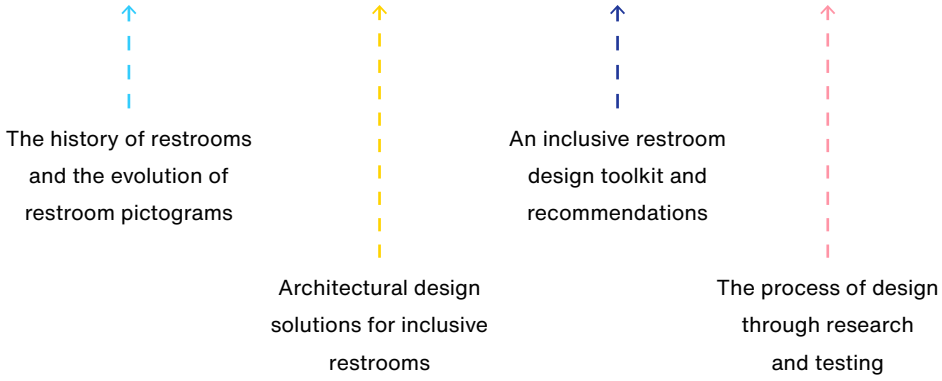
Beyond the Binary

Setting the wayfinding standard for inclusive restrooms

A white paper by **Mijksenaar**



All-gender restrooms: a design for all

At Mijksenaar we believe in ‘design for all’. This means we strive for information systems that help all people find their way, regardless of age, gender, race, ability, culture, or religion.

Design plays an important role in culture and in society, especially when a society is evolving. It is our obligation as experts to move away from old systems that perpetuate exclusion and hinder progress, and to create new systems that facilitate positive change.

One of the current changes in our society is the dynamic of how we perceive and understand gender. Everyone has the right to safety and dignity in any situation, regardless of gender. This especially applies to the use of restrooms, a sensitive yet basic human need.

When initially approached to design a universal all-gender restroom pictogram, we quickly realized that deeper and more thoughtful consideration was needed than a single pictogram could provide. Who is allowed to use the restroom? What is the layout? How might the pictogram make people feel, welcome or unwelcome? How did two human figures become the visual standard for a restroom facility in the first place?

For the past year Mijksenaar has been exploring this complex topic by diving into the historical context, conducting various types of research in which the LGBTQ+ community was actively involved, and testing several design concepts in an airport environment.

We embarked on this research project to help our team and our clients make informed decisions on the implementation of all-gender restrooms. Most of all, we hope this white paper contributes to a continuously more inclusive and dignified experience for all in our society.

In this paper we will:

- Outline the need for inclusive restrooms, address people’s concerns about them, and uncover the history behind social constructs around restrooms.
- Identify key issues and solutions in architecture and information/wayfinding design.
- Provide actionable recommendations and an inclusive restroom design toolkit.
- Recount our research process by exploring the design of a universal restroom symbol.

Why inclusive restrooms?

Throughout history, marginalized groups of people, including women, people of color, disabled people and LGBTQ+ people, have had to fight to gain equal rights and inclusion in society. One of these fights is centered around one of the most basic human needs: using the restroom.

In recent years, restroom access has become a focal point for transgender and non-binary people who continue to face discrimination and violence. Having to adhere to a patchwork of policies that range from inclusive to transphobic, plus the lack of standardized wayfinding, complicates the use of restrooms for transgender people. A visit to a gendered restroom can be normal at best, possibly awkward and confusing, or downright impossible at worst. Restroom access can be limited due to a lack of appropriate restrooms, exclusionary laws, or the risk of harassment and violence.

A shift of focus to function

One of the main conclusions of this white paper is that a shift of focus is necessary: from the person using the restroom to the functions of the restroom. Binary men's and women's restrooms send the message that transgender people don't belong, a problematic notion that perpetuates injustice and dysphoria. Inclusive restrooms help validate the existence of transgender people, paving the way for healing, empowerment and mainstream acceptance.

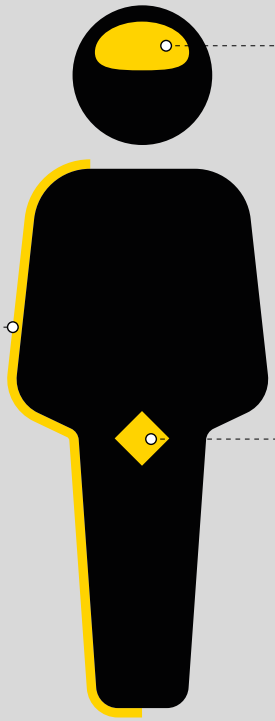
Inclusive

In the same way elevators service more than just wheelchair users, all-gender restrooms improve the restroom experience for everyone. In addition to serving a wider group of people, they boost the availability and capacity of restrooms. They also better accommodate various everyday situations like baby changing tables for parents of diverse genders, families traveling together, or a caretaker looking after someone of a different gender.

Policies and trends

In many cases, the law requires inclusive restrooms. Building codes, building rating systems and local regulations already allow, recommend, and/or require all-gender restrooms. In addition, many locales legally protect LGBTQ+ individuals from discrimination. And, as society's opinions shift, people will expect to encounter inclusive restrooms moving forward.

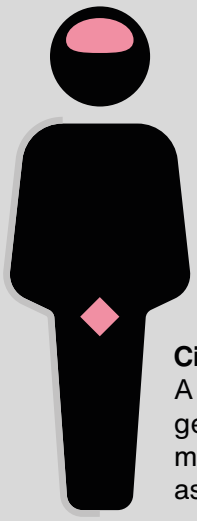
Some useful terms



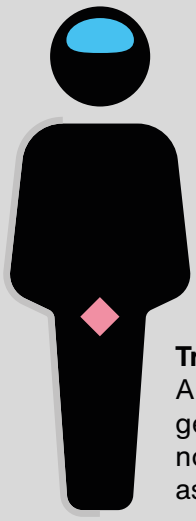
Gender identity
A person's sense of self as a man, woman, trans, non-binary or other identity.

Gender expression
How a person chooses to express themselves, in terms of dress and/or behaviors.

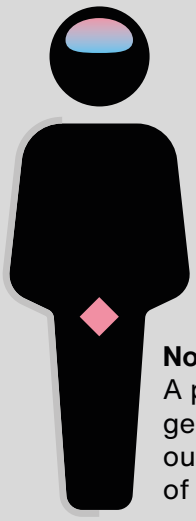
Sex
A medical classification of a person as male, female, or intersex.



Cisgender
A person whose gender identity matches their sex assigned at birth.



Transgender
A person whose gender identity does not match their sex assigned at birth.



Non-binary
A person whose gender identity is outside of the binary of man or woman.

Some useful terms

Cisgender
A person whose gender identity matches with their sex assigned at birth. A person assigned male at birth that identifies as a man is a cisgender man.

Gender binary
Binary means relating to, composed of, or involving two things.[1] In many cultures a person's gender is either man or woman, this idea is commonly referred to as the *gender binary*.

Gender expression
How a person chooses to express themselves. This includes dress, behavior and social expressions like names and pronouns.

Gender identity
A person's sense of self as a man, woman, trans, non-binary or other identity. This sense of self may or may not correspond with the sex and gender the person was assigned at birth.[2]

Gender non-conforming
Term used to describe people who do not subscribe to societal expectations of typical gender expressions or roles. The term is most commonly used to refer to gender expression as opposed to gender identity.[3]

Intersex
An umbrella term to describe a wide range of natural body variations that do not fit neatly into conventional definitions of male or female. Intersex variations may include, but are not limited to, variations in chromosome compositions, hormone concentrations, and external and internal characteristics.[4]

LGBTQ+
An abbreviation that stands for lesbian, gay, bisexual, transgender and queer/questioning. The + encompasses all other sexual and gender identities. Variations include LGBT and LGBTQIA+ (intersex, asexual/ally).

Non-binary
A person whose gender identity is outside of the binary of man or woman. Some of the more common gender identities are:

- **Agender:** a person who does not identify with any binary or non-binary gender.
- **Genderfluid:** a person who experiences different gender identities at different times.
- **Multigender:** a person who fluctuates between two or more (non-)binary gender identities.
- **Pangender:** someone who experiences all the genders, either by fluctuation or all at once.

Sex
A medical classification of a person as male, female, or intersex. Sex is often assigned based on the appearance of the genitalia, in ultrasound or at birth.[5]

Transgender
A person whose gender identity does not match their sex assigned at birth. While transgender may refer to a woman who was assigned male at birth or a man who was assigned female at birth, transgender can also describe someone who identifies as a gender other than woman or man, such as non-binary, genderfluid or agender.[6]

Queer
An umbrella term often used interchangeably with LGBTQ. Some people who identify as queer express fluid identities and/or orientations.

1 "Binary." Dictionary.com, Dictionary.com, www.dictionary.com/browse/binaries.
2 "LGBTQIA Resource Center Glossary." LGBTQIA Resource Center, 14 Jan. 2020, lgbtqia.ucdavis.edu/educated/glossary.
3 Ibid
4 Ibid
5 Ibid
6 Ibid

Concerns and challenges

Inclusive design is about designing solutions that take human diversity into account. That is why it is important to hear from all intended users, and to design with their needs in mind. As part of our initial research, our goal was to learn about both the benefits and the concerns and challenges of transitioning to all-gender restrooms.

Pictogram recognizability
Some people have reservations on changing the restroom pictogram because the binary restroom pictogram is so universally understood. This is a design challenge, but not one that cannot be solved. Pictograms gain universal recognition through standardization and widespread implementation.

Culture
Some people have concerns about all-gender restrooms based on religious or cultural reasons, especially regarding modesty and privacy. The impetus behind providing all-gender restrooms is to be inclusive of *all* people, regardless of any identity—including religion or cultural background. Many solutions could address these concerns, from providing binary and all-gender options together, to ensuring fully private stalls, to individual stalls. It will always be necessary to tailor solutions to each cultural environment so that all people are welcome.

Privacy
In the United States, most public multi-stall restrooms lack auditory and/or visual privacy. Stall walls have wide gaps, are low, and can be thin or flimsy. It's no surprise why so many people are concerned about sharing restrooms with people of diverse genders. Designing a more private stall, as commonly seen in European countries, will help mitigate these concerns.

Safety
Opponents of all-gender restrooms claim that such spaces would make women and children vulnerable to assault. However, these claims are unfounded and no incidents have been reported in connection with all-gender restrooms[1]. Rather, a 2015 survey[2] of transgender and non-binary people found that 12% of the respondents reported being verbally harassed and 9% reported that they were denied access to a restroom. More than half of the respondents (59%) said they avoided public restrooms because they were afraid of confrontations.

Cleanliness
Some people are concerned that all-gender restrooms will be less clean than single-gender restrooms. Although scientific studies have actually proven that men's restrooms are cleaner [3], popular belief still results in women being uncomfortable with sharing a restroom space. This concern can be mitigated be ensuring adequate facilities are provided (such as enclosed waste bins in every stall), as well as proper cleaning procedures.

Cost
Small business owners and organizations have expressed concerns that if all-gender restrooms are required by law, it may be challenging to abide because of limited funds or space. Depending on the circumstance, there are many ways of retrofitting restrooms for budgets of all sizes.

1 Hasenbush, Amira, et al. "Gender Identity Nondiscrimination Laws in Public Accommodations: a Review of Evidence Regarding Safety and Privacy in Public Restrooms, Locker Rooms, and Changing Rooms." Sexuality Research and Social Policy, vol. 16, no. 1, 2018, doi:10.1007/s13178-018-0335-z.

2 James, Sandy E., et al. "The Report of the 2015 U.S. Transgender Survey." National Center for Transgender Equality, 2016.

3 Kennedy, Denise I., et al. "Restrooms: Enteric Bacterial Contamination of Public Restrooms." CIRI, 2007, www.ciriscience.org/a_67-Enteric-Bacterial-Contamination-of-Public-Restrooms.

1. CONTEXT

Path to progress

To change the current restroom wayfinding standards, it is necessary to understand what led to these standards. This chapter covers the history of public restrooms, the evolution of restroom pictograms, and an overview of current pictograms used for all-gender restrooms.

History of public restrooms

The history of public restrooms was studied from ancient Rome to current day.

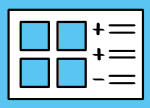
How did public restrooms look in ancient Rome? When did the first sex-separated public restrooms appear? How has the all-gender movement influenced the way restrooms are assigned and used?

Evolution of restroom pictograms

The evolution of restroom pictograms was studied from the 1920s to current day.

When was the first pictogram set developed? When did the ISO standard first feature a toilet pictogram? How did the pictograms evolve, and what is the current restroom pictogram standard?

Analysis of all-gender pictograms



Current all-gender restroom pictograms were categorized and compared.

What pictograms are currently being used for all-gender restrooms? How do these pictograms replace the binary restroom pictogram? What are the pros and cons of these pictogram solutions?

1.1 History of public restrooms

Ancient Rome

It is believed that Romans of all ages used communal latrines that were shared between men and women alike. Some of these latrines could accommodate up to 50 people at a time, making it a social activity.

Victorian Era

As women step out into public life, architects and planners start creating designated women spaces that resemble the home such as reading rooms in public libraries, ladies-only railroad cars and parlors. Before this time, public life—and therefore public spaces—were designed only for men.

1870s-1960s

In the US, Jim Crow laws require public facilities like restrooms to be segregated by race.

1990

The Americans with Disabilities Act is passed, transforming public spaces, including restrooms.

2010s

Checkingfax/ Wiki Commons

During this period, around 150 colleges and high schools introduce all-gender restrooms, most of which are single-stall restrooms.

2017

The state of North Carolina repeals HB2.

The Trump administration rescinds Obama's rules on transgender access to restrooms, leaving it to state governments to decide.

2020

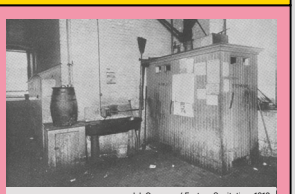
The US Supreme Court rules that the Civil Rights Act of 1964, which prohibits sex discrimination, also protects the LGBTQ+ community from discrimination based on sexual orientation and gender identity. This is a huge victory that will have a ripple effect accross policies.

1739

The first sex-separated public restroom appears at a Parisian ball as a temporary solution. Ball-goers think the idea is eccentric and fun.

1887

The state of Massachussetts passes the first law requiring sex-separated restrooms in all factories and workshops.



J.J. Cosgrove/ Factory Sanitation, 1913

1920

By this time, over 40 states had passed legislation requiring that public restrooms be separated by sex.

1987

The state of California signs the Restroom Equity Act, requiring new buildings to include more restroom stalls for women. This is the first attempt to address the inequalities faced by women in public restrooms like long waiting times. Since then, several states have passed similar legislation.

2016

The state of North Carolina passes HB2, a law that forces people to use the restroom that matches their sex assigned at birth. Many condemn this law, which sparks national debates around transgender rights and restroom policy.

Ted Eytan/ Flickr

Obama issues the 'Dear Colleague' letter directing all federally funded schools to allow transgender people to use the bathroom that matches their gender identity.

2019

Two amendments to the International Building Code are approved:

(1) All single stall restrooms are required to show that they are available to all users, not a single gender.

