metroplan orlando

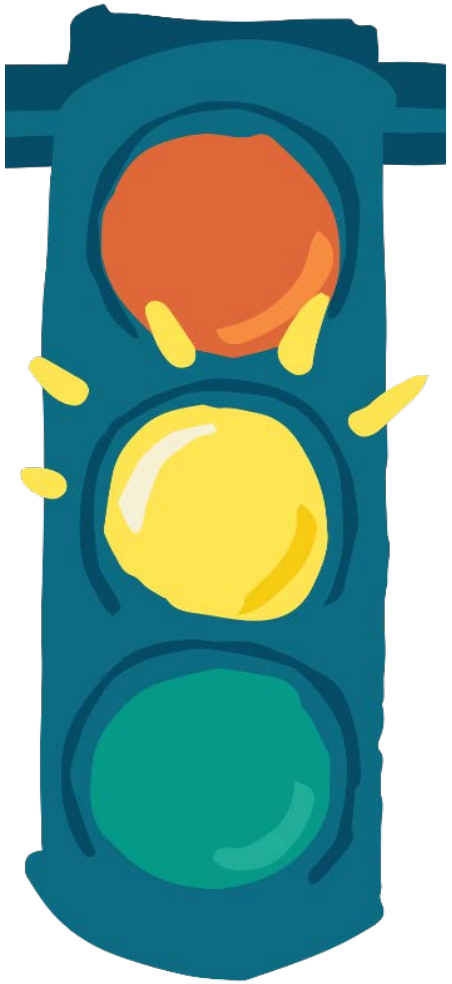
A REGIONAL TRANSPORTATION PARTNERSHIP

2045 Metropolitan Transportation Plan
Congestion Management Process

February / March 2020

Defining Terms:
Congestion Management

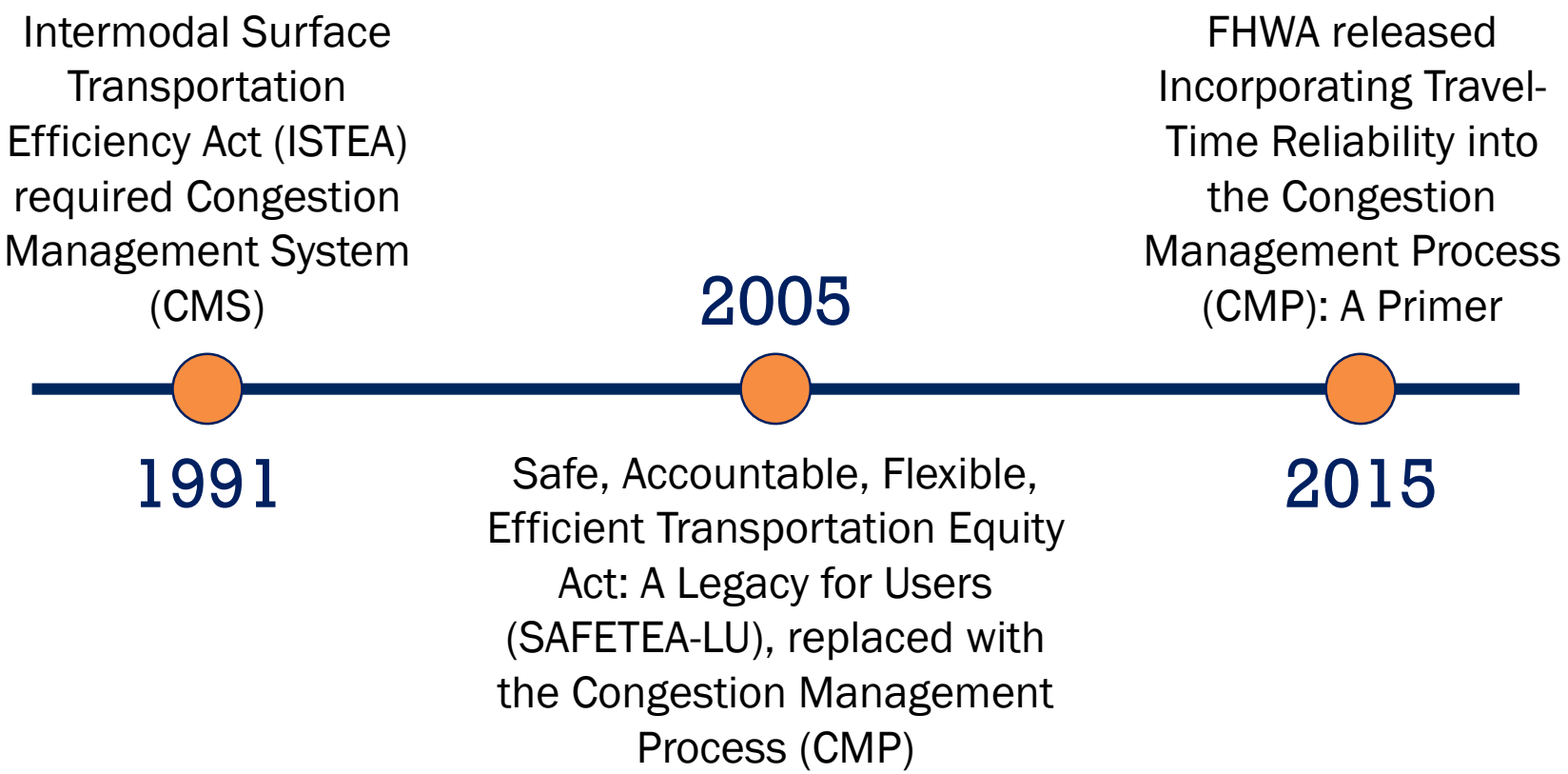
Application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of congestion on the movement of people and goods.



