

Vulnerable Road Users

Not just pedestrians and cyclists.

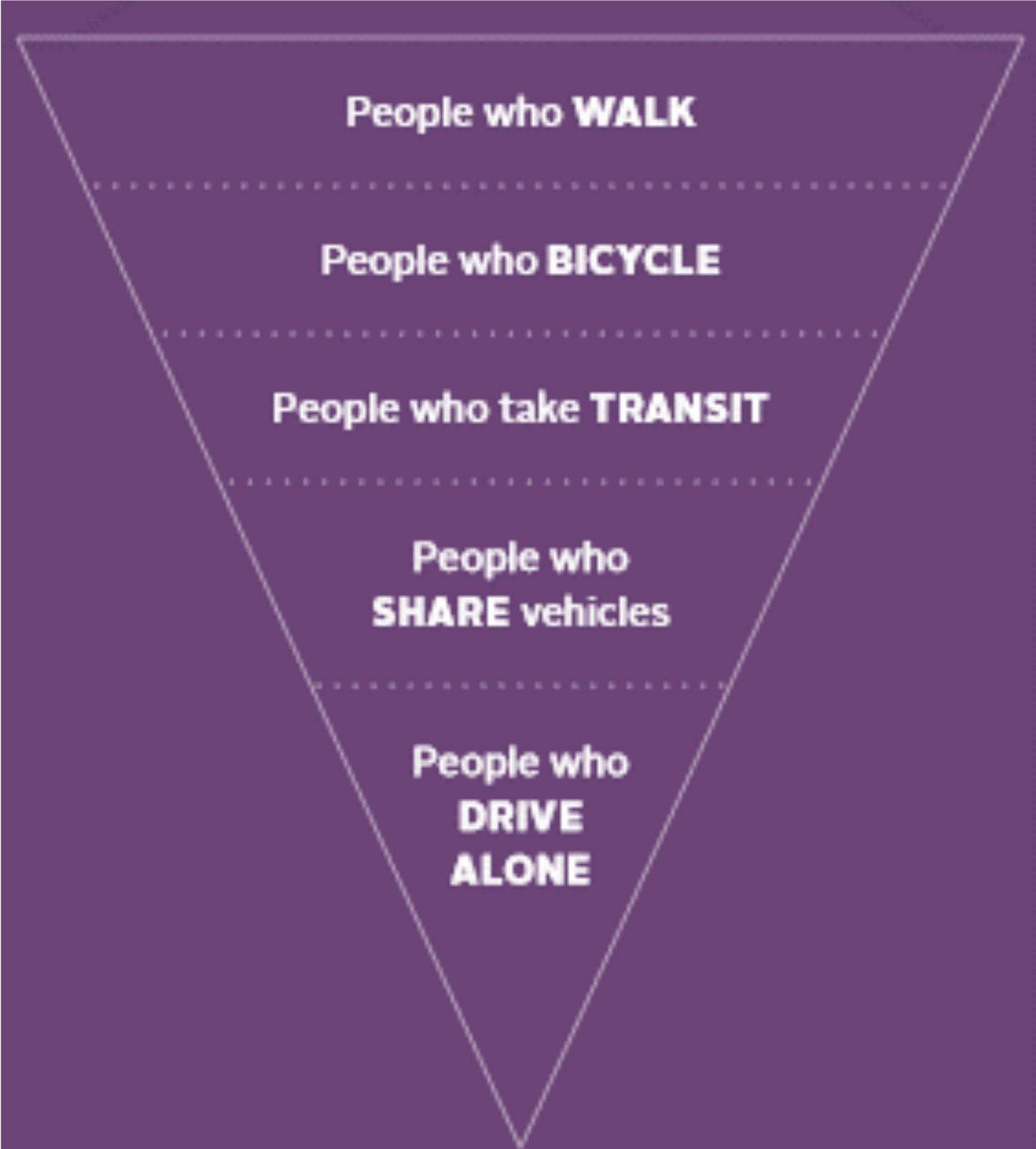
Peter G Zimmer, BS, MFA

Here's how Halifax considers our public pavement users

Halifax Complete Streets Guidelines Update
Prepared for
Halifax Accessibility Advisory Committee
February 22 2021

“Complete Streets
• **A complete street serves the needs of the people that use it in a way that’s appropriate for where it is”**

