

Nare Farmanyan



Mher Israyelyan



Gevorg Hakobyan

Anahit Navasardyan

Anna Mikayelyan Viktorya Babakhanyan



Gase

AGENDA

INTRODUCTION

- Executive summary Problem presentation
 - The causes of issues

ANALYSIS

- Internal analysis External analysis
- Competitive analysis
 Consumer analysis

ANALYSIS

RECOMMENDATIONS -

• Strategies

IMPLEMENTATION

• Tactics • Finances • Timeline

RISK & MITIGATION

SUMMARY



Let's

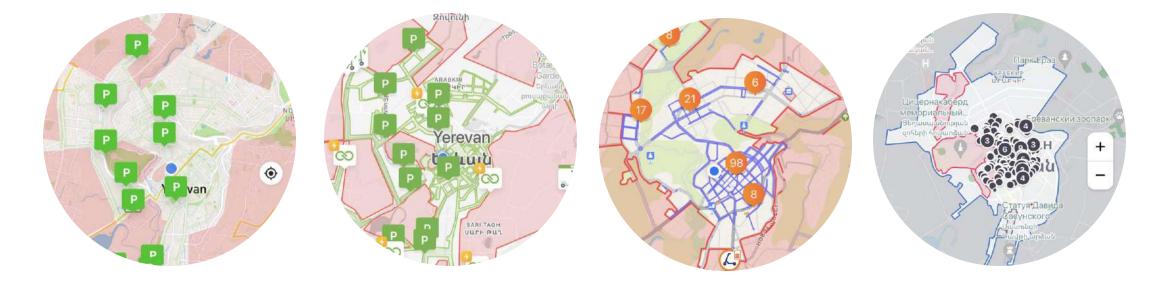
RISK & MITIGATION

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INTRODUCTION VULNERABILITY

E-scooters are new in the Armenian market that is why the regulation is extremely poor Noticeable everywhere in the city especially in the city center and Arabkir





CAGR



18-25

Target age

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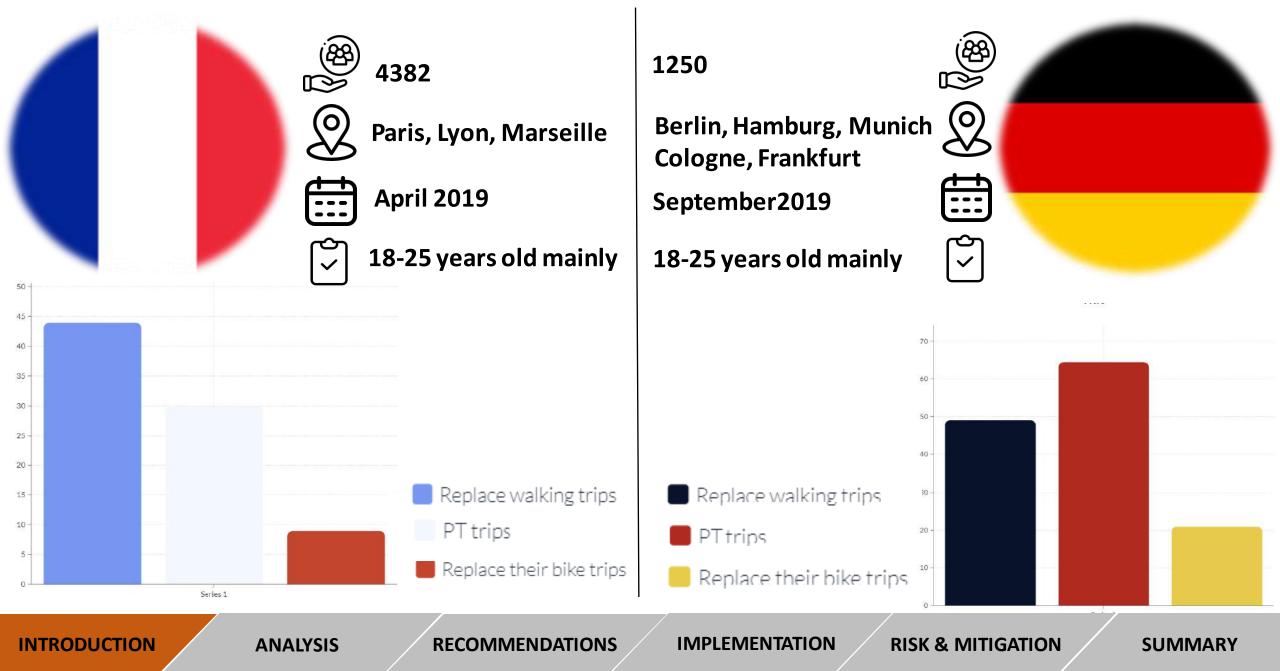
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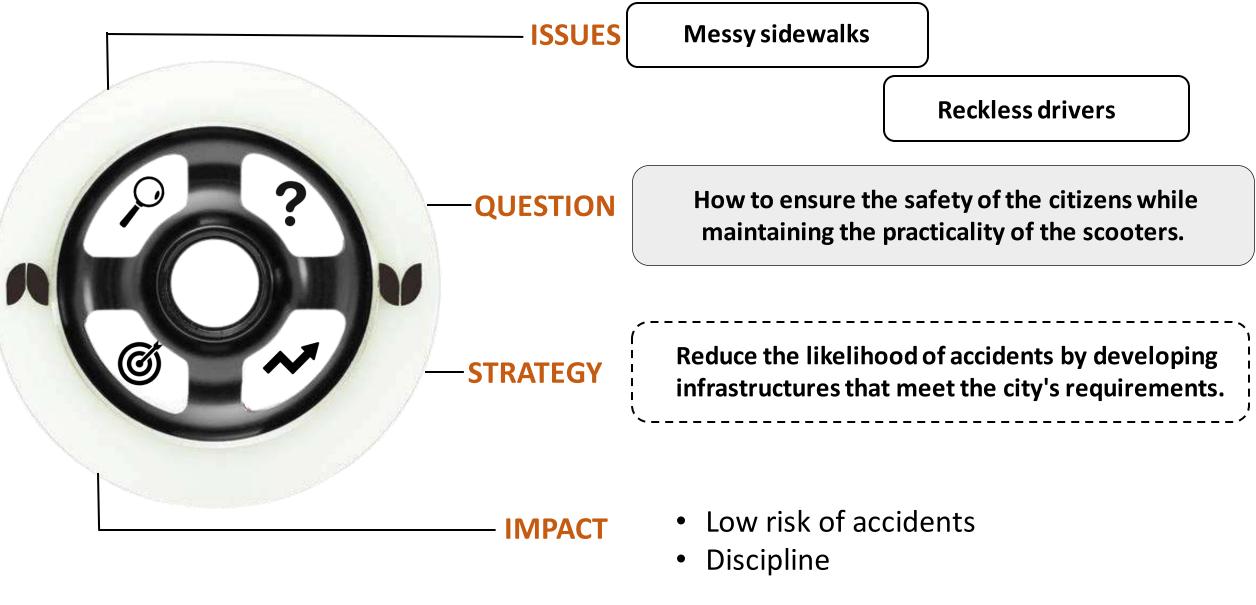
ON RISK & MITIGATION