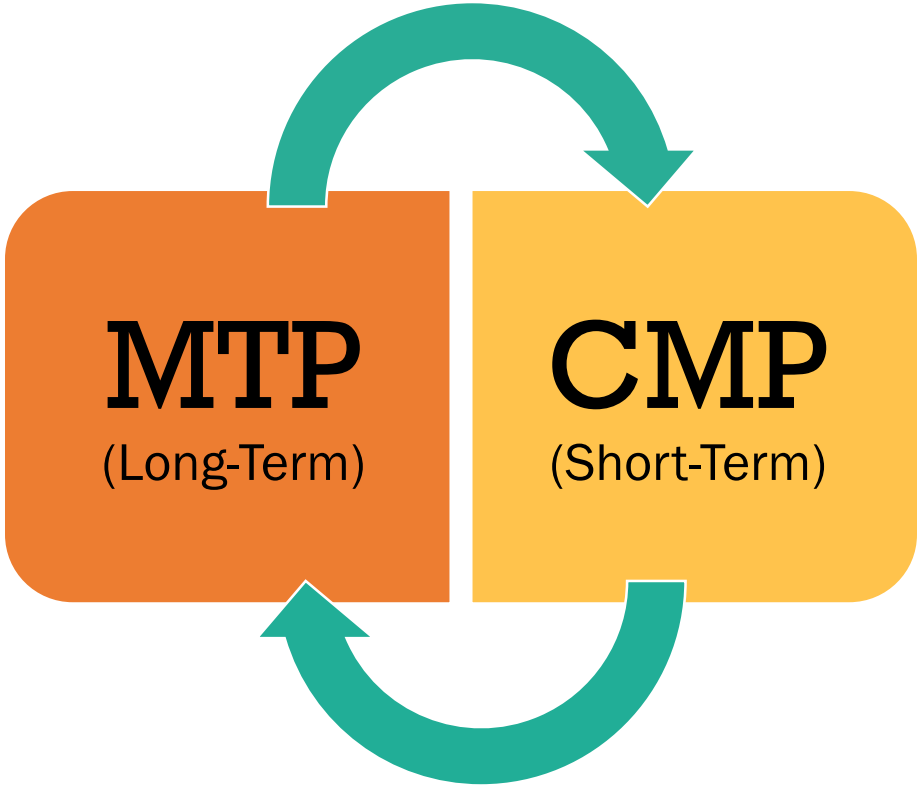
Defining Terms:
Congestion Management Process (CMP)

A method of managing congestion that provides information on transportation system performance.

