

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

Categories of AAQ policy measures	Measures (Individual measures that were taken)	Definitional details (How were these measures defined?)	Territory (Where were these measures applicable?)	Addresses (To whom were these measures applicable?)	Duration (Since when were these measures applicable?)	Monitoring (Is there any enforcement of these measures?)
<b>I. Public transport</b>	1. High quality public transport (a separate 'highway' for busses)	Connection between economic hubs  <i>0 pt if no definition is given, or 3 pt if this definition is given.</i>	<i>score 1 pt → a measure is relevant for a particular district/ sections of the city, 2 pt → within the municipality, 3 pt → the whole region.</i>	No differentiation between the cities.	<i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
	2. Public transport comfort	a) accessibility of the bus stops and busses b) dynamic travel information; c) public order observers in the bus; d) frequent travel opportunities; e) many bus stops (a bus stop within 500m)  <i>1 pt → 1 definition, 2 pt → 2-3 definitions, 3 pt → 4-5 definitions.</i>	<i>score 1 pt → a measure is relevant for a particular district/ sections of the city, 2 pt → within the municipality, 3 pt → the whole region.</i>	No differentiation between the cities.	<i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
	3. Sustainable public transport	a) Green / natural gas b) Electric busses c) Diesel with filters (Euro V and higher)  <i>1 pt → diesel with filters, 2 pt → Green/ natural gas, 3 pt → electric.</i>	<i>score 1 pt → a measure is relevant for a particular district/ sections of the city, 2 pt → within the municipality, 3 pt → the whole region.</i>	No differentiation between the cities.	<i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
	4. Stimulate public transport usage	a) Only non-financial stimulation b) discounts c) totally free  <i>1 pt → Only non-financial stimulation, 2 pt → discounts, 3 pt → totally free.</i>	<i>score 1 pt → a measure is relevant for a particular district/ sections of the city, 2 pt → within the municipality, 3 pt → the whole region.</i>	<i>score 1 pt → a single measure is only relevant for elderly or youngsters, 2 pt → it concerns several districts, 3 pt → the whole municipality.</i>	<i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
	5. Sustainable taxi	a) subsidy for maintenance costs of 'green cars'	<i>score 1 pt → a measure is relevant for a particular</i>	No differentiation between the cities.	<i>score 0 pt → a measure is applied since 2014, 1 pt</i>	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

		<p>b) a local subsidy on top of national subsidy for the purchase of the cars.</p> <p>c) Municipality initiates the talks with taxi companies to explain the advantages of greener cars.</p> <p><i>1 pt → “initiate the talks...”, 2 pt for “subsidy for the maintenance costs”, 3 pt for “a local subsidy on top of the national subsidy”</i></p>	<p><i>district/sections of the city, 2 pt → within the municipality, 3 pt → the whole region.</i></p>		<p><i>→ a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	
6. Priority public transport at intersection	Priority to the public transport	<p><i>score 1 pt → a measure is relevant for a particular district/sections of the city, 2 pt → within the municipality, 3 pt → the whole region.</i></p> <p><i>0 pt → no definition is given, or 3 pt → this definition is given.</i></p>	Not applicable.	<p><i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a	
<b>Maximum number of points in this category: 60</b>	<p><i>Score Public Transport category: 0 pt if 0 measures are taken; score 1 pt if 1-3 measures in total are taken; score 2 pt if 4-5 measures in total are taken, score 3 pt if all 6 measures are taken.</i></p> <p>Maximum number of points: 3</p>	Maximum number of points: 18	Maximum number of points: 18	Maximum number of points: 3	Maximum number of points: 18	n/a
<b>II. Prevention of cars in the city (centre)</b>	1. City center distribution	<p>a) Few exemptions</p> <p>b) Many exemptions</p> <p>c) Subsidy available</p> <p>d) Special arrangement for the waste collection</p> <p>e) Only facilitating role for the companies to initiate something</p> <p><i>0 pt → many exemptions are</i></p>	n/a	n/a	<p><i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