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INTRODUCTION EXECUTIVE SUMMARY



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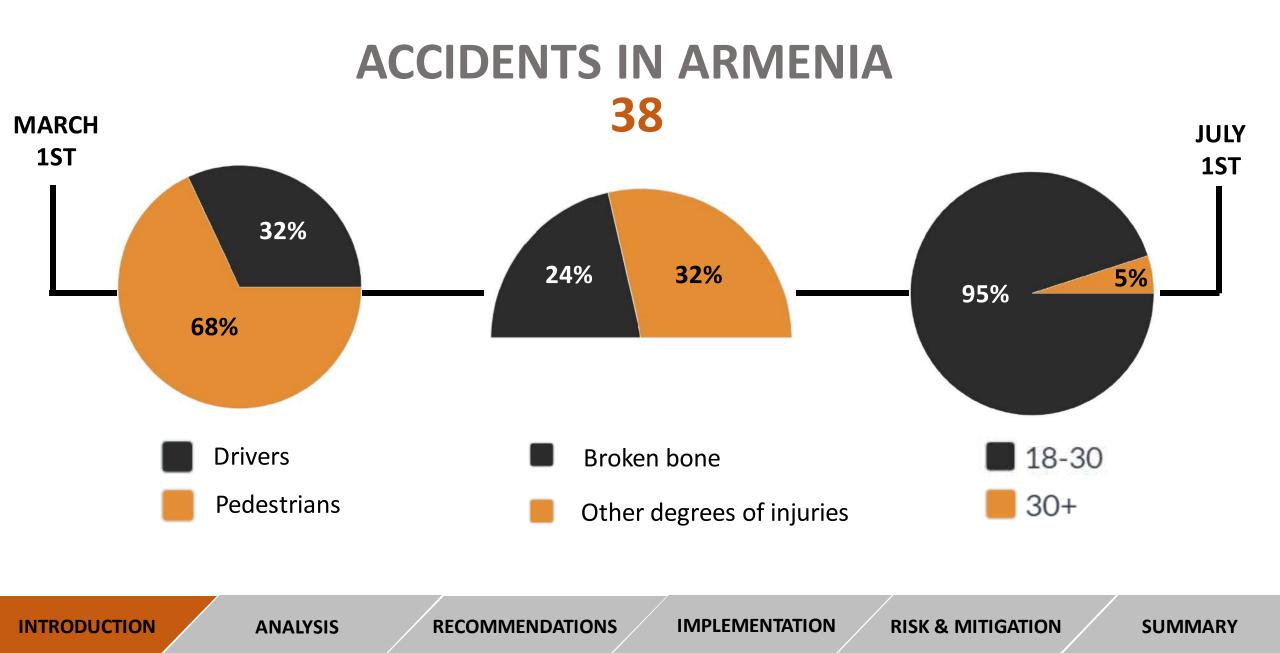
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SITUATION ANALYSIS INTERNAL ANALYSIS

- Cheaper than cabs, less effort than
 a bike, and more convenient than buses
- Easy to ride
- Easy to park

- Sustainable goals
- New businesses
- Higher life quality



- > No regulations
- Speed range exceeds pedestrians by 4-5 times
- Vulnerable road users

- The transition period for cities' infrastructure to adapt to a new transportation model
- Increased risk of accidents due to nontrained scooters users
- Another transportation means in a congested traffic system

