



Universal design for active and social lives

10 years of collaboration
across municipal borders

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KOMMUNESEKTORENS ORGANISASJON

The Norwegian Association of Local and
Regional Authorities

FRONT PAGE: A stroll above the trees in Fyresdal. Read more on page 14 (Photo: Fredrik Naumann/Felix Features)

Responsible editors:

Anne Gamme and
Christian Hellevang, KS

Development and production:

Marianne Alfsen/Felix Media

Journalists: Lena Storvand, Marianne Alfsen and Bente Frøytlog/Felix Media

Photographer: Fredrik Naumann/
Felix Features

Graphic design: Bly

Translation: Silje Berggrav/Felix
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This is KS

The Norwegian Association of Local and Regional Authorities (KS) is Norway's largest public employer organisation. Members include all of Norway's 357 municipalities and 15 county councils.

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NETWORK SESSION: What is inclusion, really? Former member of parliament and mayor of the municipality of Lindås, now head of the Norwegian Association of Disabled, Tove Linnea Brandvik, addresses a network session in Oslo, 4 December 2023.

Pushing boundaries together

For 10 years, Norwegian municipalities and county authorities have exchanged ideas and solutions through a universal design network, to foster more inclusive local communities.

“The municipalities and counties are at the core of the efforts to create a society where everyone can participate on equal terms,” says chief adviser Anne Gamme with The Norwegian Association of Local and Regional Authorities (KS), Norway’s largest public employer organisation. Since 2013, KS has been running a municipal network for universal design, funded by the Ministry of Culture.

“Learning from each other is the main goal of the network. Sharing knowledge and experiences across municipal boundaries, and being able

to discuss solutions with colleagues from all over the country, is extremely valuable,” Gamme says, adding that:

“Often, municipalities and counties can learn more from each other than from experts, because they know the actual possibilities and obstacles faced by local authorities.”

A PARTICIPATORY NETWORK

KS hosts regular network sessions across the country, and network members are encouraged to continue working with each other between



→ sessions, through direct communication.

“A network session differs from a conference or a seminar, in that the participants are running the show. They must prepare and present examples, and often leave with ‘homework’ to be done before we meet again,” says senior adviser Christian Hellevang. He has been in charge of the daily work with the network from the very beginning.

It all started with the first truly ambitious national plan for universal design from 2009, aiming to make Norway universally-designed by 2025.

“The plan inspired a lot of people in the municipalities. The network seeks to harness all that energy, and turn it into actual projects, improving lives in local communities,” says Hellevang.

The network is the brainchild of the man in charge of developing the national plan in 2009, former senior adviser in the Ministry of Culture, Olav Rand Bringa (See page 6).



“Learning from each other is the main goal of the network.”

Anne Gamme



SHARING BEST

PRACTICES: Sissel

Olga Pettersen presents a benchmark project for universal design in Bodø at the 4 December 2023 network session in Oslo: Mørkvedbukta Primary School and Kindergarten. Read more on page 9.

INTERNATIONAL GUESTS: KS also promotes international cooperation, and often invite international speakers. Here, Rie Ollendorff from Århus in Denmark, presents how the municipality works with universal design, during the 4 December 2023 network session.



NETWORK FOCUS

The network primarily works with municipal buildings, social meeting places and outdoor areas, with a particular focus on improving existing structures by addressing ‘low hanging fruit’. The small and cheap, but significant, changes that can easily be implemented on tight municipal budgets.

“We focus on what’s good, on ingenious solutions that can be copied by others. But we also try to learn from each other’s mistakes,” says Christian Hellevang, adding that:

“All projects encounter challenges. The examples presented in this booklet are not intended to serve as perfect examples, but rather as an inspiration and for learning. That is why we challenge the people we interview to indicate what they could have done differently, in hindsight.”

TANGIBLE RESULTS

The question is: what has the impact of the network been, through a decade of collaboration?

“The projects discussed in the network have shown that what really creates good solutions is participation by user groups from the early stages of planning. Participation is definitely higher on the agenda than a decade ago.”

“Also, I feel that the municipalities have a greater understanding of what universal design is all about. That it is not about accommodating ‘special needs’, but finding a common solution that can be used by all. That it is more than compliance with rules and regulations, it is about finding solutions that make people’s lives better.”

But the best is yet to come, according to Hellevang:

“Building networks takes time and effort. We are committed for the long haul.” ●





Stig Wathne, network member
Municipality of Stavanger

«There is a lot to learn from getting other people's perspectives on our projects. Equally, to learn what goes on in other municipalities helps me make better decisions. It gives me strength when discussing with colleagues, and helps build trust and respect for universal design in my organisation.»

Tale Halsør, network member
Municipality of Bergen

«We are currently developing a plan for universal design for the entire municipality. Universal design can be an abstract concept, so it has been important to find examples that help convey what it is all about. Examples sourced from network meetings and the thematic booklets produced by KS have been useful to visualise possible solutions. The articles show the process, not just the end result, which is valuable. We also get a face and a contact person in other municipalities, who can tell us more.»



Olav Rand Bringa, former adviser
Ministry of Culture

«Through the KS network, people working in Norwegian municipalities have increased their knowledge of universal design. It is paramount, as it is in the municipalities where projects are carried out.

In addition, the understanding that universal design entails more than compliance with laws and regulations, has increased. The articles regularly published by KS, presenting concrete examples of universal design, really show that it is possible to unite excellent architecture with the principles of universal design.»



Be inspired!

Through the years, KS has produced numerous booklets and videos, presenting good examples of universal design from municipalities across the country. Several of the productions have been translated into English.

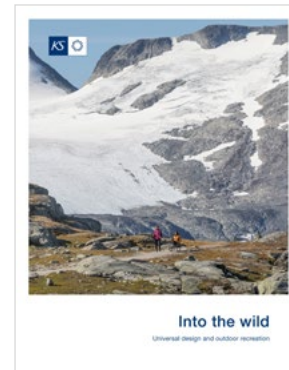
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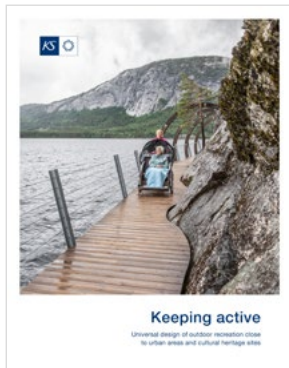
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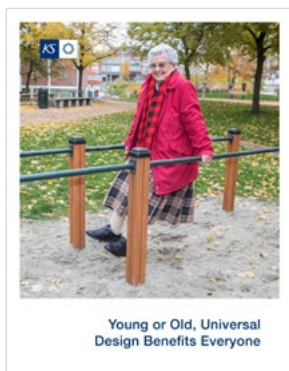
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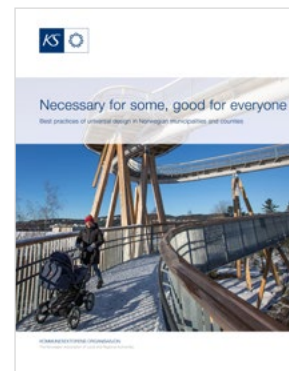
Published 2021



Published 2020



Published 2019



Published 2018

ACTIVE IN THE SCHOOLYARD: Sixth-grader Mathilde likes being active. Although she lives with cerebral palsy and cannot walk very far without her wheelchair, a raptor, she can participate in school life on an equal basis with her fellow pupils at Mørkvedbukta school and kindergarten. This is a big step up from her old school.





A local school for everyone

Everyone should be able to go to school where they live. This was the premise when Bodø municipality planned a new combined primary school and kindergarten in Mørkvedbukta. In autumn 2020, the magnificent building was ready.





CREATIVE TEAM: Sissel Olga Pettersen and Marcus Zweiniger, respectively project manager and adviser for universal design in Bodø municipality, together with school inspector Trond Strømsvik in the school hall.

→ “The old local school, Støver School, was not able to accommodate students with major physical needs. This meant that parents in some cases chose to send their children to other schools. Parents have a right to choose a school within their municipality. Therefore, it was important to us that the new school could accommodate everyone who lives in the community, regardless of their functional ability,” says school inspector Trond Strømsvik.

“The same feedback came from school staff, who were invited to participate and imagine what the ideal school would look like,” he adds. According to Strømsvik, this has been the project’s biggest success factor: extensive participation.

LISTENED TO THE USERS

“One of the young people from the participation council, who uses a wheelchair, said that she wants to correct her make-up in the mirror in the

toilet, but the sink is always in the way. So we pulled the mirror out to the side, past the sink,” says Sissel Olga Pettersen, project manager in Bodø municipality.

“Without broad participation, you just continue to do what you have always done,” adds Marcus Zweiniger, adviser for universal design in Bodø municipality. He adds:

“Measures that would be easy to do during construction often become complicated and expensive to fix after completion. At Tverlandet School, which was ready in 2019, they realised too late that the facilities for students who needed care during the school day, were not adequate. The accessible toilet was by then too small to rebuild. Mørkvedbukta has an accessible changing room with a reclining shower, in addition to an exercise room for those who need physiotherapy,” says Pettersen.

GROWING FAST

Broad user participation from day one is now included in the terms of reference for all new projects in the municipality. This is vital: Bodø is one of Norway's fastest growing cities with 50,000 inhabitants. You can hear construction work wherever you go.

