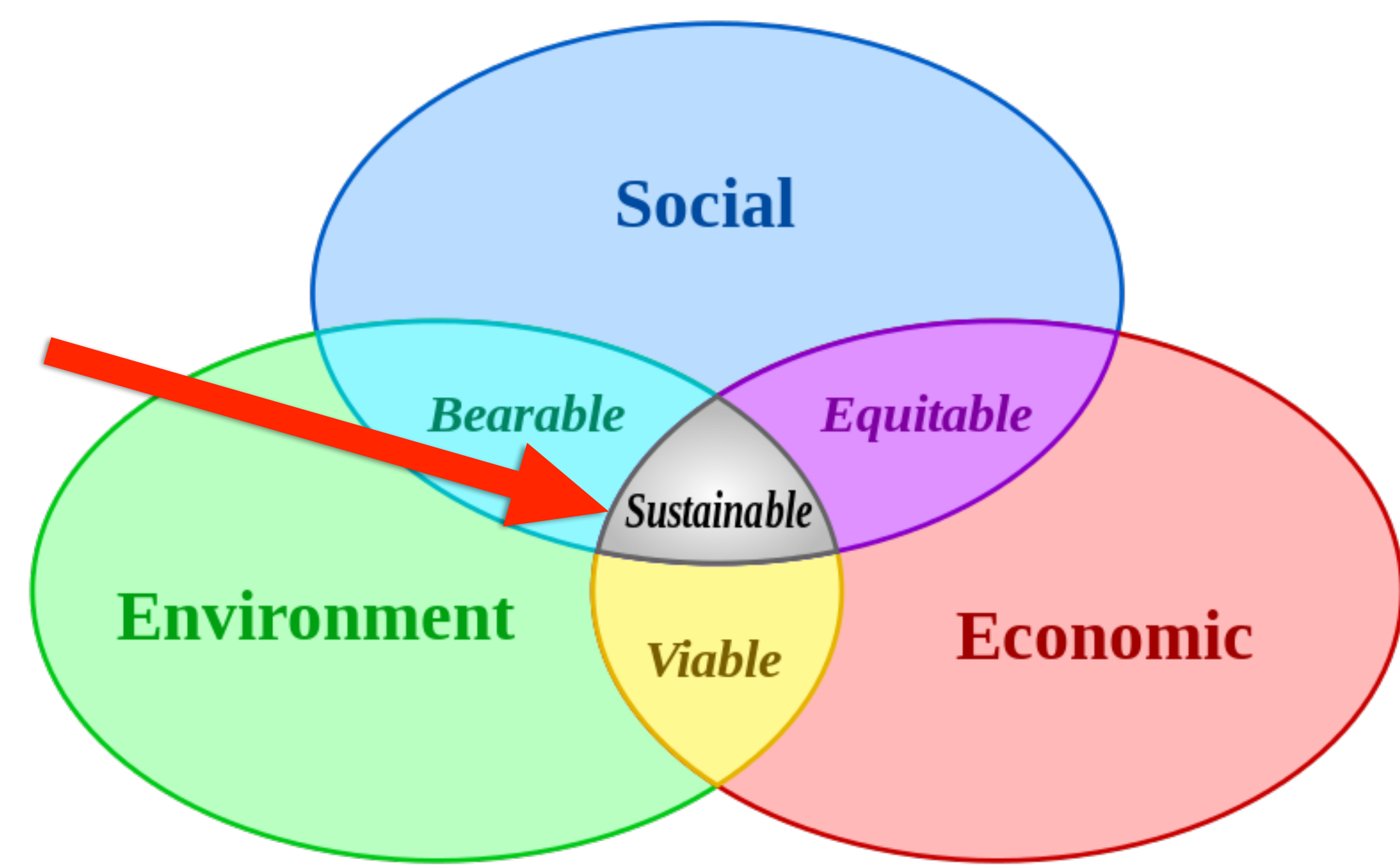
***Sustainable*** is often found associated with the word...





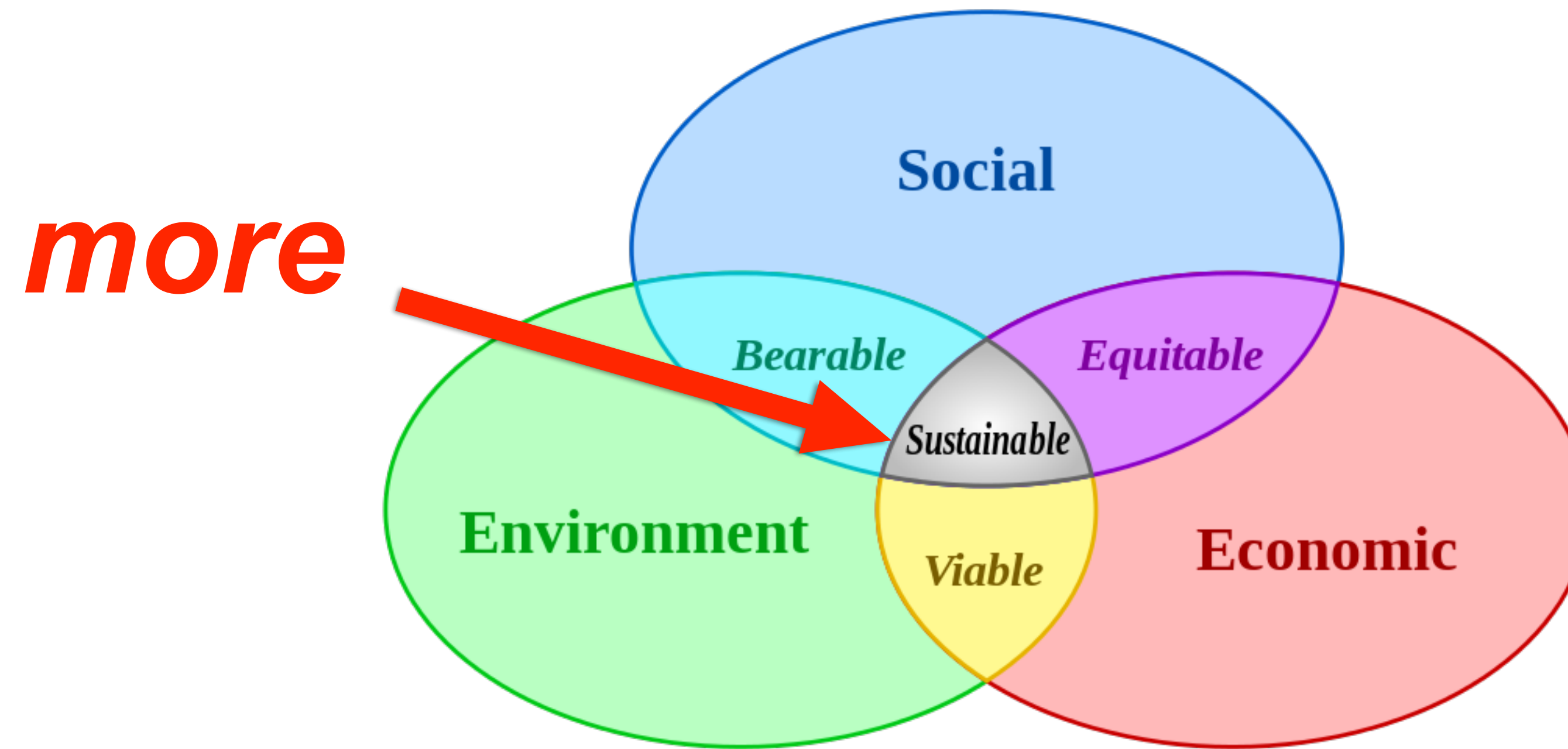
***Sustainable*** is often found associated with the word...

