

## What Constitutes a Local Public Sphere? Building a Monitoring Framework for Comparative Analysis

### Supplementary Material: List of Variables

Dimension	Category	Indicator	Variable		Data Source	Evaluation <small>(in percentage of total monitor)</small>
information (25 % of monitor)	local media landscape (1/3 of dimension) (≈ 8.33 %)	push media (1/2 of category) (≈ 4.16 %)	local newspaper(s): development of circulation during the last year	1	<a href="http://www.ivw.de/aw/print/qa">www.ivw.de/aw/print/qa</a>	circulation same or higher than last year ≈ 0.83 %
			local newspaper(s): newspaper circulation in relation to the city's population > 14 years	2	<a href="http://www.ivw.de/aw/print/qa">www.ivw.de/aw/print/qa</a> local statistical data	circulation covers more than 50 percent of the population > 14 years ≈ 0.83 %
			free local ad journals	3	<a href="http://www.bvda.de/webauskunft.html">www.bvda.de/webauskunft.html</a> and desk research	free local ad journal available ≈ 0.83 %
			number of local magazines (print) in comparison to the supply in other cities in the sample	4	<a href="http://www.ivw.de/aw/print/qa">www.ivw.de/aw/print/qa</a> and desk research	supply at or above average ≈ 0.83 %
			local TV or radio channels	5	<a href="http://www.die-medienanstalten.de/ueber-uns/landesmedienanstalten/">www.die-medienanstalten.de/ueber-uns/landesmedienanstalten/</a>	radio and/or TV channels available ≈ 0.83 %
		pull media (1/2 of category) (≈ 4.16 %)	number of local blogs in comparison to the supply in other cities in the sample	6	desk research	number above average ≈ 1.04 %
			number of local news portals in comparison to the supply in other cities in the sample	7	desk research	number above average ≈ 1.04 %
			number of podcasts	8	desk research	number above average

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			in comparison to the supply in other cities in the sample			≈ 1.04 %
			number of local apps in comparison to the supply in other cities in the sample	9	desk research	number above average ≈ 1.04 %
	municipal sources (1/3 of dimension) (≈ 8.33 %)	push & pull media (1/2 of category) (≈ 4.16 %)	activity on social media channels	10	municipal website and research on social media platforms: Facebook, Twitter, Instagram, Flickr, YouTube	city has accounts on more than one platform ≈ 1.39 %
			official city app	11	<a href="https://play.google.com/store">https://play.google.com/store</a>	city provides an official app ≈ 1.04 %
			distribution of official information ("Amtsblatt" or "öffentliche Bekanntmachungen")	12	city's website	information distributed online or free print publication ≈ 1.39 %
		communication policies (1/2 of category) (≈ 4.16 %)	municipal online services (based on 4 indicators of the U.N. Local Online Service Index )	13	city's website	meets all criteria ≈ 1.39 % meets 1-3 criteria ≈ 0.69 %
			information about the local parliament: availability of data / live stream of plenary sessions	14	city's website	data and live stream ≈ 1.39 % data only ≈ 0.69 %
			open government data	15	city's website, open data portal or website of the local bureau of statistics	computer-readable data, free of charge ≈ 1.39 % not computer-readable or at charge ≈ 0.69 %

