The design of sustainable and inclusive 'away-from-home' toilets in city centres.

Sustainability CITY

THE ART OF URBAN LIVING

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What this talk will cover

- Describing what VivaCity 2020 is all about;

- Introducing a range of methods we devised for investigating 'life behind the toilet door';

- Presenting the most important findings each approach revealed;

- Concluding with launch of 'The Accessible Toilet Resource', that reports all our findings in detail.

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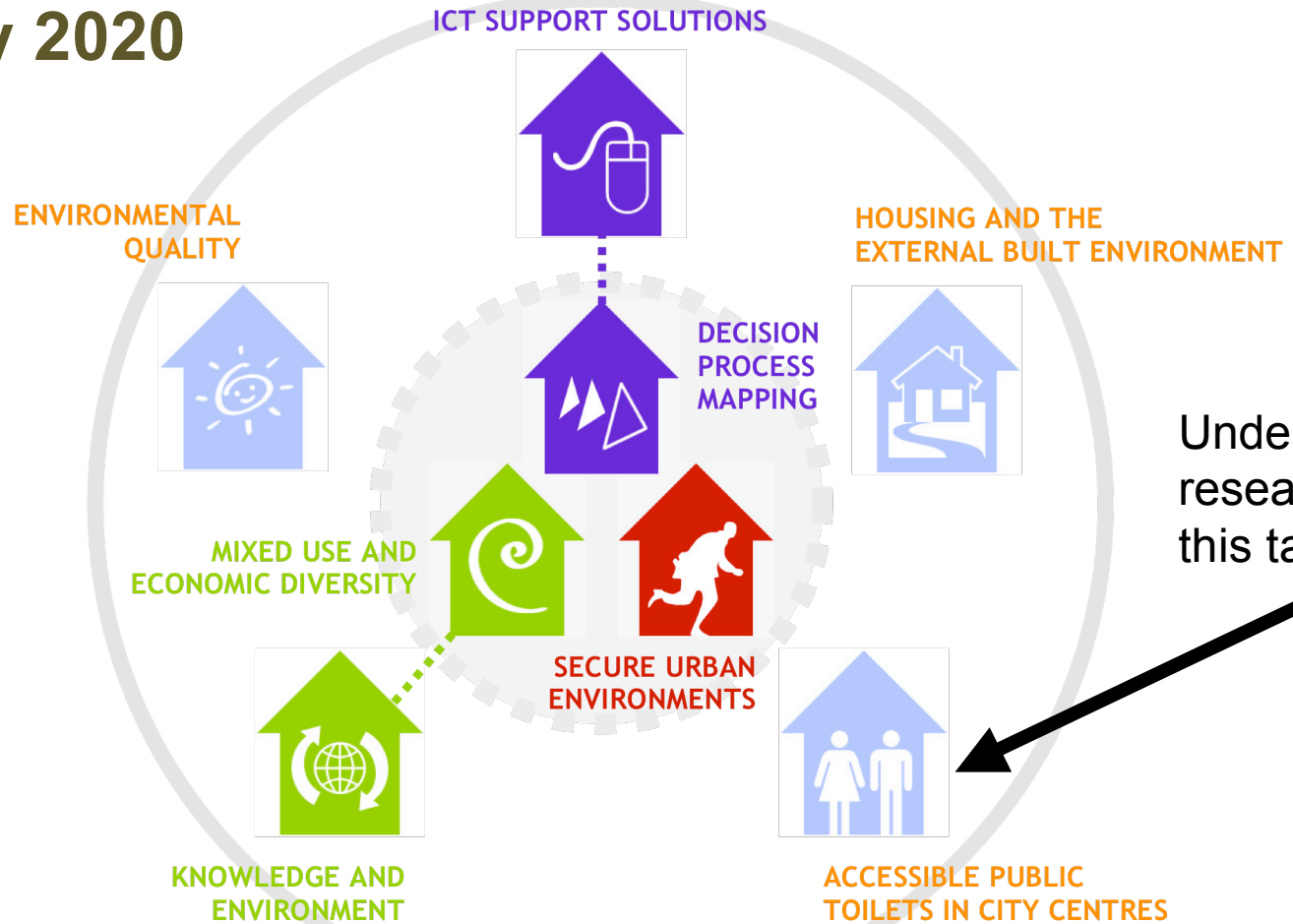
Why this issue is important to VivaCity

Good 'away from home' toilet provision is essential to urban sustainability because it:

- Makes cities accessible to a wide range of users, including women, children, disabled and older people;

- Caters for pedestrians and public transport users as well as the motorist, a key factor in relation to UK government policy;

- Improves the visual and sensory urban realm and reduces environmental degradation.

