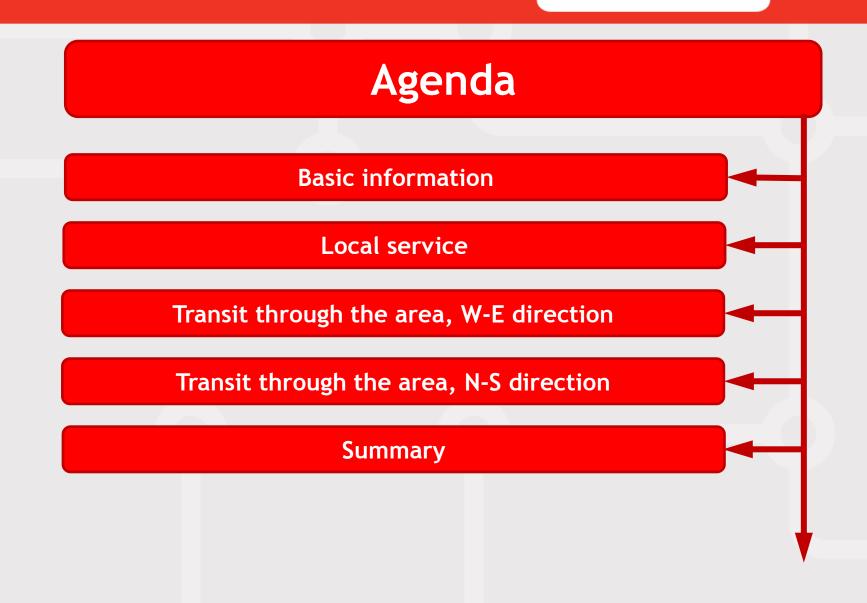


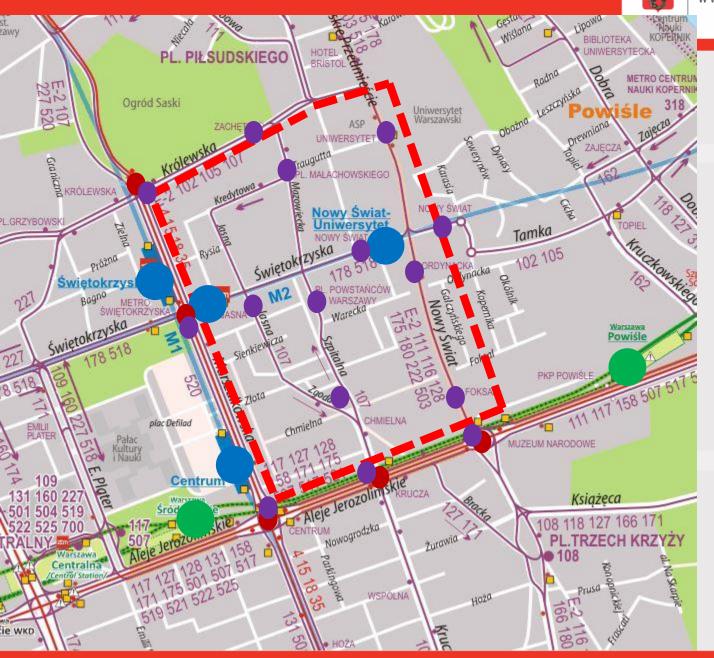
## Public Transport Scheme City Center, the area of interest

04.04.2017 r.

#### **Public Transport Scheme**







# underground stations

- both M1 (NS) and M2 (WE)

