

TABLE S1 MaaS bundles between different OD pairs

O	MaaS bundles	D				
		1	2	3	4	5
1	Bundle 1		Taxi (32min)	Taxi (46min)	RS (25min)	Taxi (58min)
	Bundle 2		RS+Metro (38min)	RS (50min)	Metro+RS (30min)	RS (67min)
	Bundle 3		RS+Bus (40min)	BS+RS (55 min)	Bus+BS+RS (35min)	RS+BS (80 min)
	Bundle 4		Metro (45min)	Metro+RS (63min)	Metro+Bus (40min)	RS+BS+Bus (90 min)
	Bundle 5		Bus+ Metro (48min)	BS+Bus (70 min)	BS+Bus (42 min)	Bus+ Metro (100 min)
	Bundle 6		Bus (50min)	Bus 223 (82min)	Metro (45min)	Bus (120min)
2	Bundle 1	Taxi (21min)		Taxi (31min)	Taxi (35min)	Taxi (40min)
	Bundle 2	RS+BS (30min)		RS+BS (36min)	RS+BS (38min)	Taxi+Metro (43min)
	Bundle 3	BS+Bus+RS (35min)		RS+BS+Metro (41min)	RS+BS+Metro (42min)	RS+BS (45min)
	Bundle 4	BS+Metro (40min)		BS+Bus (45min)	RS+BS+Bus (48 min)	RS+BS+Bus (47 min)
	Bundle 5	Meto (45min)		RS+Bus (50min)	RS+Bus (55min)	RS+BS+Metro (49min)
	Bundle 6	RS+Bus (51min)		Metro (53min)	Metro (61min)	Bus(51min)
3	Bundle 1	Taxi (33 min)	Taxi (22min)		RS+Bus (60min)	Taxi (17min)
	Bundle 2	RS+BS (40min)	RS (30min)		BS+RS (65 min)	RS+Bus (22min)
	Bundle 3	Bus+BS+RS (50min)	RS+BS+Metro (35min)		RS+BS+Bus (70 min)	RS+Metro+BS (25min)
	Bundle 4	Metro+Taxi (61min)	Taxi+Metro(40min)		RS+Metro (75min)	RS+Metro+BS (30min)
	Bundle 5	RS+Bus+BS (70min)	Bus+Metro (45min)		Bus (80min)	BS+RS+Metro (33min)
	Bundle 6	Bus (82min)	Metro (54 min)		Metro (87min)	Metro (36min)
4	Bundle 1	Taxi (46min)	Taxi (35min)	Taxi (50min)		Taxi (44min)
	Bundle 2	Metro (50min)	Taxi+Metro (40min)	RS+Bus (60min)		RS+Metro (60min)
	Bundle 3	Taxi+Metro (61min)	Metro (45min)	RS+Metro+BS (65min)		RS+BS+Metro (70min)
	Bundle 4	RS+BS+Bus (70min)	BS+Bus+RS (50min)	RS+Metro+BS (70min)		Bus+Metro (80min)
	Bundle 5	RS+Bus (80min)	RS+Bus (55min)	RS+Metro (75min)		RS+Metro (100min)
	Bundle 6	Bus (87min)	Metro (58min)	Metro (80min)		Bus 120 min)
5	Bundle 1	Taxi (56min)	Taxi (43min)	Taxi (23min)	Taxi (61min)	
	Bundle 2	Metro+RS (65min)	RS+ Metro 48min)	RS+Bus (25 min)	RS+ Bus (65min)	
	Bundle 3	Metro(71min)	RS+BS+Metro (50min)	RS+Metro (28min)	Bus (71min)	
	Bundle 4	RS+Metro+BS (80min)	Metro+BS (55min)	RS+BS+Metro (30min)	RS+BS+Metro (75min)	
	Bundle 5	RS+Bus (100min)	BS+Bus (58min)	Metro+BS (33min)	BS+RS+Metro (80min)	
	Bundle 6	Bus (121min)	Metro (60min)	Bus (36min)	Bus (86min)	
6	Bundle 1	Taxi (42min)	Taxi (60min)	Taxi (68min)	Taxi (43min)	Taxi (75min)
	Bundle 2	RS+ Bus (50min)	RS+Bus (65min)	Bus+Taxi (71min)	RS + Bus (50min)	RS+BS (80min)
	Bundle 3	Bus+Metro (60min)	RS+BS+Metro (70min)	RS+Metro (100min)	Bus (60min)	RS+Metro+BS (90min)
