

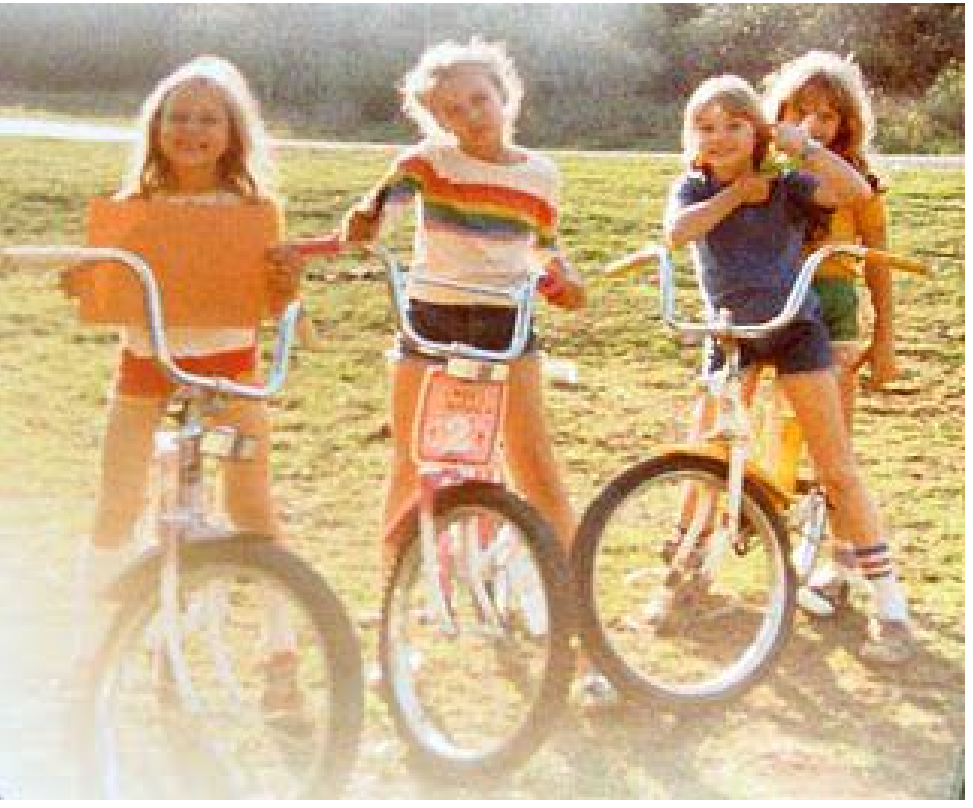
BOLT MOTORBIKES

The Future of Urban Transport

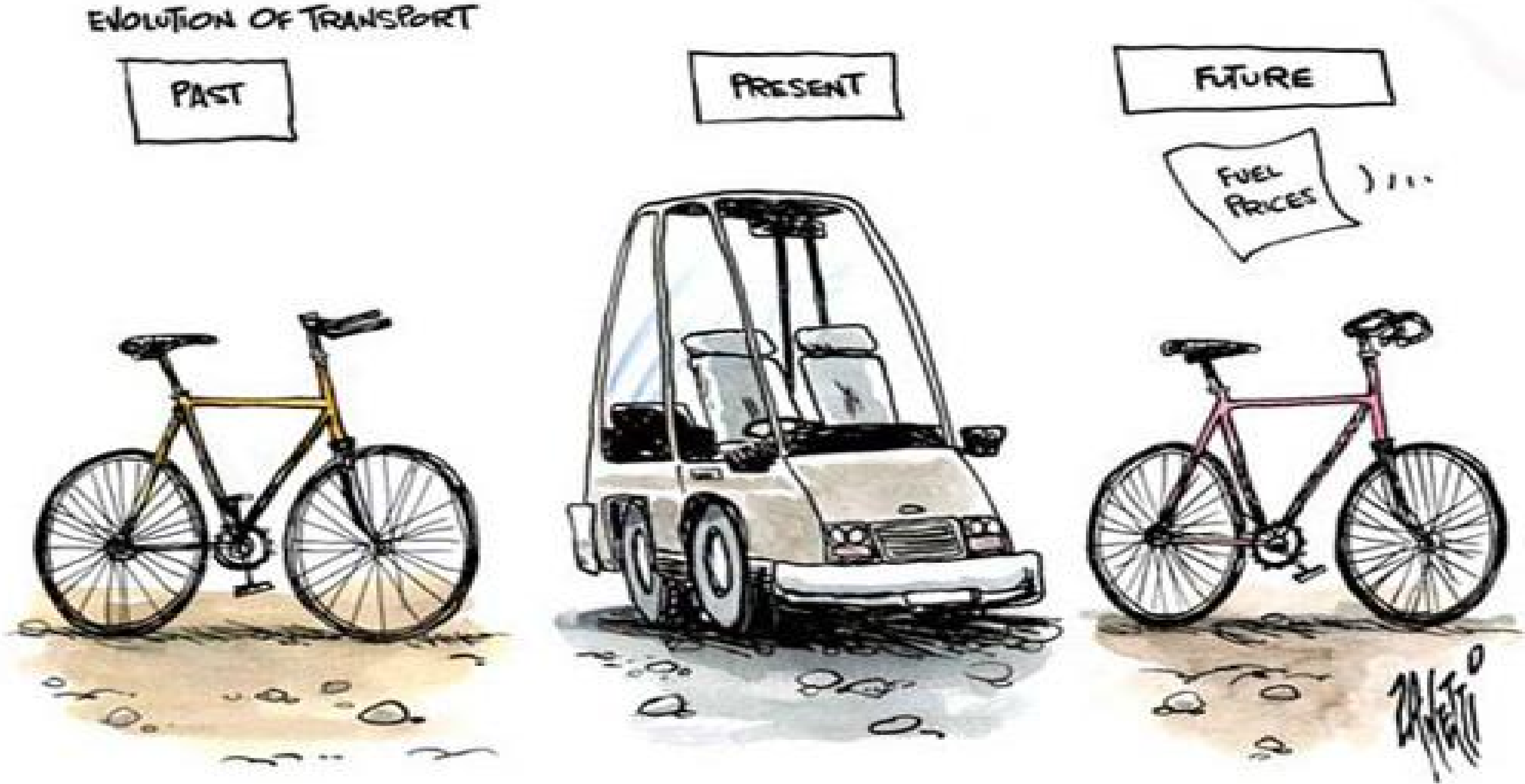
Founder and Chief Scientist
Dr. Nathan Jauvtis

