

Building Cities Fit for Children

Case studies of child-friendly urban planning and design in Europe and Canada



Vauban, Freiburg

Tim Gill, 2017 Churchill Fellow

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Notes

This report is based on visits in 2017-8. Contacts, initiatives and sites may have changed since then. Direct quotes are taken from recorded interviews, unless stated otherwise; some have been edited for clarity.

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**“We shape our buildings, and afterwards they shape us.”
Winston Churchill**

Executive Summary

This report sets out the findings of a study tour of child-friendly urban planning and design in cities in Europe and Canada. It was supported by a Fellowship from the Winston Churchill Memorial Trust, awarded in 2017.

Child-friendly urban planning and design is an evolving set of ideas about shaping the physical features of neighbourhoods and cities so that children are active and visible in the daily life of urban streets, parks, squares and other public spaces.

The model of child-friendliness used in this report sees it as having two dimensions or facets. The first is around the spaces, activities and experiences on offer to children in a neighbourhood or city. The second concerns children's ability to access those experiences, especially through walking or cycling. Only neighbourhoods or cities that have both plenty of offers and high mobility for children count as child-friendly.

This project aims to show the relevance of child-friendly urban planning and design to UK and global debates. My ultimate goal is to see more decision-makers take forward policies that make the fabric of cities more child-friendly, in my own country and around the world. My objectives are to promote a better understanding of child-friendly urban planning and design, to build the evidence base, and to show how decision makers can engage more with the topic.

Within a given city, neighbourhoods that are popular with - and populated by - children and families typically have three broad sets of features. First, they have a good supply of appropriate and affordable housing. Second, they have good schools, a good supply of childcare, and other key services that families are looking for. Third, they have a welcoming, safe public realm. Within this 3-fold characterisation, my project's primary focus is on the public realm.

The 'unit of analysis' of my project is the municipality (or more accurately, the municipal area), as this is where the most relevant services and policies – and the key decision-makers - reside. It takes in nine municipalities: Antwerp, Calgary, Freiburg, Ghent, Oslo, Rotterdam and three municipalities in the Metro Vancouver area: City of North Vancouver, New Westminster and Vancouver City.

I spent about a week in each city meeting key officers, politicians and advocates and visiting sites. I also engaged with children in a majority of cities, and carried out desk research.

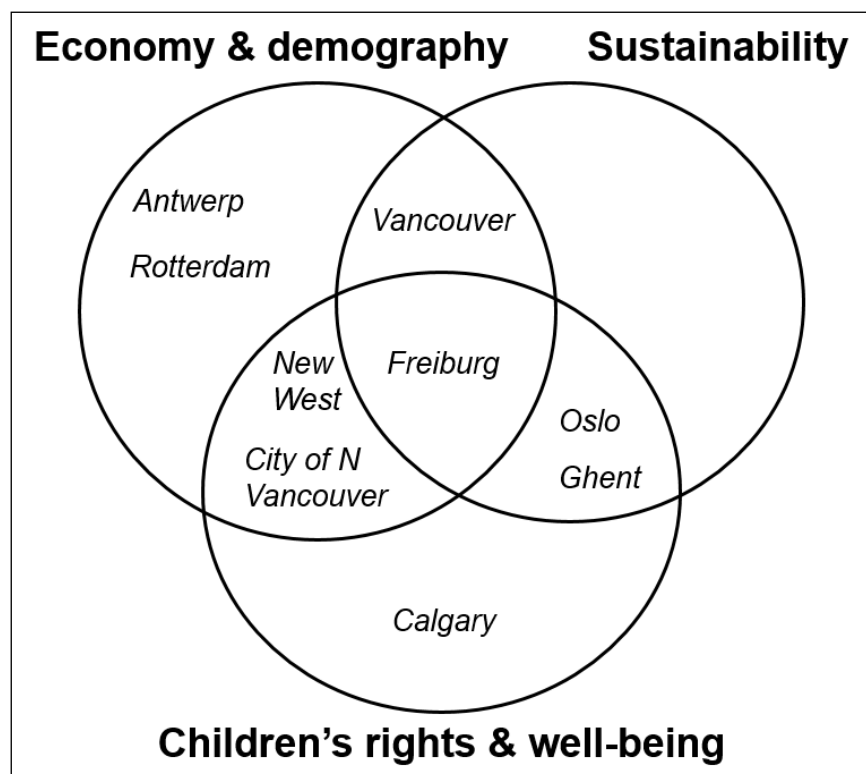
The table below gives a summary of the initiatives in each city.

Antwerp	A mainstream programme of neighbourhood-based public space improvements is backed by smart data and an effective public participation process.
Calgary	A Play Charter is beginning to build links with both progressive urban planning and innovative play space design.
City of North Vancouver	Public space and cycle infrastructure improvements are making a measurable and visible difference, thanks to effective officer-level coordination and political momentum.
Freiburg	Longstanding progressive planning and transport policies were informed by an academic study on children's play and mobility, leading to two new high-profile child-friendly neighbourhoods, with a third on the way. Initiatives in existing neighbourhoods are supported by a children's rights NGO.
Ghent	A city that prides itself on child-friendliness has a large and growing portfolio of initiatives under an umbrella action plan that enjoys strong political support, championed by a Green politician.
New Westminster	A strategic public space initiative has political momentum and cross-sector support, and (alongside housing policies) appears to be persuading more families with school-age children to stay in the city.
Oslo	A mobile phone resource, supported by funding for interventions, is an effective tool leading to physical changes in neighbourhoods. A separate web-based classroom participation tool is set to become more influential in the wake of national policy changes.
Rotterdam	Two ambitious, economically-driven municipal gentrification programmes with housing, schooling and public realm components have led to significant physical improvements in some targeted residential neighbourhoods, and appear to be succeeding in attracting affluent families and measurably improving child-friendliness.
Vancouver	Longstanding progressive planning and transport policies are having a continued influence, although public realm issues are being overshadowed by debates about housing and childcare.

Starting with the rationale behind each city's engagement, three overlapping strategic themes emerged. One theme saw a focus on children's rights and well-being. A second theme was around a city's economy and demography. A third theme saw cities make links between child-friendly initiatives and sustainability and environmentalism. As the Venn diagram below shows, most cities had multiple motivations for engagement.

Every city has seen visible improvements to the public realm, and at least four have had a longer-term, measurable impact on children and families. Approaches to implementation varied widely across the nine cities. Almost all have taken forward child-friendly public space initiatives. Seven have invested either in walking/cycling initiatives, or residential street initiatives.

Six cities have carried out meaningful, effective engagement with children. Six were founded on a clear municipal understanding of what constitutes a local neighbourhood. Four made links between their child-friendly urban planning and design work and housing policies that aimed to improve the supply of housing suitable for families. Four have published planning guidance for new developments, and four had targets or indicators in place to measure the outcomes/impact of initiatives. A political champion was evident in three cities.



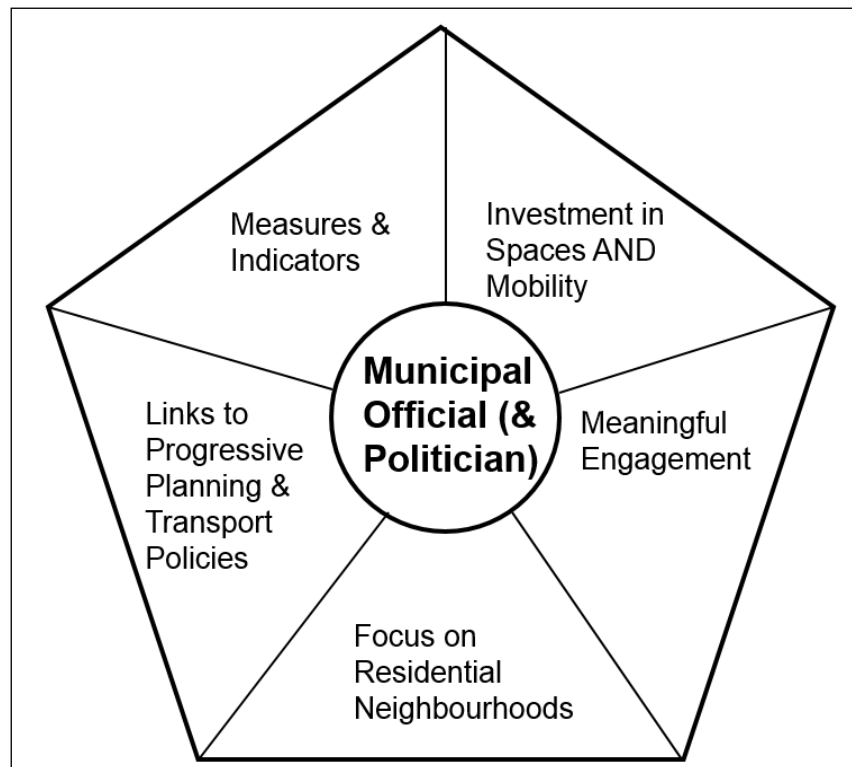
Rationale behind child-friendly urban planning and design initiatives

The varied nature of the cities studied shows the potential of the idea of child-friendly urban planning and design. The findings also show that it is an emerging concept that is being taken forward in diverse ways. While typically grounded in values around children's rights, it gains most traction when it is linked to other agendas such as sustainability, public health, or economic and demographic change.

The report's key conclusion is to set out a hub-and-spoke model of a well-formed child-friendly urban planning and design programme. This model – illustrated below – includes the following building blocks:

- An effective municipal officer who is well-placed to influence key departments and services (the hub) – ideally supported by a political champion;
- A focus on residential neighbourhoods;
- Investment in spaces for play and socialising, and in mobility, taking in play spaces, other public spaces, streets and walking and cycling to improve the 'children's infrastructure' in a neighbourhood;

- Meaningful, effective engagement with children;
- Clear links with progressive urban policies around public space and transport;
- Well-chosen measures and indicators.



Hub-and-spoke model of a child-friendly urban planning and design programme

In order to take forward this model, six recommendations are proposed:

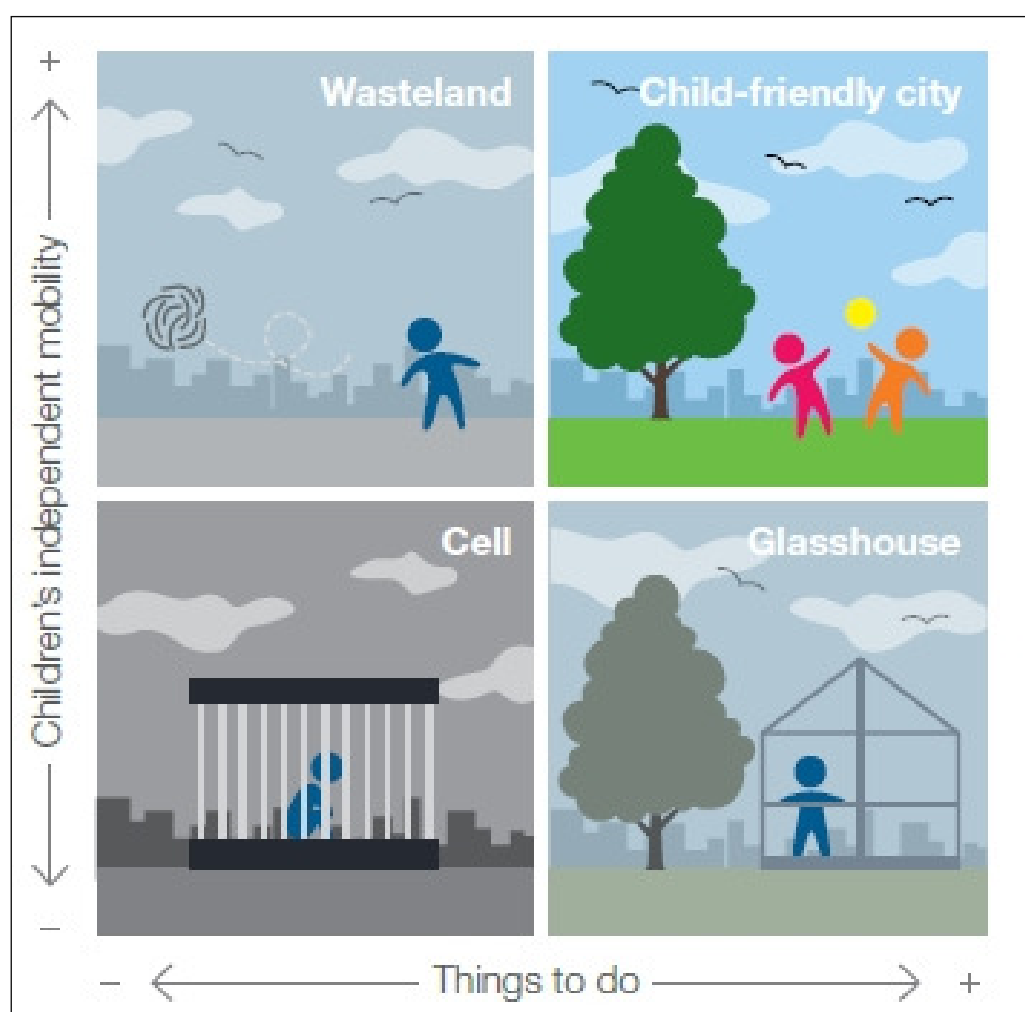
- 1) Create an officer-level municipal resource, ideally supported by a political champion, who is capable of building effective cross-departmental and cross-sectoral links;
- 2) Forge links between child-friendly urban planning and design, and municipal priorities around sustainability, demographic/economic change and public health;
- 3) Carry out well-planned engagement with children, to highlight local issues and concerns, and give impetus to programmes;
- 4) Review data on public health, family demographics and the child-friendliness of the public realm at the neighbourhood level;
- 5) Strengthen connections between child-friendly advocates and local public health, environmental and sustainability advocates;
- 6) Build effective evaluation into programmes.

1 Introduction

This report sets out the findings of a study tour of child-friendly urban planning and design in cities in Europe and Canada. It was supported by a Fellowship from the Winston Churchill Memorial Trust, awarded in 2017.

What is child-friendly urban planning and design?

Child-friendly urban planning and design is an evolving set of ideas about shaping cities so that children¹ are active and visible in the daily life of urban streets, parks, squares and other public spaces. It is a set of planning and design initiatives that take children's views and experiences seriously, and that aim to expand their opportunities to play and get around their neighbourhood and the wider city through built environment interventions.



The two dimensions of child-friendliness (diagram ©Arup: used with permission)

¹ In this report, the word 'child' denotes someone under the age of 18, in keeping with the United Nations Convention on the Rights of the Child. Some interviewees and initiatives use the word 'youth' to denote older children (typically over 11 years of age). The report respects this usage when using direct quotes. In addition, some initiatives use the term 'family-friendly' (perhaps in conjunction with 'child-friendly'). These two terms obviously have different meanings, because the interests of children cannot be assumed to be the same as those of parents or families. However, these differences are not explored further in this report.

Child-friendly urban planning and design embodies a view that the presence in the urban public realm of children of different ages, with and without parents or caregivers, is a sign of a healthy built environment, in the same way that the presence in a river of salmon is a sign of the health of that habitat.

“Children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all people.” Enrique Peñalosa, mayor of Bogotá²

Why does child-friendly urban planning and design matter?

There is a pressing need for solutions to poor urban planning. Cities that do not address environmental issues, mobility, public health, economic success, resilience, quality of life and community cohesion in equitable, inclusive ways will ultimately fail. There is also a need for clear narratives that provide insights and help navigate and resolve these complex, difficult urban issues.



Posters promoting policies to tackle air pollution in London and Greater Manchester

What is more, in many parts of the world the populations of cities are rising rapidly, and so are the numbers of children living in them. The United Nations

² Quoted in Arup (2017) *Cities Alive: Designing for Urban Childhoods*

estimates that by 2050 around 70% of the world's population will live in cities, and the majority of those urban residents will be under 18 years old.³

This is where child-friendly urban planning and design steps in. It makes the basic case for cities to be good places for children to live and grow up. It joins the dots between progressive, sustainable planning and transportation policies, and strengthens the arguments for them. Finally, it makes abstract urban policy debates more concrete, meaningful and engaging for ordinary people.

Historical context

Urban planning has its roots in creating better places for children and families. The Victorian town planning pioneer Ebenezer Howard's garden city movement embraced the planned city and its residential suburbs as a response to the failures of rapid urbanisation, and an answer to ordinary families' wish to live in clean, safe, green neighbourhoods. Today the planning consensus is that suburbanisation is a failed model for cities. Moreover, many children's rights and public health advocates argue that car-dependent residential neighbourhoods also fail to work for children.

Interest in children's and families' experiences of urban public space has ebbed and flowed. Leading post-war urban thinkers Jane Jacobs and Kevin Lynch were deeply concerned with the texture and fabric of urban families' lives. But their close observations and progressive arguments were ignored by policy makers at the time (though contemporary urbanists such as the Danish architect Jan Gehl have breathed new life into them). By the 1970s the writer and town planner Colin Ward was pessimistic about the experiences of urban children.⁴

In the 1980s a global child-friendly cities movement, inspired by Lynch and supported by UNICEF, shifted the focus onto children's rights and participation. But while this movement has generated some interest from academics and advocates, and the UNICEF accreditation model it gave rise to has been taken up by cities around the world, it has had very little influence on the built form of cities.⁵ Indeed some of the leading figures in participatory planning with children have raised questions about its emphasis on formal participation.

³ UNICEF (2013) *The State of the World's Children 2012: Executive Summary*; UN-HABITAT (2013) *Cities of Youth, Cities of Prosperity*

⁴ Jane Jacobs (1961) *The Death and Life of Great American Cities*; Kevin Lynch ed (1977) *Growing Up In Cities*; Jan Gehl (1971) *Life between Buildings*; Colin Ward (1978) *The Child in the City*

⁵ Kate Bishop and Linda Corkery (2017) *Designing Cities with Children and Young People: Beyond playgrounds and Skate Parks*

“Change and improvements to childhood participation in urban planning has been happening at a glacial pace.” Bishop and Corkery (2017)⁶

“We would do well to try to integrate our thinking on children’s formal participation with what is known of children’s informal participation and culture-building through play with their peers.” Roger Hart (2008)⁷

It is partly because of these critiques of children’s participation that this report takes a different approach, giving greater emphasis to children’s everyday lives and to measurable changes in the built environment. But this is not to say that the engagement of children should be ignored.

Children experience cities and neighbourhoods differently to adults. Their experiences, views and insights are both valuable and undervalued, on their own terms and as catalysts for debate and change. This report highlights the value of meaningful, effective engagement with children. Meaningful, effective engagement goes beyond tokenism, and recognises that consultation or participation exercises need to be linked to decision making as part of a wider initiative if they are to have a real impact.

Child-friendly urban planning and design now

For the most part, contemporary urban planning has taken little or no interest in children’s experiences or perspectives. In England, the topic enjoyed a brief period of attention as part of the Labour Government’s £235 million National Play Strategy (launched in 2008). In practice this strategy was dominated by a playground improvement programme, with each English top-tier municipality required to draw up plans to create or improve a minimum of 28 public playgrounds. Guidance materials and play awareness training for planners and highways officers were also rolled out. The Strategy is now long gone, while investment in playgrounds is falling.⁸ Built environment professionals have little interest in questions about play or child-friendly urban planning and design. This is partly a result of austerity. Post-crash planning priorities have focused on short-term economic growth at the expense of wider or more long-term goals. At the same time municipal planning, highways and parks departments have been hit hard by public sector cuts.