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Sustainable 'away from home' provision

But, to be sustainable, provision needs to be located to fit into the way the city is actually used by local people and visitors to the city centre, in a way that supports:

– Environmental balance, sewerage, pollution, water conservation etc. and by eliminating street urination;

– Economic vitality, by making cities more attractive to visit;

– Social equity, ensuring access is provided for all.

Led us to focus on accessible and inclusive 'away from home' toilets in city centres.

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Accessible provision = unisex corner cubicle
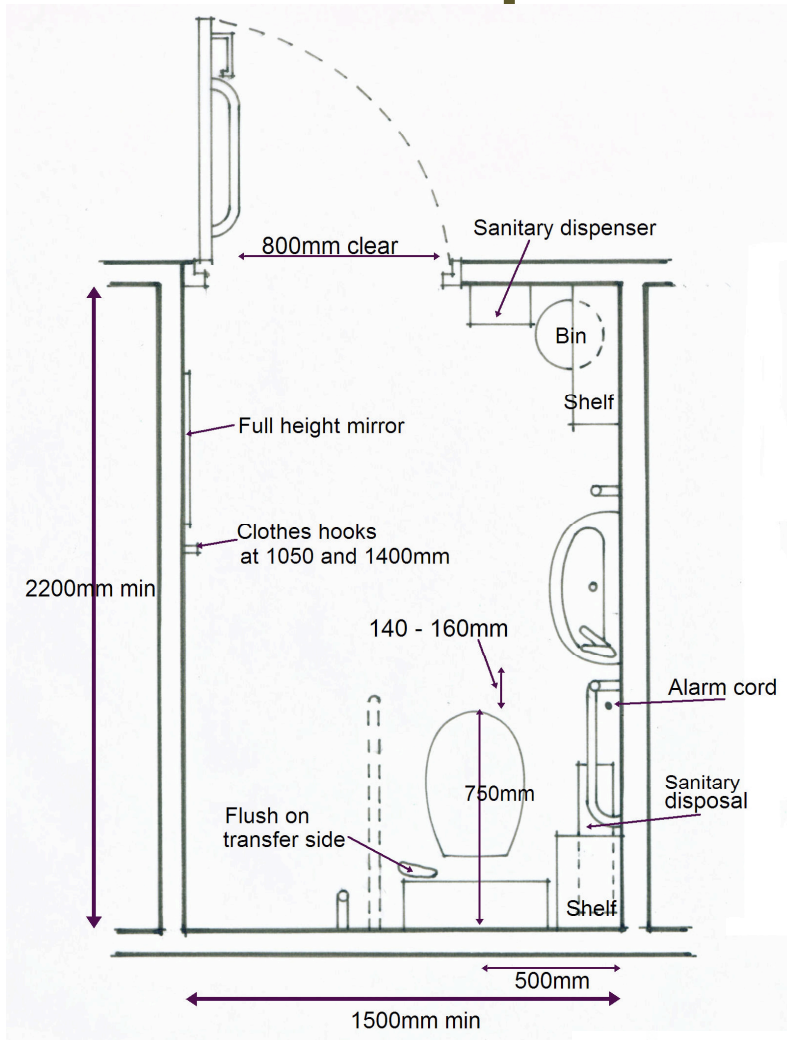
Why 'away from home' not 'public' toilets

Who is affected

- The DDA defines a disabled person as *"someone who has a physical or mental impairment which has an effect on his or her ability to carry out normal day-to day activities."* That effect must be substantial, adverse and long term.

- Toilet closures are occurring at a time when it is estimated that 10 million people in the UK have some form of disability.

- Of these 5% are estimated to require the use of a wheelchair. Others may have 'hidden' impairments like diabetes, epilepsy, impaired vision or incontinence.

- 1.6 million people have continence concerns, and would benefit from improved access to public toilet provision.

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How we have investigated the issue

Mixed research methodology:

– Street surveys

– Personas

– Templates

– Toilet Audit Tool

– Case Studies

Leading to the production of 'The Accessible Toilet Resource'.

