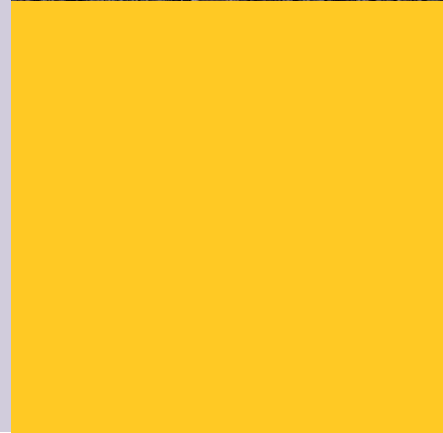# Applying the Safe System Approach (SSA) to Pedestrian and Bicyclist Safety

A Focus Cities Webinar
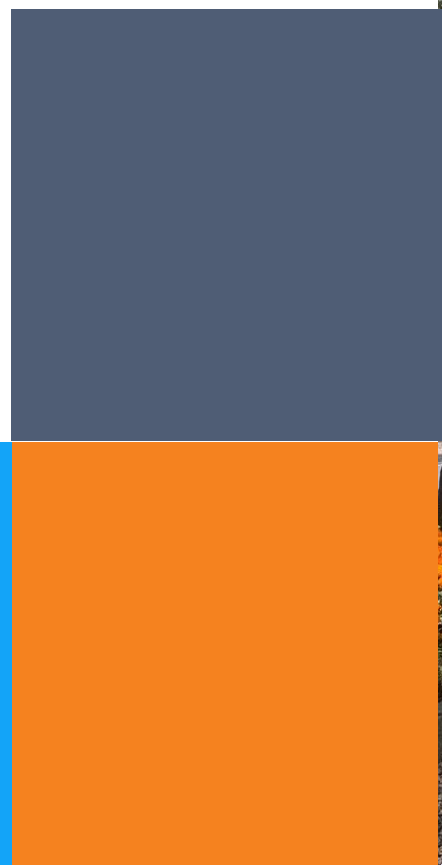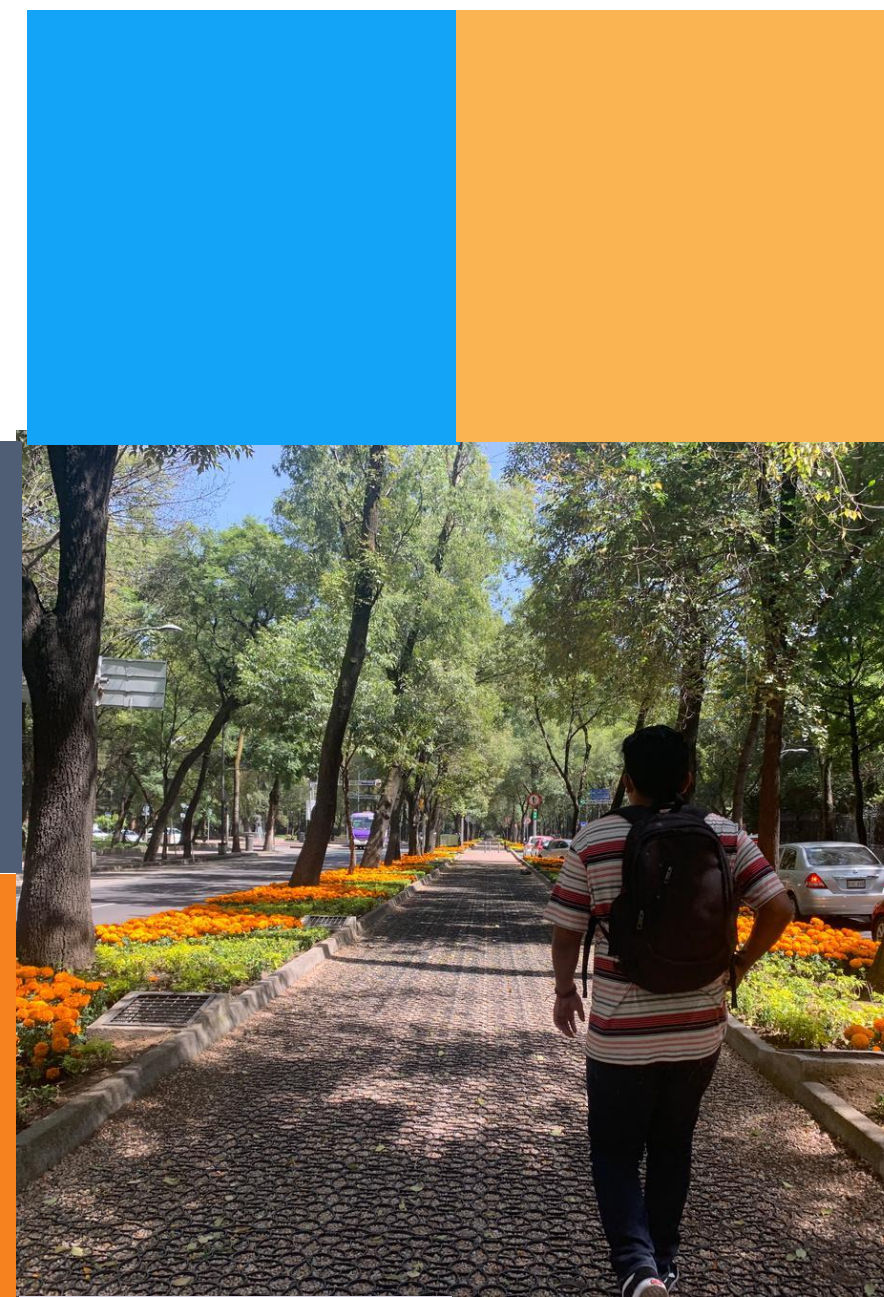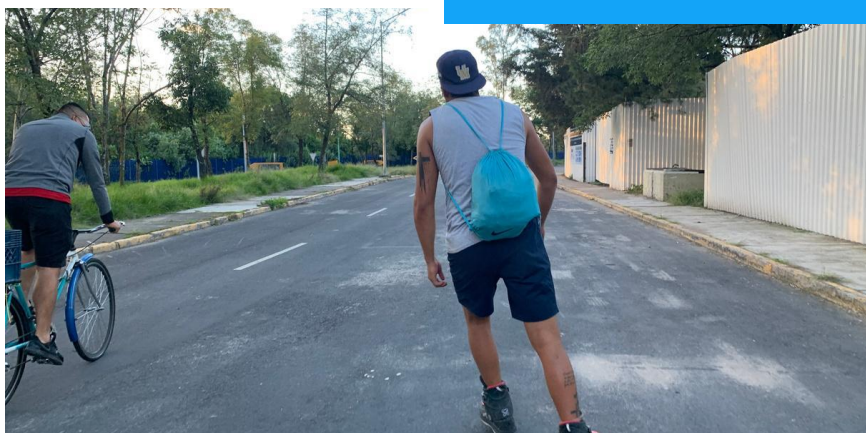
Wendy Ortiz

