ACCESSIBILITY OF ACTIVE LEISURE AREAS AND SOCIAL INCLUSION IN CONTEXT OF URBAN PLANNING

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Abstract. A sustainable and inclusive public outdoor space is unthinkable without accessible physical activities for everyone in active leisure areas. However, until now, the main emphasis was placed on providing essential functions through the used elements and their position in relation to each other, not always considering users with different opportunities for participation or the elderly. Research focuses on active leisure area quality evaluation in the urban environment, identifying the main planning principles of accessibility and inclusivity that can be integrated into children's playgrounds and recreational sports area design. Based on the scientific research literature materials and the obtained data, the mutual comparison method was used for the surveyed territories in Riga and Tallinn in the summer and autumn periods of 2022. Using the descriptive or monographic method, accessible and inclusive planning principles were summarised during the research process. The obtained results are dated in photographic records and quality assessment tables. The main results highlighted several problems that brought attention to insufficient accessibility or lack of inclusive design in surveyed active leisure areas. Although in some active leisure areas it was possible to identify elements that were meant for inclusive use, and it was considered a good practice of planning, there was a high chance those specific elements were placed on the side in a separate area creating segregation or they were integrated within a play or sports area but were few elements that were compelling for all users. Still, other elements or surfaces provide participation for limited users, which could be addressed to a lack of knowledge of what inclusive design means. Therefore, it is essential to educate all parties involved to make decisions based on planning principles that can ensure the requirements of accessible and inclusive active leisure areas.

Keywords: active leisure areas for all-abilities, children's playgrounds, recreational sports areas, accessibility, inclusive design.

Introduction

Sustainable and inclusive public outdoor space is a widely discussed topic in recent years, and urban planning documents increasingly include requirements for planning inclusive environments in publicly accessible areas. As an example, planning documents in Riga (Latvia) refer to easy mobility and accessible public outdoor space for all citizens, with a special focus on children, people with special needs and the elderly [1; 2]. Similarly, planning documents in Tallinn (Estonia) talk about accessibility for all, ensuring equal opportunities for movement and participation, prioritising public outdoor space design based on inclusive design principles and encouraging all citizens, regardless of age, build and ability to interact, to be active outdoors [3].

A holistic approach to urban planning encompasses various environmental, social and economic aspects, which until now have been more focused on providing basic urban functions for the general public, paying less attention to users with disabilities or the elderly, providing superficial solutions without delving into the quality or practical application of solutions. Inclusive urban environment solutions should primarily provide public outdoor space within easy reach and accessible to all, providing a variety of daily physical activities with elements and groupings or layouts that are suitable for all-ability users, including children, elderly people and users with reduced capabilities of participation [1; 3; 4-6]. Inclusive design is engaging and beneficial for the majority of users, it is easy to interpret, safe, free from unforeseen risks, easy to use, broad enough to enable its use and movement for all users [6; 7]. At present, in public outdoor space, there are efforts to integrate inclusive solutions in certain parts of the territory or functional zones, but there are fewer complex solutions that make the overall environment inclusive, rather than only providing specific functions for individual parts of the territory or individual elements and being targeted at specific user groups.

The aim of the study is to identify the design trends in children's play and recreational sports areas in the 21st century as they relate to inclusive environments, to identify the key components of a quality inclusive environment and to define the key principles of inclusive environments in the design of outdoor recreation areas.

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Nowadays, planning of public outdoor space is increasingly focused on quality environmental solutions that provide accessible public space for all-ability users. In 2015, the General Assembly of the United Nations adopted the resolution "Transforming our world: the 2030 Agenda for Sustainable Development" [8], which underpins the various settings and requirements for planning public outdoor space in urban areas. The resolution identifies 17 Sustainable Development Goals [8], at least five of which are directly relating to the topic of the study, as it can be seen in Table 1.