railway stations WE corridor

tram stops - WE and NS corridors

bus stops

#### Access to underground stations



ZARZĄD TRANSPORTU MIEJSKIEGO



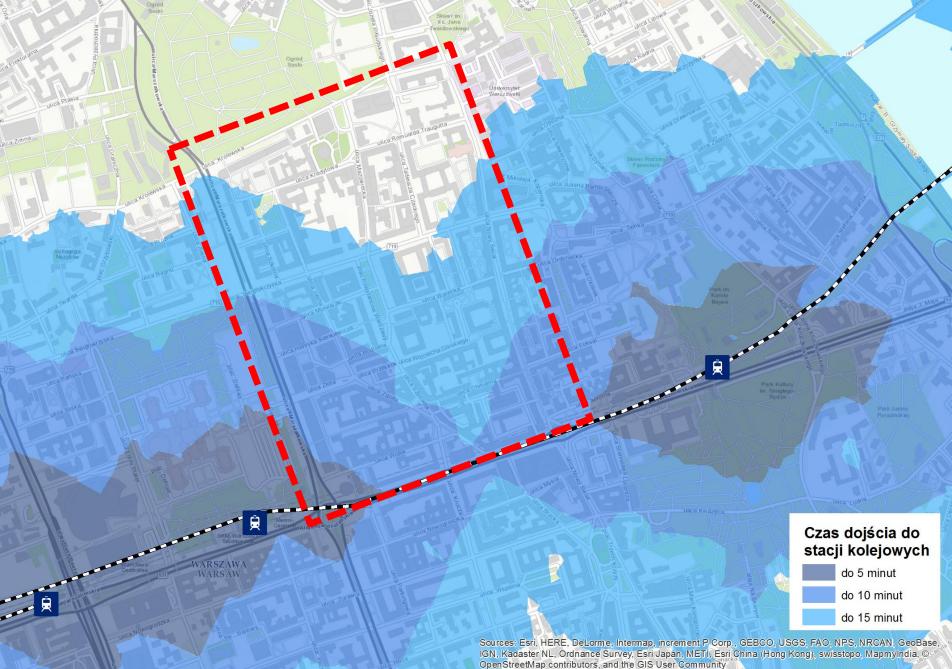


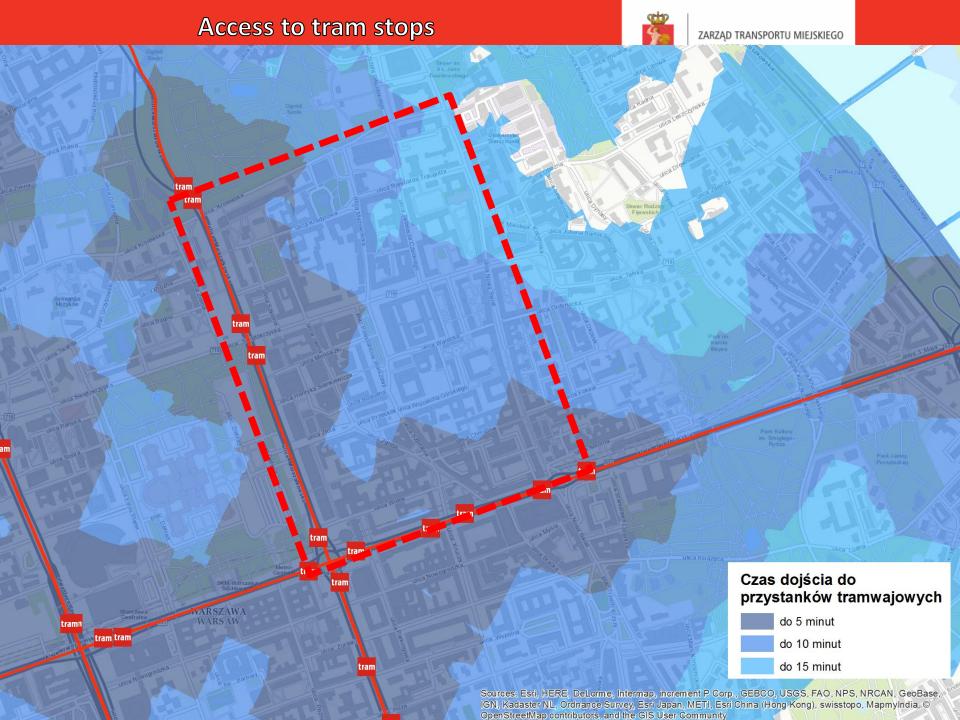
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, OpenStreetMap contributors, and the GIS User Community