Kristen Leckie

Marina Ramirez

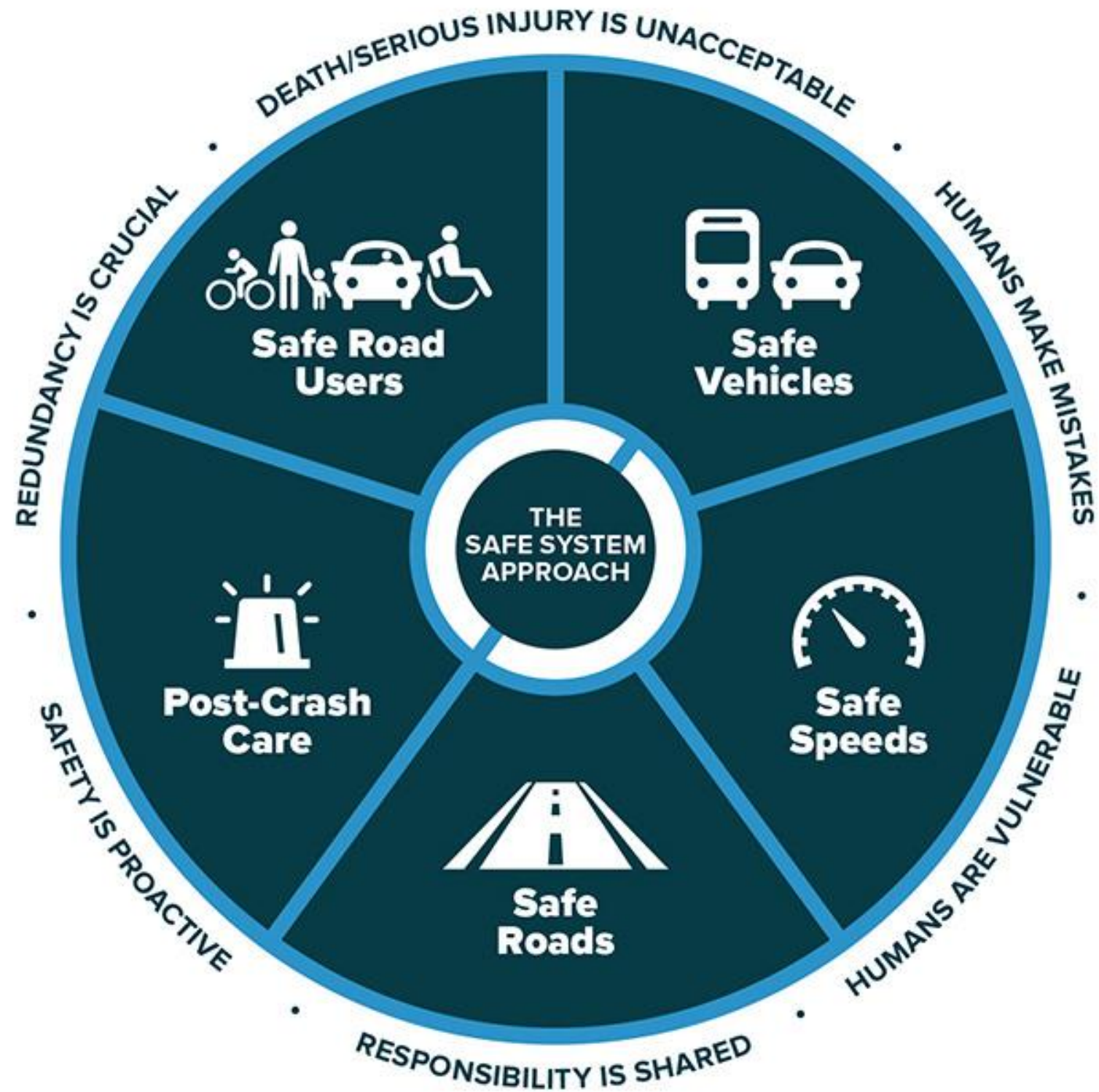Garrett Fortin

Alma Leyva

The Safe System Approach

What is the Safe System Approach?