Complete Streets Hierarchy



Micromobility is here
It's a growing mobility choice
of Haligonians

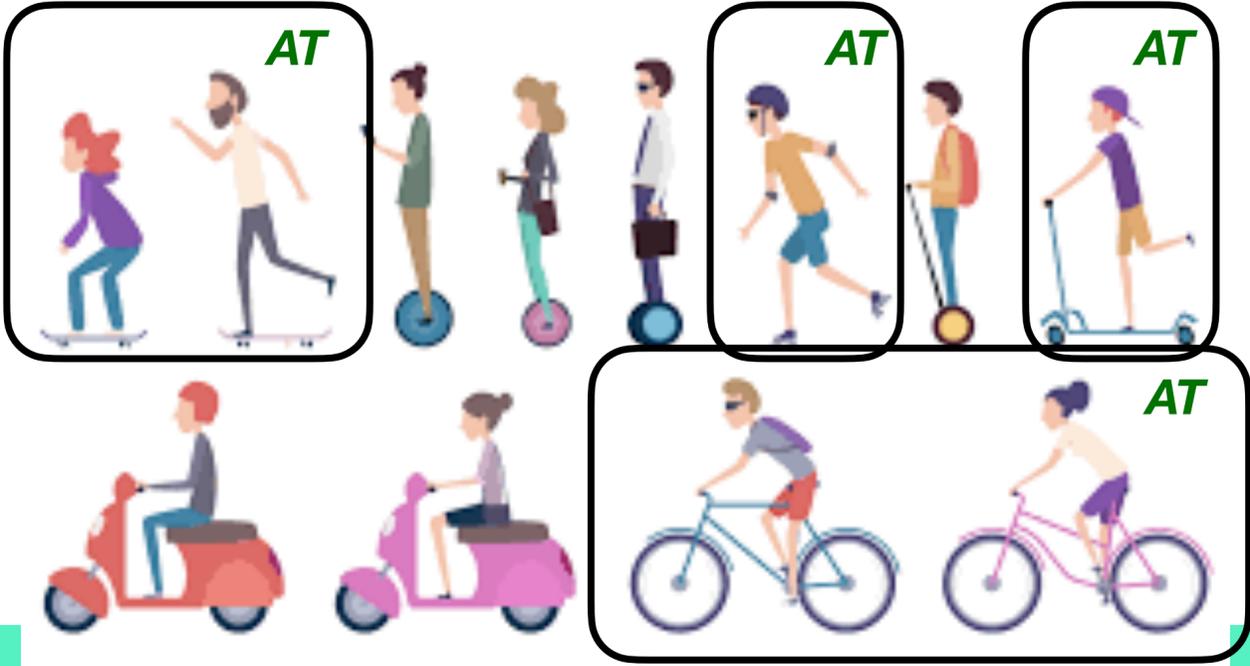
micromobility vehicles



Active Transportation & micromobility vehicles - a gallery



AT vehicles



Popular types of micromobility



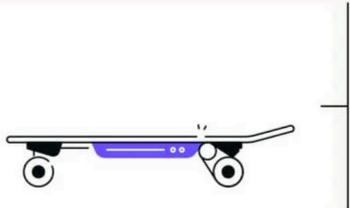
Bicycles



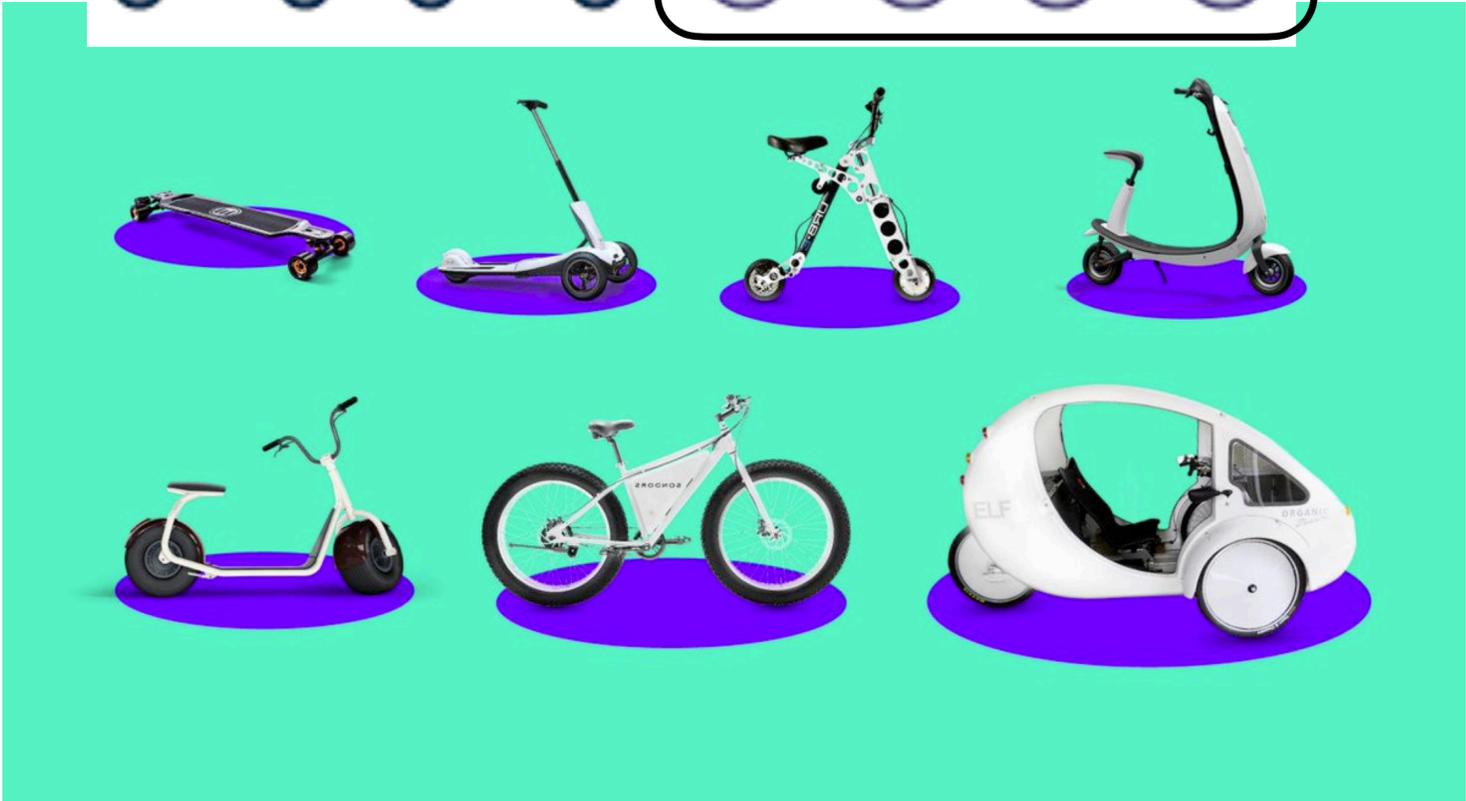