⁶ Kate Bishop and Linda Corkery (2017) ‘Designing for children: Beyond the playground’. <https://www.foreground.com.au/planning/theres-more-to-childhood-than-skate-parks-and-playgrounds/>

⁷ Roger Hart (2008) ‘Stepping Back from ‘The Ladder’: Reflections on a Model of Participatory Work with Children’. In A. Reid et al (eds) *Participation and Learning*.

⁸ ‘Play services decimated as funding slashed’, Children and Young People Now, 8 January 2014. <https://www.cypnow.co.uk/cyp/news/1141407/cyp-now-investigation-play-services-decimated-as-funding-slashed>

That said, with public sector finances stabilising and the economy seemingly on a more even keel, planning is emerging from the doldrums. London is arguably in the lead, with mayor Sadiq Khan's London Plan setting out a vision of 'good growth'. Other English cities are set to follow, including Greater Manchester and the West Midlands: two regions with new planning powers and recently-elected mayors.

In Wales and Scotland, the policy picture is a little more positive. Welsh municipalities have a duty to assess and secure the sufficiency of play opportunities. Hence some planning departments are becoming more engaged in the topic, although activity is limited by the lack of any targeted funding from the Welsh Government.

In Scotland, planning legislation going through the Scottish Parliament at the time of writing may impose similar duties on municipalities. There is also growing interest in the links between the built environment and public health. One expression of this is the development of a 'Place Standard' tool by NHS Scotland; 'play and recreation' is one of the 14 dimensions being assessed.⁹

Globally, there are signs of growing interest in the topic. Two of the countries visited (Norway and Germany) have legislation requiring municipalities to take into account the concerns and/or views of children. Children and youth are also a key theme in the UN's New Urban Agenda, launched in 2016.¹⁰ Other signs of interest include:

- The publication in 2013 of a General Comment from the United Nations Committee on the Rights of the Child on children's right to play;¹¹
- The 2016 launch of a global initiative by the Bernard van Leer Foundation called Urban95, which invites decision makers to see cities from 95 cm (the average height of a healthy three-year-old child);¹²
- The publication in 2017 by the global planning and engineering consultancy Arup of the report *Cities Alive: Designing for Urban Childhoods*, which introduced the term 'children's infrastructure' to describe the network of spaces, streets, nature and interventions that make up the key features of a child-friendly city;

⁹ <http://www.healthscotland.scot/tools-and-resources/the-place-standard-tool>

¹⁰ <http://habitat3.org/the-new-urban-agenda>

¹¹ <http://www.refworld.org/docid/51ef9bcc4.html>

¹² <https://bernardvanleer.org/solutions/urban95/>

- The 2018 relaunch by UNICEF of its Child-Friendly Cities programme, along with a new policy and practice guide aimed at urban planners and designers.¹³



This project

The overarching aim of this project is to show the relevance of child-friendliness to UK and global debates on urban planning. My ultimate goal is to see more decision-makers - in my own country and around the world - taking forward policies to make the urban fabric of cities more child-friendly.

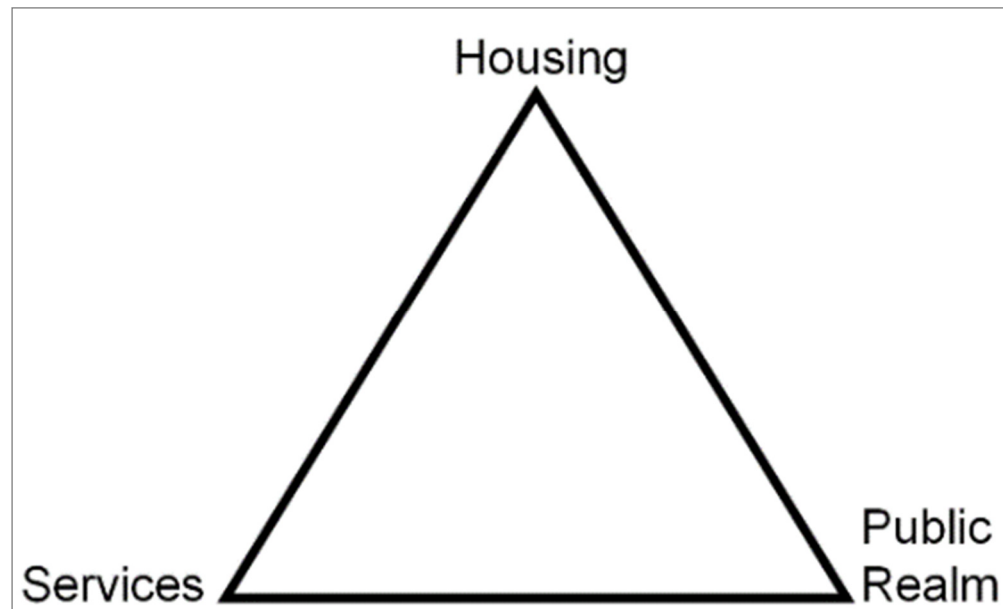
My objectives are:

- To promote a better understanding of what child-friendliness is and why it matters in urban planning and design;
- To build the evidence base for the links between child-friendly urban planning and design and public policy outcomes;
- To show how decision makers can engage more with child-friendly urban planning and design approaches.

The project's primary focus is on the public realm. This is typically understood as the outdoor space between buildings that is publicly accessible, including streets, squares, parks, playgrounds and other public open spaces. The project also considers semi-private outdoor spaces such as courtyards in residential blocks.

¹³ <https://childfriendlycities.org/resources/>; UNICEF (2018) *Shaping Urbanization for Children: A handbook on child-responsive urban planning*

The quality of the public realm is not the only factor that makes cities work well (or not) for children and families. Former Vancouver chief planner and leading proponent of family-friendly planning Brent Toderian argues that three ingredients are needed: suitable, affordable housing; good quality schools, childcare and other public services; and a welcoming, accessible, engaging public realm.¹⁴



The three pillars of family-friendly areas (based on the work of Brent Toderian)

Furthermore, these three pillars of family-friendly neighbourhoods are interconnected in sometimes complex ways. Housing design has an impact on the amount, accessibility and quality of public space. Improving housing for families will increase demand for, and pressure on, schools and public spaces. Improving the public realm may push housing costs up, creating barriers for some families or even pushing poorer families out.

This project sees the municipality as the 'unit of analysis'. The reason for this is that the most relevant policy tools, and the main local services like parks, schools, housing, planning and transport, all typically reside at the municipal level (though with some variations). Municipal activity is of course shaped by national governments and other bodies. But it is at the municipal level where there is the most scope for action.

Cities visited

Funding from the WCMT allowed me to visit nine municipalities: Antwerp, Calgary, Freiburg, Ghent, Oslo, Rotterdam and three municipalities in the Metro Vancouver area: City of North Vancouver (not to be confused with District of North Vancouver, a neighbouring municipality), New Westminster

¹⁴ 'Young families typically leave cities for the suburbs. Here's how to keep them downtown.' David Roberts, Jun 11 2018. <https://www.vox.com/2017/6/21/15815524/toderian-families-cities>

and the City of Vancouver (henceforth referred to as Vancouver). The Canadian cities were visited in September 2017 and the rest in February and March 2018.

The selection was based upon my knowledge and networks, rather than the application of objective criteria. Each city has carried out significant work on making their public realm more child-friendly, and has moved beyond pilot schemes and participation processes (important though these are) and into the delivery of more strategic initiatives. Table 1 below sets out briefly why each city was selected.

Table 1: Topics of interest

Antwerp	Neighbourhood-based, child-friendly public realm improvement programme
Calgary	Developing citywide play strategy
City of North Vancouver	Cross-departmental, strategic child, youth and families initiative
Freiburg	Large-scale masterplanning of 3 residential neighbourhoods
Ghent	Cross-departmental, strategic children and youth initiative
New Westminster	Strategic initiatives on children and youth, and family-friendly housing
Oslo	Use of mobile phone app to map children's routes and views; implementation of legal duty to involve children in planning
Rotterdam	Strategic programmes to improve neighbourhoods and make them attractive to more affluent families
Vancouver	Planning and designing for families in high density contexts

My study tour aimed to give an overview of what has happened in each city, to search for insights, and to offer lessons for others. A varied set of case studies were chosen (in terms of both the initiatives themselves and the cities' size, built form, and geographical and political context). There is no suggestion that the cities selected are the best places for children to grow up, or have the most child-friendly public realms.

I spent about a week in each city. Meetings were arranged with key decision makers, managers and advocates. I made visits to exemplary projects and sites, gathered evidence of positive outcomes and impact, and collected and analysed relevant documentation.

It was not possible to gain a comprehensive overview of activity in each city. Time constraints forced me to set priorities. In some cases people had moved on and initiatives had evolved. Sadly in Freiburg, my key contact, Prof Baldo Blinkert, passed away a few months before my visit. I was not able to arrange meetings with elected politicians in Oslo (due to unavailability) and in Calgary

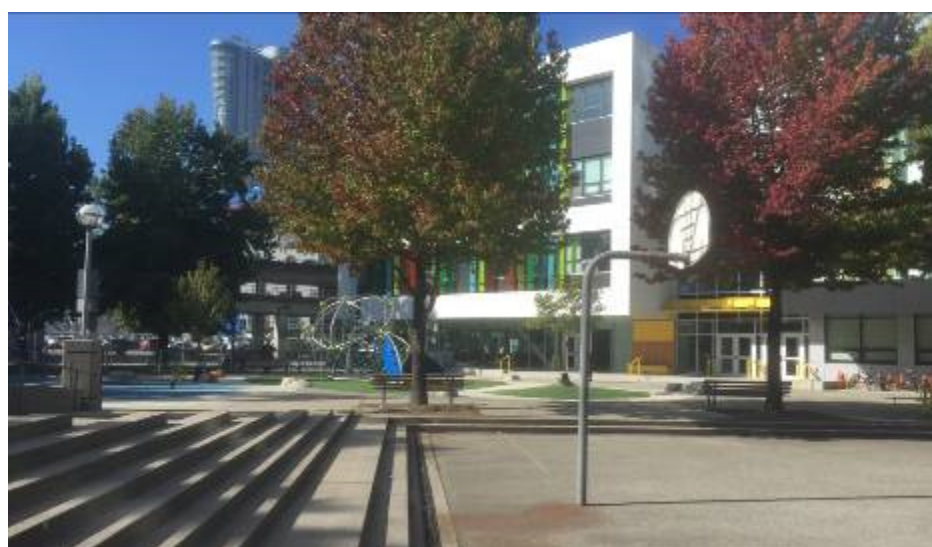
and Rotterdam (due to local elections). Local elections were also taking place in Freiburg; while I could not meet any politicians from the ruling coalition, I did meet two other politicians.

It was not always easy to identify key activities and initiatives. In some cities (such as Ghent) child-friendly approaches are well embedded and supported, and pulling out discrete initiatives and interventions proved difficult. Some cities have progressive planning policies that, while not framed as child-friendly, undeniably help secure a more child-friendly public realm. In such cases, this report focuses on intentionally child-focused initiatives. However, the relevance and impact of other initiatives are also explored.

Each city's activity needs to be seen in context. Cities and municipalities are complex, and vary widely. Many contextual factors have an influence on potential and actual activity. Table 2 below illustrates some of the factors, mentioned in interviews, which were relevant to the evolution of initiatives in some or all of the cities visited. There are doubtless many others.

Table 2: Moderating factors

City geography	City administration	National laws & culture
Population density	The political cycle	Laws on participation
Demographic trends	School governance	Length of the school day and week
Climate	Public transport governance	Public access to schoolyards
Land use patterns	Role and influence of NGOs	Outdoor and free time culture
Employment & economy	Municipal finances	Litigation culture
Distribution of public space	Public space management	Culture and regulations around use of public space



Crosstown Elementary in Vancouver; the schoolyard is open to the public

Children's participation in this project

Historically, participation has been seen as a defining feature of child-friendly cities (as in the UNICEF programme discussed above). Yet as noted, the impact of participatory programmes on the built environment has been limited. One of the motivations for this study has been to widen the debate around the form and content of child-friendly cities initiatives in the light of this.

When children around the world are asked for their views and concerns about the built form of cities, their responses are highly consistent.¹⁵ They value safety and free movement, and want green spaces and places to meet their peers. They dislike litter, heavy traffic and lack of choice about places for playing and socialising. Given the universality of these findings, this study focused on the approaches each city took to children's engagement.

However, another common finding from participation exercises is the depth of children's understanding, knowledge and insights about their own neighbourhoods: something that adults may underestimate. This study aimed to capture some of these perspectives.

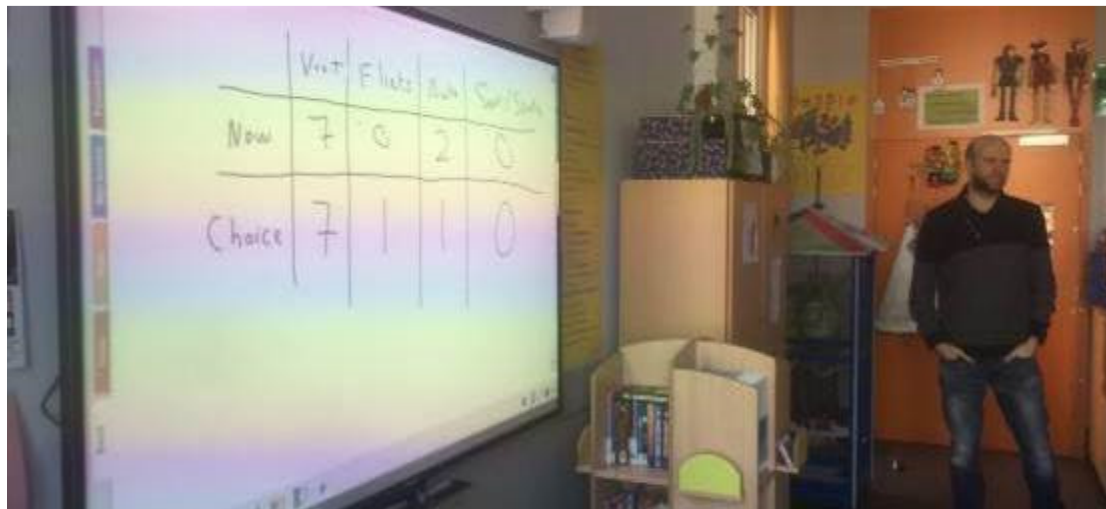
"With their different height and knowledge of traffic, children would have a different view of traffic to grown-ups." Oslo Trafikkagenten team

My hope was to arrange neighbourhood tours in each city with groups of children. Sadly, challenges around permissions and safety concerns meant this was not possible. Nonetheless, in a majority of cities I did engage with at least some children, and around 50 overall. Table 3 below gives more detail. As well as confirming the picture of children's concerns already noted, these sessions provided a sense-check to the interviews and site visits, and offered insights into the children's everyday lives in their neighbourhoods.

Table 3: Engagement with children

Antwerp	Session with a class of around 20 8-9 year olds at an elementary school exploring their views about their neighbourhood; short interviews with two or three 8-year-olds at a second school about their schoolyard improvement project.
Calgary	Session with six 11-13 year-olds at Bob Bahan Activity Centre, Forest Lawn, exploring their views about their neighbourhood.
Freiburg	Session with a class of around 20 7-10 year olds at an elementary school exploring their views about their neighbourhood.
Rotterdam	Short interviews with two 10-year-olds at an elementary school about their schoolyard improvement project.
Vancouver	Interview and neighbourhood walk with an eight-year-old boy.

¹⁵ Claire Freeman and Paul Tranter (2011) *Children and their Urban Environment: Changing worlds*; Kathrin Horschelmann and Lorraine Van Blerk (2011) *Children, Youth and the City*



Session at Kleine Muze Elementary School, Antwerp

2 Findings

This section gives a thematic overview of the rationale, activities and results of child-friendly urban planning and design initiatives across the nine cities, highlighting both commonalities and differences.

2.1 Children's views

It is appropriate to start with a summary of the views of the children I met (for more detail see the extended city summaries in Appendix 1). The sessions and interviews rebut the ideas that children do not care about the world beyond home and school, and that they are completely immersed in their digital and online worlds. In fact, the opposite is the case. All the children interviewed were concerned about their neighbourhoods, had clear views about its good and bad points, and supported and appreciated adult efforts to engage with them and improve things.

The children's views chimed with the findings of children's engagement exercises elsewhere. Green spaces and places to meet their friends and peers, and safety and ease of movement, are highly valued. They dislike litter, heavy traffic and a lack of choice of places to go. One overriding message was the importance of proximity: for children, what is most important is what is nearby.

"Sometimes people speed up – sometimes they go really fast on the road outside my house." Mathias Sully (aged 8), Vancouver

"We like the changes to our playground because there are more things to do, like swinging and climbing up a wall. It is more beautiful and green." Zorro and Amin (aged 10), De Schalm Elementary School, Rotterdam



Notes of session at Bob Bahan Activity Centre, Calgary

2.2 City Summaries

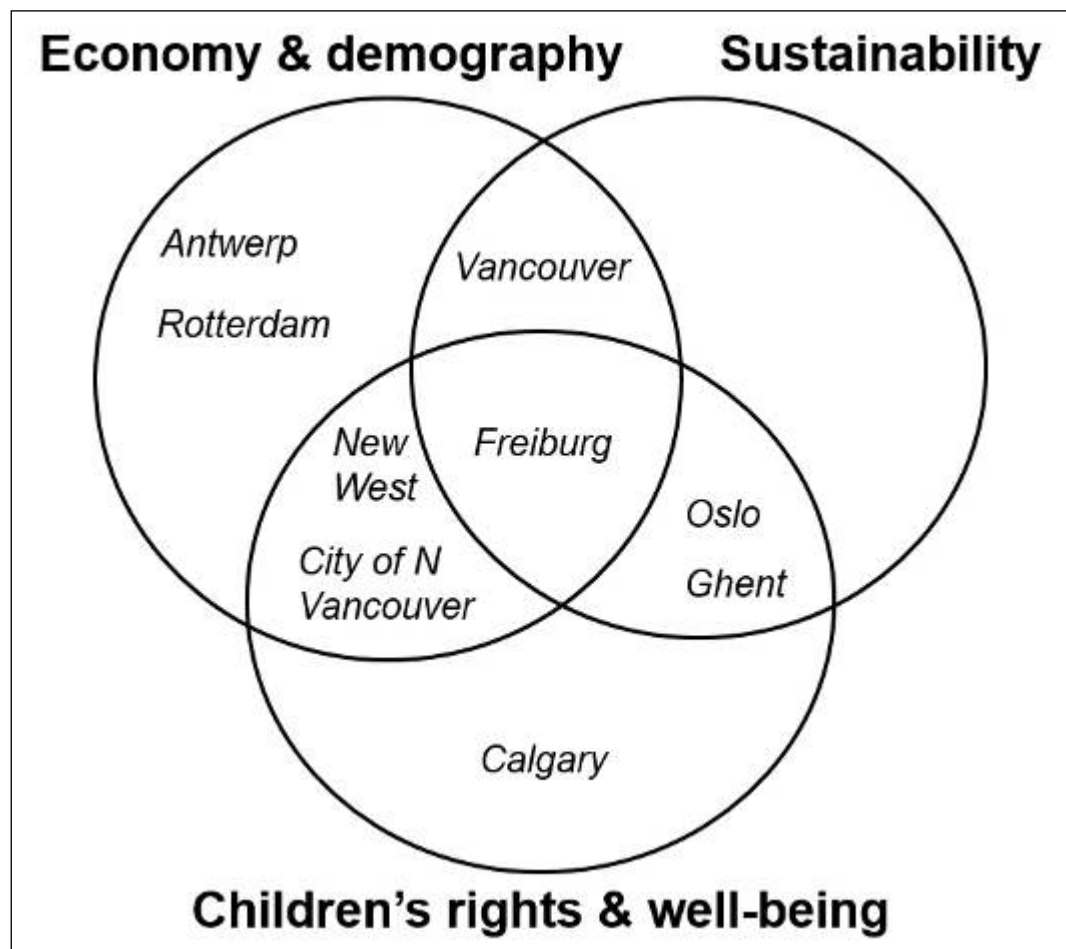
Table 4 below gives short summaries of the child-friendly urban planning and design initiatives being undertaken in each city. A more detailed city-by-city summary, with some contextual discussion, is given in Appendix 1.