Sustainable Development Goals

Table 1

No.	Description	Whether is or is not related to the topic of the study
Goal 1	End poverty in all its forms everywhere [8]	Is not relating
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture [8]	Not relating
Goal 3	Ensure healthy lives and promote well-being for all at all ages [8]	Is relating
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all [8]	Is relating
Goal 5	Achieve gender equality and empower all women and girls [8]	Is relating
Goal 6	Ensure availability and sustainable management of water and sanitation for all [8]	Is not relating
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all [8]	Is not relating
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all [8]	Is not relating
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation [8]	Is relating
Goal 10	Reduce inequality within and among countries [8]	Is not relating
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable [8]	Is relating
Goal 12	Ensure sustainable consumption and production patterns [8]	Is not relating
Goal 13	Take urgent action to combat climate change and its impacts [8]	Is not relating
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development [8]	Is not relating
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss [8]	Is not relating
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels [8]	Is not relating
Goal 17	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development [8]	Is not relating

Goal 3 "Ensure healthy lives and promote well-being for all at all ages" draws attention to the necessity of reducing health-related risks by providing preventive measures to reduce premature mortality, improve mental health and well-being [8]. Active leisure areas in urban spaces promote physical activity and provide opportunities for socializing, which is one of the prerequisites for maintaining and improving long-term health. By applying inclusive environmental solutions in the planning and design of public outdoor spaces, it is possible to provide daily physical activity for the largest possible proportion of the population, improving overall health and well-being for all-ability and any age users [9; 10]. Goal 4 "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" focuses on skills and knowledge for sustainable lifestyles [8], which is in line with the objective of active leisure areas to promote and ensure sustainable lifestyles through quality environments for physical and social activities in public spaces, accessible to all, regardless of age or

gender, which is in line with Goal 5 "Achieve gender equality and empower all women and girls", various opportunities to interact, thus improving the quality of life. Goal 9 "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" focuses on quality, sustainable and accessible infrastructure for all [8]. Nowadays, the planning of public outdoor space and active leisure areas must consider all possible factors and needs for all user groups in the areas concerned, to ensure that any newly created or renovated public outdoor space will be of sufficient quality for future generations who will consider social inclusion as self-evident rather than something new. Goal 11 "Make cities and human settlements inclusive, safe, resilient and sustainable" focuses on the availability of safe, inclusive and accessible green and public spaces, with a particular focus on women, children, elderly people and people with disabilities [8]. This is directly related to the topic of the study and is an important justification for the need to raise the issue of inclusive urban environments in all its dimensions, in the context of active leisure areas in this study.

Materials and methods

The scope of the study focuses on the planning of active leisure areas in urban environments in the context of accessibility and social inclusion. The main focus of the study is on sustainable and inclusive public outdoor space planning trends in today's children play and recreational sports areas, comparing the principles of inclusive environmental planning used in Latvia, focusing on the urban environment of Riga and assessing similar areas in Estonia, Tallinn.

To achieve this goal, the study assesses design trends in active leisure areas, identifying the key components for quality inclusive environments in children's playgrounds and active leisure areas. The evaluation is based on the quality criteria matrices defined in the study, based on scientific research literature, using the method of cross-comparison to analyse the data obtained. Data acquired from the quality assessment in the surveyed areas of Riga (Latvia) and Tallinn (Estonia) were used for comparison. Using the descriptive or monographic method, the research process summarises the main trends of inclusive design in the planning of children's play and recreational sports areas. The research process evaluated active leisure areas in the inner courtyards of residential blocks, parks and squares, promenades, according to the author's previously developed classification by type of use of public outdoor space [11], selecting areas corresponding to the previous study "The Importance of Active Leisure Areas in the Context of Urban Planning" [12], thus ensuring the continuation of the study by adding new components to the overall assessment of the quality of the surveyed areas. The study sites were surveyed in the summer and autumn of 2022 in Riga (Latvia) and Tallinn (Tallinn). The study focuses on the assessment of the urban environment of Riga (Latvia), selecting the surveyed areas according to the established selection criteria by the type of use of public outdoor space and proposing quality assessment criteria that give an idea of the inclusive environment solutions or their absence in the surveyed active leisure areas. To verify the relevance of the methods and evaluation criteria used to assess different areas, regardless of city or country, and to gain a broader understanding of the quality of contemporary active leisure areas in relation to inclusive design solutions, similar areas in Tallinn (Estonia) were selected and surveyed using similar methods and evaluation criteria. The results are dated in photographs and quality assessment tables.

Results and discussion

Inclusive environmental design is generally about creating accessible urban environments for all-ability users, focusing on achievability and accessibility for mobility-related abilities through physical and visual abilities, while less attention is paid to cognitive impairments or hearing-related abilities [7; 13]. It is undeniably important to provide public outdoor space, including active leisure areas, within easy reach of users, but it is equally important to provide easy-to-read information on where these activity areas are located and whether they are for all-ability users, what functionality they can provide and whether they are fit for the defined purpose. This is particularly important during a period of change until publicly accessible outdoor spaces are renovated, redesigned, or re-created following good practice guidelines for inclusive design.

