

# MnDOT Safe System Approach Implementation Plan

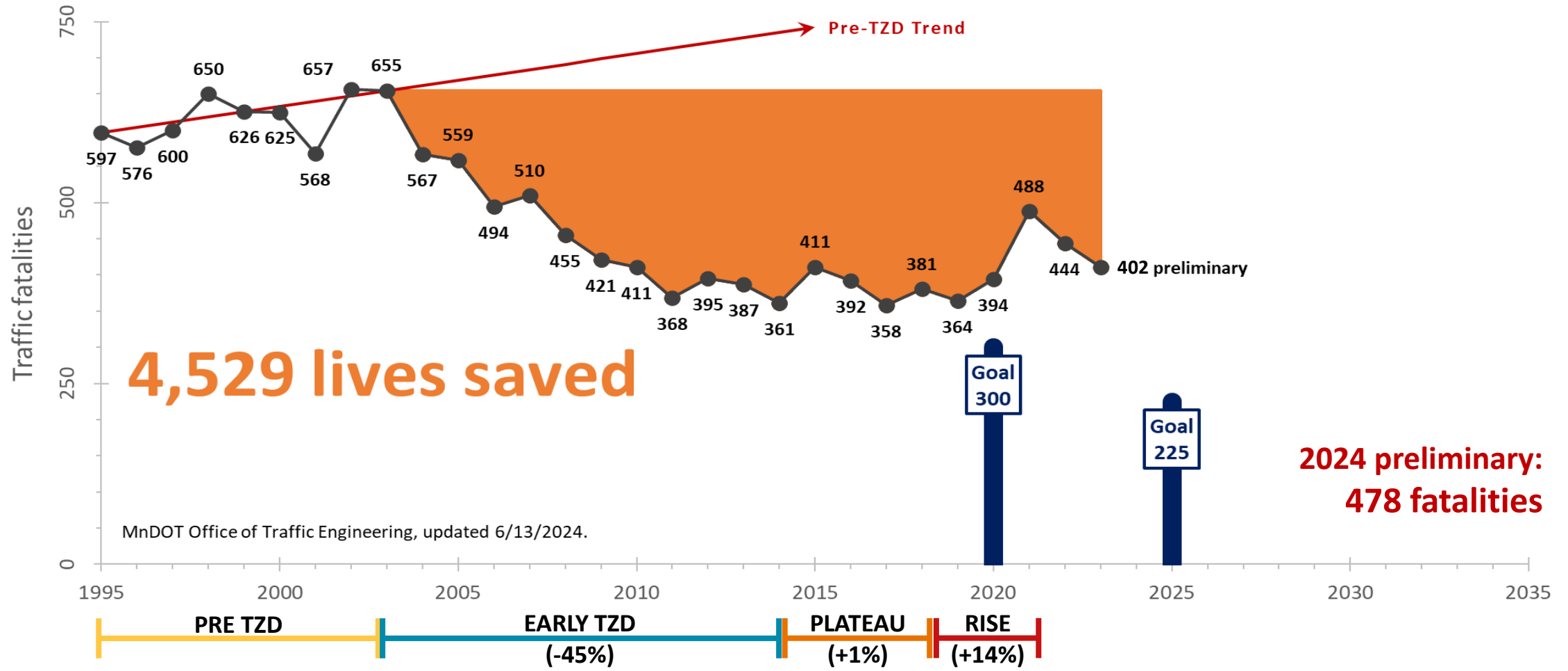
Met Council TAB – March 19, 2025



# What is the SSA?



# Minnesota Traffic Crash Data



# A New Paradigm

The Safe System approach aims to eliminate fatal and serious injuries for all road users by:



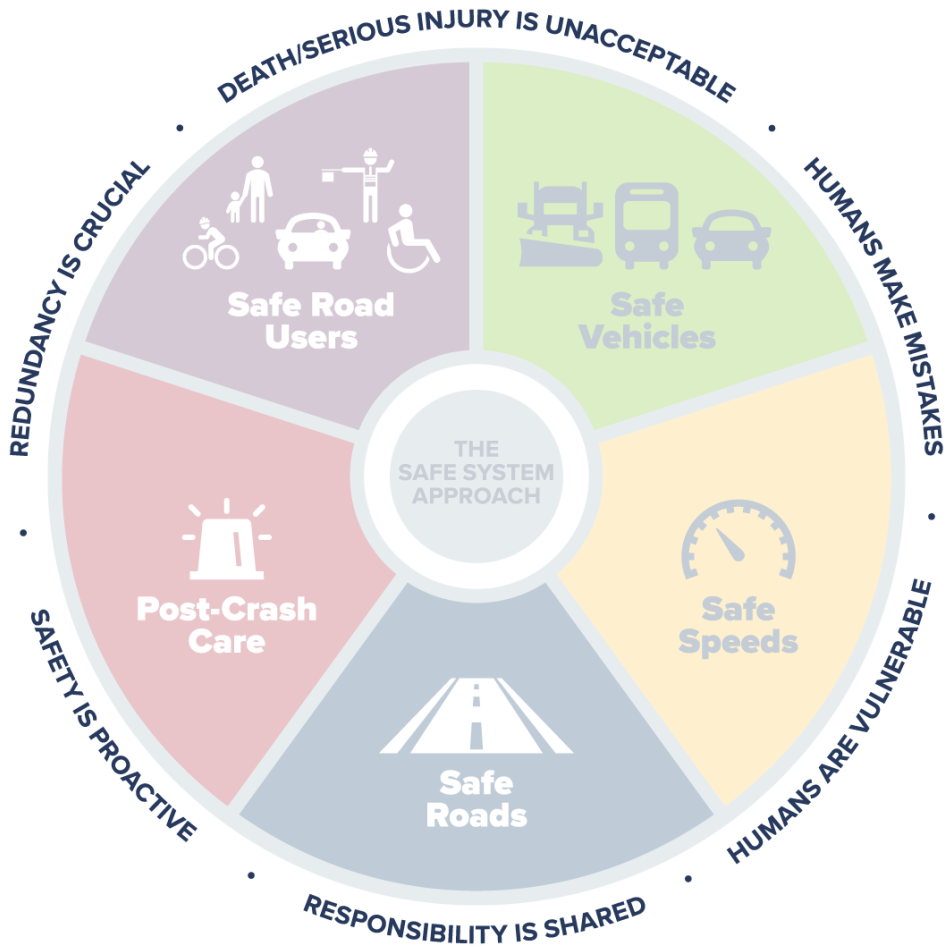
**Accommodating  
human mistakes**

**PARADIGM SHIFT**



**Keeping impacts on the human  
body at tolerable levels**

# Safe System Approach Principles



Death/serious injury is unacceptable



Humans make mistakes



Responsibility is shared



Safety is proactive



Humans are vulnerable



Redundancy is crucial

# Safe System Approach Elements



Safe road users



Safe roads



Safe vehicles



Post-crash care



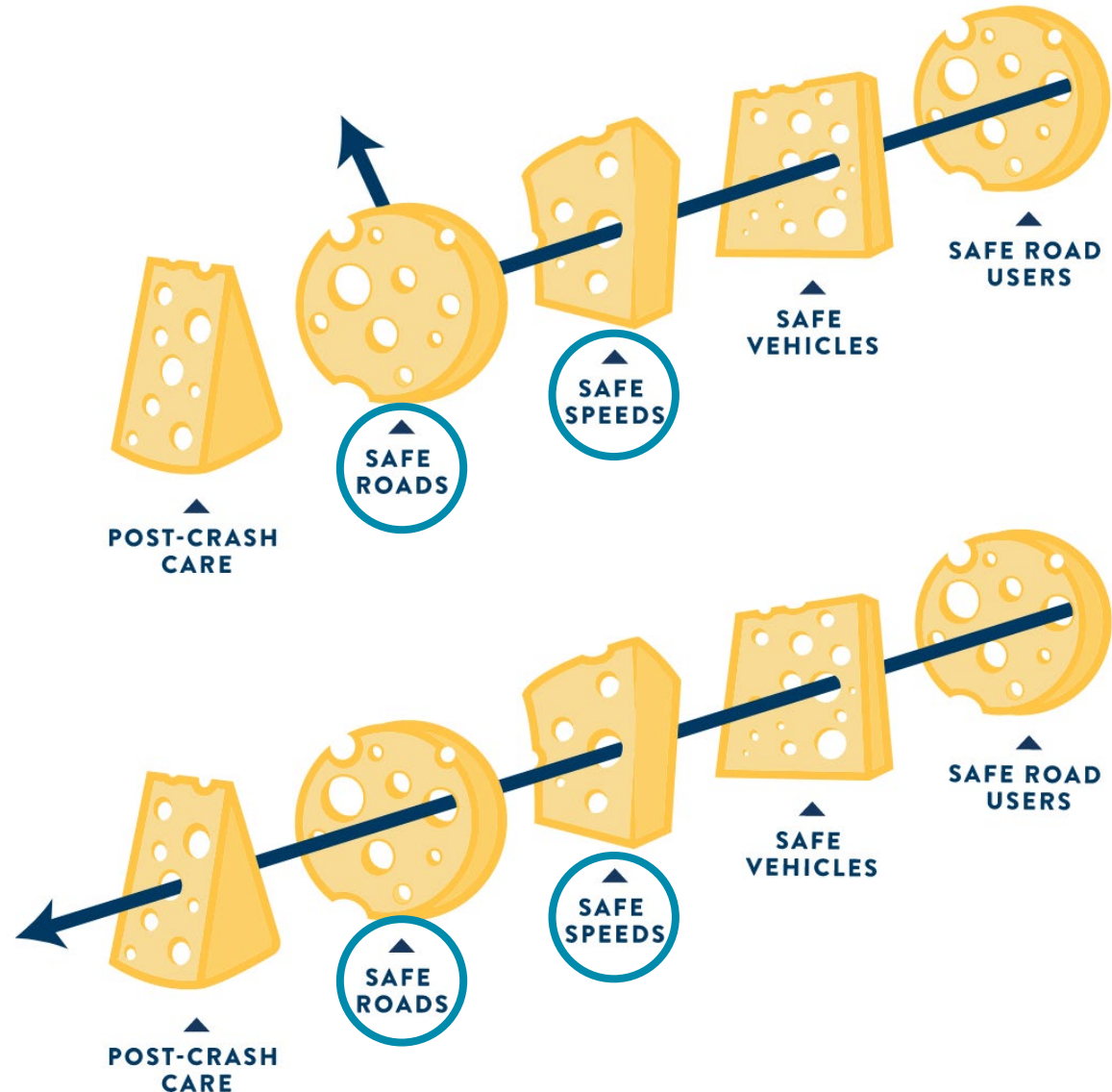
Safe speeds

# Swiss Cheese Model

The SSA elements work together to provide **redundant layers of protection**.

Holes in each slice of cheese represent **weaknesses or failures** in that element.

Death and serious injuries only happen when **ALL** layers fail.



# TZD and Safe System

## TZD

- State's cornerstone traffic safety program.
- Create a culture where fatal and serious injury crashes are unacceptable.
- Implement effective strategies proactively.
- Work with partners in Enforcement, Education, Engineering, EMT, and **Everyone**.



## Safe System Approach

- Part of TZD -> How MnDOT will approach Roadway Ownership and Stewardship
- US DOT guiding paradigm to address roadway safety.
- Mindset that it is unacceptable to allow deaths and serious injuries to occur on the roads.
- Requires a culture that places safety first and foremost in road system investment decisions.
- Humans will make mistakes and are vulnerable
- Shared responsibility



# MnDOT SSA Implementation Plan Development



# Project Overview

## **Project Objective:**

*Develop an action plan for integrating the safe system approach into MnDOT programming and project delivery process.*