(2) Multi-stall all-gender facilities are allowed and are compliant with code. These include shared sink areas with private stalls for each toilet.

1.2 Evolution of restroom pictograms

1920s

In Vienna, a visual dictionary called Isotype (International System of Typographic Picture Education) is created. It includes over 4,000 symbols designed to portray data that could be universally understood regardless of language or culture.

1964

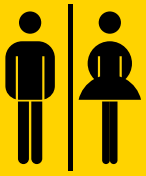
Katzumi Masaru and Yusaku Kamekura design the first formalized set of pictograms for the Tokyo Olympic Games, which included symbols for both sports and services. A binary man and woman pictogram were used as a symbol for the restrooms.

1965

British Rail is the first transit company to introduce a standard design style for all their signage throughout train cars and stations.

1972

Inspired by the design of the Tokyo Games, Otl Aicher designs the pictogram set for the Munich Olympic Games and introduces the stick figure design we are most familiar with today.



1974

The US Department of Transportation (DOT) commissions the American Institute of Graphic Arts (AIGA) to create a comprehensive set of pictograms to be used throughout all public transport networks, including road, rail, air and sea. The set is made available for free, which allows for widespread adoption. The set is now considered an international standard.

1980

The International Organization for Standardization (ISO) releases the first version of ISO:7001 that provides standards for public information symbols.

1990

The second version of ISO:7001 is released. A toilet symbol is used to indicate restrooms. Later versions, including the current standards, use the man and woman symbols to indicate restrooms.

2008

A school in Thailand introduces restrooms for transgender students. The pictogram used to identify the restroom is a half boy, half girl. This may be the earliest version of one of the most commonly used all-gender restroom pictograms.

2010s

As all-gender restrooms are being introduced, a new challenge arises: signage. The lack of an international standard leaves this decision to individual organizations. The result is an array of solutions of pictograms and terminology. The most commonly used is a half-man, half-woman symbol, as well as the term ‘gender-neutral’.

2014

Sam Killermann writes an article criticizing the half-man, half-woman pictogram and offers a better solution: a toilet. The article is widely shared and as a result, sign suppliers start providing the toilet pictogram as an alternative solution for all-gender restroom signs.

2020

There is still no universal standard for an all-gender restroom pictogram or terminology, but many designers and organizations have come up with creative solutions—some more successful than others.

1.3 Analysis of all-gender pictograms

Since the 1960's, the international standard for restroom pictograms has been the man and woman figures. This has occurred despite ISO providing a toilet symbol in their 1990 version of public information standards. Its lack of adoption can be attributed to the fact that ISO standards must be purchased, whereas the DOT/AIGA symbols have been available for free since their inception in 1974.

With the emergence of all-gender restrooms, the traditional binary restroom pictogram is no longer current. One could argue the pictogram never was accurate, since it never communicated 'restrooms' but rather sex-separated spaces.

During the last decade, increasing visibility and recognition of transgender people has made the need for inclusive restrooms more apparent and urgent. As a result, designers have come up with an array of pictogram solutions that can be summed up in five main categories:

1. Man/woman binary adaptation
2. Playful
3. Textual
4. Symbolic
5. Functional

1. Man/woman binary adaptation

+ Based on familiar man & woman pictograms
+ Can easily be added to existing pictogram sets
– The combined pictogram is not inclusive as it is still based on a man/woman binary
– The combined pictogram is ambiguous with strange shapes (half a dress, a crooked skirt?)

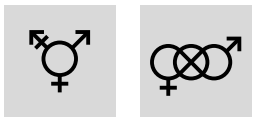
2. Playful

+ Can be a fun, friendly, and approachable way to educate people about all-gender restrooms
– Not inclusive, as these figures (unintentionally) depict that people are either man, woman or 'different'
– Pictograms are not unambiguous, introducing new (sometimes difficult to understand) figures
– Depends on context, will never be a standard

3. Textual

+ Inclusive, as it is a representation of the restroom and it doesn't depict a user group
+ Commonly used in many countries
– Can be problematic when used in international context due to varying languages and alphabets

4. Symbolic



+ Based on familiar male & female sex symbols
– Not truly inclusive, based on binary symbols
– The existing male & female sex symbols might not be well known
– The combined symbol is new, which means users need to learn what it means

5. Functional

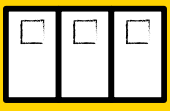
+ Inclusive, as it is a representation of the restroom function and it doesn't depict a user group
+ Can easily be added to existing pictogram sets
+ Informs people on what to expect in a restroom area or behind a stall door
– Some pictograms are less familiar
– Restroom types and functions differ locally so a global standard might not be understood by some nationalities

2. ARCHITECTURE

Space as part of the solution

In order to create inclusive public restrooms and accomplish widespread adoption, it is necessary to rethink how restroom spaces are designed. Many of the concerns and skepticism around all-gender restrooms, like privacy and safety, can be addressed by architectural and interior design interventions. This chapter explores a few key issues and solutions of the architectural design of public restrooms.

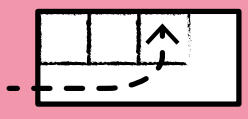
Public restroom design



In order to create inclusive public restrooms it is necessary to rethink how restroom spaces are designed.

The two main configurations of restroom areas are a single-stall and a multi-stall layout. These configurations each offer challenges and opportunities when it comes to creating an inclusive all-gender restroom.

Architectural strategies



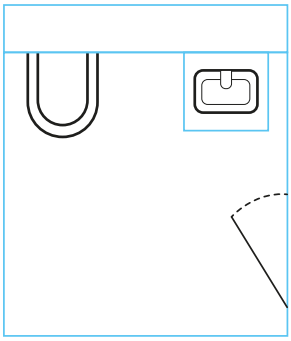
Architectural experts have developed design strategies for better and more inclusive public restrooms.

The strategies featured in this section are from MIXdesign, whose initiative Stalled! has led the way in inclusive restroom design, education and advocacy; and HCMA, whose publication Designing for Inclusivity serves as a comprehensive guide for the design of universal restrooms and change rooms.

2.1 Public restroom design

Public restroom designs vary in layout, materiality, and size depending on the location and intended users. The two main configurations of restrooms are single-stall (single user occupancy) and multi-stall (multi-user occupancy).

Single-stall

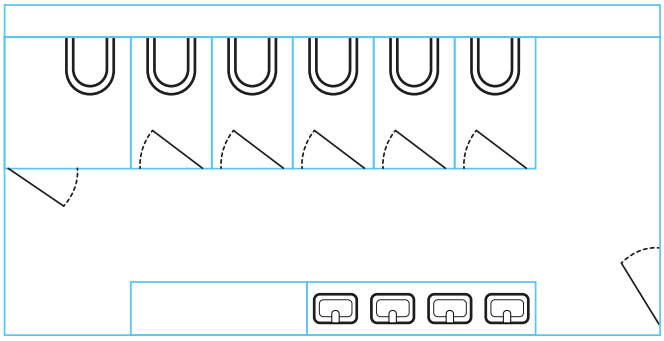


Single-stall restrooms are standalone facilities that include a toilet, sink, and other amenities for one user or party. They are typically implemented as a set of gender-specific restrooms, or as an addition to multi-stall men's and women's restrooms, as mandated by the Americans with Disabilities Act (ADA). In the latter case, these are most commonly identified for accessible use and/or for families.

Converting single-stall restrooms to all-gender is relatively simple. Single-stall restrooms comply with building codes, and converting them to all-gender is often as easy as changing a sign. In 2021, amendments to the International Plumbing Code will require all single-stall facilities to be identified for all-gender use. This solution provides a usable facility for gender nonconforming people, people with reduced mobility, caregivers, and families.

However, it is not feasible to scale up single-stall restrooms as a solution in any facility with high occupancy and/or constrained space. The natural next step towards inclusive and efficient facilities would be multi-stall all-gender restrooms.

Multi-stall



Multi-stall restrooms are larger, shared spaces that include multiple toilet stalls, sinks, and other amenities. Because of their greater capacity and efficiency, multi-stall restrooms are ubiquitous in larger facilities.

All-gender solutions are possible, but rare, because of complexities brought up by current local and international codes, which typically require separate multi-stall restrooms for men and women. Fortunately, the 2021 International Plumbing and Building Codes (IPC and IBC) will have been amended to allow for multi-stall all-gender restrooms, making it a more viable option.

All-gender multi-stall restrooms have key advantages:

- Greater capacity and user throughput.
- Waiting time for toilets is equalized.
- In new buildings only one restroom needs to be realized, resulting in efficient use of space and possible reductions in construction costs.

2.2 Architectural strategies

Inclusive all-gender restrooms require different design strategies from current industry standards. This section features some strategies and guidelines that MIXdesign and HCMA have developed for the design of inclusive public restrooms. For more information on architectural strategies see MIXdesign's Stalled! Online and HCMA's Designing for Inclusivity.

Privacy

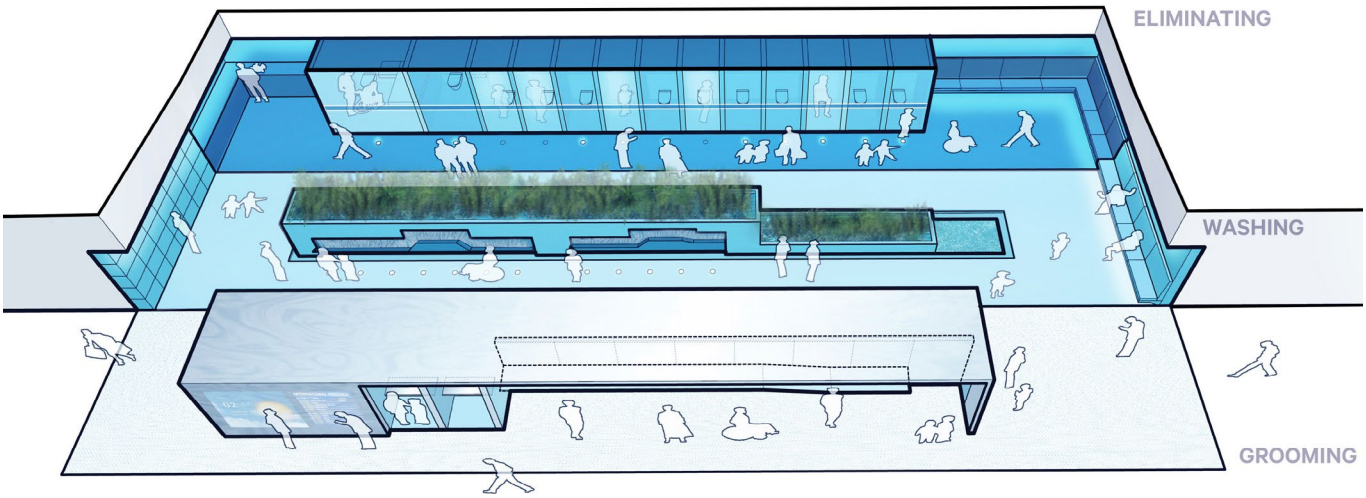
- Use enclosed floor-to-ceiling stalls and doors to provide full visual and auditory privacy.
- Use door locks that clearly indicate when a stall is occupied to increase user comfort and facilitate staff monitoring.
- If gaps are necessary to facilitate staff monitoring and cleaning, consider using translucent panels, or try to keep gaps as small as possible to ensure user privacy.
- Use partial walls or dividers to create gradations of privacy between different activity zones:
  - Private: toilet, urinal and changing stalls
  - Semi-private: washing and caregiving
  - Shared: grooming
- Use different textures, materials, and lighting to demarcate each activity zone.
- Provide waste bins in all stalls. This applies to all restrooms: men, women, and all-gender.

Culture

- Provide private stalls that include a sink/vanity for users that require full privacy for religious or personal reasons.
- Avoid urinals in multi-stall all-gender restrooms. Their presence doesn't align with many people's beliefs on modesty and will make them feel uncomfortable and unwelcome. If urinals are deemed necessary, make sure these are fully private and clearly identified.

Safety

- Locate restroom areas adjacent to high traffic and/or prominent areas to increase safety.
- Use open entryways (no doors) to emphasize the openness of the space and increase active and passive monitoring.
- If possible, have more than one entry/exit point. This will help ease circulation to and from the restroom.



Airport prototype for inclusive public restrooms with three activity zones in a gradation from shared to private space by MIXdesign.

3. TOOLKIT

Transitioning to inclusive restrooms

There is no one-size-fits-all solution for inclusive restrooms, as each environment has its own unique challenges in terms of architecture, user types, and cultural context.

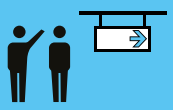
This toolkit offers a step-by-step approach to devise tailored solutions for a variety of scenarios. This way we hope that every environment can be equipped with the tools to design truly inclusive restrooms.

1
Spatial strategy

The spatial strategy describes which functions are required and where they are located.

- Requirements
- Guidelines
- Possible stall configurations

2
Wayfinding plan



The wayfinding plan outlines the strategy for placing signage & information for the restroom area.

- Naming the stalls
- Sign types and locations
- Content guidelines

3
Graphic design

The wayfinding plan comes to life through the graphic design. The visuals for each type of sign are created in this step.

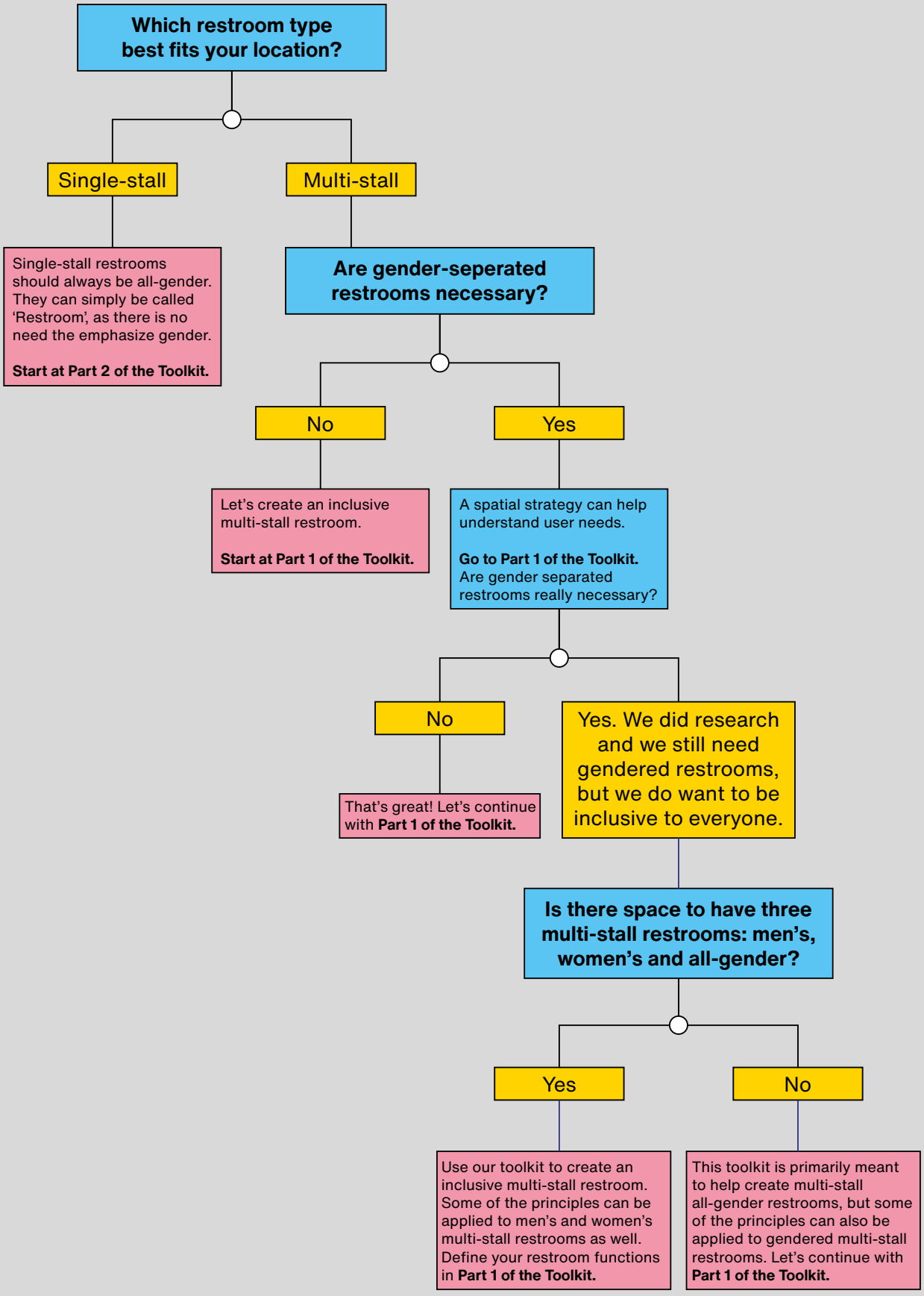
- The use of pictograms
- Other design guidelines

4
Implementation plan

The goal of the implementation plan is to prepare and inform users about new restroom scenarios.