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Manchester street surveys

- We conducted street surveys in Clerkenwell and Westminster in London, and in Manchester and Sheffield city centres. In all, 211 people (87 men and 124 women) were surveyed. Their ages ranged from 16 to over 65. The Manchester contingent comprised 49 people.

- Only 39% of the Mancunians surveyed said they would use their local public toilets.

- 6% described the condition of their local toilets as 'Bad', 27% as 'Adequate' and only 14% as 'Good'. 53% did not know the condition of public toilets as they avoided using them!

- Given the notoriety of public toilet provision we asked 'Do you prefer to use 'private' provision such as toilets in cafes, supermarkets?" Unsurprisingly, the response was a 71% 'Yes'.

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Evening use in Manchester

- 73% of Mancunians under the age of 45 reported that they came to the city centre in the evening. However, 42% of those aged over 45 said they did not come to the city centre in the evening.

- 80% of Manchester respondents did not believe there was adequate evening provision. Over 90% of Manchester respondents thought there should be more public provision.

- The issue of street urination was explored, with 55% of Manchester respondents considering it to be a problem.

- In Manchester, where APCs form the bulk of public toilet provision, 71% reported that they would use these facilities.

- Manchester was also the area with the highest positive response to paying for facilities. 86% of the 90% who felt there should be more public toilets were willing to pay for them if they were well-maintained.

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Personas

What our personas have told us about design issues

Design items were by far and away the most numerous, with a total of 315 mentions by the 42 personas, an average of 7.5 items per persona.

Altogether, the personas raised 77 separate issues that they would like to see included or improved in respect of toilet design. The top 5 most mentioned items were as follows:

- Non-slip flooring
- Larger standard cubicles
- Good, bright lighting
- A paddle flush on the transfer side of the toilet
- Provision of a shelf in the cubicle

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What our personas have told us about management

A total of 182 items were mentioned in respect of management, 4.3 per persona, in relation to 21 different management related issues. The top 5 management issues included:

- regular cleaning
- well stocked soap, toilet paper and paper towel dispensers
- the provision of bins for disposable pads, gloves, towels, and suchlike
- locks (RADAR or smart card) that are well-maintained and kept in good working order
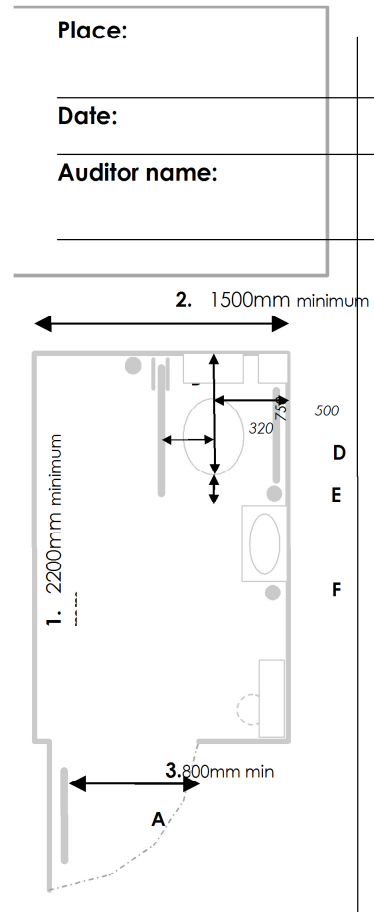- late opening in the evenings

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What our personas have told us about planning

Though the planning authorities do not have a statutory duty to provide public toilets, several planning items were mentioned by our personas.

These were less numerous than either design or management, with just 74 items raised altogether, representing an average of 1.8 items per persona. The top 5 issues were as follows:

- the need for increased provision
- ensuring that there is more choice in the range of toilet cubicles
- the need for more evening provision
- gender parity in toilet provision
- clear, unobstructed access to toilet facilities

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Toilet audit tool

Place:

_____

Date:

_____

Auditor name:

_____

2. 1500mm minimum

1. 2200mm minimum

500

320

75

D

E

F

A

3. 800mm min

Dimensions:

1. Depth 2200mm min   y/n? _____

2. Width 1500mm min   y/n? _____

3. Door 800mm min   y/n? _____

4. Grab rail heights:

A   (horiz. Door)   680mm   y/n? _____

B   (vertical)   800mm   y/n? _____

C   (drop down)   680mm   y/n? _____

D   (horizontal)   680mm   y/n? _____

E   (vertical)   800mm   y/n? _____

F   (vertical)   800mm   y/n? _____

5. Grab rail lengths:

A,B,D.E & F   600mm long y/n? _____

6. WC pan height (top of seat) 480mm

                                y/n? _____

7. Basin height: 720 –740mm y/n? _____

8. WC pan from side wall? 500mm y/n? _____

9. WC pan from back wall? 750mm

                                y/n? _____

10. Drop down to WC pan? 320mm y/n? _____

11. WC pan - basin 140-160mm y/n? _____

12. Height of basin mirror 1600mm min (to top)

                                y/n? _____

13. Height of <u>wall</u> mirror 600mm – 1600mm

                                y/n? _____

Observations:

14. Suitable access route to WC?   Y/N

15. Suitable signage to WC?   Y/N

16. Is WC near to male and female WCs?   Y/N

17. Doors on route easy to open?   Y/N

18. WC door easy to open?   Y/N

19. Outward opening door?   Y/N

20. Lever type door lock?   Y/ N

21. Is there a colostomy shelf?   Y/ N

22. Is there a General use shelf?   Y/N

23. Backrest/cistern to lean on?   Y/ N

24. Toilet paper single sheet dispenser? Y/ N

25. Lever tap to basin? Y/N Automatic tap Y/N

26. Soap facilities within reach?   Y/ N

27. Paper towels within reach?   Y/N

28. Grab rails appear grippable & sturdy? Y/N
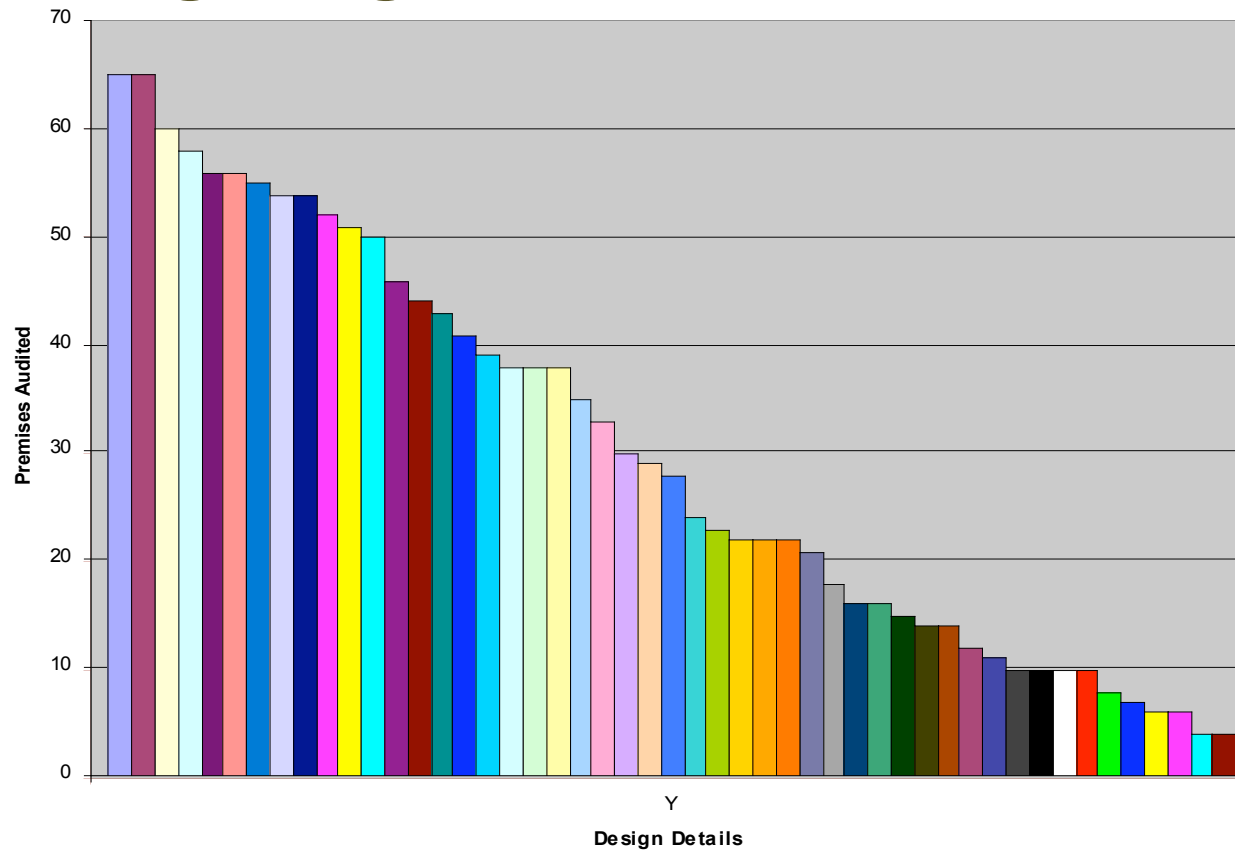
29. Drop-down rail easy to use and sturdy Y/N