Table 4: Short summaries for each city

Antwerp	A mainstream programme of neighbourhood-based public space improvements that began in 2006 is backed by smart data and an effective public participation process.
Calgary	A Play Charter launched in 2017 is building links with both progressive urban planning and innovative play space design.
City of North Vancouver	Public space and cycle infrastructure improvements since 2014 are making a measurable and visible difference, thanks to effective officer-level coordination and political momentum.
Freiburg	Longstanding progressive planning and transport policies were informed by a landmark 1993 academic study on children's play and mobility, leading to two new high-profile child-friendly neighbourhoods in the 1990s/2000s, with a third on the way. Initiatives in existing neighbourhoods are supported by a children's rights NGO.
Ghent	A city that prides itself on child-friendliness has a large and growing portfolio of initiatives under a 2015 umbrella action plan that enjoys strong political support, championed by a Green politician.
New Westminster	A 2016 strategic public space initiative has political momentum and cross-sector support, and (alongside housing policies) appears to be persuading more families with school-age children to stay in the city.
Oslo	A mobile phone resource launched in 2015, supported by funding for interventions, is an effective tool leading to physical changes in neighbourhoods. A separate long-established web-based classroom participation tool is set to become more influential in the wake of national policy changes.
Rotterdam	Two ambitious, economically-driven municipal gentrification programmes going back to 2006 (with housing, schooling and public realm components) have led to significant physical improvements in some targeted residential neighbourhoods, and appear to be succeeding in attracting affluent families and measurably improving child-friendliness in several neighbourhoods.
Vancouver	Longstanding progressive planning and transport policies stemming from the 1970s and revamped in the 1990s are still having an influence, although public realm issues are being overshadowed by debates about housing and childcare.

2.3 Rationale

Turning to the rationale behind each city's engagement, three overlapping strategic themes emerged (summarised in the Venn diagram below).



Rationale behind child-friendly urban planning and design initiatives

One theme saw a focus on children's rights and well-being. Six of the cities made explicit reference to children's rights (either the UN Convention on the Rights of the Child or local/regional variants). One (City of North Vancouver) also made links with children's health and well-being agendas.

"The municipality has a particular responsibility to ensure the active participation of groups that require special arrangements, including children and adolescents." The Norwegian Planning and Building Act 2008, Section 5-1

"It's really important to have structures and strategies, and to create duties and obligations. It should not just depend on a mayor. If there's an election, the work is gone. You've got to have it anchored: written into law."
 Peter Höfflin, academic and community activist,
 Freiburg

A second theme, also mentioned by six cities, was around a city's economy and demography, with goals typically focusing on attracting and retaining families. For some cities this had a strong economic dimension. In Rotterdam (the city that invested more in child-friendly urban planning and design than any other in this study) their programmes added up to a sustained and targeted form of municipally-sponsored gentrification. In contrast, for all three metro Vancouver municipalities the goal was more around maintaining a balanced demographic mix in the face of rising housing costs that were pushing families out.

"We do not want to be a city of hipster millennials and rich, cashed-out tech entrepreneurs. We need the Vancouver we all grew up in to be one that families starting now can have the opportunity to feel the same way about." Cllr Andrea Reimer, Vancouver

"You've got to build places that people love, and want to be at, and want to hang around at, and can interact with one another. Because we are living closer, we are living denser, we embrace diversity and inclusion. It's a value that we hold dearly." Cllr Linda Buchanan, City of North Vancouver

The final theme saw four cities make links between child-friendly initiatives and environmental sustainability. In Oslo, the main focus was on sustainable transport. Other cities focused on green public space and sustainable urban development.

"When we ask children and young people how can we make a better city they say three things: more green areas, more space to play, and fewer cars. The things that children want are the same things my party wants. We want less cars because of the clean air, because of the living quality in our city, and we find sustainability very important." Alderman Elke Decruynaere, Deputy Mayor of Ghent

Thus most cities had multiple motivations for engagement. A majority of cities (though not all) made reference to children's rights, showing the continued importance of rights-based arguments and agendas some decades after the emergence of the UNICEF child-friendly cities movement. However, only Calgary planted its flag solely in this territory - and unlike the other cities, urban planning/public realm initiatives have so far been a very minor part of its activity.

2.4 Implementation model and resource allocation

Approaches to implementation varied widely across the nine cities. Table 5 below shows the municipal resources allocated.

Table 5: Municipal resources

	Municipal officer time	Other budget/s (£ equivalent)	Notes
Antwerp	1 full-time equivalent (fte)	£1.17m annual capital budget	Supported by youth participation officers; new developments may receive additional funds
Calgary	£90,000 total funding over 3 years from an external source (the Lawson Foundation). Resources focus on recreation programmes.		
City of North Vancouver	1.5 fte (including placemaking initiative)	£29,000 for consultancy; £10,000 for programming	Supported by cross-sector task group; operational departments control key budgets
Freiburg	None identified	None identified	Activity is led by local children's rights NGO; operational departments control key budgets
Ghent	1 fte to oversee strategy, 3 fte for implementation	No dedicated budgets	Operational departments control key budgets
New Westminster	At least 1/3 fte	Not available	
Oslo	3 fte for smartphone app project; staff support for online participation tool not identified	£460,000 annual budget for improvements (smartphone app project)	Smartphone app project development cost: £330,000
Rotterdam	1 fte manager plus other officers (details not available). Budgets £1.6m/year (2014-2018); £4.4m/year (2006-2010); capital/revenue split not available		Not all the budgets went on public realm initiatives
Vancouver	None identified	None identified	Municipality supports an advisory committee with representation from children and young people; operational departments control key budgets

Seven cities –Antwerp, Calgary, City of North Vancouver, Ghent, New Westminster, Oslo and Rotterdam - had municipal, officer-level positions that focused on child-friendly initiatives. In Antwerp and Ghent the post/s were established positions within the municipal staffing structure, while in the others

they were targeted or time-limited. The officer time allocated varied from 1/3 full-time equivalent (fte) in New Westminster to 4 fte in Ghent. It is likely that Rotterdam's officer allocation exceeded this, although firm figures were not available.

The budgets created for physical changes ranged from zero (in Ghent, Freiburg and Vancouver, which all focused on influencing mainstream policies and programmes) to several millions of pounds/Euros per year (in Antwerp, and likely Rotterdam, although a capital/revenue split was not available).

2.5 Key features

Turning to the key features of the initiatives, a mixed picture again emerges (summarised in Table 6 below). In all nine cities, the initiatives have led to some visible, physical changes to their public realm. With the exception of Oslo, all the cities visited have taken forward child-friendly public space initiatives (in some cases as part of mainstream departmental work).

All cities showed some appetite for design innovation (for example through taking forward naturalistic play spaces, or more challenging equipment). However, in other respects the approaches to public space design deviated. Rotterdam was moving away from dedicated play spaces altogether, instead aiming for more multifunctional social spaces. By contrast, in Vancouver the trend was towards greater partitioning of public spaces, in response to demand from different sections of the community.

“If you go down to Hinge Park, there’s the dog run, and the school play, and there’s the passive play, and there’s the garden plots. There’s so much pressure on the places and there’s so many vocal groups.” Kirsten Robinson, planner, Vancouver



Ter Heydelaan playground, Antwerp

Seven cities invested in either walking/cycling initiatives that have a child-friendly aspect (for example all age and ability cycle infrastructure) or in residential street initiatives such as play streets (short-term road closures to encourage outdoor play). Thus a clear majority of cities are looking well beyond parks and dedicated play spaces, and by implication rejecting the view that improving the child-friendliness of the public realm means restricting children to ‘play ghettos’.

Table 6: Key features of activities and initiatives

	Antwerp	Calgary	City of N Vancouver	Freiburg	Ghent	New West	Oslo	Rotterdam	Vancouver
Public space initiatives	✓	✓	✓	✓*	✓	✓		✓	✓
Dedicated officer time	✓	✓	✓		✓	✓	✓	✓	
Meaningful engagement	✓		✓	✓	✓	✓	✓		
Neighbourhood framework	✓	✓		✓	✓			✓	✓
Links to housing initiative/s				✓		✓		✓	✓
Planning guidance		✓**					✓	✓	✓***
Targets or indicators	✓					✓	✓	✓	
Walking/cycling initiatives			✓			✓	✓		✓
Residential street initiatives	✓				✓			✓	
Children’s strategy			✓		✓	✓			
Political champion		****	✓	****	✓	✓	?	****	

* Strategic playground refurbishment programme from the mid-1990s to c2010

** Does not have a strong focus on play space

*** Focuses on high-density developments; last published in 1992 and is under review

**** Elections were underway in these cities at the time of my visit, making it difficult to explore the degree of political support

Six cities have carried out meaningful, effective engagement with children. In some cases engagement is ongoing, and a key part of the initiative (as with Antwerp’s neighbourhood improvement programme, Oslo’s Trafikkagenten and the work of Freiburg’s Kinderbüro). In City of North Vancouver and New Westminster large-scale, one-off participation exercises shaped subsequent

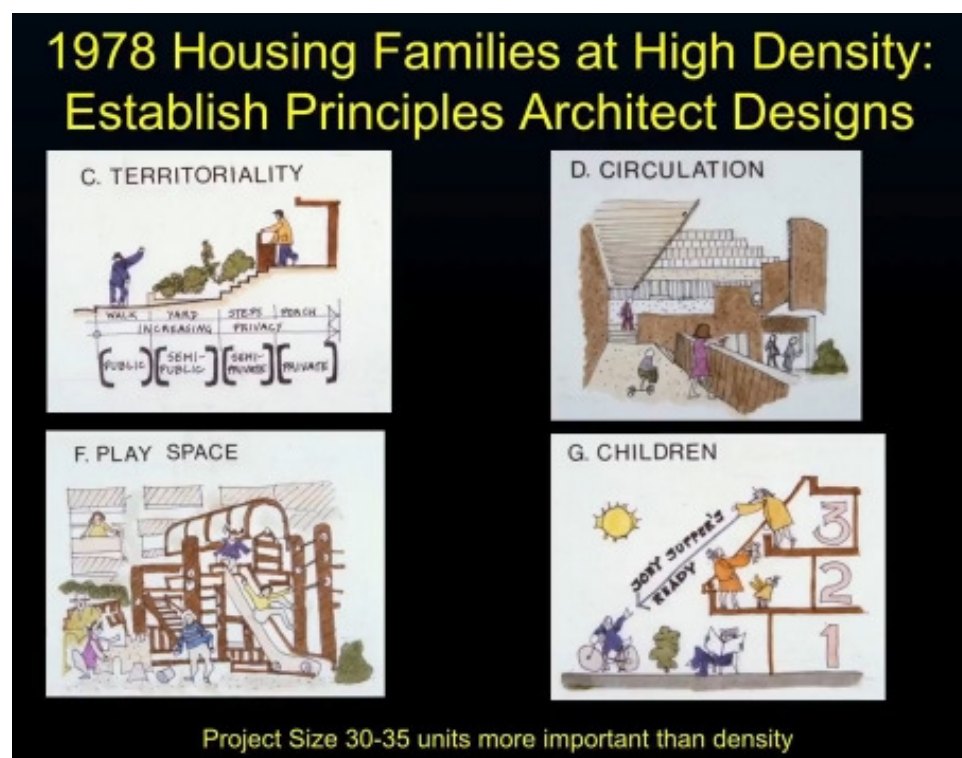
activity. In the case of Freiburg, a major academic study into children's play and mobility influenced the city's planning policies.

Six cities also highlighted the role in planning and delivery of a clear municipal understanding of what constitutes a local neighbourhood. This matters because children, with their limited mobility, experience cities at the neighbourhood scale to a greater extent than adults. Hence if initiatives are to have an impact on significant numbers of children, and to be sensitive to equity and accessibility, they need to reflect the neighbourhood structure of the city (especially its pattern of residential neighbourhoods).

"You have to talk about the residential areas because that's where people grow up." Miranda Nauta, urban management consultant, Rotterdam

Four cities (Freiburg, New Westminster, Rotterdam and Vancouver) made significant links between their child-friendly urban planning and design work and housing policies that aimed to improve the supply of housing suitable for families. Not surprisingly, these cities are all grappling with strategic challenges around rapidly changing populations and demographics.

Four cities have in place published planning guidance for new developments. Rotterdam developed new planning guidance as part of its first child-friendly cities initiative. In the case of the other three cities (Calgary, Oslo and Vancouver) the guidance had been in place for some years (though Vancouver's guidance is under review).



Slide from presentation by Ann McAfee, former Vancouver planner

Only four of the nine cities had targets or indicators in place to measure the outcomes/impact of initiatives. Section 2.6 below discusses outcomes and impact in more detail.

A political champion was evident in three cities: City of North Vancouver, Ghent and New Westminster. However, this may be an underestimate; as noted above, in three more cities local elections prevented me from interviewing politicians. Nonetheless, while having a political champion is clearly an asset, it is not an essential feature. In at least two cities (Antwerp and Oslo) the impetus came from officials, rather than elected decision-makers. City of North Vancouver, Ghent and New Westminster had also adopted some form of strategic plan around children and young people that engaged with planning and design issues.

2.6 Outcomes and impact

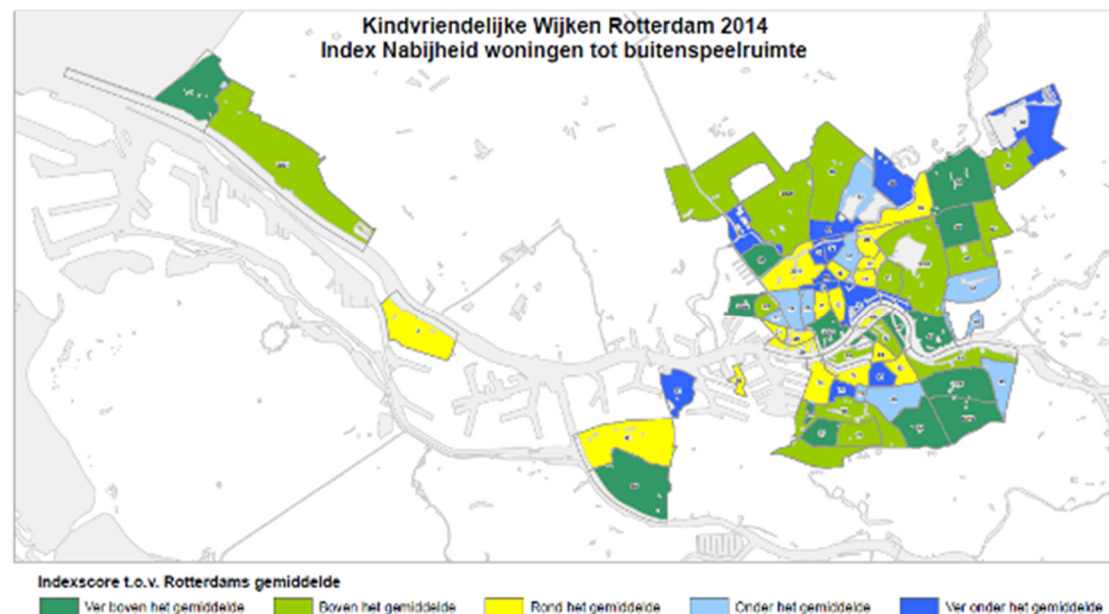
Overall, every city has seen visible improvements to the public realm, and at least four (Antwerp, City of North Vancouver, New Westminster and Rotterdam) have had a longer-term, measurable impact on children and families. However, the approach to evaluation varied widely. In two cases (New Westminster and Rotterdam) some of the targets were closely linked to strategic aims, and spoke to the political profile of the initiatives.

Rotterdam had the most comprehensive approach to monitoring and evaluation. In the cases of Antwerp and Oslo, indicators were more operational. Table 7 below summarises the outcomes and impact of the initiatives in each city.

Table 7: Outcomes & impact

Antwerp	Measurable increases in accessibility of play space across the city. Visible improvements to play spaces; bespoke, site-specific designs were common.
Calgary	Two new naturalistic play spaces created.
City of North Vancouver	Measurable increases in levels of walking/cycling to school. Visible improvements to play spaces, public spaces and trails.
Freiburg	Masterplanned neighbourhoods with lively, liveable public realm that promotes outdoor play, walking and cycling; bespoke, naturalistic play spaces and features were the norm.
Ghent	Visible improvements to spaces, streets and walking and cycling networks in many neighbourhoods, including 10 'playable parklets', play interventions in the inner city and play offers in new parks. Frequent use of bespoke, site-specific designs. The Rode Loper is a major public space initiative in a regeneration area, with a strong child-friendly component.

New Westminster	Increases in enrolment of schoolchildren (bucking the trend of comparable municipalities). Visible improvements to play spaces with several bespoke, site-specific designs.
Oslo	4,000-plus Trafikkagenten reports from children, with 300+ resulting actions by the City Council, including influencing 50+ traffic schemes. Visible improvements to routes and crossings in several areas. Children's Tracks used in at least two sites.
Rotterdam	Increased numbers of affluent families in targeted neighbourhoods. Subjective and objective measures of child-friendliness improved in four of the nine targeted neighbourhoods, and were stable in four more. Visible improvements to public spaces and streets.
Vancouver	Improvements to cycle routes. Several bespoke, innovative play spaces.



Rotterdam play space planning norm guidance, showing performance against spatial targets

3 Conclusions and Recommendations

3.1 The state of child-friendly urban planning and design

For most municipalities, children's experience of the city's public realm is a niche interest, as already noted. Yet for the nine cities explored in this report, it is the common thread. These nine cities vary widely in their size, histories, politics, populations and geographies. Yet they face similar challenges to many cities in the UK and other high income countries, be they around changing demographics, sustainability or public health. The fact that such a varied selection of cities has identified child-friendly urban planning and design as a priority shows the potential of the concept.

That said, child-friendly urban planning and design is an emerging set of ideas, and is at an early stage in its evolution. Only two of the cities studied (Freiburg and Vancouver) can claim to have engaged seriously with the concept for much longer than a decade.



One of Freiburg's first nature playgrounds (photo taken in 2005)

This report reveals a diverse set of municipal stories, rather than a homogeneous agenda following a shared, tried-and-tested blueprint. What is more, the patchy nature of evaluation across the nine cities leads to a partial picture of the outcomes and impact of initiatives (though the emerging picture is encouraging).

One prominent feature of these municipal stories is that child-friendly urban planning and design gains most traction when it is linked to other agendas. As noted in the introduction, a stand-alone children's rights position (as set out in

the UNICEF model for child-friendly cities, for example) has had limited impact on the urban public realm. This should not be a surprise, given the complexity of urban planning and the competing pressures facing urban decision-makers and designers.

