



CYCLE 4 VALUE



GOALS



Promotion of cycling by means of a blockchain-based incentive system



Ensuring environmentally friendly, affordable and health-promoting mobility



Gain of knowledge on behavioral interventions such as incentive systems



Transferability and high scalability

CYCLE 4 VALUE

Plausibility Check:
Machine Learning



Equivalent of
1€
per
Kilometer



Trade Cycle Tokens
→ Vouchers and
redeem Perks

MARKET PLACE





Information Mitmachen

345 Punkte

156 Punkte

SALZBURG

13
TAGE

INNSBRUCK



SUPER MARIO
345 points

74
km

17
rides

4
ratings

ANALYSIS

Impact Areas	Indicators	Monetised savings per cycled Kilometre	
		per Indicator	per Impact Area
Ecology 	○ Savings in greenhouse gas emissions CO ₂	0,0257 €	0,0377 €
	○ Savings in air pollutant emissions NO _x	0,0105 €	
	○ Savings in air pollutant emissions NH ₃	0,0003 €	
	○ Savings in air pollutant emissions NMVOC	0,00022 €	
	○ Savings in air pollutant emission SO ₂	0,00002 €	
	○ Savings in air pollutant emission PM _{2.5}	0,00006 €	
	○ Savings in air pollutant emission PM ₁₀	0,0009 €	
Economy 	○ Reduction of individual mobility costs	0,26 €	0,26 €
Health 	○ Promotion of individual health	0,94 €	1,07 €
	○ Improvement of road safety	0,13 €	
TOTAL BENEFIT		<u>1,37 €</u>	per Kilometre

TOKEN STRUCTURE

Bike Impact Score / BIS

- The BIS is an on-chain non-transferable, non-consumable score
- $BIS = \text{root}(\text{distance in km})$
- Max. BIS per track: 4 Max. BIS per day und user: 8
- On-chain data are limited to a hash uniquely identifying the track

Bike Impact Token / BIT:

- The BIT is a fully fungible token
- The BIT is a transferable global asset, which is issued proportionally to the BIS score and can be consumed
- $BITs = \text{root}(\text{distance in km})$
- Max. Bike Impact Tokens per track: 4 Max. Bike Impact Tokens per day und user: 8
- For Mensa Krems and Ducks Coffee Shop as first entities accepting the Bike Impact Token its value is defined as 1 €.
- **~1 BIT is generated per 3 kilometres**



16.361,8038 IGNIS

ARDOR-25UQ-TP2L-39Y6-32D8P



C4V

Details

Switch Account

IGNIS

Height 1936133

Block in 54

● Connected

● Not Forging

Search By ID...