History:
Congestion Management Guidance

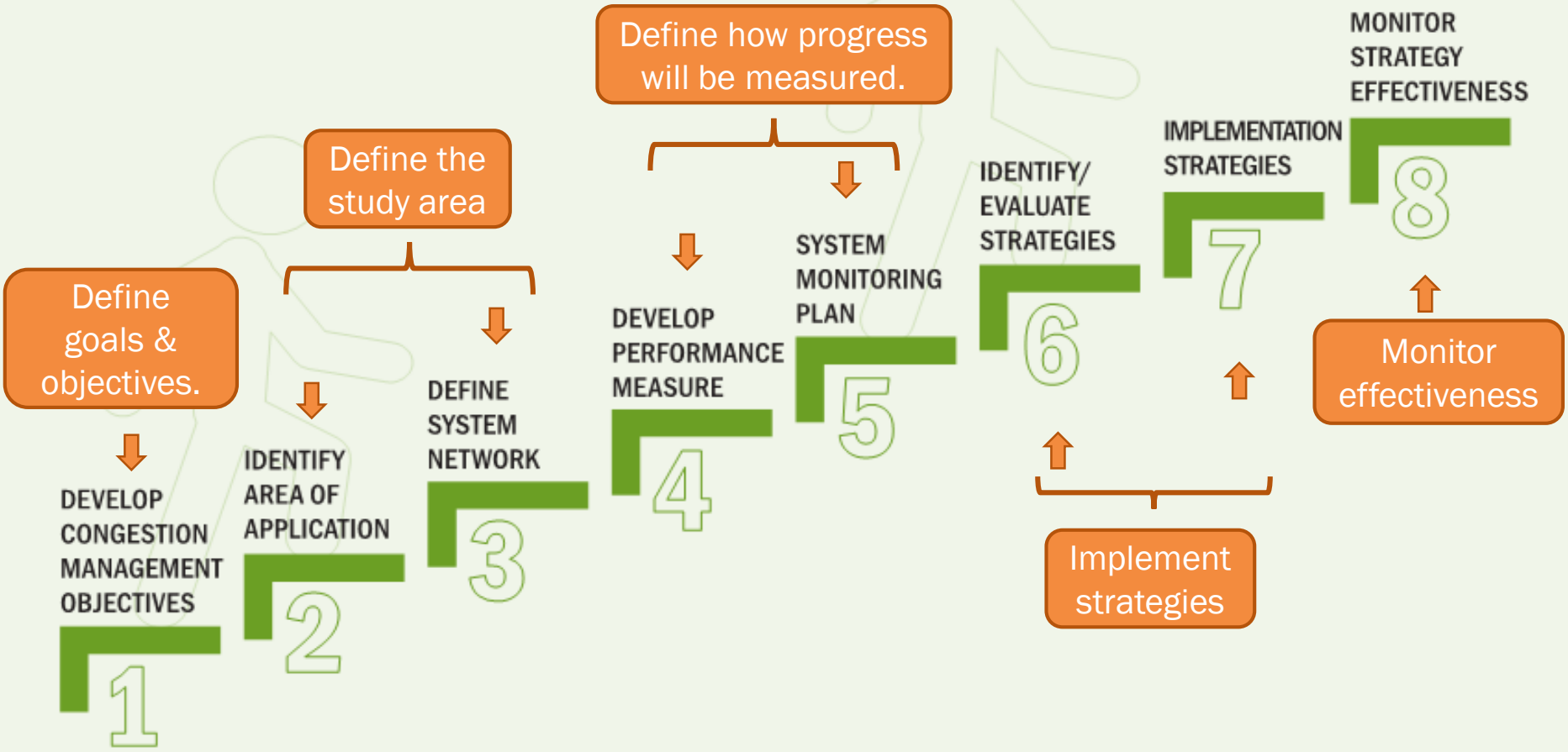


Interconnected Planning Relationship



- Aligned goals
- Aligned objectives
- Aligned targets
- Aligned study area
- Informs projects and programs

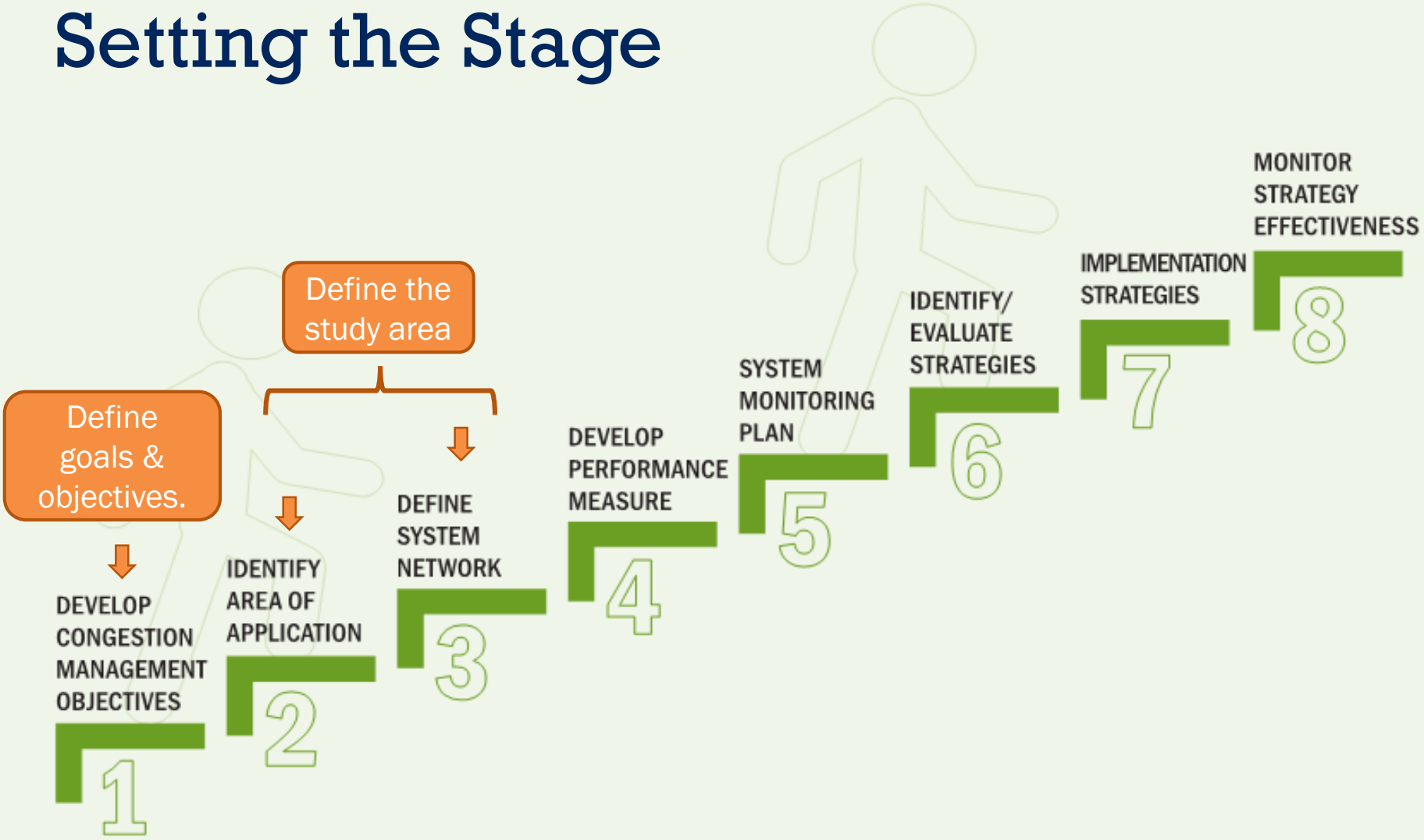
The Congestion Management Process:
Objectives-Driven, Performance-Based