	Bundle 4	Metro+BS (65min)	Metro+BS (75min)	RS+BS+Metro (110min)	RS+Bus (70min)	RS+Bus (100min)
	Bundle 5	Metro+BS (70min)	RS+Metro (80min)	Bus+RS (115min)	RS+Metro (80min)	RS+Bus+BS (110min)
	Bundle 6	Bus (85min)	Bus (90min)	Bus (120min)	Metro (110min)	Metro (120min)
7	Bundle 1	Taxi (74min)	Taxi (60min)	Taxi (56min)	Taxi (80min)	Taxi (60min)
	Bundle 2	Taxi+ BS (80min)	RS+ Bus (62min)	RS+ Bus (60min)	Taxi+Bus (85min)	RS+Metro (65min)
	Bundle 3	RS+ Bus (90min)	RS+BS+Metro (65min)	RS+Metro+BS (70min)	Metro (90min)	RS+Metro+BS (70min)
	Bundle 4	RS+BS (100min)	Bus+RS (67min)	BS+Metro (80min)	RS+Bus (100min)	RS+Bus+BS (75min)
	Bundle 5	RS+BS+Metro (120min)	RS+Metro (68min)	Bus+RS (85min)	RS+Metro (105min)	RS+Bus+Metro(78min)
	Bundle 6	Bus (150min)	Metro (70min)	Bus (96min)	Bus (110min)	Metro (80min)
8	Bundle 1	Taxi (90min)	Taxi (106min)	RS (120min)	Taxi (70min)	Taxi (120min)
	Bundle 2	RS+ Bus (95min)	RS+Bus (110min)	RS+ Metro (130min)	Bus+Taxi (80min)	RS+Bus (130min)
	Bundle 3	RS+Metro (100min)	RS+Metro+BS (115min)	RS+BS+Metro (135min)	RS+Bus (100min)	RS+Metro+BS (135min)
	Bundle 4	RS+Metro+BS (110min)	BS+Metro (120min)	RS+Bus (140min)	RS+Bus+BS (120min)	RS+Metro (140min)
	Bundle 5	RS(115min)	RS+Bus+BS (125min)	BS+RS+Bus (150min)	RS+Bus+Metro(140min)	RS+Bus (145min)
	Bundle 6	Bus(120min)	Bus (130min)	Bus (160min)	Metro (140min)	Metro (155min)
9	Bundle 1	Taxi (60min)	Taxi(40min)	Taxi (60min)	Taxi (60min)	Taxi (60min)
	Bundle 2	Taxi+ BS (65min)	RS+Bus (46min)	RS+Bus (65min)	RS+Bus (70min)	RS+Bus (65min)
	Bundle 3	RS+BS+Metro (70min)	Metro (50min)	Bus (70min)	BS+RS+BS (75min)	BS+Metro+RS (70min)
	Bundle 4	RS+Metro (75min)	BS+Metro (53min)	RS+BS+Metro (75min)	BS+BS+Metro (80min)	RS+Bus+BS (75min)
	Bundle 5	RS (78min)	BS+RS+Bus (55min)	RS+Metro (80min)	RS+Metro (90min)	RS+Metro (78min)
	Bundle 6	RS+ Bus (80min)	Bus (60min)	Metro (90min)	Metro+BS (100min)	Metro (80min)
10	Bundle 1	Taxi (60min)	Taxi (80min)	Taxi (90min)	RS (45min)	RS (100min)
	Bundle 2	RS+ Bus (65min)	RS+Bus+Metro(85min)	RS+Bus (100min)	BS+BS+Metro (60min)	RS+Bus (120min)
	Bundle 3	RS+ Bus+BS (70min)	RS+Bus+Metro(90min)	RS+Bus (110min)	RS+Metro (70min)	BS+RS+BS (130min)
	Bundle 4	RS+Metro+BS (75min)	Metro (100min)	RS+Metro+BS (120min)	RS+Metro (80min)	Metro+BS (140min)
	Bundle 5	BS+RS(78min)	RS+Bus (110min)	RS+Bus (130min)	Metro+BS (100min)	Bus+BS (160min)
	Bundle 6	Metro (80min)	Bus (120min)	Bus (140min)	Bus+BS (110min)	Bus (170min)

Notes. 'RS' denotes 'ridesharing' and 'BS' denotes 'bicycle-sharing'.

