Údarás Náisiúnta Míchumais
National Disability Authority

Universal Design Sound Guidance for Buildings and Services used by the Public





This is Easy to Read information.

What is this information about?

	The **Disability Act** is a law in Ireland.
	Section 25 of the Act says a public organisation must make sure its public buildings are **accessible** to people with disabilities.
	The United Nations Convention of the Rights of People with Disabilities applies in Ireland.
	Article 30 says disabled people have the same right as others to take part in cultural life, recreation, leisure and sport.

	Having good sound quality in a building makes it more accessible.
	Good sound quality means that important sounds can be easily heard and understood. There are less annoying sounds.
	This is important for people who are neurodivergent, hard of hearing, or visually impaired.
	Good sound quality can help a person to lead a full life in their community.

	This guidance is for people in charge of public buildings.
	It will teach them how to make the sound in their building accessible for people with disabilities.

Think about the sounds in buildings you use:

	Train stations are often very noisy, busy buildings with lots of people.
	They usually have hard floors and high ceilings. This makes sound echo, so it is difficult to hear.
	There can be a lot of background noise. Echoes can make this very loud.
	Sometimes the speakers in train stations aren’t working properly. Announcements are difficult to hear.

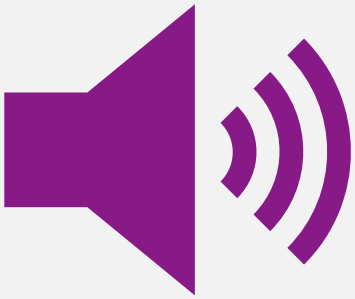
	Shopping centres have lots of different sounds.
	You may hear different people talking and different music coming from shops.
	This mix of sound can be too loud or stressful for some people.
	Some people feel tired or upset because of the sound in shopping centres.

	Libraries are usually quieter than other buildings.
	Libraries are built with materials that make the sound of footsteps and voices quieter.
	Sometimes, libraries have different areas for people to talk and work together.
	There may be spaces to read or use computers quietly.

The Guidance



The Guidance

	The guidance has 6 main sections.
	There is also technical information for people in charge of public buildings.
	The guidance is clear about how to make a building more accessible.
	It says how to make sure the sound quality is good.

1: Experts

	Bring a **sound expert** into the building to check if it is designed right.
	The sound expert will write a report called an **access audit**.
	This report is given to the building manager, so they know about any problems and how to fix them.
	Involve disabled people in designing buildings and spaces from the very beginning.

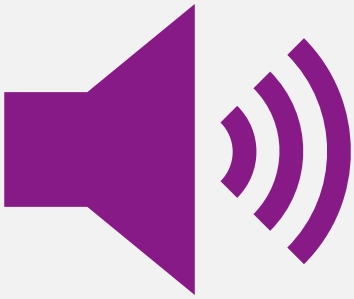
<table>
<tr><td></td><td>This is because disabled people know best about what works well and is helpful for disabled people.</td></tr>
<tr><td></td><td>Co-design means that disabled people, groups that support them, designers, builders and planners work together to make decisions.</td></tr>
<tr><td>
</td><td>Give disabled people the time they need to take part fully in the co-design.</td></tr>
<tr><td></td><td>Everyone should work together to achieve a shared goal.</td></tr>
</table>

2: Sound Quality



Sound is something that we can hear.

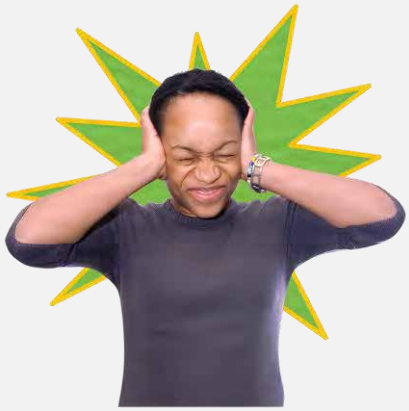
For example, people talking, music, a phone ringing and alarms.



Some problems with sound are:



- Sound can bounce around a room, making an **echo**.
  This can make sounds harder to hear.



- Sound can be too loud, which can be stressful.
  Sound can be too quiet, making it difficult to understand.

	• Sound can be unclear or muffled, making it difficult to understand.
	• **Background noise** can make other sounds very difficult to hear.
	The way a building or room is designed can stop these problems from happening.
	For example, putting down a carpet makes a floor less noisy.

3: Effects of poor sound quality on different people

	When sounds are not clear, too loud or too quiet, they can be annoying for everyone.
	For some people, poor sound quality can be very stressful or even dangerous.
	People who are hard of hearing need clear sound to understand what other people are saying.
	A lot of background noise can make this difficult and tiring. Hearing aids make all sound louder, even background noise.

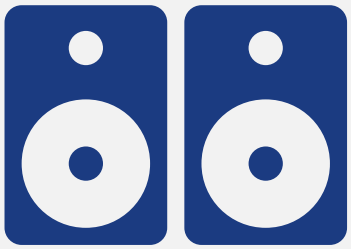
	People who are visually impaired use sound and touch to understand things around them.
	Sounds that are not clear make it difficult to understand what people are saying.
	Neurodivergent people, such as autistic people, can be much more sensitive to noise and lights.
	Very loud or noisy environments can feel painful or stressful. It can be harder to communicate when it is very noisy too.

4: How to design your building so you have good sound quality

	Think about how the room or building is going to be used.
	Use materials for floors, ceilings, walls, roofs and furniture that do not create echoes or extra noise.
	Think about how the layout of a room or building can affect sound.
	Have a **loop system**. This system makes sound clearer for people who are hard of hearing.

	Rooms should be bright enough for people to see the speaker and to lip-read.
	Use clear sounds to support people to figure out where they are and need to go. For example, a fountain in a lobby.
	Have a small room as a quiet space for customers. This is less noisy and stressful, so it is easier to hear and respond.
	Think about the sound and loudness of emergency alarms. Alarms are important so people know when to leave a building.

5: Customer service

	Give clear information about a building's sound quality so people can plan their visit.
	For example, information about sensory aids, assistive technology, quiet times, or sound maps.
	Make sure that announcements over the speakers are clear and loud enough to hear.
	Turn other sounds, such as music, down or off while announcements are being made.

	Use **captioning** during events, speeches and panel discussions.
	Give staff training so that services are accessible.
	This training should cover customer communication and respect.
	It should give information on systems such as loop, speech-to-text and captioning.

6: Management and maintenance

	Check sound devices and assistive aids to make sure they are working properly.
	For example, microphones or loop systems.
	Keep signs and other **wayfinding** up to date.
	Ask customers, service users and staff for feedback on accessibility.

	**Access Officers** should stay up to date on new laws and guidance from the NDA and others.
	Questions or feedback about access in a public building should be sent to the Access Officer.

Some of the images in this document include people and are made with AI:

Page 1, image 2

Page 2, image 3

Page 5, image 4

Page 6, images 3 and 4

Page 8, image 2

Page 10, image 2

Page 12, image 3

Page 13, image 3

Page 14, image 1

Page 19, images 3 and 4



Photosymbols®
Publisher Licence 5617938371