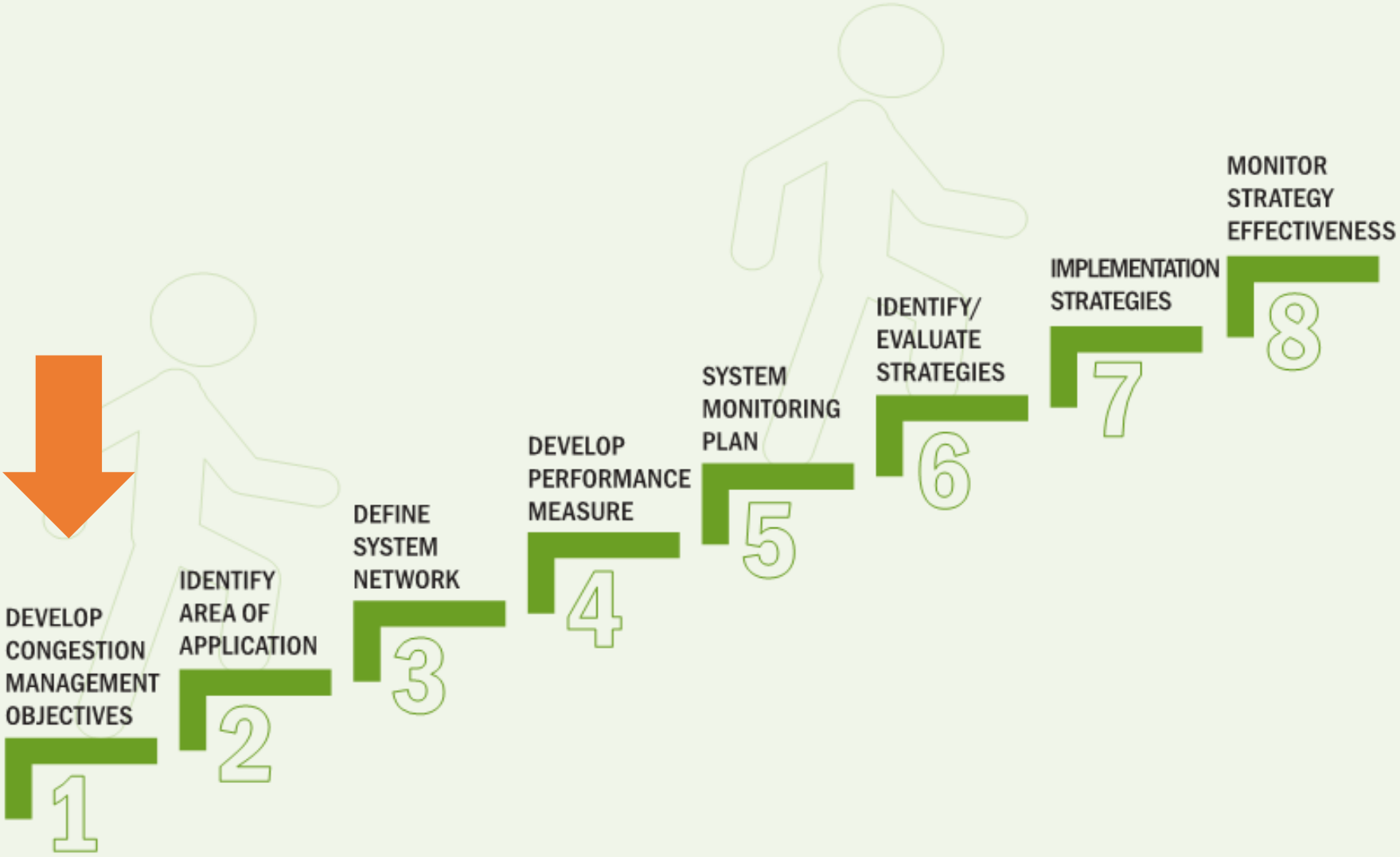
Best Practice:
A well-designed CMP should…

- ✓ Identify performance measures
- ✓ Establish a program for data collection and to monitor system performance
- ✓ Identify congested locations
- ✓ Identify strategies to address congestion
- ✓ Help congestion management strategies get funded and implemented

The Congestion Management Process: **Setting the Stage**



The Congestion Management Process: **Define CMP Goals & Objectives**



Step #1:
Develop Congestion Management Objectives

- How objectives will be used:
  - To help define how system performance is tracked over time
  - To help select strategies that will be included in the MTP and corresponding TIP and PPL
- Typically derived from the vision and goals articulated in the MTP
- Objectives should be **SMART**

Specific | Measurable | Achievable | Realistic | Time-Bound

- Data availability is essential!

