



Shaping the future

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# Cost Benefit Analysis of A Modal Switch from car to PTW: The case of Paris – Preliminary Results

Pierre Kopp

Professor of Economics

**University of Panthéon-Sorbonne (Paris I)**

[Pierrekopp@pierrekopp.com](mailto:Pierrekopp@pierrekopp.com)



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# Number of Trips in dest/origin Paris

	Walking	Bicycle	PTW's	Subway	Bus	Cars	others
Inside 1>2Km (2.09M)	3.4%	0.9%	1,9%	33.4%	6.5%	21.6%	0.7%
Paris- Suburb (3.93M)	1.7%	0.2%	2.3%	55.2%	13.5%	23.4%	1.9%
Inside >2km & sub. (6.01M)	2.3%	0.8%	2,86%	54.2%	7.0%	31.9%	1.0%
Inside (6.57M)	54.8%	1.3%	1,6%	20.4%	8.3%	12.7%	0.8%
Related (10.5M)	34.9%	0.9%	1.9%	33.4%	6.5%	21.6%	0.7%



# Number & length /day dest/origin

## Paris

	Trips number	Length (M km)	% of the total trips	% of Km in Paris	% "inside Paris"
Walking	3667	1.8	35	7.1	95
Bicycle	91	0,2	1	0,8	66
PTW's	198	0,6	1	2,4	46
Bus	668	1,7	6	6,7	85
Subway	2087	7,7	20	30,4	73
RER	1423	6,6	14	26,1	27
Cars (drivers)	1704	5,0	16	19,8	33
Cars (passengers)	454	1,2	4	4,7	36
Taxi	63	0,2	1	0,8	50
Commercial vans	141	0,3	1	1,2	23
Total	10496	25,3	100%	100%	42

# Number of trips: Modal change per year in Paris

	1996	2000	2004	2000/1996	2004/2000	2004/2006
Subway Pass/km (billions)	5.26	6.01	6.68	+14.3%	+11.1%	+5,5%
Bus Pass/km (billions)	0.777	0.846	0.827	+8.8%	-2.2%	+10%
Bicycle				+16%	+41%	+3%
PTW's				+27%	+9.2%	+8%
Cars				-6.7	-13.3%	-7%

Source: Orfeuil et Massot « Regards sur la plaquette “Bilan des déplacements” à Paris » septembre 2006 et calcul de l’auteur pour 2006



# VHK: Modal change per year in Paris

Million of VHK	1996-2000	2000-2004	2004/2006	2000/2006
Subway	+750	+670	+367	+1037
Bus	+69	-19	-84	-103
Cars	-352	-652	-284	-936
TWR	+100	+44	+38	<b>+82</b>
Bicycle	+22	+64	+4,6	+68.6
Total	+589	+107	41,6	148.6

K\*V.Km



# Next step?

- Cars trips are decreasing by -936 MVHK
- PTW's trip are increasing by 82 MVHK
- Among 82 MVHK, some are :
  - Done by ex-car users
  - New trips
  - Bigger usage of the TWR
- To conduct a CBA we need these data's
- Questionnaire



# Where are they coming from?

Origin	Number of Km/week	%
Steady Use (old user)	13 304	55.63%
Increase (old user)	1 660	9.94%
Ex. PT user	6 700	28.02%
Ex. car user	2 190	9.16%
Ex. bicycle user	60	0.25%
Total	23 914	100%

(Kopp & alii, 2008)





# Who is doing these new km?

Origin	Number of Km/week	%
Increase (old user)	1.660	15.65%
Ex. PT user	6.700	63.15%
Ex. car user	2.190	20.64%
Ex. bicycle user	60	0.57%
Total	10.610	100%

(Kopp & alii, 2008)



# Preliminary Cost and Benefit of the shift

Time gains	24 millions
Cost of accidents	-8 millions
Public Finance	-4 millions
Pollution	-7 millions
Balance	+5 millions

(Kopp & alii, 2008)