- Preparing users
- Educating on the ‘why’
- Communicating the changes

Let’s get started!



Part 1: Spatial strategy

Part 1 will help define a spatial strategy for multi-stall restrooms. This strategy will describe which restroom functions (stall types) are required and how they are configured within the restroom area.

1. Understanding user needs

The required functions of a restroom area are highly dependent on its users (e.g. age, gender, cultural background) and the context (e.g. travel, leisure, work) of the site or building. An airport, for example, is a stressful environment with users from all over the world. A small office might have colleagues all with a similar cultural background. These environments would require different functions in each of their restrooms.

By doing user research (for example by sending out a questionnaire or by conducting interviews) you can learn which restroom functions are required by your users, and what their general opinion is on inclusive all-gender restrooms.

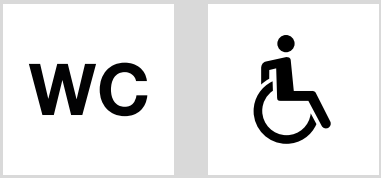
RESULT
Insights into your users and their needs

2. Defining restroom functions

The results of the user research can be used to create a selection of required functions for your restroom area. During this selection it is important to keep in mind that adding or combining certain functions might result in a less inclusive environment. Additionally, some of the functions can only be implemented in combination with other functions.
The images on the right describe which functions can be implemented and which combinations of functions should be avoided.

RESULT
Selection of functions for your restroom area

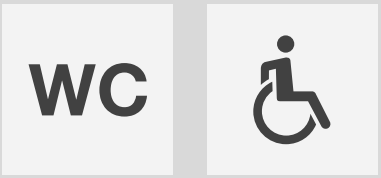
Restrooms should always offer:



Just one stall?

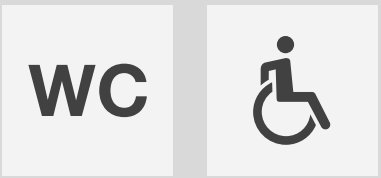
- Make sure that the stall is wheelchair accessible;
- or communicate clearly why it is not.

Restrooms can be upgraded with:



Baby care | **Shower** | **Companion care**
Nursing Room | **Changing room** | **Kids Toilet**

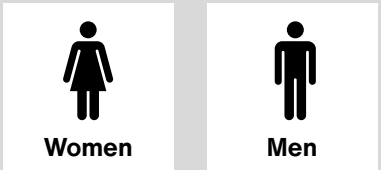
Restroom areas can be adjusted for religious or personal reasons:



Provide private **urinal stalls** that are clearly identified.

Provide a private **changing room** with sink and mirror.

Avoid the following:



Providing only women's and men's restrooms: this excludes transgender and non-binary people.

Adding the label all-gender to the accessible restroom: this stigmatizes both user groups.

3. Determining the spatial layout

After determining the functions for your restroom area, the layout of the space can be designed. During this process, remember to apply the guidelines featured in the Architecture chapter or see Stalled! Online and Designing for Inclusivity for additional information.

Planning for a new building
New buildings offer the opportunity to design inclusive restrooms that provide the ideal layouts and functions to meet users' needs.

Retrofitting existing restrooms
To provide inclusive restrooms in an existing building, there are many options to retrofit gendered restrooms.

Restrooms
The layout depends on the amount of space available. A solution that works for a restroom in a small office, will not always work for restrooms at a large train station. The following categories are used to explain the guidelines for the spatial layout of inclusive restrooms.

Small restrooms
Shops | Restaurants | Small offices | ...

Medium restrooms
Museums | Malls | Hospitals | ...

Large restrooms
Airports | Train Stations | Large offices | ...

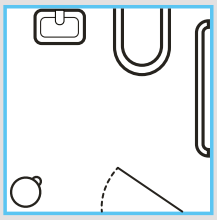
See next page for a visualization of the guidelines per category.

Small restrooms

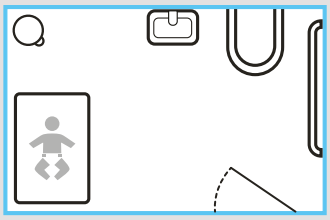
Shops | Restaurants | Small offices | ...

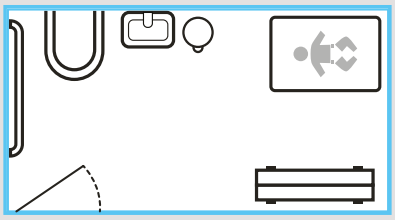
Planning for new buildings

Small restrooms should be made as multifunctional as possible. Most important is to make the restroom accessible for wheelchair users.

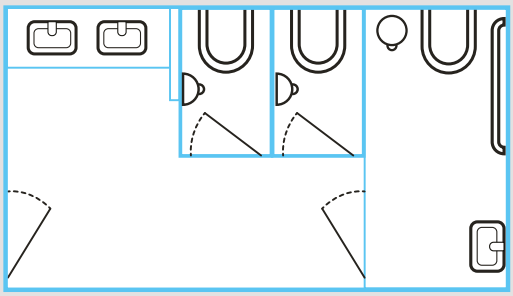


Based on user needs, determine how many specific functions, like changing rooms, showers, or baby changing stations, are required.



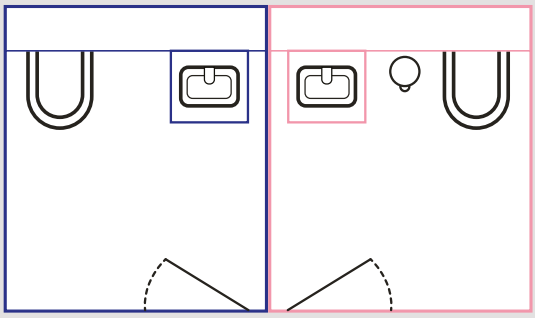


If there is space, add toilet stalls to make queuing as short as possible.

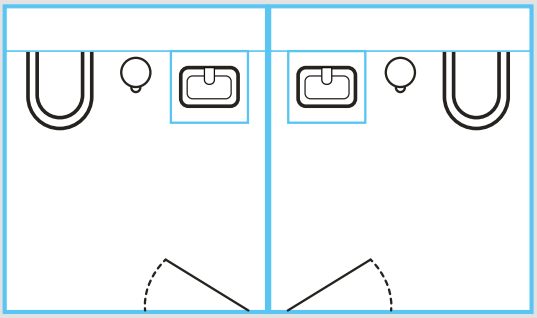


Retrofitting existing restrooms

BEFORE



AFTER



In this case, not much change is required. Just remove the binary signs on the door and communicate that both stalls are standard restrooms.

Both restrooms should offer exactly the same amenities. In most cases this means adding a waste bin to the former men's restroom.

RESULT

Spatial plan for a small restroom area

Medium restrooms

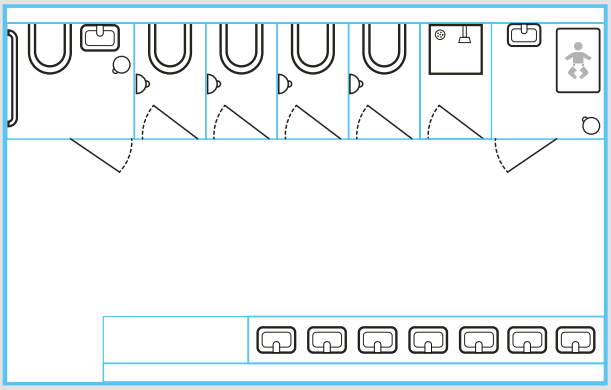
Museums | Malls | Hospitals | ...

Planning for new buildings

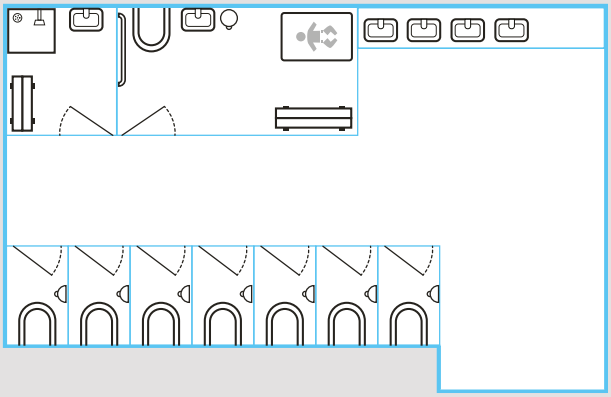
Medium sized restrooms should offer toilet stalls and at least one accessible stall, located close to the entry.

Based on user needs, determine how many specific functions, like changing rooms, showers, or baby changing stations, are required.

If you expect many users with specific needs, it is best to assign a specific function to each stall, as they can be used more efficiently.

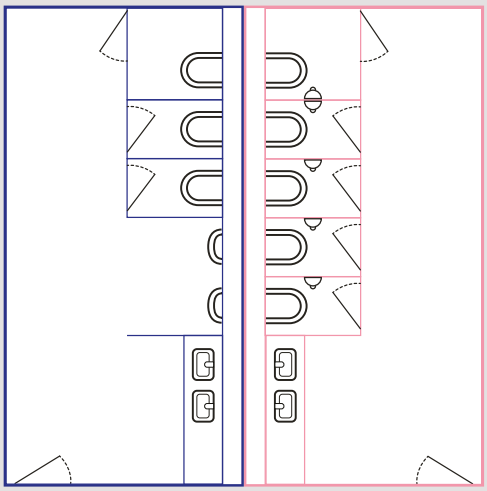


If you expect the majority of users to use a regular toilet it is best to offer one or two multifunctional stalls and multiple toilet stalls.

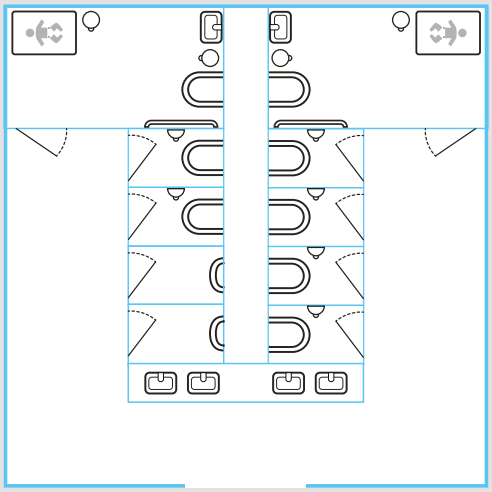


Retrofitting existing restrooms

BEFORE



AFTER



Create a central shared area by removing part of the wall between the men's and women's restrooms. Move the entrance to the middle of the restroom area. A door is not required, as the central zone and the washing area creates a natural partition between the corridor and the private stalls.

Make sure that urinals are in private stalls.

RESULT

Spatial plan for a medium restroom area

Large restrooms

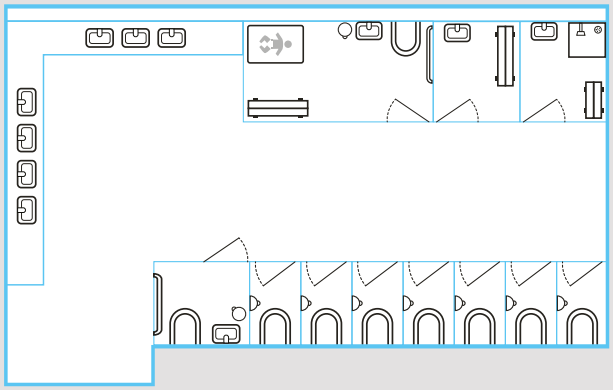
Airports | Train Stations | Large offices | ...

Planning for new buildings

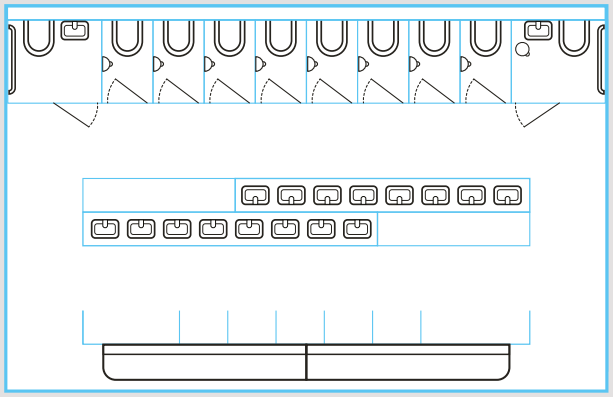
Large restrooms should be divided into the three zones of grooming, washing and eliminating.

Based on user needs, determine how many specific functions, like changing rooms, showers, or baby changing stations, are required.

If you expect many users with specific needs, it is best to assign a specific function to each stall, as they can be used more efficiently. If you expect the majority of users to use a regular toilet it is best to offer multifunctional stalls and multiple toilet stalls.

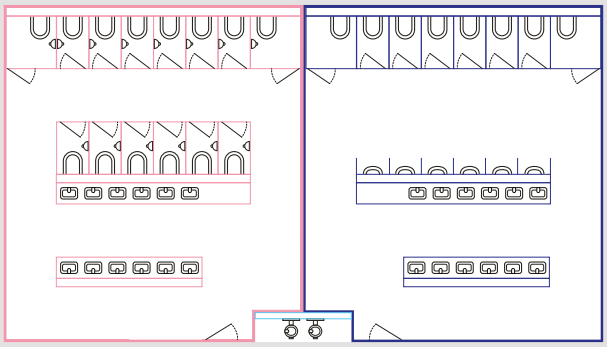


To improve circulation and to create a safer and more open space, include two entrances and a central shared area in the restroom layout.