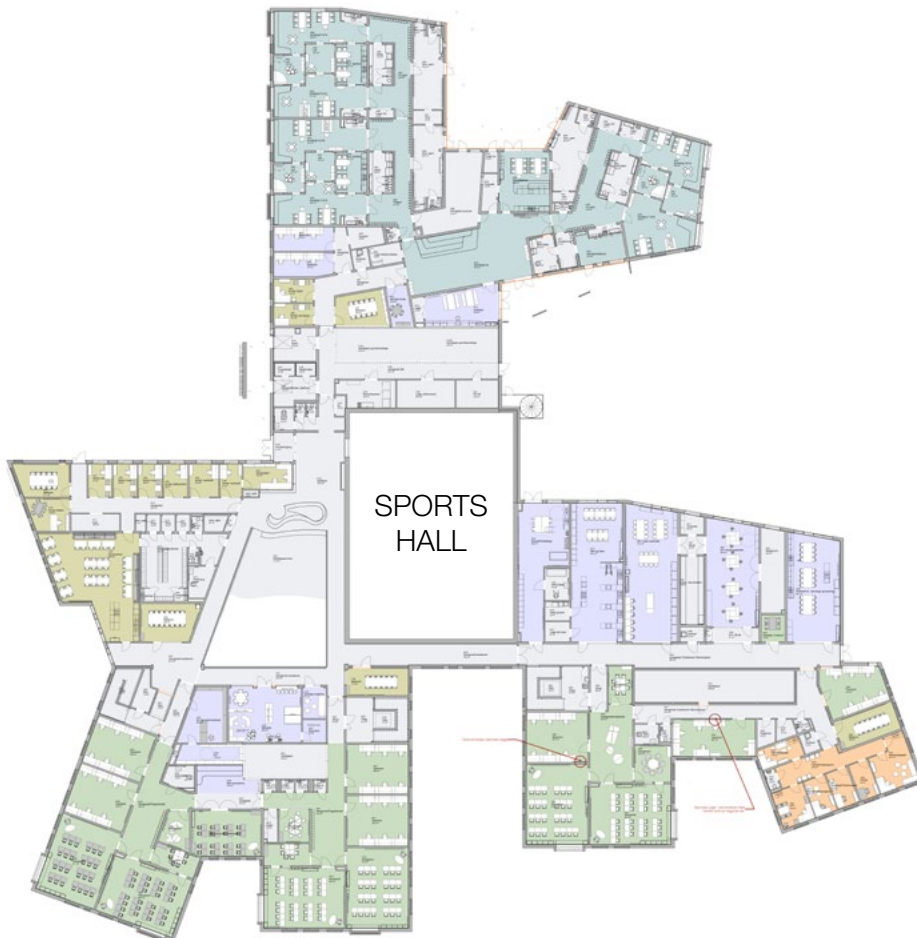
"In Mørkvedbukta, universal design has been a premise for concept development. It informs all involved sectors," says Zweiniger. He adds that technical regulations are only a minimum requirement.

"In fact, TEK 10 has stricter requirements for universal design than TEK 17. Handrails in two heights, for example, are no longer a requirement. We still included it in the outdoor amphitheatre," adds Pettersen.

"This also applies to locating lifts and stairs near each other, which is important for equal access. Such measures are not necessarily spelled out in regulations, but are shared among professionals and in guiding documents," says Zweiniger.

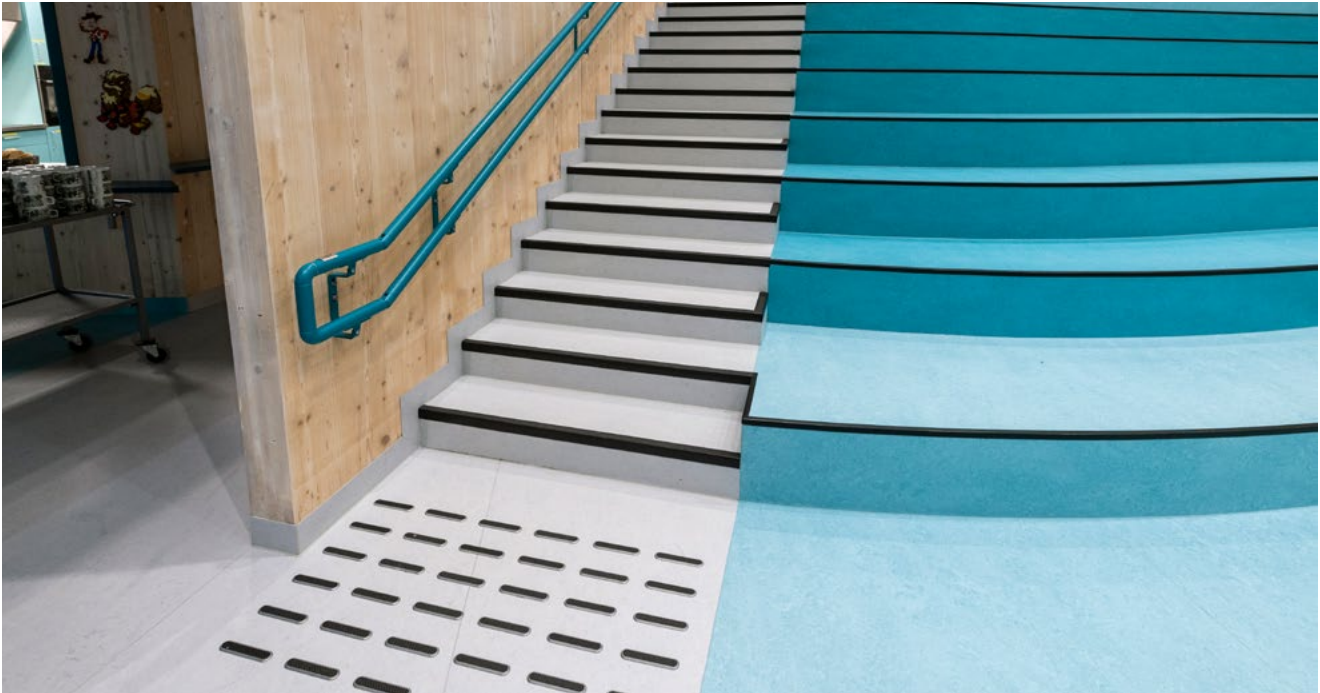
From the construction of Tverlandet School they further learnt that universal design is about more than ticking the boxes on the list of requirements in the technical regulations.

"For Mørkvedbukta, we identified what universal design involves in both tenders and contracts. Such as the wide mirror, building the lift next to the stairs and double handrails," Pettersen adds.



TOGETHER AND SEPA-

RATE: Each grade has its own separate zone, with two classrooms connected by a small communal room in the middle. Each zone has its own colour, for easier orientation. And most importantly: each classroom has two group study rooms. One of them has an entrance from the communal room, one from the back of the classroom: "Some children need quiet time, but they don't necessarily wish to leave in front of the whole class," says Sissel Olga Pettersen. (Illustration: The Architect)



WAY-FINDING: Bright colours, clear contrasts and tactile way-finding makes it easy to locate the stairs in the school hall – for everyone.

→ THE SOUND OF SILENCE

“The first thing you notice when entering the building is the good light and the muted sound,” says Trond Strømsvik, as we walk through the bright corridors and rooms painted in maritime colours. Sound-absorbing elements have been carefully incorporated into the decor and one classroom on each level with a sound equalisation system – all developed in collaboration with an acoustician.

“This is good for everyone, not just for children with hearing impairment! Research shows that noise control makes learning easier also for the easily distracted pupils,” continues Strømsvik.

“Mørkvedbukta has without a doubt become Bodø’s finest and most accessible school and kindergarten,” says Sissel Olga Pettersen. ●

Since this article was first published in 2023, Marcus Zweiniger has left Bodø municipality.



Sissel Olga Pettersen,
project manager,
Bodø municipality

“Our main challenge was finding solutions that not only meet today’s needs, but also the needs of future pupils. To do so, we included various user groups in the early stages of planning, to uncover as many needs as possible. Technical regulations are only minimum requirements. The real needs and best solutions are uncovered when we talk to the people concerned.”

Eight smart solutions

It is not expensive or complicated to meet user needs – as long as you implement them from the start, rather than adapt later. Here are some clever solutions from Mørkvedbukta school and kindergarten.



SIMPLE SOLUTION:
A loose box on the bottom step is all that is needed for a wheelchair user to be able to sit knee-to-knee with fellow pupils in the amphitheatre.



MIRROR, MIRROR ON THE WALL:
When the mirror is pulled out to the side of the washbasin, wheelchair users can get right up close and check their make-up.



HINGING DOOR IN THE SHOWER:
A simple hinged door in the shower means that a normal shower can be quickly and easily expanded if needed.



TIMES TABLE AS A MARKER:
The times table is marked on the steps, so that everyone can practise on the stairs – and the visually impaired can easily see where they are going.



SMALL BENCH, BIG DIFFERENCE:
A small fixed bench at the end of the change room makes it easier for Mathilde (11), who has cerebral palsy, to put on and take off her shoes.



TWO HEIGHTS AND WIDTHS:
Wheelchair users can hang their clothes without help. A little extra width on the bench below makes it easier to move from the wheelchair to the bench.



A VISUAL SCHOOL BELL:
When the school bell rings, the dome on top of the red-white cone lights up, as a visual signal in addition to an audio signal – inspired by one of Bodø's hallmarks: Landegode lighthouse.