In terms of UK cities, the links with sustainability and health agendas are highly relevant, especially given the widespread challenges of air pollution, traffic growth and activity-related illnesses including diabetes and heart disease. What is more, the economic and demographic arguments are relevant to any city with an interest in growing and retaining its city centre population. Newcastle, Bradford, Leeds, Manchester, Liverpool, Sheffield, Birmingham, Leicester, Milton Keynes, Cardiff and Southampton have all seen their city centre populations grow by at least 88% between 2002 and 2015.¹⁶ This is mostly driven by an influx of young professionals, a large proportion of whom will go on to have children. Any municipality that wants to persuade them to remain downtown and not move to the suburbs is going to want to look at the child-friendliness of their city's public realm (as Vancouver did decades ago).

“As part of our sustainability approach we are looking at a diversity of ways around the neighbourhood. So there’s the separated waterfront walkway/bikeway. And we’ve designed a number of streets to have separated bike facilities... We’ve been pleasantly surprised at the number of children and families that are choosing to move here.” Kirsten Robinson, planner, City of Vancouver

3.2 Proposed model

One recurring theme of my study was the pivotal role of the lead municipal officer. Wim Seghers in Antwerp, Heather Cowie in Calgary, Juliana Buitenhuis in City of North Vancouver, Marianne Labre in Ghent and John Stark in New Westminster all share a commitment to improving the lives of children, and the ability to work effectively to achieve change. The same appears to be true of Vibeke Fredrikke Rørholt in Oslo, the driving force behind Trafikkagenten (who I was sadly unable to meet). This description also fits the historic achievements of Eva Almhjell in the development of Children's Tracks in Norway in the 1970s and 1980s.

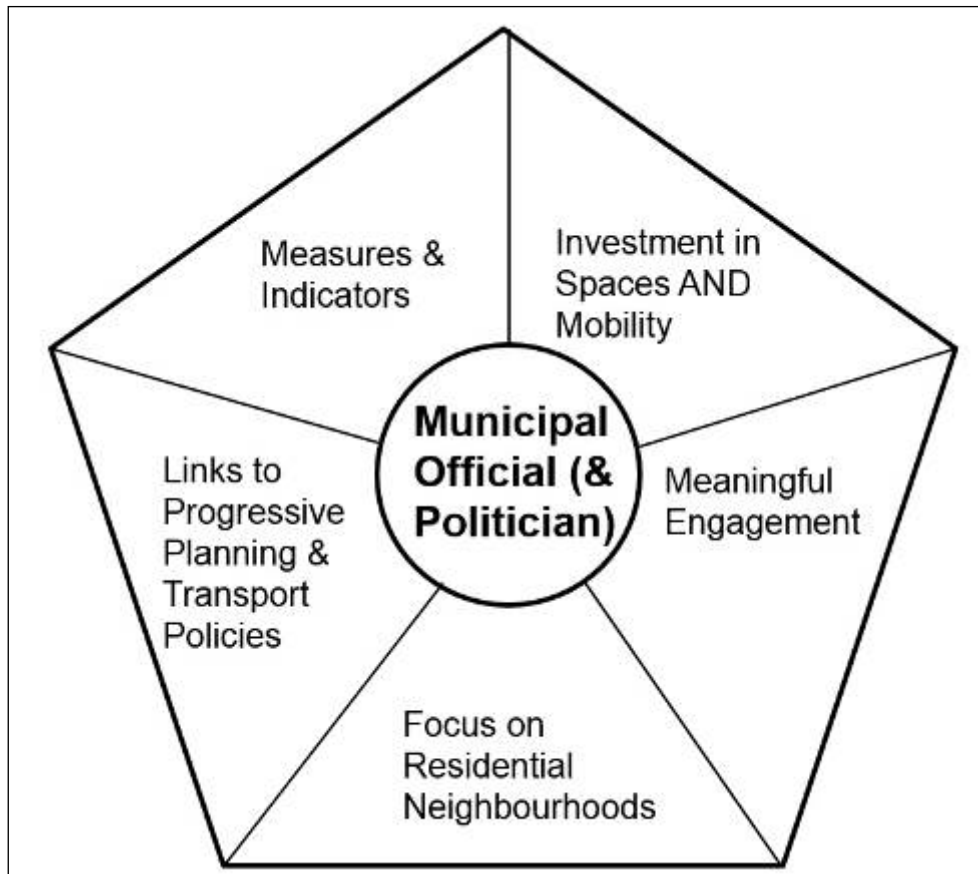
In Freiburg, Rotterdam and Vancouver, there was no current municipal officer who could be described as pivotal in quite the same way. My interviews suggested that such people may have been a key element in the evolution of these cities' initiatives. For example, in Vancouver former planners Ann McAfee (in the 1970s), and Brent Toderian (in the 2000s) were both highly influential in that city's work on family housing at high densities. Meanwhile in

¹⁶ 'The UK's rapid return to city centre living.' Paul Swinney & Andrew Carter, Centre for Cities. <https://www.bbc.co.uk/news/uk-44482291>

Freiburg, former head of Parks Bernhard Utz (who I met on a study tour in 2005) was one of the architects of that city's innovative naturalistic approach to playground design, initiated in the late 1990s. Time limitations meant I was not able to study these historical perspectives in detail. Nonetheless there are strong grounds for arguing that a well-formed child-friendly urban planning and design programme has at its heart an effective, well-placed officer resource.

Hence a hub-and-spoke model for child-friendly urban planning and design is proposed. At the centre of the model is an officer-level resource, ideally supported by a political champion. In addition to this human resource, the following five spokes or building blocks are proposed:

- A focus on residential neighbourhoods;
- Investment in spaces for play and socialising, and in mobility, taking in play spaces, other public spaces, streets and walking and cycling to improve 'children's infrastructure' in a neighbourhood;
- Meaningful, effective engagement with children;
- Clear links with progressive urban policies around public space and transport;
- Well-chosen measures and indicators.



Hub-and-spoke model of a child-friendly urban planning and design programme

3.3 Challenges

From a UK perspective, perhaps the biggest challenge facing child-friendly urban planning and design is resources. Municipal austerity has weakened a local government system that is already less influential than in some other countries because of constraints on municipal powers (e.g. taxation) and freedom of action. However, as noted, there are modest signs of improvement in at least some regions.

A second challenge is around equality and fairness. Poverty is a persistent problem in all nine cities visited, and many interviewees raised concerns about unequal access to a child-friendly public realm. This challenge is heightened by patterns of gentrification. The arrival of more wealthy families into traditionally poorer parts of cities can lead to increased demands for improvements to streets and public spaces, and perhaps greater community capacity to influence municipalities. Indeed in Rotterdam affluent families are being actively recruited to take a leading role in public realm initiatives. However, these changes have the potential to force out poorer families if market forces push up housing costs. They may also widen the divide between such areas and other neighbourhoods.

“We get a lot of emails from schools just outside the promising neighbourhoods with a lot of children, and poor public space. I hope the results of this project will create possibilities for them in the near future, because they also can use a green playing environment.”

Miranda Nauta, urban management consultant,
Rotterdam

“The “catch-22” of great family-friendly urban neighbourhoods today: as a neighbourhood becomes more liveable for families with kids, it becomes more liveable for everyone; and as more people desire to live there, those who are able are willing to pay a premium in order to do so. There are simply not enough of these kinds of urban neighbourhoods today to provide for the current and fast-growing demand.”

Jennifer Griffin, architect¹⁷

There are also challenges around the need to take into account the diversity of the child population. Some interviewees highlighted gaps around girls, or around teenagers and youth, who were sometimes seen not as citizens with a legitimate claim on public space but as problematic users whose access to and enjoyment of the public realm needed to be managed. Gaps were also

¹⁷ <https://www.strongtowns.org/journal/2018/1/11/lessons-learned-in-meeting-the-demand-for-family-friendly-urban-living>

apparent around the consideration of disabled children, and very young children, whose lack of voice and dependence upon caregivers leaves them at risk of being ignored. The Bernard van Leer Foundation's Urban95 programme (mentioned in the introduction) is highlighting some of the ways that the needs of pre-school children can be better addressed by urban planners and designers.

"When implementing wishes that kids had and told us, the boys' wishes were taken care of but the girls' wishes were overlooked. That's a lesson to learn." Gro Sandkjaer Hanssen, Norwegian Institute for Urban and Regional Research

"We are looking at some more passive play, a BMX track, a half-court basketball. The city of Vancouver is a little behind in delivering the parks. So we've taken it upon ourselves in the interim to make sure there are things here." Brad Jones, Wesgroup

"The teen is largely lost in the majority of amenity building right now." Pat St Michel, planner, Vancouver

"It's a good thing to think about the child as long as you remember that the child doesn't exist. Only children exist. Every time we lump them together we lose something." Margaret Mead at 1975 UN symposium on Children, Nature and the Urban Environment

3.4 Missed opportunities

One of the more persuasive arguments in favour of child-friendly urban planning and design is that it strengthens the arguments for potentially unpopular urban policies. Transportation policies that aim to curb car use, for example, can face great resistance. Debates can focus on short-term losses and the narrow interests of particular interest groups, especially those such as car drivers who believe they will be adversely affected. Bringing children's perspectives into the debate can help to foster a more long-term and collective view.

"A green city is more child-friendly than a car city, automatically. So the push towards a green city due to auto concerns will automatically make a more child-friendly city. The politicians can see that these arguments can sugar the pill. It's better for children, so it's more accepted in public debate." Gro Sandkjaer Hanssen, Norwegian Institute for Urban and Regional Research

So it is surprising that even some of the cities at the forefront of child-friendly urban planning and design have not always made these arguments. Ghent, for example, introduced a radical, controversial circulation plan in 2017 to cut traffic levels across large parts of the city. Yet despite its high-profile and apparently electorally popular status as a child-friendly city, its arguments in favour of the plan failed to highlight the likely impact on children.

In the same vein, countries throughout Europe and North America (and beyond) are facing alarming increases in obesity, inactivity, and related illnesses. If unchecked, these could lead to major public health problems that will not only place a heavy burden on health and care services but also hit economies through worsening ill health and dependence in later life. It is clear that making neighbourhoods more child-friendly will, over the long term, help to tackle physical inactivity and obesity. Yet only one municipality in this study (City of North Vancouver) made links between child-friendly urban planning and design initiatives and public health.



Cllr Linda Buchanan of City of North Vancouver: a former public health nurse

3.5 Unanswered questions

Inevitably, this study leaves some questions unanswered. One concerns the role of legislation in shaping municipal action. Some play and children's rights advocates argue that legislation is essential to securing meaningful change¹⁸. Norway and Germany are two countries that have laws in place mandating municipalities to take into account the perspectives of children in their planning processes. This study was not able to explore the impact of national

¹⁸ Adrian Voce (2015) *Policy for Play: Responding to children's forgotten right*. See also General Comment 13 from the UN Committee on the Rights of the Child, referenced above.

legislation in detail (though it is clear that officers and advocates in Oslo and Freiburg were mindful of the legal context in their countries).

A second unanswered question is around the role and influence of planning policy guidance. At least four cities (Calgary, Oslo, Rotterdam and Vancouver) have relevant guidance in place. There are strong arguments in favour, since good guidance should help to ensure that, in new developments, child-friendly design is secured at the outset. However, it was beyond the scope of the present study to explore the impact of guidance on what eventually gets built.

A third unanswered question concerns the idea of a distinct focus on children, rather than a wider age-sensitive lens (a position advocated by the influential Toronto-based NGO 8-80 Cities). Vancouver's 'all age and ability' cycle infrastructure guidance is a case in point. It takes its cue from the realisation that many of the features that make cycle routes challenging for children are also a barrier for older and disabled people.

"We have to stop building cities as if everyone is 30 years-old and athletic." Gil Peñalosa, 8-80 Cities¹⁹

"When we talk about building a walkable community it is not in isolation from building a child-friendly community or what you call an 8-80 community. These are completely linked." Jonathan Cote, Mayor of New Westminster



Diagram from Vancouver's 'All Age & Abilities cycle infrastructure guidance'

There are likely to be strong parallels between making places or space more child-friendly and making them more age-friendly. Moreover, there is

¹⁹ <https://www.citylab.com/solutions/2012/01/8-80-problem-designing-cities-young-and-old/959/>

something to be said for building connections that build progressive alliances to improve equity and widen access and participation. However, there are likely to be points of difference as well as points of contact. Again, it was beyond the scope of this study to explore this.

3.6 Recommendations

Six recommendations are proposed for decision makers and advocates, grounded in the hub-and-spoke model set out above. The recommendations aim to be practical and realistic, while honouring the values and aspirations of an ambitious vision to create a more child-friendly public realm.

- 1) Create an officer-level municipal resource, ideally supported by a political champion, who is capable of building effective cross-departmental and cross-sectoral links;
- 2) Forge links between child-friendly urban planning and design, and municipal priorities around sustainability, demographic/economic change and public health;
- 3) Carry out well-planned engagement with children, to highlight local issues and concerns, and give impetus to programmes;
- 4) Review data on public health, family demographics and the child-friendliness of the public realm at the neighbourhood level;
- 5) Strengthen connections between child-friendly advocates and local public health, environmental and sustainability advocates;
- 6) Build effective evaluation into programmes.

3.7 Closing reflections

My engagement with child-friendly urban planning and design partly stems from my participation in three formative study trips at key points in my career. The first was a 1999 tour of 'home zones' (child-friendly residential street designs) in the Netherlands and Germany. This tour was part of a campaign that ultimately helped make the case for new UK legislation and a major government programme. The second was a 2003 trip to playgrounds in Copenhagen and Malmo whilst on secondment to the UK civil service. This visit fed into the blueprint for a subsequent £155 million National Lottery programme. The third was a 2005 trip to see Freiburg's naturalistic playground programme. Many of the participants of this trip (including Forestry Commission officials, designers and local authority officers) went on to become national champions of innovation in play space design.

If this current project has anything like the impact of those previous experiences, it will be a source of great personal pride and satisfaction. It is for others to make that judgement in the fullness of time. For now, I will only say that my travels have been crucial to deepening my understanding of what child-friendly urban planning and design means, and how the idea has been – and can be – put into practice.

Appendix 1: Itinerary and city-by-city findings

This appendix sets out my itinerary. It also gives more detailed findings for each of the nine cities, using a consistent format, to give an idea of that city's key child-friendly urban planning and design efforts. See Table 4 in the main report for short summaries of each city, and Tables 5 - 7 for key comparative information and data across the nine cities.

My itinerary was as follows:

12 – 20 Sept 2017	Calgary
21 – 28 Sept	Metro Vancouver area
25 Feb – 1 Mar 2018	Antwerp
2 – 7 Mar	Ghent
8 – 14 Mar	Rotterdam
15 – 20 Mar	Oslo
21 – 24 Mar	Freiburg

All factual information on each city is based on material gathered in 2017-8, around the time of my visits. Inevitably, people and places will have changed, and initiatives evolved, since then.

Antwerp

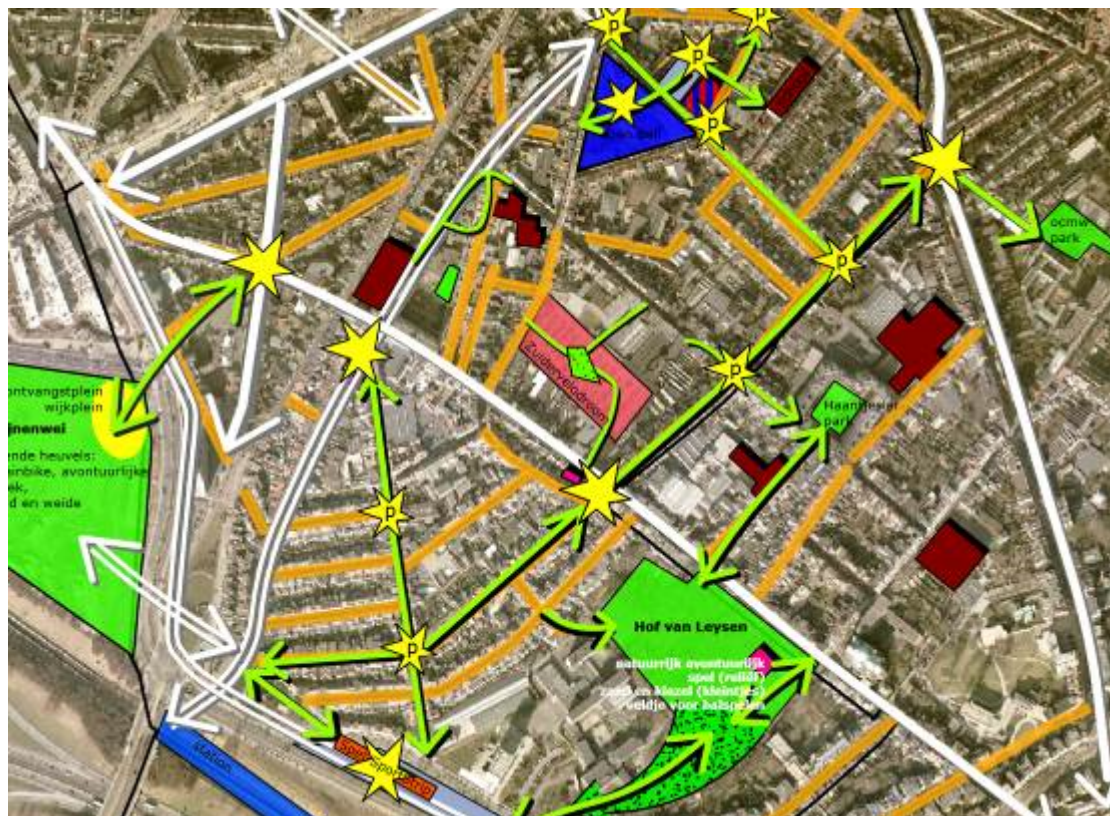
Population	520,000
Population density	2,500/sq km
Relative population density (London =100%)	46%

Key initiative

'Speelweefselplan'²⁰ (Dutch link) or 'Play Space Web' approach to neighbourhood planning.

Details and rationale

The play space web is a rolling neighbourhood-by-neighbourhood child-friendly public space improvement programme. For each Antwerp neighbourhood, it analyses the quantity and quality of space for play, and its accessibility on foot or by bike. Drawing on the municipality's open databank, with support from a data analysis team, a child-oriented public realm masterplan is drawn up for the neighbourhood including parks, playgrounds, public spaces, sports facilities and schools, and also cafés, shopping and other key features.



'Speelweefselplan' or 'play web' for one Antwerp district

The project team familiarise themselves with the area, and gather intelligence from sources including the police and civil enforcement. They work with the

²⁰ <https://www.antwerpen.be/nl/info/57e3c42e15fb6d2b200ec37f/antwerpse-speelweefselplannen> (in Dutch)

municipality's public participation team to find out local views and concerns, using web-based participation methods and a set of pictorial play resources²¹ developed by the Flemish NGO Kind & Samenleving. This generates a set of broad proposals covering the public spaces and connecting routes. These proposals are refined through further participation, before being built out.

The initiative is largely the result of the lead officer. It enjoys political support because of its links to the policy objective of encouraging families to move/stay in the city, rather than moving outside.

There are well over 100 play street²² initiatives across the city, with some streets closing for 1 or 2 days, and others for up to two weeks, during long weekends or school holidays. It is developing new models for reclaiming streets, including school streets (which see road closures at the beginning and end of the school day) and garden streets. A 'future streets' initiative is testing new models.

Site case study: Haantjeslei ball court, Markgrave district. The 'speelweefselplan' process identified an unmet demand in the neighbourhood for space for football and basketball (with ball-playing children often moved on after complaints by neighbours). This led to an existing ball court in a social housing area being upgraded and extended, including a playground for younger children.