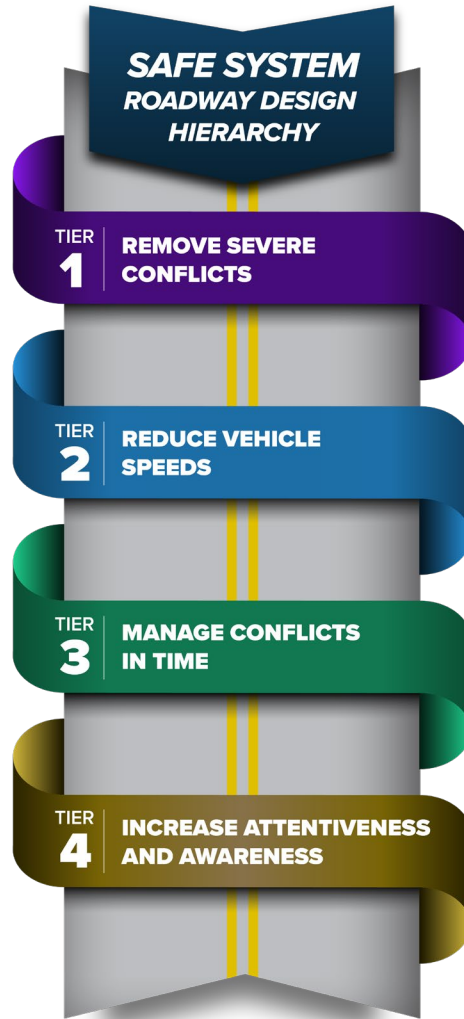
## **Project Goals:** *What does success look like?*

- Broad understanding of the SSA across MnDOT
- Clearly identified areas of where change is needed across the state to properly implement SSA
- Internal and external education & buy-in
- Shift priorities from reducing total crashes to eliminating fatalities & serious injuries

# Final Vision

The MnDOT SSA Implementation Plan will be a framework leading the agency to **broad application of SSA principles throughout the project development process**. The SSA will be seen as an approach for staff to utilize in their work toward providing safe mobility for all users and ***eliminating* fatalities and serious injuries**.

# Public Health Perspective & Infrastructure Strategies



# MnDOT SSA Implementation Plan Action Highlights



# Prioritization and Responsible Parties

- Actions assigned to priority levels A, B, C, and D.
  - **Priority Level A** actions are considered **foundational actions**.
- Three responsible party roles identified:
  - Owner – *Where in the agency should this action ultimately live?*
  - Driver – *Who will execute this action?*
  - Approver – *Who needs to sign off on this action?*



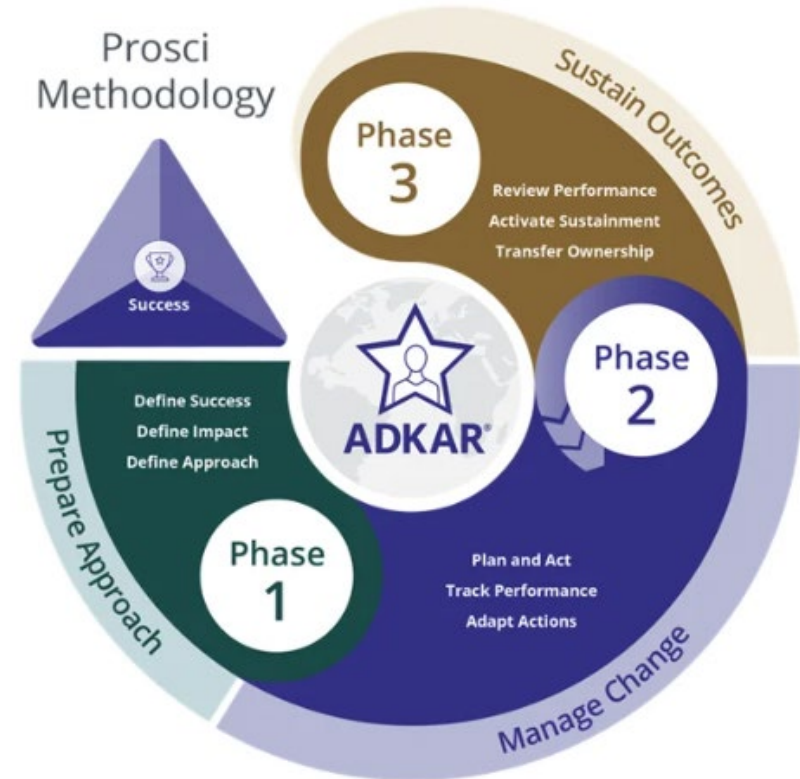
# Partnership Considerations



# Change Management Considerations

*Establishment of a change management plan will be a key step for MnDOT to support the shift in traffic safety culture & execute the SSA Implementation Plan.*

<b>A</b>	<b>Awareness</b> – Of the need for change
<b>D</b>	<b>Desire</b> – To Participate and support the change
<b>K</b>	<b>Knowledge</b> – On how to change
<b>A</b>	<b>Ability</b> – To implement required skills and behaviors
<b>R</b>	<b>Reinforcement</b> – To sustain the change





## Leadership Commitment & Institutionalization

1. Formally adopt the SSA as the agency-wide approach to traffic safety.
2. Integrate the SSA into MnDOT standard operating procedures and practices.
3. Identify SSA implementation leaders and champions throughout the agency.