SIMPLE AND SMART:
Rubbish bins often end up under the sink, where they are in the way of wheelchair users. The solution? Hang them on the wall!



Go for a stroll above the trees

Wheelchair? Pram? Crutches?
No problem! The Treetop Path in
Telemark – at a dizzying height –
was built for those
who dare.





MINIMALLY INVASIVE: The goal was to disturb the woods as little as possible when building the path. Some of the posts were lifted into place by helicopter, while others were transported by lightweight equipment.

→ Hmm, what can they come up with now? The first project, the Hamaren Trail in Fyresdal, was already well established and embraced by locals, thanks to its central location and universal design. So, in 2019, the local authorities began to toy with new ideas for a second project in connection with the Ministry of Culture and Equality subsidy scheme for innovative activity arenas. The working title was ‘Taking Hamaren to new heights’.

“Precisely because we wanted to move to higher ground in one way or another. And, of course, it had to have a universal design,” explains Forestry Manager Aslak Momrak-Haugan, while pointing in the direction of the Treetop Path, recalling the initial reactions to the plan.

RECOGNISED THE POTENTIAL

“A lot of people thought this was nothing but nonsense.”

Not surprising, considering the municipality of Fyresdal’s plan: A kilometre-long, two metre-wide spiral-shaped path linked to the Hamaren Trail constructed in wood several metres over the treetops. Fifteen metres at the highest point, with benches and a lookout point, and an incline that was suitable for all users.

“But lots of people also recognised the potential it could offer. The Hamaren Trail was oriented towards the local community and part of the municipality’s ambition to be the best in the country in public health. After all, we have amazing nature here, but it can be too steep and



REWARD: Aslak Momrak-Haugan & Co. initially visualised views from the entire path, but the Danish architectural firm, EFFEKT Architects, felt that the effect would be completely different if the path led to a lookout point, offering views of Vikfjellet mountain.

difficult for many people to access. Hamaren was an easy way to enjoy the outdoors close to the school, kindergarten, and nursing and care facilities,” says Momrak-Haugan.

VERY POPULAR

“The Treetop Path is a commercial project, something that can attract tourists,” says the forestry manager, who acted as construction manager for both projects.

“We had great faith in the Treetop Path and were determined to make it happen.”

The Ministry of Culture and Equality contributed NOK 4 million, NOK 1 million was donated by local contributors (private and business sector), NOK 4.5 million came from

**“The Hamaren Trail
was part of the municipality’s
ambition to be the best in the
country in public health.”**

Aslak Momrak-Haugan





FIRST CONSTRUCTION STAGE: When the Hamaren hiking trail in Fyresdal was completed, the municipality literally aimed even higher.

→ other funding sources and the municipality put NOK 7.5 million into the pot. In June 2023, four years after the first ideas were sketched out, the Treetop Path opened – to the delight of locals and visitors alike. The goal was to attract 30,000 visitors the first year. This number exceeded 53,000 by September 2023. The construction itself makes an impression on the vast majority, but what impresses people most of all is the universal design.

“The fact that it can be used by everyone, regardless of age or functional ability,” says Momrak-Haugan.

THRILLED TRIO

A cheerful trio of outdoor enthusiasts whole-

heartedly agrees. Norunn Ova Johnsen, 76, Reidun Brauti, 77, and Berit Verstad, 78, are all from Lunner and headed to the Treetop Path together with the rest of their group from the Skade Sports Club. The women drove 100 kilometres to experience the pathway.

“It’s wonderful to enjoy the outdoors and get some fresh air without wearing ourselves out. We’re very impressed by how well made it is,” says the trio, who have already been here several times. They go for walks as often as possible, including every Tuesday with their sports club. This trip to the Treetop Path is their annual outing, with breaks and coffee along the way.

“Walking is not only good for the body, but also social. When you’re walking, you hardly



MADE THE TRIP: Norunn Ova Johnsen, 76, Reidun Brauti, 77, and Berit Verstad, 78, love to go for walks and are delighted with the Treetop Path.



CHILDREN'S IDEA: The wooden lean-to was designed in close co-operation with school-children, who sketched out ideas.





FOCUS ON NATURE: “Fyresdal decided early on that it would not be focusing heavily on holiday cabins, but on nature experiences,” explains the forestry manager.

→ notice that you’re getting exercise,” they laugh. The women are surprised that the height is not as scary as you might expect.

“Maybe it’s because of the railing and that the path is so well built and wide,” they say.

MANAGEABLE INCLINE

While enjoying coffee and a packed lunch at the very top, just past the highest lookout point, sisters-in-law Ada Bustgaard, 79, and Lisbeth Bustgaard, 73, summarise the experience.

“It’s absolutely wonderful! Seeing nature this way, with views of the mountains and water, is very unique,” they say.



BREAK AT THE TOP: After walking the kilometre-long path, sisters-in-law Ada and Lisbeth (left) Bustgaard enjoy coffee and a packed lunch.

Both go on nature walks often, but it has become a little more difficult for Lisbeth after a leg operation.

“I have some balance issues and when I walk in the woods, I always use walking poles. But this was very doable for me, probably because of the incline. I would normally be much more exhausted than I am now. But this was a walk in the park.” ●



CLEAR LANGUAGE: As tempting as the design may be, bicycles and skateboards are prohibited to avoid chaos along the path.



Aslak Momrak-Haugen,
Forestry Manager in the
municipality of Fyresdal

Solutions:

- One-kilometre-long Treetop Path
- Two-metre-wide path
- Constructed of wood
- The incline exceeds four percent in a few places, but dialogue with the Norwegian Association of the Disabled resulted in an exemption
- Bench made of recycled materials at the lookout point
- Accessible restroom at the start of the path
- The restroom is cleaned twice a day and all trash bins emptied daily

In hindsight:

“In the grand scheme of things, there is little we would have done differently. We got caught in the middle of the Covid-19 pandemic and a war in Europe, resulting in high prices for wood and steel. This could have stopped the entire project, but the politicians recognised the potential and helped us to make it happen. This kind of project involves a lot of different processes and bureaucracy does not always facilitate progress. This has to be taken into account when developing bold ideas.”



Mountain hiking for everyone

You can roll, be pushed or you can walk. On the universally-designed path at Sognefjellet, everyone can enjoy the immense nature in Jotunheimen National Park.

“**WOW, HOW** amazing is the new path! I can’t believe we haven’t tried it until now!”

Mariann Brattland (41) routinely manoeuvres her wheelchair, smiling at fellow hiker Inger Marie Bleka (66), who walks alongside her at a fast pace using walking poles.

We meet the two happy ladies, mother and daughter from Vågå, at The Norwegian Trekking Association’s cabin named Sognefjellshytta, on the mountain pass 1,410 metres above sea level, midway between east and west in Norway. Here the landscape opens up with a magnificent view of glaciers and high mountain peaks in Jotunheimen. To the southwest: the mountain Fanaråken and Fanaråkbreen glacier. To the east: Smørstabbreen glacier surrounded by a ridge of peaks. Norway’s highest mountain Galdhøpiggen is not far away, but is not visible from this point.

“Galdhøpiggen is often difficult to spot, it’s sort of hidden,” says Mariann Brattland. She knows these mountains like the back of her hand. She and her mother have been to the mountainous area Sognefjellet many times, but not after the new hiking trail was ready in 2018.

The project, called Innfallsport (“Gateway”) Jotunheimen National Park, is a pilot project managed by the Norwegian Environment Agency and the National Park Board. The goal is to

lower the barriers for getting out into nature. Previously, hikers had to start the hike into the mountains by walking along a trafficked road. For wheelchair users it was practically impossible to get out into the terrain.

IN STEP WITH NATURE

Today the path goes from Sognefjellshytta, crosses two bridges and passes along the lake Fantesteinsvatnet. The path is 1.1 kilometres long, universally-designed and developed with minimal slope making it possible to roll, be pushed and walk the route. The path is between one and two metres wide, laid with local gravel and stone, and it is adapted to the terrain to avoid “scarring” the landscape. The steel bridges are also designed to blend in with nature: The longest bridge, a suspension bridge, is 47 meters long, but still ultra-thin, only two centimeters thick.

The new path connects to existing trails further inland in the mountains, where hikers can continue on other routes. Those who have to stay on the niversally-designed trail, can either turn around and take the same route back to Sognefjellshytta, or continue on a route that ends with a trail that parallels the trafficked road, county road 55.





SPECTACULARLY SIMPLE: Mariann Brattland crosses the slender suspension bridge over Fantesteinsvatnet. The bridge, designed by Dronninga Landskap AS and Florian Kosche AS, is designed to slide into the terrain.

→ OFF THE TRAFFICKED ROAD

Mariann Brattland is excited after her first hike.

“This hiking trail works great with a wheelchair,” she says.

“The climb is not too steep, and the surface is easy to roll on.”

“Is the hiking trail a bit short with its 1.1 kilometres?”

“No!” She answers readily and explains:

“The route is long enough for me to be satisfied. The most important thing is that I get away from the trafficked road and out into the terrain. Very often I find that the only option for me is to roll on the road alongside cars, and it feels neither safe nor particularly nice.”

Mariann Brattland stresses that wheelchair users and disabled people are individuals with varying abilities.

“People have different prerequisites.

For many, this hike will be more than demanding enough,” she says.