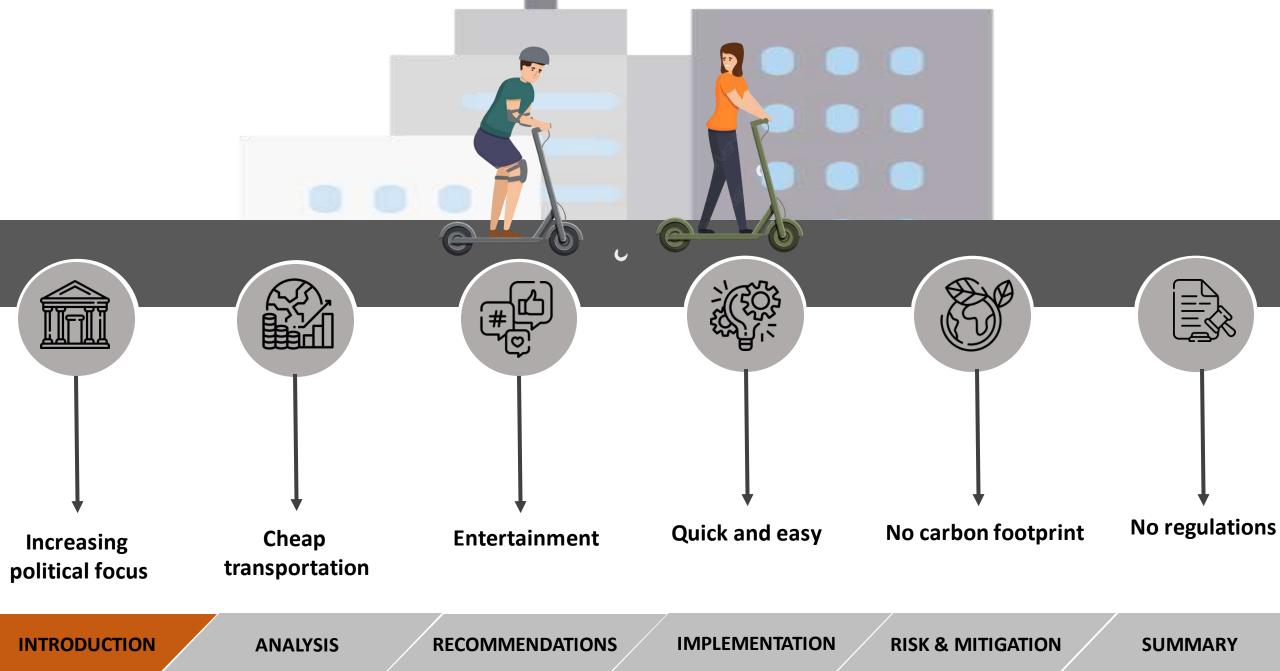
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SITUATION ANALYSIS **EXTERNAL ANALYSIS**



SITUATION ANALYSIS **EXTERNAL ANALYSIS** COMPETITIVE ANALYSIS



100% BATTERY FOR **30KM** RIDE

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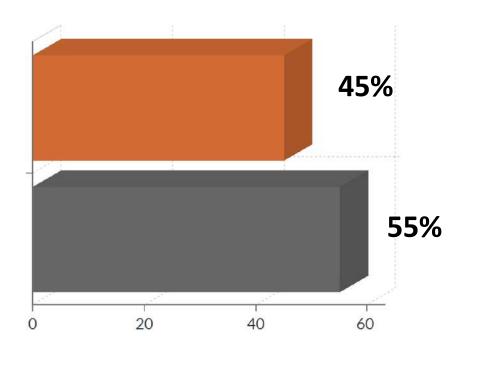
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RISK & MITIGATION

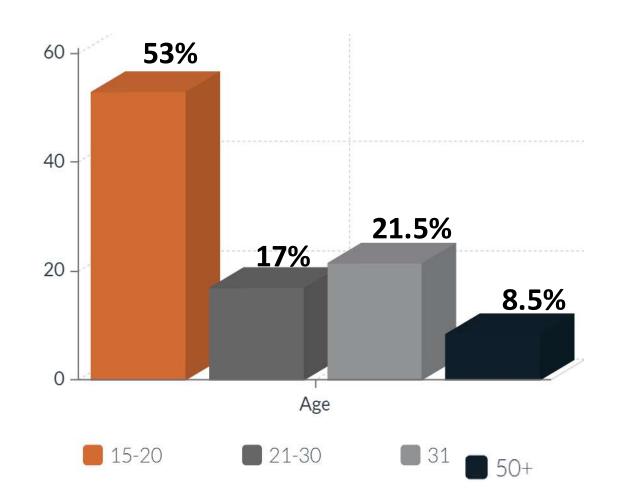
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SITUATION ANALYSIS **EXTERNAL ANALYSIS** CONSUMER ANALYSIS



Have an experience

Don not have an experience



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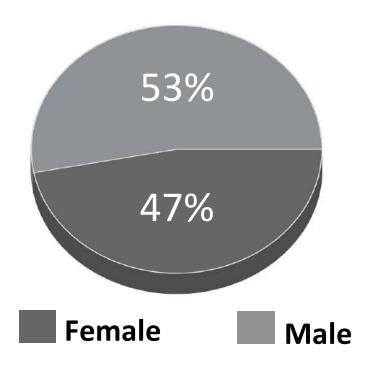
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SITUATION ANALYSIS **EXTERNAL ANALYSIS** CONSUMER ANALYSIS

70% 30% Disturb Do not disturb



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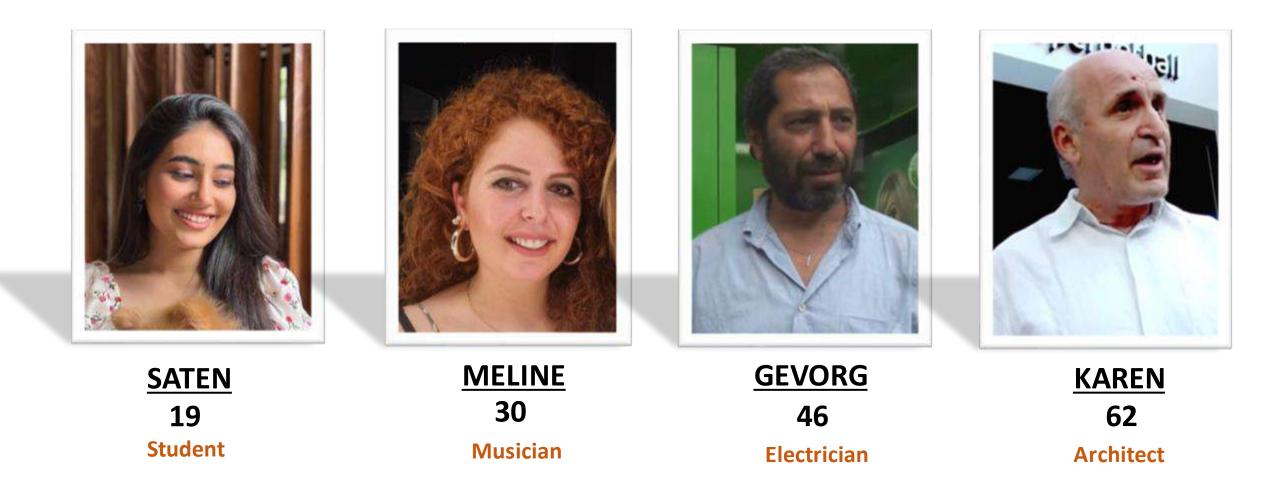
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SITUATION ANALYSIS **EXTERNAL ANALYSIS** CONSUMER ANALYSIS SURVEY