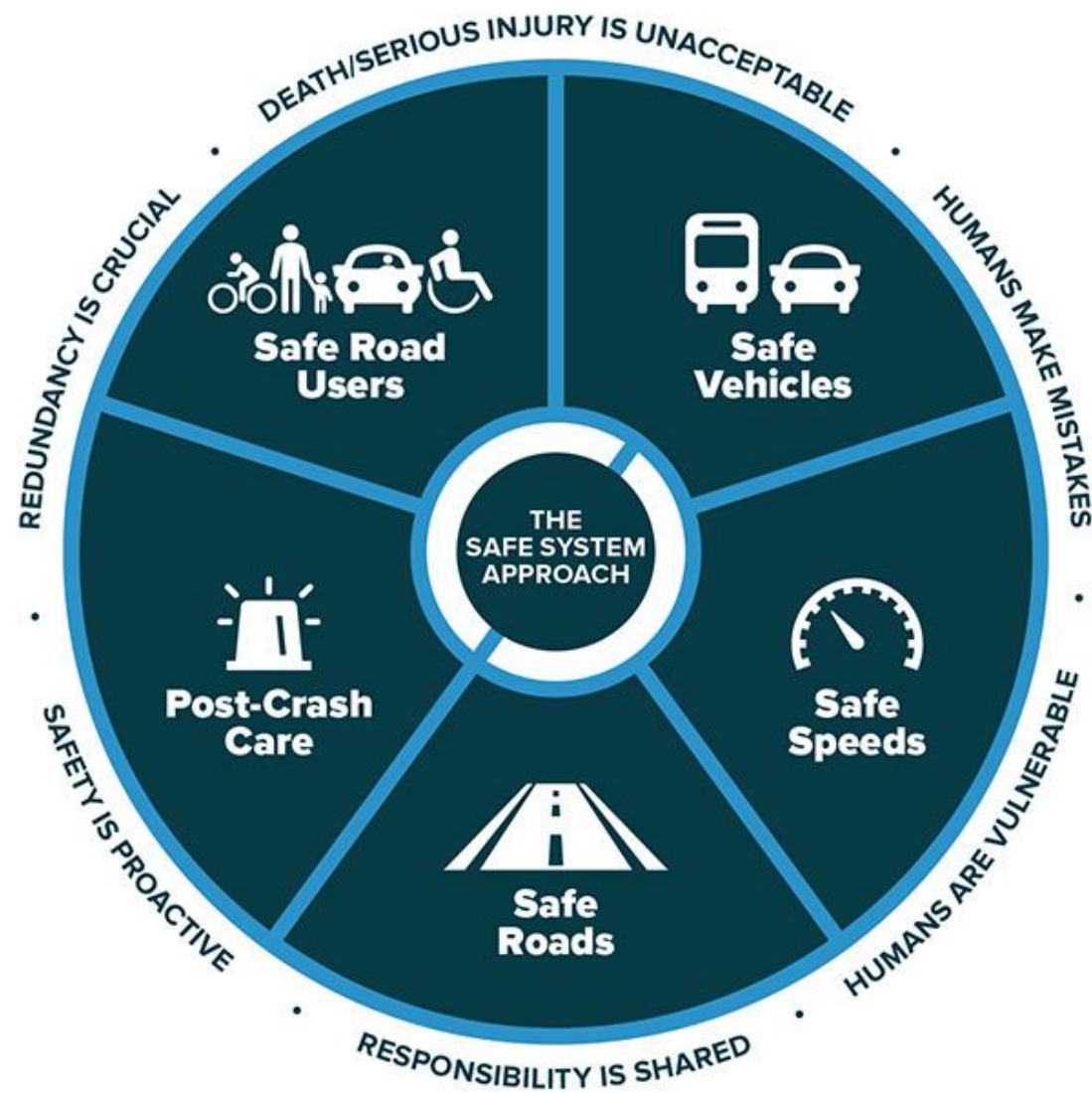

Source: FHWA.
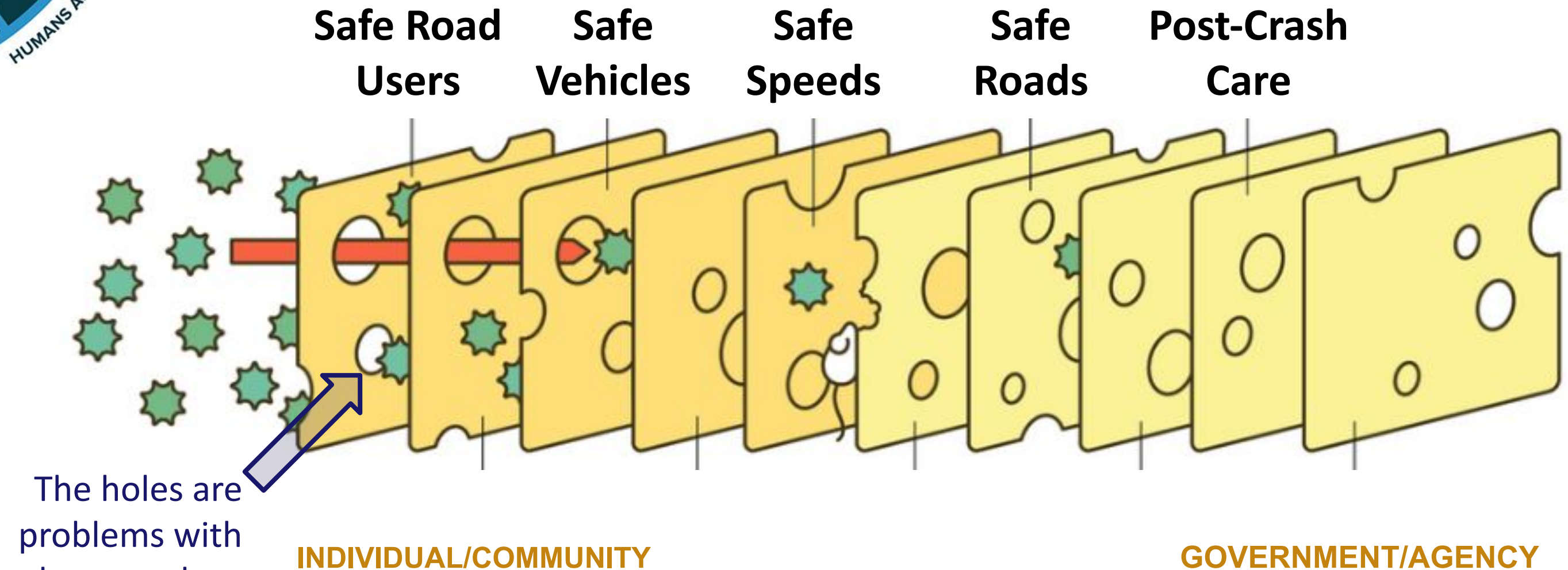
Why is it becoming more prominent now?