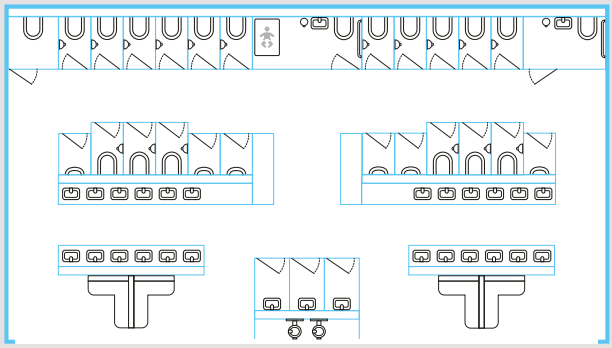


Retrofitting existing restrooms

BEFORE



AFTER



Create a natural partition by placing a seating/waiting zone and a washing area. Adding some private stalls in the washing area, just with a sink and mirror, increases comfort for user that need to get used to sharing the restroom area with the opposite gender.

Make sure that urinals are in private stalls that are distributed evenly in the restroom area.

RESULT

Spatial plan for a large restroom area

Part 2: Wayfinding plan

Part 2 will help set up a wayfinding plan for your new restroom scenario. The first step is choosing the right— inclusive—terminology. This terminology will then be implemented in a wayfinding plan, which outlines the placement of signage & information for the restroom.

1. Choosing the right terminology

Each restroom functionality should have its own clear terminology, so users know what to expect.
Try to use names based on function, not on the user group. Examples of function-based names are 'urinal' and 'accessible restroom.'

Exclusively non-gendered restrooms
In buildings where there are no gendered restrooms, there is no need to use any additional term.

Do use
Restroom

Gendered and all-gender restrooms
When there are both gendered and all-gender restrooms, it is necessary to distinguish between them. For the latter, the name should be considered carefully. The term should celebrate the gender diversity of the users.

Do use	Don't use
▪ **All-gender**	▪ **Gender-neutral**
▪ **Gender-inclusive**	▪ **Unisex**
▪ **Inclusive**	
▪ **Universal**	

RESULT
List of terms for all the different functions in your new restroom area

2. Creating a wayfinding plan

When creating a wayfinding plan, you will determine the location and content of the following elements:

1. **Directionals** - *the route to the restrooms*
2. **Identifications** - *specific stall functions*
3. **Information** - *in-depth content on the situation*

The necessity of wayfinding elements differs per situation. Common examples of in-depth information are a map with restroom functionalities and their location, or a sign that lists reasons for having all-gender restrooms.
The content of each wayfinding element should comply with the following requirements:

- **Easy to understand for all possible users**
- **Respectful to all possible users**
- **Manages users' expectations of the situation**
- **Removes possible annoyances of users**

Cascading information
The wayfinding system should be inclusive and easy to use. By cascading information, users get the right information at the right time:

- **Refer to 'Restrooms', without any additions, as much as possible.**
- **Only mention the differences between stalls when users have to make a choice.**
- **When offering a choice, inform users about all the options available.**
- **Only focus on gender difference when it is not possible to differentiate by function.**

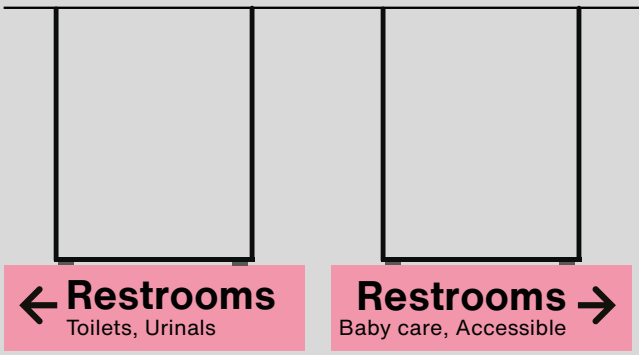
See next page for a visualization of these guidelines.

Cascading information

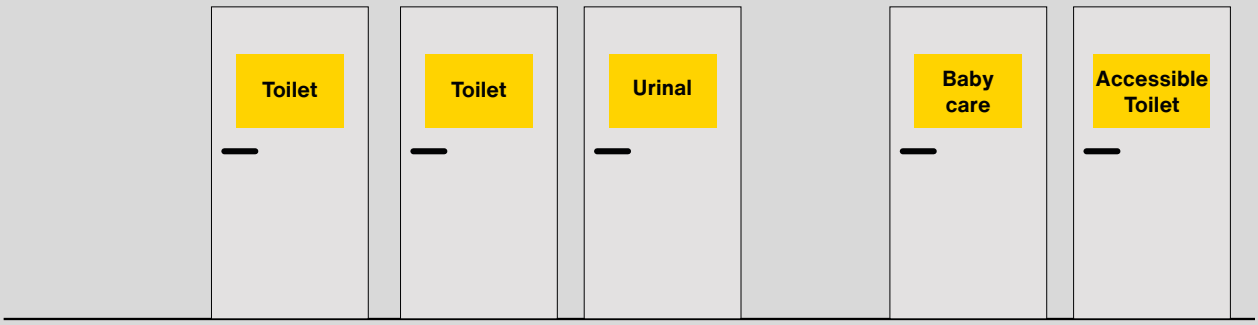
Refer to ‘Restrooms’, without any additions, as much as possible.

Only mention the differences between stalls when users have to make a choice.

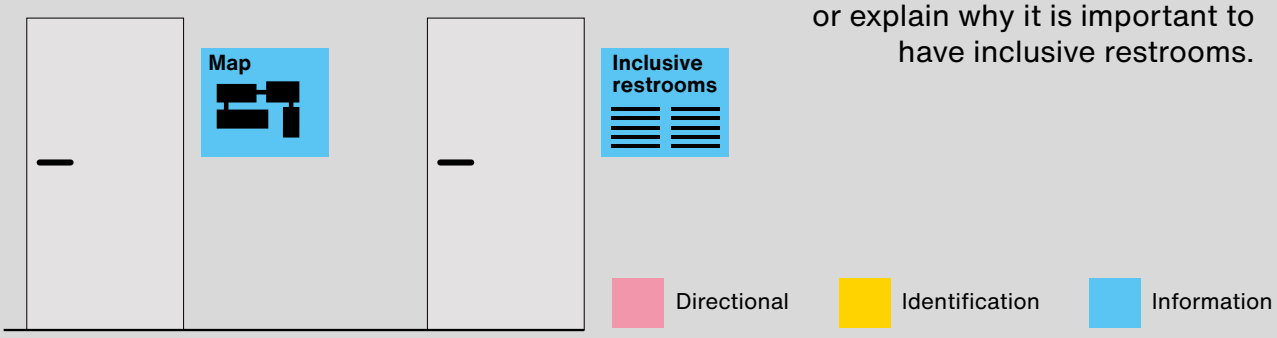
When offering a choice, inform the users about all the options available.



Explain the difference between stalls by explaining their function.



If necessary, add information about the location of specific stalls, or explain why it is important to have inclusive restrooms.



RESULT

Map with wayfinding locations and a document with a description of the content per element

Part 3: Graphic design

Part 3 will help with choosing the most essential part of the graphic design: pictograms. A truly inclusive spatial strategy and wayfinding plan can be undermined by using the wrong pictograms.

1. Choosing the right pictograms

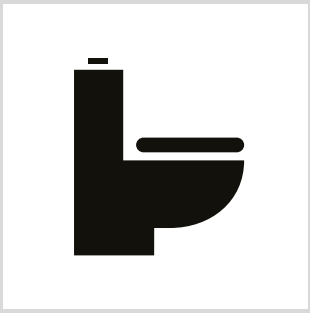
Pictograms must always be easy to understand. One of the takeaways from our research is that metaphors or abstractions should be avoided. According to our surveys and interviews, a shift of focus from restroom users to restroom function is necessary. These views align with the advice of using function-based terminology as stated in Part 2 of this toolkit.
Functional pictograms should be used for restrooms and all corresponding restroom functionalities.

Pictogram set
We have designed a set of functional restroom pictograms, shown on the right.
Restrooms can best be identified with a pictogram showing the front view of a toilet, as it is most recognizable. If the front view toilet pictogram can't be used—for example because of aesthetic reasons—the side view toilet pictogram is the alternative recommendation. Another option would be to use the textual restroom pictogram, however, this pictogram could exclude illiterate people as well as people that use non-roman alphabets.
Restroom functionalities should also be identified with pictograms. These pictograms are all focused on function, and can be used to create inclusive restroom wayfinding.

Of course, these pictograms can be adapted to fit a specific graphic style.

> **RESULT**
> *Inclusive set of pictograms for all the different functions in your new restroom area*

Toilet (front view)
primary recommendation



Toilet (side view)
secondary recommendation

WC (textual)
alternative recommendation

2. Creating a wayfinding design

Now you can bring the pictograms together with the terminology and wayfinding plan created in Part 2.

Keep in mind the following when creating a wayfinding design:

Do's

- **Use the toilet pictogram for restrooms as much as possible. Only use other pictograms if it is necessary to explain that there are different types of stalls or functions.**
- **Focus on the function, like 'urinal' or 'accessible', when explaining the difference between stalls.**
- **Use text when explaining user types, but only if it is absolutely necessary.**

Don'ts

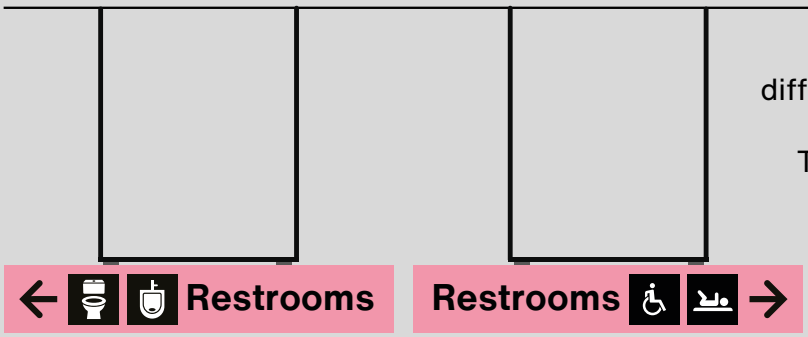
- **Use the combined binary man/woman figure to refer to general restrooms.**
- **Use color to distinguish between stall types. Not only because this is not inclusive to visually impaired people, but also because of the stigmatizing effect of certain colors, like pink and blue.**
- **Focus on user types, like 'men' or 'disabled', when explaining the difference between stalls.**

See next page for a visualization of these guidelines.

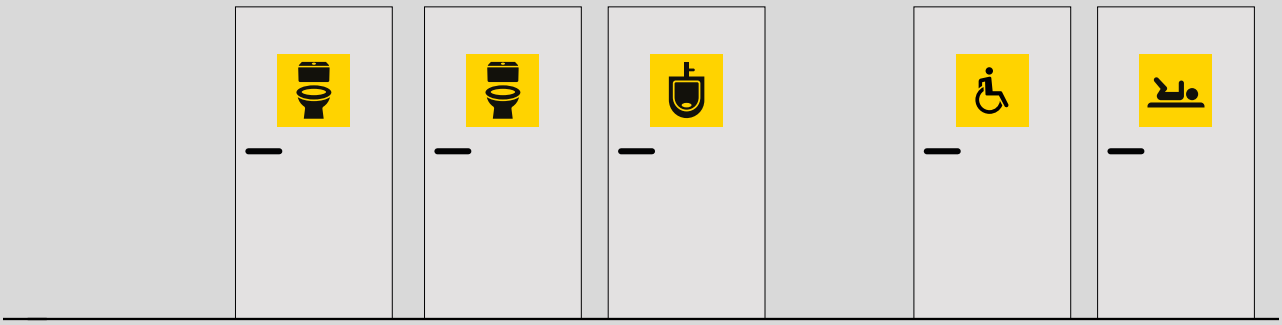
Applying pictograms

When referring to the restrooms in general, use the pictogram of a toilet.

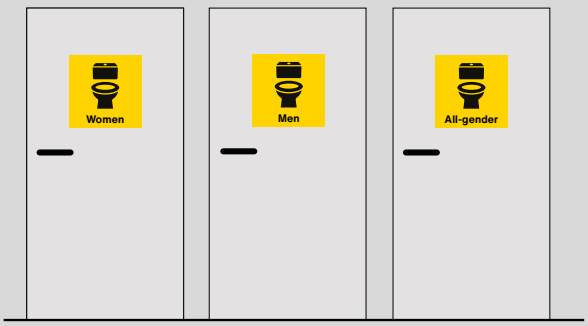
When directing to stalls with different functions, use pictograms that focus on function. The toilet pictogram is now used for toilet stalls.



Use the same pictograms to identify the different stalls.



If necessary, add textual information about which users can go to a specific stall. The use of man/woman figures should be avoided.



Directional Identification Information

RESULT
Map with wayfinding locations and graphic layouts for each element

Part 4: Implementation plan

Part 4 will aid in creating an implementation plan. It will take some time for people to get used to a new restroom situation. Preparing, educating, and informing people will make the transition go smoothly.

1. Prepare

Prepare your users by involving them from the very beginning of the project. The user research conducted in Part 1 of the toolkit also functions as a communication tool to prepare your users for possible changes. Also make sure to communicate the results and conclusions of your research to **manage expectations**.

Prepare people for the new situation by **gradually changing** the restrooms into all-gender restrooms. This way people can take their time to get used to sharing the restroom with people of another gender.

Examples

- News items on social media, website, or other communication means
- Announcement at the restroom entrance, inside the stalls or at the restroom sinks

2. Educate

Educate your users to help them understand why all-gender restrooms are important. **Stress the positive effects** of all-gender restrooms as opposed to gendered restrooms, and **share facts** about the issues and experiences that transgender and non-binary people face in gendered restrooms.

Examples

- General inclusivity statement at the entrance of the restroom area
- Short positive statements, e.g. on mirrors or inside stalls
- Lecture or forum about all-gender restrooms
- Accounts from transgender or non-binary people sharing their experiences

3. Inform

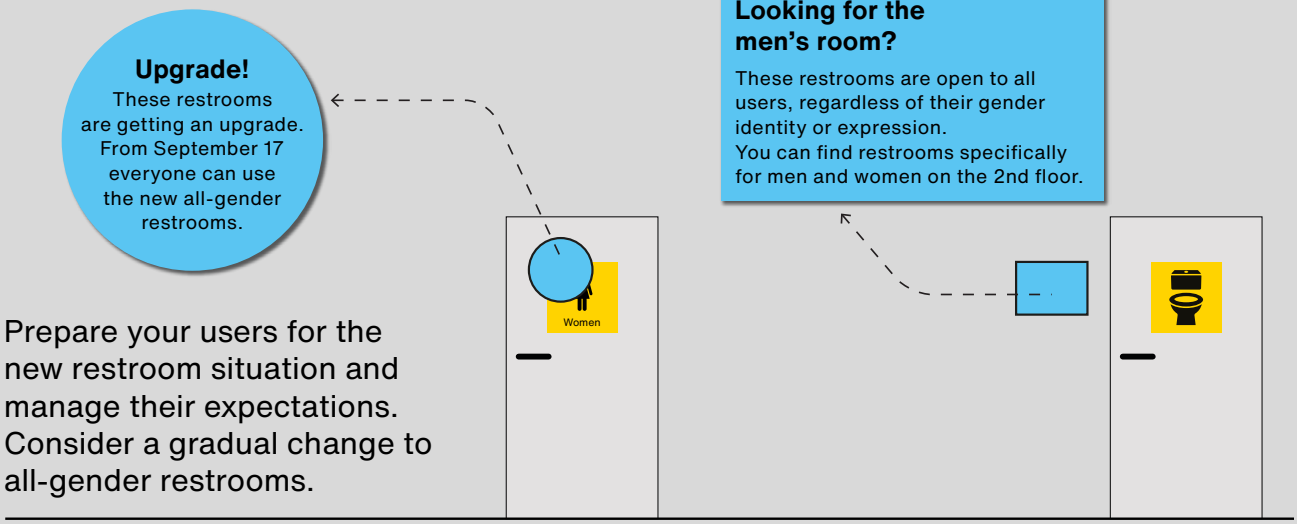
Inform your users about the new situation. Using an all-gender restroom might be a new experience for some people. **Explain the layout** of the restroom before users enter the area to help avoid surprises.