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RECOMMENDATIONS STRATEGY

Reduce the likelihood of accidents by developing infrastructures that meet the city's requirements.



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IMPLEMENTATION TACTIC 1 NOTICE

INSTALLING LED LIGHTS ON THE E-SCOOTERS

Getting a set of stronger lights is one of the most common upgrades for electric scooters in different countries.

Providing each scooter with strong Aijiaer LED strip lights will ensure both the driver's and the pedestrian's safety.

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IMPLEMENTATION TACTIC 2 STOP

PARKING SPACES WILL BE LOCATED ALONGSIDE THE EXISTING INFRASTRUCTURE OF THE CITY

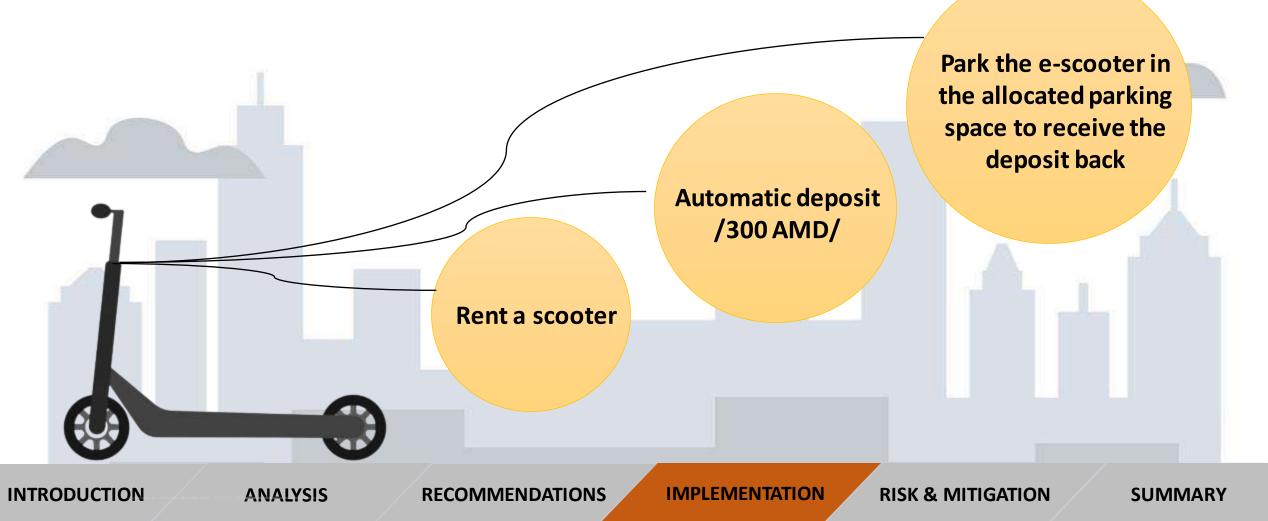
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NEAR



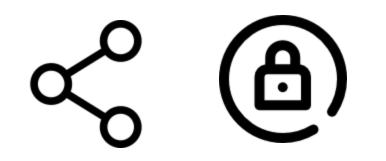
IMPLEMENTATION TACTIC 2 STOP

INVENT A PARKING DEPOSIT SYSTEM



IMPLEMENTATION TACTIC 2 STOP

LONG-TERM PARKING, ELECTRICAL CHARGING DOCK STATIONS



Dock stations: available both for shared and private scooters



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IMPLEMENTATION TACTIC 3 FOLLOW

FAST AND SAFE!

Attach your license to your account and drive on the streets!

Busy-Fly

WHAT WILL THE LICENSE INCLUDE?

- New e-scooter signs
- Existing basic car road sings

• First aid

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IMPLEMENTATION TACTIC 3 FOLLOW

For driver's license – 45 hours, of which 20 for practice (DVSA standards) For e-scooters – 15 hours, including road signs

- Some countries require motorcycle licenses or endorsements to drive a scooter
- A few countries do not require any kind of driver's license to drive a small scooter



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IMPLEMENTATION TACTIC 3 FOLLOW