Proposed 2045 MTP Goals

Safety & Security

Provide a safe and secure transportation system for all users

Reliability & Performance

Leverage innovative solutions to optimize system performance

Access & Connectivity

Enhance communities and lives through improved access to opportunity

Health & Environment

Protect and preserve our region's public health and environmentally sensitive areas

Investment & Economy

Support economic prosperity through strategic transportation investment

Safety & Security

Provide a safe and secure transportation system for all users

Objectives

- Eliminate the rate and occurrence of transportation system fatalities, injuries, and crashes with high emphasis on the most vulnerable users
- Provide infrastructure and services to help prepare for, respond to, and recover from emergencies
- Prevent and mitigate transportation-related security risks
- Improve emergency response and incident clearance times
- Increase the resiliency of infrastructure to risks, including extreme weather and other environmental conditions

Reliability & Performance

Leverage innovative solutions
to optimize system performance

Objectives

- Improve travel time reliability on the transportation system
- Enhance and expand the region's ITS, adaptive and actively managed traffic systems
- Reduce travel time per capita (peak and off-peak travel times)
- Improve average transit on-time performance (bus and rail services)
- Adapt transportation infrastructure and technologies to meet changing traveler needs and desires

Access & Connectivity

Enhance communities and lives
through improved access to opportunities

Objectives

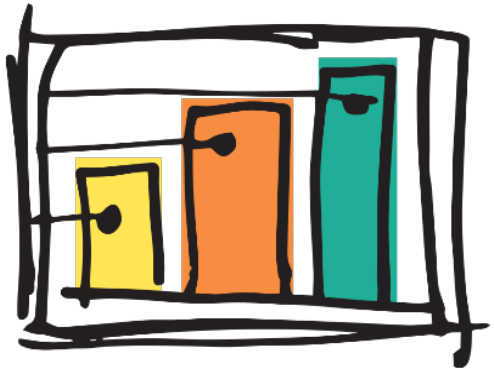
- Increase transit system frequency
- Improve housing and employment access to high-frequency transit
- Improve access to essential services across all modes of transportation
- Reduce per capita vehicle miles traveled
- Increase ridership on public transportation
- Reduce the reliance on single-occupant vehicle travel
- Plan and develop transportation systems that reflect regional and community values

Health & Environment

Protect and preserve our region's public health and environmentally sensitive areas

Objectives

- Provide transportation solutions that contribute to improved public health
- Expand conservation lands and minimize land consumption for future development
- Increase population/employment densities and mix of land uses
- Reduce per capita related air quality pollutants and greenhouse gas emissions
- Reduce adverse health impacts associated with physical inactivity
- Plan and develop transportation systems in a manner that protects and restores the function and character of the natural environment and avoids or minimizes adverse environmental impacts
- Reduce transportation impacts caused by stormwater issues and flooding
- Prevent disproportionate adverse effects of transportation projects on minority and low-income communities