Haantjeslei ball court, Markgrave district, Antwerp

²¹ <https://k-s.be/inspraak-participatie/picto-play-10-knip-en-plak-het-speelweefsel-bij-mekaar/picto-play-10-catalogus-en-handleiding/> (in Dutch)

²² <https://www.antwerpen.be/nl/info/5628a439b2a8a73a238b45a9/speelstraten-geef-kinderen-speelruimte-en-leer-uw-buren-beter-kennen> (in Dutch)

Site case study: Distelhoek Park, Merksem district. The municipality invested heavily in a district park in a disadvantaged part of the city with a high proportion of post-war apartments. Improvements included reconfiguration of paths, new naturalistic play and informal sports features, and improved access to a wooded area.



Distelhoek Park, Merksem district, Antwerp

Lead/partner agencies, resources, timelines

The initiative is led by the municipality. It is implemented by 1 full-time equivalent (fte) officer, plus input from other staff. The lead officer is in the City Development department (which covers planning, parks, transport and other functions).

The average annual budget for child-friendly public space projects is Euros 1,325,000 (£1,170,000) and the budget for playground maintenance is Euros 395,000 (£350,000). New development projects may receive additional funding.

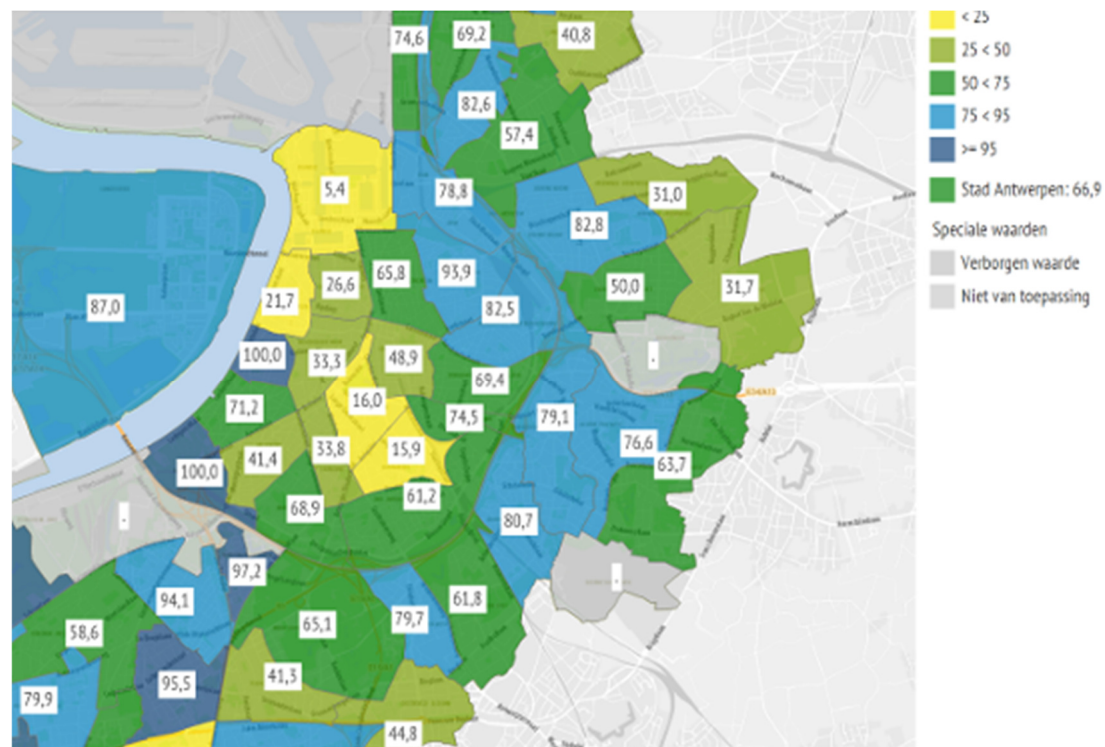
The programme is ongoing. The current approach started in 2006. The play space web process can take a year or more for each neighbourhood.

Children's involvement

The 'speelweefselplan' process involves routine, systematic, extensive use of an online survey tool with bespoke content for each neighbourhood. The aim is for a minimum of 100 responses (mainly through schools, often using tablets supplied by the City Council) with a focus on children aged 6 – 14.

Outputs, outcomes, impact

The approach, which in 2016 won a Flemish road safety award, has led to measurable improvements in the quantity and accessibility of play space. These improvements can be examined on publicly available GIS data.



Antwerp GIS map showing neighbourhood access to playgrounds

Political observations

As noted, the initiative enjoys political support. However, its implementation is influenced by the policies of the current right-wing coalition, which is resistant to measures to restrict car users, including interventions that have an impact on traffic/parking.

Other observations

Child-friendliness has a comparatively high policy profile across Flanders; the region has a well-developed network of child-friendly cities and a well-established accreditation process for municipalities.

Antwerp's child-friendly improvement programme uses as a framework the set of 62 neighbourhood areas into which the city is divided for administrative purposes. According to officers, this set is well understood by residents and reflects commonly held views about residential areas and their boundaries.

Antwerp is taking forward a comprehensive schoolyard greening programme, supported by EcoHuis, an agency that is part of Antwerp City Council. The schoolyards are not normally open to the public outside of school hours. However, a pilot programme using an online reservation system is exploring whether some facilities can be opened up for wider use.

Key contact: Wim Seghers, City of Antwerp (child-friendly public space).

Other interviewees:

- Nabilla Ait Daoud, City of Antwerp (elderman for youth)
- Roel Camps, City of Antwerp (youth participation)
- Ellen Lamberts, AG Vespa (park masterplanning)

- Kris Peeters, City of Antwerp (mobility)
- Johan Pieraerts, City of Antwerp (designing public space)
- Virge Smets, City of Antwerp (geodata)
- Filip Smits, City of Antwerp (spatial planning)
- Annick van Stevens, City of Antwerp (greening)
- Koen Wynants, Freelance (participation & co-creation)
- Children from Kleine Muze Elementary School
- Children and teachers from Bever Elementary School

Site visits: Cycle tour of parks and play spaces throughout Antwerp with Wim Seghers; visit to Bever Elementary School.

Calgary

Population	1,240,000
Population density	1,500/sq km
Relative population density (London =100%)	28%

Key initiative

Play Strategy and Charter²³

Details and rationale

Calgary's Play Charter lays out a set of values and principles to promote the importance of play and build support for better play opportunities in the city. The charter was launched in 2017 as part of the city's hosting of a major international play conference.

The city's resulting play initiatives largely focus on new supervised programmes; engagement in built environment/public realm issues has been limited. However, one associated initiative is the creation of three new nature play spaces²⁴.



Ralph Klein Park playground, Calgary

Lead/partner agencies, resources, timelines

The work is led by the municipality's Recreation Department. The Play Charter has been signed by 36 local, citywide and provincial organisations from the public, private and non-profit sectors. It is being funded by the

²³ <http://www.calgary.ca/CSPS/Recreation/Pages/Research-and-development/Calgary-Play-Charter.aspx>

²⁴ <http://www.calgary.ca/CSPS/Parks/Pages/Locations/Natural-Play-Spaces.aspx>

Lawson Foundation as part of that foundation's nationwide play strategy²⁵, launched in 2016.

Children's involvement

Calgary's Play Charter makes a commitment to involve children in the decisions that affect their lives. As part of the Ralph Klein natural playground project (see above photo) project the city engaged grade three, four and five students from four schools to help with ideas for the playground design.

Outputs, outcomes, impact

No relevant information is available on the impact on the built environment of the municipality's play strategy work. As noted above, this has so far focused on programming. The city has planning guidance and policies²⁶ on access to open space, which sets a target that residents should be within 450m of accessible open space. 90% of neighbourhoods meet this target. While there are no systematic figures, officers believe that usage of suburban neighbourhood playgrounds is low.

Political observations

It was not possible to interview politicians due to elections. However, the mayor (who was re-elected in September 2017) officially launched the Play Charter.

Other observations

In recent decades, Calgary has been Canada's fastest growing big city. It also has the lowest population density. The city's growth has largely taken the form of expansion outwards through the construction of low-density, car-oriented suburban residential neighbourhoods (although some downtown high-density residential developments have also emerged). The city's climate, with a 4-5 month winter and long periods of sub-zero temperatures, further limits children's opportunities for outdoor play and independent mobility.

Calgary's rapid growth, and the failure of school places to keep pace, has led to widespread bussing of schoolchildren, especially those in the newer outer suburbs. Many residential neighbourhoods have poor walkability, and some do not have complete sidewalk networks. Academic research²⁷ suggests a link between neighbourhood walkability in Calgary and child obesity levels.

As in other parts of Canada, Calgary's schoolyards are open outside of school hours for public use. The municipality has created 1680 playground zones²⁸

²⁵ <https://lawson.ca/our-approach/impact-areas/healthy-active-children/outdoor-play-strategy/>

²⁶ <http://www.calgary.ca/CSPS/Parks/Documents/Planning-and-Operations/open-space-plan.pdf> (pdf link)

²⁷ <http://www.aimspress.com/article/10.3934/publichealth.2015.4.616/fulltext.html>

²⁸ <http://www.calgary.ca/transportation/roads/pages/traffic/traffic-safety-programs/school-zone-safety.aspx>

around school playgrounds. These impose speed limits of 30 km/h and prohibit overtaking between the hours of 7:30 am and 9 pm every day.

Calgary has an extensive citywide network of pathways and bikeways, but these are not heavily used for everyday trips. The city's public transport system is dominated by buses. There are two tramlines, with a third planned.

There are signs of a more progressive approach to planning, including plans for transit-oriented development around some of the new tramline stations, as well as existing transport hubs. Healthy planning principles are being used in the planning of the new Nose Creek²⁹ community (a new community planned for construction starting around 2023). Public health NGO Vivo – one of the signatories of the Charter and an active advocate for outdoor play – is planning to take forward citizen engagement work in connection with this development.

Key contact: Heather Cowie, City of Calgary Recreation Manager

Other interviewees:

- Katie Black, City of Calgary (Director Calgary Neighbourhoods)
- Anne Charlton, City of Calgary (Director Calgary Parks)
- Kurt Hanson, City of Calgary (General Manager, Community Services)
- Dr Peter Sargious, Head of Pediatrics, Alberta Health Services
- Joyce Tang, City of Calgary (Urban Planner)
- Cynthia Watson, Alison Stutz, Matt Leung, Vivo
- Young people from Bob Bahan Activity Centre, Forest Lawn

Site visits: self-led walking tours of parks and playgrounds (downtown and in Sunnyside neighbourhood).

²⁹ <http://www.calgarycitynews.com/2015/09/planning-healthy-communities-if-you-are.html>

City of North Vancouver

Population	53,000
Population density	4,470/sq km
Relative population density (London =100%)	82%

Key initiative

Child, Youth and Family-Friendly Strategy (known as CNV4ME)

Details and rationale

CNV4ME is a comprehensive, cross-departmental strategy to improve the lives and opportunities of children, young people, emerging adults (those aged 19-24) and families. It is founded on a children's rights approach and on a concern to ensure the city remains inclusive of all ages and demographics. Another policy driver is public health concern about young children's health and development.

CNV4ME has five key themes, one of which focuses on community spaces and the surrounding environments. Under this theme, the four identified action areas are: public gathering spaces, private gathering spaces, playgrounds, and walkable and accessible neighbourhoods. This has supported the creation of a number of new public play spaces and improvements to existing spaces, some of which have included comparatively innovative designs and challenging pieces of equipment. Loose parts play kits have been introduced into several public spaces, including the plaza outside City Hall. Child-friendly elements such as playful signage have been included in the creation of strategic walking/cycling trails. The city has a school travel planning programme³⁰ to work with schools to improve independent mobility, including walkabouts with children. Unlike other municipalities in the metro region, the city directly funds the provision of school crossing guards.

Another CNV4ME theme is housing, and identified actions include a review of the city's development guidelines. Existing development guidelines aim to encourage family-friendly design features such as common rooms that are oriented towards an outdoor play space.

Site case study: St Andrews Park³¹. This neighbourhood park was refurbished in 2017 following extensive community engagement. New features included storage for toys, artificial grass (to address problems with wear and tear in high-use grassy areas), bespoke water play features and reconfigured seating.

³⁰ <https://www.cnv.org/your-government/about-the-city/schools-in-the-city/safe-and-active-school-travel-program>

³¹ <https://www.cnv.org/parks-recreation-and-culture/parks-and-greenways/park-projects/st-andrews-park-study>



St Andrews Park, City of North Vancouver (photo on left: Shawna Pollreisz)

Site case study: Green Necklace.³² The Green Necklace is a 7.5 km circular urban greenway and off-street multi-use path that links key public buildings, historic parks and shopping areas of the city. Originally conceived in the early 20th century, the route has seen significant investment in recent years, with the aim of creating a safe active transportation and recreational route for all ages and abilities, and enhancing cycling infrastructure and walkability in the city.



Playful graphic on Green Necklace trail, City of North Vancouver

³² <https://www.cnv.org/parks-recreation-and-culture/parks-and-greenways/greenways/green-necklace>

Lead/partner agencies, resources, timelines

The lead municipal officer works full-time on CNV4ME and a related placemaking initiative, Play CNV³³, supported by a part-time public space assistant. The Strategy is housed in Community Services department (which includes community planning and transport) and is supported by regular meetings of a cross-sector CNV4ME task force. This also includes community and voluntary agencies and NGOs and the sub-regional North Vancouver Recreation Commission and public health agency Vancouver Coastal Health.

The main delivery route is through influencing mainstream departmental programmes and policies. However, the initiative has a budget of CAD\$ 50,000 (£29,000, Euros 32,000) for consultancy support and CAD\$ 17,000 (£10,000, Euros 11,000) for programming and events.

CNV4ME was launched in 2014. It emerged from sub-regional work on children's rights, in the form of a Child and Family Friendly Community Charter published by the North Shore Congress in 2011.

Children's involvement

Community engagement is one of CNV4ME's themes. The strategy itself was informed by community consultation with 1,188 children, youth and emerging adults (through various methods including one-on-one conversations, focus groups, surveys and polling strategies) and with parents. Children were also involved in a masterplanning exercise for Moodyville, a large housing development project. As part of this, they were heavily involved in the planning and design for the new Moodyville Park, which included consultation in schools, student visits to City Hall, and youth representation on the planning committee. The area is currently a neighbourhood largely comprised of modest post-war single-family homes close to an industrial port. It is on a rapid transit route and near the Spirit Trail, a strategic sub-regional walking/biking route. After campaigning by residents, it has been rezoned to allow for significant densification and a reconfiguration of parkland. There are plans to either reopen a closed elementary school, or build a new school in a nearby neighbourhood. Moodyville may also feature Dutch-style shared space residential streets.

Outputs, outcomes, impact

The municipality has initiated school travel planning at approximately two schools per year since 2014. In total, the municipality has completed an 18-month travel planning process with six elementary schools and one secondary school. Final school travel plans and results are available for five of those schools. The municipality plans to continue at a similar rate until all 12 schools have been engaged in this process.

At all schools, survey results have shown a notable increase in walking and cycling rates to and from school, and often a significant increase in children travelling to school independently. At each school, the reported increase in

³³ <https://www.cnv.org/parks-recreation-and-culture/public-spaces-and-venues/play-cnv>

walking has been between 29-35%. At each school, baseline walking rates have been between 35% and 49% - this means that at most schools post-travel planning walking rates are close to or over 50%. Cycling is much less popular, but in all cases has increased from 0-1% of travel mode share, to between 1-4% of mode share. In follow-up surveys, parents have reported that special events and infrastructure improvements have been significant drivers of change.

Political observations

A key political champion of the strategy is Cllr Linda Buchanan, a public health nurse, ex School Board representative and mother of four children. She was the principal author of the 2011 Child and Family Friendly Community Charter.

Other observations

The city is the third most densely populated municipality in the metro Vancouver area. It has been investing in improving parks and public spaces in the downtown waterfront area. This is undergoing a major redevelopment that will create a destination family-friendly public space, including a water park, leisure and cultural attractions, connected to other areas by the Spirit Trail.

The city has good public transport links with the downtown area of the City of Vancouver via the Seabus service. As with the rest of the metro Vancouver area, housing affordability is a key local issue. The redevelopment of Moodyville is one notable response to this.

Key contact: Juliana Buitenhuis, City of North Vancouver (Coordinator - Community Development).

Interviewees:

- Cllr Linda Buchanan, City of North Vancouver
- Dr Mark Lysyshyn, Medical Health Officer, Vancouver Coastal Health
- Heather Turner, Director, North Vancouver Recreation & Culture Commission
- CNV4ME Task Force members, City of North Vancouver

Site visits: Tour of parks, playgrounds and cycleways with CNV4ME task force members.

Freiburg

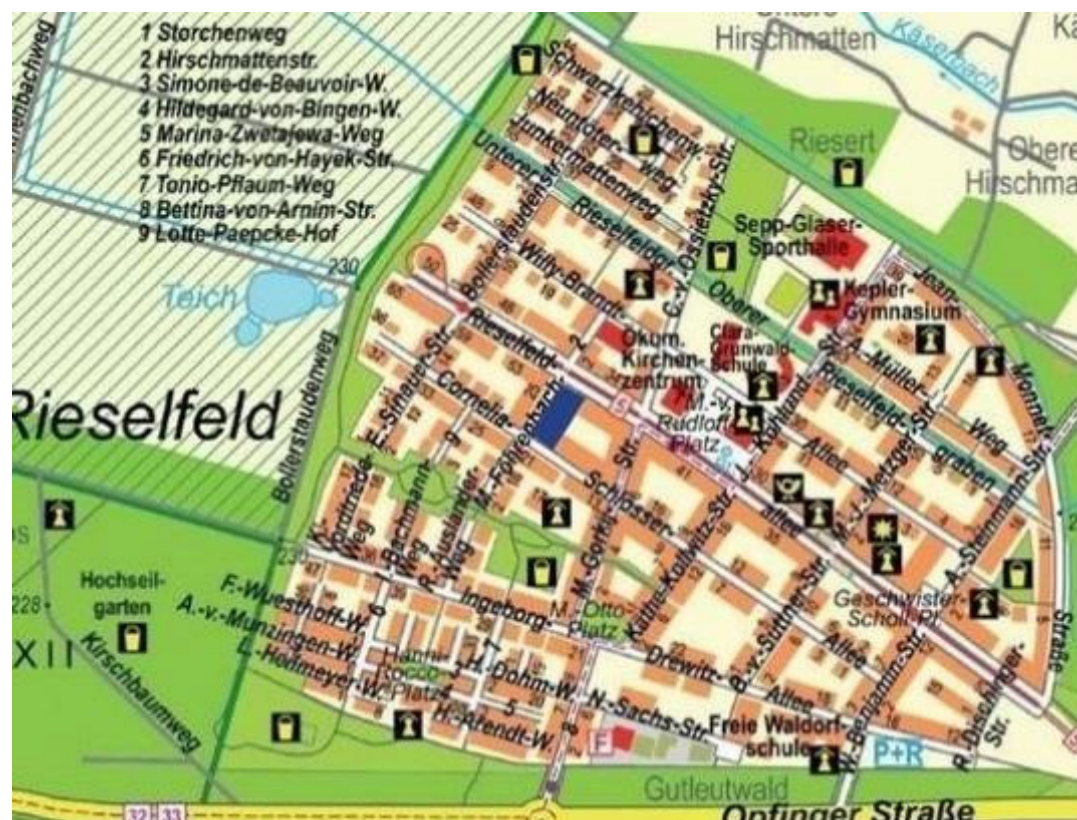
Population	226,000
Population density	1,500/sq km
Relative population density (London =100%)	28%

Key initiatives

- 1) Development of two large masterplanned residential neighbourhoods - Vauban and Rieselfeld - built in the 1990s-2000s, with a third – Dietenbach - planned to be built between 2020 and 2035.³⁴
- 2) Freiburg Kinderbüro (Children's Office).