	<i>possible; 1 pt → municipality fulfills only a facilitating role; 2 pt → there is a distribution system at place but there are a lot of exceptions, 3 pt → only few exceptions are at place and/ or there is a special arrangement for the waste collection/ subsidy available.</i>				
2. Transferia or Park&Ride	<p>a) P&amp;R connected to public transport facilities</p> <p>b) P&amp;R connected to bicycle facilities</p> <p>c) P&amp;R signs are well visible coming from the highways</p> <p>d) Extra busses on holidays</p> <p><i>1 pt → for having a bicycle facilities, 2 pt → for P&amp;R to be connected to other sorts of transport, 3 pt → if the signs are there (the visitors are well aware of the P&amp;R possibilities) and/ or there are extra busses coming during holiday</i></p>	<p><i>Score 1 pt → a measure is relevant for a particular district/ sections of the city, 2 pt → if within the whole municipality.</i></p>	n/a	<p><i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a
3. Environmental zone	<p>a) Dynamic traffic management boards that regulate when the zone is functional</p> <p>b) Traffic signs indicating that you have entered the zone</p> <p>c) Few/many exemptions possible</p> <p><i>score 1 pt → many exceptions and traffic signs, 2 pt → traffic signs and few exceptions, 3 pt → dynamic traffic management boards and traffic signs</i></p>	<p><i>Score 1 pt → a measure is relevant for a particular district/ sections of the city, 2 pt → if within the whole municipality.</i></p>	<p><i>Score 1 pt → a measure is only relevant for trucks, 2 pt → if it also concerns a smaller pick-up trucks, 3 pt → all private vehicles.</i></p>	<p><i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	<p><i>Score 1 pt → having the fines at place or just mentioning that there is monitoring, 2 pt → irregular controls/ monitoring, 3 pt → camera control or other form of regular/ systematic monitoring</i></p>
4. Parking policy	<p>a) Dynamic parking information systems show</p>	<p><i>Score 1 pt → a measure is relevant for a particular</i></p>	<p><i>1 pt → a measure is only relevant for a few</i></p>	<p><i>score 0 pt → a measure is applied since 2014, 1 pt</i></p>	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

		<p>where to park</p> <p>b) Increase the parking fee</p> <p>c) Decrease the number of parking lots</p> <p>d) Parking spot fee gets exponentially larger if to have a second car</p> <p><i>score 1 pt → 1 definition, 2 pt → 2-3 definitions, 3 pt → all 4 definitions</i></p>	<p><i>district/sections of the city, 2 pt → if within the whole municipality.</i></p>	<p><i>businesses, 2 pt → if it also concerns visitors to the city, 3 pt → the whole municipality.</i></p>	<p><i>→ a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	
5. Circulation measures		<p>a) Dynamic route installation</p> <p>b) Green waves</p> <p>c) Depending on the type of road and whether there are bottlenecks a priority at traffic lights is given to the trucks/cars/public transport/or bicycles</p> <p>d) Physical alteration of infrastructure (eg ‘pockets’ for busses, bridge to divert the flow of traffic from the city center, physical alteration of the roads to slow down the traffic, widening of the road at the intersections, adoption of one-way traffic)</p> <p><i>Score 1 pt → 1 definition, 2 pt → 2-3 definitions, 3 pt → all 4 definitions.</i></p>	<p><i>Score 1 pt → a measure is relevant for a particular district/sections of the city, 2 pt → if within the whole municipality.</i></p>	n/a	<p><i>score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	<p><i>Score 1 pt → having the fines at place or just mentioning that there is monitoring, 2 pt → irregular controls/ monitoring, 3 pt → camera control or other form of regular/ systematic monitoring.</i></p>
<b>Maximum number of points in this category: 53</b>	<p><i>Score Prevention of cars category: 1 pt → 1-2 measures is taken; 2 pt → 3-4 measures are taken, 3 pt → 5 measures are taken.</i></p> <p>Maximum number of points: 3</p>	Maximum number of points: 15	Maximum number of points: 8	Maximum number of points: 6	Maximum number of points: 15	Maximum number of points: 6