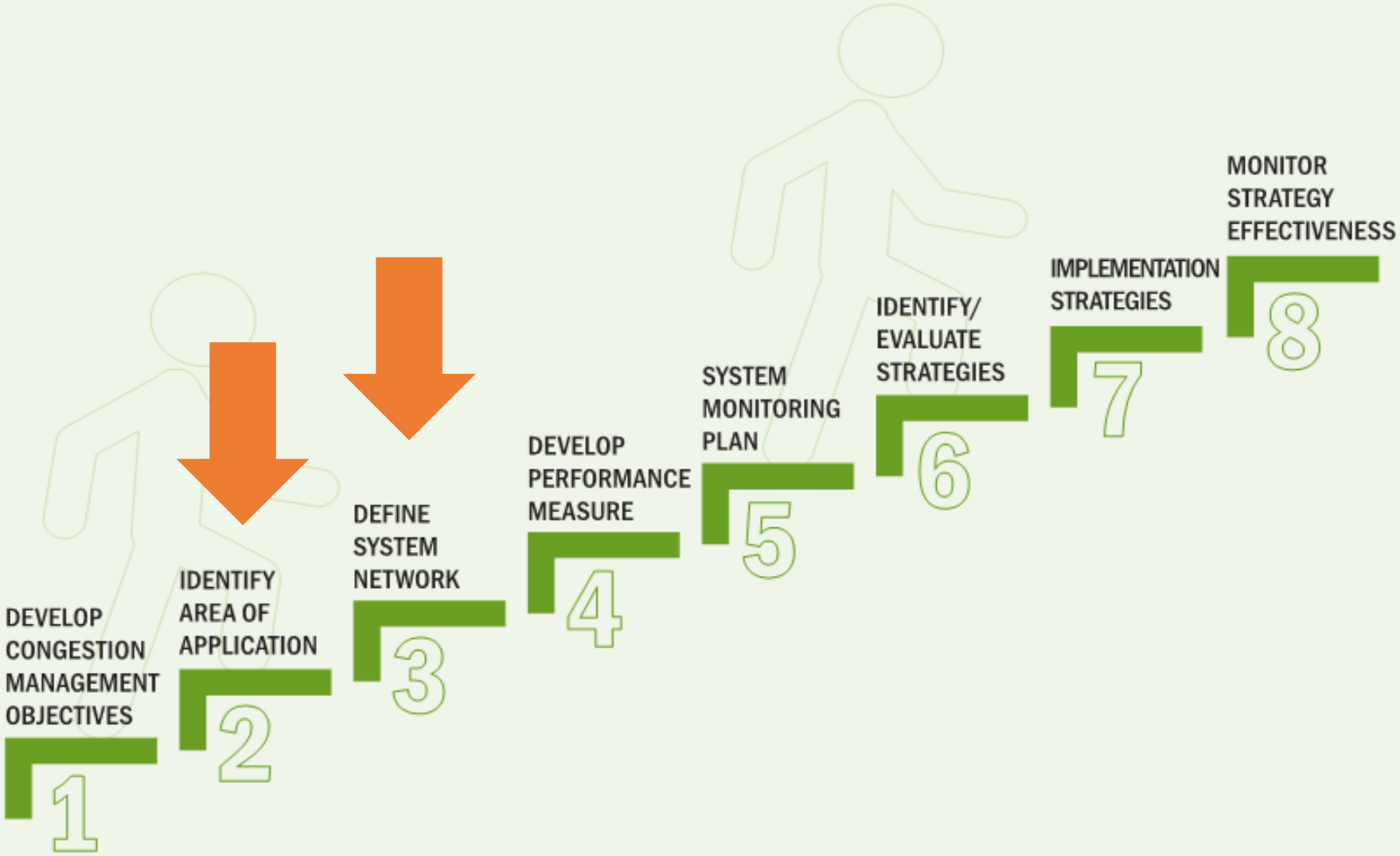
Investment & Economic Opportunity

Support economic development through strategic transportation investment

Objectives

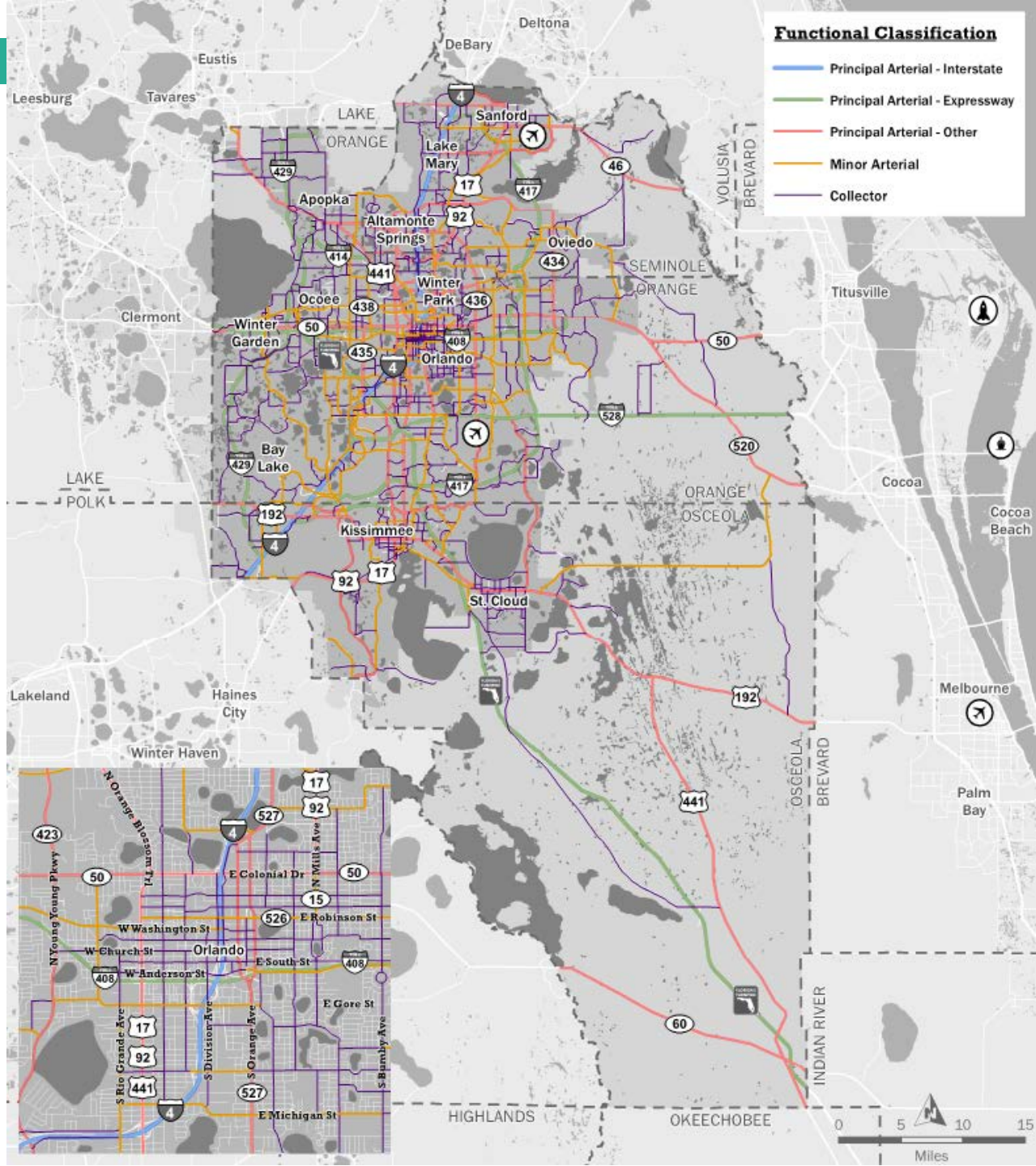
- Meet industry, state, and national standards for infrastructure and asset quality, condition, and performance for all public transportation infrastructure
- Reduce per capita delay for residents, visitors, and businesses
- Increase affordability for transportation and housing choices
- Improve transportation experience for visitors and supportive-industry workers
- Increase the number of skilled workers in Central Florida's transportation-related industries
- Promote transportation projects that expand and enhance economic vitality