Details and rationale

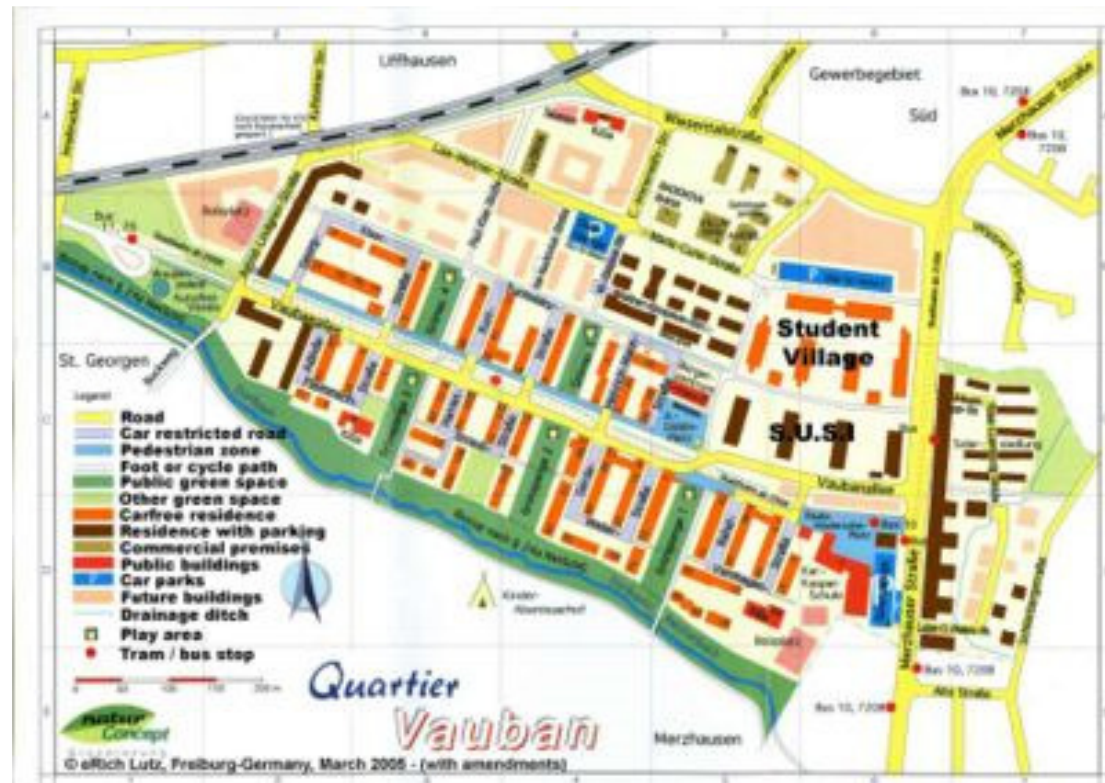
Vauban (population 5,500, population density 13,400), Rieselfeld (11,000, density 15,700) and Dietenbach (planned population 12,000, density 11,000) are all designed to be compact, environmentally sustainable, liveable neighbourhoods, with a strong emphasis on well-designed, accessible green public space and good walking and cycling networks. The masterplanning of Vauban and Rieselfeld was influenced by a large academic study into children's play and independent mobility.



Map of Rieselfeld, Freiburg

³⁴ <https://www.freiburg.de/pb/Len/618445.html> (in English);
<https://www.freiburg.de/pb/Len/642937.html> (in English)

All three districts aim to discourage car ownership and use, and all three are (or will be) on the city's tram network, with good connections to the city centre. Car ownership is particularly low in Vauban, with all cars required to be parked in one of two neighbourhood car parks.



Map of Vauban, Freiburg

Freiburg Kinderbüro is a children's rights organisation with an age focus of birth to 12. It is the city's focus for children's participation in schoolyard and public space planning and management (in Freiburg all schoolyards are open for public use outside of school hours).

Site case study: Vauban. I visited Vauban a number of times during my stay in Freiburg. The most lengthy was a solo exploration by bicycle lasting about an hour on a weekday afternoon, when I saw most of the neighbourhood's streets and green spaces.

Housing is typically in the form of 4-5 storey apartments. All dwellings offer immediate, car-free access to public space (either green space or restricted access roads). Public space is well-overlooked. There are few if any dedicated play spaces; for the most part, play structures and features are integrated into the wider landscape.

The number of children and adults out in the public spaces was striking. Children were present in almost all the green spaces. Younger children were accompanied by parents/caregivers, while older children frequently were not. I saw one parent apparently supervising a group of four children aged around 2-3 years who were playing in a drainage ditch. Even in spaces where children were absent, there was clear, recent evidence of their extended play, such as toys and chalk drawings.

I saw many children and adults cycling through the area. Cars (either moving or parked) were notable by their absence (not surprisingly, since as noted above most residences are car-free, and most roads have no on-street parking and limited car access).



Public green space, Vauban



Sandpit, Vauban



Public space, Vauban

Site case study: Rieselfeld. I visited Rieselfeld on a bicycle tour with Dr Peter Höfflin, academic (and former colleague of Prof Baldo Blinkert), Rieselfeld resident and community activist, and Ellen Weaver (independent scholar and Freiburg resident who moved from the UK some years previously).

We spent around 2 hours exploring most of the neighbourhood's streets and green spaces, on a weekday starting in late morning. We also visited an elementary school, and spent about 30 minutes with a class of 7-10 year-olds talking about their views of the area.

Rieselfeld includes a well-developed, easily accessible network of green spaces including formal play areas and public green spaces, and natural space along the banks of a stream. The area includes dedicated cycle paths, shared surface home zones and road closures/permeable filters that encourage cycle use.

The built form and density of Rieselfeld are similar to Vauban. However, there were some clear differences, mostly to do with the presence of cars. Most streets were through streets, and cars are parked throughout the neighbourhood, typically in covered car ports, parking areas in front of buildings or on-street parallel parking places. Traffic levels were low during our tour (doubtless a reflection of its timing, which was not during peak hours).

We saw few children using the streets or public spaces, and few adults walking or cycling. Direct comparisons with activity levels seen in Vauban are not appropriate, because our tour took place in the morning (when most children would be in school or childcare). However, the signs of children's extended play that were so evident in Vauban – toys left in play areas, chalk patterns on pavements – were not so present in Rieselfeld (though I did see a basketball net fixed to a signpost, some movable football goal posts and a self-built tree swing).

The children we spoke to were positive about Rieselfeld. They liked the play opportunities and facilities in the area, the walkability and lack of traffic, and the presence of nature. They had few complaints; one child was unhappy about the amount of litter (though I noticed very little litter). When asked how the area could be improved, a few expressed a desire for more nature, but most were struggling to come up with any suggestions.



Home zone, Rieselfeld



Playground, Rieselfeld



Green space with cycle path and movable goal posts, Rieselfeld

Lead/partner agencies, resources, timelines

Vauban and Rieselfeld were built from the early 1990s – 2010, while Dietenbach is currently subject to a masterplanning design competition, having been initially conceived around 2015. The municipality is the landowner for Vauban and Rieselfeld (though not Dietenbach) and has had a strong role in shaping the masterplans for all three developments. In Vauban, the emphasis on environmentalism and sustainability reflects local community campaigning and activism that emerged in the early 1990s when some buildings on the site – a former French military base - were occupied.

Within the municipality, it was not possible to identify staff who took a lead on child-friendly planning or children's mobility. The Kinderbüro has 1.5 fte staff. Originally set up 30 years ago, it was part of the municipality until 2016, when it became an independent organisation. Freiburg also has a youth equivalent, the Jugendbüro (not included in this study).

Children's involvement

The masterplanning of both Rieselfeld and Vauban were influenced by *Aktionsräume von Kindern in der Stadt* ("Action-room for children in the city"), a large academic study into children's play and independent mobility carried out by the late Prof Baldo Blinkert of Freiburg University and colleagues in 1993.

A large proportion of the work of the Kinderbüro is on involving children in neighbourhood planning and programming. It has a rolling programme of involving children in participatory planning work to improve neighbourhoods. This typically takes in one or two neighbourhoods per year. The Kinderbüro works in every school in the neighbourhood, and involves between 100 and 200 pupils. The process involves collecting children's views using diaries, a neighbourhood walkabout with children, the drafting of key messages to the city and the mayor, and a hearing and walk through the neighbourhood with city officials. The process is reviewed after 3 months to see what has

changed. Both the Kinderbüro and Jugendbüro have also been involved in participatory planning for Dietenbach.

Youth participation is well supported in German legislation and policy.³⁵ Legislation introduced in 2017 by the Baden-Württemberg region means that participation processes, facilitated by dedicated staff, are part of the school curriculum in Freiburg. The federal Building Code requires that the needs of the young (typically defined as people aged between 12 and 26) be considered.

Outputs, outcomes, impact

It was not possible to identify quantitative indicators or measures relating to child-friendliness, for Vauban and Rieselfeld or the city as a whole. In 2014 proposals emerged for a repeat of the *Aktionsräume von Kindern* study mentioned above, in part motivated by questions about the impact of these new developments on children's everyday freedoms. However, the city council decided not to support this.

Both neighbourhoods incorporate a good variety of playable public spaces, and also encourage walking and cycling by children. The above site visit reports suggest that children who live in Vauban are more active and visible in their neighbourhood's public spaces than their peers in Rieselfeld. Even if true, this may not be just a result of planning and design. It could also be at least in part a reflection of different parenting cultures and practices in the two developments. (Vauban is well known within Freiburg as a neighbourhood that is popular with environmentally-aware families).

The municipality's planning and transport staff are highly engaged and responsive around child-friendly urban planning and design, in the view of Kinderbüro Director Andrea Wagner. The engagement work has prompted the municipality to carry out numerous small-scale improvements and interventions in public spaces, schoolyards and streets.

In 2013 Freiburg City Council published a printed Kinderstadtplan with detailed information about services, facilities and public spaces for the 24 neighbourhoods that make up the city.

Political observations

Freiburg has a longstanding tradition and global reputation for environmentalism and sustainability. Public transport access, local public services and retail, accessible green space and low levels of car traffic are planned from the outset into large new developments like Vauban, Rieselfeld and Dietenbach.

Unusually for German cities, Freiburg has a directly elected mayor with executive powers. At the time of my visit, Freiburg had a Green Party mayor,

³⁵ <https://eacea.ec.europa.eu/national-policies/en/content/youthwiki/54-young-peoples-participation-policy-making-germany>

Dieter Salomon (he subsequently lost the May 2018 election). When elected in 2002 he was the first Green leader of any large German city.³⁶

Other observations

The *Aktionsräume von Kindern* study mentioned above led the city's parks and gardens department to undertake a playground refurbishment programme that saw many of the city's play spaces redesigned as highly naturalistic, green, adventurous places. The programme ran from the mid-1990s until around 2010. It was championed by Prof Blinkert and Bernhard Utz, the head of the city's parks and gardens department until 2006.

In the 1970s and 1980s Freiburg City Council became concerned about the decline in the numbers of children and families living in the city. These concerns are re-emerging, driven in part by the rising cost of housing (Freiburg is claimed to be the least affordable city in Germany). Improving the supply of family-oriented housing through the construction of Dietenbach (amongst other initiatives) is a strategic goal.

In Freiburg – as in the rest of Germany – children finish school at around 1 pm every day.

The municipality owns the public transport company that operates the local tram network (currently four lines) and buses.

Key contact: Ellen Weaver, independent scholar

Interviewees:

- Andrea Burzacchini, aiforia GmbH
- Dr Peter Höfflin, Rieselfeld Resident and community activist, academic (former colleague of Prof Baldo Blinkert)
- Monika Stein, Freiburg City Councillor and mayoral candidate (with Sergio Schmidt, Freiburg City Councillor)
- Andrea Wagner, Freiburg Kinderbüro
- Group of Freiburg parents
- Children from Rieselfeld school

Site visits: Tour through Vauban, Weingarten, Haslach and Rieselfeld with Peter Höfflin and Ellen Weaver; self-led cycle tour of Vauban.

³⁶ https://en.wikipedia.org/wiki/Dieter_Salomon

Ghent

Population	259,000
Population density	1,700/sq km
Relative population density (London =100%)	31%

Key initiatives

- 1) Child-and-youth-friendly action plan³⁷
- 2) 'Speelweefsel' or 'play web' approach to play space improvement

Details and rationale

The child-and-youth-friendly action plan takes a cross-sectoral, children's rights-based approach, framed in terms of the UNICEF definition of a child-friendly city. It focuses on significant actions that are within the scope of the current political cycle (elections are held every six years, with the next elections due in October 2018). Two out of 15 'spearheads' or thematic areas address the built environment (and a third addresses participation across all domains). The two most relevant spearheads aim to create more greenery and space for sports, games and meetings; and to allow children to enjoy safe and easy travel. The action plan sets out 10 – 15 specific actions under each of these themes.



Cycle trail and play feature, Ghent

Speelweefsel is defined as 'a connecting network of formal and informal play and meeting areas for children in the city and the routes towards these

³⁷ <https://stad.gent/ghent-international/city-policy/ghent-child-and-youth-friendly-city> (in English)

places'. As with Antwerp, the approach broadens the spatial focus beyond conventional play spaces themselves and into the wider neighbourhood.

Other initiatives encompassed in the action plan include:

- A green schoolyard refurbishment programme (informed by a study visit to Berlin) which has reached more than half of schools. Many schoolyards – though not all - are open for public access outside of school hours.
- A play streets programme including over 170 streets (which typically close for perhaps a week or a number of weeks in the school holidays – a different model to the UK approach, which normally involves traffic closures for a few hours once a week or month) alongside school streets (which are closed to traffic at key times of the school day).



Schoolstraat, Ghent

Ghent sees child-friendliness as a unifying theme for sustainable, people-oriented policies. The concept has a high public profile for the city and its citizens. It is included in the municipality's mission, and Ghent's status as a child-friendly city (as accredited by the Flanders region) has a high level of recognition amongst the general public. According to the lead official, many departments see the win-win potential of focusing on children, youth and families. The municipality takes a collaborative approach to service delivery.

Site case study: Rode Loper³⁸. The Rode Loper ("Red Carpet") is a 2-km linear route through Brugse Poort, one of Ghent's poorest and most dense neighbourhoods, where public space was of poor quality and in short supply. In effect a large-scale, comprehensive speelweefsel intervention, it links neighbourhood children's facilities including a school, a kindergarten and several public spaces. The project involved extensive 'woonerf'-style traffic calming (with distinctive red stones laid out in a herringbone pattern), a new traffic-free bridge, a new multi-purpose public space including informal sports facilities, and a new pedestrian walkway through a historic building.

³⁸ <https://stad.gent/zuurstof-voor-de-brugse-poort/de-rode-loper> (in Dutch)



Redesigned cycle route, Rode Loper, Brugse Poort, Ghent



Map of Brugse Poort, Ghent, showing Rode Loper linear route

Lead/partner agencies, resources, timelines

The child-and-youth-friendly action plan is a strategic, cross-departmental document whose implementation is coordinated by one fte official in the municipality's Children and Youth Services department. An officer-level group of around 20-25 meets two or three times a year to support implementation.

The speelweefsel initiative is supported by three fte staff in the municipality's Children and Youth Services department, with different officials leading on different built environment/public realm aspects. Their role is to work alongside teams from other teams, with the key implementation departments being Urban Planning, the Green Service and Highways.

The child-and-youth-friendly action plan was launched in 2015. The speelweefsel approach, developed with support from Kind & Samenleving,

was set out in a key guidance document was published in 2007 and is ongoing.

Children's involvement

Various ongoing initiatives are carried out, including 'Thuis in het Stadhuis' ('at home in the town hall') which involves weekly visits by children to municipal offices. In 2014 a major engagement exercise called J1000 was undertaken that aimed to map needs, with a focus on vulnerable and other targeted groups.

Outputs, outcomes, impact

There are visible improvements to spaces, streets and walking and cycling networks in many neighbourhoods, including 10 'playable parklets', play interventions in the inner city and play offers in a number of new parks. The municipality is taking forward strategic investment in parks and green spaces, creating five 'green poles' and increasing the quantity and accessibility of green space. The city's website has a searchable online database³⁹ of outdoor spaces.

Political observations

Ghent is a University town with a tradition of progressive politics. Its broad, left-of-centre coalition is the only one in a major city in Flanders. Deputy Mayor Elke Decruynaere – Green politician and lead alderman for youth – is an active advocate for child-friendliness as a strategic priority for the city, in part because of its links to sustainability.

Other observations

Child-friendliness has a comparatively high policy profile across Flanders; the region has a well-developed network of child-friendly cities and a well-established accreditation process for municipalities. As with other larger cities in Flanders, there is a long-term trend in Ghent for families to move out of the city into surrounding suburban areas, partly out of preference but partly because of rising housing costs within the city.

Planning and delivery across the municipality are organised around a clear, well-understood neighbourhood structure. Most or all neighbourhoods include several key service delivery points and local offices. This allows planning and delivery to be highly responsive to local physical, social and economic characteristics.

In 2017 Ghent implemented a radical Circulation Plan⁴⁰ to cut the number of vehicles travelling through and around the city's urban core (which extends well beyond the historic centre). It closed strategic road junctions to motor vehicles, reduced speed limits and increased parking charges. A 2018

³⁹ <https://stad.gent/cultuur-sport-vrije-tijd/buiten-genieten/lijs> (in Dutch)

⁴⁰ <https://stad.gent/ghent-international/mobility-ghent/circulation-plan> (in English)

evaluation⁴¹ of the plan showed a 58% drop in car traffic in residential streets in the city centre, and a citywide 25% increase in cycling. There was also a “clear decrease” in accidents (though other factors may have played a part in this). While not explicitly framed in terms of child-friendly urban planning and design, the plan is likely to influence the travel choices of children and families, and to have a positive impact on children’s health.

Key contact: Marianne Labre, Ghent City Council (Lead Officer, Child-and-Youth Friendly Action Plan).

Other interviewees:

- Elke Decruynaere, Ghent City Council Alderman and Deputy Mayor (education, youth and schools)
- Maarten Kaptein, Els Mechant, Philippe Michiels, Ghent City Council (Youth Service)
- Didier Reynaert, Ghent University College
- Kathleen Snoeck, Ghent City Council (Head, Youth Service)
- Sven Taeldeman, Ghent City Council Alderman and Deputy Mayor (urban development, planning)
- Sven de Visscher, Ghent University College

Site visits: cycle tour of play spaces and child-friendly neighbourhoods with Marianne Labre; cycle tour of Brugse Poort (taking in Rode Loper) with Marianne Labre.

⁴¹ <https://stad.gent/mobiliteit-openbare-werken/nieuws-evenementen/circulatieplan-en-parkeerplan-bereiken-hun-doel-meer-verkeersveiligheid-en-leefkwaliteit-gent-bijsturingen-zorgen-voor-verbetering> (in Dutch)

New Westminster

Population	71,000
Population density	4,540/sq km
Relative population density (London =100%)	84%

Key initiative

The Child and Youth Friendly Community Strategy

Details and rationale

The Child and Youth Friendly Community Strategy is a comprehensive, cross-departmental strategy that sets out the city's overall vision for children, youth and families. It was a strategic response to findings that, between 2006 and 2011, the overall population increased by 12.7% but the population of children and youth (aged 0 – 17) increased by only 2.5%, while the population of children aged 6 – 12 years actually declined by 4.3%.