***more***



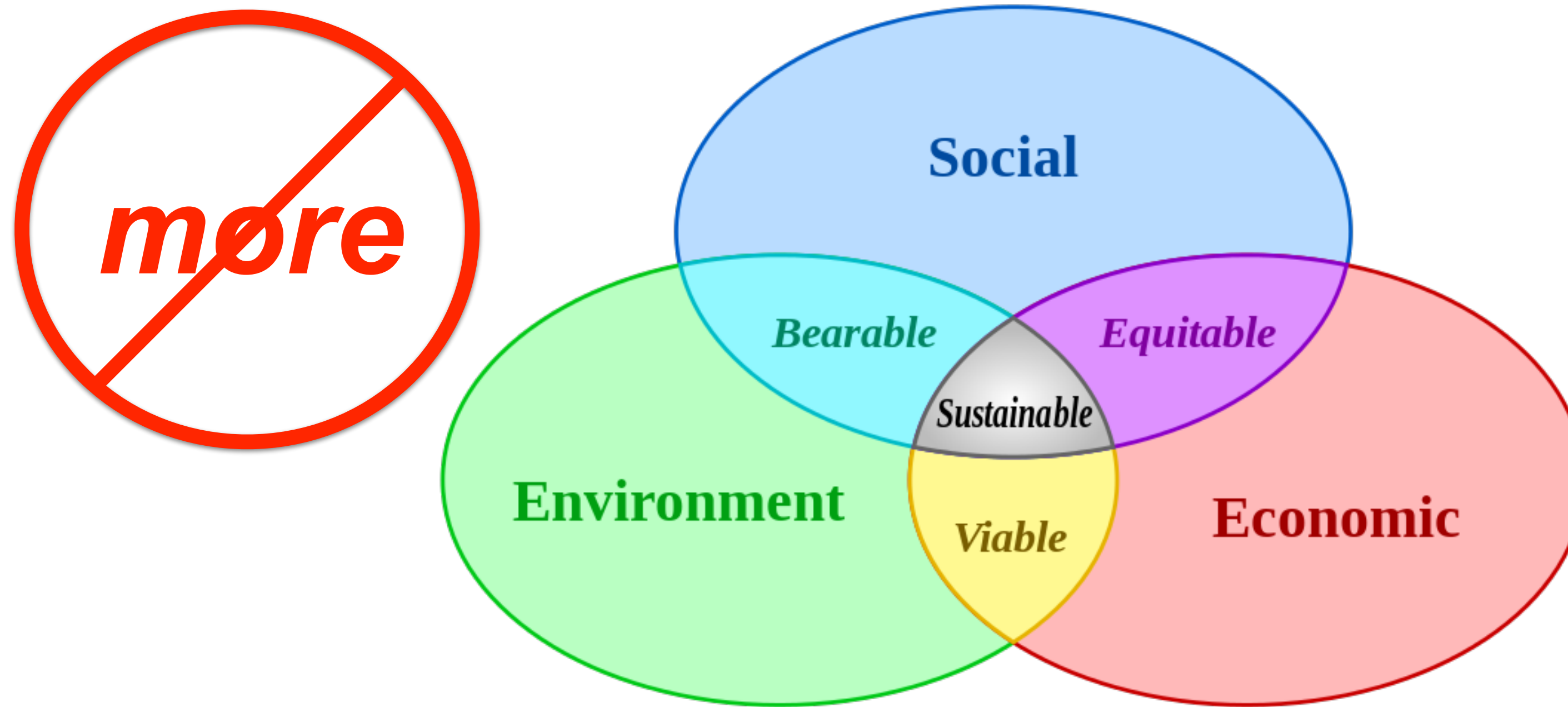


# But “more” *sustainable* isn’t



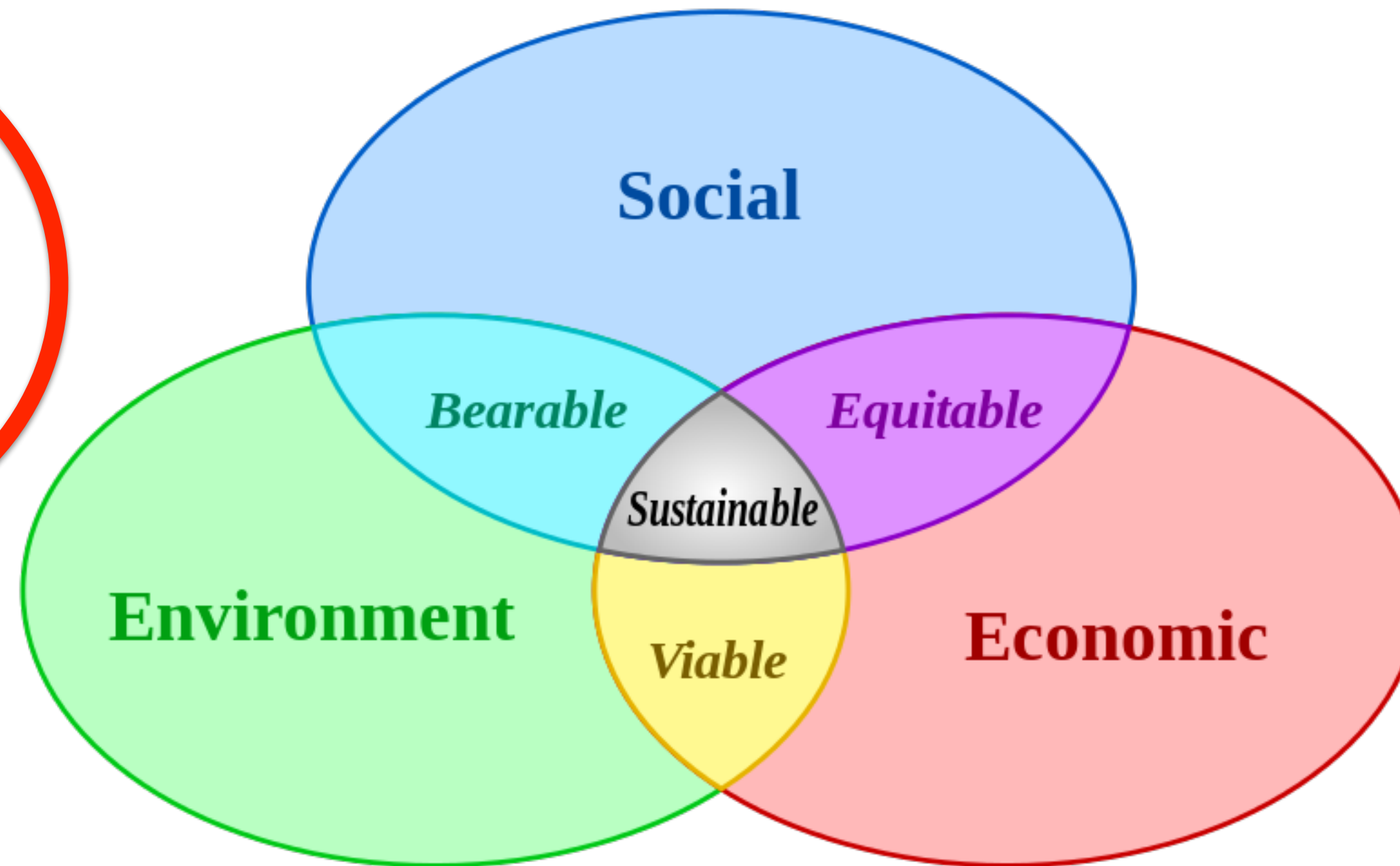


But “more” *sustainable* isn’t *sustainable* ...