E-bikes



E-scooters



E-skateboards

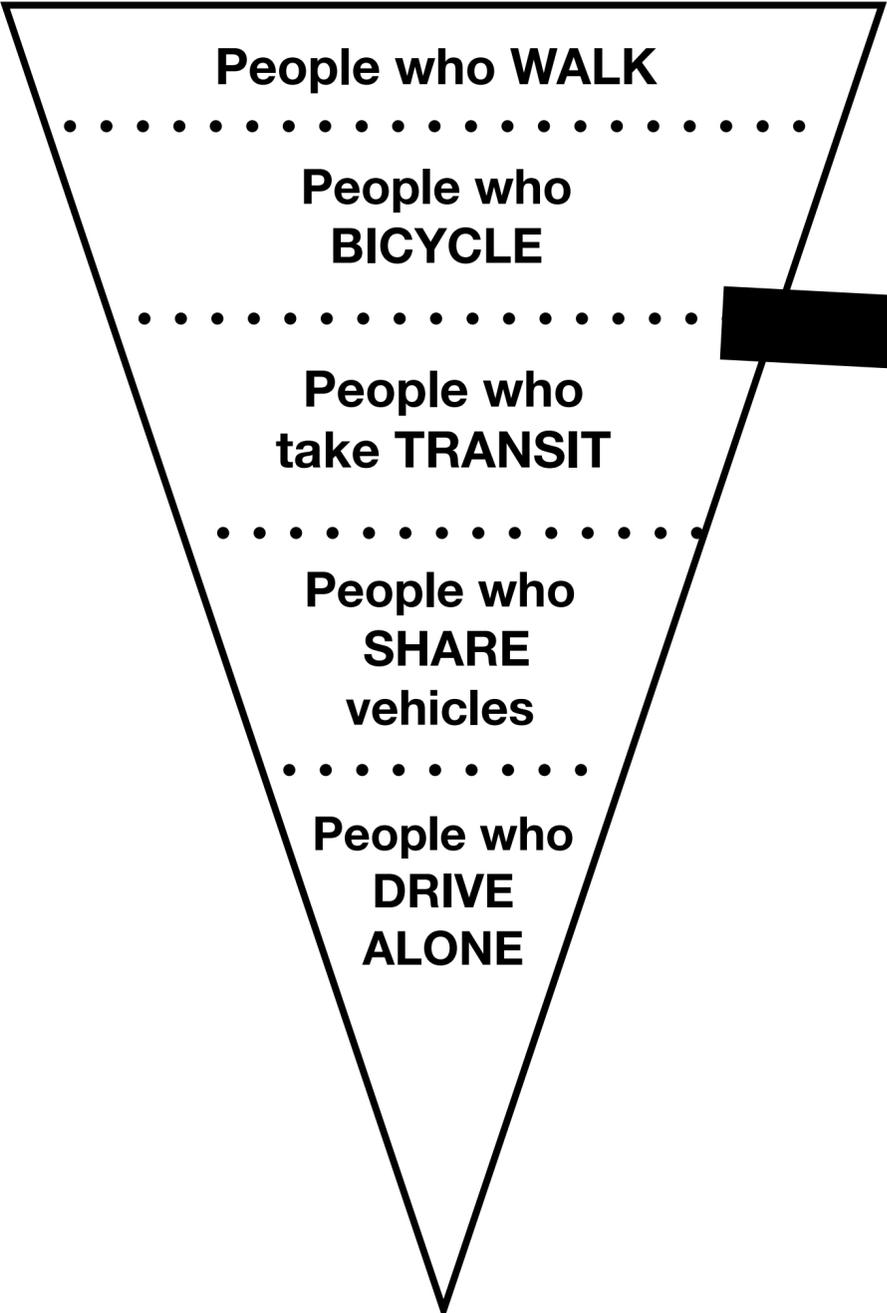


Some Mobility Commons users spotted in the wild in Halifax

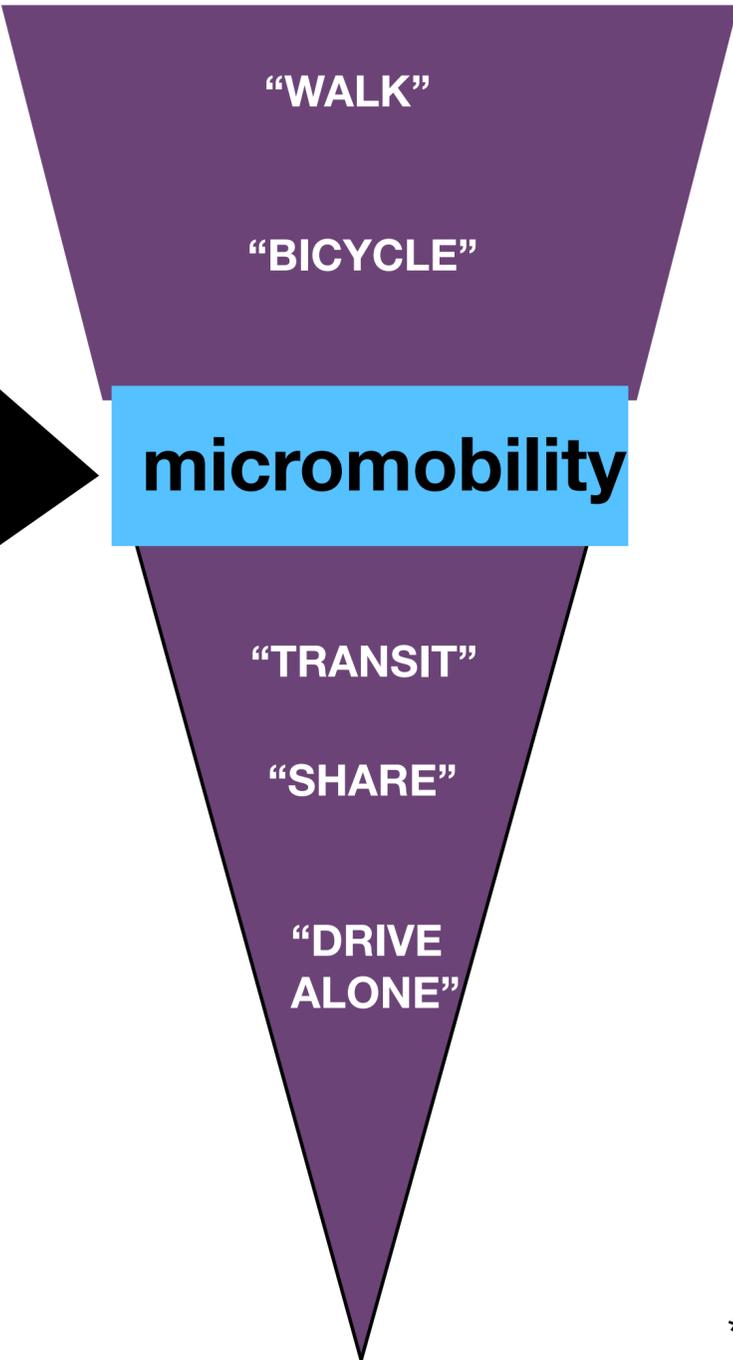
description: \n WHERE?	<u>using crosswalks</u>	<u>in/on streets</u>	<u>on sidewalks</u>	<u>in painted bike lanes</u>	<u>protected bike lanes users</u>	<u>on multi-use trails</u>
<i>AT human power</i>						
adult pedestrian						
younger pedestrian						
pedestrian + wheels						
manual wheelchair						
roller blades						
on skateboard						
on bicycle						
on kick scooter						
cargo bike, rickshaw						
<i>Micromobility</i>						
e-Scooter						
e-skateboard						
Segway						
e-Bike						
CWA Trishaw						
Power wheelchair						
Mobility Scooter						