NEW GOVERNMENTAL RULES & REGULATIONS FOR E-SCOOTER CONTROL

Only one person is allowed to ride an e-scooter at a time

Children under the age of 15 are allowed to ride only under parental supervision

People without a valid e-scooter license are not allowed to ride on the street

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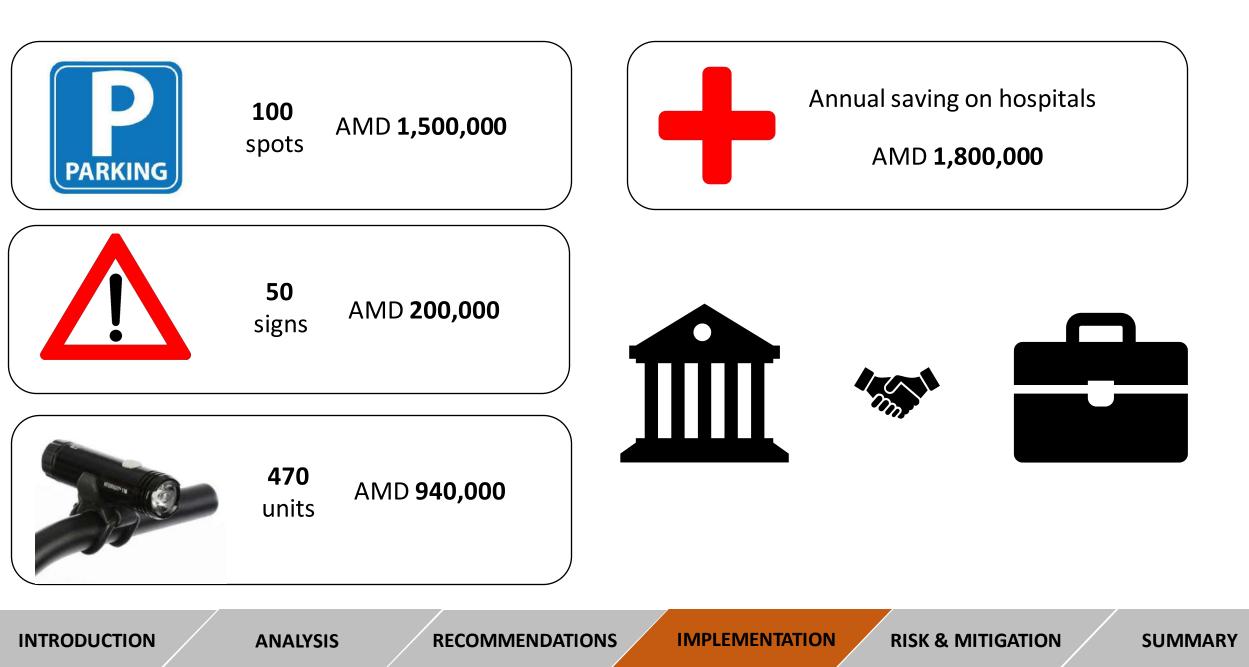