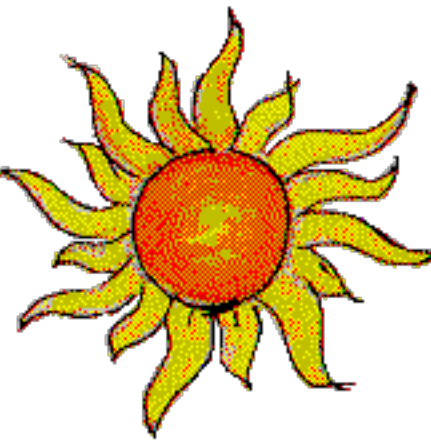
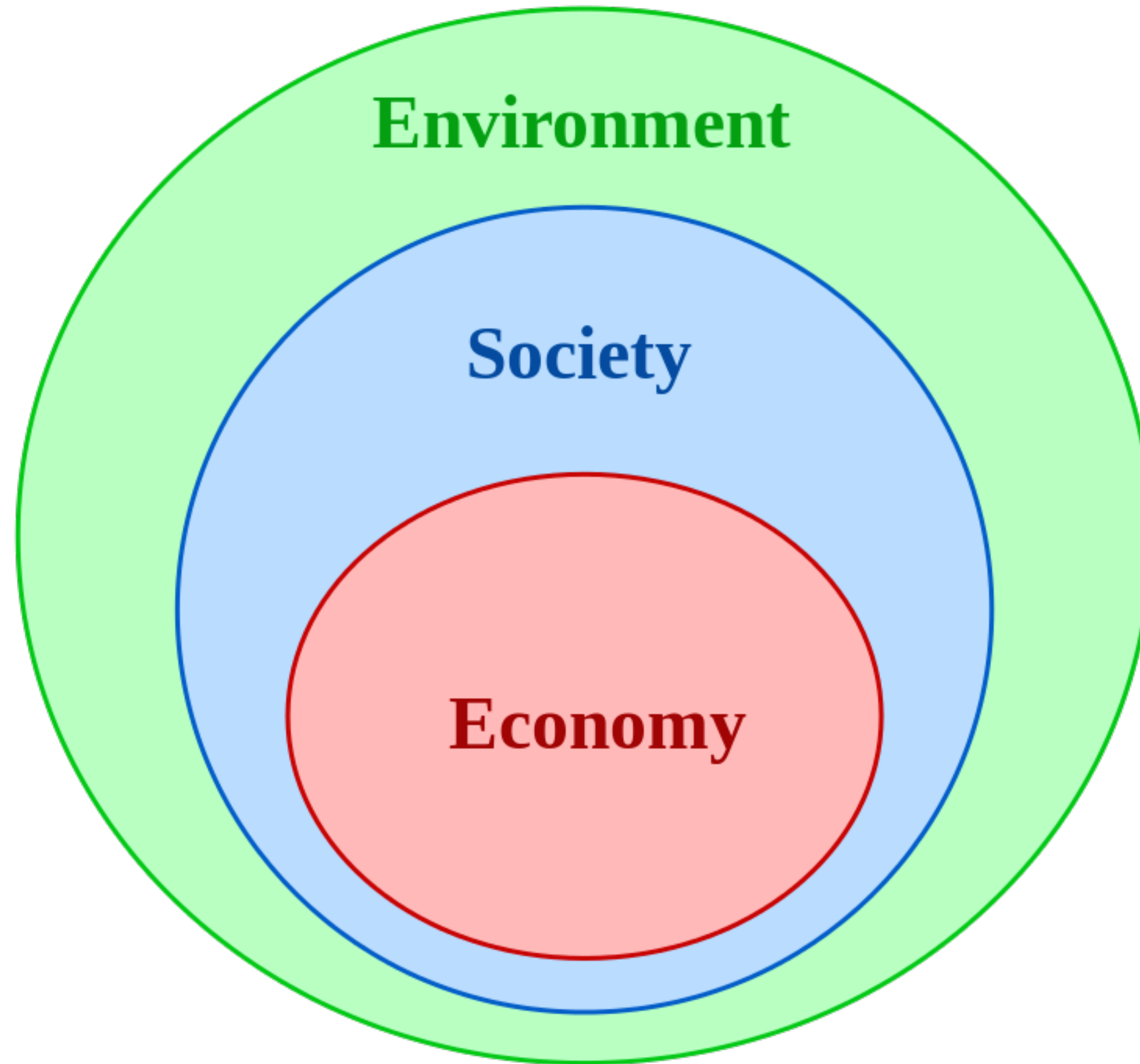
But “more” *sustainable* isn’t *sustainable* ...



... is it?