30. Alarm system?   Y/N

    Cord to floor?   Y/N

    Reset button within reach of WC?   Y/N

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Getting it right

Design Conforms to ADM

Legend:
- Door 800mm
- GR Sturdy
- Lever tap
- Access Route
- Outward door
- Alarm System
- GR Lengths 600mm
- Near M / F
- WC Door
- Baby Change
- Lever Lock
- Width 1500mm
- Lighting
- Drop down sturdy
- Basin Height 720-740mm
- Signage
- Transfer Flush
- Waste Bin
- Sanitary Bin
- Internal Contrast
- Hot air dryer
- WC Pan side wall 500mm
- GR E 800mm
- Route Doors
- Drop down WC 320mm
- GR B 800mm
- Soap facilities
- Depth 2200mm
- GRC 680mm
- WC Pan back wall 750mm
- Clear trans space
- WC Pan Height 480mm
- TP sheet dispenser
- Cord to floor
- Hgt Basin Mirror
- Backrest/cistern
- Pad / Nappy Bin
- GRF 800mm
- GRD 680mm
- Auto Tap
- Paper Towels
- WC- Basin 140-160mm
- Reset button WC
- Hgt Wall Mirror
- Sanitary Dispenser
- General Shelf
- Coat Hook
- Colostomy Shelf
- GRA 680mm

Important items usually installed correctly

1. 98% of the cubicles we inspected had provided a lever or automatic tap.
2. In 95% the grab rails that had been installed were sturdy
3. 90% of cubicles had a clear door opening width of 800mm
4. 83% of accessible toilets had an adequate access route
5. 83% of cubicle doors opened outwards
6. 70% of cubicles had the correct width of 1500mm, but only 36% of cubicles had the correct overall depth of 2200mm. Most cubicles were therefore too small to take even a small manually powered wheelchair
7. 70% of cubicles had a recommended, easy to use lever action lock
8. 68% of cubicles had adequate lighting
9. 66% of cubicles had included a sturdy drop down rail
10. 58% of cubicles had the flush handle set on the transfer side of the WC

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Important items usually installed incorrectly

1. The most common fixture missing was the colostomy shelf, omitted in 97%

2. Only 10% of cubicles provided a general shelf.

3. Only 6% of cubicles had installed all the required grab rails correctly
    *   Grab rail A (to shut the door) was absent or incorrectly installed in 94% of cubicles
    *   Grab rail F (the vertical rail on far side of the hand rise basin) - 87%
    *   Grab rail D (the horizontal rail on the side wall by the toilet) - 84%
    *   Grab rail C (the drop down rail on the transfer side of the toilet) - 65%
    *   Grab rail B (the vertical rail on the back wall) - 63%
    *   Grab rail E (on the near side of the hand rinse basin) - 60%
    *   Grab rails used as a 'symbol' of accessibility.

4. In only 34% of cubicles was the WC pan installed at the recommended height of 480mm

5. Nearly 7 out of every 10 cubicles (31%) did not have a clear transfer space.

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Difficulties using the accessible cubicle