In children's playgrounds, the design of inclusive environments focuses on easy accessibility and access to different functional elements at different levels, using appropriate surfacing materials, social interaction, mitigation of environmental factors that may adversely affect playground use, incorporation

of natural elements, sensory stimulating elements, surfaces and different surfacing structures in playground design, ensuring physical or social participation and interaction between users of different ages and abilities [11; 14; 15]. Children's playgrounds are not only important for children, but also for adults, especially the elderly, as they encourage more intense physical interaction, which can be combined with sports activities for elderly people [11; 16; 17]. This also ties in with the fact that children's playgrounds and the environment around them should be designed to be fun for users of all ages.

A review of some of the available literature on inclusive design solutions in recreational sports areas highlights the involvement of the elderly and the adapted design of recreational areas to accommodate all-ability users [4; 18; 19]. The equipment in recreational sports areas expands the range of exercise options and may attract all-ability users by providing specific equipment, but it is not the determining factor motivating users to use recreational sports areas [20]. There is a need not only to create specialized recreational sports areas accessible to all, or to include specialized equipment in the design of the public outdoor space, but also to provide open spaces for sporting activities that do not require additional equipment, but an orderly and accessible environment that can be used for a variety of activities [16].

During the inspection of active leisure areas in residential courtyards, parks and squares, promenades within the study, the main focus was on the components of the quality criteria set out in the study, based on the data obtained from the literature analysis – achievability, accessibility, information provision, elements and groups of elements, pavement materials.

Achievability assessment in the context of inclusive design focused on the accessibility of the surrounding infrastructure, assessing whether the active leisure areas are within easy reach for all-ability users in the surrounding area and whether public transport stops are adequately connected to other infrastructure providing access to the active leisure areas.

The quality of accessibility was assessed by evaluating whether all parts of the recreation area are accessible to all users, focusing on the surfacing materials used, visual accents in the surfacing and the elements or groups of elements used.

Information provision was considered on two levels, whether there were signs or information nearby about the location of the active leisure areas and inside the active leisure area, whether there was information about how the elements or groups of elements were to be used and what function they fulfilled or what activity they were intended for.

The quality of elements and groups of elements was assessed in terms of their placement in functional areas or groups and their overall arrangement, focusing on the provision of different functionality and how this functionality interacts with adjacent elements or groups of elements designed for a different user group or functionality. In addition, it was assessed whether the elements in the active leisure area are generally able to provide activities for users of different ages with different interaction abilities.

The paving materials were assessed according to their type and their compatibility with the functional area and the elements they contain. The evaluation also assessed whether the chosen pavements were able to fully meet the requirements of environmental accessibility, access to functional areas or groups.

The areas surveyed within the study were documented in photographs and the images were summarised according to the type of use of public outdoor space, recording the address, coordinates and describing the main components of the active leisure area according to the topic of the study.

While surveying the public outdoor space in Riga (Latvia), the study assessed the quality of the public outdoor space in the context of inclusive design in the residential quarter "Jauna Teika", Ropazu Street 14 and the public outdoor space with children's playground and recreational sports area in the residential quarter near multi-story residential buildings at Lubanas Street 14. In Tallinn (Estonia), the public outdoor space in the Kalaranna business and residential quarter located at Kalaranna Street 6a, and the children's playground and recreational sports area in the residential quarter in the middle of the multi-story residential buildings at Akadeemia street 30a were evaluated.

The public outdoor space in the Centre Sports Quarter at K. Barona Street 116a and the public outdoor space with a children's playground and recreational sports area in Latgale Park at Maskavas

Street 154 were evaluated as a destination of public outdoor space in Riga (Latvia). In Tallinn (Estonia), the evaluation focused on a children's playground in the city centre next to the Kultuurikilomrrter walking route, 10415, and the public outdoor space with various active recreation areas in Manni Park, Sopruse 252, as well as the public outdoor space with various active leisure areas in Tondiraba Park, 10415.

The survey assessed the Kengaraga Promenade in Riga (Latvia) and the Pirita Promenade in Tallinn (Estonia) as an intermediate point of public outdoor space.