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	intermediaries (1/3 of dimension) (≈ 8.33 %)	civic intermediaries = most important local social association (1/3 of category) (≈ 2.78 %)	magazine for members	16	<a href="http://www.ivw.de/aw/print/qa">www.ivw.de/aw/print/qa</a> intermediary's website and/or direct request (intermediary)	magazine available ≈ 0.69 %
			newsletter	17	intermediary's website and/or direct request (intermediary)	newsletter available ≈ 0.69 %
			social media	18	intermediary's website Facebook Twitter Instagram Flickr YouTube	association has accounts on more than one platform ≈ 0.69 %
			app	19	<a href="https://play.google.com/store">https://play.google.com/store</a>	provides information on an own app ≈ 0.69 %
		religious groups = church with the most followers on the local level (1/3 of category) (≈ 2.78 %)	magazine for members	20	<a href="http://www.ivw.de/aw/print/qa">www.ivw.de/aw/print/qa</a> intermediary's website and/or direct request (intermediary)	magazine available ≈ 0.69 %
			newsletter	21	intermediaries' website and/or direct request (intermediary)	newsletter available ≈ 0.69 %
			social media	22	intermediary's website Facebook Twitter Instagram Flickr YouTube	religious group has accounts on more than one platform ≈ 0.69 %
			app	23	<a href="https://play.google.com/store">https://play.google.com/store</a>	provides information on an own app ≈ 0.69 %
		political parties = party with most seats in	magazine for members	24	<a href="http://www.ivw.de/aw/print/qa">www.ivw.de/aw/print/qa</a> intermediary's website and/or direct request (intermediary)	magazine available ≈ 0.69 %

Dimension	Category	Indicator	Variable		Data Source	Evaluation <small>(in percentage of total monitor)</small>
		the local parliament (1/3 of category) (≈ 2.78 %)	newsletter	25	intermediary's website and/or direct request (intermediary)	newsletter available ≈ 0.69 %
			social media	26	intermediary's website Facebook Twitter Instagram Flickr YouTube	party has accounts on more than one platform ≈ 0.69 %
			app	27	<a href="https://play.google.com/store">https://play.google.com/store</a>	provides information on an own app ≈ 0.69 %
<b>Participation</b> (25% of monitor)	institutionalized participation (1/3 of dimension) (≈ 8.33 %)	local elections (1/3 of category) (≈ 2.78 %)	voter turnout at the most recent election	28	bureau of statistics city's website	voter turnout > 50% ≈ 0.93 %
			turnout compared to previous election	29	bureau of statistics city's website	increased voter turnout ≈ 0.93 % stagnant voter turnout ≈ 0.46 %
			turnout compared to regional average	30	bureau of statistics	higher than average ≈ 0.93 % average ≈ 0.46 %
		number of candidates (1/3 of category) (≈ 2.78 %)	election of mayor number of candidates compared to other cities in the sample	31	bureau of statistics city's website	number of candidates higher than average ≈ 1.39 % lower than average ≈ 0.69 % no choice 0%
			election of local parliament	32	bureau of statistics city's website	number of candidates higher than average

Dimension	Category	Indicator	Variable		Data Source	Evaluation (in percentage of total monitor)
	other institutionalized procedures (1/3 of category) (≈ 2.78 %)		number of candidates in relation to the number of seats compared to other cities in the sample			≈ 1.39 % lower than average ≈ 0.69 % less candidates than seats / no choice 0%
			initiatives and referenda comparison of rules (based on an evaluation published by the University of Wuppertal)	33	<a href="https://www.mehr-demokratie.de/themen/buergerbegehren-in-den-kommunen/buergerbegehrensbericht-2020/">https://www.mehr-demokratie.de/themen/buergerbegehren-in-den-kommunen/buergerbegehrensbericht-2020/</a> <a href="https://idpf.uni-wuppertal.de/de/projekte/datenbank-buergerbegehren.html">https://idpf.uni-wuppertal.de/de/projekte/datenbank-buergerbegehren.html</a>	«citizen-friendly» ≈ 0.93 % «partly citizen-friendly» ≈ 0.46 %
		further institutionalized opportunities for participation	34	communal rules and statutes city's website	several further opportunities ≈ 0.93 % one further opportunity ≈ 0.46 %	
		Obstacles to participate (e.g. quorums or participation for citizens only)	35	communal rules and statutes city's website	at least one opportunity for participation without obstacles ≈ 0.93 %	
	non-institutionalized participation (1/3 of dimension) (≈ 8.33 %)	organization of protest marches (1/3 of category) (≈ 2.78 %)	information for organizers on city's website	36	city's website	information provided ≈ 0.69 %
			transparency of registration process	37	city's website	registration process explained on website ≈ 0.69 %
			easy registration, different ways to register	38	city's website	easy registration, e.g. via phone call or email possible ≈ 0.69 %