We have conducted surveys with 89 people who identified themselves as having mobility concerns. Of these:
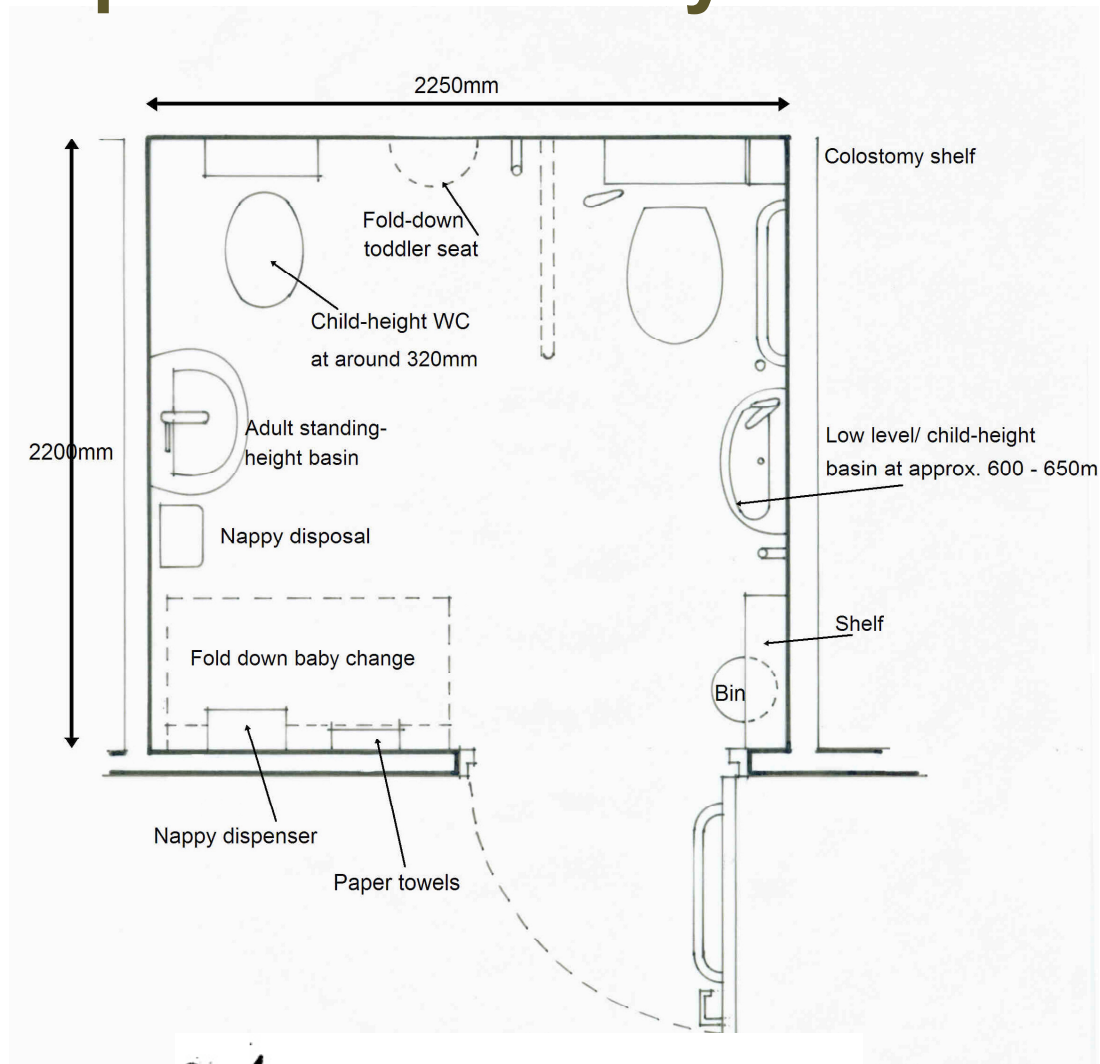
1. 85% reported that at least one feature of the accessible toilet made it difficult for them to use
2. 48% found the cubicle lacked adequate wheelchair turning space
3. the WC itself was uncomfortable for 38% of users: 21% reported the WC pan was too low, whilst 17% found it too high
4. 38% reported difficulty flushing the toilet
