

Appendix 1: Overview of barrier dimensions (see figure 2) in case studies.

	Flaten nature reserve, Stockholm, Sweden	Lene-Voigt-Park, Leipzig, Germany	Park complex foreseen as site of the International Horticultural Exhibition in 2029, Łódź, Poland	
Physical barriers	On-site	<ul style="list-style-type: none"> - Lack of playgrounds, illumination, shadow-providing trees, toilets and seating accommodation appropriate e.g. for older people (e.g. benches missing armrest/back) - Trampled grass/lawn; very dusty and, in case of wind, creation of little dust bowls - Small area, thus not much space for following activities on-site - Lack of waste bins, often much rubbish in the park and stodged dust bins - Combined ways for cyclists and passers-by produces conflicts - People searching for a “normal park” perceive the area not as “park-like” as the area might not be suitable but rather a greened brownfield where you can pass or bike 	<ul style="list-style-type: none"> - Traffic training and sport facilities (tennis court, football fields, treadmill, outdoor gym, cloakrooms) within the park with associated access roads / fenced parking spaces - Lack of safety within the park is perceived as constrain <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - Rubbish and waste by visitors, trampled grass/lawn - Recreation/leisure activities are limited due to stands, facilities, fences, paved surface, and other physical restrictions - Tree cuts with lack of shadow and reduced visibility of greenery/trees 	
	Boundary	<ul style="list-style-type: none"> - Busy freeway at the Northern/North-eastern border of the nature reserve - Fences and gates at the Western border - Unclear entrances and directions from the bus stops - Lack of waste bins and waste dumping 	<ul style="list-style-type: none"> - Semi-busy roads around the entire park - Lack of waste bins and waste dumping in the park surrounding 	<ul style="list-style-type: none"> - Uneven distribution of entrances, no formal entrance on the longest southern border <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - New fences and buildings obstructing entry/crossing - Planned concreted parking spaces and new busy street on the southern border
	Off-site	<ul style="list-style-type: none"> - Lack of information or signs about the larger landscape (direction / existence of ways) - No clearly marked paths from rail-bound public transportation to the nature reserve - Low frequency of buses and few bus stop entry points to the area - Private land uses around the area that are fenced 	<ul style="list-style-type: none"> - Displacement of former residents from the areas 	<ul style="list-style-type: none"> - Lack of safety around the park / near former railway tracks is perceived as constrain <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - Heavy traffic, parking spaces, and increasing noise with less attractiveness of the residential neighbourhood Radiostacja - New residential areas lead to increased use pressure on the park
Personal barriers	Individual capacities	<ul style="list-style-type: none"> - Limited mobility and accessible for certain persons (e.g. wheelchair users) - Relatively far from built-up areas requiring a certain time budget or physical fitness - Many of the activities the area presumably caters to, require equipment and other resources that are not equally available to everyone 	<ul style="list-style-type: none"> - Fears of slow persons (parents with buggy, elderly with walker/wheelchair, disabled) to be overseen and overrun by fast movers (bicycles, runners) 	<ul style="list-style-type: none"> - Part of the area is heavily overgrown, with no paths, which can be difficult for the elderly, disabled people and families with small children <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - Entrance fee to exhibition limits the use of the park for less affluent people
	Cognitive capacities / framework	<ul style="list-style-type: none"> - Most information in Swedish, no audio-information or information in braille - Very few information regarding what you can/are allowed to do in the area and what is prohibited (relevant esp. for non-Swedish people) - Making use of wilder areas require knowledge of forests, e.g. where to find berries or mushrooms, which areas are sensitive to disturbance, where lake ice might be weaker 	<ul style="list-style-type: none"> - All information in the area, overall limited, is in German (although the neighbourhood has a high share of foreign people) and there is no audio-information or information in braille - Information that originally was established at the entrance of the park disappeared 	<ul style="list-style-type: none"> - Sports fields/facilities and associated noise by car parking/roads disturb navigating within the park <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - Lack of specific information regarding the location of pavilions, the scale of tree felling and the scale of city expenses
	Interpersonal relations	<ul style="list-style-type: none"> - The beach is getting increasingly crowded making space somewhat contested - Shift in user groups at the most popular sites in the reserves over time (e.g. families at swimming site during summer before 6 pm, after 6 pm only groups of youngsters) - Conflict potential between various groups and their use of the reserve (prefer wild, silent nature experiences alone; use reserve as a social arena with family / friends) 	<ul style="list-style-type: none"> - Homogenous visitors make it more difficult for people with another habitus to access (park is visited mostly by young people, prevent e.g. elderly from using the park) - Noise from sport fields often disturb other visitors who seek for quietness in nature - Conflict on the ways between fast (cyclists, skateboards) and slow (passers-by, elderly and buggy, or people with handicap) traffic, not paying attention to each other - Crowdedness of the park at weekends and during the hot season 	<ul style="list-style-type: none"> - Conflicts between the users of sports area and park users seeking silence and contact with nature in the middle of the park <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - Exclusion of nearby inhabitants by appropriation by another group (e.g. visitors) - Congestion / noise from outdoor events discouraging some users (fairs, concerts) - Lack of safety, because of the large number of visiting people, crowds