- Need for systemic, not siloed, approach
  - Lack of integration between the 6 E's or clear model of how they work together
- Increasing adoption by federal and state agencies
- Growing familiarity with Safe System principles (via Vision Zero, for example)
- Significant successes internationally, notably in Australia

Safe System principles are put into action via Safe System elements, as explained by the "Swiss Cheese Model"

Source: FHWA.

Layers of Protection

| Safe Road Users | Safe Vehicles | Safe Speeds | Safe Roads | Post-Crash Care |

The holes are problems with a layer, such as a mistake.

INDIVIDUAL/COMMUNITY

GOVERNMENT/AGENCY
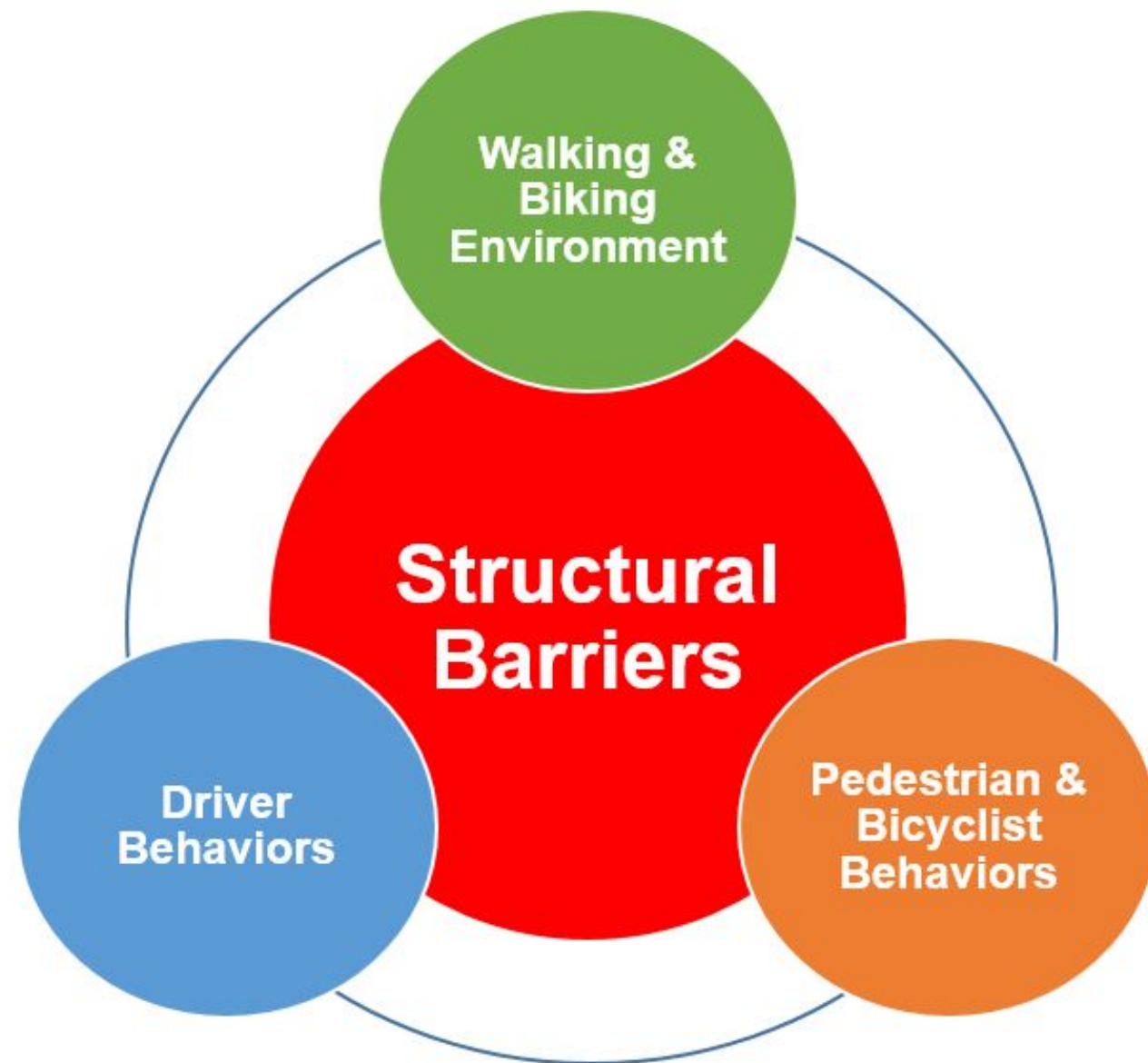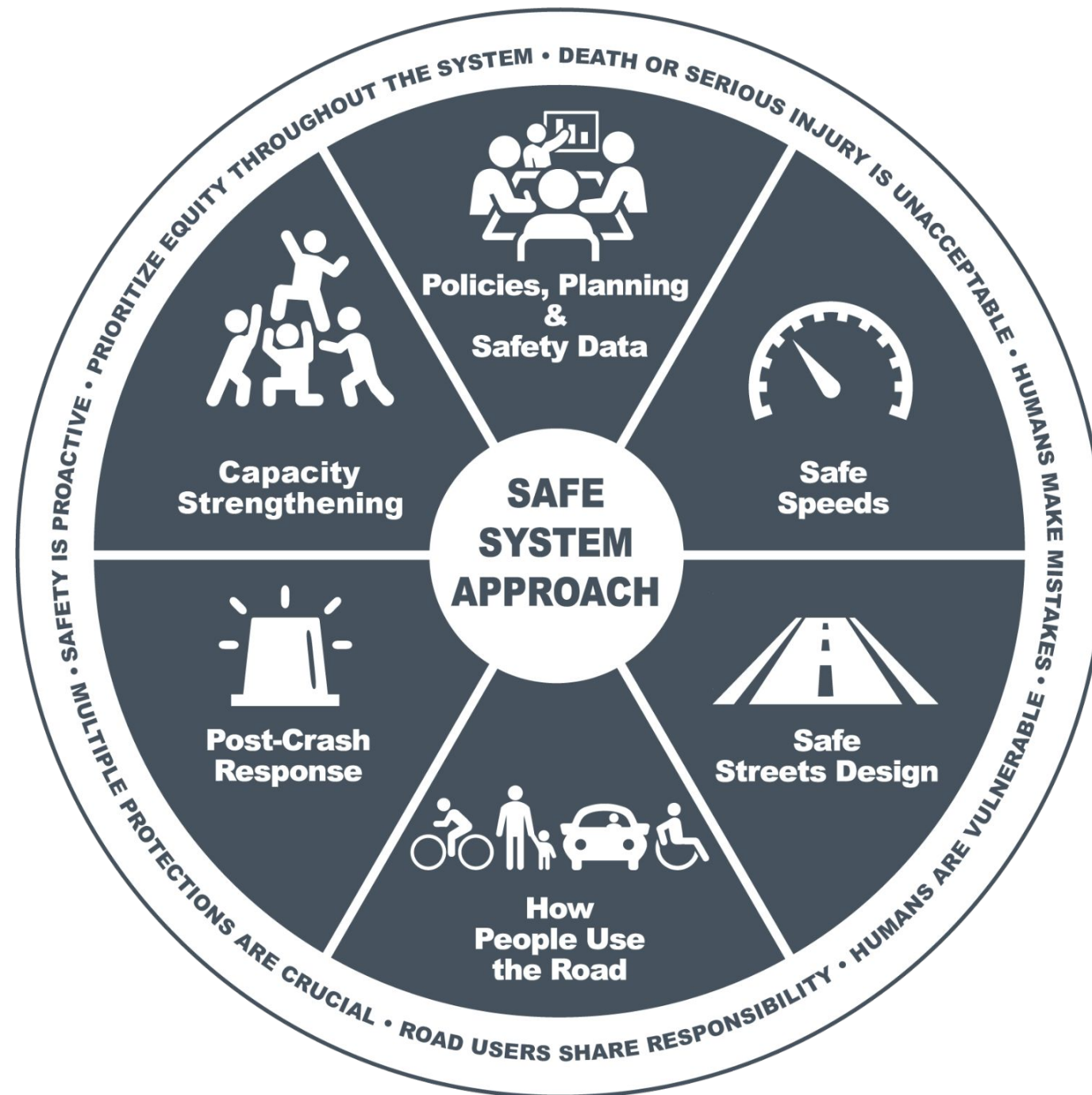
The 6 E's

- **Equity & Community Empowerment**
- **Evaluation**
- **Engineering**
- **Encouragement**
- **Education**
- **Enforcement**

How have we adapted the Safe System Approach?

- **Amended Principles**
  - *Prioritize equity throughout the system*
  - Death or serious injury is unacceptable.
  - Humans make mistakes at one time or another.
  - Multiple protections are crucial.
  - All road users share responsibility.
  - Humans are vulnerable.
  - Safety is proactive.