The new inclusive pictogram set might also cause confusion and take time to get used to. A **clarification of the pictograms** can help users decide which stall to use.

Examples

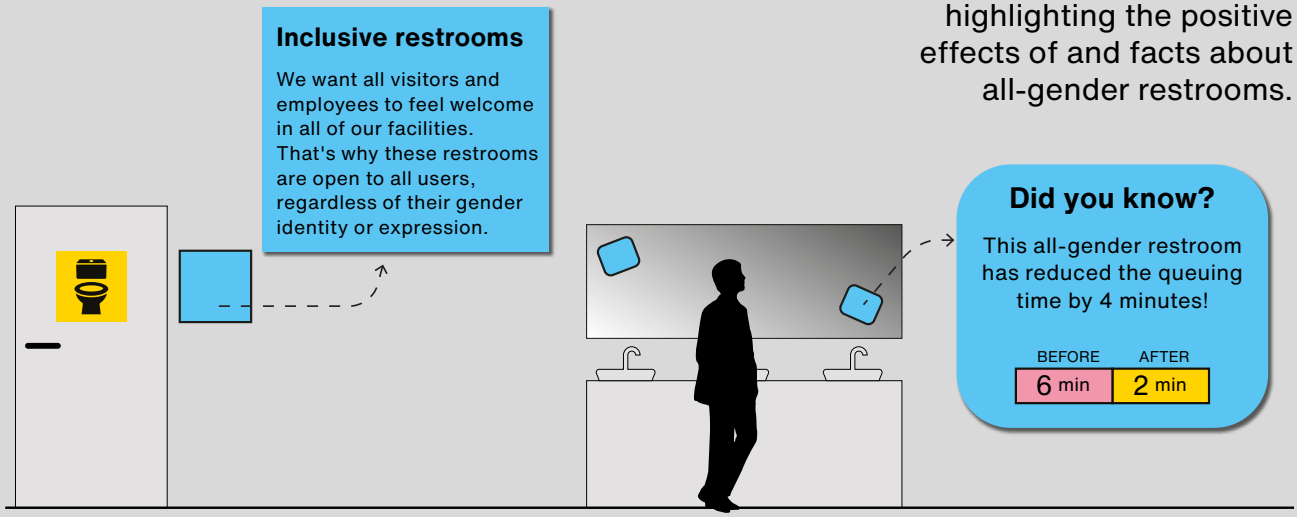
- Welcome sign
- Map of stall configuration
- Key to explain pictograms

See next page for examples on how to prepare, educate and inform people on the new situation.

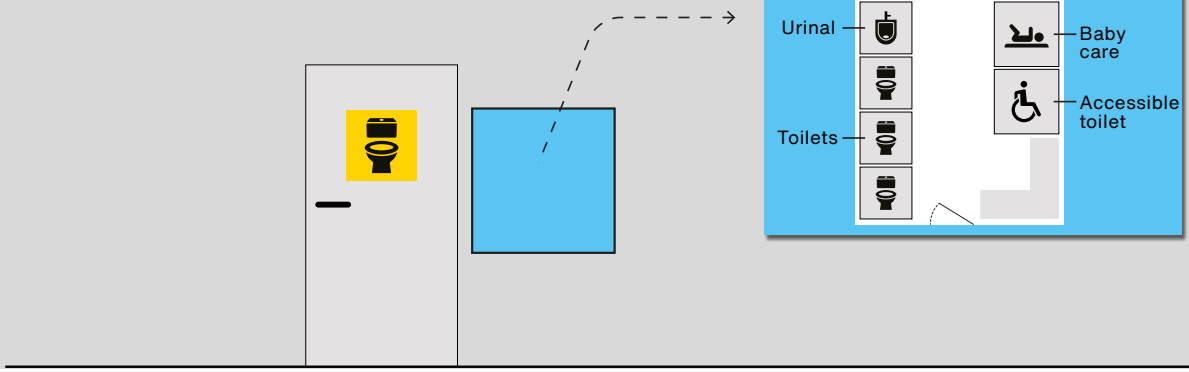


Prepare your users for the new restroom situation and manage their expectations. Consider a gradual change to all-gender restrooms.

Educate your users by highlighting the positive effects of and facts about all-gender restrooms.



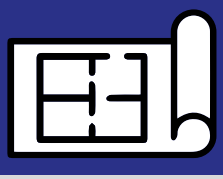
Inform your users by explaining the layout of the new restroom situation, and clarify the new restroom pictograms.



RESULT

Implementation plan that will help users understand and accept the new inclusive restrooms

1
Spatial strategy

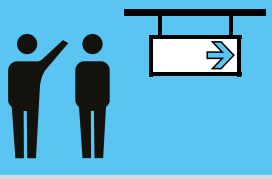


In Part 1 you defined a spatial strategy for multi-stall restrooms. This strategy describes which restroom functions (stall types) are required and how they are configured within the restroom area.

Results:

- Insights into your users and their wishes
- Selection of functions for your restroom area
- Spatial plan for the new situation of the restroom area

2
Wayfinding plan

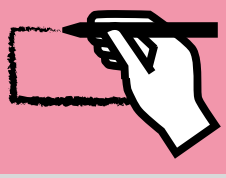


In Part 2 you set up a wayfinding plan for your new restroom scenario. The first step was choosing the right terminology. This terminology was then implemented in a wayfinding plan, which outlines the placement of signage & information for the restroom.

Results:

- List of terms for all the different functions in your new restroom area
- Map with wayfinding locations and a document with a description of the content per element

3
Graphic design

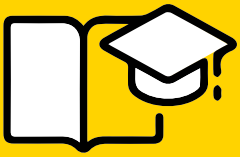


In Part 3 you selected the most essential part of the graphic design: pictograms. A truly inclusive spatial strategy and wayfinding plan can be undermined by using the wrong pictograms.

Results:

- Inclusive set of pictograms for all the different functions in your new restroom area
- Map with wayfinding locations and graphic layouts for each element

4
Implementation plan



In Part 4 you created an implementation plan. It will take some time for people to get used to a new restroom situation. Preparing, educating, and informing people will make the transition go smoothly.

Results:

- Implementation plan that will help users understand and accept the new inclusive restrooms

Please feel free to contact us with any questions, ideas or suggestions about the toolkit. And we'd love to see the results of your inclusive all-gender restroom!

inclusivity.mijksenaar.com

4. RESEARCH

Understanding inclusive restrooms

We conducted different types of research all with the same goal: immersion in the topic in order to come up with a truly inclusive design. The research varies from implementing all-gender restrooms at the Mijksenaar office to usability testing with people from all over the world.

A major part of the research was conducted together with Noor de Wit (student Industrial Design at University Twente).

Empathy research

The restrooms in the Mijksenaar Amsterdam office were changed to all-gender restrooms.

What are our findings and feelings when using an all-gender restroom? How do clients respond to this change?

A vote on current pictograms

Pride week in Amsterdam was a great opportunity to collect some initial user input on pictograms.

How do people feel about the pictograms that are currently being used for all-gender restrooms?

Getting to know the community

Six questions were asked to get to know the transgender and non-binary community.

How is the community affected by binary restroom layouts? What is the point of view on inclusive restroom efforts?

View on all-gender restrooms

189 people were asked four questions about their experience of all-gender restrooms.

How do people feel about mixing genders in restrooms? How do people experience all-gender restrooms?

Usability testing at Schiphol

A preference test of different pictograms was conducted at Schiphol Airport.

Do people understand the different all-gender pictograms? Are people comfortable using an all-gender restroom?

4.1 Empathy research

The first step to designing an appropriate solution for any issue is to familiarize oneself with the topic. To this end, we converted the binary restrooms in the Mijksenaar Amsterdam office to all-gender restrooms and tested various all-gender pictogram designs. We then collected qualitative feedback from both employees and visitors, giving insight into the experiences, challenges and feelings people had when using an all-gender restroom.

Findings

- Most people tend to stick to their old habits; most women kept using the former women's restroom and the same goes for men.
- Employees felt uncomfortable (especially in the first days) meeting people from the opposite gender inside the restroom area.
- Visitors were less bothered when sharing a restroom with the opposite gender, presumably because they weren't aware of the old setup and were not familiar with other people.
- Women noticed the former men's restroom has a smaller mirror, and that there are no waste bins inside the stalls.
- Many employees stated that it felt strange that there are two restroom areas with similar functions (both all gender), rather than some difference between the two.

'The only time I feel uncomfortable is when I'm having my period. At a time like this I like it better to be in the restroom with only ladies...'

'I guess it only feels really natural when you've never been used to anything else, or when there's only one restroom area.'

4.2 A vote on current pictograms

Pride week in Amsterdam was a great opportunity to collect some initial user input, as the Mijksenaar Amsterdam office is situated along the route of the canal parade. Four of the more commonly used pictograms for all-gender restrooms were hung in the office windows, together with a poster asking people to vote on their preferred all-gender pictogram.

Goal

The goal was to find out which of the most commonly used all-gender pictograms is preferred:

1. A person that really needs to use the restroom: *'when you gotta go, you gotta go'.*
2. A toilet as a visual representation of the function of a restroom.
3. A combined woman/man adaptation of the binary restroom pictogram.
4. A more playful pictogram, symbolizing 'all people' as a unicorn.

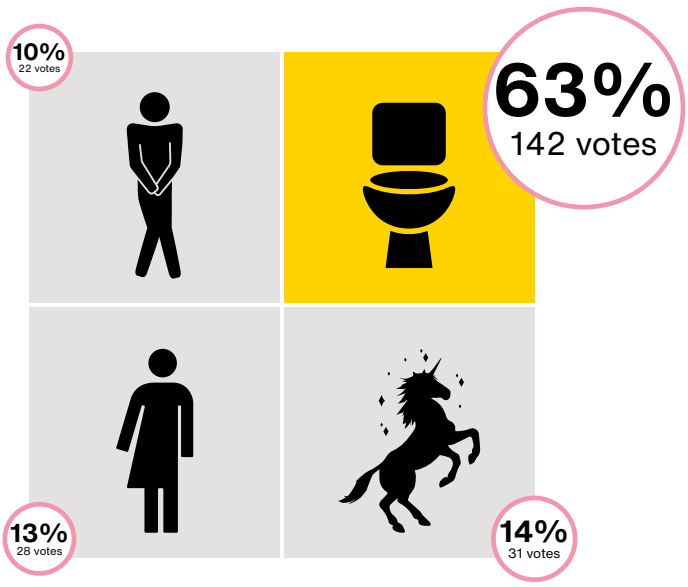
We also included the option to comment in order to gather qualitative responses.

Findings

In total, 223 people voted. The responses showed a very clear preference for the toilet pictogram. There were 142 votes (64%) for this option, with all the other options receiving around 25 votes.

Some people took the effort to explain why they voted for the toilet pictogram. The primary reason cited was that the toilet pictogram shifts attention from the person using the restroom to the function of the restroom.

One of the next steps was to find out how users react to the toilet pictogram when it is placed in context.



4.3 Getting to know the community

In considering all-gender restrooms, we believe it's important to understand the perspective of groups that may be most impacted by the current lack of inclusive restrooms. We sought to understand how transgender and non-binary people are affected by gendered restrooms, and wanted to hear their ideas for all-gender restroom layouts, pictograms, and terminology.

Six open questions were placed on Mijksenaar's social media, as well as on a Dutch website for gender inclusivity (vereniging-genderdiversiteit.nl). Twenty transgender and non-binary people responded.

This part of the research was done in collaboration with Noor de Wit from University of Twente.

Impact of gendered restrooms

Most respondents reported having negative experiences with gendered restrooms, from feeling self-conscious and invalidated, to getting weird looks or even getting verbally assaulted when entering the restroom of the gender they identity with. The current restroom environment is a real problem for many transgender and non-binary people.

The underlying problem is that transgender and non-binary people are not always accepted by everyone in society. Some responses are associated with the experience of feeling excluded, because the options generally offered in restrooms (men, women, and accessible) do not apply to all people. Transgender people also indicated that it does not always feel natural to go to a gendered restroom.

'You have to watch out for a "freak show" image of non-binary people. That is not something that the community needs right now.'

View on current developments

Almost all respondents were positive about the increase in all-gender restrooms. All non-binary respondents indicated they prefer all-gender restrooms, as did most transgender respondents. They noted that all-gender restrooms don't require them to make a choice they can't make, and they're not confronted with binary expectations.

Some transgender people indicated they would rather visit a gendered restroom: they want to finally be able to use the restroom that fits their gender identity. In instances where all-gender, men's, and women's restrooms are offered, they can feel pressured to use the all-gender restroom.

Respondents also mention the practical benefits of all-gender restrooms, such as better distribution of people over the restrooms, and parents being able to accompany their children.

Respondents are aware of the negative perception some people have of all-gender restrooms. Because of this, some respondents had hesitations about the amount of attention all-gender restrooms should attract. This hesitation suggests that restrooms without any reference to gender may be preferred.

Terminology

The respondents were asked about their ideas on terminology that would be fitting for all-gender restrooms. The main suggestions were:

- Restroom, WC or Toilet
- Gender-free
- Gender-inclusive
- Gender-diverse

Pictograms

The respondents were also asked about ideas for all-gender restroom pictograms. Though the categories outlined in our analysis of all-gender pictograms weren't specified, the respondents' suggestions generally aligned with the same categories:

1. Man/woman binary adaptation
   - Symbol that changes from man to woman
   - Man/Woman figure with a '|' between them
   - Man/Woman figure with a '+' between them
   - Combined man and woman figure, possibly with a wheelchair integrated
2. Playful
   - Funny image of poo and/or pee
   - Combination of masculine/feminine clothing
   - Shoes with explanatory text
3. Textual
   - 'WC' in text
4. Symbolic
   - No options were given for symbols
5. Functional
   - Toilet and urinal

It is important to note that though more variations of categories 1 and 2 were given, most respondents preferred category 5: a toilet or urinal pictogram. Respondents also noted that though a toilet or urinal pictogram is easy to understand, these pictograms have a certain degree of informality that some organizations might not want to associate with.