5. 38% found the toilet paper dispenser difficult to access
6. 38% found door locks difficult to use
7. 36% reported using difficulties using taps
8. 30% found grab rails difficult to use
9. 25% reported difficulty using the hand wash basin
10. 25% found the cubicle did not provide adequate space for themselves and an assistant
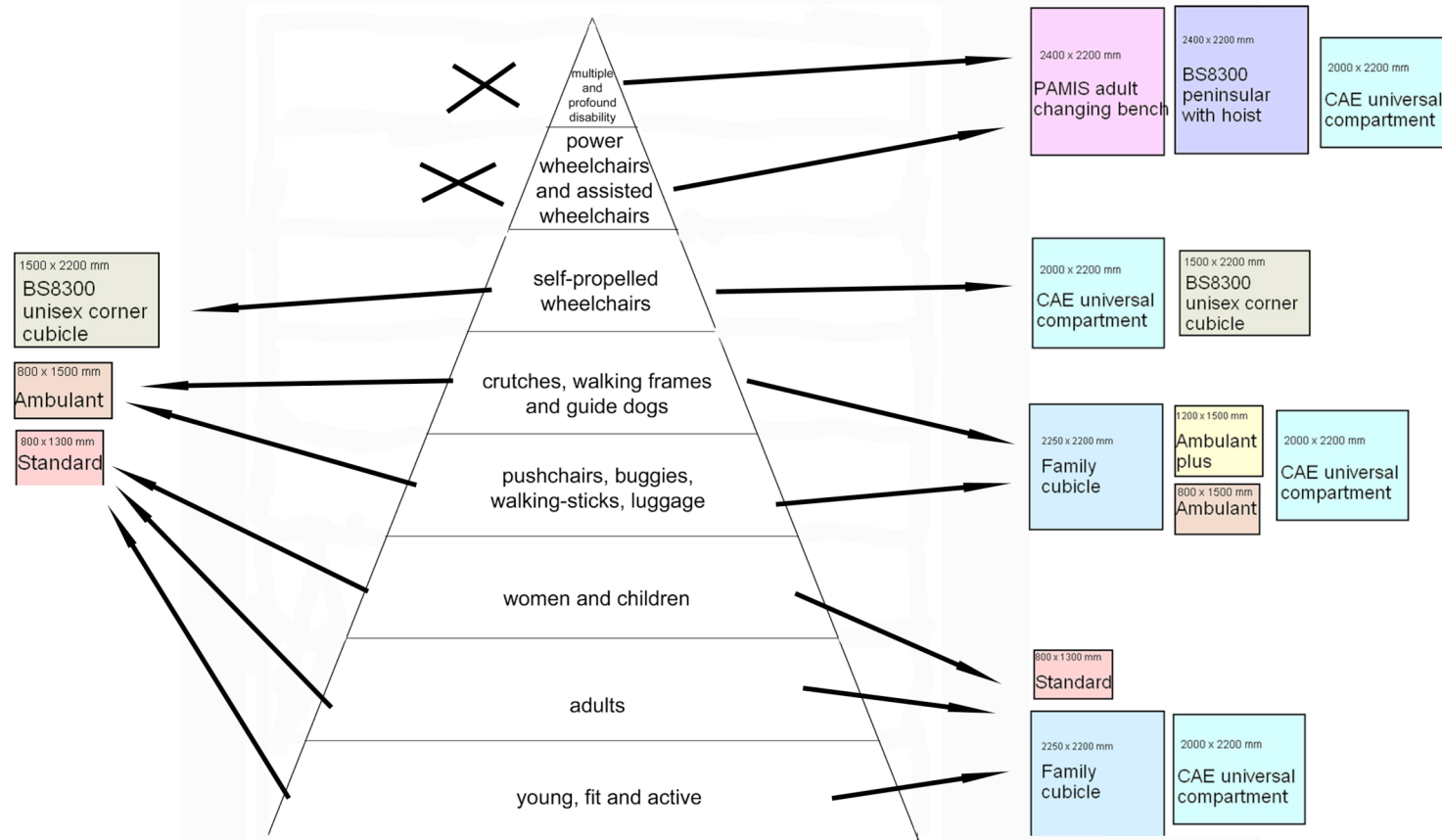
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Design Templates