Nate@boltmotorbikes.com | San Francisco, CA | 415-722-5453





Past and present informs the future

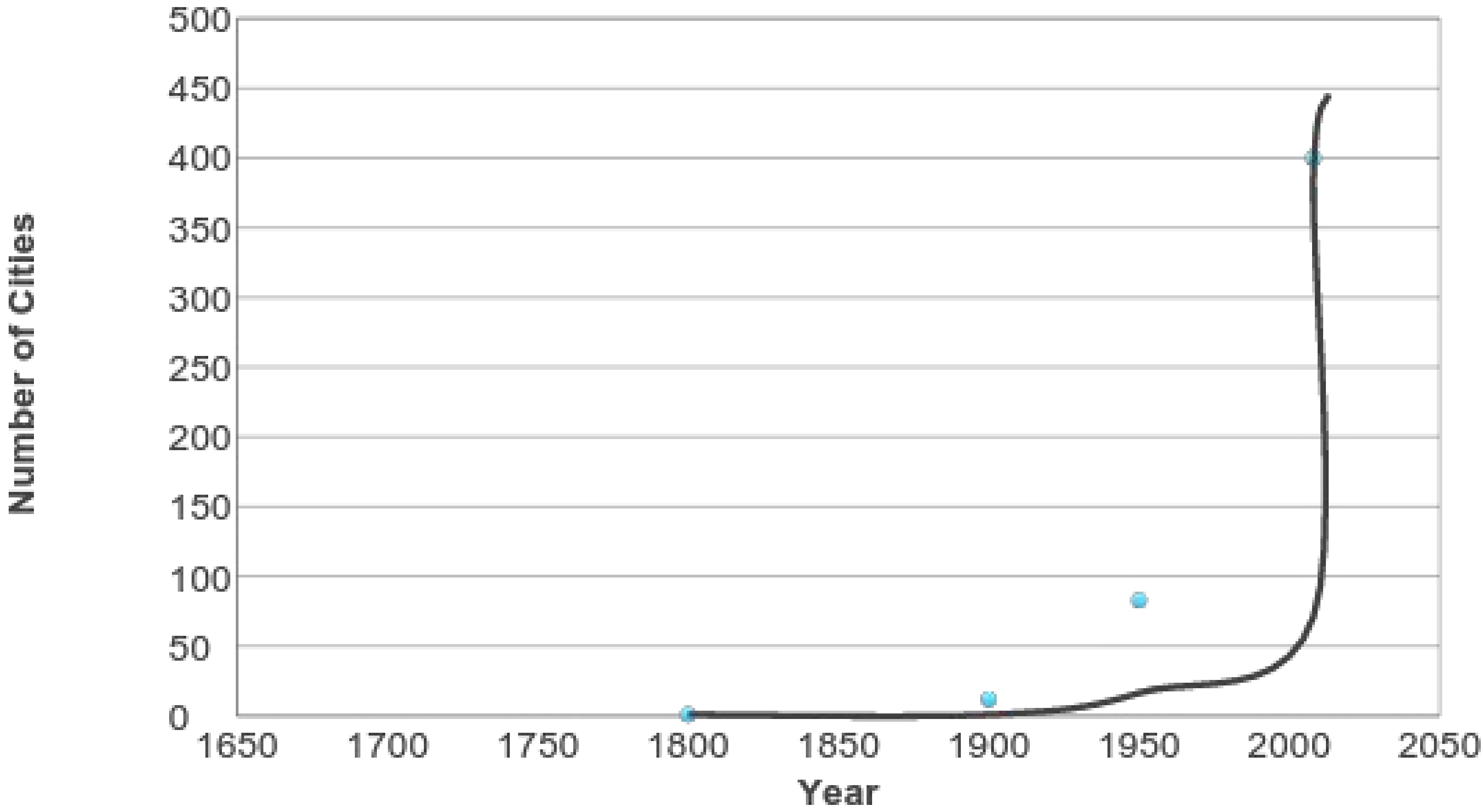


Cities are changing

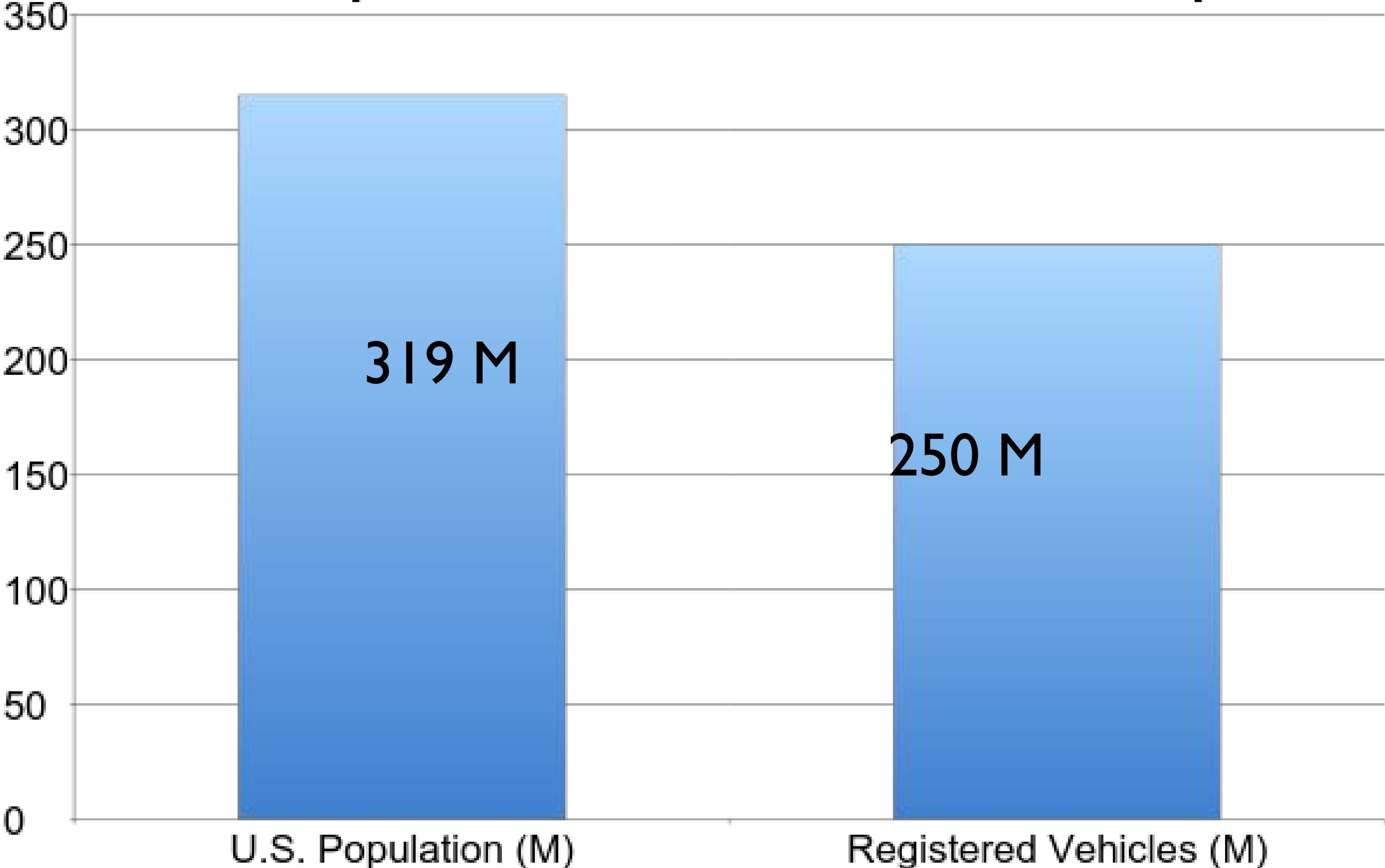


1911
E. J. LAWRENCE CO.
SAN FRANCISCO

Number of Cities with 1M+ Population



U.S. Population versus Vehicle Ownership



Most trips are short

(Source : 2009 NHTS Report)

- US average car trip: 6 miles
- US average commute: under 14 miles
- Time wasted in traffic: 62 hours per year