Dashboard



» Dashboard

» Account Ledger

» Account Properties

» My Transactions

» Approval Requests

» Approval Models

Coin Exchange



Assets



Monetary System



Voting System



Data Cloud



Marketplace



Shuffling



Messages



Aliases

Plugins



My Transactions

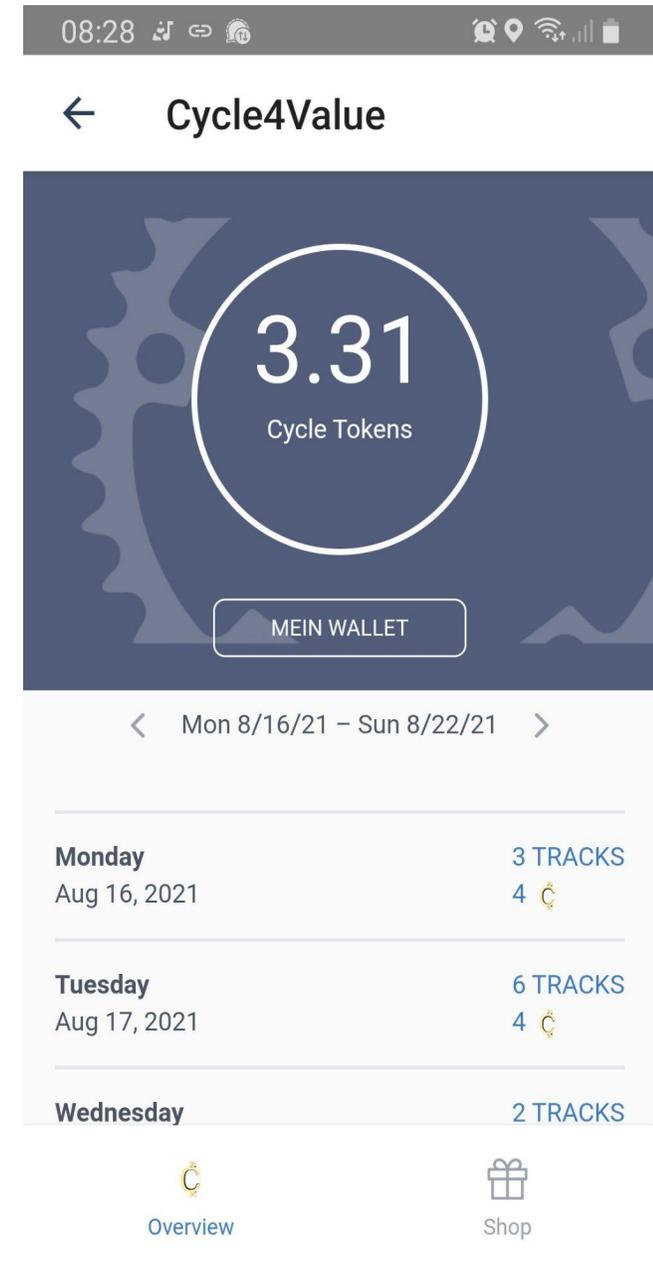
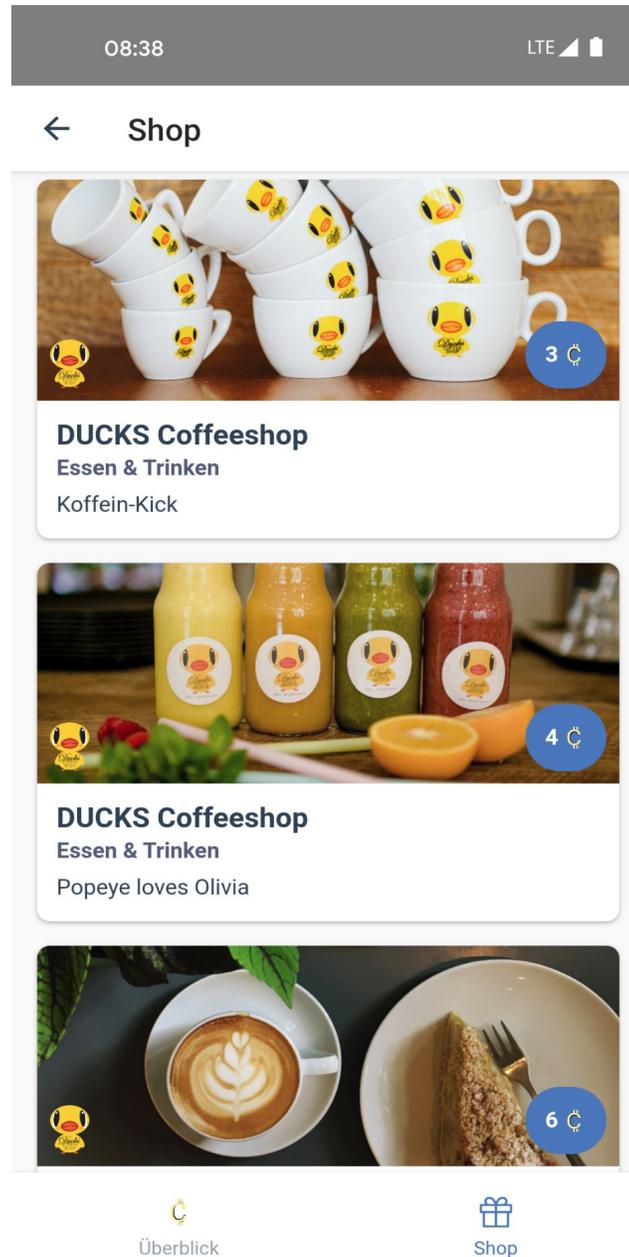
All Unconfirmed Phasing All Unconfirmed