- In addition to the standard cubicle, three preferred designs for an accessible toilet cubicle, themselves by no means ideal, are already widely in circulation. These are recommended by the British Standards and the ADM.
  - Ambulant cubicle (ADM)
  - Unisex corner accessible cubicle (ADM)
  - Peninsular accessible cubicle (ADM)
- We have supplemented these by four more designs with enhanced space standards that would allow access for a wider range of users. They are:
  - Ambulant plus cubicle
  - Universal cubicle (CAE)
  - Accessible plus cubicle (PAMIS)
  - Family cubicle

Design template for a family toilet
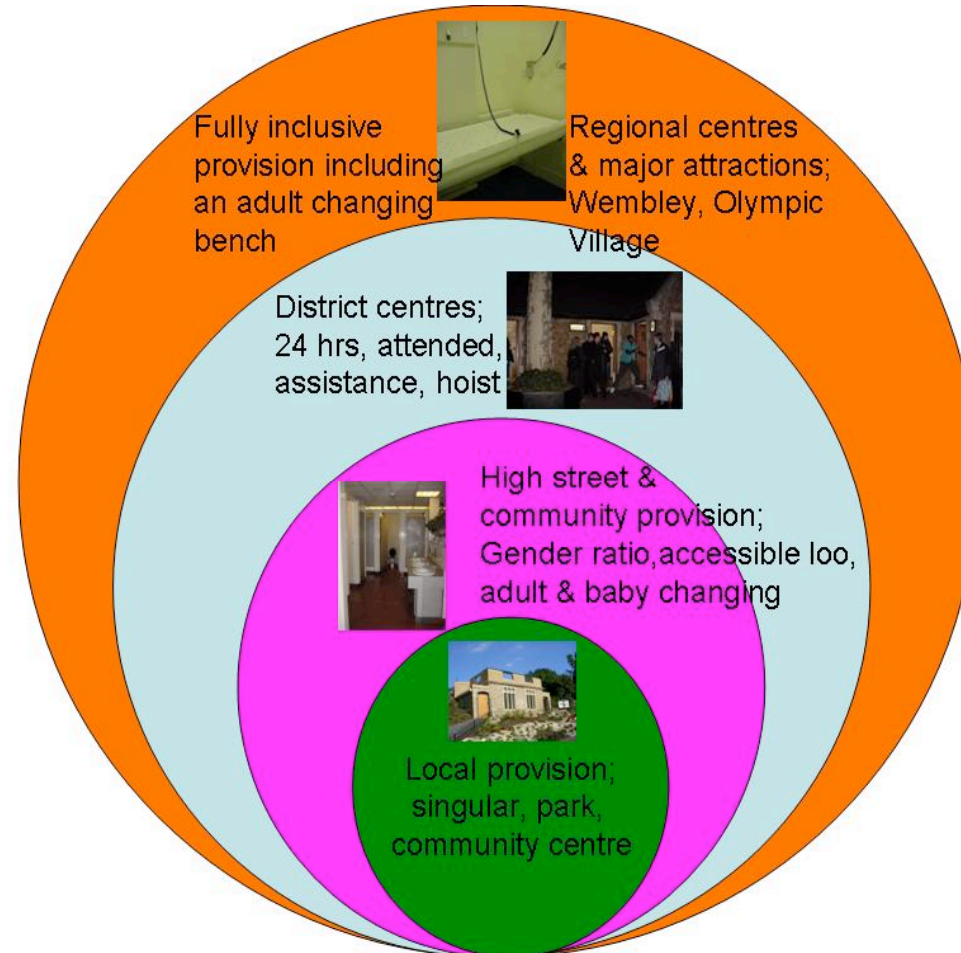
Offering a choice of cubicle

CURRENT AND FUTURE TOILET PROVISION

Current

Future

Hierarchy of provision

Fully inclusive provision including an adult changing bench

Regional centres & major attractions; Wembley, Olympic Village

District centres; 24 hrs, attended, assistance, hoist

High street & community provision; Gender ratio, accessible loo, adult & baby changing

Local provision; singular, park, community centre

Manchester case study

• The theme we chose to explore in Manchester was provision in civic buildings and transport interchanges.

• Data received from Manchester City Council included current locations of public toilets and those that contained accessible facilities, including APCs

• Audit of 19 facilities at 13 premises (museums, transport interchanges, public toilets) completed during May 2006

• The city has some splendid-looking accessible facilities in the Town Hall.

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APCs in Manchester

Facilities at the Manchester Transport Interchange

Facilities in Manchester's civic buildings

The Accessible Toilet Resource

Tools and resources to enable the more socially responsible design of 24 hour cities:

- toilet provision falls outside the 'normal' planning and design processes. No one is 'responsible' for ensuring adequate provision.

- massive public interest and many local pressure groups who lack expert knowledge to take action.

- Launch of 'The Accessible Toilet Resource', on a CD and online, for local communities so that they can gather the ammunition to mount an effective local campaign.

- Equally useful for 'official' providers to develop a strategy, for architects and designers to assess and evaluate designs and for manufacturers to check the inclusivity of their products.

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