How have we adapted the Safe System Approach?
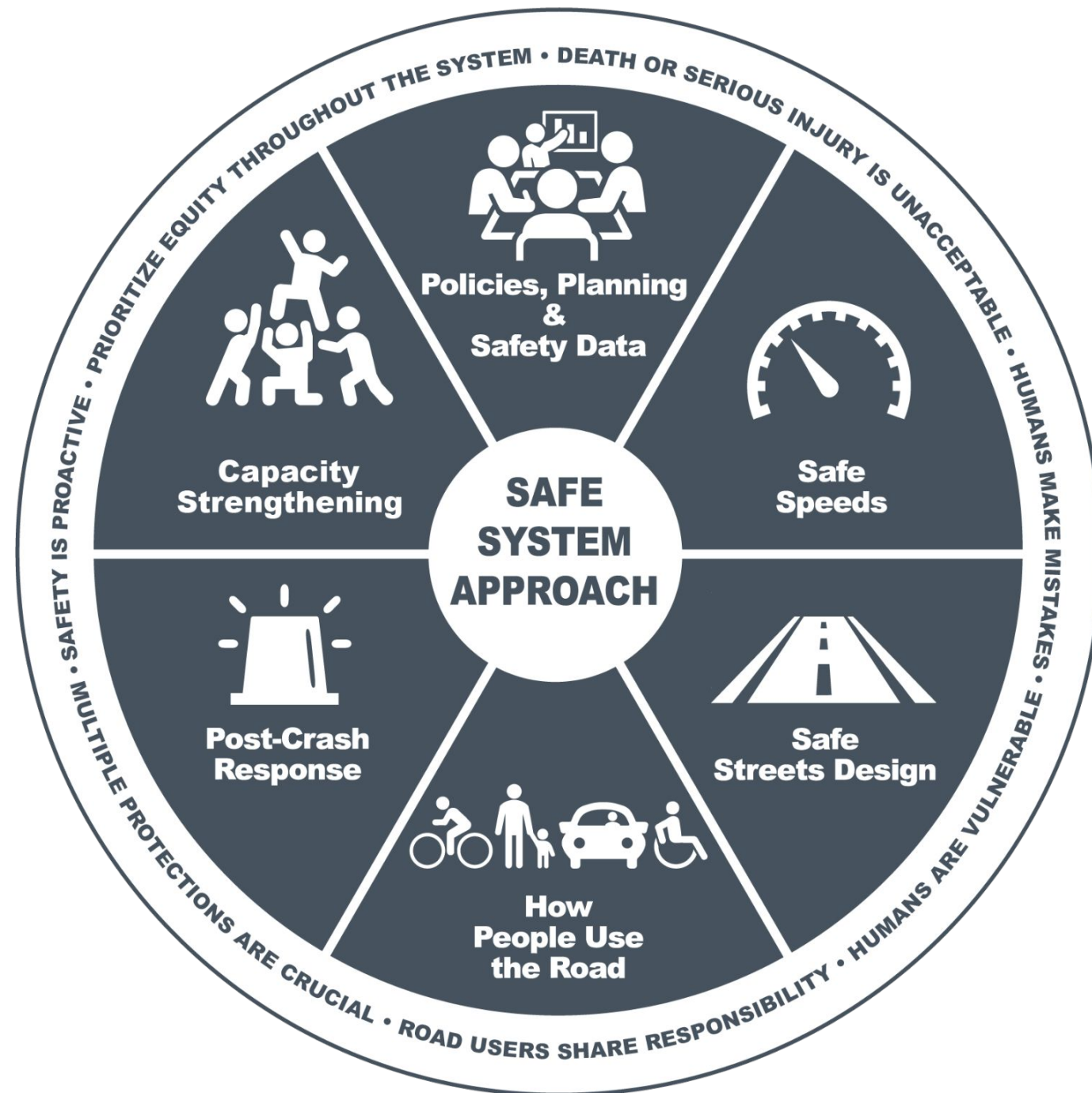
- **Amended layers of protection**
  - Policies Planning & Safety Data
  - Safe Speeds
  - Safe Street Design
  - How People Use the Road
  - Post-Crash Response
  - Capacity Strengthening
- **Made layers of protection tangible by connecting them to specific strategies**

How do we bring SSA to the Community?

Conducting Community Engagement with a Safe Systems Lens

There are numerous ways communities may connect with Safe System efforts, such as:

- Forming Pedestrian and Bicycle Advisory Committees
- Conducting safety education and encouragement activities
- Conducting community-led walking and bicycling assessments
- Implementing safe speed messaging campaigns
- Educating local communities about how to advocate for pedestrian and bicycle safety improvements

CATSIP Guides and Toolkits page

Guides and Toolkits

Explore this selection of guides and toolkits from both agencies and community organizations which were developed to promote safe walking and biking facilities.

Bike and Pedestrian Projects

Outreach and Engagement

Safe Routes to School

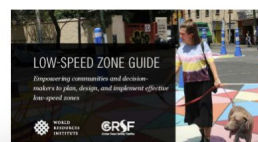### Bike and Pedestrian Projects

The below guides and toolkits provide guidance on how to plan and implement bike and pedestrian projects that are safe, accessible and community-oriented.

Guide to Pedestrian Analysis (NCHRP, 2022)

The TRB National Cooperative Highway Research Program's *NCHRP Research Report 992: Guide to Pedestrian Analysis* presents a state-of-the-art guide to conducting pedestrian traffic analysis on the basis of volume, safety, operations, and quality of service. In addition to the guide, the research provides new evaluation methods for use with the *Highway Capacity Manual.*

Low-Speed Zone Guide (WRI, 2021)

This Low-Speed Zone Guide presents strategies for planning, designing, building, and evaluating low-speed zones in cities. The guide intends to equip communities and decision-makers with the tools to implement low-speed zones that will suit their specific

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Outreach and Engagement

The below guides and toolkits provide guidance on how to conduct outreach and engagement for bike and pedestrian projects that is accessible, equitable and community-centered.

Principles for Equitable Public Outreach and Engagement During COVID-19 and Beyond (Nelson Nygaard, 2019)

Our work in the transportation and planning sector is critical, perhaps now more than ever, to respond and adapt to changing travel demand during the pandemic as well as to help communities recover after it has passed. It is equally critical that we ensure inclusive, equitable, and diverse public outreach and engagement as part of the important decision-making processes ahead—whether for real-time responses to the pandemic, existing projects, or future transportation funding and planning scenarios.