our actual public pavement users include micromobility users

HRM's "Complete" Streets Hierarchy



updated



Trip modes on HRM's Mobility Commons

- on foot*
- on bikes, etc.*
- riding on eBikes etc.
- riding in Buses
- riding in taxis, Ubers, ride shares, carpools
- driving their cars, SUVs, Pickup Trucks, shared cars, etc.

* human-powered = "Active Transportation"

MicroMobility is here...

Characteristics

- **battery-electric motors**
- **low mass**
- **small pavement-print**
- **low speed**
- **low cost**
- **no licensing or registration**
- **they offer little protection to the user**

Vehicles

- **e-Bikes:** personal, rickshaws, CWA Trishaws, cargo bikes
- **Segways**
- **e-Scooters**
- **e-Skateboards**
- **power wheelchairs**
- **mobility scooters**
- **and more**

Vulnerable Road Users

may be

- **untrained people**
- **toddlers or 100 years old**
- **living with a handicap**
- **illiterate or non-English speakers**
- **Olympic athletes**
- **Distracted**
-

bicycles, eScooters, people, ... VRUs are NOT engineered for crash-worthiness.

— —

Motor Vehicle Road Users

must be

- **adults,**
- **trained,**
- **tested**
- **licensed to operate their motor vehicles**
- **presumed to be alert & in control**

Cars, trucks, buses must be engineered

- **for crash-worthiness**
- **to protect their occupants**
- **(but not to protect anyone else)**

In collisions, physics rules

Momentum is what matters

← a cyclist @ 15 km/hr

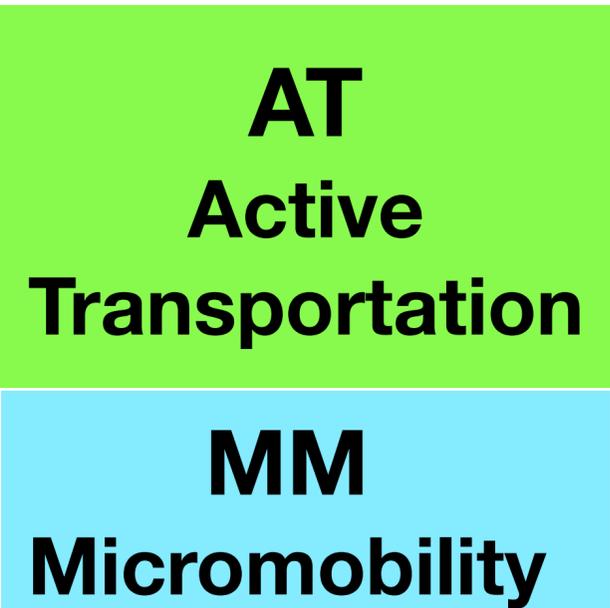
driver in a car @ just 60 km/hr

Who is the Vulnerable Road User ?

Impact in a collision? It's 200 to 1

Which Road Users get injured or killed?