'At least a toilet pictogram is clear, though it does have a certain degree of informality.'

Transition period

Many of the respondents stressed the importance of letting people get used to the idea of all-gender restrooms, and had some interesting ideas about how this could work.

Transition by floor
Start with all-gender restrooms on even floors and gendered restrooms on odd floors of the building. People might be reluctant to go up or down a floor to use a restroom, and thus might discover that the fears they had about all-gender restrooms were unfounded. Once people are used to the all-gender restrooms on even floors, the odd floors can follow.

Be positive
Stress the positive effect of all-gender restrooms, like the more equal distribution of people and the extra space that becomes available.

Communicate
People are used to gendered restrooms in public buildings. If the restrooms are all-gender, against expectations, this could be an unwelcome surprise. It is important to manage people's expectations.

Social functions
Women's restrooms have an important social function that needs to be addressed in all-gender restrooms. A solution could be to detach this social function from the physical space where the toilets or urinals are, by separating the sinks and mirrors from the actual restroom area.

Amenities
To make restrooms truly inclusive all amenities that one might need should be provided in each restroom (stall). This means, for example, that every restroom stall should have a waste bin.

4.4 Views on all-gender restrooms

Survey

In order to explore the challenges and opportunities of implementing all-gender restrooms, we wanted to learn how people perceive all-gender restrooms as a concept to identify any concerns or perceptions to overcome. Four questions were posed in a survey that was shared online.

This part of the research was done in collaboration with Noor de Wit from University of Twente.

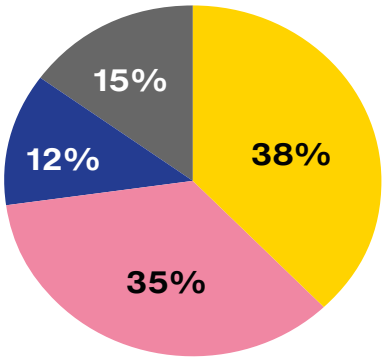
Questions

1. Do you feel comfortable going to a restroom identified for the opposite sex?
2. Would you be comfortable with going to an all-gender restroom?
3. Do you think it is necessary to change existing gendered restrooms in public spaces to all-gender restrooms?
4. What do you think is the best name for an all-gender restroom?

Respondents

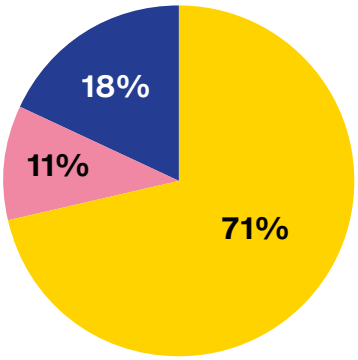
The questionnaire was filled in by 189 people, of whom 9 people were transgender or non-binary. People of different ages (14-70) and countries (The Netherlands, United States, and other) filled in the questionnaire.

Gender & sexuality



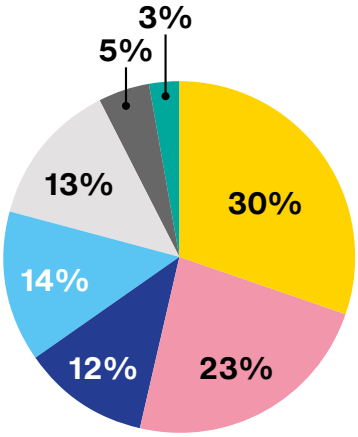
- Cis heterosexual men
- Cis heterosexual women
- Cis queer men
- Cis queer women

Country distribution



- The Netherlands
- United States
- Other

Age distribution



- 14-18
- 19-22
- 23-30
- 31-40
- 41-50
- 51-60
- 61-70

Question 1

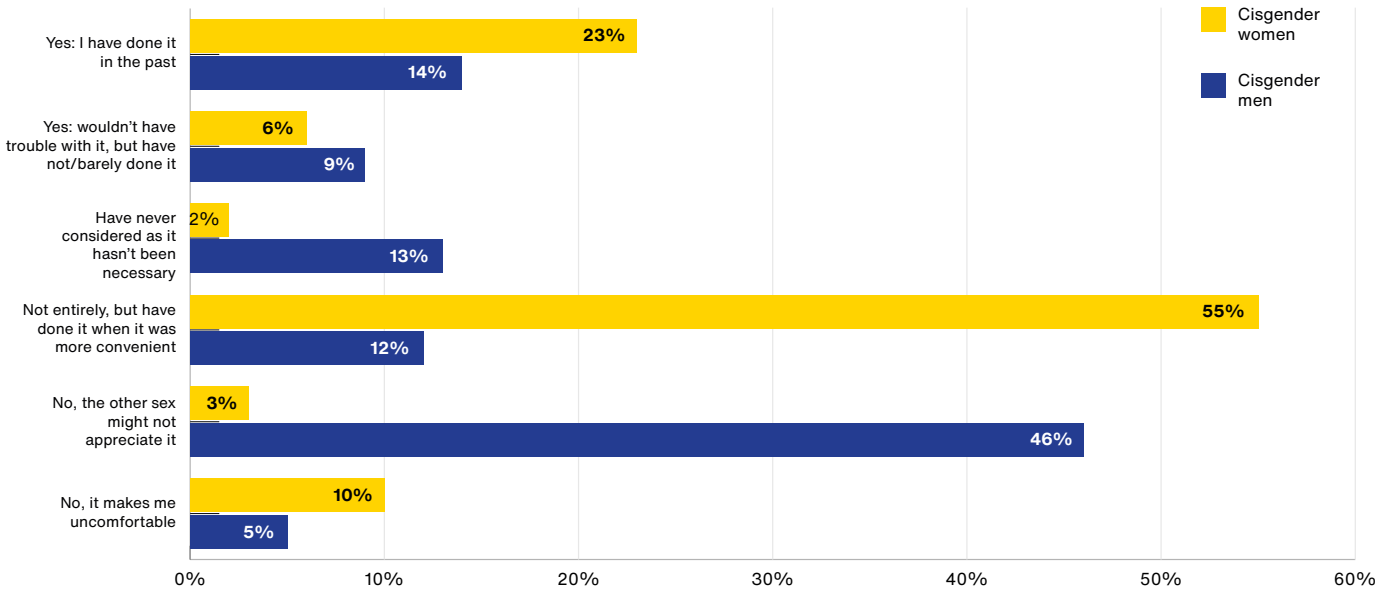
Do you feel comfortable going to a restroom identified for the opposite sex?

It is interesting to learn if people feel comfortable going to a restroom that doesn't fit their gender identity, and what this feeling is based on. Is there a taboo surrounding the use of a restroom that doesn't fit one's gender identity? Why are or aren't people comfortable using a different restroom?

Results

The results show that women have used men's restrooms once in a while, especially when convenient, whereas more men than women haven't ever considered going to the women's restrooms as it's never been necessary. These results seem to align with the notion that wait times in women's restrooms are sometimes inconveniently long, compelling women to use men's restrooms.

Only a minority of both men and women are uncomfortable using the opposite sex's restrooms. Almost half of the male respondents think women would not appreciate them using the women's restroom.



Question 2

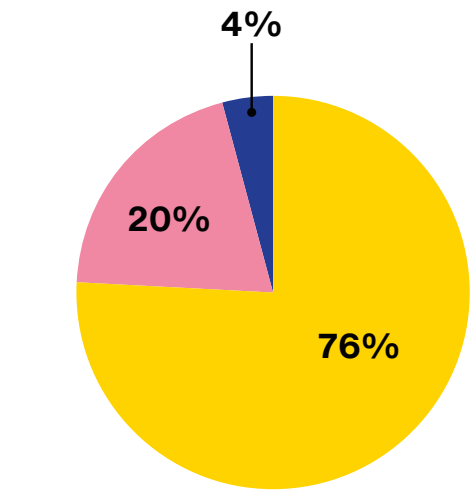
Would you be comfortable with going to an all-gender restroom?

The number of all-gender restrooms is increasing, sometimes as an additional option to gendered restrooms, sometimes replacing the gendered restrooms completely. Are people comfortable with using all-gender restrooms, and why or why not?

General results

The results show that 76% of the respondents are comfortable with using all-gender restrooms, 20% would prefer a gendered restroom and 4% are not comfortable with using all-gender restrooms.

A large portion of the respondents that answered they preferred gendered restrooms did indicate that they are still slightly uncomfortable with using all-gender restrooms, and that they would have to get used to sharing restrooms with the other sex.



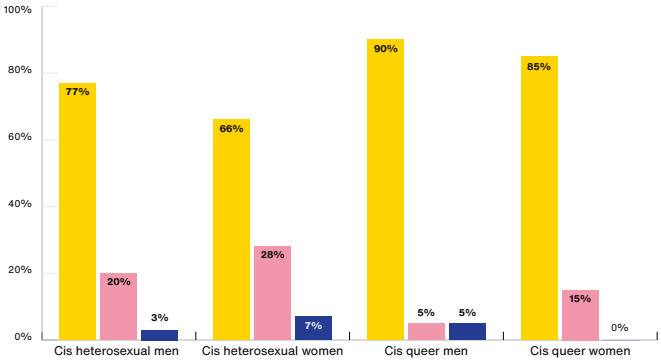
Yes

Yes, but I would prefer gendered restrooms

No

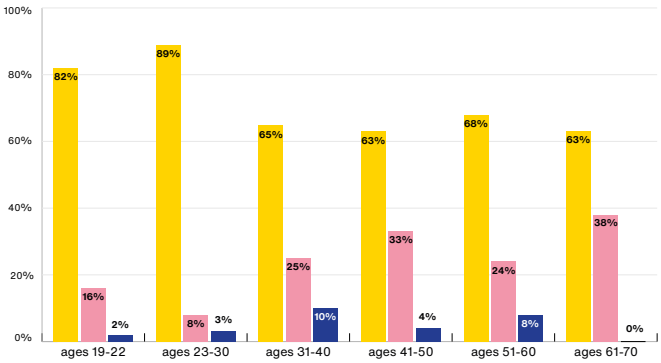
Gender and sexuality

The results show that cisgender queer people are more comfortable using all-gender restrooms than cisgender heterosexuals. Cisgender heterosexual women are least comfortable with using all-gender restrooms.



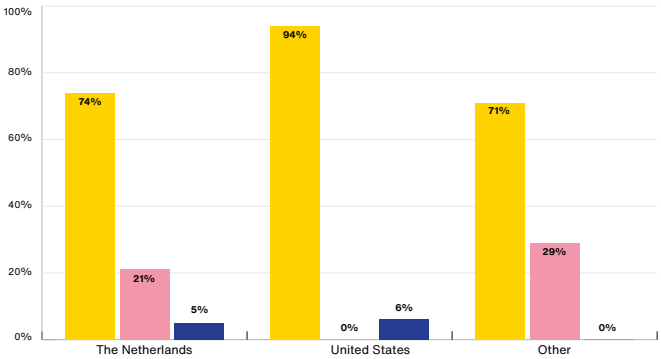
Age distribution

Respondents in the combined 19-30 age groups are by far the most comfortable using all-gender restrooms (an average of 85.5% answered 'yes'). In comparison, 65% answered of the combined 31-70 age groups answered 'yes' to the same question.



Country distribution

More people from the US responded that they would be comfortable with going to an all-gender restroom than respondents from the Netherlands and other countries.



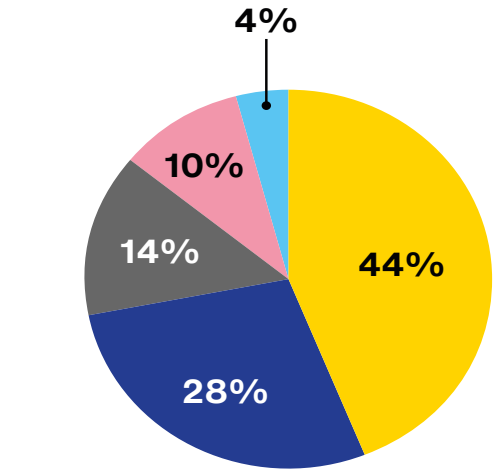
Question 3

Do you think it is necessary to change existing gendered restrooms in public spaces to all-gender restrooms?

When considering a transition to all-gender restrooms, a choice might have to be made between either converting gendered restrooms to all-gender restrooms, or installing new all-gender restrooms in addition to gendered ones.

General results

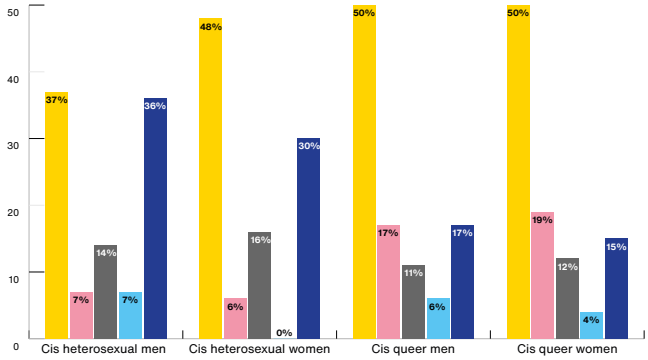
The results show that 44% of the respondents are in support of changing gendered restrooms to all-gender restrooms in public buildings, and 28% of the respondents are against it. The rest of the respondents had varied opinions correlated with their gender, sexuality, or age.



- Yes
- Both all-gender and gendered restrooms should be provided
- Not necessarily, but I wouldn't mind
- No, but it should be taken into account with new buildings
- No

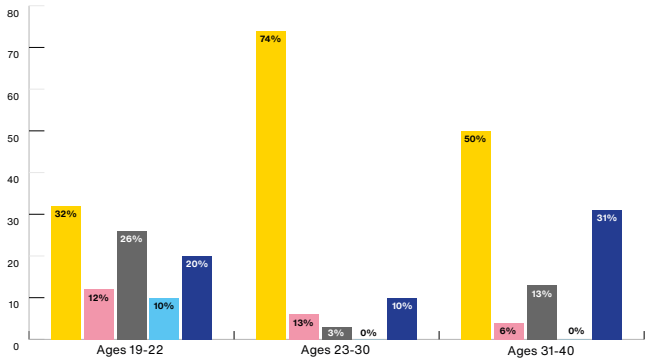
Gender and sexuality

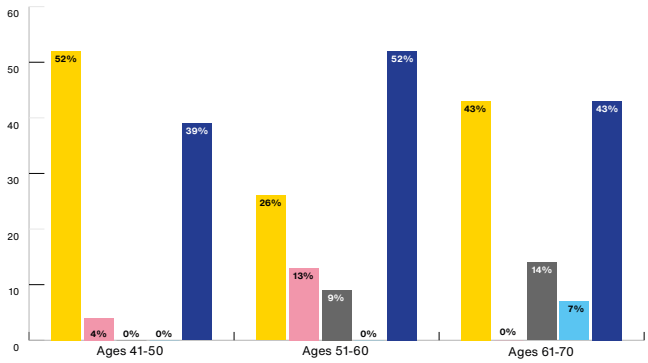
When analyzing by gender and sexuality, some differences in responses become clear. The percentage of straight men that answered 'no' to the proposition is almost twice as high as cisgender queer men and women that answered 'no'. Higher percentages of cisgender queer people also responded to the notion that both all-gender and gendered restrooms should be provided: more than double than their heterosexual counterparts responded.