The following guidance is intended to provide fellow transportation sector practitioners and partners with a set of principles for inclusive engagement, including baseline equity

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Safe Routes to School

The below guides and toolkits provide guidance on how to plan and implement Safe Routes to School projects that are safe, accessible and community-oriented.

Let's Get Together: A Guide for Engaging Communities and Creating Change (Safe Routes Partnership, 2022)

This guide offers tips and strategies for effective community engagement by looking at how your role as a community partner impacts the community you are working with, how you can build your understanding of the community by conducting community research, and how to leverage partnerships in your community engagement. The Safe Routes Partnership rounds out the guide with creative ideas for engagement activities and strategies for sustaining community engagement long-term.

Connecting People to Parks: A Toolkit to Increase Safe and Equitable Access to Local Parks and Green Spaces (Safe Routes Partnership, 2021)

This toolkit includes step-by-step guidance through the Safe Routes to Parks framework to increase safe and equitable access to parks and green spaces. This toolkit was developed

Safe System CPBST Tool Kit

2022-2023 Community Pedestrian and Bicycle Training Tool Kit

Safe System Approach to Road Safety:

The Safe System Approach focuses on saving lives, with the understanding that humans make mistakes and bodies are fragile. Attention is focused on reducing fatal and serious injuries when a crash occurs through ways a street is designed, the ways we manage our streets and their infrastructure, and engaging and educating communities on how to use streets safely.

The Community Pedestrian and Bicycle Safety Training (CPBST) team adapted the Federal Highway Administration (FHWA) Safe System elements and principles to make them impactful for the communities we work with. Specifically, we include community engagement as a key element in a Safe System, and make equity a central component. We also acknowledge the key role of collaboration between transportation professionals and the communities they work with in order to create safe streets for all.

Within the Safe System Approach, the CPBST team:
1. Reviews pedestrian and bike crash data and safety strategies;
2. Facilitates walking and biking assessments;
3. Strategizes with communities to define specific pedestrian and bike safety goals and actionable next steps; and
4. Empowers communities to strengthen collaborations to implement specific walking and biking safety recommendations.

We've created a table of potential community improvements that can help you create a safer community with the Safe System Approach. There are many ways to plan a bikeable and walkable community; this toolkit is just a starting point.

Within our table of potential community improvements, we've tagged them with keywords we found relevant to the specific strategy. These keywords include:
- Community Engagement/Partnerships - allow opportunities to engage with the community and create partnerships with community-based organizations, local businesses, and others.
- Data - strategies that collect, analyze, and provide data for projects.
- Encouragement and Education - encourage communities to walk, bike, or use public transportation and/or provide educational opportunities to learn how to safely walk, bike, or roll in communities.
- Infrastructure - infrastructure-specific and change the layout of the roadway.
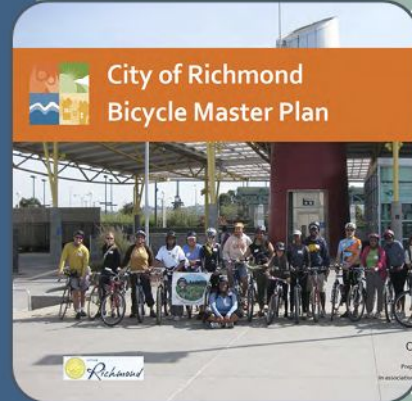- Safe Routes to School (SRTS) - encourage and support SRTS efforts in communities.

VTA
BICYCLE & PEDESTRIAN ADVISORY COMMITTEE OPENING

Santa Clara Valley Transportation Authority · gilroy

Bike and/or Pedestrian Advisory Committees

A volunteer group of residents, community stakeholders, and subject experts that advise and make recommendations to decision makers on walking and biking programs, projects, and policies.

When to Use: To provide opportunities for residents, community stakeholders, and subject experts to help shape walking and biking programs, projects and policies.

Community Engagement/Partnerships, Data, Encouragement and Education, Infrastructure, Safe Routes to School (SRTS), Speed Management, Vulnerable Populations

City of Richmond Bicycle Master Plan

Bike and/or Pedestrian Master Plans

An official government document used to guide funding decisions and/or prioritize specific walking and biking improvement programs, projects, and policies.

When to Use: To create city-wide or regional government plans that prioritize walking and biking.

Community Engagement/Partnerships, Data, Encouragement and Education, Infrastructure, Safe Routes to School (SRTS), Speed Management, Vulnerable Populations