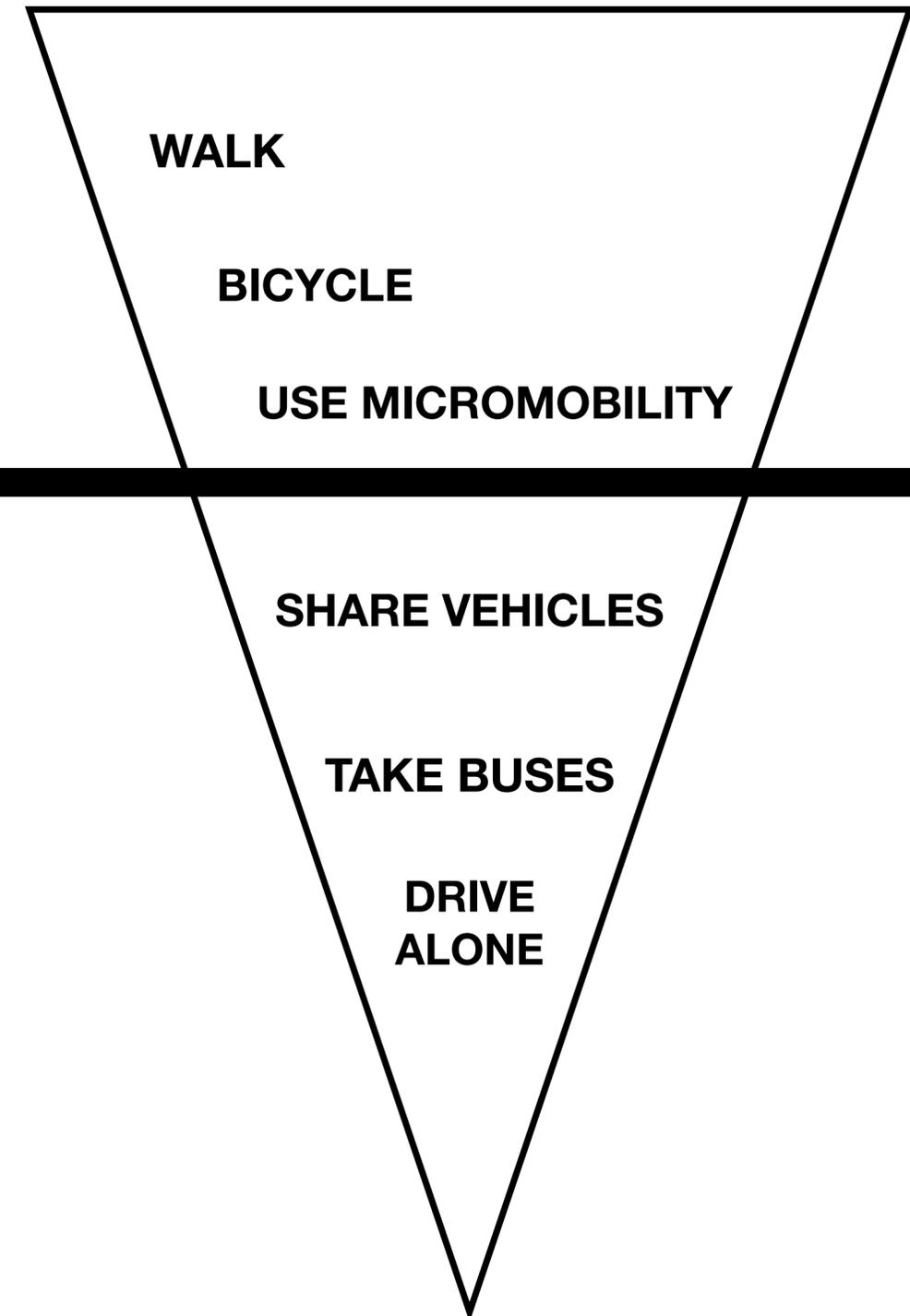
**Vulnerable
Road Users
VRUs**