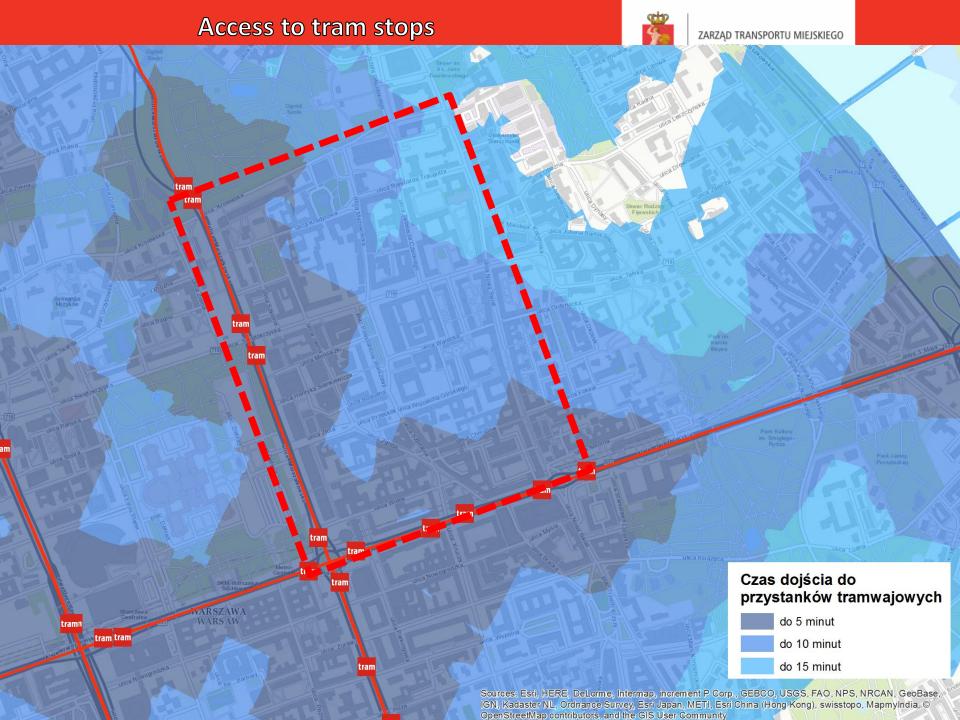
#### Access to train stations

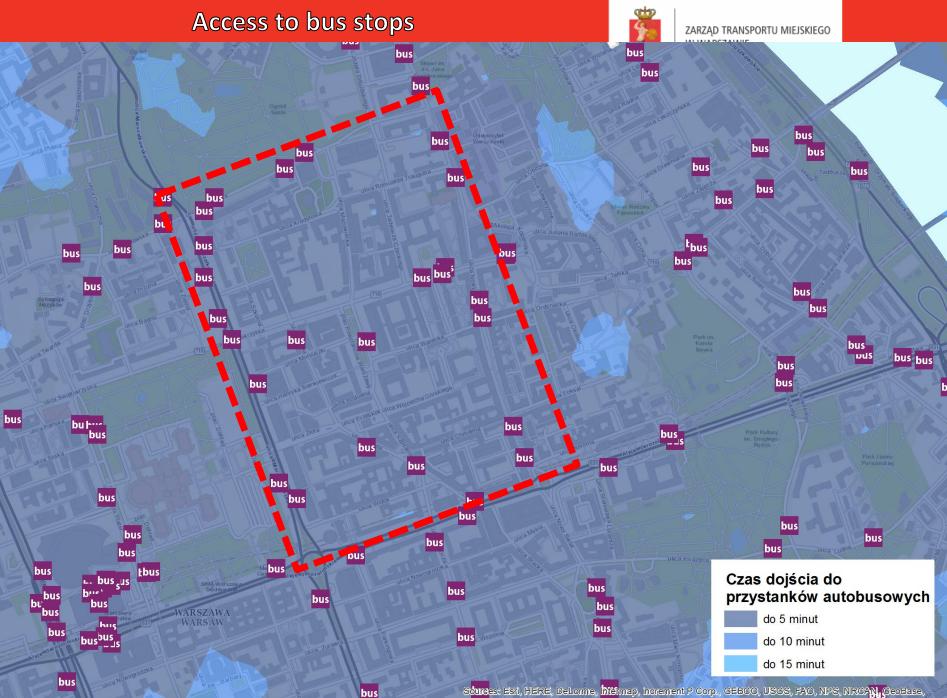


ZARZĄD TRANSPORTU MIEJSKIEGO









Sources: Esri, HERE, DeLorme, Migrap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetWan contributors, and the GIS User Community