# The economy is a wholly owned subsidiary of the environment





**We are coordinating a three sector program  
to create SANE •• Solar •• Transit Networks**

**Universities**





**We are coordinating a three sector program  
to create SANE •• Solar •• Transit Networks**

**Universities**

**Cities**





**We are coordinating a three sector program  
to create SANE •• Solar •• Transit Networks**

**Universities**

**Cities**

**Industry**





**We are coordinating a three sector program  
to create SANE •• Solar •• Transit Networks**

**Universities**

**Cities**

**Industry**





# We are moving forward aggressively

**Universities**





# We are moving forward aggressively

**Universities**

- **Speed Test Demonstration**





# We are moving forward aggressively

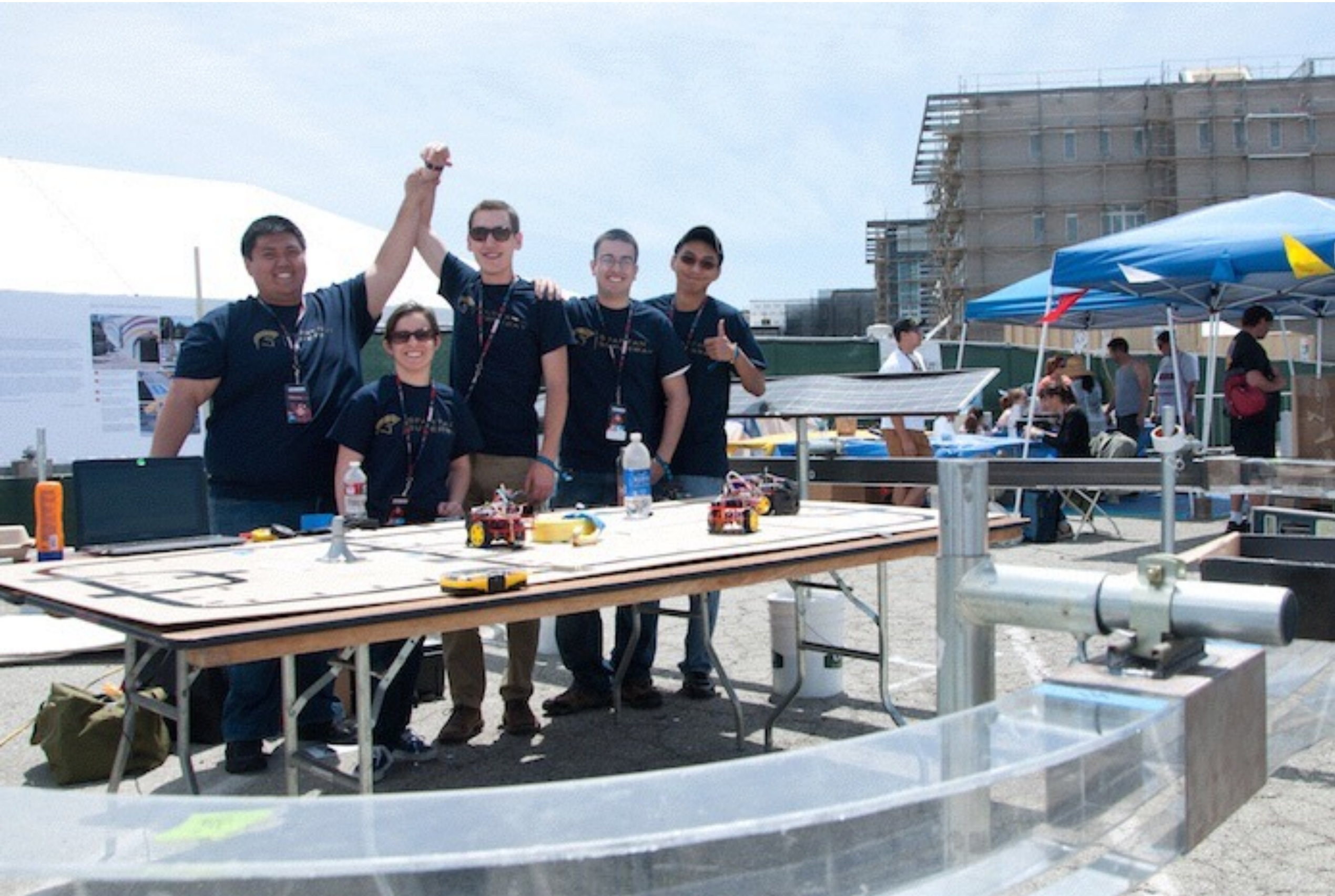
**Universities**

- **Speed Test Demonstration**
- **Fast Track Construction**





# Spartan Superway is making an impact





**Now in year 4, the Spartan Superway team has expanded**





**On May 2016, the Spartan Superway team returns to Maker Faire with small and half scale prototypes**





**On May 2016, the Spartan Superway team returns to Maker Faire with small and half scale prototypes**





# As we negotiate projects, we are doing a speed test





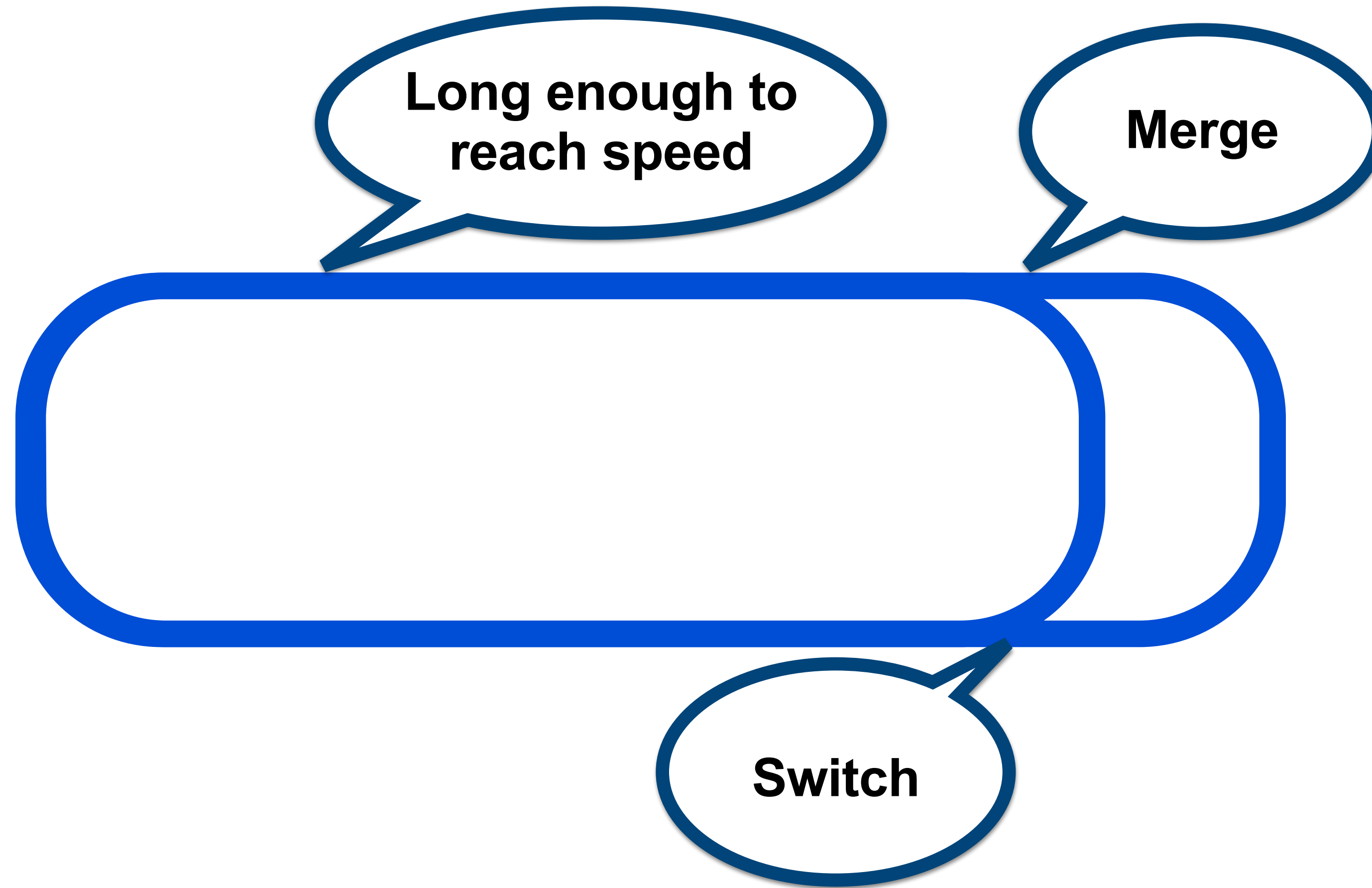
# As we negotiate projects, we are doing a speed test