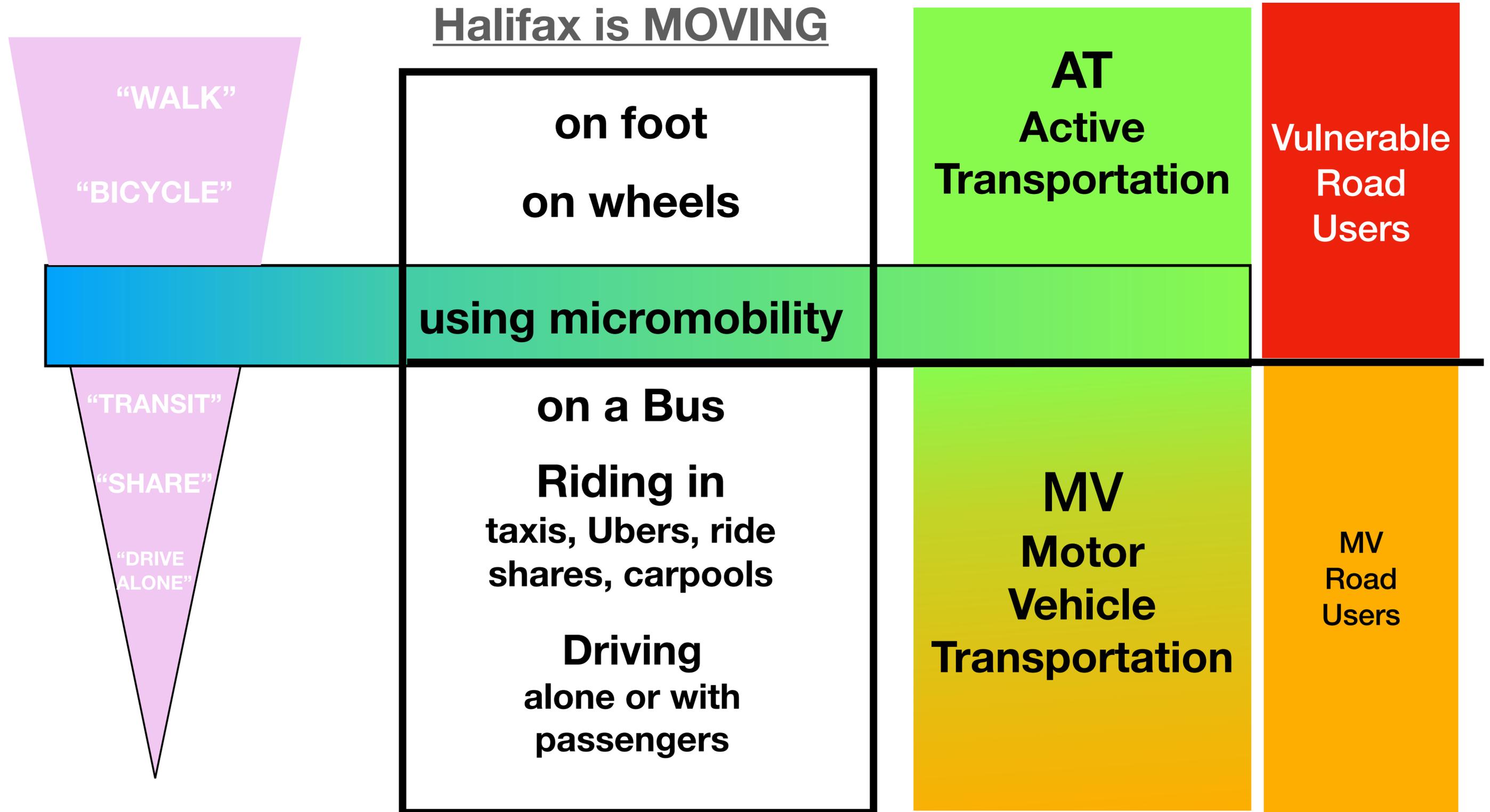
**Not Very
Vulnerable
Road Users
MVRUs**