## Training & Educational Resources

4. Develop a robust tiered traffic safety training program internal and external to MnDOT, centered around the SSA principles and elements.
5. Develop & publish MnDOT SSA Policy and Implementation Tools Library online resource.

## Technology & Innovation

6. Leverage technology to aid in implementation efforts.
7. Establish innovative approaches to promoting SSA best practices and successful project and/or program-level implementation efforts.

## Engagement & Cultural Change Initiatives

8. Deploy public traffic safety education materials to educate the public on the SSA.
9. Improve engagement efforts with local agencies (county boards, county and city engineers, etc.).
10. Improve partnership with SSA stakeholder agencies/groups to advance the shift in MN traffic safety culture.

# Lessons Learned

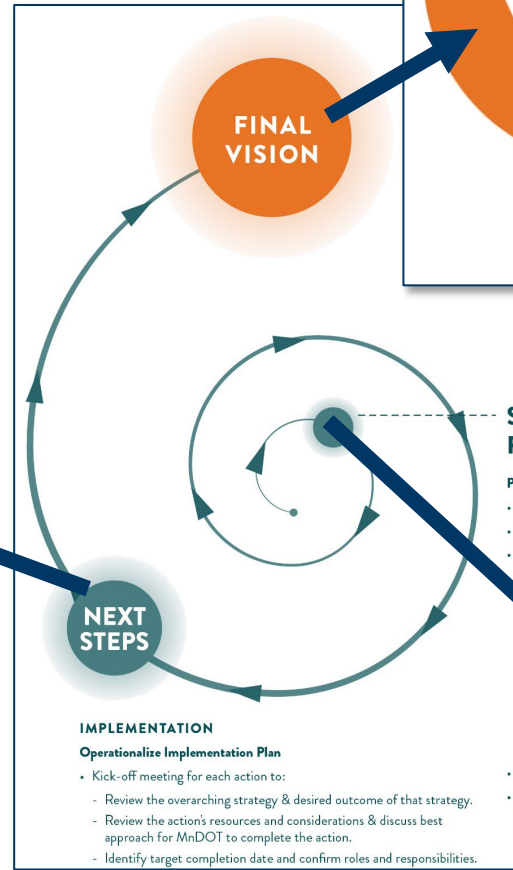
- Change management considerations are crucial.
- Speed management emerges as a critical element.
- Allow more time for agency and leadership input throughout plan development.

# Next Steps



**NEXT STEPS**

**IMPLEMENTATION**  
Operationalize Implementation Plan



**FINAL VISION**

**INSTITUTIONALIZATION**

SSA is institutionalized at MnDOT and thoroughly integrated into agency's programming and project delivery process.



**SSA IMPLEMENTATION PLAN**

**PRE-IMPLEMENTATION**

- Best practices research
- State input
- Identified implementation actions

# Next Steps

## Leadership Commitment & Institutionalization

- Review of **policy/funding documents** & establish **performance measures**.
- Adopt **change management model** to support traffic safety culture shift & develop **annual review process**.
- Advocate for “**safer design first**” policies.
- **Adopt & develop tool(s)** to evaluate plan or project’s alignment with the SSA.
- Develop **speed management guide**.
- Establish District **SSA leaders** & CO group.

# Next Steps

## Training & Educational Resources

- Develop and conduct a **training roadshow** to introduce & educate MnDOT Districts and Central Office on the SSA.
- Develop one-page **fact sheets** on MnDOT-endorsed safety strategies.
- Develop a **catalog of safety analysis tools** with examples of when each tool should be used.



“There is **no single pathway** for the adoption, establishment and implementation of a Safe System. Moving to a **Safe System** is a **learning-by-doing process** best described as a journey which presents opportunities, hazards and challenges along the way.”

- Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System; OECD (2016)

# Questions?