Age distribution

Respondents in the 23-30 age group are by far the most comfortable with replacing gendered restrooms with all-gender restrooms in public buildings. The respondents in the 51-60 age group are largely against the proposition.





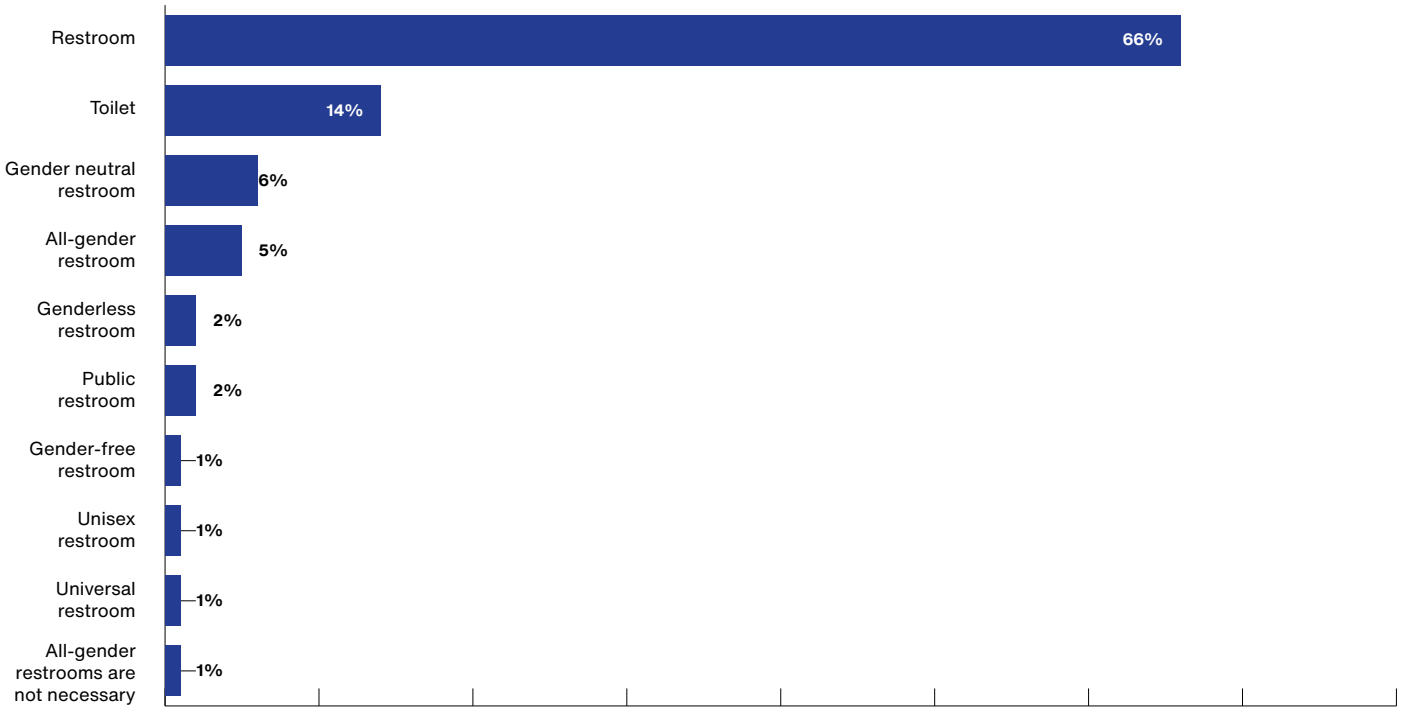
Question 4

What do you think is the best name for an all-gender restroom?

Lastly, we asked about the term that should be used for all-gender restrooms. Some terms that are currently used include ‘all-gender,’ ‘unisex,’ and ‘gender-neutral,’ among others. To give respondents the chance to share their own ideas, we asked this in an open question.

The results are clear: the term ‘restroom’ was preferred by the large majority of respondents. Using the term ‘restroom’ avoids emphasizing gender. The second-most chosen term was ‘toilet’, a term that conveys functionality and also does not emphasize gender.

The term ‘gender-neutral restroom’ was preferred by 6% of the respondents, followed closely by ‘all-gender restroom,’ which was preferred by 5%. The remaining respondents offered alternative terminology or felt that all-gender restrooms aren’t necessary at all.



4.5 Usability testing at Schiphol

We conducted a usability test of various restroom pictograms. This test took place in the main plaza restrooms of Schiphol Airport, the third largest airport in Europe.

This part of the research was done in collaboration with Noor de Wit from University of Twente.

Goal

The goal of this experiment was to answer the following questions:

1. What is the effect of different types of signs on the stall usage?
2. Do people prefer a stall with a sign showing intended users (binary) or a stall with a sign showing the function or an all-gender symbol (non-binary)?
3. Do people need more time to to choose a stall when it is identified with a non-binary sign?
4. What are the reasons if people take more time to make a decision?

Experiment

- Various binary and non-binary pictograms were placed on the doors of the restroom stalls.
- The stalls were the same on the inside.
- The restroom featured a light system, with a red light appearing under the restroom door when the restroom was occupied, and a green light appearing when the restroom was vacant.
- A control setup was used in order to test variables in four experiment setups.

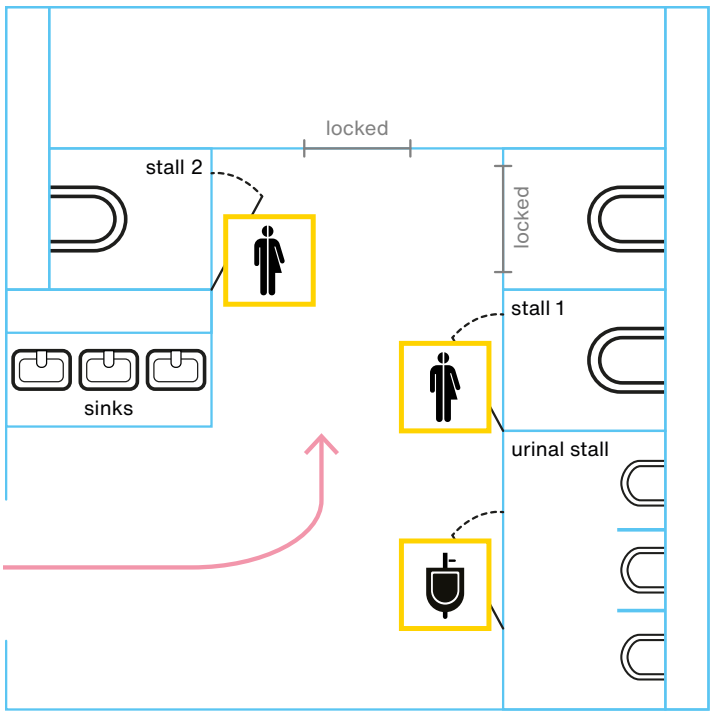
Restroom layout & control setup

The image at the bottom left shows the standard layout of the restrooms. First, a control setup was measured, in which Schiphol's current restroom pictograms were tested. The control setup serves as a baseline for the comparison of the results of the different experiment setups.

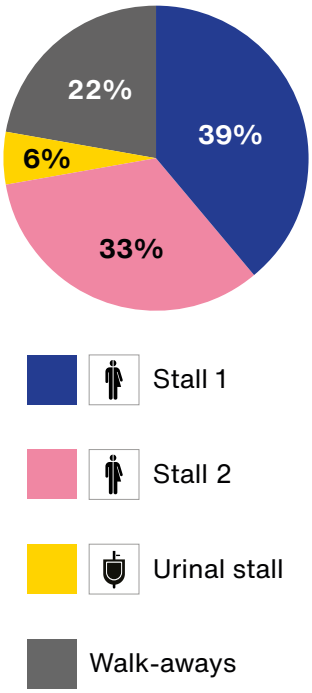
When people enter the restroom they first see the urinal stall and the pictogram on stall 1. In each setup the urinal stall was identified with a sign depicting a urinal, and non-binary pictograms were tested on stall 1. This meant that if someone was looking for a stall with a binary pictogram they would have to look around.

Data and observations
The data that was collected consists of the time people needed to decide which stall to use, the number of people doubting which stall to use, the number of times each stall was chosen, and the number of people that left without choosing a stall. People leaving the restroom were asked which stall they had used, and why they decided to use that specific stall.

Control setup



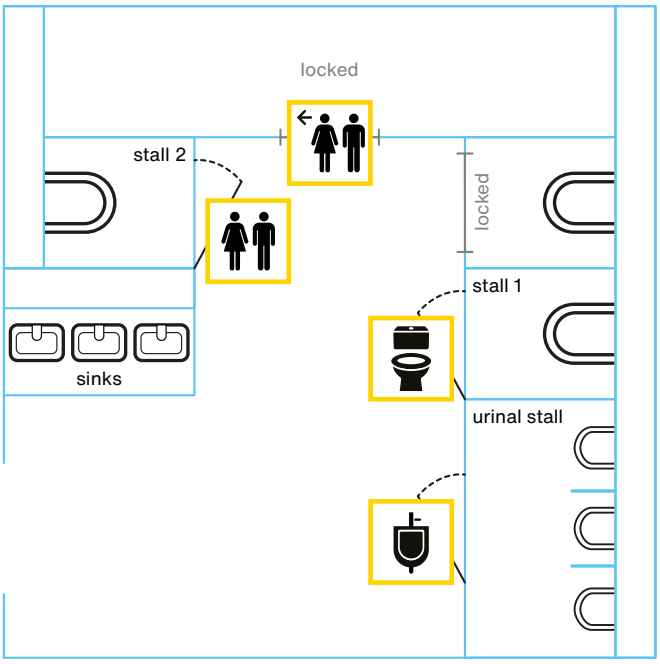
Stall usage



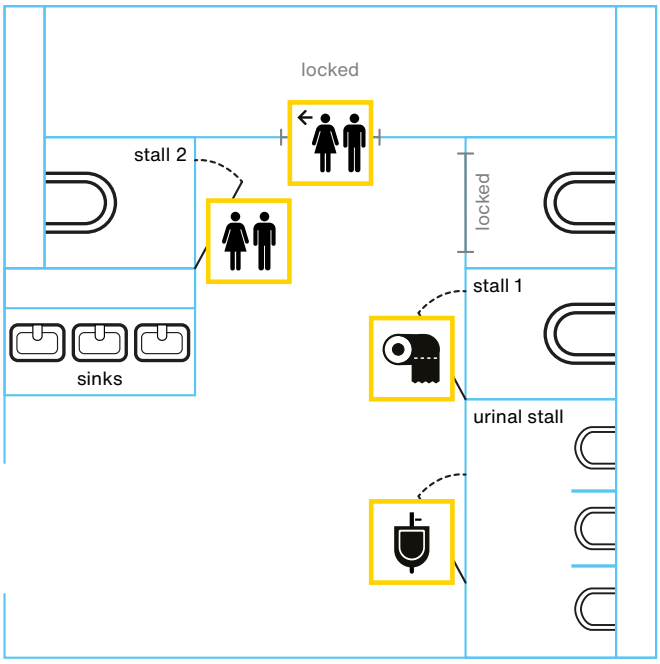
Experiment setups

For the experiment, new pictograms were placed on the doors. The images below show the pictograms that were tested.

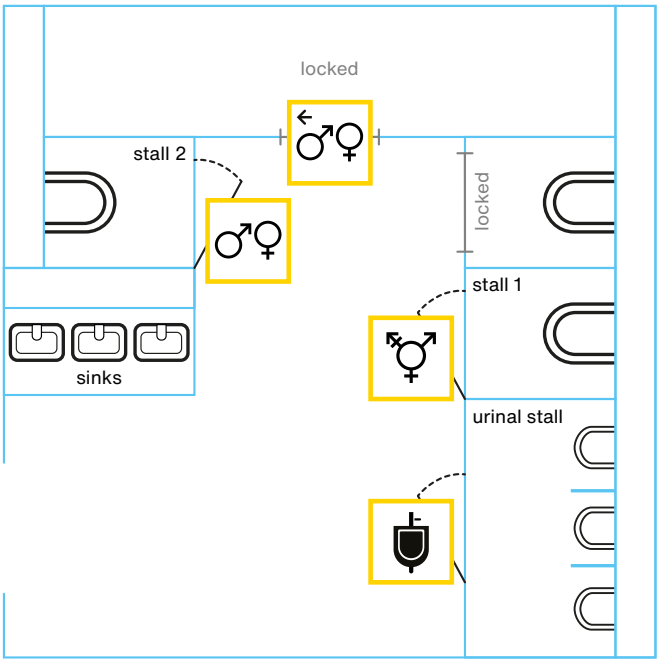
Setup 1 - binary vs function (toilet)
Do people prefer the binary signs to the toilet and urinal signs?



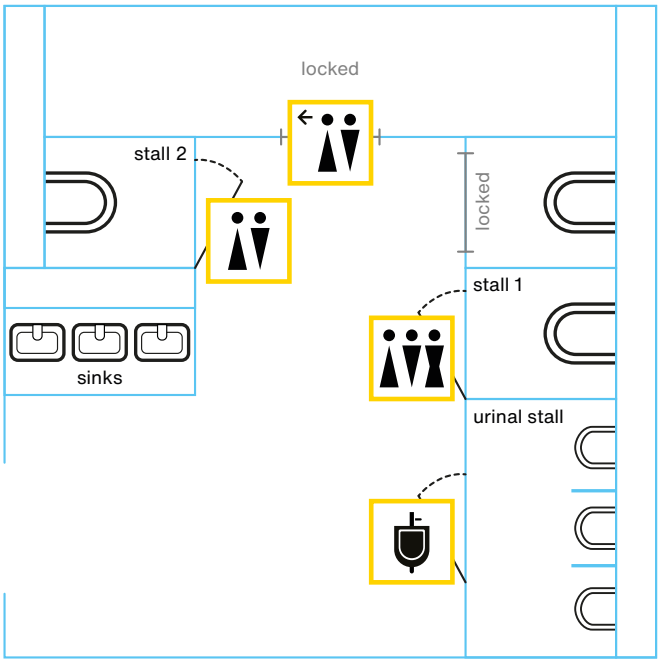
Setup 2 - binary vs function (toilet roll)
Do people understand the toilet roll sign? Do people prefer the binary sign to the toilet roll and urinal?



Setup 3 - sex symbols
Do people understand the sex symbols? Do people prefer the binary symbols to the combo symbol?



Setup 4 - abstract symbols
Do people understand the abstract signs? Do people prefer the binary symbols to the combo symbol?



Stall usage

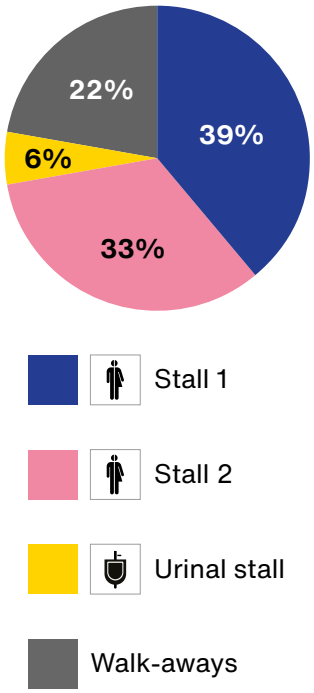
The number of people that used stall 1 in each experiment scenario was lower than the number of people that chose this stall in the control setup.