Long enough to  
reach speed



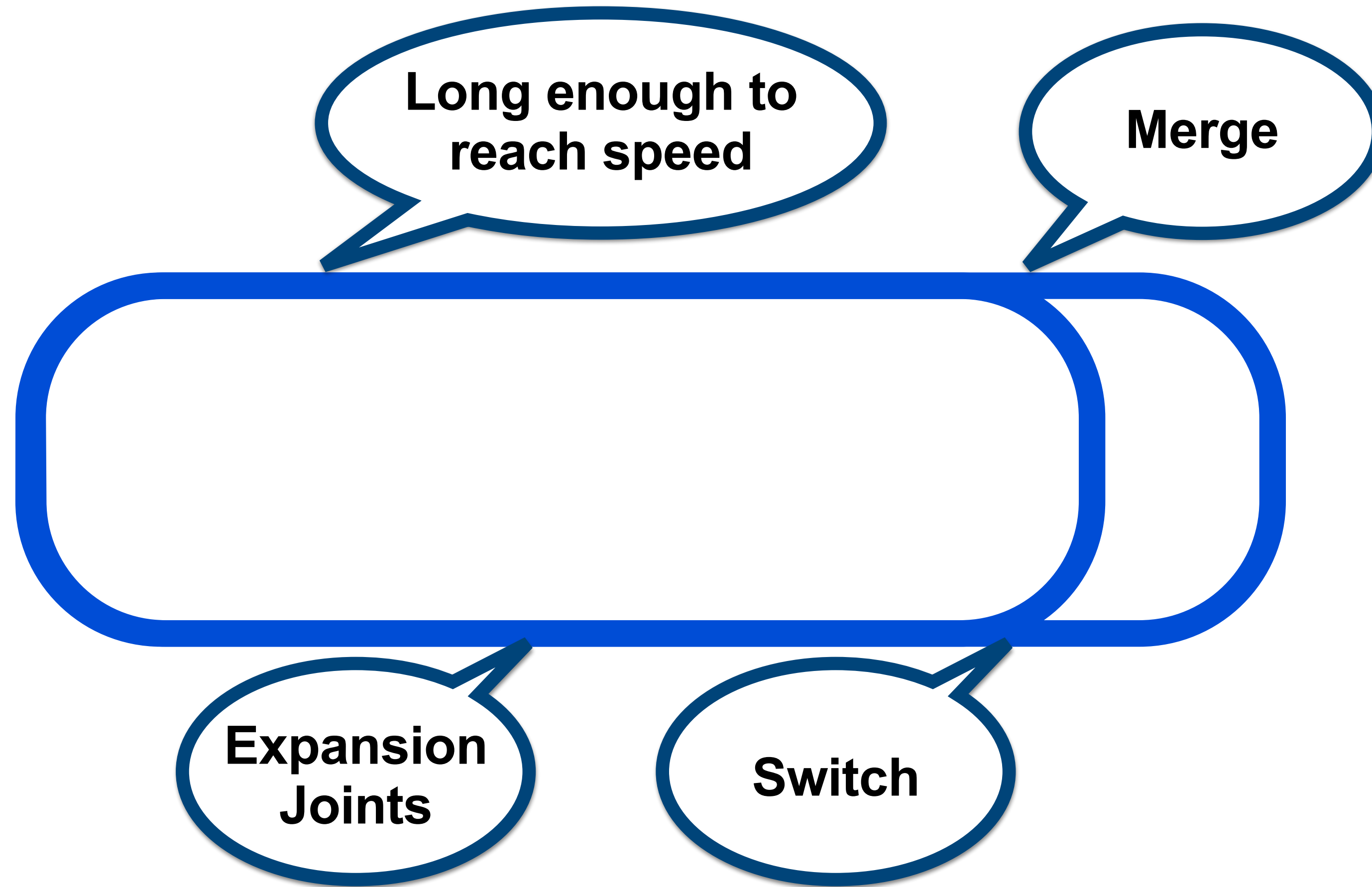


# As we negotiate projects, we are doing a speed test



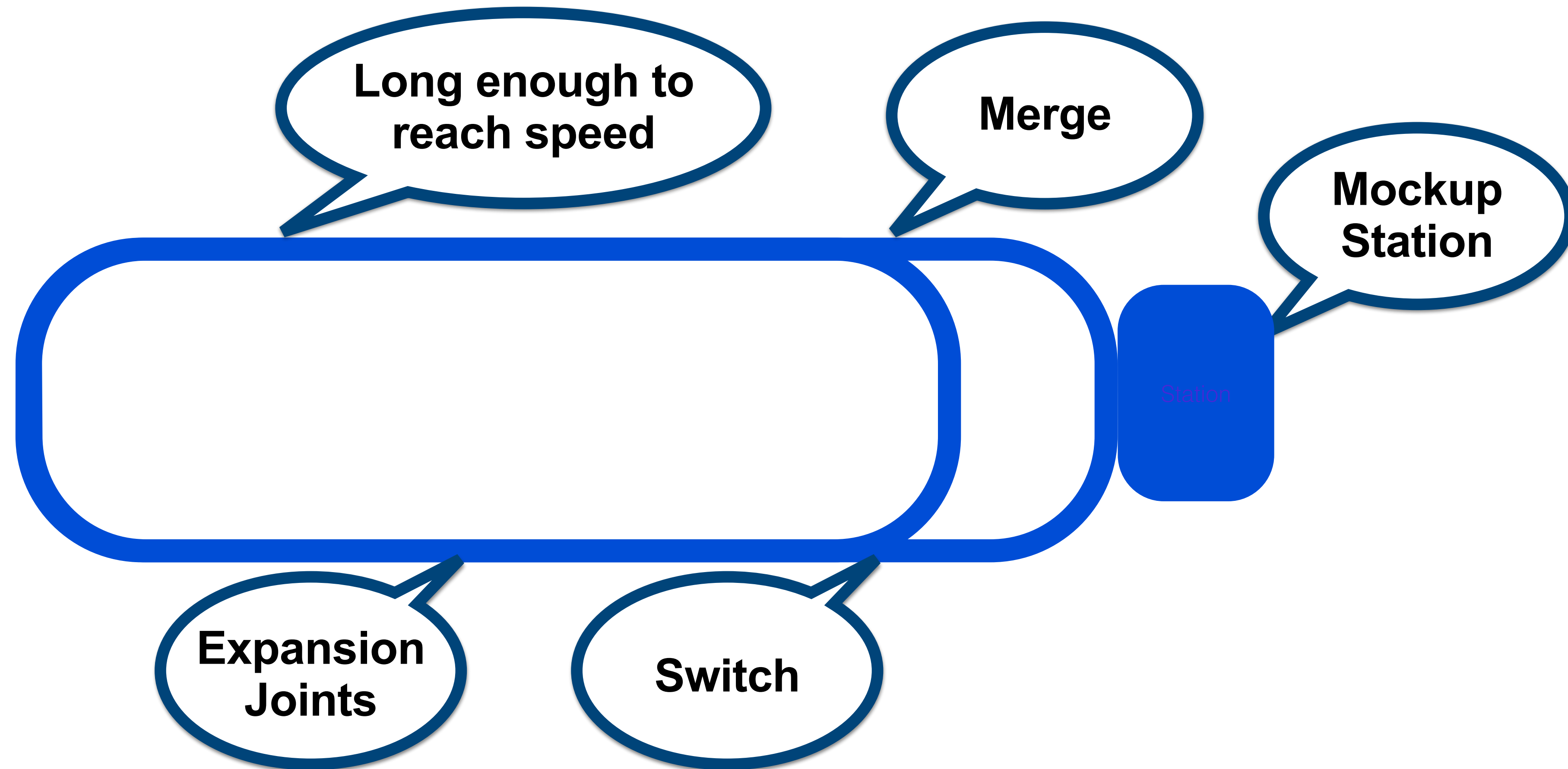


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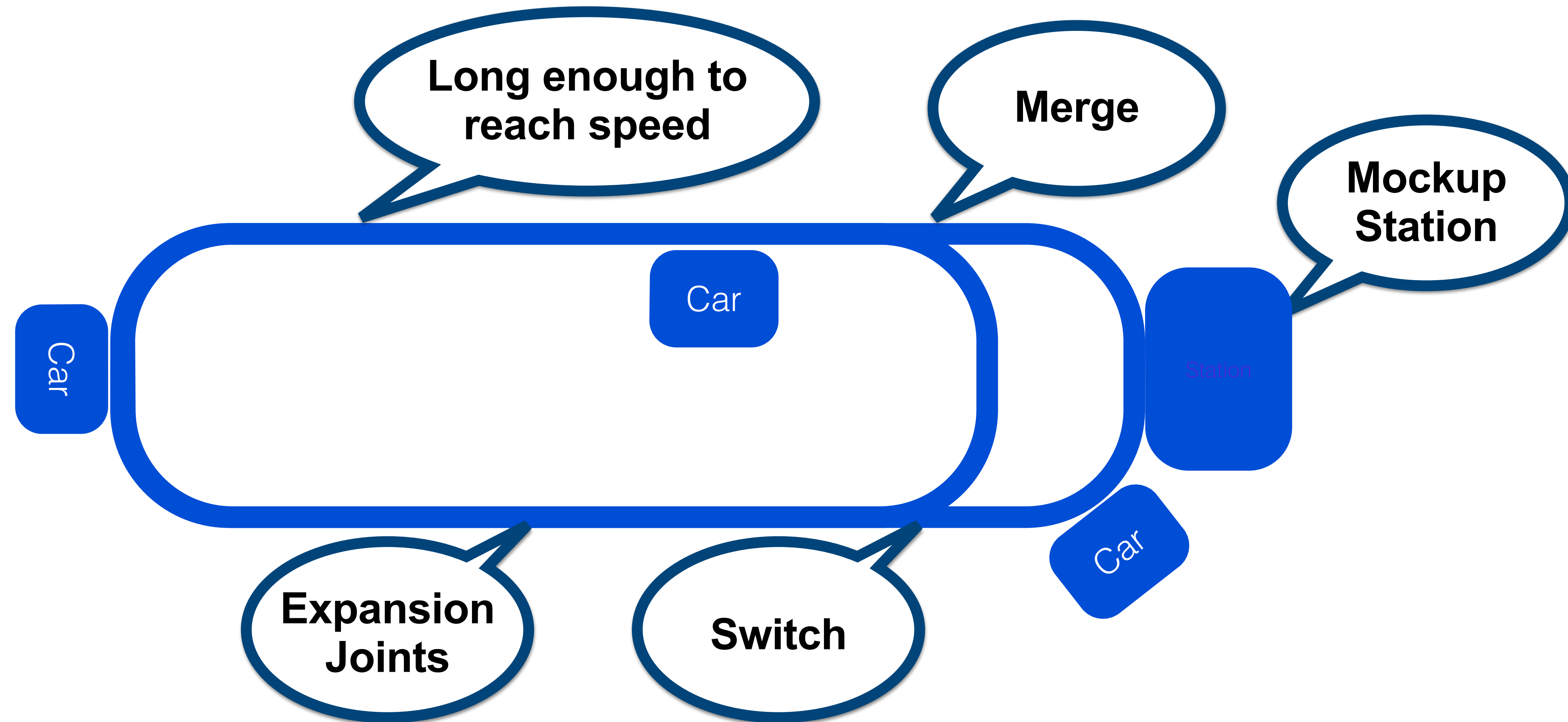


