

????????

????????????????2014????????????

29?5,092??[1]39?2,735????3,138????????????13.4%?[2]

????????????????15????????????

????????

????????????????10

2????????????????4,748????????102?GDP?3.3??[3]????????????44.1%?[4]????????????



機車撞擊測試：模擬市區平均時速 50km/h，側撞、遭追撞，都將對騎士頭頸部造成嚴重傷害。(圖片: Polish Police, DEKRA)

????????????????????????

????????????????????????

??

2014????????	????????????????	?????	?????
??	32,928	1,593	483
??	163,446	3,990	244
??	890,703	19,922	223
??	6,405,778	102,484	159
??	13,735,994	161,416	74

??????

????????????????????(powered two wheelers,

PTW)

??

????????????????????

(1)??????

??
????????????????????15%?[5]????????????????????2016????????????????????(advanced
braking system)????????????????(antilock braking systems, ABS)????????????(combined
braking systems, CBS)????????????????



搭載 ABS 之機車，緊急情況可縮減煞車距離，
且可保有控制能力，閃避障礙物。

(圖片來源：Central European University)

????????????????ABS??IIHS????????????ABS
????????????????????31%????????????22%????????????20%?[6]????????????2006?2009
????????????????????ABS????????????29%????????34%????????????2003?2012
????????????????????ABS????????????29%????????42%?[7]

????????????????????????126CC????????2019????????????????????ABS????125CC????????2019
????????????????????ABS????????????CBS
??
??

(2)????????????

????????????????
????????????????????????????????
??60????????????????????????[8]
??



騎士超車不當，跨越雙黃線標線時輪胎打滑轉倒，遭後車碾壓重傷。

(圖片：台灣蘋果日報)

??
??[12]??

(1)
?????????????
????????????????
????????????????????????????????????400????????????????[13]
????????????????????????????????45BPN (British Pendulum Number,
BPN)???[14]????????????????????65BPN?[15]????????????45- 70BPN?[16]

????????????(Slip Resistance Group, UK
)????????????45BPN????????????65BPN????????????[17]
????????????????????????????

??[18]
?????????????
????????????????????
????????????????????????????????65BPN????????????????????????????

????????????????

[2]????????103????????????????2016?1?12????54
????????????????24????????????????????????????????????

[3]??????"?????4,750?"????????????????2014?8?21???

[4]????????????????066????????????????104?4?15?????1?

[5] European Commission, "Making roads safer for motorcycles and mopeds" (Sep. 12, 2015) http://ec.europa.eu/transport/road_safety/users/motorcyclists-mopeds/index_en.htm (last visited June 03, 2016)

[6]Eric R. Teoh, Effects of Antilock Braking Systems on Motorcycle Fatal Crash Rates: An Update (IIHS, May 2013), pp. 1- 4.

[7]??2015?8?28??

[8] Directorate-General Transport and Energy, Powered Two Wheelers(Brussels: European Commission, 2009), p. 31..

[9]Harriet Wise, "Scooter Wheel and Tire Size" 27 February 2016.
<<http://reviewall.biz/2016/02/scooter-wheel-and-tire-size/> > (last visited, 28 May 2016)

[10]????????10????????????12????????????12, 13????????????????????

[11]"????????????250?????"????2016?6?4??

[12] Directorate-General Transport and Energy, Powered Two Wheelers(Brussels: European Commission, 2009), p. 38..

[13]陳慰慈。"標線抗滑係數低
騎士頻「犁田」"自由時報。 <<http://news.ltn.com.tw/news/local/paper/773145>
>(2014年4月23日)。

[14]??104?12????32?

[15]?????????????
????????????????????????????<
<http://www.appledaily.com.tw/realtimenews/article/new/20150510/607704/> >(2015?5?10?)?

[16]陳慰慈。“標線抗滑係數低 騎士頻「犁田」”前揭書。

[17]??2008?12?????38?

[18]??31?

[19]??

[20]Jensen Beeler, “European Motorcycle Sales Show Signs of Life,” Visordown&ANCMA, April 03, 2014.

[21]“Top 10 fastest-growing European bike markets,” Visordown, 23 March 2016, <http://goo.gl/iz75JP> (02 June 2016)

[22]The International Council of Clean Transportation, European Vehicle Market Statistics: Pocketbook 2013 (Washington DC: ICCT, 2013), p. 11.

作者蘇紫雲為淡江大學整合科技與戰略中心執行長