The Congestion Management Process: **Define Study Area**



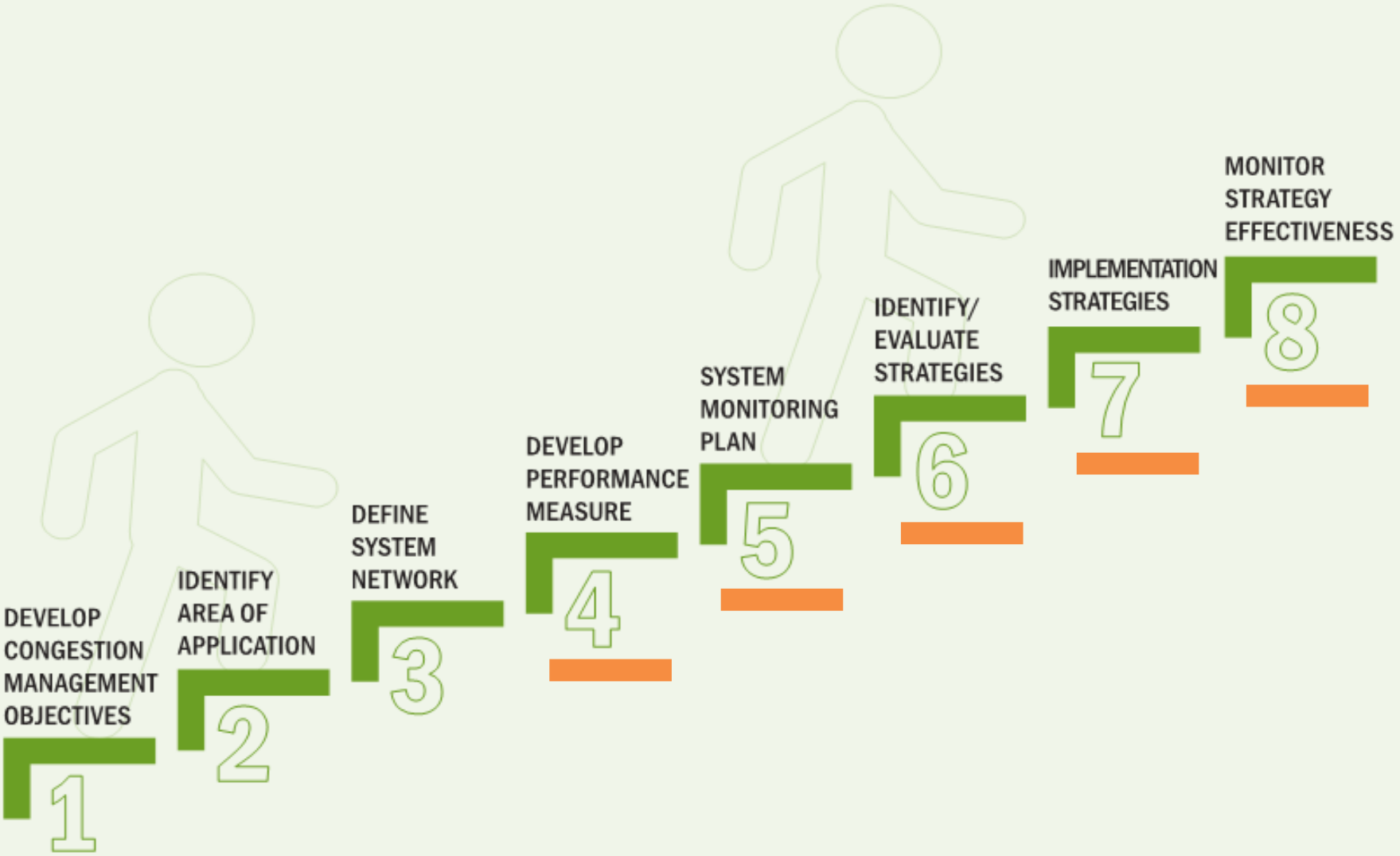
CMP Study Area & Network

Includes all roadways, transit routes, freight network, pedestrian and bike network [where data is available]



DATA AVAILABILITY

FHWA's 8-Step Process:



Steps #4 & #5:
Develop Performance Measures & System Monitoring Plan

For a CMP to be truly effective, it requires a coordinated program of data collection and system performance monitoring to assess the extent of congestion and to see whether remedial steps are working.

Step #6 :
Identify and Evaluate Strategies

- Based on causes of congestion, consider an array of solutions.