There were significant differences between the areas surveyed in Riga (Latvia) and Tallinn (Estonia), as well as differences in the quality of active leisure areas within each city, which is directly related to the location within the city context as it can be seen in Table 2.

Quality assessment summary

Table 2

Selection			Positive aspects/Principal
criteria	Address	Provided solutions	recommendations
Public outdoor space as a place, distance from the city centre < 3.75 km	"Jauna Teika", Ropazu Street 14, Riga, Latvia	Provided achievability; Provided accessibility; Partly provided information; Provided activities for a wide user range, including inclusive elements; Provided suitable surfacing	A good example of accessibility, using different surfacing and providing wide functionality/ More information signs, direction leads could be added, and widened range of inclusive elements
	"Kalaranna district", 6a Kalaranna Street, Tallinn, Estonia	Provided achievability; Provided accessibility; Partly provided information; Partly provided activities for a different user range, including inclusive elements; Partly provided suitable surfacing	A good example of how functional zones are divided and located, providing good achievability/ More information signs, direction leads could be added, and widened range of elements with different functionality
Public outdoor space as a place, distance from the city centre > 3.75 km	Lubanas Street 14, Riga, Latvia	Partly provided achievability; Provided accessibility; Partly provided information; Provided activities for a wide user range; Provided suitable surfacing materials, but with limited material variations	A good example of providing basic information and basic functionality for different user ranges/ Inclusive elements could be added, and connection links should be improved, direction leads could be added
	Akadeemia Street 30a, Tallinn, Estonia	Provided achievability; Provided accessibility; Provided information; Provided activities for a different user range, including inclusive elements; Provided suitable surfacing	A good example of providing functionality for different user ranges, including inclusive elements for recreational sports activities/ More play functions could be added, and widened range of different surfacing
Public outdoor space as a destination, distance from the city centre < 3.75 km	"Central sports district", K. Barona Street 116a, Riga, Latvia	Provided achievability; Provided accessibility; Provided information; Provided activities for a wide user range, including inclusive elements; Provided suitable surfacing	A good example of providing information and functionality for different user ranges/ How functional zones are divided and located could be improved, and widened range of different surfacing
	"Kultuuri- kilomeeter", 10415, Tallinn, Estonia	Provided achievability; Provided accessibility; Provided information; Provided activities for a limited user range; Provided suitable surfacing	A good example of achievability and accessibility/ Additional functional zones should be added, including recreational sports and inclusive elements

Table 2 (continued)

Selection criteria	Address	Provided solutions	Positive aspects/Principal recommendations
Public outdoor	Latgale park,	Poorly provided achievability;	A good example of providing
space as a	Maskavas Street	Poorly provided accessibility;	functionality for different user
destination,	154, Riga, Latvia	Partly provided information;	ranges/ Surfacing and
distance from the		Provided activities for a wide	connection links should be
city centre		user range;	improved primarily, direction
> 3.75 km		Partly provided suitable	leads and inclusive elements,
		surfacing	appropriate surfacing for
			inclusive use could be added
	Manni park,	Provided achievability;	A good example of providing
	Sopruse Street	Provided accessibility;	functionality for different user
	252, Tallinn,	Provided information;	ranges, including inclusive play
	Estonia	Provided activities for a wide	elements/ More information
		range of users, including	signs, direction leads could be
		inclusive elements;	added, and widened range of
		Provided suitable surfacing	different sports elements
	Tondiraba park,	Provided achievability;	A good example of providing
	13917, Tallinn,	Provided accessibility;	functionality for different user
	Estonia	Partly provided information;	ranges, including inclusive play
		Provided activities for a wide	elements and using different
		range of users, including	surfacing/ More direction leads
		inclusive elements;	could be added as the territory is
		Provided suitable surfacing	very wide
Public outdoor	Kengaraga	Partly provided achievability;	Acceptable example of how
space as an	promenade and	Partly provided accessibility;	functional zones are divided and
intermediate	Maskavas Street,	Partly provided information;	located, in several activity
point, connection	Riga, Latvia	Partly provided activities for a	points/ Surfacing and
of the city centre		wide range of users, including	connection links should be
with other		inclusive elements;	improved primarily, direction
neighbourhoods		Partly provided suitable	leads and inclusive elements,
		surfacing	appropriate surfacing for
			inclusive use should be added,
			widened range of elements with
			different functionality
	Pirita promenade	Provided achievability;	A good example of how
	and Reidi Street,	Provided accessibility;	functional zones are divided and
	Tallinn, Estonia	Partly provided information;	located, providing good
	·	Provided activities for a	achievability and accessibility,
		different user range, including	connections between/ More
		inclusive elements;	direction leads could be added
		Provided suitable surfacing	