Youth dissatisfaction with the city was a key factor driving the initiative; engagement work found that only 35% of young people aged 13-17 felt the city was youth friendly (in contrast with the views of parents, 65% of whom felt the city was youth friendly).

In new developments, design guidance and advice (including input from a landscape architect newly employed by the municipality) is leading to more child-and-youth-friendly buildings and amenity space, for instance through the inclusion of shared gardens/courtyards. There has also been more of an emphasis on challenging and unstructured play and bespoke, design-led places for play and social interaction.

The strategy has also make links with transportation issues. 'Moving' was one of the eight domains explored, and the actions include proposals to carry out child impact assessments and audits with local children for major infrastructure projects. Other child-friendly aspects include stroller-friendly curb cuts at every intersection (New Westminster is set to be the first municipality in the metro area to achieve this).

Site case studies: St Mary Park and Sapperton Park. I visited these two recently refurbished parks with John Stark on a weekday afternoon (before schools finished for the day). Both spaces were located comparatively close to downtown, and their refurbishment was linked to the municipality's aim to make this area more attractive to families. Both spaces featured bespoke, progressive design elements including inclusive play equipment and the use of natural materials, extensive planting, water and changes of level. While the parks were not busy during my visit, there were clear signs of extensive use (including bare earth from desire lines).



St Mary Park (top) and Sapperton Park, New Westminster

Lead/partner agencies, resources, timelines

The Child and Youth Friendly Community Strategy is overseen by the municipality's acting manager of planning, who was previously the senior social planner and is set to return to that position. It has dedicated resources (currently at least 1/3 of the time of a newly-created social planning post). It is being supported by the work of a design panel and other processes, which apply a wider design and public realm lens.

There are plans to expand the municipality's capacity by creating a 'public realm team' with new staff embedded in parks and recreation, engineering and planning departments, overseen by an existing post-holder. The planning team has good links with social planning; for example, the municipality is

exploring how to link public space improvements with a major expansion in childcare and new child development hubs.

The strategy was initiated in 2012 and published in 2016. It was written by the Society for Children and Youth BC, working closely with municipal officials. The project had external funding support from two NGOs (United Way of the Lower Mainland and the Vancouver Foundation).

Children's involvement

Both the Child and Youth Friendly Community Strategy and family-friendly housing policy were informed by engagement with 840 residents in total, including 156 children aged 6 to 12 years, 228 youth aged 13 to 17 years and 320 parents, as well as 136 children, youth and parents who took part in a family day event.

Outputs, outcomes, impact

One key indicator - school enrolment levels for children aged five to 17 – has risen by 12%: the highest increase in the metro Vancouver area, and a figure that goes against the regional trend of falling enrolment in more urban areas and increases in more suburban areas. New and improved playgrounds and parks are being created (including a flagship downtown waterfront park) with a move towards more challenging play and more unstructured areas, and away from conventional 'tot lots'.

Political observations

Questions about the city's suitability for families are of personal relevance to some elected politicians, several of whom are parents (or grandparents) of young children. Mayor Jonathan Cote is a champion of child-and-youth-friendly initiatives, and brings to bear his personal and professional perspectives. He is a trained urban planner and a father with three girls of elementary school age. In 2017 he and his family moved into a new condominium in downtown New Westminster. He sees the child-friendly elements as fitting within a wider inclusive, '8-80' goal of a city that works well for people of all ages and demographics.

The municipality has historically been seen as socially progressive, and has won awards for its work on childcare. Its transportation policies focus on sustainable travel modes, shifting away from vehicle transport and towards walking, cycling and public transport (with half of the municipality's \$CAD 10 million transportation budget going on these travel modes).

Other observations

The municipality adopted a family-friendly housing policy, in response to statistics showing a low supply of housing suitable for families, and a survey showing that 50% of parents did not feel that housing in New Westminster met their needs. The municipality was the first in the metro area to bring in housing quotas for the proportion of three-or-more bedroom apartments, which has increased the supply of units suitable for families. The policy required new developments to provide a minimum of 30% two+ bedroom units (of which a minimum of 10% should be three+ bed units) – a more stringent requirement

than for any other municipality in the metro area. The municipality is considering encouraging the development of ground-oriented multi-family dwellings (row homes and townhouses) to further improve housing choices for families.

New Westminster is the third most dense municipality in the metro Vancouver area (after the City itself and the City of North Vancouver) and its population has been growing rapidly. It is one of the oldest urban areas in the metro region, and the fact that it is largely built out means that any population growth has to be accommodated through further densification. It is seen as being relatively self-contained, with agencies who have a tradition of collaboration and close working relationships.

New Westminster has the second-highest levels of active transport and public transport usage in the region. Walkability is a strategic transport policy focus; the city has the most complete sidewalk network in the metro Vancouver area.

Building a sense of community is a challenge, as a high percentage of its housing stock – around 40% - is in the private rented sector, which means that turnover of residents can be higher than in areas with less rental property. The city used to be seen as a comparatively inexpensive part of the metro area to live, but affordability is now an issue (as with much of the region).

The municipality works with the coterminous school board, which in 2014 opened a new elementary school in the downtown area.

Key contact: John Stark, New Westminster (Acting Manager of Planning)

Other interviewees:

- Jonathan Côté, Mayor, New Westminster
- Desiree Wilson, University of British Columbia

Site visits: New Westminster tour with John Stark.

Oslo

Population	673,000
Population density	1,400/sq km
Relative population density (London =100%)	26%

Key initiatives

- 1) Trafikkagenten⁴² ('Traffic Agent') app and initiative
- 2) Barnetråkk⁴³ ('Children's Tracks') online participation resource

Details and rationale

The Trafikkagenten project uses a mobile phone app to gain children's views about their trip to school. It recruits children aged 6 – 15 through schools, parents or parent committees to act as 'spies' and submit anonymous information in real time via the app about problems they encounter such as unsafe crossings, speeding traffic or obstructions. Younger children can use the app accompanied by their parents. The platform also generates route maps showing children's travel patterns.

The anonymised information is sent to a team in the municipality's Agency for Urban Environment, who can carry out swift, detailed analyses of the children's travel patterns, the key routes they use, and the traffic safety problems they have identified. The team has a dedicated budget for highways interventions, and liaises with colleagues in the Agency's maintenance teams. In straightforward circumstances (for example with overgrown shrubbery blocking pavements or sight lines) action can be taken the same day or within a few days. The tool is also being used for more strategic school travel planning. It is being taken up by three other Norwegian municipalities, and the cities of Helsinki and Amsterdam have also shown interest in it.

Trafikkagenten aims to increase the numbers of children walking, cycling or using public transport to school. Oslo City Council's transport policies are in line with Norway's national transport priorities to shift away from the car and promote walking, bike or public transport, due to the economic, environmental and public health benefits. Establishing healthy travel patterns early is seen as important in supporting these policies.

Barnetråkk is an online platform that can be used by schools across Norway to gain children's views about their neighbourhoods. It allows municipalities to fulfil their statutory duty under Norwegian planning laws to consider children in planning. Within Oslo, Barnetråkk is promoted by the municipality's Agency for Planning and Building Services. In the last decade implementation has been

⁴² <http://www.trafikkagenten.no/en/> (in English)

⁴³ <https://www.barnetrakk.no/en/> (in English)

limited. However, this is set to change after the agency's appointment of a citywide youth participation officer.

Site case study: Sogn district. The Trafikkagenten app was used in the district of Sogn to plan the construction of a new, lit footpath through woodland connecting residential areas with the school and other improvements. This scheme was triggered by a change in the borders of the school district that meant many elementary school children would be taking new routes to their secondary school. The project had a budget for improvements of NOK 11 million (£1 million, Euros 1.2 million).



Before-and-after photos of new path to a school in Sogn district, Oslo

Lead/partner agencies, resources, timelines

The Trafikkagenten project is based in the municipality's Agency for Urban Environment, and is run in partnership with the Education Department. It is available for use free of charge by school children in Oslo. It was developed between 2013 and 2015, and the initiative is funded until the end of 2019. The development cost NOK 3.6 million (£330,000, Euros 380,000). A staff team of three support the initiative, with an annual capital budget of NOK 5 million (£460,000, Euros 530,000) for improvements. Additional funds for improvements are agreed with other partners for significant projects such as new or relocated schools or major developments (as in the Sogn district site above).

The initiative was supported by the Research Council of Norway and the Norwegian Centre for Transport Research, and the app and systems were developed by Capgemini. It is the brainchild of Vibeke Fredrikke Rørholt, an officer in the Agency for Urban Environment who had previously worked in a national road safety organisation, and who drew on her observations of her own children in developing the project.

Barnetråkk was originally developed by sociologist Eva Almhjell and colleagues in the 1970s, and is grounded in children's rights and participation. Its use grew after 1989 after changes in planning laws following Norway's adoption of the UN Convention on the Rights of the Child. Initially a paper-based process, it moved to an online platform in 2006.⁴⁴ Its use was given new impetus in 2016 after being updated and promoted by the Norwegian Centre for Design and Architecture.

The Barnetråkk online platform is available for municipalities and schools to use free of charge. Its use in Oslo is supported by the municipality's Agency for Planning and Building Services. Implementation, and funds for improvements, are dependent upon support from schools and the municipality.

Children's involvement

Children's ongoing involvement is central to both Trafikkagenten and Barnetråkk. For Barnetråkk, their involvement is dependent upon local agencies and circumstances. Oslo is divided into 15 administrative districts and each district has a member of staff whose role includes representing the views of children on a wide range of issues. They liaise with a district youth council drawn from schools. Their work on planning and public space is supported by the municipality's Agency for Planning and Building Services. But the district staff have very limited capacity to support participation in planning projects. In addition, the planning process is developer-led and largely driven by private sector interests. The municipality can suggest participation in connection with specific schemes (with children and/or other groups), but has no powers to demand it.

Outputs, outcomes, impact

Trafikkagenten is being used in around 81 Oslo schools (out of a total of 164) and has generated over 9000 reports. About 300 reports have been made to road maintenance colleagues to take action on minor issues including changing signage, trimming bushes or changing parking. The team estimates that its reports have also had an influence on over 50 larger traffic schemes. Take-up is dependent upon school interest or parent group initiatives, which is in turn often prompted by parents with concerns about traffic safety. Take-up has been greater on the west side of Oslo than on the east side. There is greater cultural diversity on the east side, and take-up may be affected by language barriers.

Barnetråkk was recently used in at least two significant development projects in Oslo. It was not possible to analyse the impact of the process on the resulting developments.

⁴⁴ Renata Aradi (2010) 'Mapping of children's use of space. Experiences from Fredrikstad, Norway'. Kart og Plan, Vol 70, pp. 295–310.

Political observations

Oslo City Council – a red/green coalition - has ambitious transport policies and targets to promote walking, cycling and public transport use and reduce car use. These include a controversial scheme to eliminate car traffic from the historic downtown city centre.

Other observations

Norway's national planning laws require municipalities to involve for children in decision-making, and to improve outcomes. At the time of writing, the Norwegian Institute for Urban and Regional Research is evaluating how municipalities are fulfilling these duties. It is likely that this will conclude that municipalities will be required to use Barnetråkk.

In May 2018 (after my visit) Oslo City Council published revised planning guidelines⁴⁵ for play and recreation areas in new housing developments. Norwegian national planning guidance requires municipalities to produce guidance on this topic.

Key contacts: Tina Hofland Engen, Åsa Berge Vistad and Britt-Ida Tøftum, Oslo City Council (Agency for Urban Environment, Trafikkagenten team)

Other interviewees:

- Eva Almhjell, Creator of Barnetråkk
- Ingvil Aarholt Hegna, Ellen Heggstad, Alf Howlid, Design & Architecture Norway (DOGA) with landscape architect Tassy Thompson
- Kirsten Kvam, Hanne Marte Furset, Oslo City Council (Agency for Planning and Building Services)
- Gro Sandkjaer Hanssen, Norwegian Institute for Urban and Regional Research
- Sarah Prosser, Silje Gitlestad, Oslo City Council (Tøyen & Grønland regeneration programme)

Site visits: tour of Sogn area to see results of Trafikkagenten process; walking tour of Tøyen with Sarah Prosser.

⁴⁵

<https://www.oslo.kommune.no/getfile.php/1328825/Innhold/Plan%2C%20bygg%20og%20eiendom/Byggesaksveiledere%2C%20normer%20og%20skjemaer/Utearealnormer%20-%20normer%20for%20felles%20leke-%20og%20uteoppholdsarealer.pdf> (pdf link in Norwegian)

Rotterdam

Population	635,000
Population density	3,040/sq km
Relative population density (London =100%)	56%

Key initiatives

- 1) Kansrijke Wijken ('Promising Neighbourhoods') initiative
- 2) Child Friendly Rotterdam programme⁴⁶

Details and rationale

Kansrijke Wijken is a multi-faceted initiative to encourage more affluent families to move into nine targeted Rotterdam neighbourhoods. It includes initiatives aimed at improving schools and increasing the supply of family-oriented housing, as well as public realm projects.

The public realm initiatives focus on outdoor play, and on encouraging residents to improve public spaces and foster community life and social cohesion. They include schoolyard greening projects in elementary schools, pop-up playgrounds and projects to encourage resident-led changes to street design (including a 'Droomstraat' or 'Dream Street' initiative to support innovation and experimentation). The public realm strands have a strong emphasis on co-creation. Both individuals and local community organisations have been given support and funding to develop ideas. Part of the aim, according to Marielle Heijmink, manager of the Kansrijke Wijken programme, has been to build a network of advocates and engaged citizens.

The Child Friendly Rotterdam programme – a precursor to Kansrijke Wijken that ran between 2006 and 2010 – had similar overall goals. It had a stronger focus on the public realm, and the physical projects focused on a single neighbourhood (Oude Noord). The programme also led to the creation of spatial planning norms⁴⁷ for outdoor play that have citywide application and are still in use.

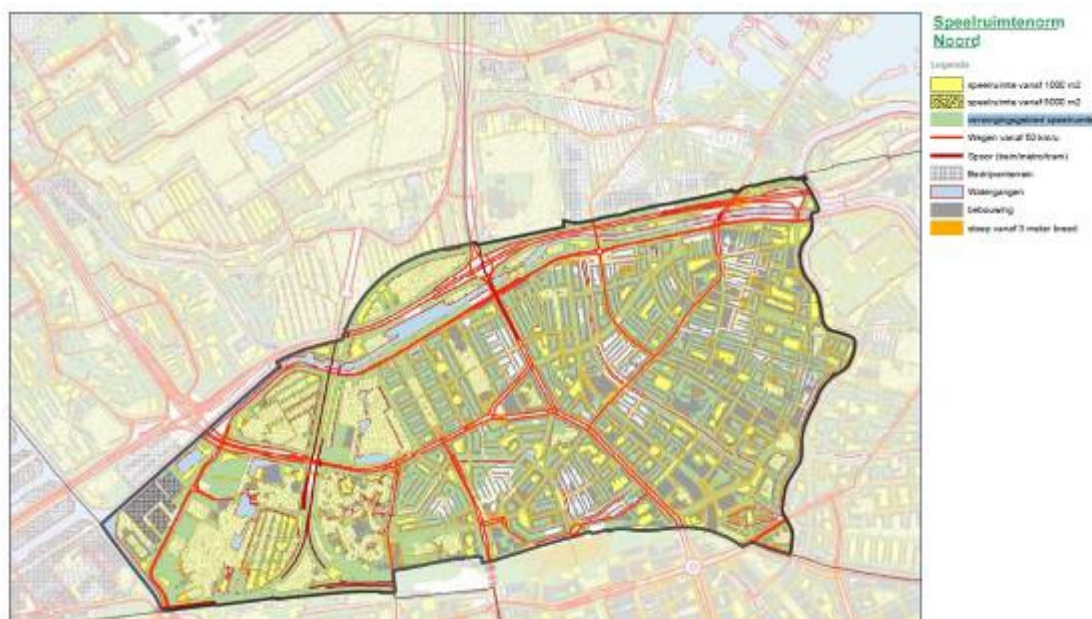
Site case study: De Schalm Elementary School, Katendrecht. This project, completed in April 2017, involved a major landscape redesign to make the main schoolyard greener and to introduce more choice for play and socialising. The project also improved an informal sports area next to the schoolyard. These spaces are open for public use outside of school hours. The funding provided money for maintenance in the first year, as well as design and capital costs. In the view of Pamela Tjon Appian, Principal, the changes helped the school become more a community. "It's not only the school but also the people who live around. It's good for our reputation and our relationship, as well as for our education."

⁴⁶ <https://www.scribd.com/document/266583265/Rotterdam-City-With-a-Future> (in English)

⁴⁷ http://spelenenbewegen.nl/wp-content/uploads/2016/04/Handleiding-Rotterdamse-norm-Buitenspeelruimte_def.pdf (in Dutch, pdf)



De Schalm Elementary School playground, Katendrecht.



Map showing application of Rotterdam play space planning norm

Lead/partner agencies, resources, timelines

Both initiatives were based in the municipality's City Development department. *Kansrijke Wijken* ran from 2014 – 2018 and had an overall budget of Euros 7.5 million (£6.6 million) of which Euros 1 million (£880,000) was for programme and project management and communications. The 'Droomstraat' initiative had a budget of Euros 300,000 (£260,000). For the schoolyard greening, each school had a typical budget of around Euros 50,000 (£44,000) for capital works, Euros 6,000 (£5,200) for landscape design, Euros 5,000 (£4,400) for maintenance and Euros 4,000 (£3,500) for programming. The Child Friendly Rotterdam programme ran from 2006-2010 and had a budget of Euros 20 million (£17.5 million).

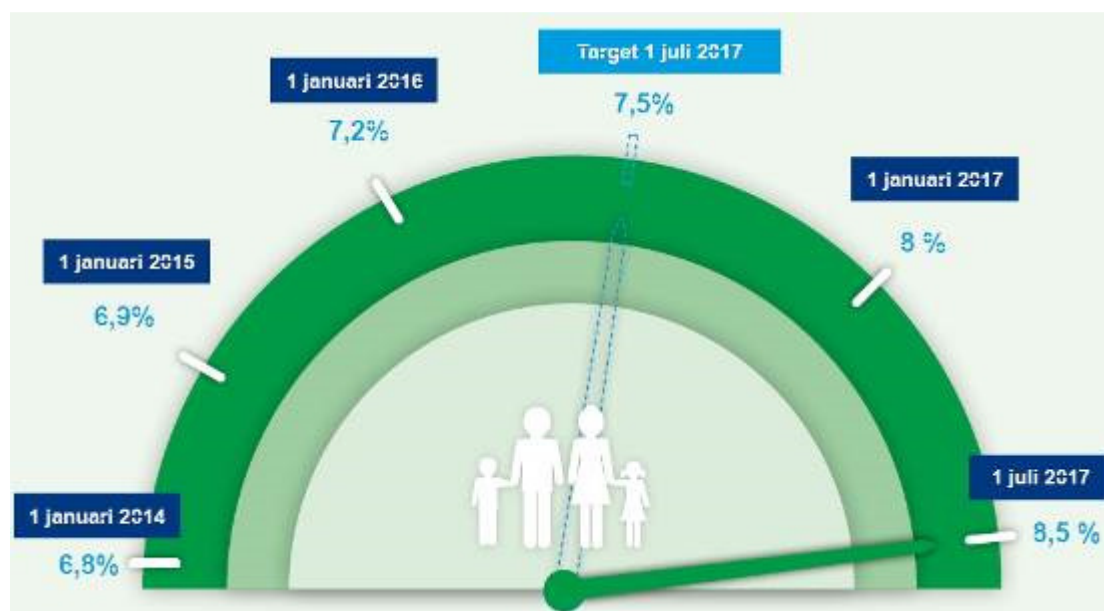
The programmes were delivered in partnership with Jantje Beton (a national NGO and partner on street and schoolyard projects) and Speeldernis (a Rotterdam NGO with a focus on outdoor play in natural environments, which advised on several schoolyard and public space projects). Agencies from the private and social housing sectors were partners for the housing-related initiatives.

