



VISION ZERO FOR SUSTAINABLE ROAD SAFETY
IN THE BALTIC SEA REGION 2020
2-3 DECEMBER, RIGA

Injuries associated with standing electric scooter use and injury prevention

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VISION ZERO FOR SUSTAINABLE ROAD SAFETY IN THE BALTIC SEA REGION 2-3
DECEMBER 2020, RIGA



Electric scooters are
popular and dangerous devices
(fast and unstable)

Our aim is injury prevention



Statistics.

The same trends all over the world

The most common injuries

fractures (31.7%)

head injuries (40.2%)

soft-tissue injuries (27.7%).

Trivedi TK, Liu C, Antonio ALM, et al. Injuries Associated With Standing Electric Scooter Use. *JAMA Netw Open*. 2019;2(1):e187381.

doi:10.1001/jamanetworkopen.2018.7381



Physics

Fracture is the separation of an object or material into two or more pieces under the action of stress

Newton's law of universal gravitation

$$F = G \frac{m_1 m_2}{r^2}$$

- F = force
- G = gravitational constant
- m_1 = mass of object 1
- m_2 = mass of object 2
- r = distance between centers of the masses

Newton's Second Law

$$F = m \cdot a$$

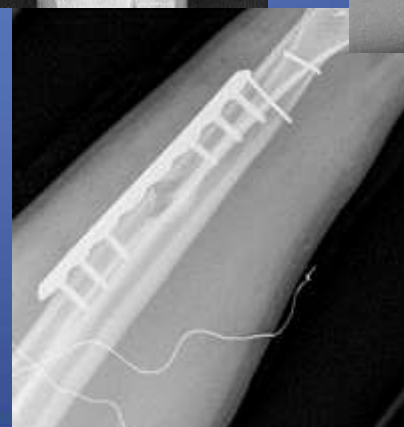
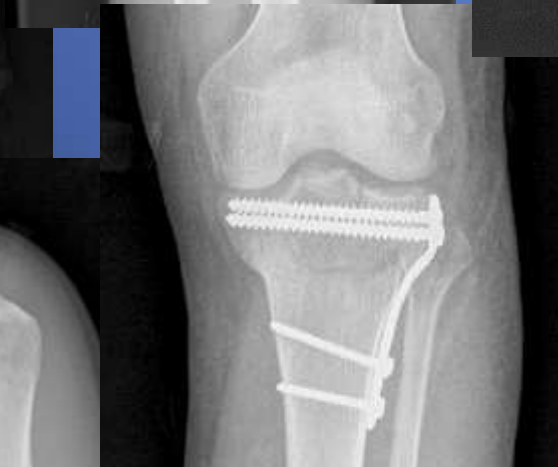
- F = force
- m = mass of an object
- a = acceleration

Impulse = Momentum Change

$$\underbrace{F \cdot \Delta t}_{\text{Impulse}} = \underbrace{m \cdot \Delta v}_{\text{Momentum Change}}$$



Fractures





Statistics. Our hospital.