LONG FIGHT

Ten years have passed since the accident when Mariann Brattland’s hang-glider crashed to the ground during landing in her hometown Vågå. In a few seconds, the young mother’s life was turned upside down. Her back was broken. Three of her vertebrae were completely crushed. She was paralysed from the chest down. At Sunnaas Rehabilitation Hospital, she received the brutal message that it would take five years to retrain her body to master her new life in a wheelchair.

“Five years! I thought ‘no, no, no!’ For me, who is very impatient, this was impossible to imagine,” she says.

“And how long did the training take?”

“Seven years.”

OUT AND ABOUT: “It always feels good to get outside into nature, both physically and mentally,” says Mariann Brattland.



A WELCOME BREAK: The picnic area at the starting point of the hiking trail is also universally-designed. One side of the table is without a bench, so that wheelchair users like Mariann Brattland can move right up to and under the table, while Inger Marie Bleka can take a seat on the bench on the other side of the table.

She knew she wanted to get out into nature after the accident. But she was forced to take it gradually. On her first trip she rolled her wheelchair 100 metres and was completely exhausted afterwards. The first night out in a tent took place at home in her own garden. These days, she embarks on proper camping trips. She rides a hand bike. Uses a sledge with skis as runners. And not least: In recent years, she has been back up in the air again. The hang-glider has been left on the ground, but she has completed her pilot's licence and can fly a glider, specially adapted with all the control in hand levers.

“I love flying,” she says.

“But for me it's not about chasing an adrenaline kick. It is about challenging myself and feeling empowered. As a wheelchair user I have the feeling that no one expects much from me – and so I have to set my own ambitions.”

PEAK HIKE AGAINST ALL ODDS

This spring she hiked to the top of Galdhøpiggen for the first time after the accident. She was challenged by her son, who is now 15 years old:

“Mum, you used to love hiking to the mountain peak. Do you want to join us if we pull you up?”

She sat in her ski sledge and they took the “easy” route up, from Juvasshytta across Pigg-green glacier. As they approached the top, the snowy patch ended and she had to be carried over the steep rocky outcrop.

“It was a fantastic family trip, but very heavy for those who pulled me. They haven't asked me if we should do it again,” she laughs.

Mariann Brattland is ambivalent about being presented as a sporty wheelchair user who fixes everything and ends up on the front page of the local newspaper, as she did after the hike to Galdhøpiggen.





“It’s about challenging myself and feeling empowered.”

Mariann Brattland

IMMENSE LANDSCAPE: The universally-designed trail winds from Sognefjellshytta, over Fantesteinsvatnet and through the landscape, 1,410 metres above sea level.

“I would rather that people see the barriers to venturing out into nature as low. Today, with all the social media posting, I think many people get the impression that the best outdoor experiences are extreme. This puts a lot of people off, including many who are non-disabled.”

Her wheelchair easily fits under the table in the picnic area outside Sognefjellshytta. She pours coffee from a thermos.

“I have changed after the accident. Before I used to always want to reach the highest peaks. Today, I have become better at finding trips closer to home and enjoying them. I don’t take for granted that I am able to get outside on my own, without assistance, as I have today. And I’m grateful for that. Just being able to sit here, out in nature, and drink my coffee, is a fantastic experience.”



She adds: “On certain days it can be hard to motivate myself to go outside. But I have to. If I can’t get outside at least once a day, I get moody.”

SIGNAGE IS VITAL

There is an ongoing discussion about whether nature should be developed and facilitated so that more people can use it. Mariann Brattland thinks the hiking trail at Sognefjellshytta has been solved in a good way.

“They have found a good compromise. No major interventions have been made that ruin the nature experience, but the adjustments make it possible for me to get out into the terrain and not just roll on a paved road. I need these experiences too, but of course I understand that there will never be a universally-designed path up to Galdhøpiggen.”

She will happily recommend the hiking trail at Sognefjellshytta to others. She still has one tip on how the destination can be even more accessible: Clearer signage starting at the parking lot.

“It was a bit difficult to figure out how to get from the parking lot to the starting point of the hiking trail itself,” she says and explains:

“I am always afraid of getting stuck with the wheelchair, especially if the terrain is a bit hilly. It is important for me to know where I am going, and it would be helpful with a sign that showed the way to the hiking trail. Wheelchair users and other disabled people need much more information to feel safe, than non-disabled people.”

She had no problem finding her way from the picnic area in front of Sognefjellshytta.

“There is a clear sign with a wheelchair symbol, which makes it very clear that this walking route is also for ‘people like me’,” says Mariann Brattland. ●



RETURN TRAIL: The hiking trail is 1.1 kilometres long – enough to get off the trafficked road and out into the wild.

Gateway to Jotunheimen National Park

- On Sognefjellet, 1,410 metres above sea level
- Universally-designed hiking trail of 1.1 km
- Stepless route without steep inclines, suitable for everyone who rolls and walks
- Starts at Sognefjellshytta, goes over and along Fantesteinsvatnet
- Picnic area with benches, tables and information about Jotunheimen National Park
- Accessible toilet at Sognefjellshytta
- Completed in 2018
- Builder: The National Park Board and the County Governor of Innlandet
- Landscape architect: Dronninga Landskap AS
- Partners: Sognefjellshytta, the State-owned Land and Forest Company (Statskog) and Norwegian Scenic Routes

Everyone is welcome

At the new City Hall in Sandnes, the entire community is welcome to enter through the main entrance. In the past, many were forced to use the inconvenient back door.

“A dreamhouse,” exclaims Per Åge Øglænd. He stops his wheelchair for a moment and looks over at Tone Edvardsen with a smile, who is also sitting in a wheelchair.

“Yes, it turned out quite nice,” she says and nods.

The two representatives from the Norwegian Association of the Disabled (Southwest) and Norwegian Federation of Organisations of Disabled People are inside the doors of the new City Hall in Sandnes for the first time and pleased with what they see.

“We were consulted about universal design during the planning and construction process and have eagerly awaited the result,” says Tone Edvardsen.

EQUAL OPPORTUNITY

The new City Hall – at a price tag of NOK 406.5 million – was completed in January 2019. The building houses 374 employees who have their daily work here, in addition to political leaders and municipal elected representatives.



GOING FOR A SPIN AT CITY HALL: Per Åge Øglænd and Tone Edvardsen from the Norwegian Association of the Disabled (Southwest) are easily able to make their way around the brand-new City Hall in Sandnes.





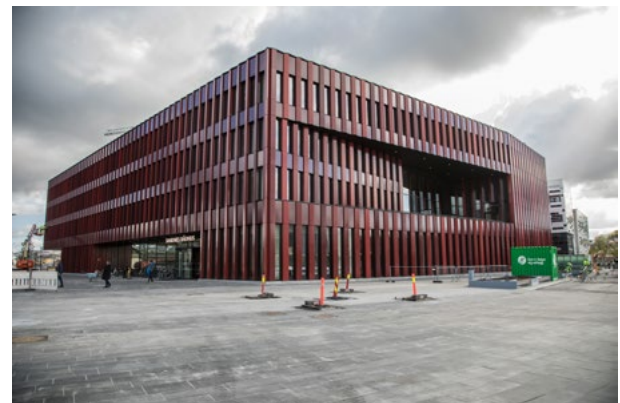
MAIN ENTRANCE FOR ALL: Sliding doors in a ‘vestibule’ – and with contrasting colours – work for all users, whether they have a visual impairment, walking difficulties or use wheels.

→ “But the City Hall should also be a gathering place for the entire city,” says project manager Jarle Angelsen of Sandnes Eiendom – the municipal building company.

“Our goal is for city residents to be proud of where they live – and the new City Hall helps to bring a little zest to the city,” he says. The new City Hall, designed by German architectural firm Code of Practice, is adorned with red ceramic tiles, a reference to the historic ceramics industry in Sandnes. Angelsen emphasises that the principles of universal design were an important aspect in the planning and construction phases.

“From day one, our focus has been on finding good solutions that allow all users to have the same opportunities in this building,” he explains.

And that is exactly what Per Åge Øglænd and Tone Edvardsen are determining during their visit to the new City Hall with their universal design ‘glasses’ on. On arriving at City Hall, they need to navigate – like everyone else – through the construction chaos on the surrounding streets to



ALL SET IN NEW CITY DISTRICT: Sandnes City Hall opened its doors in January 2019 and is one of the first buildings to be completed in the new Havneparken city district.

get to the main entrance. But that chaos is only temporary. The new City Hall is one of the first buildings to be completed in the new Havneparken district currently under development. The district will include shops, food service establishments, offices, homes and a hotel.

“The first thing I notice is the main entrance: They have avoided using revolving doors and have come up with a good solution with a set of sliding doors with space between,” says Tone. Revolving doors are often used instead of sliding doors (which remain open) to avoid heat loss. But a rotating entrance is difficult for many people to use.

“Some people have a hard time seeing the opening in the revolving door, while others experience that it rotates too quickly. If you have a visual impairment or difficulty walking, you may end up being knocked down by the door,” says Tone.

PRACTICAL FOR VISITORS

Time had run out for the old City Hall in Sandnes, located on the other side of the city centre around a kilometre from the new building. It was built in the early 1960s and expanded several times during the 70s and 80s. In the end, it was no longer fit for purpose for either the employees, politicians or residents. An example: The main entrance had steps, so if you arrived in a wheelchair, with a walking aid or a pram, you needed to go around the building and enter through a door at the back.

“The goal is always that the main entrance can be used by as many people as possible,” emphasises Tone.