Dimension	Category	Indicator	Variable		Data Source	Evaluation <small>(in percentage of total monitor)</small>
			published deadlines for registration	39	city's website	deadlines published ≈ 0.35 % short notice of spontaneous protest possible ≈ 0.35 % additionally
		citizens' initiatives (1/3 of category) (≈ 2.78 %)	number of active initiatives	40	direct request (city administration)	active initiatives ≈ 1.39 %
			influence of initiatives on political agenda	41	direct request (city administration)	high influence on local agenda ≈ 1.39 % low influence on local agenda ≈ 0.69 %
		online petitions (1/3 of category) (≈ 2.78 %)	number of active online petitions on the two most popular online petition platforms in relation to population compared to all cities in the sample	42	<a href="http://www.change.org">www.change.org</a> <a href="http://www.openpetition.org">www.openpetition.org</a>	above average ≈ 1.39 % average ≈ 0.69 %
	number of people who support these petitions in relation to population compared to all cities in the sample		43	<a href="http://www.change.org">www.change.org</a> <a href="http://www.openpetition.org">www.openpetition.org</a>	above average ≈ 1.39 % average ≈ 0.69 %	
	civil society (1/3 of dimension) (≈ 8.33 %)	associations, clubs, & societies (1/3 of category) (≈ 2.78 %)	number of associations, clubs, & societies in relation to population compared to all cities in the sample	44	<a href="http://www.registerportal.de">www.registerportal.de</a>	above average ≈ 1.39 % average ≈ 0.69 %
			change of numbers compared to previous year	45	<a href="http://www.registerportal.de">www.registerportal.de</a> (data cannot be obtained retrospectively)	increasing numbers ≈ 1.39 % stable numbers

Dimension	Category	Indicator	Variable	Data Source	Evaluation (in percentage of total monitor)	
					≈ 0.69 %	
		online participation (1/3 of category) (≈ 2.78 %)	number of public Facebook groups related to the city in relation to population compared to all cities in the sample	46	<a href="http://www.facebook.com">www.facebook.com</a>	above average ≈ 0.56 % average ≈ 0.28 %
			number of members of these groups in relation to population compared to all cities in the sample	47	<a href="http://www.facebook.com">www.facebook.com</a>	above average ≈ 0.56 % average ≈ 0.28 %
			number of digital neighborhood groups in relation to population compared to all cities in the sample	48	<a href="http://www.nebenan.de">www.nebenan.de</a>	above average ≈ 0.56 % average ≈ 0.28 %
			number of people engaged in these neighborhood groups in relation to population compared to all cities in the sample	49	<a href="http://www.nebenan.de">www.nebenan.de</a>	above average ≈ 0.56 % average ≈ 0.28 %
			number of activities in these neighborhood groups in relation to population compared to all cities in the sample	50	<a href="http://www.nebenan.de">www.nebenan.de</a>	above average ≈ 0.56 % average ≈ 0.28 %
		volunteer services	public volunteer services	51	city's website desk research	service available ≈ 0.93 %

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		(1/3 of category) (≈ 2.78 %)	volunteer services for senior citizens	52	city's website desk research www.seniorenbueros.org/	service available ≈ 0.93 %
			additional forms of volunteer services (e.g. by local initiatives)	53	city's website desk research	service available ≈ 0.93 %
<b>inclusion</b> (25% of monitor)	accessibility of information (1/3 of dimension) (≈ 8.33 %)	local library	number of visitors in relation to population compared to all cities in the sample (all cities with a public library earn points)	54	library's website library's annual report local bureau of statistics direct request (library or city administration)	above average ≈ 2.08 % average ≈ 1.39 % below average ≈ 0.69 %
			actively used library cards in relation to population compared to all cities in the sample	55	library's website library's annual report local bureau of statistics direct request (library or city administration)	above average ≈ 2.08 % average ≈ 1.39 % below average ≈ 0.69 %
		municipal website	easy to understand language ("Leichte Sprache") available	56	city's website	overall option for 'Leichte Sprache' ≈ 1.39 % some documents available ≈ 0.69 %
			options for visually impaired people available (e.g. audio files, adjustment of size and/or contrast)	57	city's website	audio available ≈ 1.39 % other options ≈ 0.69 %
			information in other languages available	58	city's website	language settings on landing page ≈ 0.69 %