The number of people that chose stall 2 in each experiment setup varied from being 17% lower to 10% higher than the number of people that chose this stall in the control setup.

The number of people that used the urinal stall was considerably higher in each experiment setup than the number of people that chose this stall in the control setup.

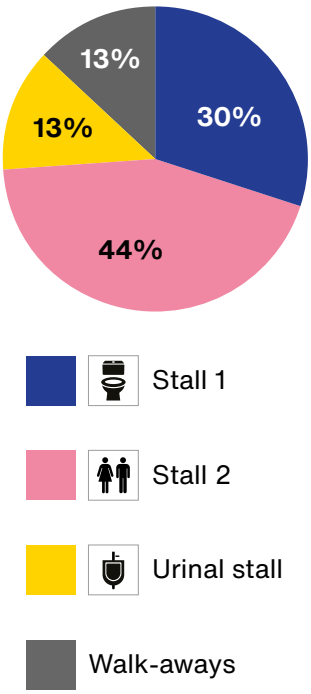
Setup 1 ot 3 all have a lower number of people that walked away (possibly because they were confused about the situation). Setup 4 had a slightly higher percentage of walk-aways than the control setup.

Control setup

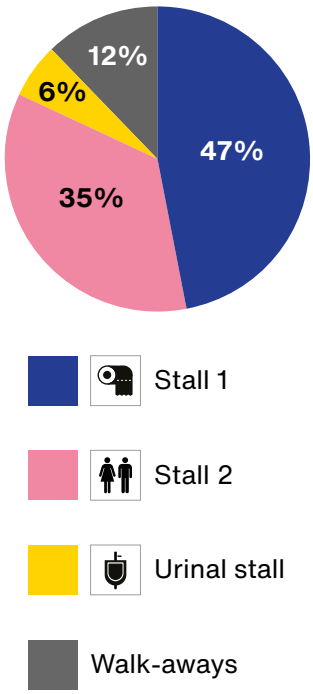


What is the effect of different types of signs on the stall usage?

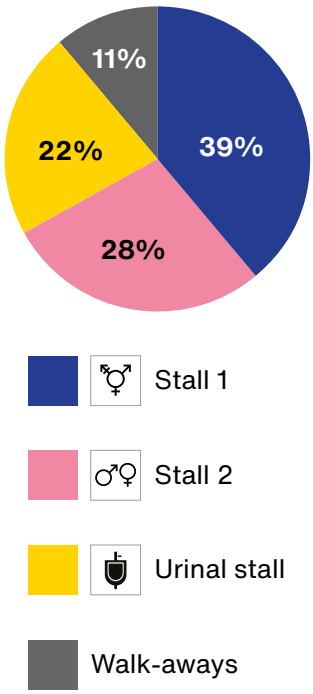
Setup 1



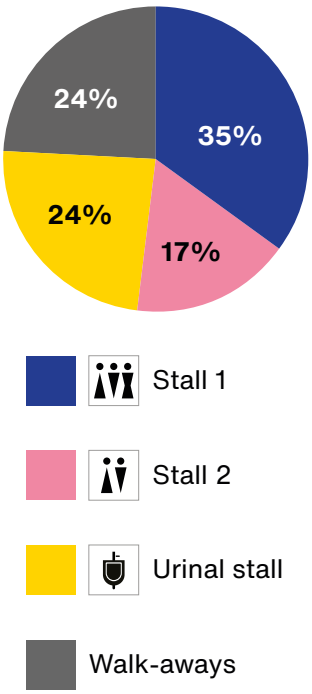
Setup 2



Setup 3



Setup 4



Binary of non-binary sign?

The table at the bottom of the page shows the amount of people that specifically chose the stall with the binary pictogram. People were confused about what the pictograms meant, or about which 'category' was meant for them. This data was collected by noting observations and asking the visitors questions.

Do people prefer a stall with a sign showing intended users or a stall with a sign showing the function?

Setup 1  Stall 1  Stall 2  Urinal stall

In setup 1 the percentage of people that chose the urinal stall is equal to the control setup percentage. The percentage of people that chose stall 2 is higher than both the percentage of people that chose stall 1 and the percentage that chose stall 2 in the control setup.

As visible in the binary preference chart, the choice for stall 2 wasn't based on binary preference, and when asked about their choice people explained they found the binary pictogram a bit more attractive.

Setup 2  Stall 1  Stall 2  Urinal stall

In the binary preference chart, setup 2 shows the highest percentage of binary preference. The percentage of people that chose the urinal stall is higher than the percentage in the control setup. The percentage of people that used stall 2 is slightly lower than the percentage of the control setup.

Based on observation, it appeared that when men were given the option to choose between the urinal pictogram and the toilet roll pictogram on stall 1, they chose the urinal pictogram. Women had to choose between the toilet roll pictogram or the binary pictogram on stall 2, and distributed evenly between the two stalls.

Setup 3  Stall 1  Stall 2  Urinal stall

In setup 3 the binary preference percentage doesn't stand out, and the distribution of people over stalls 1 and 2 stays within the margin of error. Some men chose the urinal stall over stalls 1 and 2, which may be due to a preference for a more familiar pictogram.

Setup 4  Stall 1  Stall 2  Urinal stall

In setup 4, the percentage of people that chose the urinal stall is once again higher than the percentage in the control setup. The percentage of people that used stall 2 is significantly lower than both the percentage of people that chose stall 1 and the percentage that chose stall 2 in the control setup.

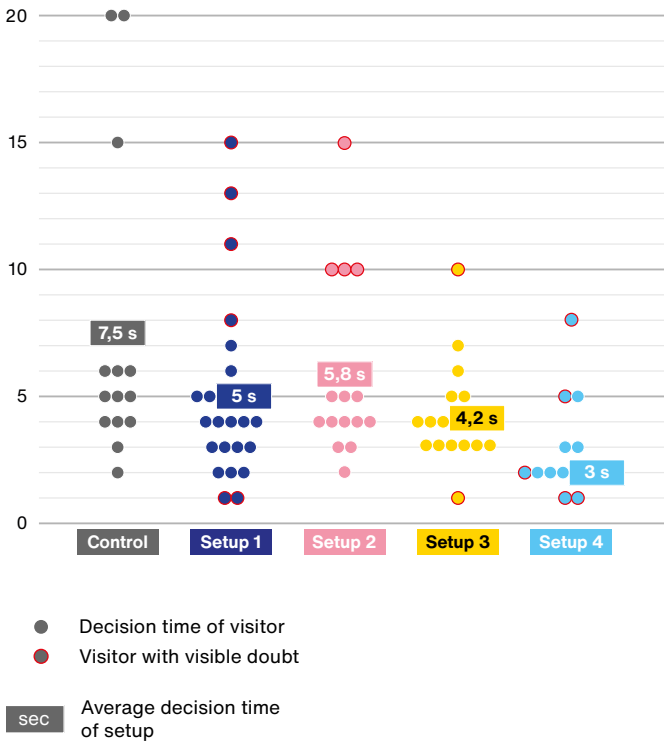
	People that specifically chose the stall with the binary pictogram	Total number of visitors	Visitor binary preference
Setup 1	4	26	15.4%
Setup 2	5	15	33.3%
Setup 3	3	16	18.8%
Setup 4	3	13	23.1%

Decision time & visible doubt

We measured the time people needed to decide between stalls from the moment someone entered the space to the moment that they opened the door of a stall. When people appeared to doubt the choices in the restroom, we asked them about their thought process to learn more about their decisions.

Setups with decision times similar to the control setup and wth just a few outliers were assumed to be easiest to understand. Decision time was mostly influenced by the pictogram on stall 1, as this is the first stall people see when entering the restroom. The presence of outliers in a setup suggests that the pictograms on both stalls were confusing. Outliers are both people who needed a long time to look at all the different pictograms before making a final decision and people who immediately walked away.

Do people need more time to to choose a stall when it is identified with a non-binary sign? If so, what are their reasons?



Setup 1 Stall 1 Stall 2 Urinal stall

Setup 1 has some outliers, but an average time of just 5 seconds. Most people understood the non-binary toilet pictogram.
Three people were questioned during this setup. The first person was looking for a binary man/woman pictogram, but chose the stall with toilet pictogram because the light beneath the door was green. The second person indicated confusion about the lights but ended up using stall 2. The third person saw the binary man/woman pictogram on stall 2 and used this assuming it was the correct stall for them.

Setup 2 Stall 1 Stall 2 Urinal stall

The longest decision times of all the experiment setups. The toilet roll pictogram caused a lot of confusion.
The first person questioned was looking for the men's restroom, so they used the urinal stall. The second person didn't recognize the toilet roll pictogram as a restroom pictogram, so they used the stall 2. The third person recognized the toilet roll pictogram as an all-gender restroom and used this stall.

Setup 3 Stall 1 Stall 2 Urinal stall

A lower decision time than the control setup and setup 1 and 2.
The first two people asked didn't know what the pictogram on stall 1 meant, but did recognize the binary pictogram on stall 2, so they used this stall. The third person didn't hesitate and chose stall 1, as in their country (Iceland) all-gender stalls are more common. The last person explained that they weren't expecting an all-gender restroom at an airport, which is why they were looking for a binary pictogram.

Setup 4 Stall 1 Stall 2 Urinal stall

The lowest decision time, but a high percentage of people walking away. It was also low because many men very quickly chose to use the urinal stall.
The first person questioned was confused by the three figures on stall 1, and ended up using stall 2. The second person indicated the urinal pictogram was the only clear pictogram. The third person used stall 1, assuming it was a women's restroom.

Conclusions

The goal of this experiment was to answer the following questions:

1. What is the effect of different types of signs on the stall usage?
2. Do people prefer a stall with a sign showing intended users (binary) or a stall with a sign showing the function (non-binary)?
3. Do people need more time to to choose a stall when it is identified with a non-binary sign?
4. What are the reasons if people take more time to make a decision?

Stall usage & binary preference

The stall usage and number of walk-aways was different for each setup, so we concluded that the type of sign does influence the choice for a specific stall.

The stall with the non-binary pictograms was used less often than the expected 40-60% (based on the data from the survey). A reason for this could be that the non-binary pictograms are less recognizable and sometimes even confusing, which led to more people looking around for a pictogram they would immediately recognize. Another reason could be that less people are comfortable with using an all-gender restroom than data from our survey indicated.

Decision time & visible doubt

There were several reasons for people to need time to make a decision.

- The pictogram is difficult to understand
- The visitor is looking for another pictogram
- The visitor us in doubt if they want to use an all-gender restroom

The decision time and reasons behind it differed per setup.

Setup 1  Stall 1  Stall 2  Urinal stall

The all-gender toilet pictogram was recognized as a non-gender-specific restroom by almost everyone. It was deemed only slightly less attractive than the binary man/woman pictogram on stall 2.

Setup 2  Stall 1  Stall 2  Urinal stall

The all-gender toilet roll pictogram resulted in the longest decision times and a considerably higher binary preference. This indicates a toilet roll is not recognizable enough to be used as a restroom pictogram.

Setup 3  Stall 1  Stall 2  Urinal stall

The all-gender sex symbol pictogram resulted in some confusion, with most men choosing the urinal stall and women spreading evenly over the all-gender and the binary stall. Though people seem to understand the ‘classic’ sex symbols, the all-gender version seems to be less well-known.

Setup 4  Stall 1  Stall 2  Urinal stall

The abstract all-gender pictogram generally resulted in confusion, with the highest percentage of people walking away without using the restrooms, or choosing the urinal stall. This indicates the pictogram is not recognizable enough, possibly due to the abstraction of the image.

	Total number of visitors	Visitors in visible doubt	Visitors with binary preference	Visitors that walked away
Setup 1	**26**	**23.1%** (6 visitors)	**15.4%** (4 visitors)	**15.3%** (4 visitors)
Setup 2	**15**	**26.7%** (4)	**33.3%** (5)	**13.3%** (2)
Setup 3	**16**	**12.5%** (2)	**18.8%** (3)	**12.5%** (2)
Setup 4	**13**	**30%** (4)	**23.1%** (3)	**30%** (4)

4.6 Research takeaways

2.1 Empathy research

- People are not always comfortable with encountering people of the opposite gender in the restroom area, especially when they are familiar with each other.
- When converting to all-gender restrooms it is important to make sure that all stalls are equal, and that all possible user needs are covered.

2.2 A vote on current pictograms

- Of the pictograms currently used for all-gender restrooms, the pictogram of a toilet is the preferred option.
- A shift of focus from restroom users to restroom function is necessary.

2.3 Getting to know the community

- The community is seriously affected by gendered restrooms. From an inclusive perspective, there is a need for all-gender restrooms.
- When there is a choice between all-gender, men's, and women's restrooms, transgender people may feel forced to use the all-gender restroom.
- The term 'gender-neutral' should be avoided. Focus shouldn't be on gender, but on function.
- Terms like 'gender-diverse', 'all-gender', 'for everyone' or 'gender-free' have a more positive tone of voice. Leaving out any reference to gender and simply calling it a 'restroom' is the most inclusive option.
- Culture, context and users and should be taken into consideration when choosing how to handle the implementation of all-gender restrooms.

2.4 View on all-gender restrooms

- Only a minority of respondents is uncomfortable using the opposite sex's restrooms.
- Almost half of the male respondents think women would not appreciate them using the women's restroom.
- Only a minority of respondents is uncomfortable using all-gender restrooms.
- 20% of the respondents indicated that they would need some time getting used to sharing restrooms with the opposite gender.
- 44% of the respondents support changing gendered restrooms to all-gender restrooms in public buildings, 28% is against it. The rest of the respondents have varying opinions.
- The term 'restroom' was preferred by a majority of respondents for all-gender restrooms.

2.5 Usability testing at Schiphol

- People that were confused during the usability testing at Schiphol were:
  1. not familiar with all-gender restrooms, *or*
  2. not used to restroom pictograms without binary man/woman figures.
- People that were familiar with all-gender restrooms often confirmed that it would take some time getting used to a new situation.
- The pictogram of a toilet was deemed only slightly less attractive than the binary man/woman pictogram.
- Pictograms should be easy to understand, thus restroom pictograms depicting metaphors or abstractions should be avoided.
- When introducing all-gender restrooms it should be taken into account that people have old habits or previous knowledge of restroom layouts.
- If a restroom is changed from gendered to all-gender, communication and education are important.

WHAT'S NEXT?

Designing an inclusive environment for everyone

At Mijksenaar we believe in 'design for all'.
This means we strive for information systems that help all people find their way, regardless of age, gender, race, ability, culture, or religion.

We are expanding our **inclusive design** initiative by sharing resources, findings, and projects to contribute to a fairer, more welcoming society for all, including people:

- with differing **abilities** in perception, motion or cognition
- of different **age groups**
- with different **cultural backgrounds**
- whose **gender identity** falls outside the binary

Would you like to collaborate with us,
or do you have any questions, ideas or suggestions?

inclusivity.mijksenaar.com