In Riga (Latvia), the surveyed areas located closer to the city centre provided better connections in terms of accessibility than the areas further away from the city centre, which is due to the generally better quality of the urban environment in the centre and the newly built or renovated surrounding infrastructure. A positive example from the surveyed areas in Riga (Latvia) is the public outdoor space improvement of the residential quarter "Jauna Teika" in Fig. 1 and Fig. 2, which provides easy accessibility and easy perception of functional areas, as well as the materials and elements used in the design of the public outdoor space, which provide different functionality and opportunities to use the environment for all users, without singling out or separating any user group in particular parts of the territory. Other previous studies have also cited the "Jauna Teika" residential quarter as a positive example of public space planning [21].

In the surveyed areas further away from the city centre, accessibility is assessed as more fragmented, and in some places, connections are intermittent or of unsatisfactory quality and fail to connect allability users. An example of interrupted connections in the surveyed areas in Riga (Latvia) is the Kengaraga Promenade (Fig. 3 and Fig. 4), where accessibility to activity areas is partially assured

because pavements are interrupted or not fully constructed, leaving the accessibility of functional areas or elements limited, although the elements located there would be able to provide activities for different users.



Fig. 1. Access to multifunctional children's playground in the residential quarter "Jauna Teika", photographic evidence, 2022



Fig. 2. Inclusive landscaping elements in the residential quarter "Jauna Teika", photographic evidence, 2022



Fig. 3. Interrupted links to a children's playground with inclusive design elements for the elderly users, Kengaraga Promenade, photographic evidence, 2022



Fig. 4. Interrupted links to a children's playground and recreational sports area, Kengaraga Promenade, photographic evidence, 2022

Similarly, accessibility to functional areas or elements and groups of elements further away from the city centre is more difficult, although in several of the active areas reviewed accessibility was provided, but no easy accessibility to all elements or parts of the area was provided, which was made difficult, for example, by inadequate surfacing under elements intended for use by all-ability users. The quality of achievability and accessibility in the surveyed areas in Tallinn (Estonia) was higher compared to the surveyed areas in Riga (Latvia), which is explained by the fact that Tallinn (Estonia) is more active in cleaning up, renovating and newly constructing the surrounding infrastructure.

It was also possible to observe more information materials and signs pointing to active leisure areas or educational content in Tallinn (Estonia), example of Fig. 5, in Tallinn (Estonia), educational material on various topics and flora and fauna found in the surrounding environment was displayed in Tondiraba Park, while in Riga (Latvia), the surveyed areas mainly lacked clear signs indicating where certain activity zones were located, which only partially met the quality requirements for information provision. Information boards were present in almost all of the recreational areas surveyed, which meet the requirements for the construction of such areas. In addition to the mandatory information, the majority of such boards located at recreational sports areas were supplemented with information on the use of the installed elements, but there was no separate indication of how these elements could be included in exercises for users with limited ability to interact, for example on Kengaraga Promenade in Riga (Latvia), Fig. 6. Although the elements intended for use by elderly people included references to exercises as an element that elderly users could integrate into sports activities, there was no indication that these elements were suitable for use by younger children, although they were able to provide safety requirements and functionality that would be of interest to children or all-ability users.



Fig. 5. Educational material on flora and fauna met in the environment at Tondiraba Park, photographic evidence, 2022



Fig 6. Information on the use of elements for sports activities, Kengaraga Promenade, photographic evidence, 2022

In several of the areas surveyed, irrespective of their state or location in relation to the city centre, it was possible to identify elements specifically designed for users with limited opportunities for interaction, but the overall trends indicated that these were mainly a few elements, or an aggregate of elements located in one part of the area or in a separate functional zone. Fig. 7 is an example of a multifunctional active leisure area in Tallinn (Estonia) in the middle of multi-storey residential buildings at Akadeemia Street 30a, where the overall design of the public outdoor space integrates elements for users of all ages and abilities, which can be used for the most appropriate activity in different functional areas, separated visually by pavement colour or greenery, but not closed or specifically designed for any user group, creating an exclusionary environment. The active leisure area of the Centre Sports Quarter at K. Barona Street 116a in Riga (Latvia) has a wide variety of elements for active leisure, including elements that can be used by all-ability users, Fig. 8, depending on the abilities to interact, by selecting the most appropriate elements, but lacks a finer division into activity zones and the overall layout of the square can be considered too broad, difficult to navigate and lacking greenery or spatial structures that could provide a division of space into smaller ones or the possibility to shelter from the sun, rain or wind.