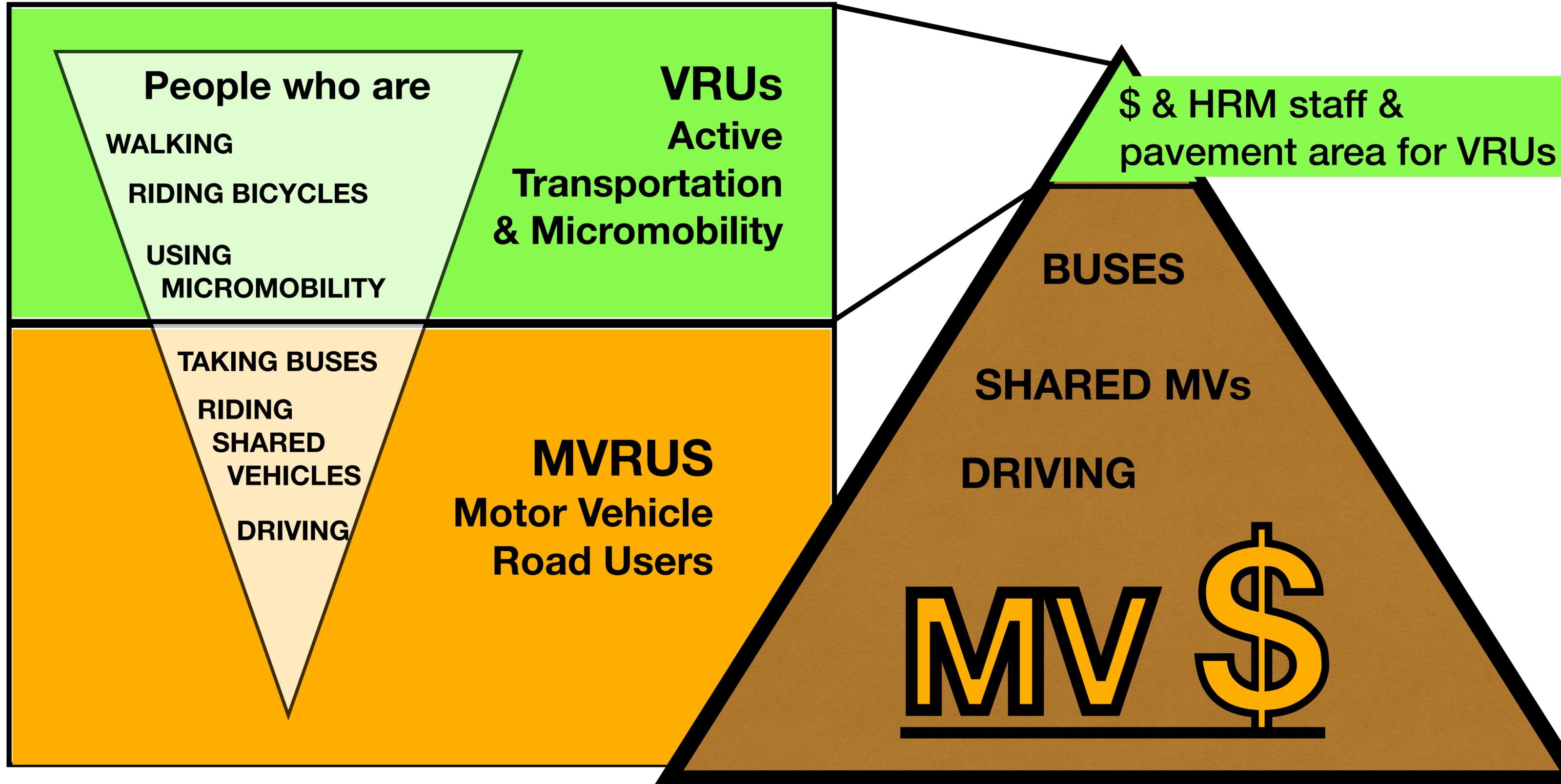
Complete Streets Hierarchy
People who



All micromobility users are Vulnerable Road Users



See where Halifax PUTS OUR MONEY & its attention...



What next?

A few thoughts ...

- **Adopt “Vulnerable Road Users (VRUs)”** to talk about the most at-risk users of our Mobility Commons
 - *NOTE: All of us are VRUs for some part of our daily use of the Mobility Commons.*
- **Consult Vulnerable Road Users, continuously**

- **Look for social solutions, not legalistic solutions:**
 - not by adding Bylaws and enforcing with tickets, policing...
 - good manners, civility trump cops and fines, and cost less
 - we need to change our mobility culture, our road-use ethics

- **Effective education for both VRUs and Motor Vehicle Road Users**
 - deliver at points of use - continuously,
 - websites, bus-side ads alone can't do the job
 - involve the NGOs as providers of face-to-face instruction
 - Continuous learning about what works and what doesn't

**Start the improvements where it matters
the most**

**where our less privileged and most vulnerable
Haligonians live, walk, bike, use their personal
eScooters and Mobility Scooters, ...**

- **“AAA” Bike paths are not enough.**
- **Paint is NOT INFRASTRUCTURE.**
- **Change, operate and maintain streets for Vulnerable Road Users’ safety.**
- **They’ll be safer for MVRUs, too,**
- **and Halifax will be more climate friendly, greener.**

There are no “accidents”: there are badly designed roads

We must change our city and our habits to end crashes which kill and maim.

THANK YOU