Dimension	Category	Indicator	Variable		Data Source	Evaluation <small>(in percentage of total monitor)</small>
						translations available for some documents only ≈ 0.42 % additional points if information for larger minority groups is provided in their language ≈ 0.69 % (additionally) max. points ≈ 1.39 %
	involvement of (minority) groups (1/3 of dimension) (≈ 8.33 %)		youth: opportunities for participation (e.g. youth parliaments or local youth commissioner)	59	communal rules and statutes city's website	opportunities for direct participation ≈ 1.67 % interests represented by commissioner ≈ 0.83 %
			senior citizens (e.g. advisory board or commissioner)	60	communal rules and statutes city's website	opportunities for direct participation ≈ 1.67 % interests represented by commissioner ≈ 0.83 %
			foreign population (e.g. advisory board or commissioner)	61	communal rules and statutes city's website	opportunities for direct participation ≈ 1.67 % interests represented by commissioner ≈ 0.83 %
			city districts (e.g. parliaments or advisory boards for individual city districts, regular meetings)	62	communal rules and statutes city's website	opportunities for direct participation in all districts ≈ 1.67 %

Dimension	Category	Indicator	Variable	Data Source	Evaluation <small>(in percentage of total monitor)</small>	
			with city officials to address district's needs)		opportunities for participation in selected districts only ≈ 0.83 %	
			other groups (e.g. people with disabilities, local language minorities)	63	communal rules and statutes city's website	opportunities for direct participation for other interest groups or minorities ≈ 1.67 %
	combat racism & discrimination (1/3 of dimension) (≈ 8.33 %)		ECCAR membership The European Coalition of Cities Against Racism is a network of cities of all sizes that develops action plans to combat racism and discrimination on a local level. Members commit themselves to a 10-point action plan.	64	<a href="https://www.eccar.info/en/members">https://www.eccar.info/en/members</a> direct request for planned memberships (city administration)	membership ≈ 1.67 % membership filed or planned ≈ 0.83 %
			established local network (as described in ECCAR action plan)	65	<a href="https://www.eccar.info/en/10-point-action-plan">https://www.eccar.info/en/10-point-action-plan</a> direct request (city administration)	action taken ≈ 1.11 % action planned ≈ 0.56 %
			local statistical data to measure racism and discrimination (as described in ECCAR action plan)	66	<a href="https://www.eccar.info/en/10-point-action-plan">https://www.eccar.info/en/10-point-action-plan</a> direct request (city administration)	action taken ≈ 1.11 % action planned ≈ 0.56 %
			information of local population (as described in ECCAR action plan)	67	<a href="https://www.eccar.info/en/10-point-action-plan">https://www.eccar.info/en/10-point-action-plan</a> direct request (city administration)	action taken ≈ 1.11 % action planned ≈ 0.56 %
			established measures promoting equal opportunities (as described in ECCAR action plan)	68	<a href="https://www.eccar.info/en/10-point-action-plan">https://www.eccar.info/en/10-point-action-plan</a> direct request (city administration)	action taken ≈ 1.11 % action planned ≈ 0.56 %