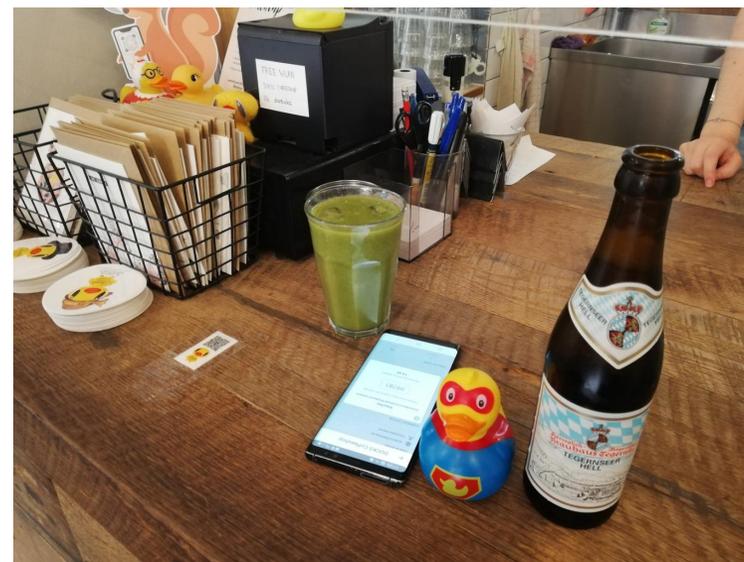
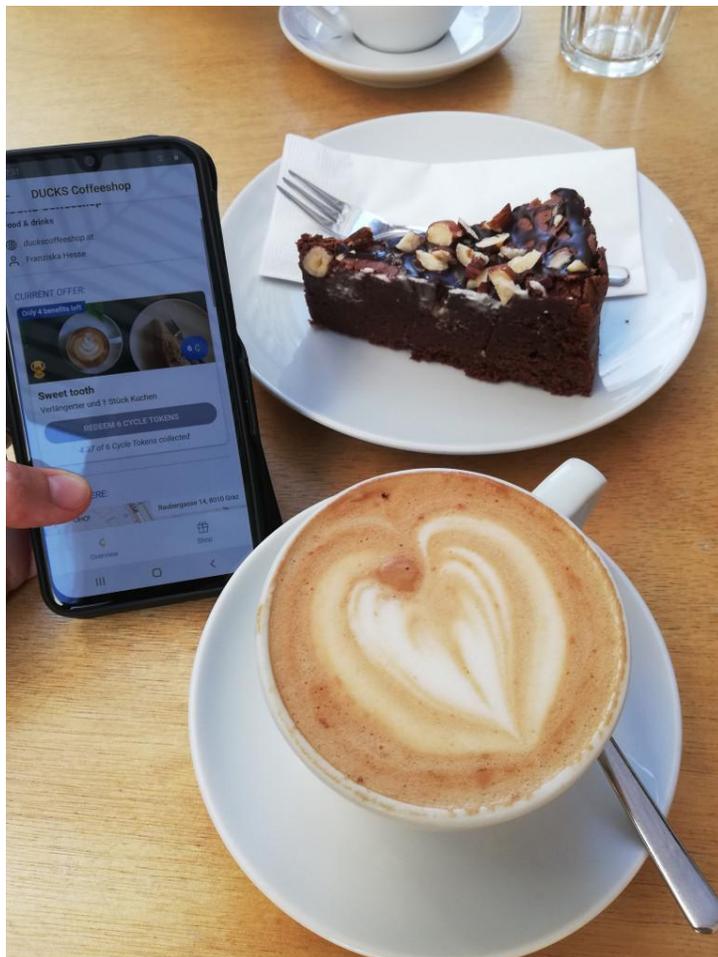
Show Type Menu