Once inside the new City Hall, visitors find a service centre with a number of round counters that can be raised and lowered. It is easy for a



USER-FRIENDLY: The signage is good according to Tone Edvardsen. The information boards have good contrast, are easy to read and placed low enough for wheelchair users to be able to read the text at the top.

→ wheelchair to get all the way up to the counters, each of which is equipped with a hearing loop, which is also indicated by a clear sign. There is sofa seating in the entrance area, where visitors can sit and relax, and work tables along the large windows in two different heights for filling out forms and other activities. The signage in the building is rated highly by the user representatives. The signs are clear, have good contrast and are placed at the right height. “In other words, low enough for those of us in a wheelchair to read what is written at the top,” says Tone.

POLITICS AND LOVE

The political wing of the new City Hall – the council room – is located on the second floor.

Per Åge and Tone take the lift, back their wheelchairs out of it using a mirror on the lift wall, press the automatic door opener and ride their wheelchairs into the council room. The room – which is also used to perform wedding ceremonies – has high ceilings and large windows facing Sandnes Harbour. The City Council seats are designed so that the representatives sit in a semicircle at three different heights.

“It’s a huge plus that there is plenty of space here and you can easily navigate between the rows with a wheelchair. In other places, you end up dreading having to move around because other people have to stand up and make room,” says Per Åge. There is direct access to the podium from the highest seats in the room, even with



CLEAR LANGUAGE: There is plenty of room to use a wheelchair in the City Council room and Tone Edvardsen is able to ride right up to the pulpit.

“It may seem like a trivial thing, but accessible restrooms make all the difference for many people. The alternative for some may be to avoid City Hall altogether.”

Per Åge Øglænd



BUILT FOR THE PEOPLE: Project Manager Jarle Angelsen, Sandnes Eiendom, in the new City Council room, which is also used to perform wedding ceremonies.

a wheelchair. The two lower levels do not have direct access. To counterbalance this, a flexible seating solution has been adopted, with political groups with representatives who require adapted access being seated at the top.

“What matters is that everyone has access to the most important functions, such as the podium, whether you are a representative, secretary or mayor. The design of this room makes that possible. But ideally, everyone should also have access to the lower area in the middle of the room, where I can imagine lots of people stand and talk together during breaks,” says Per Åge.

Tone nods in agreement.

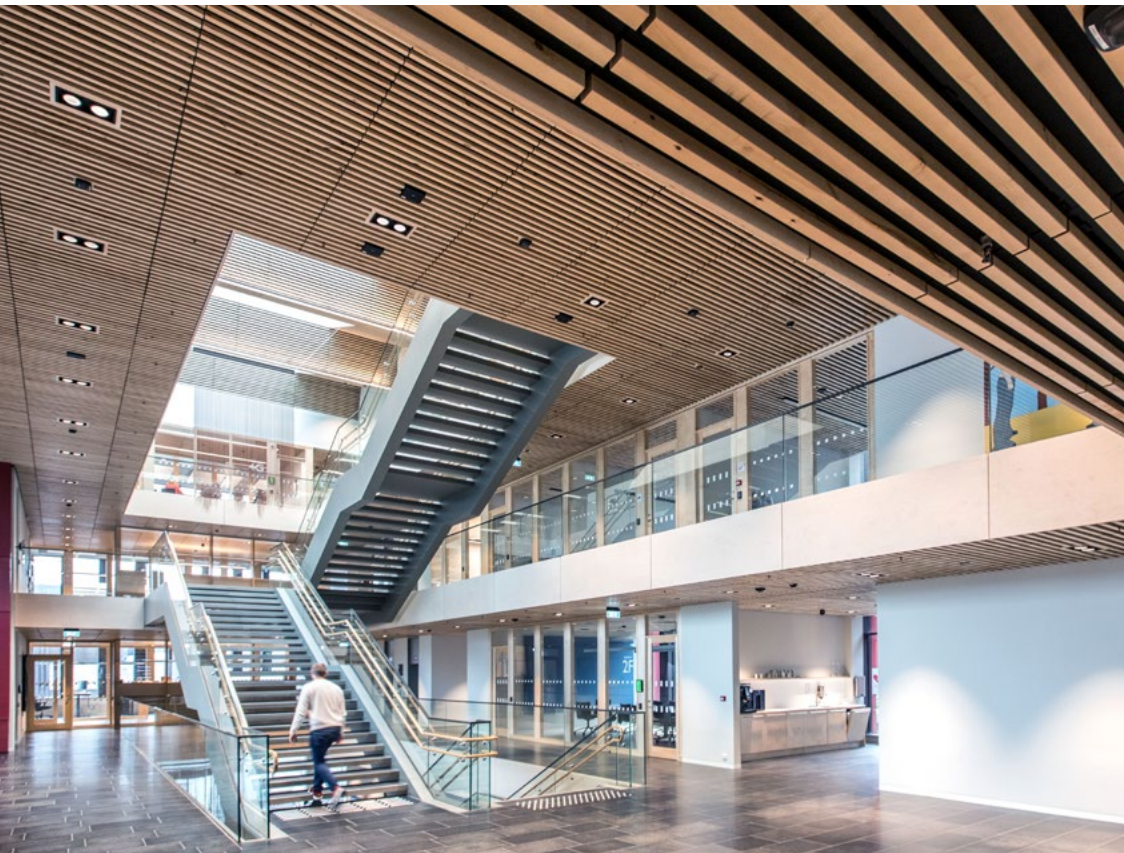
“To have the same opportunity to participate in and influence politics, it is important to also be able to take part in informal interactions,” she adds. Per Åge would like to see a solution with adapted access by way of a ramp connecting the three levels in the City Council room.

“This is possible with such small height differences. And it can be done in a way that does

not disrupt the overall look of the room. It’s a very attractive room, of course, and those of us who are mindful of universal design are also mindful of aesthetics,” he says.

The City Council room also gets a high score for good acoustics. In spite of the tall ceiling, the sound quality in the room is good, thanks to the measures taken, such as textiles on the chairs, carpets on the floor and perforated walls that also help to reduce sound reverberation. Outside the City Council and Executive Committee rooms are mingling areas with different zones, including both sofa seating and a tall ‘bar table’ with corresponding tall chairs. Tall seating is suitable for everyone, but the height of the sofas and small tables make them easy to access with a wheelchair. The floor has Otta slate tiles, which are also used elsewhere in the building. The hard flooring is compensated in other ways to ensure good sound and acoustics, such as linear wood ceilings with thick insulation sound-proofing panels behind it.





GOOD FLOW: The main staircase runs in the middle of the house and connects the floors. Wooden slats and sound-absorbing boards help to create a good sound environment in this open building.

→ “All in all, good conditions for those with a hearing impairment,” says Per Åge, while at the same time pointing out that there needs to be considerable focus on ensuring that the textiles used in the building – as well as the plants – do not cause problems for asthmatics and allergy sufferers.

WORKING ROOMS

On the second floor, the two user representatives make their way to the meeting rooms and silent rooms. “These kinds of rooms are often problematic,” says Tone. “They’re usually very small, difficult to access with a wheelchair, impossible to get all the way to the table because you bump into the table legs and in many cases, the table is too high. I’ve learned to bring a sturdy notepad with me that I can place in my lap. But it’s hard to participate when you’re sitting behind all the other meeting

participants. You end up as a sort of outsider,” she says. The 4K meeting room at City Hall is empty today and it does not take long for Tone to establish that:

“It’s not a problem to participate here. It’s easy to get into the meeting room with a wheelchair, there is room to move around the table, the table legs are arranged so that you don’t bump into them and the table height is good.”

The silent room further down the corridor also gets a thumbs up:

“The door is easy to open, the office chair has wheels so I’m able to push it away to make room for my wheelchair, the desk is high enough to fit my wheelchair under, the computer monitor and keyboard are placed so that I can work with them, there is room to turn so I can write on the whiteboard and I can operate the door from the inside.” On their tour of the new City Hall, Tone and Per Åge take note of quite a few positive



CLOAKROOM: Tone Edvardsen can easily reach her coat, as the hangers in the cloakroom are placed at a height that is suitable for wheelchair users.

plenty of space, even though the cubicle doubles as a baby changing room. The two often compete against each other, but there is enough room here for good solutions for everyone. There is the required space to turn – plus a little extra. And there are armrests on both sides of the toilet. Tone positions her wheelchair under the sink and confirms that she is able to turn on the tap and reach both the soap dispenser and hand dryer.

“Even the mirror is installed low enough for me to see myself. Often, I can barely even see the top of my head.” They praise the alarm cord – which is anything but a given – and swing out again while the electric door closes gently behind them.

“A five-star restroom”, says Tone and chuckles. ●

This article was first published in 2019

solutions. But they also have a suggestion for yet another one: The City Hall has four floors and for fire safety reasons, they believe an evacuation chair should be installed at the main stairs, at least on one of the floors.

FIRST-RATE RESTROOM

Back in the reception area on the first floor, they steer their wheelchairs towards the cloakroom and restrooms. In the cloakroom, it is not a problem to reach the clothes hangers, which are placed at a height that is suitable for wheelchair users. The restrooms are located around the corner. The signage is also good here and it is not difficult to get to the restrooms when necessary. “It may seem like a trivial thing, but accessible restrooms make all the difference for many people,” says Per Åge.