Conventional options don't work

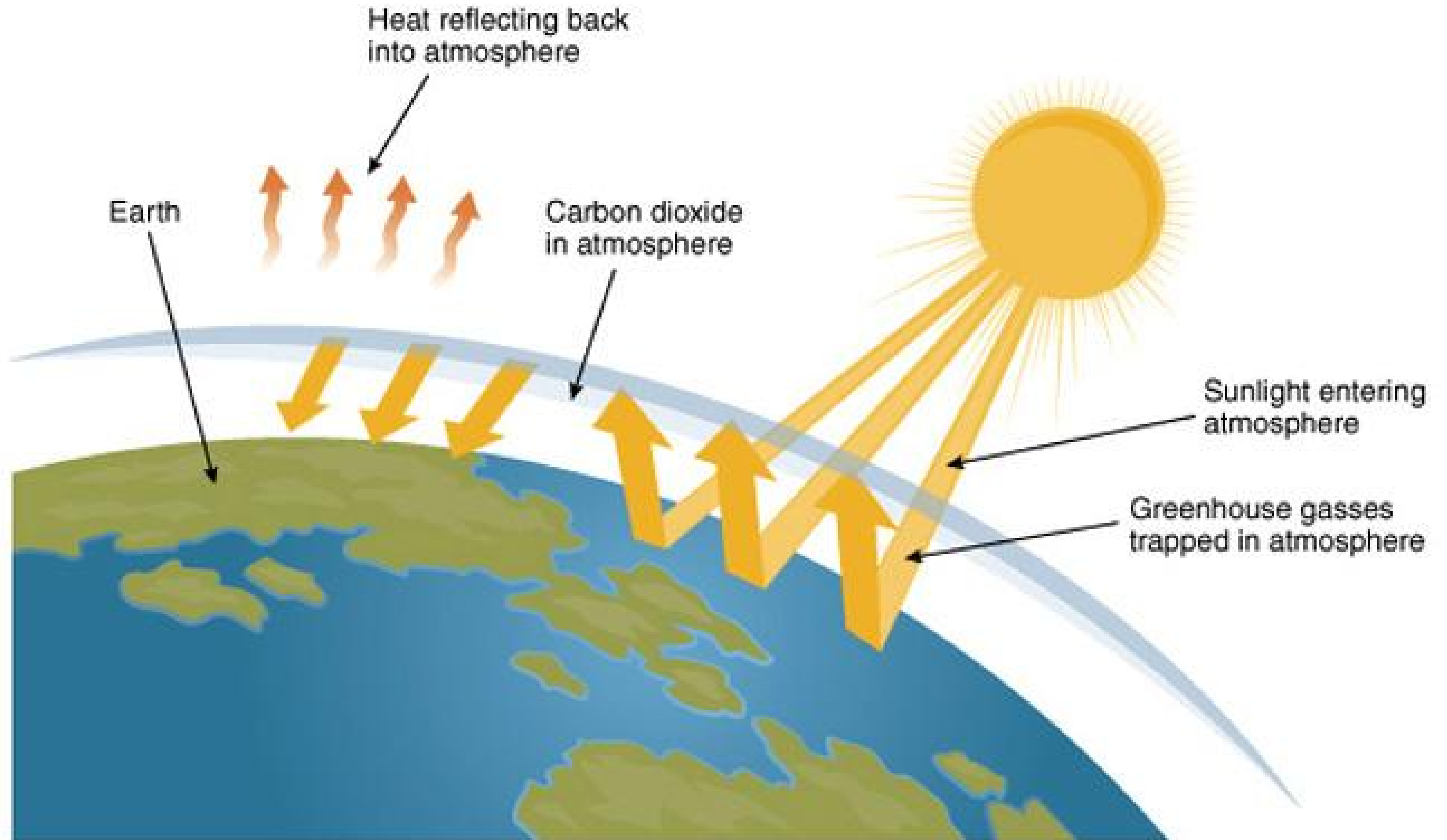
- **Cars** are hard to park / stuck in traffic / \$\$\$
- **Buses** are slow / unreliable / stuck in traffic
- **Motorcycles** are heavy / require a special license
- **Bicycles** are exhausting / range-limited / slow



Doing nothing makes these problems worse



Doing nothing makes these problems worse



Doing nothing makes these problems worse





“Everything that can be invented, has been invented”