The observed trends in the use of surfacing materials in the surveyed active leisure areas showed that in Tallinn (Estonia) there is more use of different hard surfacing materials around the activity areas where fall impact absorption is not needed, and where it is needed, more of rubberised cast surfacing is used providing easy access to the elements and activity areas for all users, the colours of the pavements were also brighter and more contrasting, while in Riga (Latvia) more rubberised tile safety pavements or sand pavements were used where fall absorption is needed, but the infrastructure around these pavements or active recreation areas in several cases had aged or damaged pavements that were only partially able to provide mobility options for all users.



Fig. 7. Multifunctional active leisure area among multi-storey residential buildings, Akadeemia Street 30a, photographic evidence, 2022



Fig. 8. Multifunctional active leisure area in the Centre Sports Quarter, K. Barona Street 116a, photographic evidence, 2022

On the whole, the areas surveyed provide a general picture of the overall trends in inclusive environmental planning in Riga (Latvia) and Tallinn (Estonia), which allows relevant conclusions to be drawn and provides a direction for development to improve the design of active leisure areas.

The resulting criteria and components for assessing the overall quality of inclusive design in active leisure areas will serve as a basis for further research in developing the main design principles.

Conclusions

- 1. In some of the surveyed areas it was possible to identify elements that were intended for inclusive use like sports elements on Akadeemia Street 30a, Tallinn (Estonia) or play elements in Manni park, Sopruse Street 252, Tallinn (Estonia) and this can be considered good planning practice, but in several, it was not possible to directly identify inclusive elements or they were separated from other users, creating segregation, and the pavement used in or on the way to the activity areas was inadequate for the mobility of all users like Kengaraga promenade, Riga (Latvia).
- 2. The areas surveyed did not always indicate a variety of uses, although it was possible to identify a number of elements that could be used by all-ability users, but these were a few elements or parts of elements and not sufficient to fully provide opportunities for interaction by all-ability users and full use of the recreation area, rather than just a few isolated elements.
- 3. The assessment of the surveyed areas shows that there is a tendency to integrate inclusive design solutions in the development and planning of active leisure areas, but there is a lack of knowledge about the principles of inclusive design and the solutions that can be applied.
- 4. The survey showed that the most successful solutions from Riga (Latvia) can be taken from the residential quarter "Jauna Teika" as a positive example of public space planning, creating different functionality zones compactly and evenly distributed in the public outdoor space providing accessibility for all with different activities and well-designed surfacing.
- 5. The survey showed that the most successful solutions from Tallinn (Estonia) can be taken from Tondiraba park, although the area is very wide and provides several activity zones with various elements and used surfacing materials, this example can be applied also to smaller territories taken as an example of how different elements and surface materials can be used to meet all safety requirements as well as providing accessibility and social inclusion for all range of users with different abilities to interact.
- 6. In each surveyed area both in Riga (Latvia) and Tallinn (Estonia) it is possible to find positive aspects that could be considered in planning new active leisure areas, focusing more on providing wider functionality including inclusive elements and appropriate surfacing for inclusive use as well as creating more accessible connection links with surrounding areas.
- 7. It is essential to provide inclusive and accessible active leisure areas in the public outdoor space within easy reach of everyday users, clearly signposted with information on the activities they are intended for and the functionality of the elements they contain and, in general, the overall layout of the environment, the division of functional areas and their inter-positioning.
- 8. It is not enough to have separate elements or groups of elements in active leisure areas for all-ability users, but the overall design of the functional areas has not been thought through to ensure full activities and accessibility for all.
- 9. This requires raising awareness of inclusive design not only for mobility in the public outdoor space, but also for the needs and functional diversity that should be provided in urban environments and active leisure areas to make them attractive to all.

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Author contributions

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