Date	Type	Amount	Fee	Account	Height	Confirmations
19.08.2021 21:13:45	Asset Transfer	4,0959	You	ARDOR-YA9V-QAQQ-5DSN-G4MBF	1935060	1.073
19.08.2021 21:14:09	Asset Transfer	4,0959	You	ARDOR-YA9V-QAQQ-5DSN-G4MBF	1935060	1.073
19.08.2021 21:13:54	Asset Transfer	4,1958	You	ARDOR-YA9V-QAQQ-5DSN-G4MBF	1935060	1.073
19.08.2021 21:13:50	Asset Transfer	4,1958	You	ARDOR-YA9V-QAQQ-5DSN-G4MBF	1935060	1.073
19.08.2021 21:12:44	Asset Transfer	4,0959	You	ARDOR-BPWZ-7AZW-VMSY-4C5YQ	1935058	1.075
19.08.2021 21:11:34	Asset Transfer	4,0959	You	ARDOR-GX3G-GJQE-LRZ7-CFSXT	1935058	1.075
19.08.2021 21:12:39	Asset Transfer	4,1958	You	ARDOR-BPWZ-7AZW-VMSY-4C5YQ	1935058	1.075
19.08.2021 21:11:39	Asset Transfer	4,1958	You	ARDOR-GX3G-GJQE-LRZ7-CFSXT	1935058	1.075
19.08.2021 21:11:59	Asset Transfer	4,0959	You	ARDOR-GX3G-GJQE-LRZ7-CFSXT	1935058	1.075
19.08.2021 21:10:59	Asset Transfer	4,1958	You	ARDOR-E7WV-3SJ7-AJCU-HBDUM	1935057	1.076
19.08.2021 21:11:14	Transaction Approval	0,0999	You	/	1935057	1.076
19.08.2021 21:11:24	Asset Transfer	4,0959	You	ARDOR-3CRM-D5HR-E54B-E523V	1935057	1.076
19.08.2021 21:11:29	Asset Transfer	4,1958	You	ARDOR-GX3G-GJQE-LRZ7-CFSXT	1935057	1.076
19.08.2021 21:11:19	Asset Transfer	4,1958	You	ARDOR-3CRM-D5HR-E54B-E523V	1935057	1.076
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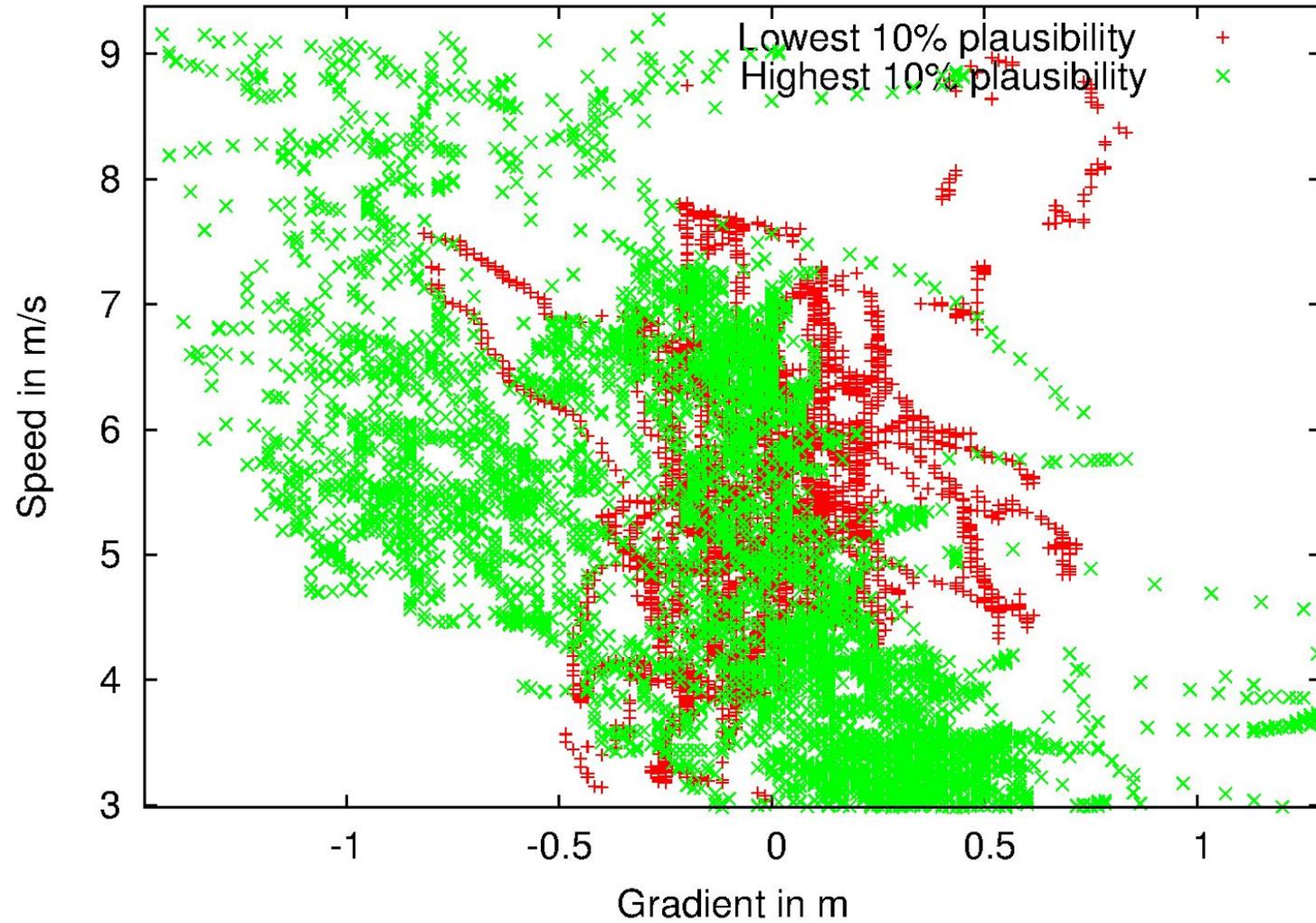
1-15 | 31-45