“The alternative for some may be to avoid City Hall altogether.” Inside the restroom, there is



Project Manager Jarle Angelsen, Sandnes Eiendom

In hindsight:

“We’ve been told that the orientation line from short-term parking to the main door is too close to the bicycle parking area. If a bicycle has a trailer attached to it, this will cause an interruption in the line. So, the orientation line here should have been a little further away from the bike parking.

To further increase accessibility, we are in the process of installing hearing loops in several rooms and are purchasing transfer chairs for wheelchair users.”

ENORMOUS AREA: Mjøsparken is 82,600 m² in size, with plenty of activities for young and old – and everyone in between.

An abandoned industrial area is transformed into a popular park

Originally a sawmill, later used for lumber storage and subsequently abandoned, an industrial site has now been reshaped into a popular park.

Brothers Vegard and Magnus ride their bikes around Mjøsparken at full speed. Soon after, they're dangling in the jungle gym. Mum Pia Haugsjordet helps her two and four-year-old boys in the park, a large area packed with adventure in the municipality of Ringsaker between the E6 motorway and Mjøsa lake. The park opened in the summer of 2020 and people have flocked to it ever since.

"If it were up to my boys, we'd come here several times a week," says Pia. The family live three kilometres away and either drive and park in the large adjacent car park or, like today, ride their bikes. Electric bicycles can be charged at the park. "There are also bicycle tools here, such as bike pumps," says Pia while the boys run around.

"The park is fantastic and makes it easy to go outdoors and get active, and a little different than playing in the backyard. It's local, flat, free and safe, so I can let the boys do their own thing."

FOR ALL AGES

According to Pia, the fact that the park has such a variety of activities is what makes it so appealing to people of all ages.

"We come here often with the boys' cousins, who are 9, 12, and 14 years old. They like to play basketball here. It seems like the park is used by people of different ages."

The park has three restrooms.

"That there are so many restrooms here is fabulous. My oldest boy no longer uses diapers, so it's nice to not have to go home every



FULL SPEED AHEAD: Brothers Vegard and Magnus like to go to the park as often as possible. That's just fine with mum Pia Haugsjordet.

POPULAR

DESTINATION: Pia Haugsjordet goes to the park often, which not only she and her boys enjoy, but also the rest of the family.



→ time he has to go to the bathroom,” says Pia Haugsjordet.

SOCIAL MEETING PLACE

A short distance from the active boys is a group bent over the boules on the petanque court. One of the players is Jan Håvard Smedby, who lives nearby. The group often meets to work up a sweat together, but Tuesdays are dedicated to petanque. “It’s social and fun, and there’s no hard feelings at the end of the day,” says Jan Håvard, who is thrilled with the universally-designed park.

“The municipality has really done a fantastic job here. There’s lots to do here for children, adults and older people,” he says with a smile.

STATE-PROTECTED RECREATION SITE

That was precisely the idea behind the park, previously used for anything but recreation. The site was used as a sawmill from around 1916 until World War II, after which it was used to store lumber – until well into the 1990s.

“It’s local, flat,
free and safe, so I can let
the boys do their own thing.”

Pia Haugsjordet

“In 2013, an agreement was signed on the purchase of what was then an abandoned industrial area. Ownership of the site was transferred from Norske Skog to the municipality of Ringsaker, but paid for by the Norwegian Directorate for Nature Management and Norwegian Public Roads Administration. This was the start of the plans for what would later become Mjøsparken,” explains city developer Monica Østenheden from the municipality of Ringsaker.



VIEWS OF THE WATER: The park has a number of benches, all with armrests to make it easier to stand up again. The bathing ramp leading to a designated bathing area.



REGULAR ROUTINE: Every Tuesday, a group gets together at the petanque court at the park. Jan Håvard Smedby is throwing the boule.





ILLUMINATED: There is lighting along all footpaths. Grass, curb stones and asphalt create contrasts to make orientation easier.

→ MAJOR TRANSFORMATION

Ringsaker had long wanted to open the area to the public and bring Brumunddal closer to Mjøsa. The planning and development phase entailed a partnership among a wide range of parties, including participation processes with residents, teams and associations, as well as with different age groups.

“The entire process has been part of a comprehensive plan in which Mjøsparken has been a decisive step towards promoting attractiveness and driving growth. The area was planned and developed as part of a larger whole in close coordination with other major projects,” explains the city developer and mentions residential development, office work-

spaces, Mjøstårnet, a hotel, expanded marina, construction of the four-lane E6 motorway, integrated rest stop – and the recently opened amphitheatre, constructed as a noise barrier next to the E6 motorway.”

CONNECTING CITY AND WATER

“Brumunddal has become an attractive city in recent years, especially since the city centre has been brought closer to the water. This connection is the result of a river promenade and path along the Brumunda river, with a variety of nature and cultural experiences along the way. A bicycle and pedestrian path has also been constructed along the road network to promote walking and cycling,” emphasi-



SENSORY GARDEN: Aromatic sensory garden with wheel-friendly surface.



PLENTY OF RESTROOMS: The park has three restrooms, as well as a restroom just outside the park area.



→ ses Monica Østenheden. Three years after the opening, the 82,600 m² park has firmly established itself as an attractive destination and recreational area.

“On hot summer days, hundreds of people flock to the park. Most of them are locals, but people also come here from much further away,” says the city planner about the project, which cost the municipality NOK 161 million to build.

“The goal is to continue to develop Mjøsparken into the most attractive yet urban recreational destination in the county of Innlandet, with activities and experiences for everyone and every season. We hope that Mjøsparken will become a magnet, a place where people stop along the E6 motorway, Ringsaker’s X factor.” ●



FOR BIKES AND BOARDS: A large area is designated for cycling and skating fun.

“We hope that Mjøsparken will become a magnet, a place where people stop along the E6 motorway, Ringsaker’s X factor.”

Monica Olsen Østenheden



CONTACTLESS OPENING: There is no need to press anything, but simply place a hand over the sensor to open the restroom door.



Monica Olsen Østenheden, city planner for the municipality of Ringsaker (Photo: Municipality of Ringsaker)

Solutions:

- Three restrooms in the park itself, all of which have an accessible toilet and a sensor door opener
- Skating rink
- Skate park for kick scooters and skateboards
- Basketball court
- Ping pong table
- Playground with mini zipline, sand and water play areas, and climbing equipment
- Bathing beach with universally-designed bathing area
- Sensory garden
- Miniature golf
- Petanque courts
- Sand volleyball court
- Barbecues
- Historic cultural heritage sites
- Skibladder pier
- Six accessible parking spaces
- Concert amphitheatre
- Charging station for electric bicycles
- Lots of benches with armrests
- Sunbeds
- Dog park

In hindsight:

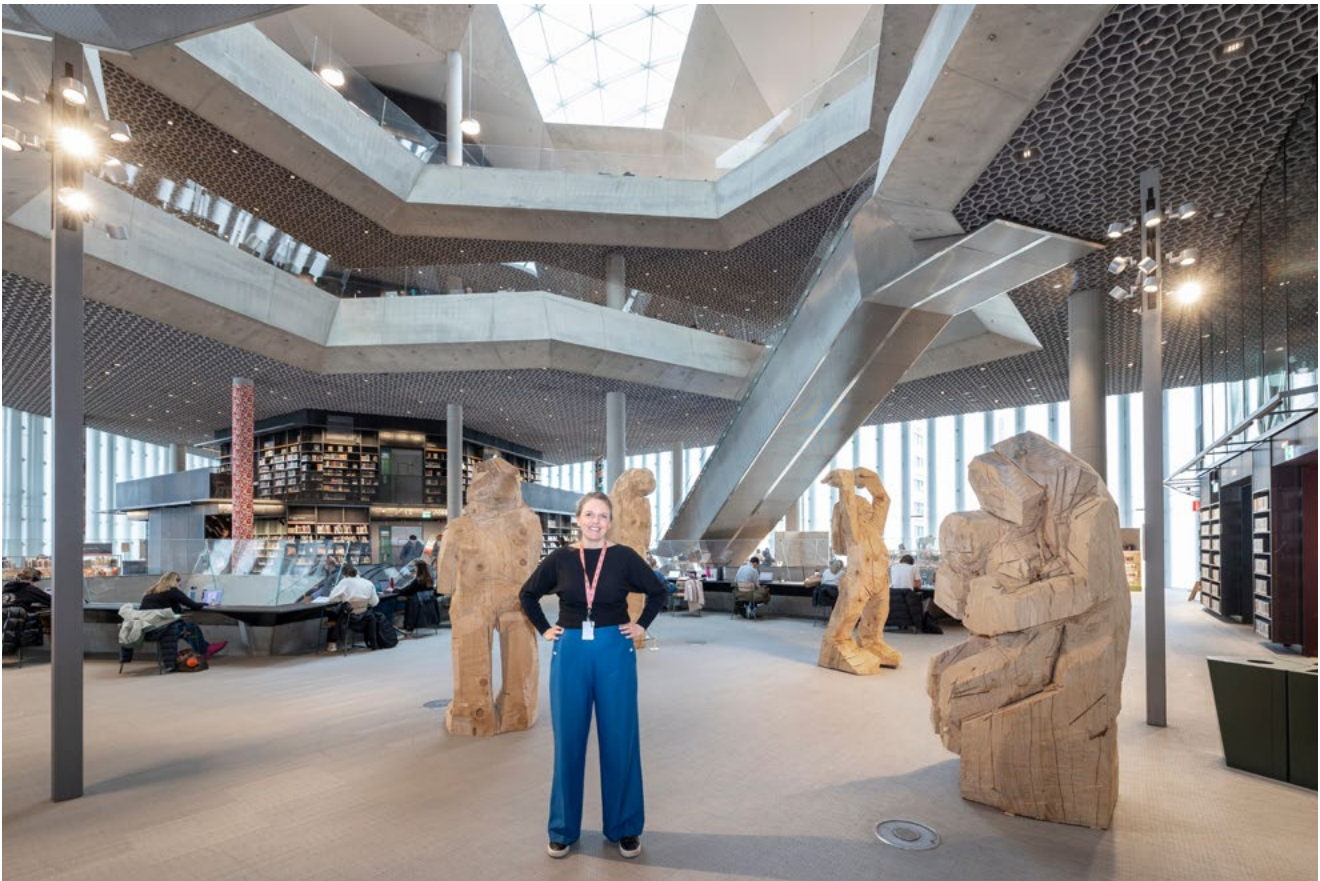
“With such a large project, there are always challenges that arise and changes that need to be made along the way. But almost everything turned out as outlined in the original plans and we are very pleased with the result. At the same time, we are continuing to develop Mjøsparken, so that it will have even more to offer local residents, visitors, and those who work here.”