#### Closing the area Traffic and motion research WBR 2015



ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE

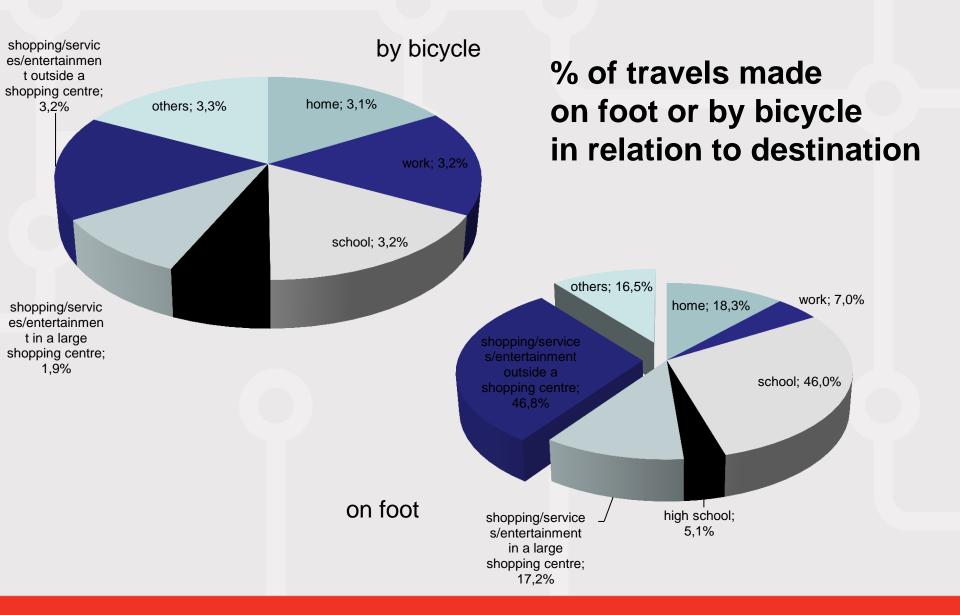
		Mean of transport							
		on feet usage %	car usage %	public transport usage %	bike usage %	other usage %	summary		
							population	sample size	% in a row
summary		17,9%	31,7%	46,8%	3,1%	0,6%	3348336	33374	100,0%
destination relationship	home	18,3%	30,8%	47,1%	3,1%	0,6%	1516026	15179	100,0%
	work	7,0%	37,3%	51,7%	3,2%	0,7%	844645	8615	100,0%
I	school	46,0%	18,8%	31,6%	3,2%	0,3%	129697	1538	100,0%
	high school	5,1%	11,0%	82,0%	1,3%	0,6%	70204	688	100,0%
	shopping/services/entertainme nt in a large shopping centre	17,2%	40,3%	40,4%	1,9%	0,3%	114887	1097	100,0%
	shopping/services/entertainme nt outside a shopping centre	46,8%	19,5%	30,2%	3,2%	0,3%	223582	1985	100,0%
l	others	16,5%	34,9%	44,8%	3,3%	0,5%	449294	4272	100,0%
motivation relationship	home-work	6,8%	35,9%	53,4%	3,2%	0,7%	770644	7869	100,0%
	work-home	6,5%	36,3%	<mark>53,1%</mark>	3,3%	0,7%	706269	7244	100,0%
1	home-school	32,2%	16,0%	49,2%	2,2%	0,4%	191665	2145	100,0%
	school-home	35,3%	13,9%	48,0%	2,6%	0,3%	180134	2032	100,0%
1	home-others	28,1%	28,1%	40,2%	3,1%	0,5%	546087	5057	100,0%
1	others-home	26,8%	29,5%	40,2%	3,0%	0,5%	628356	5890	100,0%
1	not connected with home	16,5%	41,2%	38,7%	3,4%	0,3%	325182	3137	100,0%
travel time relationship	up to 15 min	48,4%	30,7%	16,3%	4,3%	0,3%	943818	9614	100,0%
	16-30 min	11,3%	35,8%	48,7%	3,6%	0,6%	1100846	10961	100,0%
1	31-45 min	2,0%	32,5%	63,1%	2,0%	0,4%	579727	5809	100,0%
l III	46-60 min	1,3%	25,5%	70,3%	2,0%	0,9%	471951	4576	100,0%
l i i i i i i i i i i i i i i i i i i i	over 60 min	1,1%	27,9%	68,8%	1,5%	0,7%	251994	2414	100,0%

source: Warszawskie Badanie Ruchu 2015, przeprowadzone w okresie IV-VI 2015 na reprezentatywnej próbie 17 000 mieszkańców Warszawy

contractor: konsorcjum: PBS Sp. z o.o., Politechnika Krakowska, Politechnika Warszawska