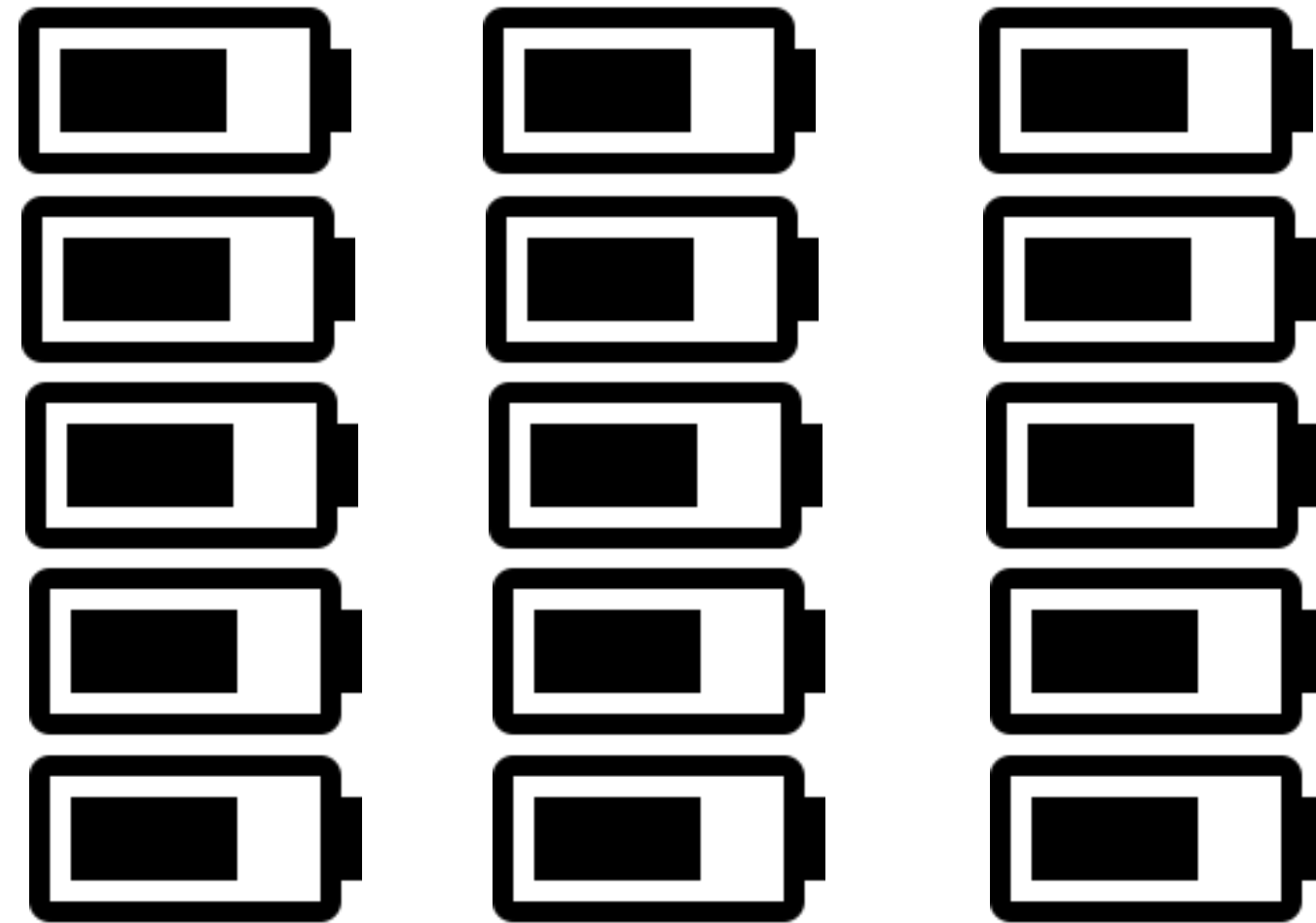
Charles Duell

Commissioner of USPTO
(1899)

What about the tech?



=



What about the tech?



What about the tech?



What about the tech?



What about the tech?



What about the tech?





Some cities have thoroughly embraced 2-wheelers

An ordinary day at an ordinary intersection in Taiwan



Population : 23 M

Registered 2-wheelers : 15 M

Benefits

Reduced congestion

Good in traffic

Easy to park

Cheaper than a car

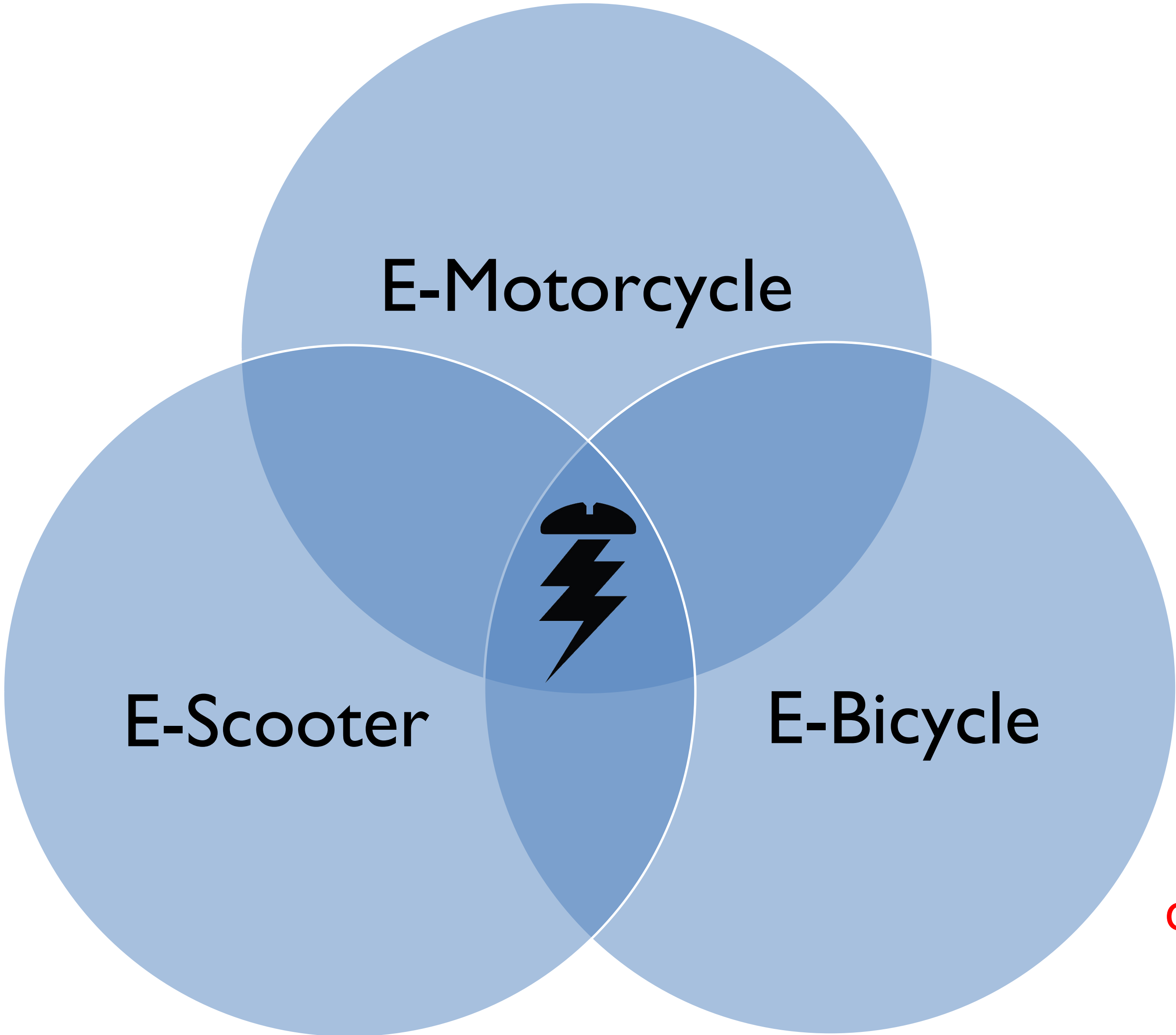
Drawbacks

Pollution

Maintenance

License required

People want green but there's no solution yet



cool
thrilling
affordable
easy to ride
approachable
no license req'd

dorky
heavy
intimidating
license req'd
cheaply made
or overly expensive

Create uniquely-attractive, fully-electric motorbikes for urban transport that are simple to operate, fun to ride, and desirable to own.