# As we negotiate projects, we are doing a speed test



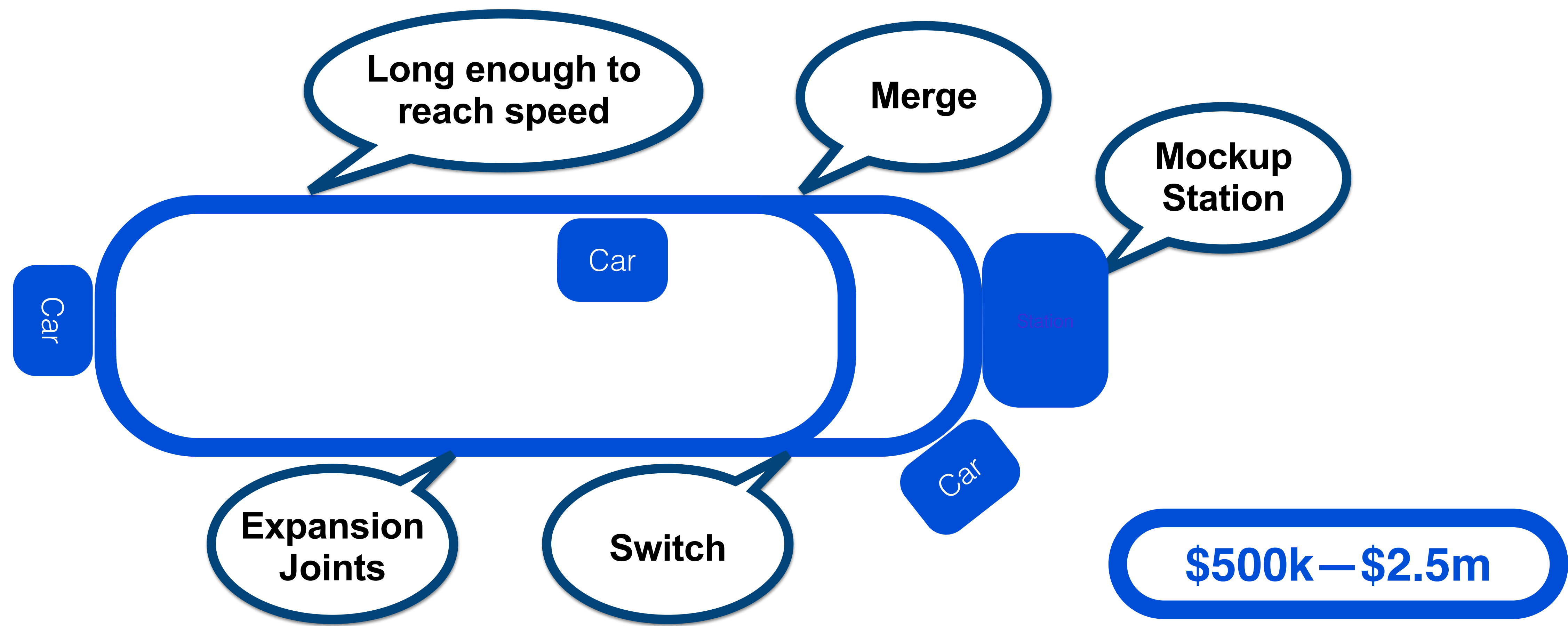


# As we negotiate projects, we are doing a speed test





# As we negotiate projects, we are doing a speed test





# We will build on Swenson land or at South Campus



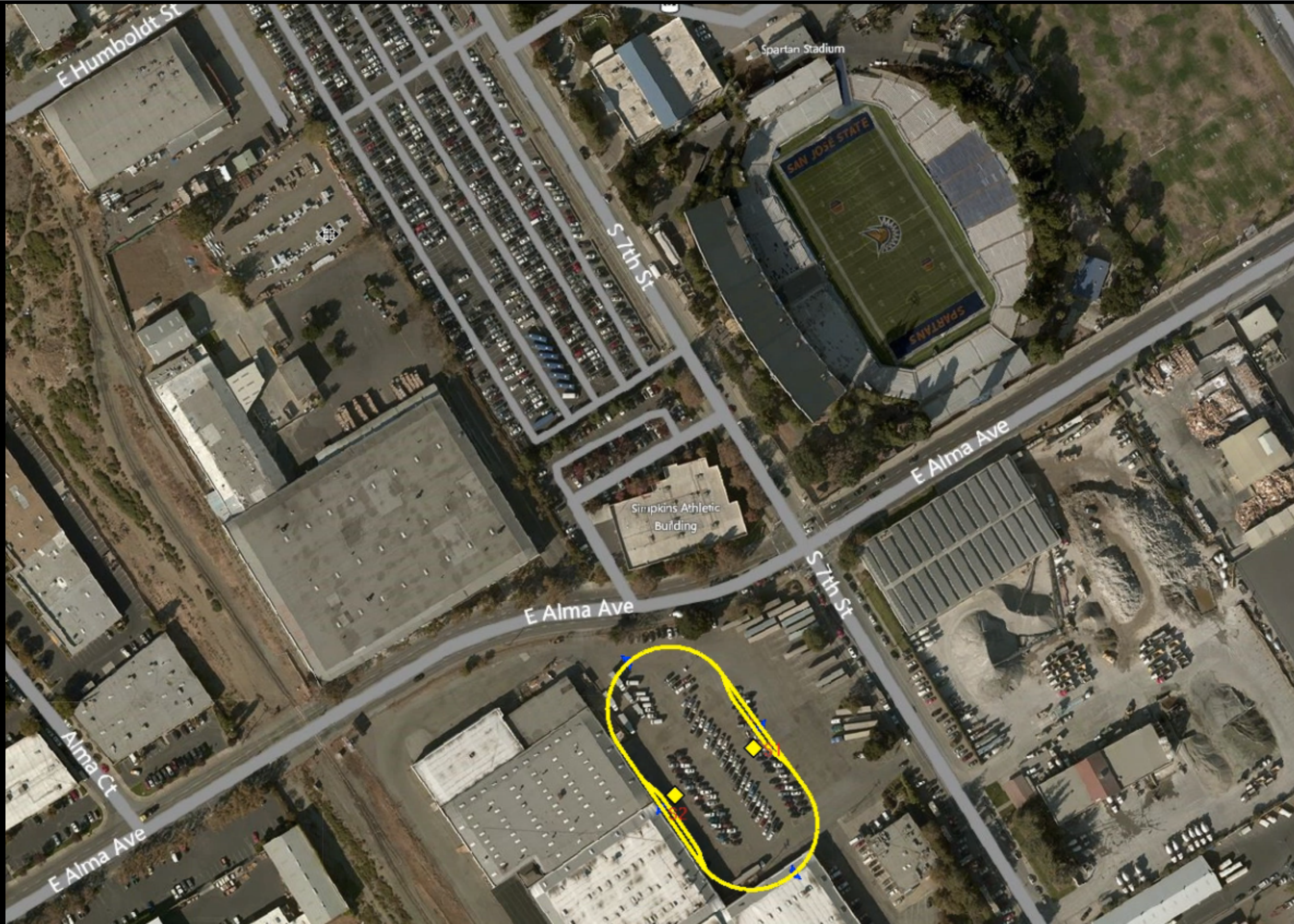


# We will build on Swenson land or at South Campus





# We will build on Swenson land or at South Campus





This aerial map of San Jose, CA, features a yellow line connecting four specific locations, each highlighted with a yellow circle. The locations are:
 

- Tamien:** Located in the southwest near the intersection of Leland St and Highway 87.
- Shanks Ice:** Located in the center-east near the intersection of S 10th St and S 7th St.
- Japanese Friendship Garden:** Located in the northeast near the intersection of Senter Rd and S 10th St.
- Happy Hollow Park & Zoo:** Located in the far northeast near the intersection of Senter Rd and S 10th St.

 The map also shows major highways (280, 87, 6, 3B), various neighborhoods (e.g., Market-Almaden, East Virginia, Hollywood, Goodyear-Mastic, North Willow Glen, Rockspring), and landmarks like the Children's Discovery Museum, San Jose Municipal Stadium, and Kelley Park.