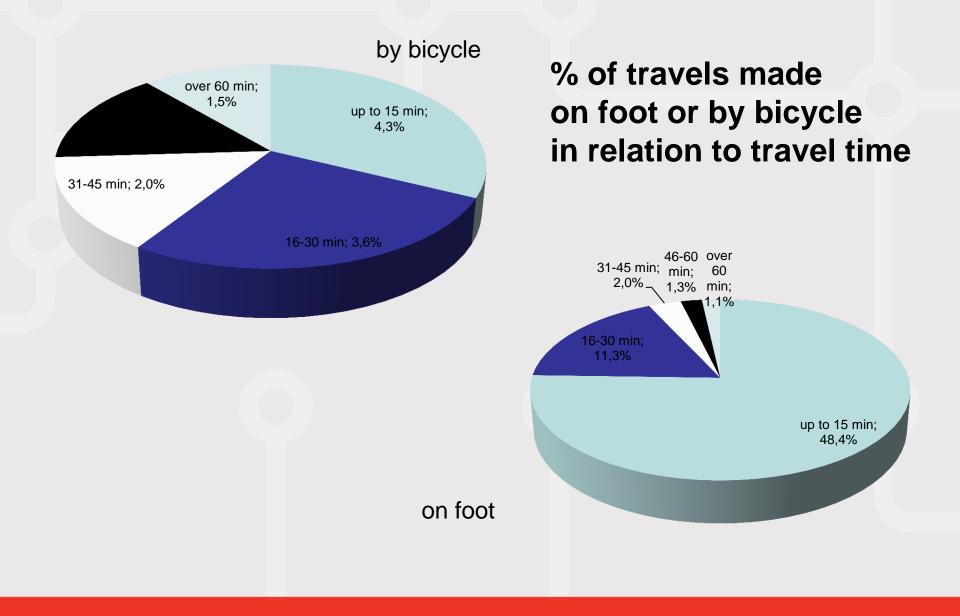
#### Closing the area Traffic and motion research WBR 2015





#### Closing the area Traffic and motion research WBR 2015











## Closing the area for overground traffic will only affect bus system in which one bus corridor is much more important than others

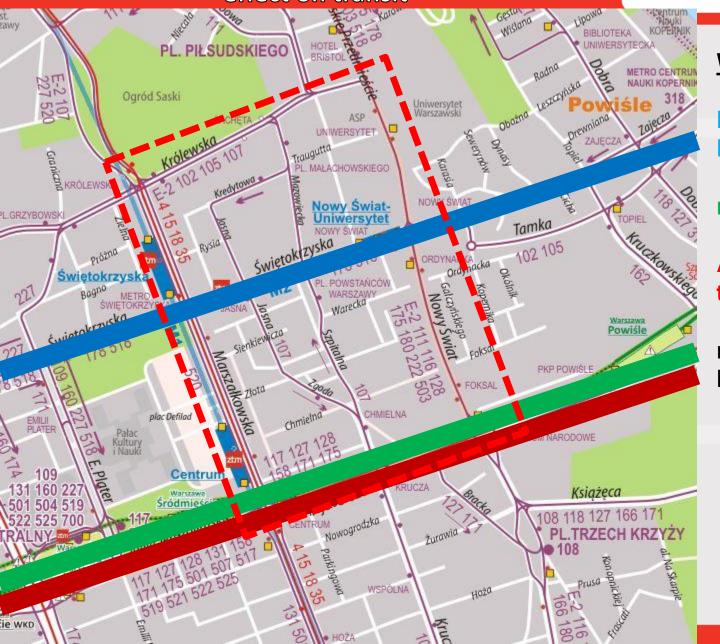
All others are local

This is north–south corridor using Krakowskie Przedmieście St and Nowy Świat St

 Bus lines using that corridor are important for transit and orgin/destination passenger flow



ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE



#### **WE corridor**

M2 undergorund line

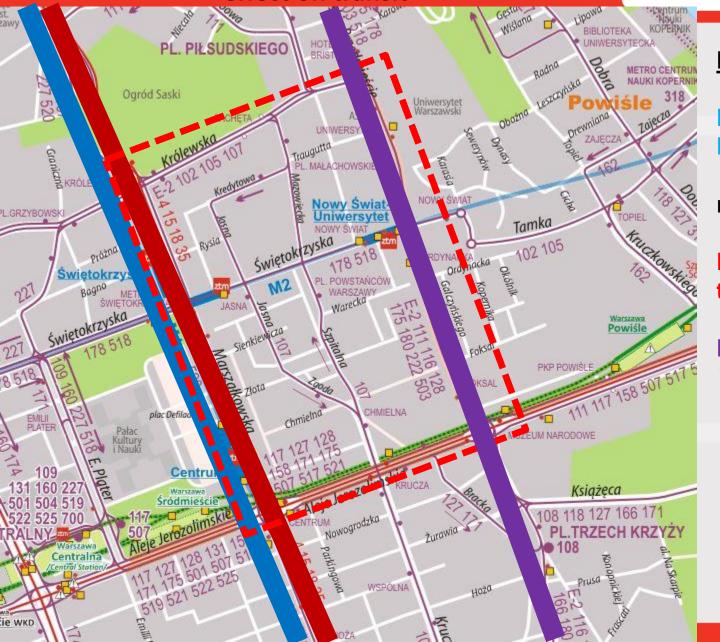
#### railway line

# Al. Jerozolimskie tram line

no important bus lines running WE



ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE



<u>NS corridor</u>

M1 undergorund line

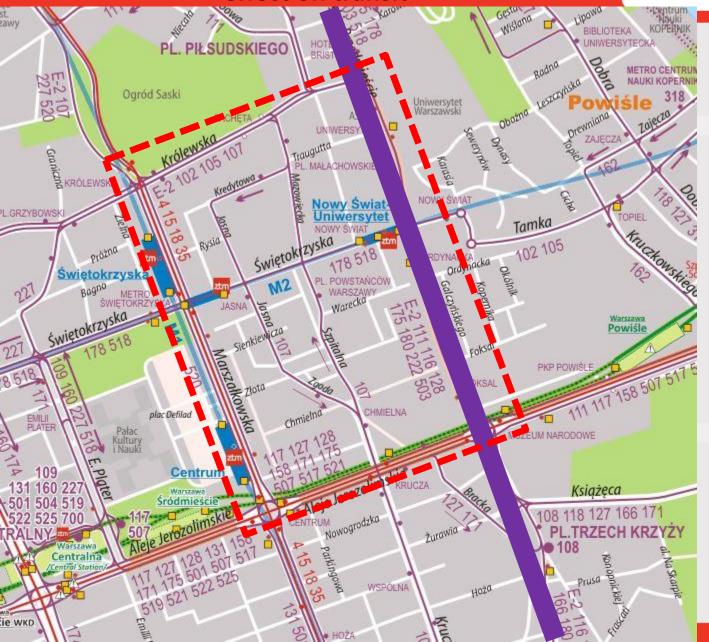
no railway

Marszałkowska St tram line

NS bus corridor The Royal Road



ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE



#### NS bus corridor The Royal Road 8-12 bus lines

during peak hours 40-60 buses/h in one direction which give 1 bus every minute!



ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE

Passengers flow bar - public transport - bus - all flows





ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE

Passengers flow bar - public transport - bus - transit only





ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE

#### Passengers flow bar – public transport – bus – difference



Closing the area Summary



ZARZĄD TRANSPORTU MIEJSKIEGO W WARSZAWIE

## Analysed area can be well serviced by public transport even when all streets inside the area are closed for traffic

# There is no good diversion for bus routes using NS corridor

 It seems that it is necessary to keep Nowy Świat St and Krakowskie Przedmieście St opened for buses

#### Closing the area Summary







### Thank You for attention