Knowledge is key

Having technical solutions in place is not necessarily synonymous with a universal design.



OSLO MAIN PUBLIC LIBRARY: 19,260 m² distributed on 6 floors have had 7 million visitors since opening in March 2020.



STORYTELLING: “I believe that storytelling is the most important tool we have to promote understanding. We need to use the power and value inherent in it and communicate about books with stories focused on being different,” says Anne Aagaard.

Orientation lines, handrails, contrasts, lifts, door openers. The list of assistive devices and aids is long. But it should be longer, according to Anne Aagaard, service designer at Deichman, Norway’s largest public library, with a main library and several branches in Oslo.

“The Public Libraries Act is clear. The fundamental principle is that the library, which in many ways is the mainstay of our democracy, is intended for everyone. So, it is our job to ensure this,” she says.

MORE THAN ORIENTATION LINES

Oslo’s new main library, Deichman Bjørvika, opened in the summer of 2020. The spectacular building has six floors full of books and more.

“It’s a new building, so naturally it meets all technical standards when it comes to universal design, although the escalators and lifts could have been wider,” Aagaard points out.

But her focus is not primarily on the technical solutions. She is currently working on a strategic initiative to fulfil the requirements laid down in the Public Libraries Act.

“Universal design is a matter that is close to my heart and is about so much more than orientation lines and lifts, to put it simply. After all, universal design encompasses far more than just disabilities and visual, hearing and cognitive impairments. It has innumerable other aspects and is quite a complex and challenging task.” →



ILLUMINATED SHELVES: Lighting makes it easy to find what you need.



TWO IN ONE: Soundproofing and lighting in one. The ceiling also has a soundproofing design.

→ BITE-SIZED CHUNKS

In 2023, Aagaard began working to gain an overview of the knowledge already present in the organisation and the current approach to universal design. She is guided by four key principles.

“We need to strengthen the knowledge and expertise of the staff, find smart solutions for the rooms and services, and listen to borrowers. A library is so much more than a place to borrow books, which is what makes my job so challenging,” says Anne.

The solution is to break it down into bite-size chunks. Take, for example, the wide range of smart solutions for the rooms. Aagaard’s method entails finding the contact points, i.e. all the locations and objects with which visitors interact – such as displays, returns, book collections, doors, furniture, shelves, seating and counters – before answering the following question: How do borrowers experience all of these things?

“Or in terms of the collection, which books do we display? Books with easy text? Audio books? Male and female writers? Different ethnicities? Has the diversity perspective been addressed? We need to be active listeners, structure the findings and find the right solutions. Cultivating a culture of collaboration with others who have the right expertise is extremely important,” she says.

ASK THE USERS

This is why she works together with different organisations and associations. These partnerships have resulted in, among other things, a concrete training project based on a deck of cards. Each card has a different theme. One card, for instance, has the picture of a counter on the front and the back lists a number of factors that should be considered in connection with it, such as practical aspects like placement



CLEAR LANGUAGE: The library is often teeming with children and prams. There is a plan in place to establish a new young children’s department on the first floor to help reduce pressure on the lifts.

and height, though also how borrowers should be treated. Other cards offer insight into who the borrowers may be, the types of challenges they may have and what the library has to offer them.

“Take this one, for instance,” says Aagaard and shows one of the prototype cards. The front reads: ‘I have autism’. The back tells about what is important for people with autism, such as ‘I want to sit in a safe place’ and ‘I don’t want to sit close to people’.

“Obviously, it’s essential that this is not something I learn about by googling, but from the users themselves. For example, 70 people from the national autism association and 82 from the ADHD Norway organisation told us what is important for them at a library,” explains the service designer.

The same principle applies to the content on the cards that read ‘I have anxiety’, ‘I have dementia’, ‘I have a visual impairment’, ‘I am

deaf’, ‘I do not speak your language’, ‘I have ADHD’, and so on.

EMBEDDED KNOWLEDGE

The goal is to empower the staff through knowledge, so that they know how to best interact with those with various types of challenges in different situations. To Anne Aagaard, universal design is primarily about mentality.

“It matters little if only a few people have the right mindset. It needs to be embedded throughout all layers of the organisation.”

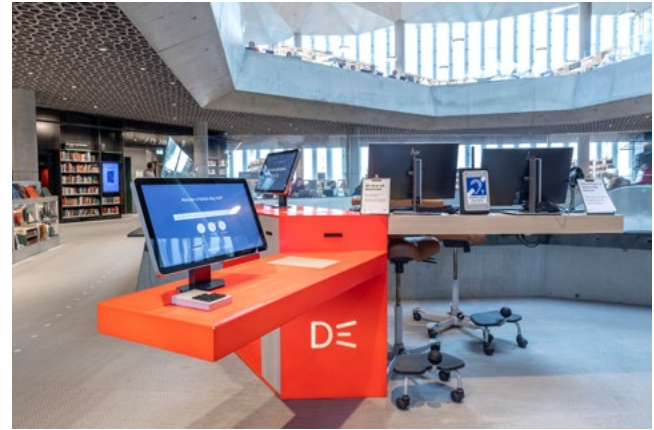
That is why she takes different approaches to knowledge sharing, one of which is this set of cards.

“The idea is that the library staff can choose topics from the cards, read about them, discuss them and enhance their knowledge and awareness. This is something that all libraries can do by simply making the cards available





EASY ACCESS: Chessboard with easy wheelchair access.



PLENTY OF SPACE: Room for a wheelchair.

“Universal design is a matter that is close to my heart and is about so much more than orientation lines and lifts.”

Anne Aagaard

→ in the breakroom. It’s an easy way to develop competence,” she says.

Another approach is to assign internal ambassadors.

“This is all about employees taking ownership, so that I’m not just going around saying ‘Listen up!’ I have considerable faith in a bottom-up approach and have found my tribe of ambassadors, who are very enthusiastic about this.”

USEFUL WAKE-UP CALL

One of the ambassadors is Jørgen Strømme, who has technical responsibility for the rooms and equipment.

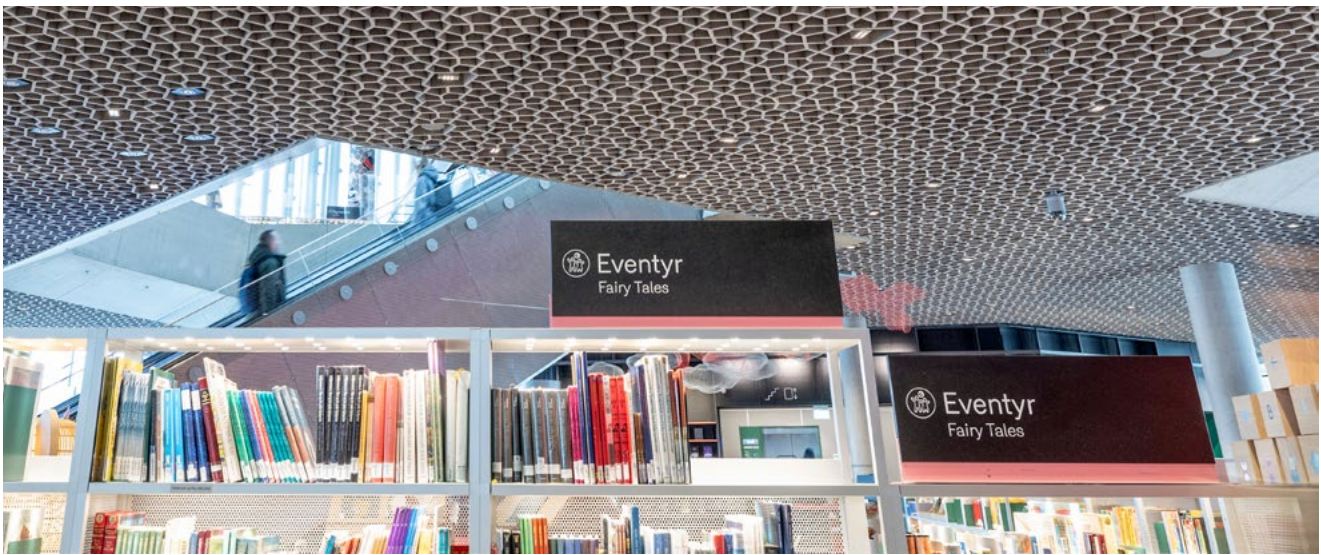
“Anne has organised various courses and activities. These have made us a lot more aware of all different aspects of universal design. It’s been a useful wake-up call,” says Strømme, who believes that this knowledge benefits the entire organisation.