Injuries associated with e-scooter use 2020

Week in July – 16 injuries

9 fractures, 7 soft tissue injuries

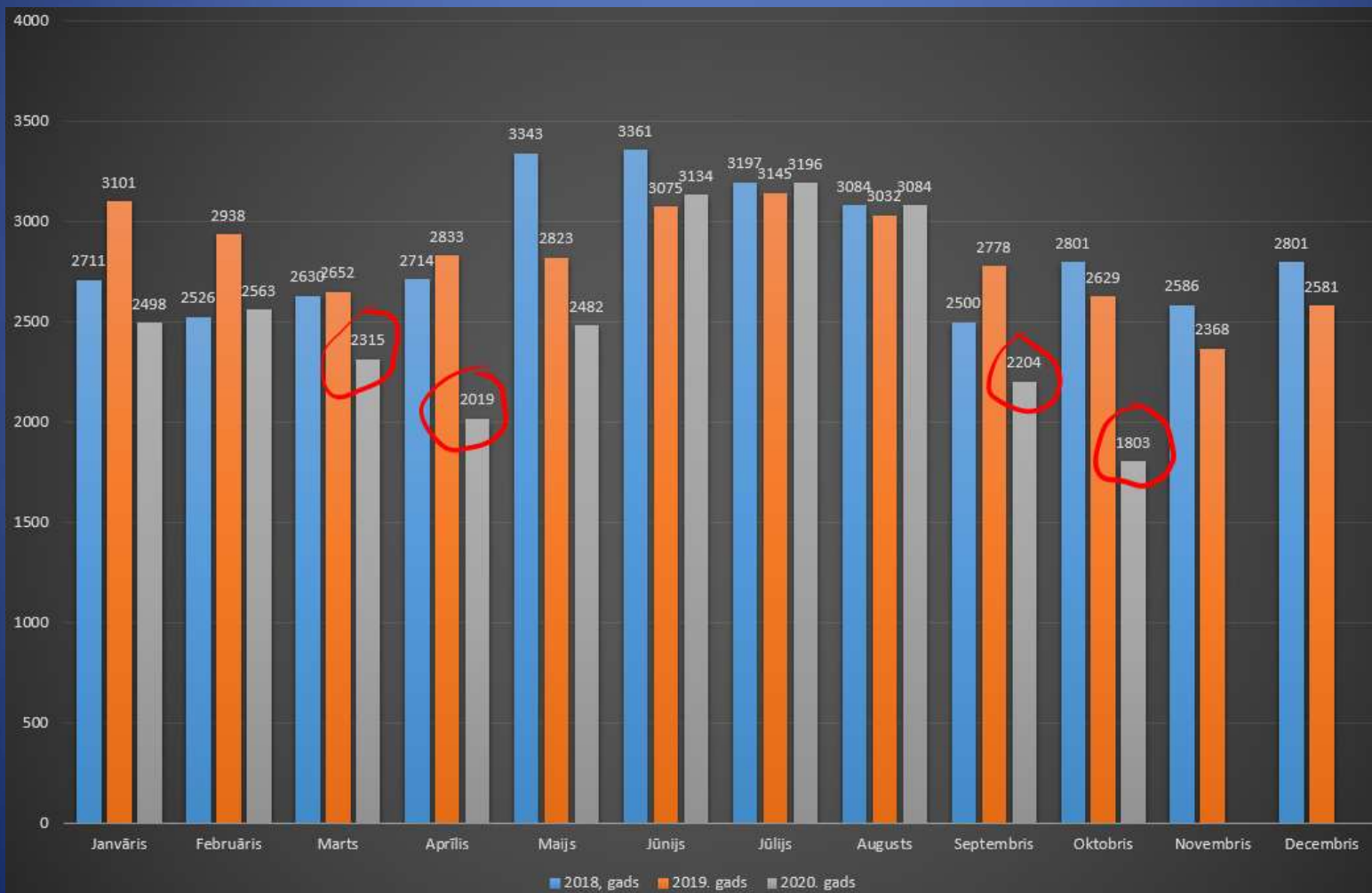
Week in November – 1 fracture





Statistics. Our hospital.

All injuries 2018.,2019.,2020., per month





Injury prevention

- Regulations and rules
- Education, training and protective gear
- Safe environment, safe roads

What can we do?



Injury prevention. Education

NOVĒRS NOVĒRŠAMO!

sastiepumi, sasitumi
iekšējo orgānu bojājumi
galvas smadzeņu bojājumi
kaulu lūzumi
brūces

samazini ātrumu, kad tuvojies cilvēkiem, krustojumiem, izbrauktuvēm no dzīvojamās zonas