If Tesla and Honda had a love child with Apple...

23 February 2016
Bolt Motorbikes

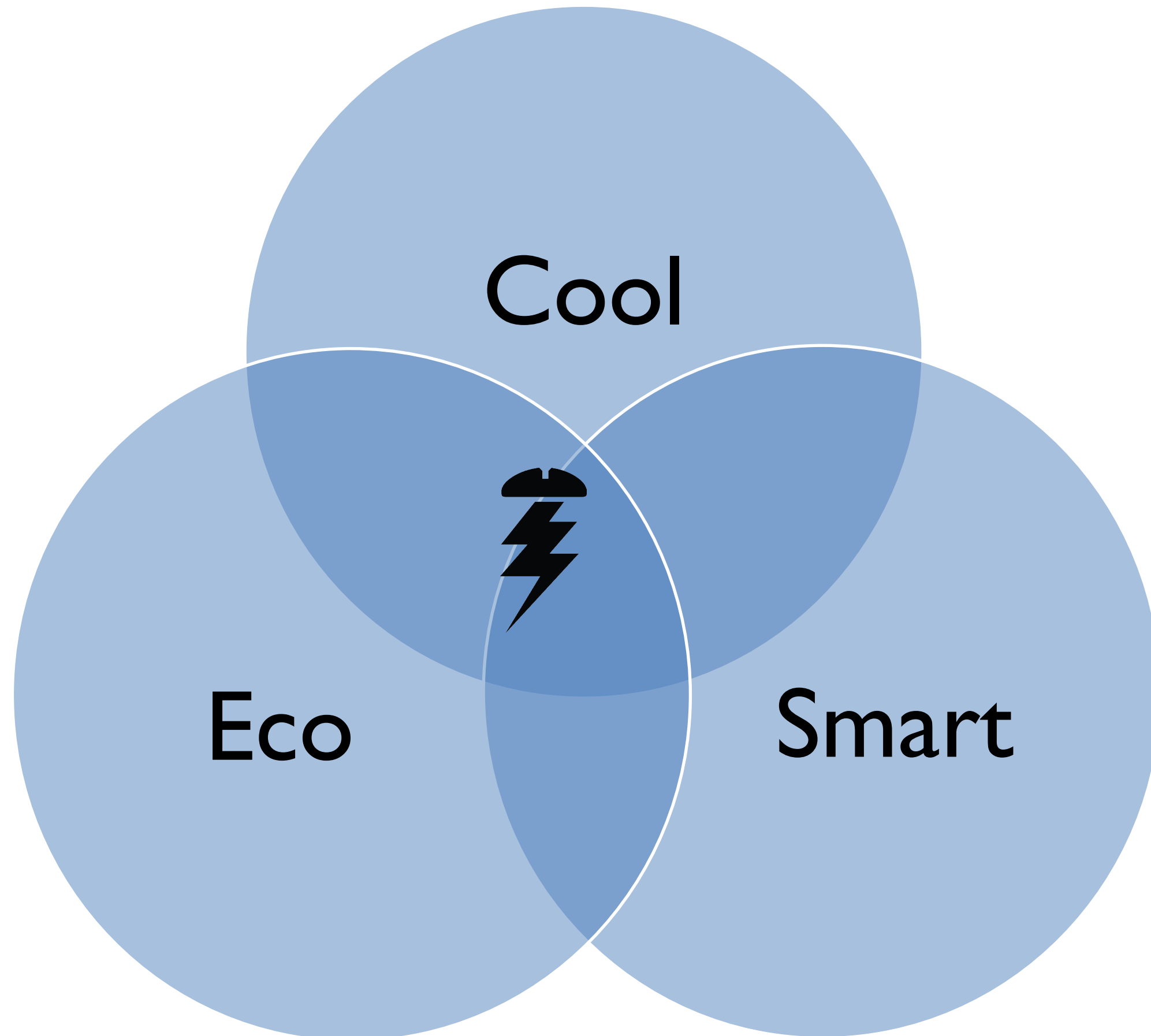
© 2016 Bolt Motorbikes
Confidential



M-1 : The Ultimate Urban Transporter

part bicycle / part motorcycle

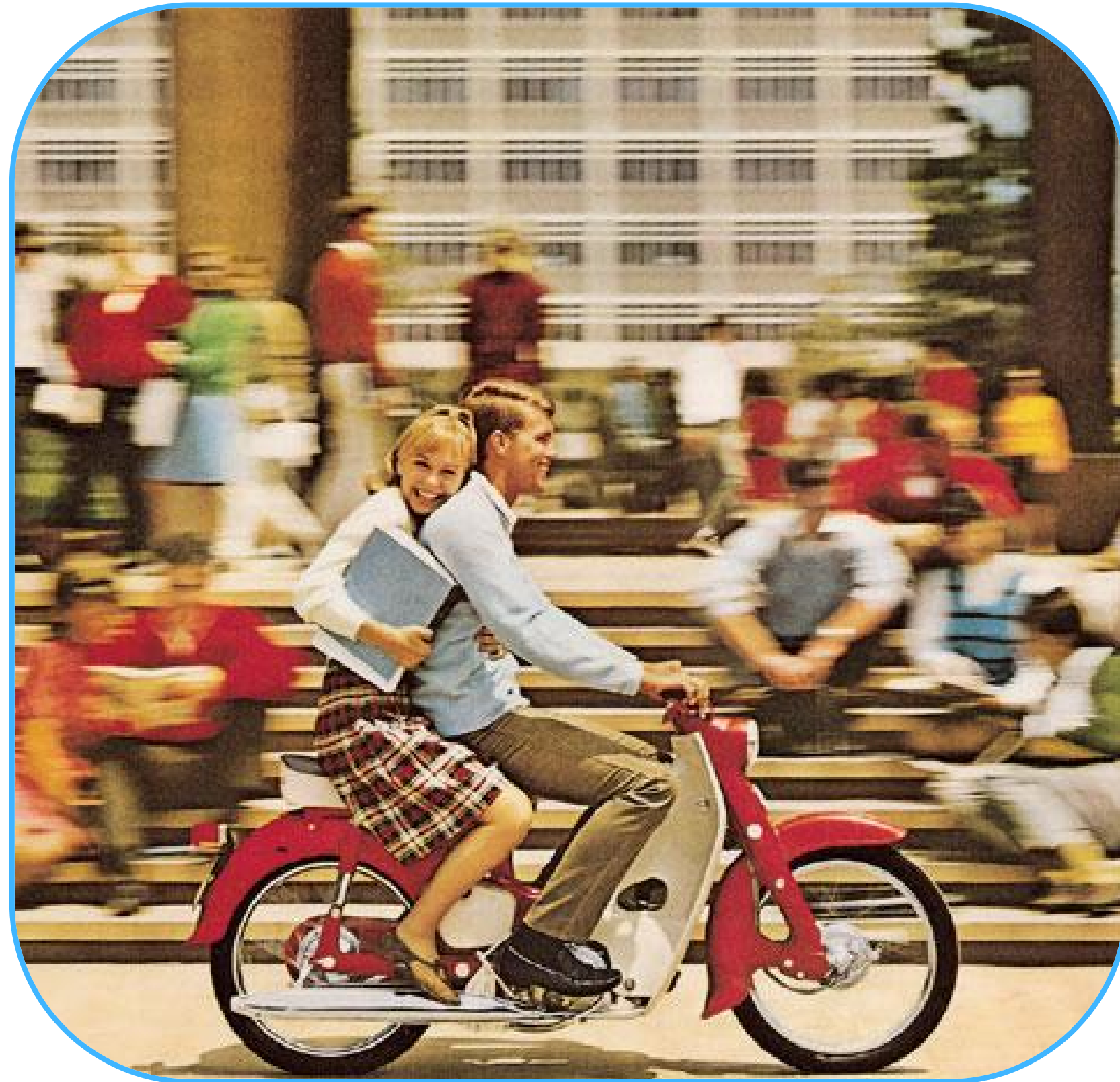
all - electric