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

<b>III. Bicycle policy</b>	1. Bicycle parking	<ul style="list-style-type: none"> <li>a) Free</li> <li>b) Indoor facilities</li> <li>c) New buildings (business and leisure) all have enough room reserved for the bicycle parking lots</li> <li>d) Bicycle parking facilities at public transport hubs (bus stops, train stations)</li> <li>e) Road sign to indicate the next big parking lot for bicycles</li> </ul> <p><i>Score 1 pt → 1 definitions, 2 pt → 2-3 definitions, 3 pt → 4-5 definitions</i></p>	<p><i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality</i></p>	n/a	<p><i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a
	2. Comfort bicycle roads	<ul style="list-style-type: none"> <li>a) Separate bicycle lane from the main road</li> <li>b) Indication of a waiting time on busy intersections</li> <li>c) Mopeds are prohibited at the bicycle roads</li> <li>d) Asphalt bicycle roads</li> </ul> <p><i>Score 1 pt → 1 definition, 2 pt → 2-3 definitions, 3 pt → 4 definitions</i></p>	<p><i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality, 3 pt → the whole region</i></p>	n/a	<p><i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a
	3. Bicycle highways	<ul style="list-style-type: none"> <li>a) There are Bicycle highways</li> </ul> <p><i>Score 0 pt → no definition is given, or 3 pt → this definition is given</i></p>	<p><i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality, 3 pt → the whole region</i></p>	n/a	<p><i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a
	4. Priority bicycle at intersection	<ul style="list-style-type: none"> <li>a) priority to the bicycle at intersections</li> </ul> <p><i>Score 0 pt → no definition is given, or 3 pt → this definition is given</i></p>	<p><i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality</i></p>	n/a	<p><i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

	5. Stimulation bicycle usage	a) there is a campaign  <i>Score 0 pt → no definition is given, or 3 pt → this definition is given</i>	<i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality, 3 pt → the whole region</i>	n/a	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
<b>Maximum number of points in this category: 46</b>	<i>Score Bicycle Policy category: 0 pt → 0 measures are taken; 1 pt → 1 measure is taken; 2 pt → 2-3 measures are taken, 3 pt → 4-5 measures are taken.</i>	Maximum number of points: 15	Maximum number of points: 13	n/a	Maximum number of points: 15	n/a
	Maximum number of points: 3					
<b>IV. Stimulating the demand for alternative transportation</b>	1. Stimulation of alternative fuels consumption	a) Subsidies for fuel stations which provide the greengas  <i>Score 0 pt → no definition is given, or 3 pt → this definition is given.</i>	<i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality</i>	n/a	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
	2. E-transport	a) Subsidies for the recharging stations b) Subsidies for the e-cars c) Subsidies for the e-bicycle/e-scooters d) Free parking during the recharge  <i>Score 1 pt → 1 definition, 2 pt → up to 2-3 definitions, 3 pt → 4 definitions.</i>	<i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality</i>	<i>Score 1 pt → a measure is only relevant for a few businesses, 2 pt → if it also concerns a wide variety of businesses, 3 pt → the whole municipality (so also private citizens).</i>	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
	3. Organization of car usage at third parties	a) Subsidy for the companies for the calculation of whether switching over to sustainable forms of fuel will be efficient (role of municipality – sponsor and executor)	<i>Score 1 pt → a single measure is relevant for a particular district/ sections of the city, 2 pt → if within the municipality</i>	<i>Score 1 pt → a measure is only relevant for a few businesses, 2 pt → if it also concerns a wide variety of businesses, 3 pt → the</i>	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