Bike Box

A designated space usually painted in a high-visibility green paint where people biking can stop in front of people driving at a red light. They make sure people biking are visible and encourage more predictable approaches to and through the intersection by all road users.
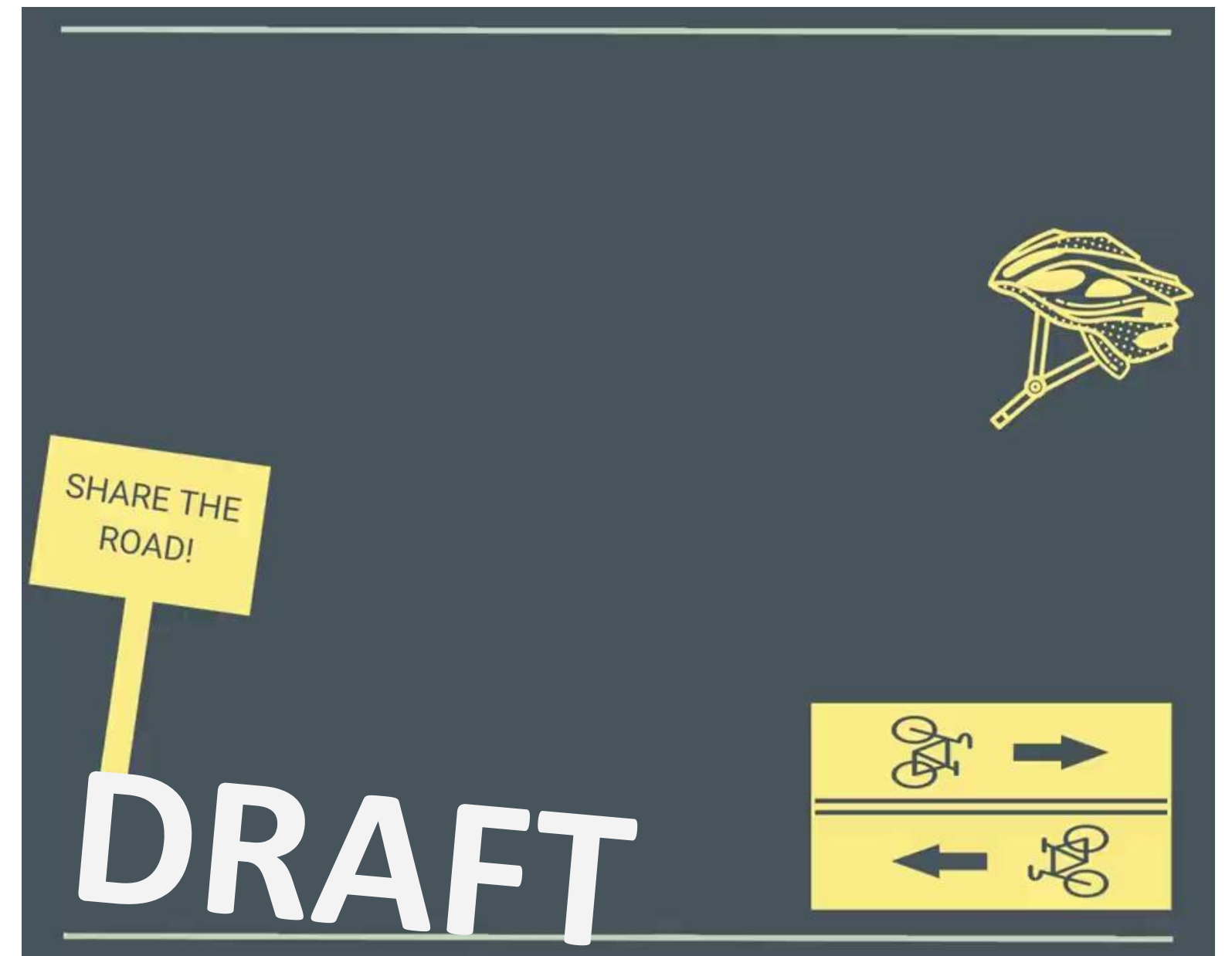
When to Use: To provide a safe place for people biking to stop at a red light. This allows those biking to wait at a red light in front of those driving, providing higher visibility and awareness for those driving to share the road.

Encouragement and Education, Infrastructure, Vulnerable Populations

Applying the SSA
to Community-Led Projects

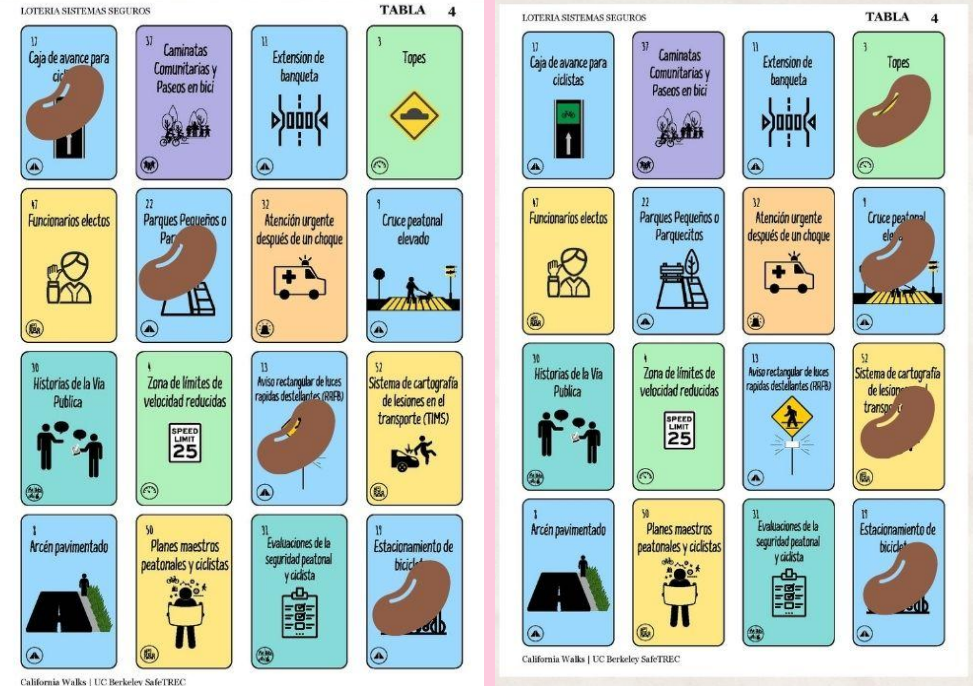# Introducing the SSA
to All Community Members

Applying the SSA: Tools

Tik Tok Videos

Loteria (bingo)

Toolkit

Questions and Discussion