uz skrejriteņa atrodies viens pats

vienmēr velc aizsargķiveri

uzmanies no nelīdzena ceļa seguma

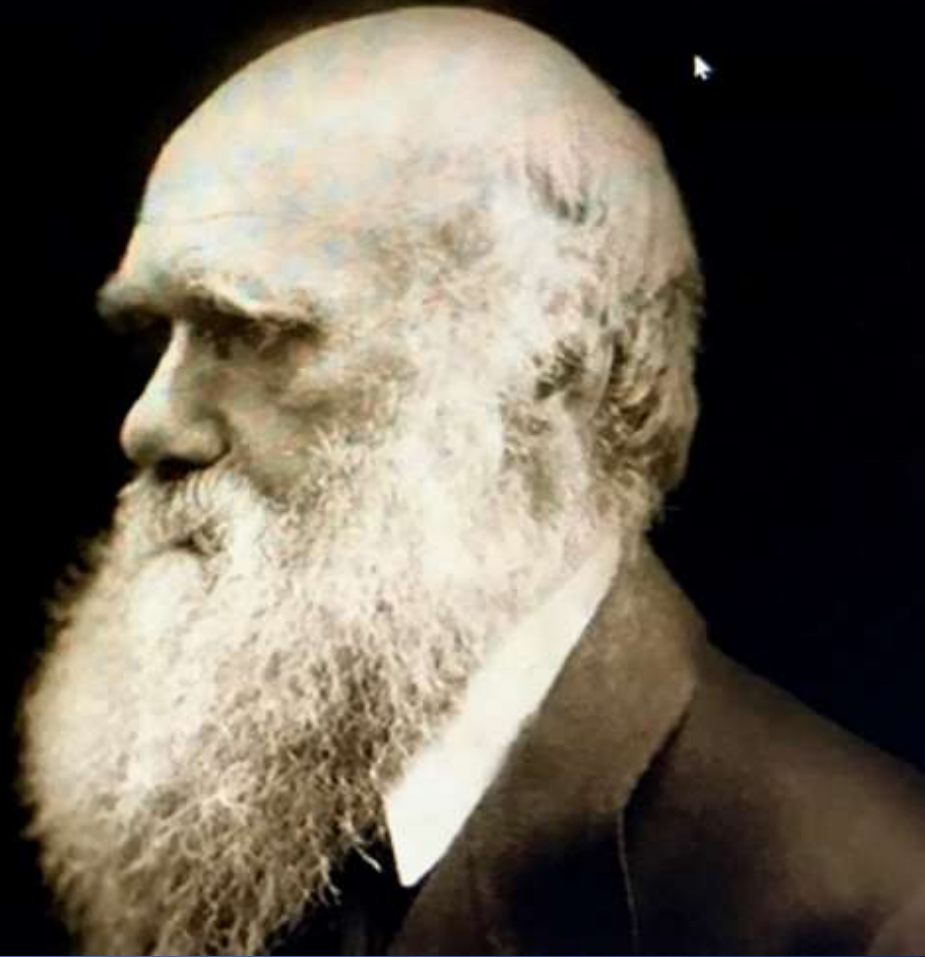
izvēlies atbilstošu braukšanas ātrumu

ievēro visus ceļu satiksmes noteikumus

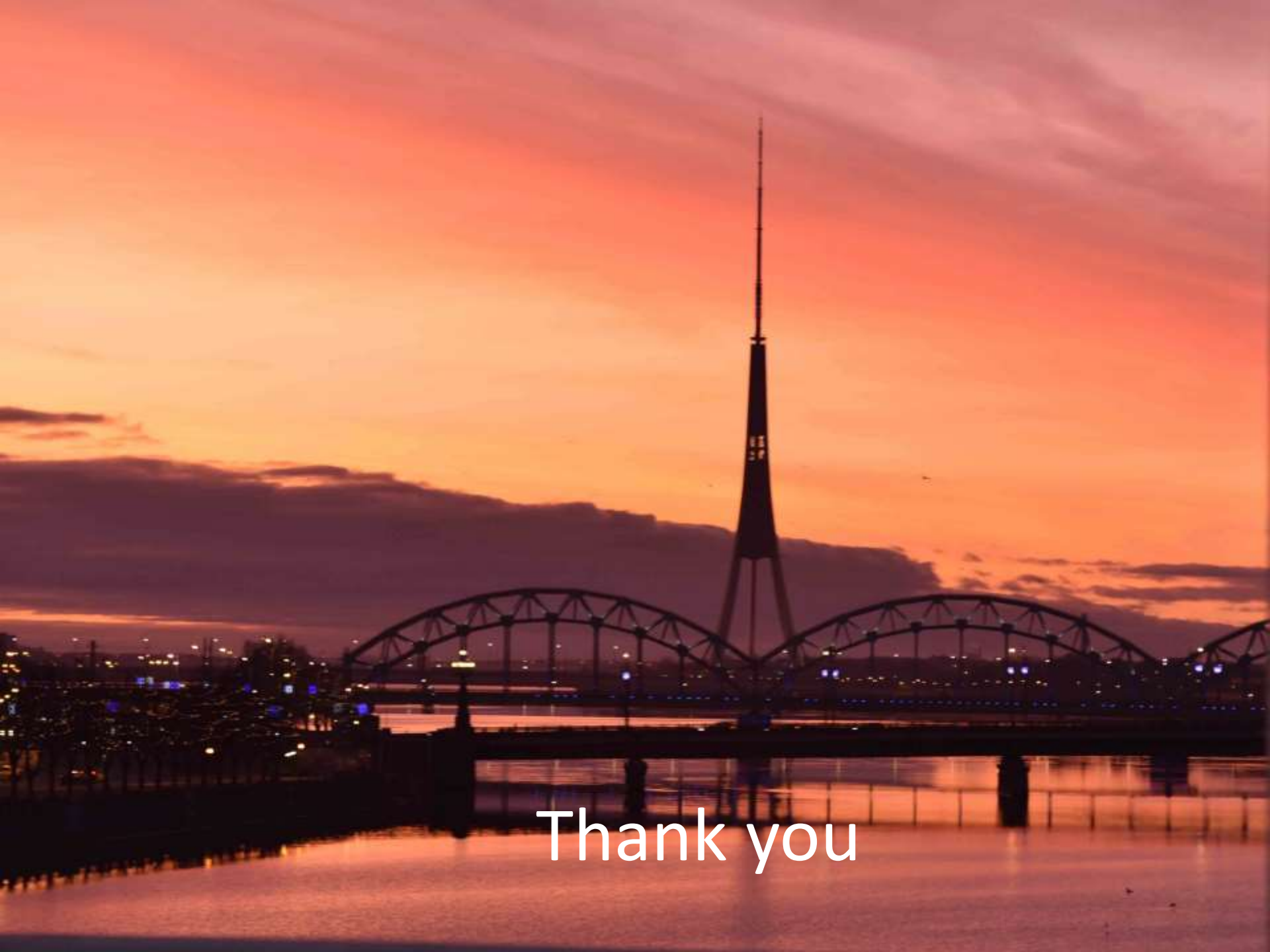
vienmēr pārliecinies, vai šķērsot ceļu ir droši

"It is not the
strongest species
that survives, nor the
most intelligent, but
the most responsive
to change."

Charles Darwin



NO COMMENTS



Thank you