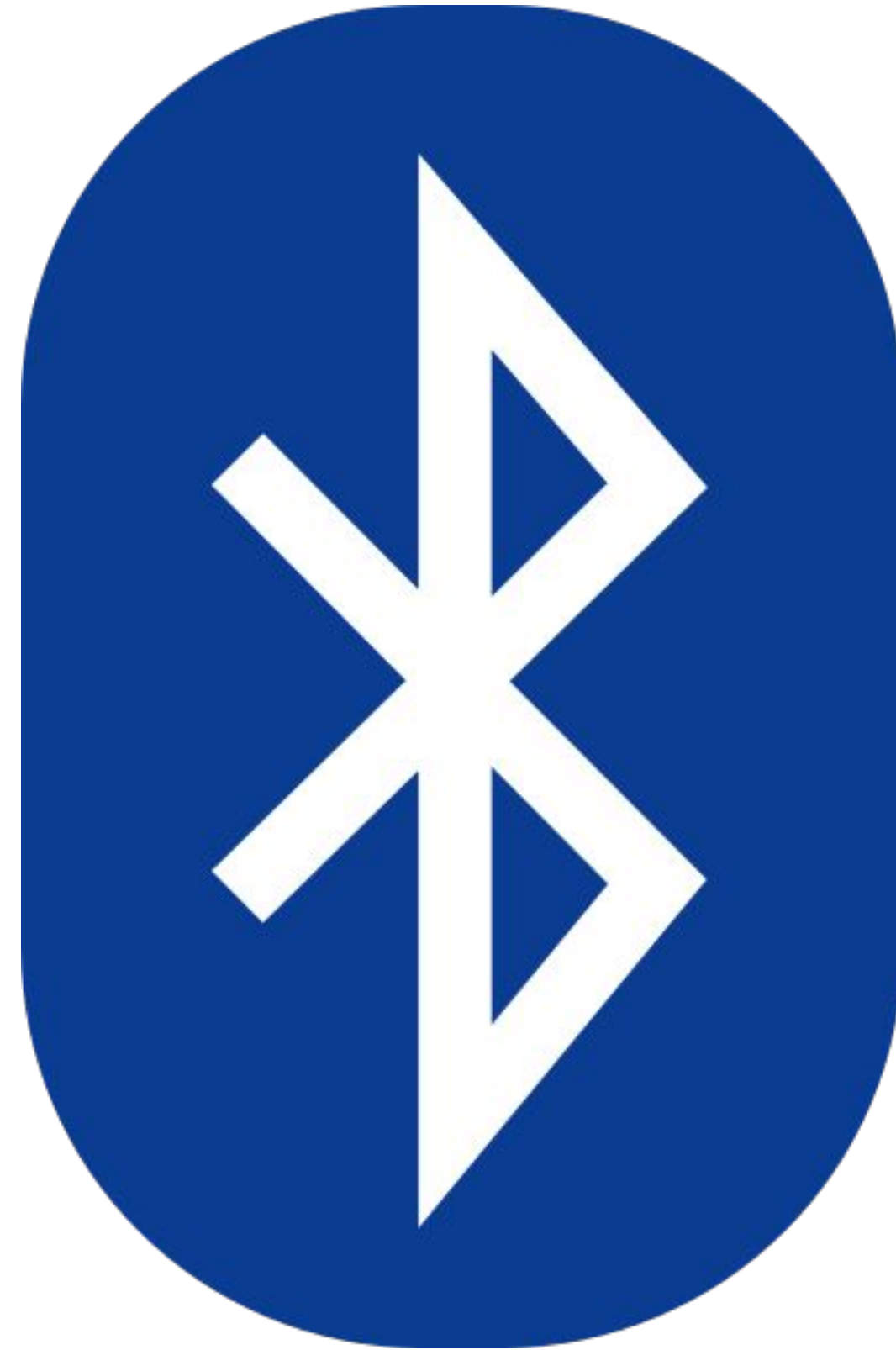
Honda Super Cub

87 million units sold



Bolt is

Smarter | Cleaner | Simpler



Some cool Bolt tech

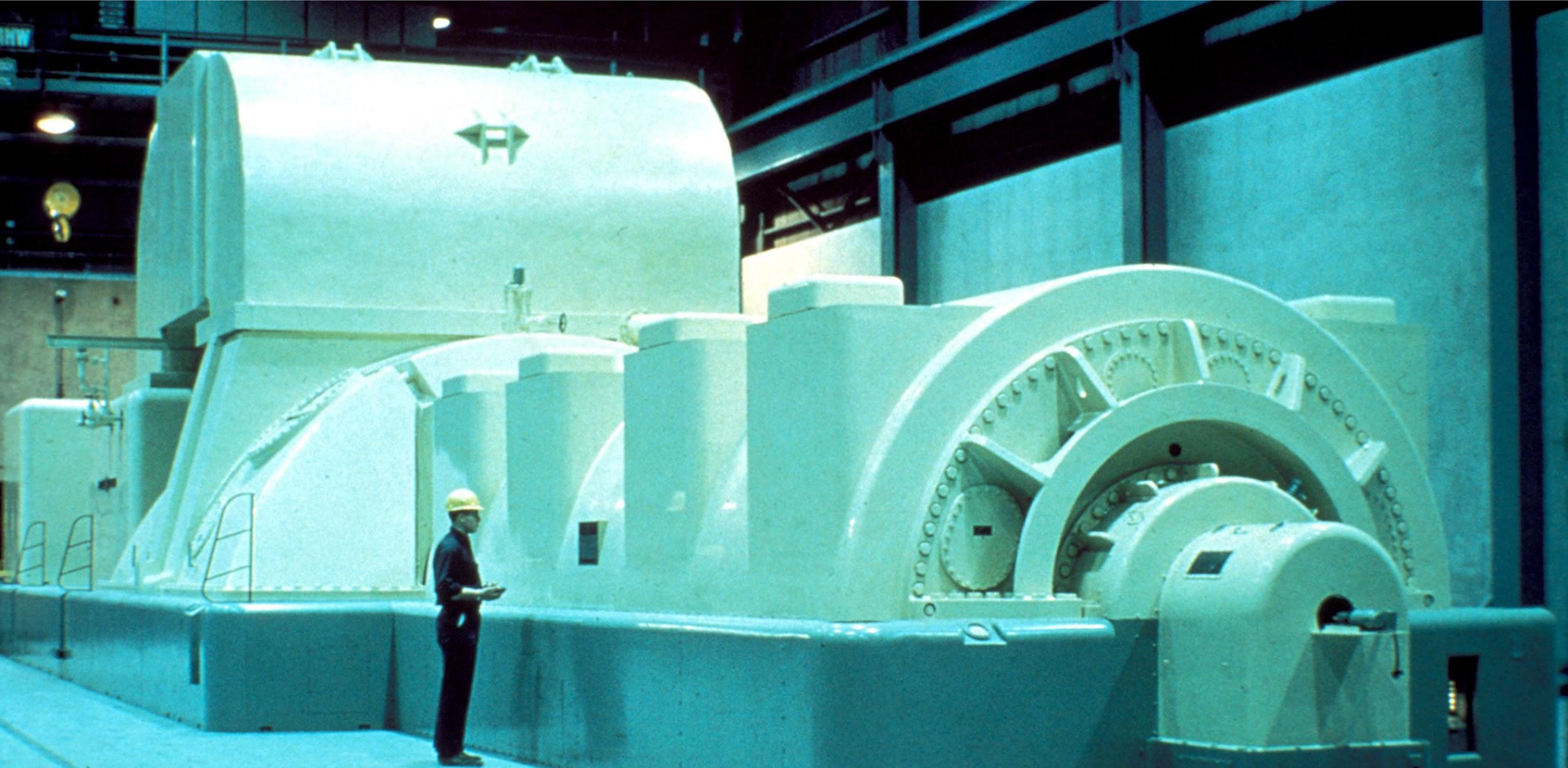
27

23 February 2016
Bolt Motorbikes

© 2016 Bolt Motorbikes
Confidential



Some cool Bolt tech





“Luck is where Opportunity meets Preparation”