“To a much greater degree than today. Anne’s work has advantages for everyone in thinking in terms of universal design on all levels,” adds Strømme.

PARTNERSHIP

Part of Aagaards’ work is a partnership with the City of Trondheim. The Norwegian Directorate for Children, Youth and Family Affairs has provided funding for a project focusing on universal design in the library’s digital channels.

“I felt it was important that we did not do this alone, so the Trondheim Public Library and Deichman have joined forces. We are two libraries with different perspectives and funding situations that are trying to find common principles shared by all libraries in Norway,” says service designer Aagaard. ●



RIGOROUSLY TESTED: The signs have white lettering against a black background in a reader-friendly font that is used throughout the city. Aagaard was previously involved in a project to design a new visual identity for the City of Oslo. The Norwegian Association of the Blind and Partially Sighted and Dyslexia Norway are among those who contributed to the final result through rigorous testing.



Anne Aagaard,
Service Designer,
Deichman



GREATER AWARENESS: “The goal is for it to be easier for everyone to use the library and our websites. Anne’s work increases awareness about universal design and helps us to organise our work more effectively,” says her internal universal design ambassador Jørgen Strømme.

Solutions

- Sign with universally-designed fonts in lower case letters – the white line around the signs is important for many users, such as those with dementia
- Sound absorbers in the ceiling
- Noise-reducing lighting
- Handrails with lighting
- Orientation lines
- Search databases and return counters at different heights

The list is not complete, but shows examples of solutions.

In hindsight:

“We are focusing on one contact point at a time, and do not yet have a complete picture of what works and what doesn’t.”

NEW OASIS: Kolstad Kindergarten opened in August 2020. The outdoor area is varied and accessible to all.





A lush and colourful oasis

Kolstad Kindergarten boasts an easily accessible outdoor area, designed as an inspiring oasis for fun and play.



→ A Kitchen garden, a tunnel made of braided willow, colourful hopscotch scattered between winding paths. “This outdoor area inspires play that stimulates the senses, and it is accessible to all,” says Solveig Dale, Universal Design Adviser in the Municipality of Trondheim.

DIFFERENT ZONES

The outdoor area is divided into zones that can be explored. The oasis fans out from the kindergarten entrances, cutting across gentle slopes. “The paths are covered by asphalt; cobblestones mark the stepless transition to other materials: Artificial grass, regular grass and rubber surfaces – creating clear contrasts between play zones and walking areas,” explains Dale, and shares a useful tip: “If you squint, you get a sense of the contrasts”.

“The use of different materials also ensures the necessary tactility and provides orientation lines for visually impaired people,” Dale says, adding that natural orientation lines increasingly replace artificial ones. “Universal design is now a natural part of the planning.”

COMPREHENSIVE DEVELOPMENT

The new kindergarten is part of a comprehensive development plan for the Saupstad-Kolstad area. “Saupstad-Kolstad is one of three pilots in the age-friendly community project. The development plans are all about enhancing functionality in key projects, even kindergartens. With an accessible outdoor area, the kindergarten also serves as an important meeting place after hours,” explains Dale.



MULTIFUNCTIONAL: The lush tunnel is fun, but also a point for orientation, according to Solveig Dale.



HOPSCOTCH: A colourful hopscotch for fun and action.

TACTILE AND VISUAL

The area in front of the entrance is covered in wood. Two rows of cobblestones mark the stepless transition to the asphalt covered walking path. In front of the door, there is a scraper grid serving a dual purpose: it removes dirt from shoes and provides tactile-visual markings for visually impaired people. Underneath an eave above the entrance, there is a fixed seating group. There is room for wheelchairs at either side of the table. A play table nearby is also accessible to wheelchairs.

“The entrance to the play table is wide and covered with gravel firm enough for wheels to turn easily. Wheelchair users can get close and play with others on equal terms,” says Dale. The outdoor area also has an amphitheatre with seating on three levels. Wheelchair users can sit either on the top or bottom levels, in front of the regular seating. “The ideal would be to make an indent into the bottom seating area, so that wheelchair users can sit next to the others,” Dale says, adding: “This can be easily corrected.”

“The use of different materials also ensures the necessary tactility and provides orientation lines for visually impaired people.”

Solveig Dale



CONTRASTS: The combination of sand, rock, rubber and wood creates natural orientation lines.





ROLEPLAY: The various zones invite roleplay.

→ **NATURAL ELEMENTS**

A large rock, a row of small tree stumps and logs are incorporated into the outdoor play area.

“They enhance creative and free play, as well as provide crucial activity,” notes Dale.

A small mound for climbing is perforated with tunnels.

“To crawl through one of these, be inside, get out, feel the excitement and safety, is stimulating,” says Dale, drawing attention to the ball wall: The tall wooden wall is perforated at different heights, inviting everyone to play. There is also a slide, with sturdy, turquoise rope handrails leading to the top.

“Nearby, there is a long, bright and lush braided willow tunnel. A beautiful element for orientation,” says Solveig Dale.

All in all, the outdoor areas invite everyone to join the fun and games, regardless of functional ability. ●



Solveig Dale, Universal Design Adviser, City of Trondheim

In hindsight:

“The outdoor area currently has a lot of rubber surfacing. This is not widely used nowadays due to environmental issues. We would have liked a different and more environmentally friendly surface with just as effective shock absorption in those areas where a cushioned surface is required.

We’ve also used rubber surfacing in areas that do not require a cushioned surface. In retrospect, we realise that shock-absorbing surfacing should be limited to those areas where it is required.”



CLEAR ZONES: Colours and contrast materials separate the different play zones from the walking zone.



COLOURFUL: Fresh colours guide you to the target.

This is how universal design is defined in Norway



Norway bases the understanding of universal design on the 1997 definition and seven principles by Center for Universal Design, North Carolina State University (US).

The principles were developed by a group of architects, product designers, engineers and environmental design researchers, led by the late Ron Mace.

Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

1

Equitable Use

The design is useful and marketable to people with diverse abilities.

Guidelines:

- 1a. Provide the same means of use for all users: identical whenever possible; equivalent when not.
- 1b. Avoid segregating or stigmatizing any users.
- 1c. Provisions for privacy, security, and safety should be equally available to all users.
- 1d. Make the design appealing to all users.

2

Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

Guidelines:

- 2a. Provide choice in methods of use.
- 2b. Accommodate right- or left-handed access and use.
- 2c. Facilitate the user's accuracy and precision.
- 2d. Provide adaptability to the user's pace.

3

Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

Guidelines:

- 3a. Eliminate unnecessary complexity.
 - 3b. Be consistent with user expectations and intuition.
 - 3c. Accommodate a wide range of literacy and language skills.
 - 3d. Arrange information consistent with its importance.
 - 3e. Provide effective prompting and feedback during and after task completion.
-

4

Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Guidelines:

- 4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.
- 4b. Provide adequate contrast between essential information and its surroundings.
- 4c. Maximize "legibility" of essential information.
- 4d. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).
- 4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

5

Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Guidelines:

- 5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.
- 5b. Provide warnings of hazards and errors.
- 5c. Provide fail safe features.
- 5d. Discourage unconscious action in tasks that require vigilance.

6

Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

Guidelines:

- 6a. Allow user to maintain a neutral body position.
 - 6b. Use reasonable operating forces.
 - 6c. Minimize repetitive actions.
 - 6d. Minimize sustained physical effort.
-

7

Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Guidelines:

- 7a. Provide a clear line of sight to important elements for any seated or standing user.
- 7b. Make reach to all components comfortable for any seated or standing user.
- 7c. Accommodate variations in hand and grip size.
- 7d. Provide adequate space for the use of assistive devices or personal assistance.

Source:

[*Centre for Excellence in Universal Design*](#)

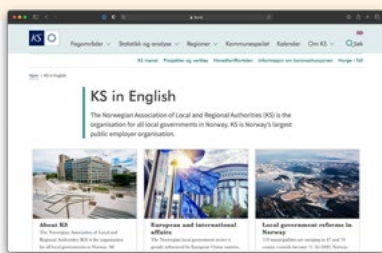
The UN Convention on the Rights of Persons with Disabilities (CRPD)

Norway also follows the Human Rights based approach to persons with disabilities, and the definition of universal design as stated in Article 2 of the convention: “The design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”, not excluding “assistive devices for particular groups of persons with disabilities where this is needed.”

Equality and Anti-Discrimination Act

Universal design is embedded in several laws and regulations, such as the Planning and Building Act and Regulations on technical requirements for construction works (Tek17). The Equality and Anti-Discrimination Act, Chapter 3, section 17, defines universal design as:

«Universal design» means designing or accommodating the main solution with respect to the physical conditions, including information and communications technology (ICT), such that the general functions of the undertaking can be used by as many people as possible, regardless of disability.



KS IN ENGLISH

Read more about KS' work on universal design on our website: <https://www.ks.no/om-ks/ks-in-english/>

Postal address:
Postboks 1378 Vika, 0114 Oslo

Visiting address:
Haakon VII's gt. 9, 0161 Oslo

Telephone: 24 13 26 00
E-mail: ks@ks.no

www.ks.no