# Working with cities, we have several project options

Universities

Cities

Industry



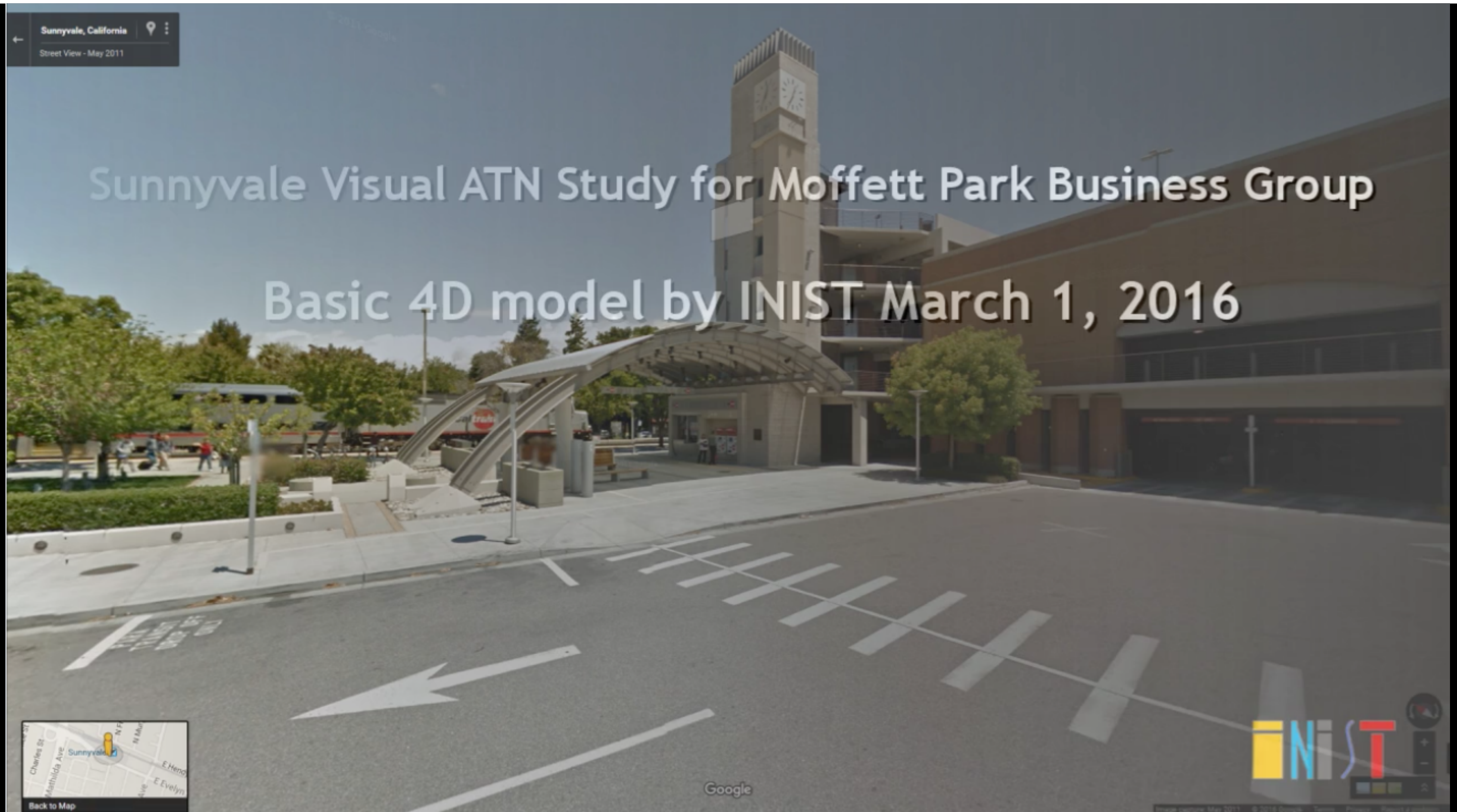


# Cities are concerned about congestion...





# Working with cities, we have several project options



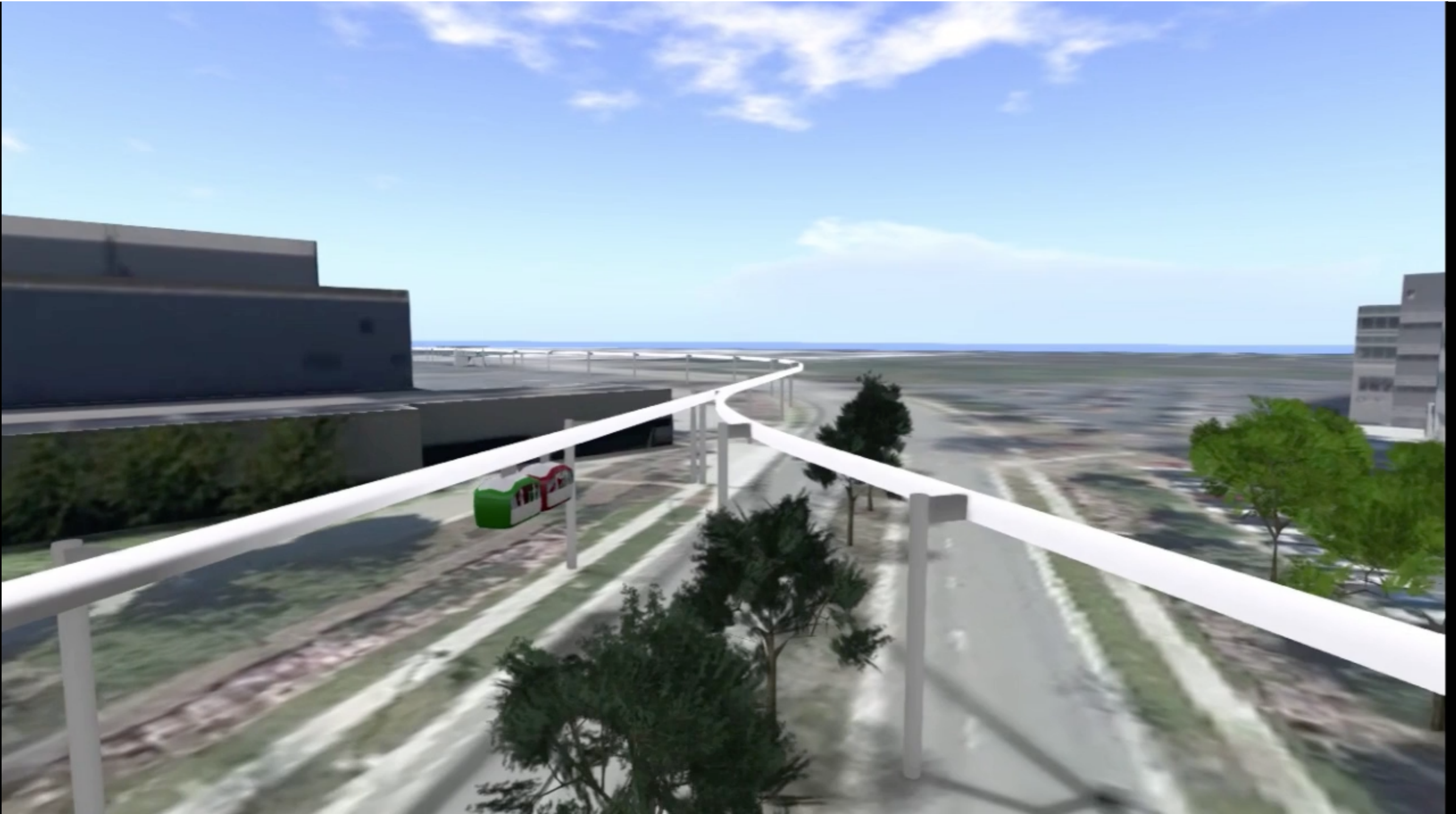


**Working with cities, we have several project options**





# Working with cities, we have several project options



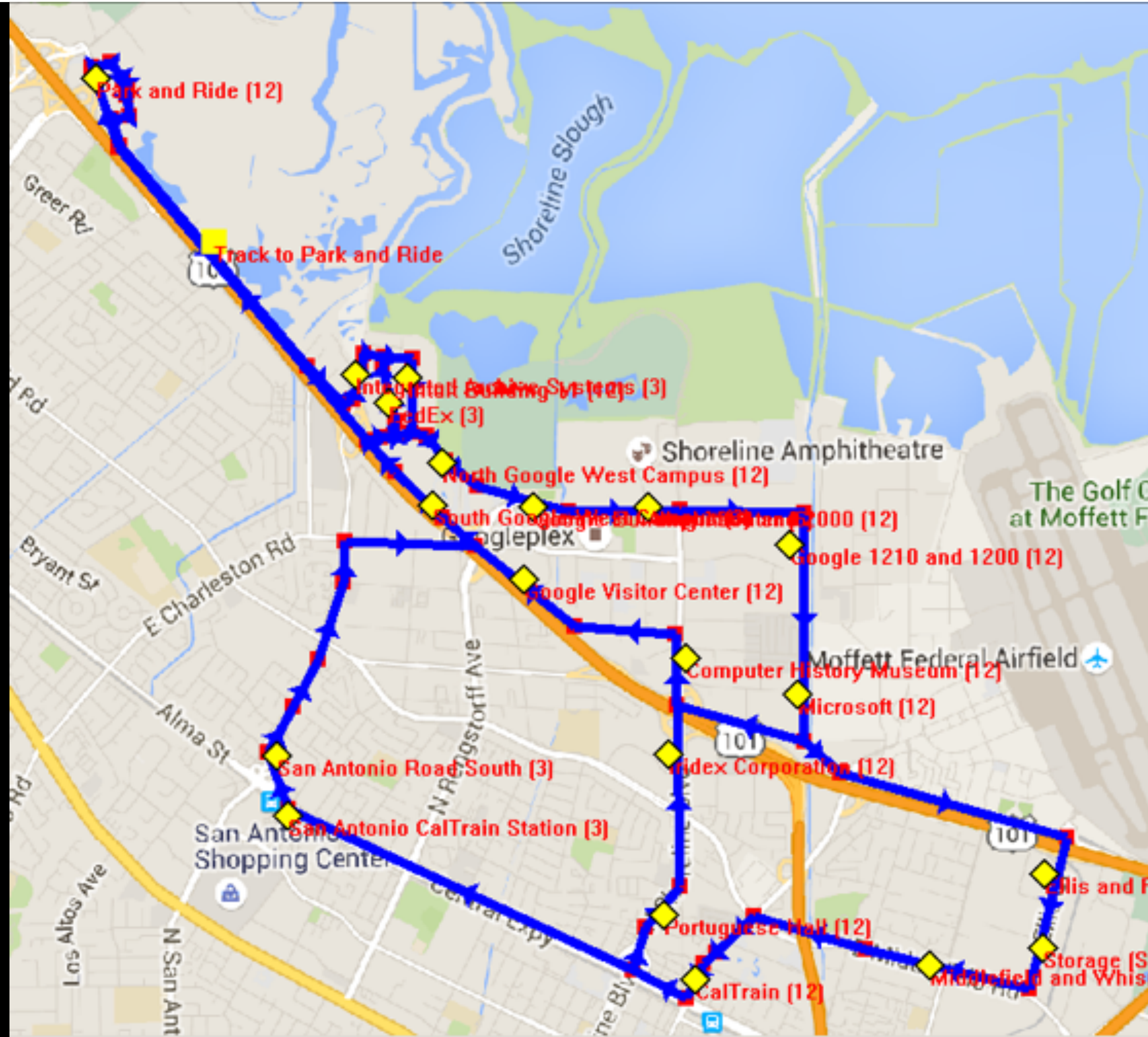


# Working with cities, we have several project options





# Working with cities, we have several project options





**Once such a project is ready to go, we will fast track**





# Once such a project is ready to go, we will fast track

**Private  
Infrastructure  
Financing Available**





# Once such a project is ready to go, we will fast track



**Private  
Infrastructure  
Financing Available**

**Suppliers  
Ready**



# Once such a project is ready to go, we will fast track



**Private  
Infrastructure  
Financing Available**

**Proven Control  
System  
Technology**

**Suppliers  
Ready**



# We are developing partnerships with industry too

Universities

Cities

Industry





# We are developing partnerships with industry too



*Real Estate & Entitlements*



*Inventor of ATN Technology*



*Solar Systems*



*4D Urban Modeling*



*Engineering*



*Vendor ATN Technology*



*Solar Equipment*



*Computer Technology*



*Solar Equipment*



*Steel Fabrication*



*Engineering Education*



*Equipment Rental*





# Thank you for your attention!



[www.inist.org](http://www.inist.org)

[www.podcity.org](http://www.podcity.org)



[www.superway.us](http://www.superway.us)



[engineering.sjsu.edu](http://engineering.sjsu.edu)