Seneca

Roman Philosopher

Success

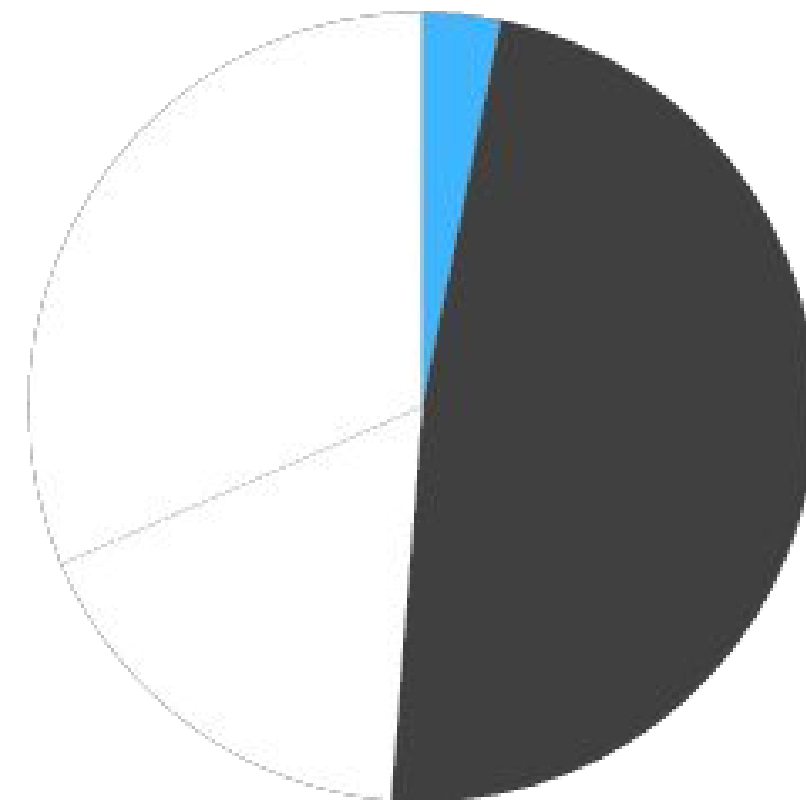
“~~Luck~~ is where Opportunity meets Preparation”

Bolt

Market Size : build US → expand globally

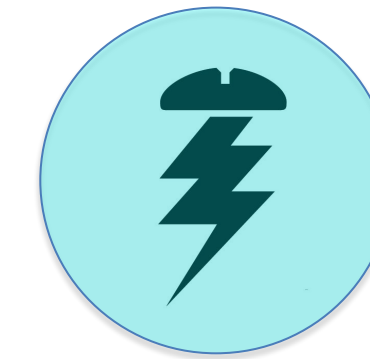
US

- Scooters
- Motorcycles
- E-bicycles
- Bus pass



\$7.5B

Target Market



\$143M

Bolt (2020)