THE APP

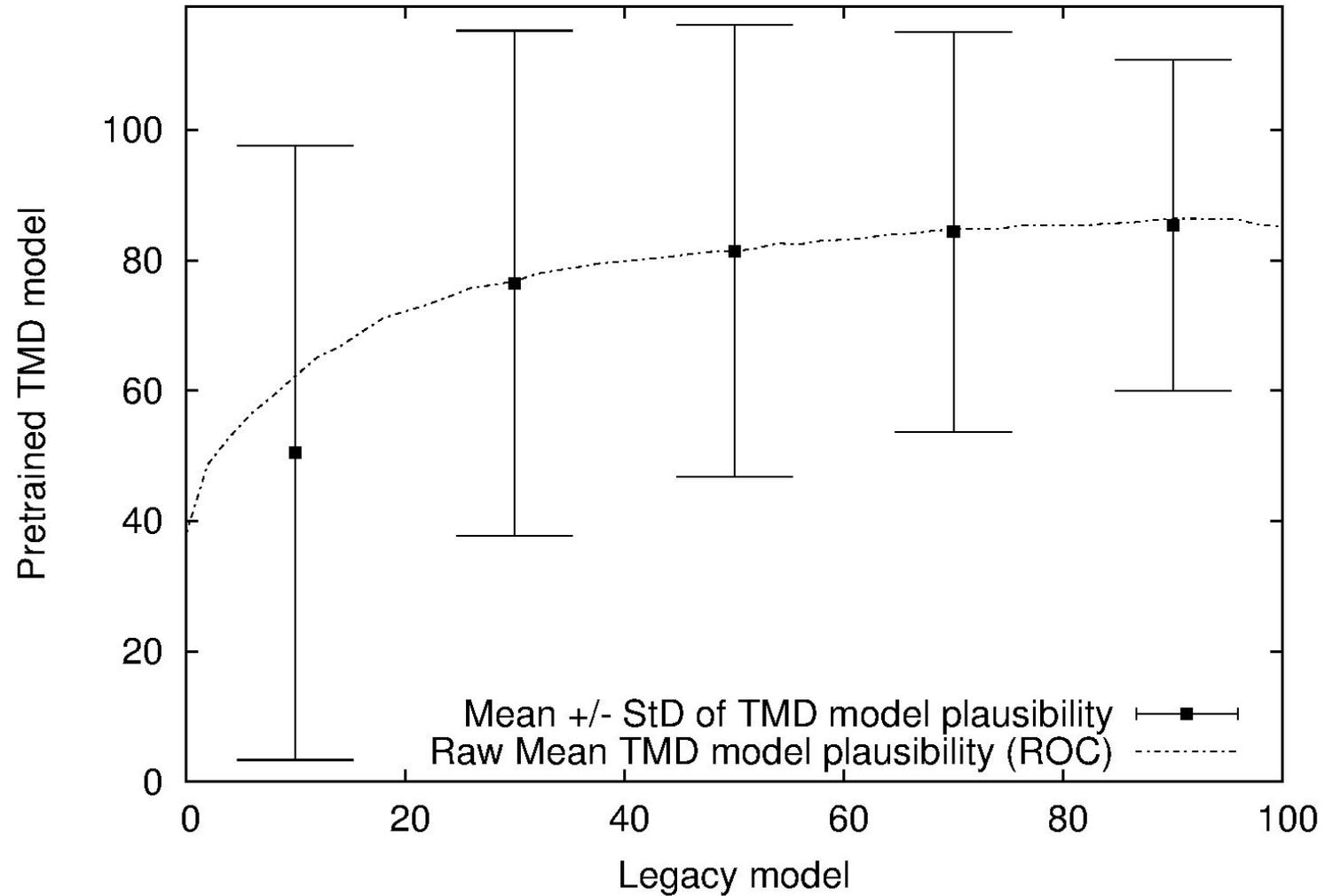




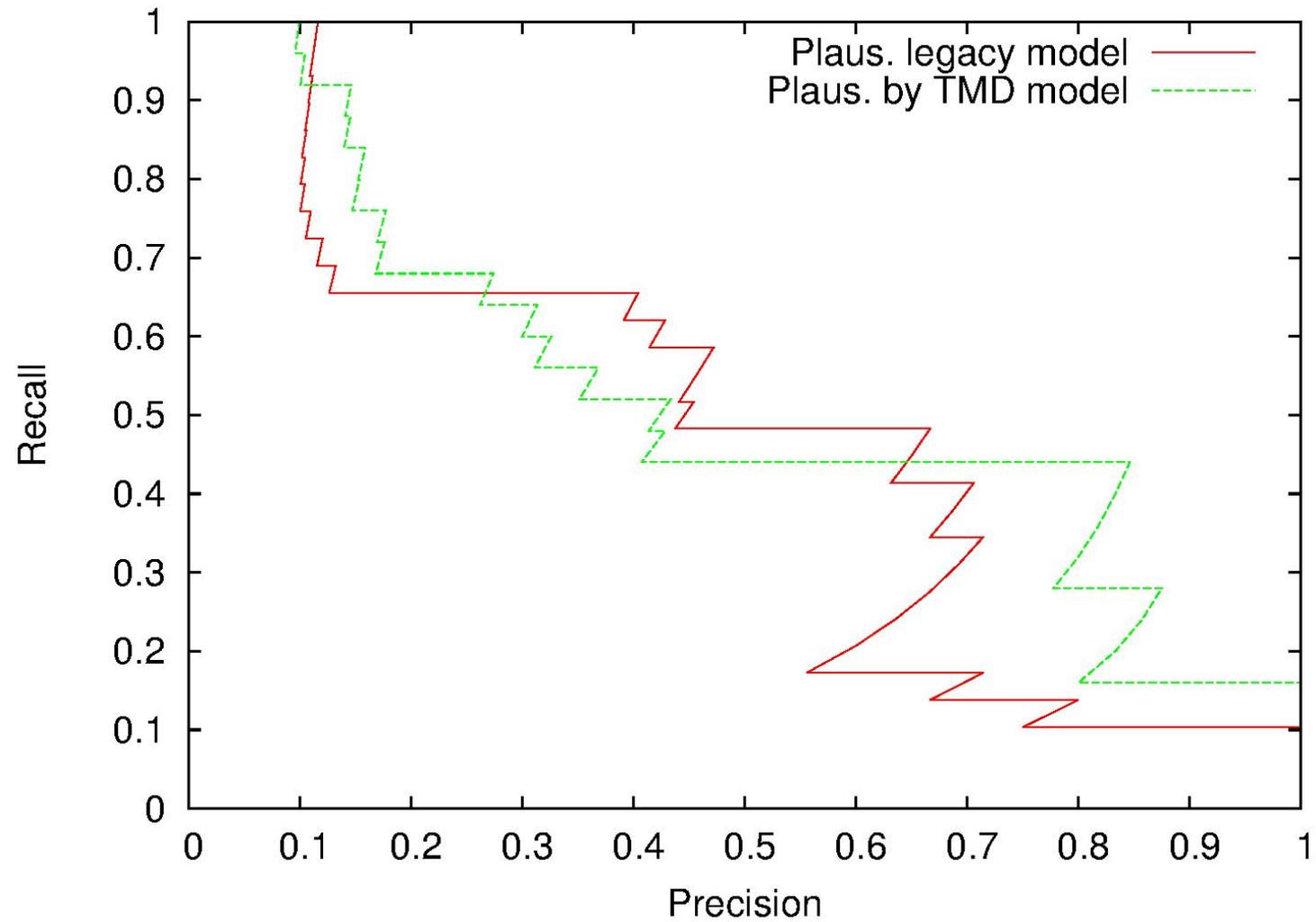
SPEED VS. GRADIENT



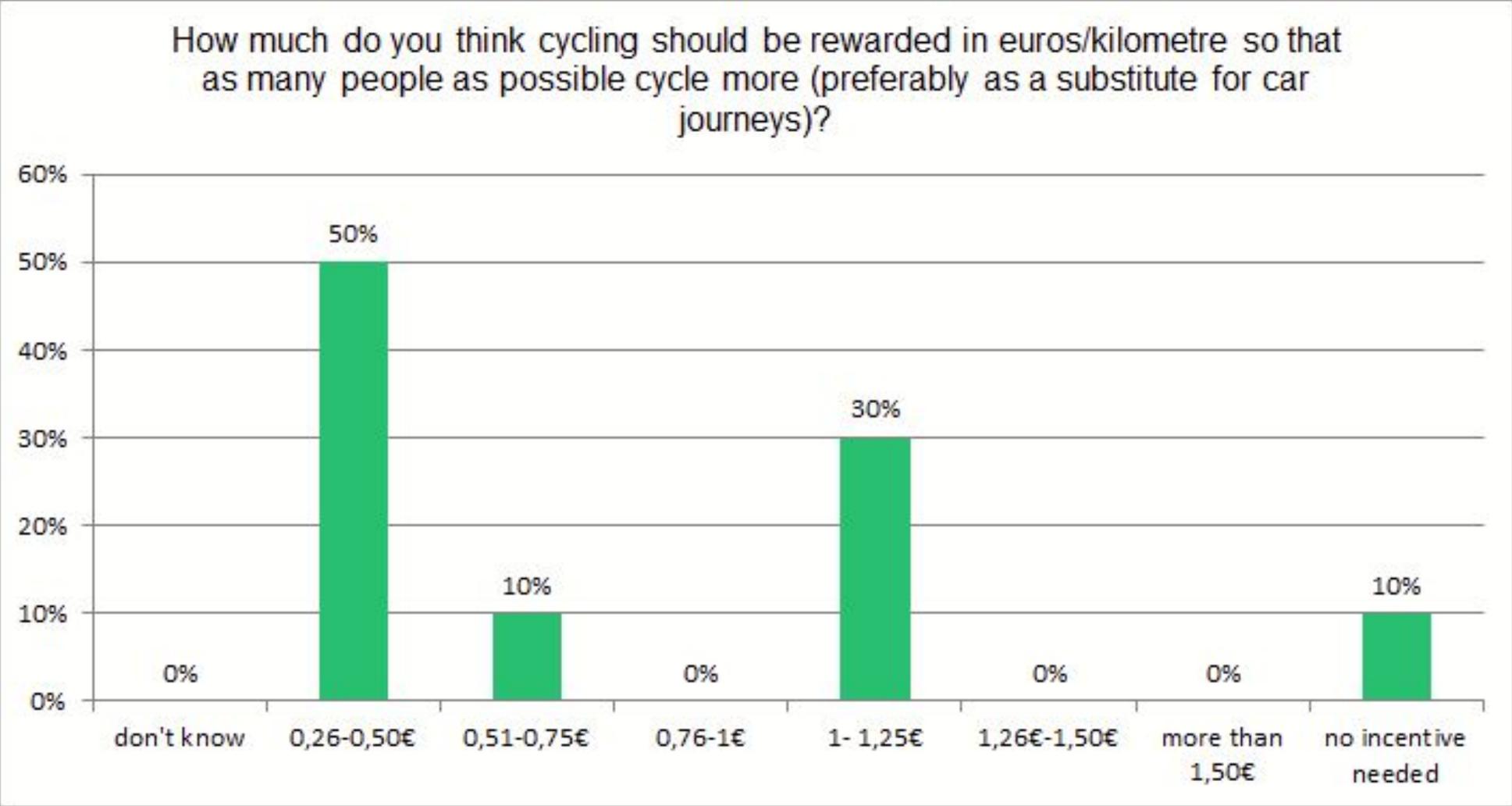
TRANSPORT MODE DETECTION



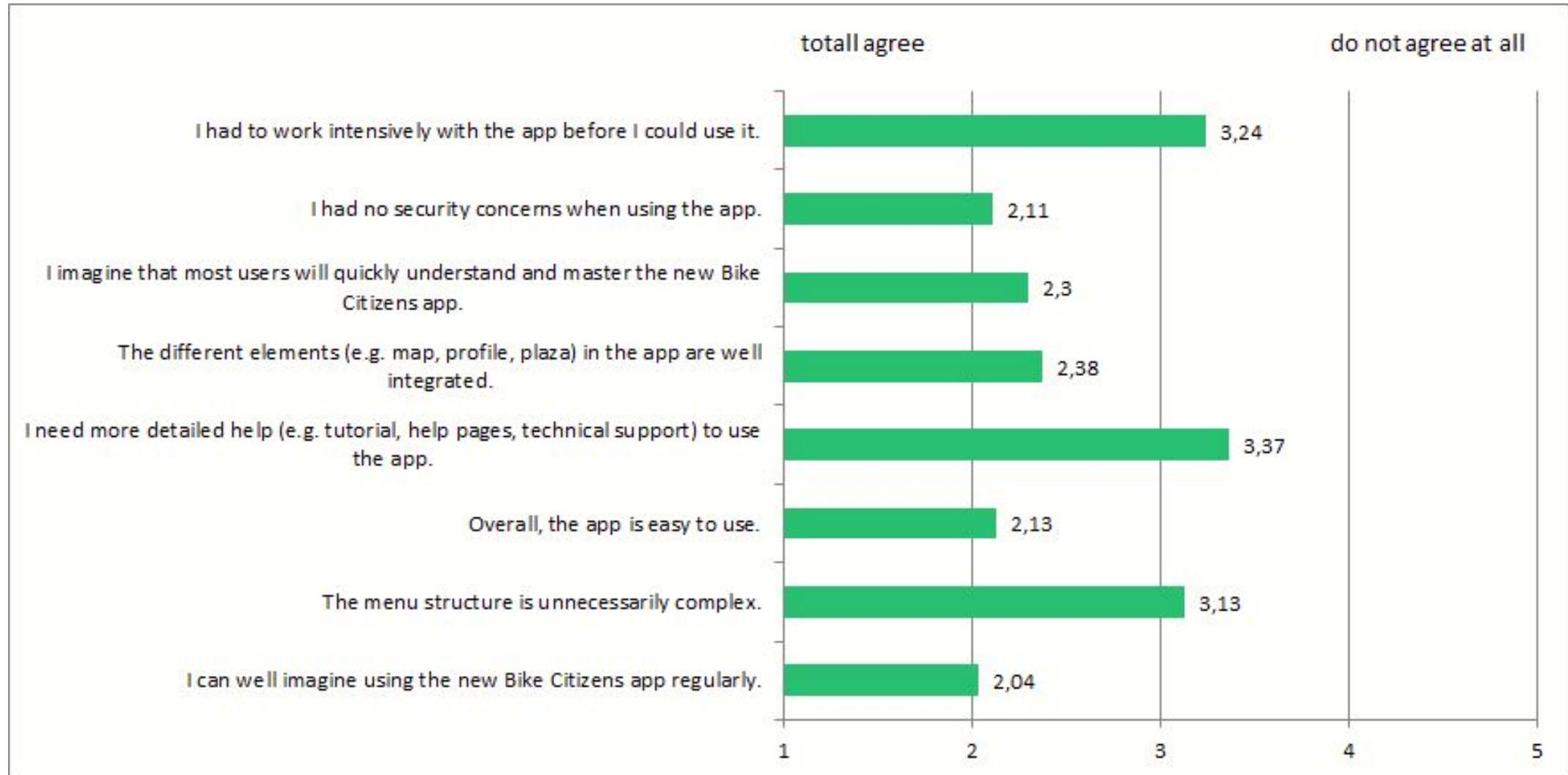
CHEATING COMPETITION



EXPERT REVIEW



USABILITY



CONCLUSION

+

system performance & high levels of acceptance/usability
creation of cycle tokens in relation to the impact of cycling
good fit of the ML model for cheat proofing the system

-

more preparation time for going2market needed
funding still unclear (redemption of cycle tokens)
ecosystem still needs to be build (entities accepting the cycle tokens)

PARTNERS

Call: “Mobility of the Future”

Funding:



 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology

Partners:



THANK YOU FOR YOUR ATTENTION!



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