		<p>b) Transit management for the company (role of municipality – thinking along)</p> <p>c) Financial benefits for the companies if their employees are encouraged to use a bicycle instead of a car as means of transportation.</p> <p>d) The use of eco-friendly cars as a condition for construction work procured by the municipality</p> <p>e) Facilitate parking space for car sharing services</p> <p><i>Score 1 pt → only up to 1 definition, 2 pt → up to 2-3 definitions, 3 pt → 4-5 definitions.</i></p>		<i>whole municipality.</i>		
	4. Municipality's stock of cars	<p>a) Filters on diesel cars</p> <p>b) e-cars/greengas-cars</p> <p>c) stimulate bicycle usage/discourage car usage</p> <p>d) Eco-friendly procurement rules for new cars</p> <p><i>Score 1 pt → only up to 1 definition, 2 pt → up to 2-3 definitions, 3 pt → 4 definitions.</i></p>	n/a	<p><i>Score 1 pt → a measure is only relevant for highly placed local politicians, 2 pt → it also concerns civil servants, 3 pt → it also concerns waste collecting companies and/or street cleaners</i></p>	<p><i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i></p>	n/a
<b>Maximum number of points in this category: 42</b>	<p><i>Score "Stimulating.." category: 0 pt → 0 measures are taken; 1 pt → 1 measure is taken; 2 pt → 2-3 measures are taken, 3 pt → 4 measures are taken.</i></p> <p>Maximum number of points: 3</p>	Maximum number of points: 12	Maximum number of points: 6	Maximum number of points: 9	Maximum number of points: 12	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

<b>V. Information to the public</b>	1. School material on AAQ	a) Municipality is providing AAQ information material to schools.	n/a	n/a	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
		<i>Score 0 pt → no definition is given, or 3 pt → this definition is given</i>				
	2. AAQ policy information	a) Tips on environment friendly behavior b) Desk of complaint c) AQ policy d) Information on national AQ monitoring e) Information on local AQ monitoring f) Information on car sharing g) Information on the subsidies	n/a	n/a	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
		<i>Score 0 pt → there is only description of environmental zone and recharging stations for electric cars, 1 pt → only up to 1-3 definitions, 2 pt → 4-6 definitions, 3 pt → more definitions.</i>				
	3. Active engagement of stakeholders	a) Workshops for the public b) Support to the interest groups that organize activities c) Yearly awards for the cleanest company	n/a	n/a	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
		<i>Score 1 pt per definition.</i>				
	4. Information on wood stove	a) Environmental tips b) What you should do in case of disturbance c) Where you can go to if you need assistance d) Environmental issues explained e) Health issues explained f) Size specifications of wood	n/a	n/a	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a

ANNEX A: coding of local implementation performance on AAQ policy (adopted from Bondarouk & Liefferink, 2017)

		<i>Score 1 pt → only up to 1-2 definitions, 2 pt → 3-4 definitions, 3 pt → more definitions.</i>				
<b>Maximum number of points in this category: 27</b>	<i>Score "Information to the public" category: 0 pt → 0 measures are taken; 1 pt → 1 measure is taken; 2 pt → 2-3 measures are taken, 3 pt → 4 measures are taken.</i>  Maximum number of points: 3	Maximum number of points: 12	n/a	n/a	Maximum number of points: 12	n/a
<b>VI. Sensitive destination measures</b>	The municipality adopts national guidelines for sensitive destinations (eg hospitals, kindergartens, retirement homes) which prescribe that these destinations should not be placed next to busy roads. <i>Score 3 pt → if there is such a policy adopted</i>	<i>3 pt → there are definitional details (if there is such a policy, there are common standards)</i>	n/a	<i>1 pt → this policy is only relevant for new buildings, 2 pt → new and old buildings which are mentioned in the national guidelines, 3 pt → if extra destinations are mentioned that are not in the national guidelines.</i>	<i>Score 0 pt → a measure is applied since 2014, 1 pt → a measure is applied since 2010, 2 pt → since 2005, 3 pt → already in place earlier than 2005.</i>	n/a
<b>Maximum number of points in this category: 12</b>	Maximum number of points: 3	Maximum number of points: 3	n/a	Maximum number of points: 3	Maximum number of points: 3	n/a