Global

- Europe (\$10B) : 1.2M powered 2-wheelers + 750K E-bikes sold (2013)
- S.E. Asia (\$55B) : 11M powered 2-wheelers sold (2013)

Key Trends

- US E-bike growth forecast: 20% per year through 2018 (Source : 2012 Pike Research)
- Increasing electric vehicle ownership
- Renewable energy development
- Increasing urban density
- Connected devices
- Gas is expensive



50 years + 150,000 miles riding experience

electric motorcycle, scooter and wheelchair production

patented battery and drivetrain technology, more pending



Nathan Jauvtis, Founder & Chief Scientist

Ph.D. Mechanical Engineering, Cornell University

Zach Levenberg, Co-Founder & CTO

Mechanical Engineering and Robotics



Don Hutchison, Advisor



Bolt Motorbikes merges passion with capability



Josh Rasmussen, Co-Founder & CEO

Over a decade in auto
and technology
sales experience

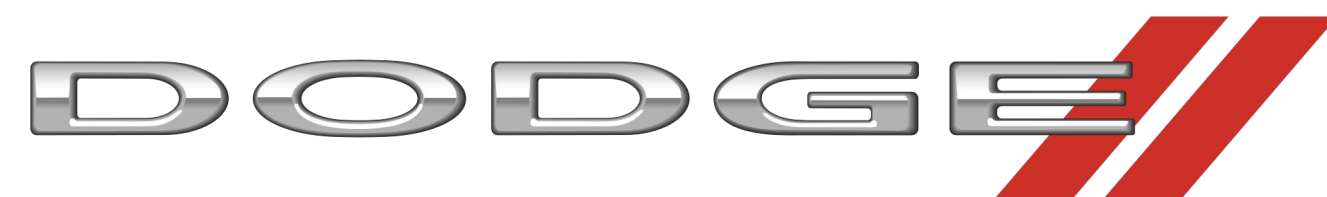
Internationally- recognized
brand development



Noah Sherman, VP Consumer Care

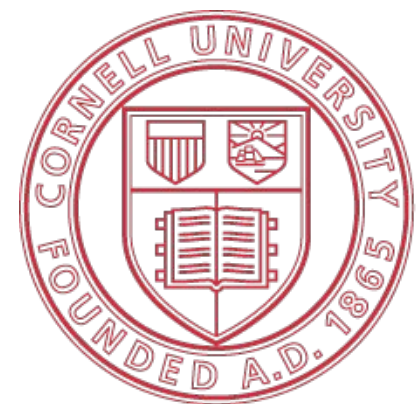


Marla Fong,
Communications Liaison





Nick Nieminen, New Guy



Cornell University



Robotics

Renewable Energy Engineering

Photovoltaic Engineering

Mechanical Engineering



Bryan Curtin, Mechanical Engineer



UNSW
THE UNIVERSITY OF NEW SOUTH WALES
SYDNEY • AUSTRALIA



	Brands	Attributes	Price Range
E- bicycle	Faraday, Kalkhoff, Stromer	Unhip, low power and low range, flimsy construction	\$3000 - \$7000
E- scooter	Stealth, Genze, Xkuty	Expensive, requires license, insurance, registration	\$4000 - \$12000
Gas scooter	Yamaha, Sym, Vespa	Requires gas, oil, maintenance, license, insurance, registration	\$3500 - \$6000

**In a crowded market,
Bolt stands out.**

- Rugged construction built to handle city riding
- Unique style
- High-tech, low-maintenance
- No paperwork

First to market with most popular form factor in history

Fanatical focus on user experience

Bolt controls production

- Convert raw materials to finished goods faster than anyone else

Integrated SW / HW solution

- optimize customer experience

Ultra-low cost of ownership

- Saves users time and money
- Increases quality of life

Experienced team

- Volume production
- Science
- Riding
- Sales

Technology-driven ... not just an afterthought

- Mobile connectivity
- Patented battery and drivetrain tech

	2016	2017	2018	2019
New Models	M-1	M-1S	M-P	M-C
MSRP	\$5500	\$5500	\$6000	\$6000
Average Cost of Goods	\$4900	\$4000	\$3100	\$2200
Product Milestones	Beta test Production	Enhanced perf. High-volume mfg.	Introduce multi-platform motorbike	Introduce motorcycle class

My childhood memory



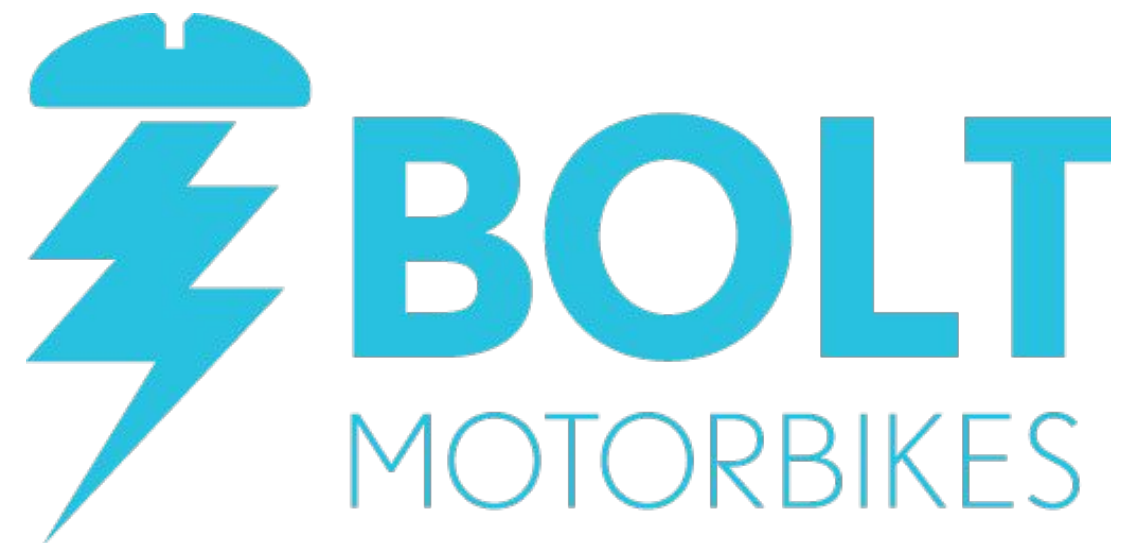
Rolls on two wheels

Is electric

Is connected

Can be ridden by anyone

Thank You



Nathan Jauvtis PhD, Founder | nate@boltmotorbikes.com | San Francisco, CA | 415-722-5453

Appendix