Dimension	Category	Indicator	Variable	Data Source	Evaluation (in percentage of total monitor)		
		established measures promoting cultural diversity (as described in ECCAR action plan)		69	<a href="https://www.eccar.info/en/10-point-action-plan">https://www.eccar.info/en/10-point-action-plan</a> direct request (city administration)	action taken ≈ 1.11 % action planned ≈ 0.56 %	
		established measures against hate crime (as described in ECCAR action plan)		70	<a href="https://www.eccar.info/en/10-point-action-plan">https://www.eccar.info/en/10-point-action-plan</a> direct request (city administration)	action taken ≈ 1.11 % action planned ≈ 0.56 %	
<b>diversity</b> (25 % of monitor)	media diversity (1/3 of dimension) (≈ 8.33 %)	variety of local newspapers		71	<a href="http://onlineatlas.die-zeitungen.de/Atlas.aspx">http://onlineatlas.die-zeitungen.de/Atlas.aspx</a> <i>see also variable 1</i>	more than one local newspaper ≈ 2.78 %	
		other community media	citizen media (local, non-commercial media)		72	research results from variables 1 & 2 <a href="http://www.die-medienanstalten.de/ueber-uns/landesmedienanstalten/">www.die-medienanstalten.de/ueber-uns/landesmedienanstalten/</a> (for radio and TV) direct request (city administration)	different citizen media available ≈ 1.39 % radio only ≈ 0.69 %
			local news wikis		73	<a href="https://www.google.de/maps/@51.170617,9.347075,7z/data=!4m2!6m1!1s16PF97Ifi06Mnb2Znzo58OJQgMbl?hl=de">https://www.google.de/maps/@51.170617,9.347075,7z/data=!4m2!6m1!1s16PF97Ifi06Mnb2Znzo58OJQgMbl?hl=de</a> & desk research	local news wiki available ≈ 1.39 %
		media for (ethnic) minority groups		74	results from variables 1 & 2 direct request (city administration)	media for minority groups available ≈ 2.78 %	
	cultural public (1/3 of dimension) (≈ 8.33 %)	municipal financial leeway	development of public debts (comparison of the last two years)		75	<a href="http://www.regionalstatistik.de">www.regionalstatistik.de</a>	Declining debt rate ≈ 2.08 %
			local public debts in relation to local debts in the respective region		76	<a href="http://www.regionalstatistik.de">www.regionalstatistik.de</a>	Debts per capita lower than in the respective region ≈ 2.08 %

Dimension	Category	Indicator	Variable		Data Source	Evaluation <small>(in percentage of total monitor)</small>
		cultural participation	number of visitors to the local theatre comparison of the last two years	77	local bureau of statistics direct request (local theater or city administration)	Increasing or stagnant number of visitors ≈ 1.39 %
			number of seats in local movie theaters in relation to population compared to all cities in the sample	78	<a href="http://ec.eurostat.eu">ec.eurostat.eu</a>	above average ≈ 1.39 %
			number of visitors to the local museums in relation to population compared to all cities in the sample	79	<a href="http://ec.eurostat.eu">ec.eurostat.eu</a>	above average ≈ 1.39 %
	representation of diversity (1/3 of dimension) (≈ 8.33 %)	gender equality	percentage of women in local parliament comparison after the last two local elections	80	<a href="https://sdg-portal.de/de">https://sdg-portal.de/de</a>	increasing rate and over 45 % women in parliament ≈ 2.08 % increasing or stagnant rate, rate higher than regional average ≈ 1.39 % increasing rate, but lower than regional average ≈ 0.69 %
			European Charter for Equality of women and men in local life	81	<a href="https://www.ccre.org/docs/charte_e_galite_en.pdf">https://www.ccre.org/docs/charte_e_galite_en.pdf</a>	city has signed charter and implemented action plan ≈ 2.08 % city has signed charter, but hasn't implemented action plan ≈ 1.39 %

Dimension	Category	Indicator	Variable		Data Source	Evaluation <small>(in percentage of total monitor)</small>
		diversity in local parliament	number of parties and groups in local parliament comparison of data after the last two local elections	82	local bureau of statistics city's website	increasing number ≈ 1.39 % stagnant number ≈ 0.69 %
			number of parties and groups in comparison to the regional parliament	83	local and regional bureau of statistics	more groups on local level ≈ 1.39 % equal number of groups ≈ 0.69 %
			other groups or parties than on the regional level	84	local and regional bureau of statistics	other groups and parties than on regional level ≈ 1.39 % other parties than on regional level ≈ 0.69 %