TSM&O based solutions:

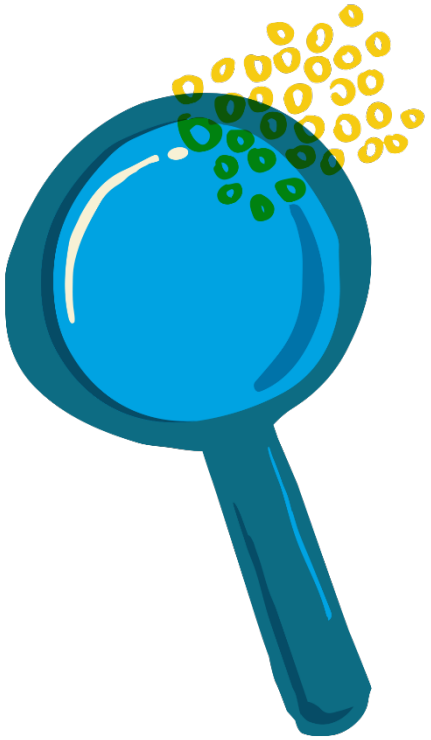
Arterial Management Emergency/Incident Management Freeway Management
Freight Management
Special Event Management
Travel Demand Management Travel Weather Management Traveler Information
Work Zone Management

Step #7:
Implement Strategies

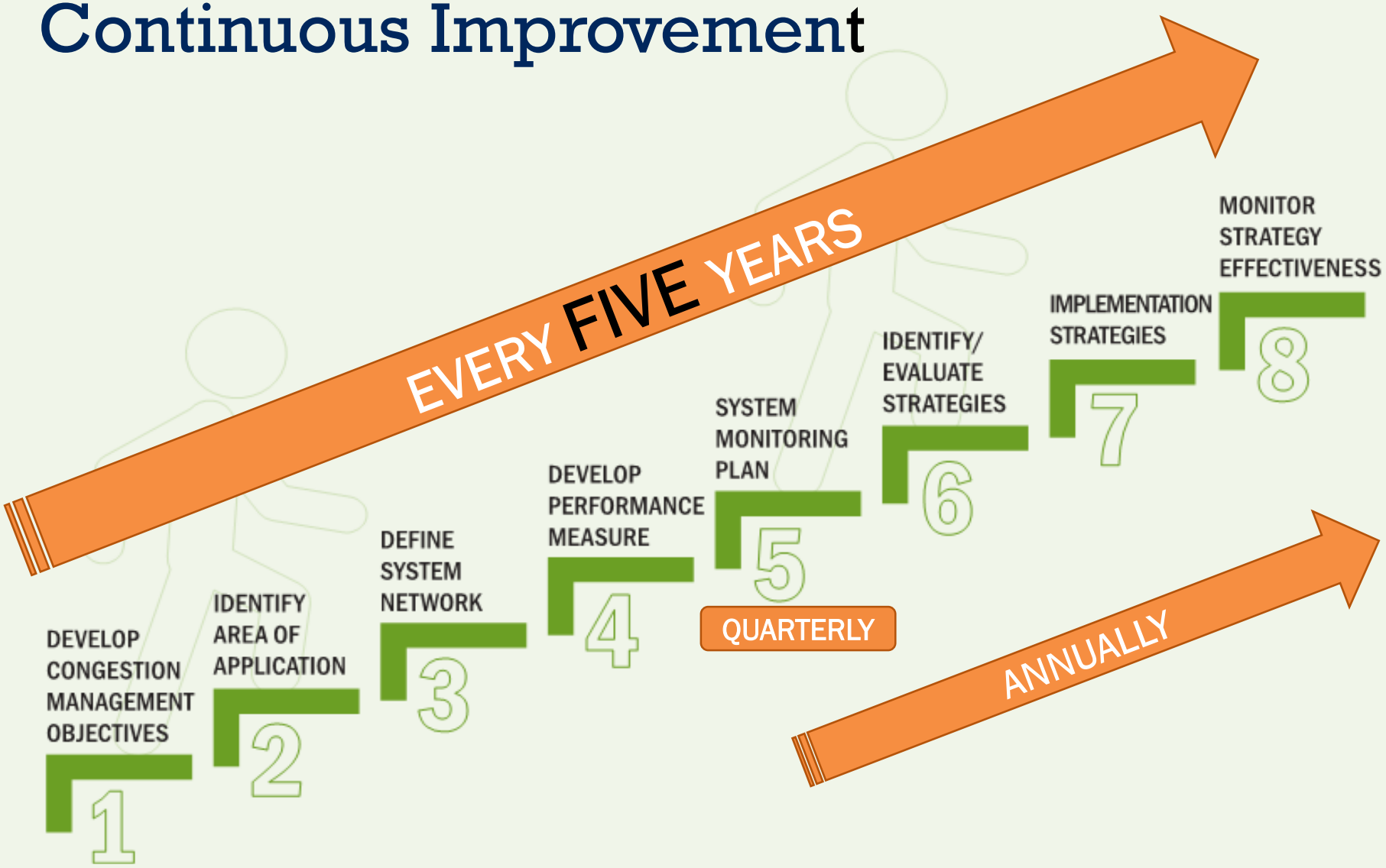
- New opportunities identified through the CMP are intended to be implemented within 5 years
  - System-wide and location-specific projects will be identified along with approximate costs
- Information developed throughout the CMP will be used to establish priorities in the MTP, TIP, and PPL

Step #8:
Monitor Effectiveness

- CMP = An iterative process
- Monitor effectiveness of CMP strategies
  - Data collection and before/after studies are helpful monitoring activities.
- Monitor effectiveness of CMP process
  - Each step is evaluated and opportunities for improvement are noted.



MetroPlan Orlando's CMP Process:
Continuous Improvement



Next Steps

Congestion Management Process

- April / May: Overview of Performance Measures & Targets
- May / June: Approval of Performance Targets
- June / July: Approval of CMP

2045 Metropolitan Transportation Plan

- April / May: Introduction to Scenario Planning

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