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Institutional barriers	Planning and management	<ul style="list-style-type: none"> - The status of nature protection restricts most forms of urban developments - Area boundary creates strict institutional identity for land use within the area without impact on development of the surrounding (e.g. no restriction to urban development) - Property rights limit accessibility within the area (semi-private/private allotments) - Swedish right for public access to all land (Allemansrätten) is somewhat restricted due to certain rules apply (e.g. dogs on leash, permit to fish, bike on paths) 	<ul style="list-style-type: none"> - Green regeneration plans for the larger area did not include a comprehensive acknowledgement of potential negative social consequences that got more importance after 2010 due to a more contested housing market (rising costs and displacement as a result of rising attractiveness through/after greening) 	<ul style="list-style-type: none"> - Local authorities downplay any arguments against the organization and discuss the residents' opinions only superficially <p>Expected changes related to the exhibition:</p> <ul style="list-style-type: none"> - Sole focus of the park complex management on Expo, neglecting other aspects/needs
	Decisions and power relations	<ul style="list-style-type: none"> - Institutional boundary between the protected area and the private built-up land as the formal institution of the nature reserve prohibited planning and management of landscape connections due to institutional frames (e.g. few incentives for physically connecting the area to the larger landscape) 	<ul style="list-style-type: none"> - Housing market dynamics after 2010 (rising demand and rising costs) led to increased displacement from the area (direct) and increased exclusionary displacement - Opportunities of municipality to influence real estate/housing market is limited 	<ul style="list-style-type: none"> - As part of public consultations in 2019 residents expressed concerns about the loss of greening within the area, in the surrounding housing estates, and of a recreational area relating to an adjacent hospital - Residents of the surrounding housing estates claim that they have not been properly informed and participated about consultations and discussions with the City Hall
	Cultural norms and practices	<ul style="list-style-type: none"> - Very traditional Swedish outdoor recreation activities promoted - Nature values and enjoyment of these values by applying, broadly, the right to roam - Border areas are sometimes used for more illicit activities (drugs, squatting etc.) discourage potential users 	<ul style="list-style-type: none"> - Entrance areas are at some places used for more illicit activities (drugs, squatting etc.) discouraging potential users 	<ul style="list-style-type: none"> - Local authorities neglect other concerns as the organization of the Expo is prestige and ensures their political success
Contextual factors	<ul style="list-style-type: none"> - Different rules and objectives between spatial planning around the reserve (urban densification with ownership) and the nature reserve creating increasing distances between public land, new roads perpendicular to expected flows to and from the reserve, reduced visibility and overall legibility when more tall buildings are built 	<ul style="list-style-type: none"> - Displacement of poorer households from the areas around the park, driven by housing market mechanisms with rising housing costs (the park plays a certain role as trigger for rising housing costs) and so, they cannot benefit from the park as before 	<ul style="list-style-type: none"> - Local authorities are responsible for the organization of the Expo supported by the Marshal of the Lodz Region and President of Polish Nurserymen Association - Authorities invest public money in this project while still expecting a final decision from the Polish government on providing additional key funding 	