

With Europe facing the challenges of climate change, air pollution and congestion, FEMA believes that powered two-wheelers - scooters and motorcycles - can play a role in delivering sustainable, affordable and efficient personal transport.

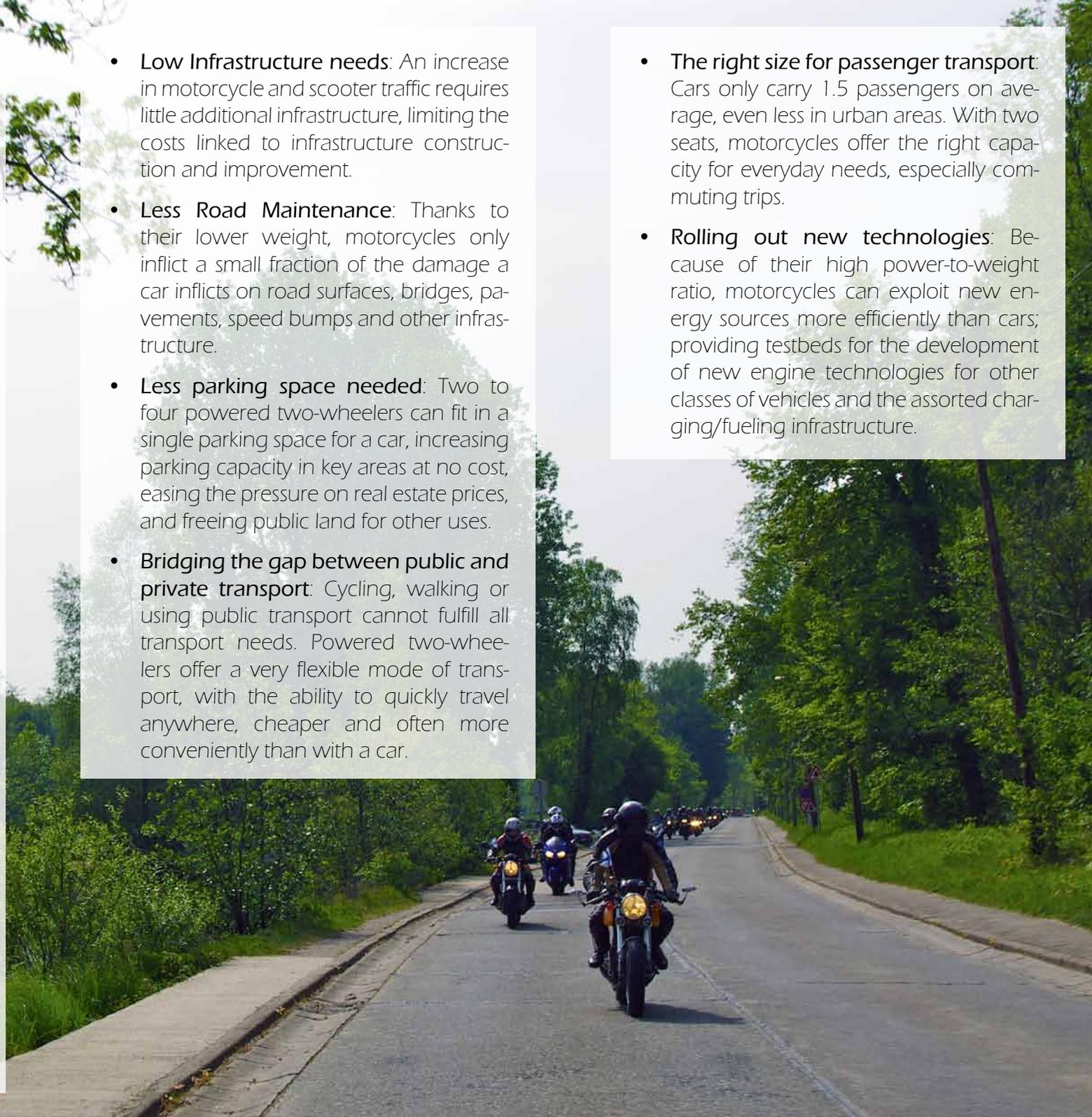
They offer a credible alternative to the personal car: smaller, lighter, cheaper, more fuel-efficient, and flexible enough to match most personal transport needs. New materials and new power sources can help develop this potential, for the benefit of users and the community.

SAVING ENERGY & ROAD SPACE

- **Fuel efficiency:** The average motorcycle is around a sixth of the size and the weight of an average car: this means that motorcycles require significantly less energy, and therefore less fuel, to move people and goods.
- **Manufacturing process:** Motorcycles require less material to build. A 200kg motorcycle uses 80% less material than a 1.2 ton car, saving on shipping both before and after assembly, as well as on the extraction of raw materials. Most of the materials used for the engine and frame are also recyclable.
- **Beating congestion:** Motorcycles take up very little space, do not contribute to traffic jams, and can filter through heavy traffic, reducing the amount of fuel wasted by idling.

- **Low Infrastructure needs:** An increase in motorcycle and scooter traffic requires little additional infrastructure, limiting the costs linked to infrastructure construction and improvement.
- **Less Road Maintenance:** Thanks to their lower weight, motorcycles only inflict a small fraction of the damage a car inflicts on road surfaces, bridges, pavements, speed bumps and other infrastructure.
- **Less parking space needed:** Two to four powered two-wheelers can fit in a single parking space for a car, increasing parking capacity in key areas at no cost, easing the pressure on real estate prices, and freeing public land for other uses.
- **Bridging the gap between public and private transport:** Cycling, walking or using public transport cannot fulfill all transport needs. Powered two-wheelers offer a very flexible mode of transport, with the ability to quickly travel anywhere, cheaper and often more conveniently than with a car.

- **The right size for passenger transport:** Cars only carry 1.5 passengers on average, even less in urban areas. With two seats, motorcycles offer the right capacity for everyday needs, especially commuting trips.
- **Rolling out new technologies:** Because of their high power-to-weight ratio, motorcycles can exploit new energy sources more efficiently than cars; providing testbeds for the development of new engine technologies for other classes of vehicles and the assorted charging/fueling infrastructure.



MOTORCYCLISTS & THE ENVIRONMENT

FEMA is promoting motorcycling as an alternative to other forms of motorized transport, working on:

- **pushing** motorcycle manufacturers to offer greener vehicles and better consumer information on fuel consumption
- **supporting** the introduction of stricter emissions regulations and durability requirements by law for new exhausts
- **bringing together** researchers, manufacturers, transport planners, lawmakers and users for the International Motorcyclists' Conference and the European Motorcyclists' Forum.

To develop the potential of powered two-wheelers to make transport greener, public policies should focus on:

- **Regulatory measures**, including the introduction of solid in-use compliance regulations for manufacturers, with on-board diagnostics and durability requirements to boost consumer confidence
- **Emissions standards** with a calendar for introduction, based on objective data on emissions, using a realistic test cycle
- Scrapping schemes, with **fiscal incentives for clean vehicles**
- **Correcting flaws** in existing test cycles
- **CO2 labeling** with reliable figures

- Pushing forward alternative fuel sources with technology-neutral support, promoting results instead of technologies
- Introducing eco-riding in user training.

MOTORCYCLING & the ENVIRONMENT

www.fema-online.eu/environment

The Federation of European Motorcyclists' Associations

The Federation of European Motorcyclists' Associations (FEMA) is the voice of motorcycle and scooter users throughout Europe. FEMA is a democratic association representing 24 national motorcyclists' organisations from 19 countries at the European Union and agencies of the United Nations.

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