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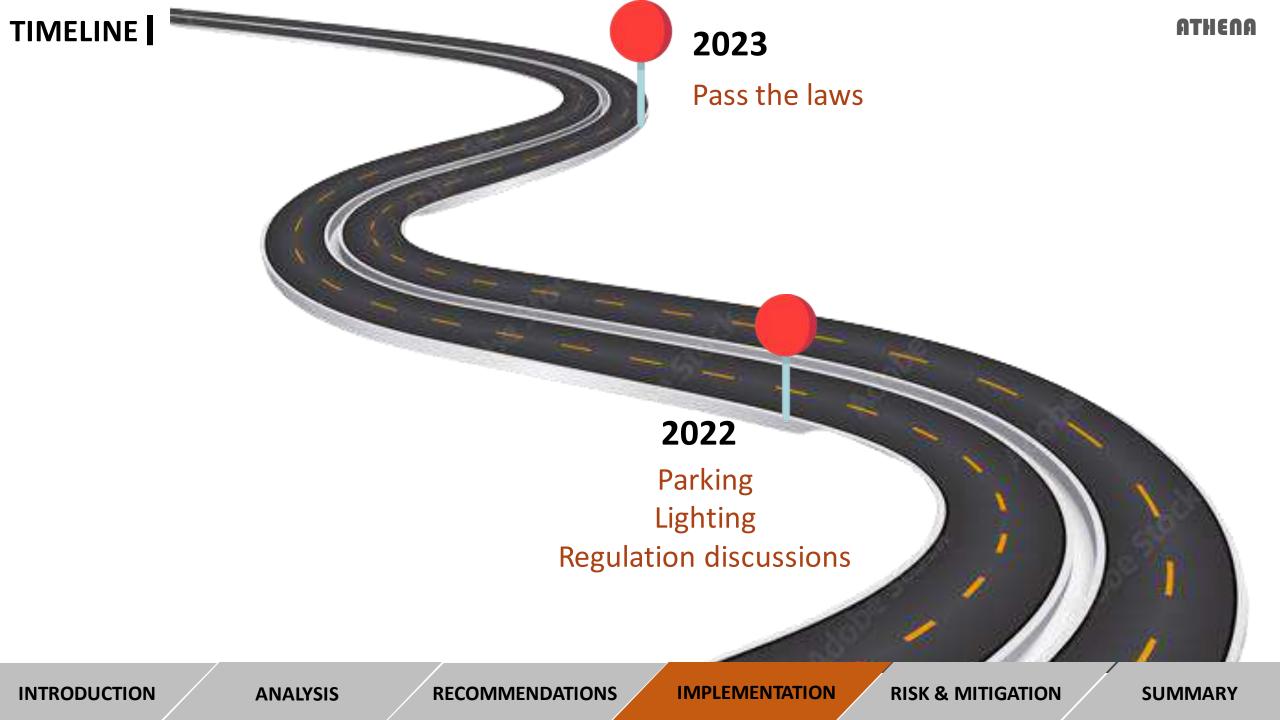
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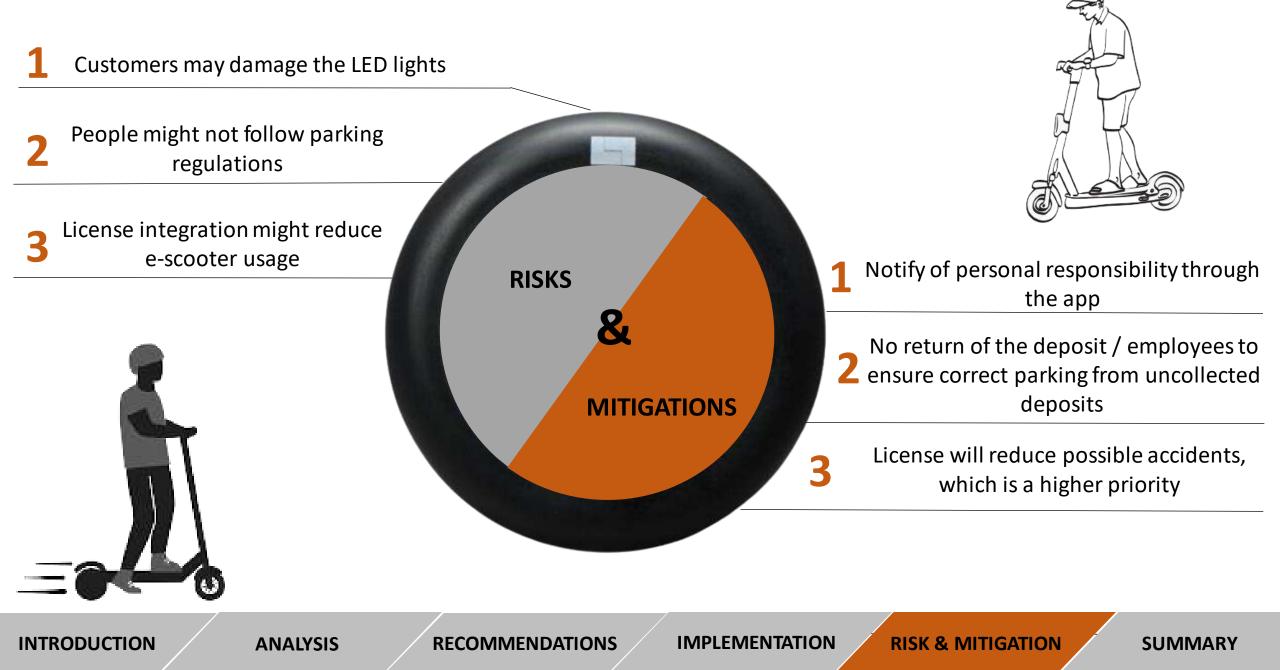
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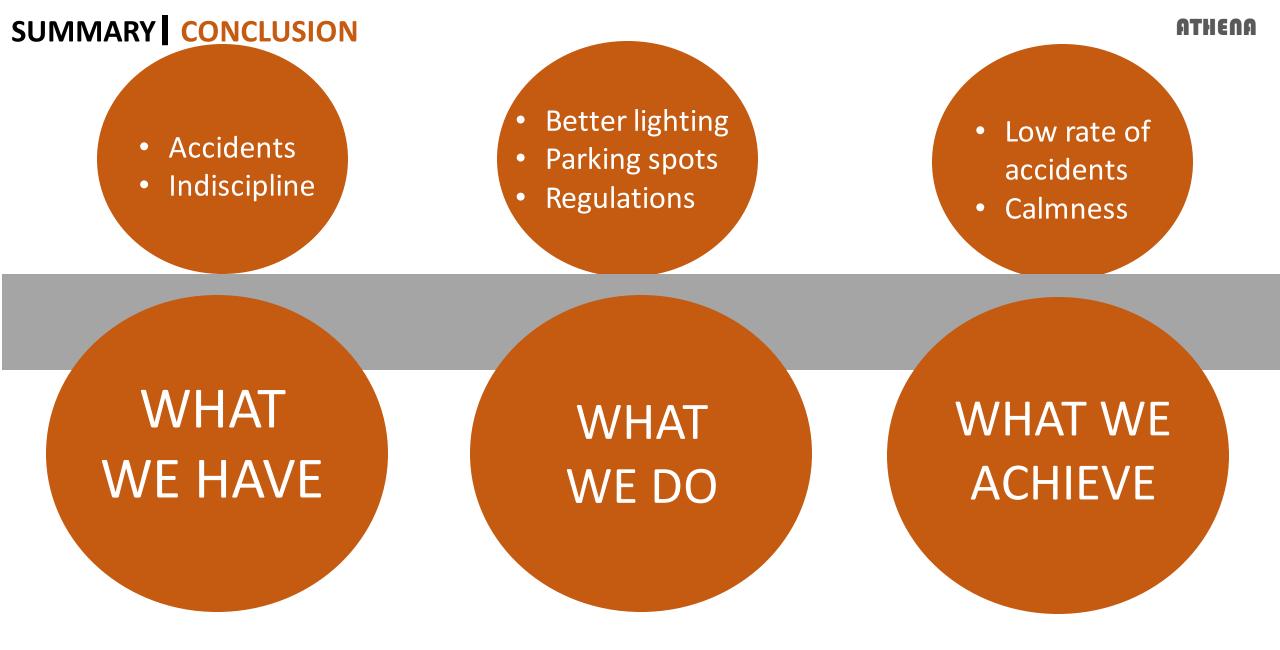
FINANCES FINANCE