Children's involvement

Children were involved in some site-based initiatives such as schoolyard greening programmes and the Droomstraat initiative.

Outputs, outcomes, impact

The key performance indicator for Kansrijke Wijken, and the focus of political interest, was an increase in the proportion of affluent families in the target neighbourhoods. The proportion had increased by 10 per cent by January 2017, and continued to rise through that year. It is not possible to prove that this increase was a result of the programme.



Infographic showing progress against Kansrijke Wijken target, Rotterdam

The programme also carried out extensive monitoring using a large set of objective and subjective indicators. The subjective data was taken from an existing neighbourhood-level resident survey programme. The indicators included:

- (adult) resident views about the overall suitability of the neighbourhood for children, broken down into 3 age groups (0 to 4 year olds, 4-13 year olds and 13-18 year olds);
- (adult) resident views about housing, outdoor play, cleanliness of outdoor space, leisure facilities, schools/childcare, traffic safety, social safety, and parenting climate;

- Objective data on numbers of families moving into and out of the neighbourhoods;
- Objective data on traffic accidents, crime and the ease of access of schools and childcare.

A 2016 monitoring report⁴⁸ showed that overall, four of the nine neighbourhoods became more child-friendly between 2013 and 2015. Four further neighbourhoods were unchanged, while one neighbourhood declined. The report also suggested that resident views about the child-friendliness of the target neighbourhoods rose slightly, while for Rotterdam as a whole they remained stable.

Of the seven schoolyard greening schemes supported by Kansrijke Wijken, two had been completed by March 2018. Alongside this, several improved public play spaces and street initiatives were completed. Some of these resulted in permanent changes, while others involved more temporary interventions.

The 2006-2010 Child Friendly Rotterdam programme led to measurable improvement in four of the seven indicators identified at the start of the programme. An independent evaluation⁴⁹ published by the Rekenkamer (city auditor) in 2014 informed the development of the Kansrijke Wijken programme. It noted that there are complex relationships between child-friendliness, parents and learning. It concluded that there was poor implementation of lessons, that the municipality did not have sufficient power on its own to make neighbourhoods more child-friendly, and that the programme should have focused not just on physical change but also on social change.

Political observations

The political impetus for both programmes was concern about the city's ability to attract and retain more affluent families (a 2006 survey found that the city was the least child-friendly in the Netherlands).⁵⁰ The municipality has been led by a right-wing coalition for some years. Some of its housing policies have met with political and community opposition⁵¹, on the grounds that one of its aims was to reduce the supply of subsidised housing, in order to force poorer families out of the city. My report does not explore this issue (as housing policy was not a focus). Moreover, no interviews with politicians were possible, as my visit coincided with the run-up to local elections. However,

⁴⁸ <https://rotterdam.buurtmonitor.nl/document/Kindvriendelijkheid-in-Rotterdam-en-in-de-Kansrijke-wijken-Monitor-Rotterdam-Kindvriendelijk-2016/161> (in Dutch)

⁴⁹ <https://rekenkamer.rotterdam.nl/onderzoeken/kind-van-de-rekening/> (in Dutch)

⁵⁰ Liane Lefaivre (2007) *Ground-up City: Play as a Design Tool*

⁵¹ <https://www.theguardian.com/housing-network/2016/dec/12/rotterdam-anti-gentrification-housing-referendum>

some interviewees were concerned that the Kansrijke Wijken programme's focus on a minority of gentrifying (or at least potentially gentrifying) neighbourhoods at the very least left other poorer, neighbourhoods with worse access to funding for improvements.

Other observations

Rotterdam was until recently an industrial, port city made up of diverse, largely working class communities. Around 70% of the population live in social housing, some of it cramped, old and run-down. Its built form is highly car-centric: the result of post-war reconstruction following wartime damage to its historic centre. As a result, cars have a higher modal share than in many other Dutch cities. However, the city is now spending more on cycle infrastructure than car infrastructure, and levels of cycling are rising.

Like other Dutch cities, Rotterdam has a large number of public play spaces (around 1,260 play areas and 120 ball courts). However, public space planning policy and practice is shifting away from conventional fixed equipment play facilities. The new vision 'Kom op naar buiten!' ('Let's go outside!') adopted in 2016, is to create more multifunctional public space where children can play, and people of different ages can meet, socialize and be more active.

Key contact: Marielle Heijmink, Rotterdam City Council (Kansrijke Wijken Team).

Other interviewees:

- Marlies Bouman, Jantje Beton (with Najiba Belah Principal, Al-Ghazali Elementary School)
- Martin Guit, Rotterdam City Council (Strategic Mobility)
- Kristiaan Leurs, Rotterdam City Council (Strategic Mobility)
- Ian Mostert, Speeldernis
- Miranda Nauta, Consultant for schoolyards programme
- Mattijs van Ruijven, Rotterdam City Council (Head of Urban Planning)
- Esther Sprangers, Rotterdam City Council (Kansrijke Wijken Team)
- Pamela Tjon Appian (principal), Louise Vleugal, Zorro and Amin (aged 10) De Schalm Elementary School
- Jan van der Wolde, Rotterdam City Council (Droomstraats: with Lorenzo Elstak)
- Liesbeth van Ommen-Koen, Rotterdam City Council (landscape architect)
- Jikke Vergragt, Woonstat Rotterdam (Housing agency)

Site visits: Speeldernis with Ian Mostert; Al-Ghazali Elementary School with Marlies Bouman; De Schalm Elementary School with Miranda Nauta; Schouburgplein with Esther Sprangers; cycle tour of parts of North Rotterdam with Ian Mostert; self-led walking tour of parts of Middelland and Oude Westen.

Vancouver City

Population	631,000
Population density	5,490/sq km
Relative population density (London =100%)	101%

Key initiatives

- 1) High-Density Housing for Families with Children guidelines⁵²
- 2) All age and ability bike infrastructure design guidelines⁵³

Details and rationale

Vancouver aims to be an attractive, accessible and affordable city for families to live, with neighbourhoods that are inclusive and diverse. The city's high density housing guidelines reflect these goals in the context of a densifying city whose growing population needs to be housed within a constrained and fully developed land area. The guidelines include sections on site selection, building and unit layout and shared indoor and outdoor space design. They emphasise the importance for families of ground-oriented housing units (for strong connections and good access to the outdoors), well-designed, accessible outdoor space for play, and good circulation. Updated policies and guidance are due to be published in 2019 (the existing guidance was published in 1992).⁵⁴

The city's cycling initiatives stem from policy goals relating to environmentalism and sustainability. The city's cycle infrastructure design guidance aims to "make cycling safe, convenient, comfortable and fun for all ages and abilities, including families with children, seniors, and new riders." Its 'all age and abilities' (AAA) approach means a shift towards bike lanes on quiet streets, protected bike lanes and off-street routes. The city also supports safe routes to schools programmes (with a focus on cycle training and road safety education).

Site case study: River District development⁵⁵. River District is a high-profile example of the application of the city's approach. It is a 51 Ha site that is planned to house a population of 12,500. It will include 10 Ha of parks, plazas and other public spaces, including a major waterfront park with separated walkway/cycleway⁵⁶. The masterplan is based on planning and urban design principles that aim to establish a complete, sustainable community, rooted in the site's natural characteristics and complementary to the qualities of the adjacent, existing communities. Families are a key

⁵² <https://guidelines.vancouver.ca/H004.pdf>

⁵³ <https://vancouver.ca/files/cov/design-guidelines-for-all-ages-and-abilities-cycling-routes.pdf>

⁵⁴ <https://vancouver.ca/people-programs/housing-options-for-families.aspx>

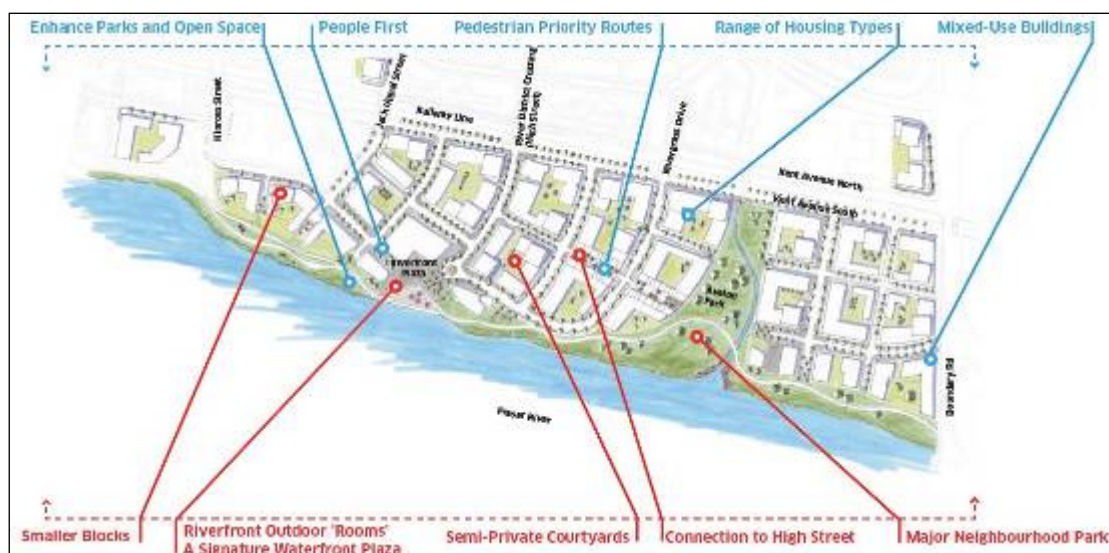
⁵⁵ <https://vancouver.ca/home-property-development/east-fraser-lands-river-district.aspx>

⁵⁶ <https://vancouver.ca/parks-recreation-culture/east-fraser-lands-parks.aspx>

market for the development, and its public realm is designed with children and families in mind. The site identified for the elementary school will be easily accessible by bike from most parts of the development. The area's official development plan, passed in 2006, only included modest improvements to public transit (which is a provincial matter). Partly as a result, the development is being designed with high levels of car ownership and use in mind, and greater levels of on-street parking than might be considered today.



Riverfront public space, River District, Vancouver



River District Masterplan, Vancouver (taken from May 2018 public consultation)

Lead/partner agencies, resources, timelines

The housing and cycle infrastructure guidance are produced by the municipality's Planning and Transportation department. Vancouver Parks Board (a separate entity outside the municipal structure) is a key partner. The River District developer is Wesgroup.

Vancouver has seen several waves of interest in making the city better for children and families, going back to the city's rejection in the 1960s of downtown freeways (the dominant North American response to traffic growth), and its support for the development of residential areas in and near downtown. The housing guidance evolved from work in the 1970s⁵⁷ and 1980s in densifying neighbourhoods.

The municipality began investing in cycle infrastructure in the 1990s. One key element was the conversion of residential side streets into greenways. The current all age and abilities approach came to the fore in 2010.

Children's involvement

The municipality supports a Children, Youth and Families Advisory Committee whose membership includes children and young people. Urban planning and design issues are addressed by two sub-committees (on engagement and housing).⁵⁸ Committee members feel that, while their views about urban planning, parks, schoolyard and public space proposals are sometimes sought, this is not systematic, and there is no clear picture about how their views are taken into account.⁵⁹

The municipality has carried out limited engagement exercises with children as part of the River District development. No systematic information was available about children's involvement in the municipality's cycle infrastructure or other public realm investments.

Outputs, outcomes, impact

Vancouver has a larger proportion of families with children living in its downtown areas than any other large North American city. One 2008 post-occupancy evaluation of False Creek North (a high-density downtown neighbourhood that was developed in the 1990s and 2000s) showed that children were happy to have friends within walking distance, and that most residents were very satisfied with local parks (although parents and children wanted more varied play spaces, particularly for older children). Overall, 96% of residents would recommend living in the neighbourhood⁶⁰.

Vancouver's cycle infrastructure is amongst the most well-developed in North America, and cycling represents about 10% of overall commuting - the highest of any major North American city. Transportation statistics show a measureable modal shift away from cars and towards walking, cycling and public transport, including a doubling in cycle commuting between 2011 and

⁵⁷ City of Vancouver (1978) Housing Families at High Densities
https://www.researchgate.net/publication/284698660_Housing_Families_at_High_Density

⁵⁸ <https://vancouver.ca/your-government/children-youth-and-families-advisory-committee.aspx>

⁵⁹ Note from September 2017 Advisory Committee meeting (emailed to the author).

⁶⁰ <https://sarkissian.com.au/wp-content/uploads/2011/03/FCN-POE-Compilation-Report-FINAL.pdf>

2015. According to city planners, the city is seeing a growth in family cycling and dropping off children at school and other destinations. However, no separate figures are available.

Political observations

Tackling housing affordability - including affordability for families - is a political priority for the municipality. Access to school places and the cost and availability of childcare are also strong concerns. These concerns are currently dominating debates about how to achieve the goal of keeping families within the city, unlike in the 1970s-1990s when urban design was also a major focus.

There is strong political and policy support for neighbourhood schooling and the goal that every child should be able to walk to school. Schoolyards are open for free public use outside of school hours (as in many other parts of Canada).

Other observations

The municipality has a tradition of taking a progressive approach to securing and maintaining well-designed parks and public spaces and improving walkability. These are evident in policy and practice, both in its planning department and the (legally separate) Parks Board. Several flagship play spaces with bespoke, comparatively adventurous designs have been created in recent years, including Creekside Park.

Municipal planners reported that pressures from different community interest groups (including dog owners, urban food growers and conservationists as well as parents) are leading towards greater partitioning of public spaces.

The municipality's Healthy City Strategy⁶¹ includes sections on active living and getting outside, getting around and environments to thrive in. The Healthy City Action Plan has targets for access to green space, the walk score of neighbourhoods and child development milestones for kindergarten-age children.

The municipality has an international planning profile for its work on high-density residential areas. However, around 80% of the land area has a single family home typology (although only 15% of the housing stock is single family homes).

Housing cooperatives have played a small but significant part in the city's supply of family-oriented housing. New developments such as the First Avenue Athletes Village Coop have emerged in recent years.

Vancouver has a strong neighbourhood basis for land use and service planning and delivery. The set of 23 neighbourhoods reflects residents'

⁶¹ <https://vancouver.ca/people-programs/healthy-city-strategy.aspx>

intuitive understanding of their city's geography, and sets the framework for provision of facilities such as recreation centres and libraries.

Although Vancouver does not have a downtown freeway network, it does have a network of arterial roads (typically six lanes wide and every 9 blocks) that lead to significant traffic severance.

Interviewees (Vancouver City):

- Yuri Artibise, Executive Director, Vancouver City Planning Commission
- Mary Clare Zak, Vancouver City (Director Social Policy) with Joe McLeod & Justin Dykstra, Vancouver Parks Board
- Adrian Crook, blogger
- Allison Dunnet and Pat St Michel, Vancouver City (Urban Planners)
- Robyn Newton, Vancouver City (Social Planner)
- Mab Oloman, Children, Youth and Families Advisory Committee member
- Cllr Andrea Reimer, Vancouver City (lead on children and youth)
- Kirsten Robinson, Vancouver City (Urban Planner)
- Brad Jones, Wesgroup (Vice President, Development)

Interviewees (Vancouver metro area):

- Chris and Melissa Bruntlett, Modacity
- Mariana Brussoni, University of British Columbia
- Walter Francl, Architect
- Jillian Glover, Blogger
- Ildiko Kovacs, Society for Children and Youth of British Columbia
- Charles Montgomery and colleagues, Happy City (informal meeting)
- Brent Toderian, Toderian Works (former chief planner, Vancouver City)

Site visits: River District walking tour with Brad Jones, Kirsten Robinson and Bob Yates; cycle tour of UBC Endowment Lands with Ildiko Kovacs (including Wesbrook and Arcadia); self-led tours taking in cycle routes, parks and playgrounds in various parts of the city including Seaside Greenway and Crosstown Elementary School.

Appendix 2: Child-friendly urban planning in other cities

Before, during and after my Churchill Fellowship travels, I became aware of other cities that were/are taking forward relevant initiatives. Two international networks are La Citta Dei Bambini⁶² ('The City of Children') project based in Rome, and UNICEF's Child Friendly Cities Initiative⁶³. Table 8 below gives a thumbnail sketch of some initiatives in cities not covered by this project.

Table 8: relevant initiatives in other cities

City	Initiative
Barcelona, Spain	Playable city initiative ⁶⁴ being taken forward by the Institutio de Infancia in the City Council, which has produced play space design guidance. Also piloting 'Superblocks', an initiative to reclaim residential street space, implementing an urban greening program as a climate change mitigation measure, and taking forward a schoolyard initiative.
Bhubaneswar, India	Public space improvements linked to Smart City agendas and supported by the Bernard van Leer Foundation's (BvLF) Urban95 programme.
Bogotá, Colombia	Pilot children's priority zone model, supported by the Bernard van Leer Foundation's (BvLF) Urban95 programme.
Boulder CO, USA	Growing Up Boulder ⁶⁵ participatory planning initiative supported by a partnership including the City of Boulder, the school district and the University of Colorado's Community Engagement Design and Research (CEDaR) Center.
Edmonton, Canada	City centre initiatives, including engagement activity – part of a cross-departmental child-friendly cities project.
Fano, Italy	Participatory initiatives running from 1991, inspired by pedagogue Francesco Tonucci. More in Kathrin Hörschelmann & Lorraine van Blerk (2012) <i>Children, Youth and the City</i> pp 193.5.
Istanbul, Turkey	District-level initiatives supported by the Bernard van Leer Foundation's (BvLF) Urban95 programme.
Leeds, UK	City centre initiatives, including engagement activity – part of a cross-departmental child-friendly cities project.

⁶² <https://www.lacittadeibambini.org/la-rete-internazionale/> (in Italian)

⁶³ <https://childfriendlycities.org>

⁶⁴ <http://institutinfancia.cat/projectes/ciutatjugable/> (in Catalan)

⁶⁵ <http://www.growingupboulder.org/>

Montreal, Canada	\$3 million fund ⁶⁶ for playful urban design initiatives to promote active travel.
Paris, France	Citywide schoolyard greening and public access programme ⁶⁷ announced by Mayor Anna Hidalgo in 2017.
Pontavedra, Spain	Ongoing child-friendly initiatives ⁶⁸ grounded in children's participation, inspired by Francesco Tonucci.
Recife, Brazil	Initiatives supported by the Bernard van Leer Foundation's (BvLF) Urban95 programme.
Tel Aviv, Israel	Initiatives supported by the Bernard van Leer Foundation's (BvLF) Urban95 programme.
Tirana, Albania	Advocacy and public space improvements, supported by an advisory post in the City Council funded through the Bernard van Leer Foundation's (BvLF) Urban95 programme.
Toronto, Canada	Guidance and other initiatives on high-density family housing design.

⁶⁶

http://ville.montreal.qc.ca/portal/page?_pageid=5798,42657625&_dad=portal&_schema=PORTAL&id=30982&ret=http://ville.montreal.qc.ca/pls/portal/url/page/prt_vdm_fr/rep_annonces_ville/rep_communique/communique (in French)

⁶⁷ <https://cities-today.com/paris-to-use-schoolyards-as-new-public-spaces/>

⁶⁸ <https://www.childinthecity.org/2018/11/27/significant-figures-in-the-child-friendly-cities-initiative/>