O	MaaS bundles	D				
		6	7	8	9	10
1	Bundle 1	RS (40min)	Taxi (54min)	Taxi (60min)	Taxi (41min)	Taxi (40min)
	Bundle 2	RS+Bus (50 min)	RS (60min)	RS+BS (70min)	RS+Bus (50min)	RS+BS (60min)
	Bundle 3	RS+BS+Bus (60min)	RS+Metro+BS (65min)	RS+BS+Metro (80min)	RS+Metro (55min)	RS+Metro+BS (80min)
	Bundle 4	Bus+Metro (70min)	RS+bs+Metro (80min)	BS+BS+Metro (85min)	Metro+Bus (61min)	Bus+Metro (100min)
	Bundle 5	Metro (80min)	Bus+Metro (85min)	Bus+Metro (90min)	RS+Bus+BS (71min)	Bus (120min)
	Bundle 6	Bus (90min)	Metro (90 min)	Metro (100min)	Metro (81min)	Metro+BS (150min)
2	Bundle 1	RS (55min)	Taxi (45min)	Taxi (70min)	Taxi (40 min)	Taxi (53 min)
	Bundle 2	BS+RS (60min)	Bus+Taxi (48min)	RS+Metro+BS (90min)	RS+BS (45min)	Metro+Taxi (70min)
	Bundle 3	RS+Metro+BS (65min)	BS+RS (50min)	RS+Bus (100min)	RS+Bus (50min)	BS+BS+Metro (80min)
	Bundle 4	RS+Metro (70min)	RS+BS (54min)	BS+BS+Metro (110min)	Metro+Taxi (55min)	RS+Bus (90min)
	Bundle 5	BS+RS+Metro (80min)	RS+Metro (60min)	RS+Metro (120min)	RS+Metro (60min)	BS+BS+Metro (100min)
	Bundle 6	Metro (90min)	Metro (70min)	Metro (130min)	Bus (64 min)	Bus (120 min)
3	Bundle 1	RS (68min)	Taxi (46min)	Taxi (90min)	RS (42min)	Taxi (80min)
	Bundle 2	RS+BS (75min)	RS+BS (55min)	RS+Bus (100min)	RS+Bus (50min)	Metro+Taxi (90min)
	Bundle 3	RS+BS+Metro (80min)	RS+Bus (60min)	BS+RS+Bus (120min)	BS+BS+Metro (60min)	BS+BS+Metro (100min)
	Bundle 4	Bus+Metro (90min)	Metro+Taxi (70min)	RS+Metro+BS (130min)	RS+Bus (70min)	RS+Bus (120min)
	Bundle 5	Bus (100min)	RS+Metro (80min)	RS+Bus+BS (140min)	RS+Metro (80min)	RS+Metro (130min)
	Bundle 6	Metro+BS+Bus (110min)	Bus (92 min)	Bus (160min)	Metro (90min)	Metro (140min)
4	Bundle 1	RS (67min)	Taxi (52min)	Taxi+RS (52min)	RS (55min)	Taxi (33min)
	Bundle 2	RS+BS (72min)	RS+BS (70min)	RS+Bus (60min)	RS+Metro+BS (74min)	RS+BS (40min)
	Bundle 3	Metro+Taxi (80min)	RS+Bus (80min)	RS+Metro+BS (74min)	BS+Metro (95min)	Metro+Taxi (45min)
	Bundle 4	BS+BS+Metro (90min)	RS+Metro+BS (90min)	RS+Bus (80min)	Metro+BS+Bus (105min)	Metro+Taxi (60min)
	Bundle 5	RS+Metro+BS (100min)	RS+Bus+BS (100min)	BS+BS+Metro (85min)	Metro (115min)	RS+Bus+BS (70min)
	Bundle 6	Bus (102min)	Metro (102min)	Bus (95min)	Bus (130min)	Bus (80min)
5	Bundle 1	Taxi (80min)	RS (55min)	Taxi (110min)	Taxi+RS (56min)	Taxi (95min)