RISK & MITIGATION





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THANK YOU

ATHENA voi. APPENDIX PZMS

APPENDIX | REFERENCES

- 1. Zagorskas, Jurgis, et al. 'Challenges Caused by Increased Use of E-Powered Personal Mobility Vehicles in European Cities'. *Sustainability*, vol. 12, no. 1, Jan. 2020, p. 273. *www.mdpi.com*, <u>https://doi.org/10.3390/su12010273</u>
- 2. Reito, Aleksi, et al. 'Incidence of Electric Scooter–Associated Injuries in Finland From 2019 to 2021'. *JAMA Network Open*, vol. 5, no. 4, Apr. 2022, p. e227418. *Silverchair*, <u>https://doi.org/10.1001/jamanetworkopen.2022.7418</u>
- 3. Trivedi, Tarak K., et al. 'Injuries Associated With Standing Electric Scooter Use'. *JAMA Network Open*, vol. 2, no. 1, Jan. 2019, p. e187381. *Silverchair*, <u>https://doi.org/10.1001/jamanetworkopen.2018.7381</u>
- 4. Brown, Anne, et al. 'Can You Park Your Scooter There? Why Scooter Riders Mispark and What to Do about It'. *Findings*, Feb. 2021, p. 19537. *findingspress.org*, <u>https://doi.org/10.32866/001c.19537</u>
- 5. Fortune, T. 'Guide To Electric Scooter Laws in Europe'. *FuturaRide*, 25 July 2021, <u>https://futuraride.com/electric-scooter-laws-europe/</u>
- Brody, Sara. 'Do I need a driver's license to drive a scooter?'. *Questions*, Apr. 2022, *getjerry.com*, <u>https://getjerry.com/questions/do-i-need-a-drivers-license-to-drive-a-scooter</u> Accessed 19 July 2022
- Rosenberg, Zoe. 'These E-Scooter Docking Stations Could Soon Pop up in NYC'. *Curbed NY*, 18 Apr.
 2019, <u>https://ny.curbed.com/2019/4/18/18484848/charge-e-scooter-docking-stations-micromobility-nyc</u> Accessed 19 July 2022
- Green, Josh. 'Atlanta's First e-Scooter Charging Dock to Be Unveiled Downtown, but Will Anyone Use It?' *Curbed Atlanta*, 27 June 2019, <u>https://atlanta.curbed.com/2019/6/27/18761114/charge-docking-station-escooter-atlanta-</u> downtown Accessed 19 July 2022
- 9. <u>https://www.sciencedirect.com/science/article/pii/S0966692320309510</u>
- 10. <u>https://www.investors.com/news/technology/click/electric-scooters-swagtron-bird-lime/</u>
- 11. <u>https://www.directline.com/car-cover/magazine/how-long-does-it-take-to-learn-to-drive</u>
- <u>Արմեն Մուրադյան/Armen Muradyan | Facebook</u>
- <u>https://www.facebook.com > profile</u>

APPENDIX FINANCE

LED lights		
Cost per unit AMD	2,000	
Unit	470	
Cost AMD	940,000	

Signs	
Cost per unit AMD	4,000
Unit	50
Cost AMD	200,000

Parking spot	
Cost per unit AMD	18,000
Unit	100
Cost AMD	1,800,000

Savings on hospitals	
Medical treatment per person AMD	15,000
People per month	10
Saving per month AMD	150,000

FINANCES FINANCE

Parking spot – 100 units 10 spots – 30\$ 100 units of 10 spots – 3000\$ Painters – 800\$ System - \$500, 1 unit

Signs

1 sign – AMD 4000

Lights

1 unit – AMD 2,000 470 units – 940,000

Saving on hospitals per month AMD 142,500

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Արմեն Մուրադյան/ Armen Muradyan July 14 at 2:33 PM · 🕲

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«Հերացի» վերլուծականն ամփոփել է ԵՊԲՀ հիվանդանոցային համալիրներում ինքնագլոր վարելու հետևանքով գրանցված վնասվածքները

Այսպիսով, սույն Թվականի մարտի 1-ից մինչև հուլիսը 1-ը ընկած ժամանակահատվածում, հիվանդանոցային համալիրի մասնագետները բժշկական օգնուԹյուն և սպասարկում են ցուցաբերել 38 մարդու` հավասարաչափ արական և իգական սեռի ներկայացուցիչների:

Ինչպես Եվրոպական տարածաշրջանի այլ պետություններում, մեզ մոտ ևս տուժածների մեծամասնությունը` 95%-ը եղել են փոխադրամիջոցը վարած անձինք, իսկ 5%-ը` հետիոտներ, որոնք տուժել են ինքնագլորի հետ բախվելու հետևանքով:

Հիվանդանոց դիմած բոլոր տուժածները, այդ թվում նաև փոխադրամիջոցները վարող անձինք եղել են չափահաս, մեծամասնությունը` 68%-ը, 18-30, իսկ 32%-ը 30 և բարձր տարիքային խմբի ներկայացուցիչներ:

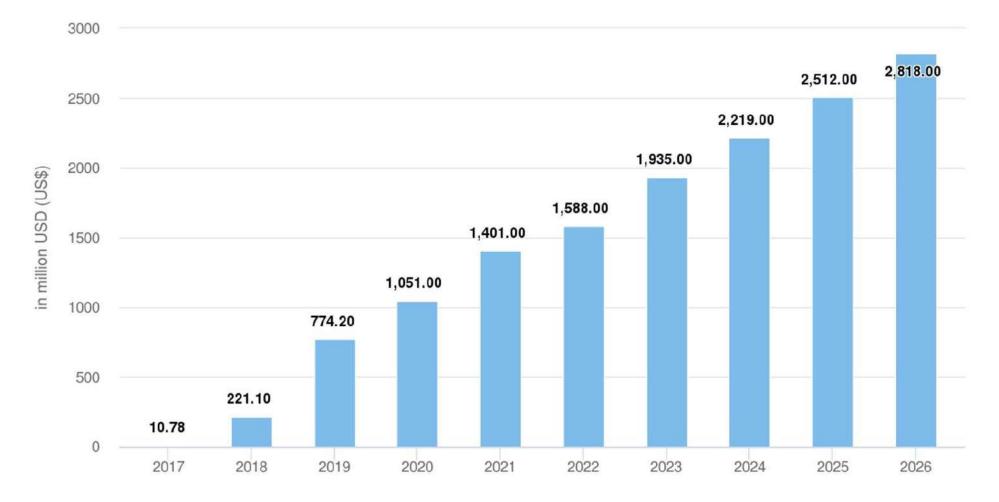
Կարևոր նշանակություն ունի վնասված քների բնույթի նկարադիրը, համաձայն որի տուժածների 24%-ի մոտ հայտնաբերվել են կոտրված քներ, իսկ մնացած 76%-ի մոտ տարբեր աստիճանի վնասված քներ, սակայն առանց կոտրված քի:

Հոսպիտալացում պահանջվել է 2 դեպքում, մնացած բոլորը ստացել են ամբուլատոր բժշկական օդնություն և չեն հոսպիտալացվել:

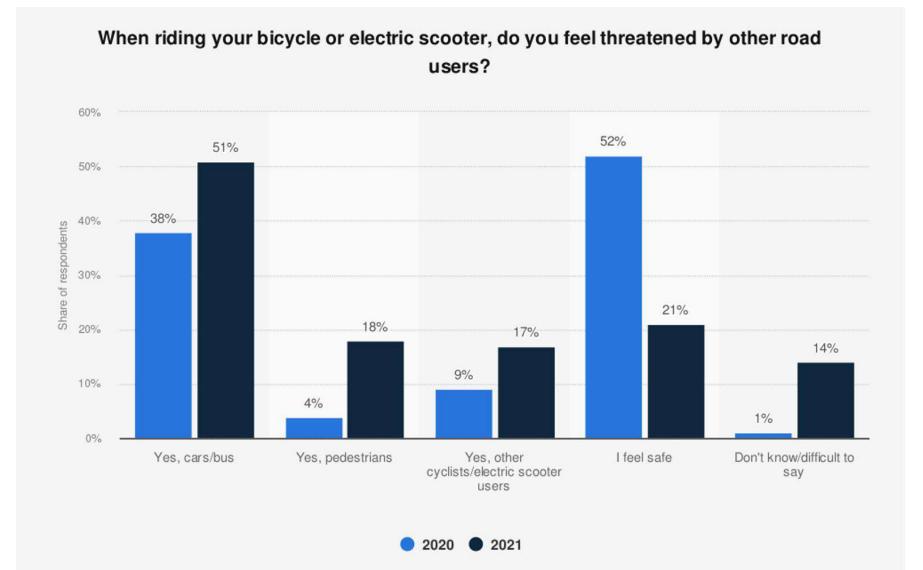
Վերոնշյալ տվյալները, որոնք ներկայացնում են միայն մեկ հիվանդանոցային համալիրում գրանցված դեպքերը, ակնհայտորեն վկայում են ինքնագլորների վարելու հետևանքով առաջացող առողջապահական էական խնդիրների մասին, որոնք կարիք ունեն կարգավորման, ինչպես օրենսդրական, այնպես էլ ենթաօրենսդրական մակարդակներում:

E-Scooter-sharing - Revenue

Worldwide (million USD (US\$))



Source: Statista



Sources

Smartscope; Nationale Nederlanden © Statista 2022 Additional Information:

Poland; Smartscope; April 16-21, 2021; 904*; 18 years and older; Internet users. People using bicycles and scooters (87% interviews (CAWI)

Koreans Worried About Safety and Reach of E-Scooters

Share of Koreans who regard the improvement of the following e-scooter regulations as important*

	44%
Limit where e-scooters can be used	
	42%
Crackdown on people not wearing helmets	3.1
	40%
Improve user awareness	
	39%
Impose high fines on rule violators	
	35%
Limit top speed	
27%	
Build separate 'e-scooter only' roads	
25%	
Add license/number plates to e-scooters	
13% Designate parking spaces for e-scooters	A C
4% Limit the amount of e-scooter lending companies	
* first to third priority picks	2 10 10 10
Survey of 2,000 Korean residents aged 20-59 surveyed Mai	rch 2, 2020
Source: Open Survey	
	statista Z
000	

An overview of docking station providers for rental fleets and personally owned electric scooters

KUHMUTE				
	KNOT	DUCKT	SWIFTMILE	BIKEEP
Charged Through Adapter/Sleeve*	Charged Through Adapter/Sleeve*	Charged Through	Charged Through Universal Adapter Cord, Adapter/sleeve available for select scooter models	Outlet Available For Personal Use Chargers
Locks automatically with adapter/sleeve	Locks automatically with adapter/sleeve	Locks automatically with adapter/sleeve	Space available to attach external locks	Stainless steel sliding lock bar
Personal and Rental	Rental	Rental	Personal and Rental	Personal
0	0	0	×	×
Supports widest range of vehicle types; Quick charge compatible	Least Expensive	Quickest delivery time; Most software integrations	Full cost can covered through advertising model	Universal Locking with no adapter/sleeve needed
	Adapter/Sleeve* Locks automatically with adapter/sleeve Personal and Rental	Adapter/Sleeve* Adapter/Sleeve* Locks automatically with adapter/sleeve Locks automatically with adapter/sleeve Personal and Rental Rental Image: Supports widest range of vehicle types; Least Expensive	Charged Through Adapter/Sleeve*Charged Through Adapter/Sleeve*Charged Through Adapter/Sleeve*Locks automatically with adapter/sleeveLocks automatically with adapter/sleeveLocks automatically with adapter/sleevePersonal and RentalRentalRentalImage: Supports widest range of vehicle types;Least ExpensiveQuickest delivery time; Most software	Charged Through Adapter/Sleeve*Charged Through Adapter/Sleeve*Charged Through Adapter/Sleeve*Adapter Cord, Adapter/Sleeve available for select scooter modelsLocks automatically with adapter/sleeveLocks automatically with adapter/sleeveLocks automatically with adapter/sleeveSpace available to attach external locksPersonal and RentalRentalRentalPersonal and RentalImage: Supports widest range of vehicle types;Least ExpensiveQuickest delivery time; Most softwareFull cost can covered through advertising model

*One step rental integration is when a docking station can end a rental trip automatically when a scooter is docked, requiring no further user input *Pricing is based off the order of a single unit and is subject to change at any time by the product manufacturer *Adapter/Sleeves require installation on vehicles in order to use dock

CAGR 11.2%

The e-scooter (Electric) industry revenue of USD 20.87 million in 2021 is expected to grow up to USD 50.99 billion values by 2030.