	Bundle 2	RS+BS (90min)	Bus+Taxi (60min)	RS+Bus (115min)	RS+Metro+BS (65min)	RS+Bus (100min)
	Bundle 3	RS+Metro+BS (95min)	RS+BS+Metro (65min)	BS+Metro (120min)	Metro+Taxi (70min)	BS+RS+Bus (120min)
	Bundle 4	RS+Bus (100min)	RS+Bus (70min)	BS+Metro (125min)	RS+Bus (74min)	RS+Bus (130min)
	Bundle 5	RS+Metro (110min)	RS+Metro (75min)	RS+Bus+BS (130min)	RS+Metro (78min)	RS+Metro (140min)
	Bundle 6	Metro (120min)	Bus (80min)	Bus (135min)	Metro (80min)	Metro (150min)
6	Bundle 1		Taxi (62min)	RS+Taxi (40min)	Taxi+RS (52min)	RS+Taxi (50min)
	Bundle 2		RS+Bus (70min)	RS+Metro+BS (50min)	RS+Metro+BS (60min)	RS+Taxi+BS (60min)
	Bundle 3		BS+Metro+RS (80min)	Metro+Taxi (60min)	Metro+Taxi (70min)	Bus (70min)
	Bundle 4		RS+Metro (100min)	RS+Bus (70min)	RS+Metro (80min)	BS+RS (80min)
	Bundle 5		RS+Metro (110min)	RS+Metro (75min)	RS+Metro (100min)	RS+Bus+BS (90min)
	Bundle 6		Bus (120min)	Bus (80min)	Bus (120min)	Bus (104min)
7	Bundle 1		Taxi (70min)	RS (100min)	Taxi+RS (45min)	Taxi (94min)
	Bundle 2		RS+Bus (80min)	RS+Bus (110min)	RS+Metro+BS (50min)	RS+BS (100min)
	Bundle 3		BS+Metro+RS (90min)	BS+BS+Metro (120min)	Metro+Taxi (60min)	Metro+Taxi (110min)
	Bundle 4		RS+Metro+BS (100min)	RS+Bus+BS (130min)	RS+Bus (70min)	RS+Metro+BS (120min)
	Bundle 5		RS+Metro (110min)	RS+Metro (135min)	BS+RS (80min)	Bus+ Metro (130min)
	Bundle 6		Bus (120min)	Bus (140min)	Bus (100min)	Bus (160min)
8	Bundle 1		BS+Taxi (40min)		Taxi+RS (90min)	RS (26min)
	Bundle 2		RS+BS (45min)		RS+Metro+BS (100min)	BS+RS (33min)
	Bundle 3		BS+RS+BS (50min)		BS+RS+Bus (120min)	RS+Taxi+BS (45min)
	Bundle 4		BS+BS+Metro (52min)		BS+RS (140min)	RS+Bus+BS (50min)
	Bundle 5		RS+Metro (55min)		RS+Metro+BS (150min)	RS+Metro (60min)
	Bundle 6		Metro+BS (60min)		Bus (180min)	Bus (70min)
9	Bundle 1		Taxi (60min)			Taxi+RS (40min)
	Bundle 2		RS+Bus (65min)			RS+BS (50min)
	Bundle 3		Metro+Taxi (70min)			RS+Taxi+BS (60min)
	Bundle 4		RS+Metro+BS (75min)			BS+RS (70min)
	Bundle 5		Bus+ Metro (78min)			Bus+ Metro (80min)
	Bundle 6		Bus (80min)			Bus (100min)
10	Bundle 1		Taxi (60min)			
	Bundle 2		BS+RS (70min)			
	Bundle 3		Metro+Taxi (80min)			
	Bundle 4		RS+Metro+BS (85min)			
	Bundle 5		Bus+ Metro (90min)			
	Bundle 6		BS+Bus (100min)			

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