

THE URBAN DIGITAL LABORATORY

The Urban Digital Laboratory (UDL) covers the entirety of the Quartier des Spectacles (1 km²). It is founded on a technology infrastructure unparalleled anywhere in the world. Dedicated to research, experimentation and creation, the UDL allows the Quartier des Spectacles to bring bold creative experiments to life. It makes it possible to create public services that transform people's relationship with their city. It is a large-scale test bed that promotes the advancement of knowledge and practices, as well as technological and industrial development in every field related to digital creation.



A VAST DIGITAL LABORATORY IN THE HEART OF DOWNTOWN MONTREAL

Created by the Quartier des Spectacles Partnership, **the Urban Digital Laboratory (UDL)** covers every part of the Quartier des Spectacles territory with a unique public technology infrastructure operated entirely by the Partnership.

The backbone of the UDL is a fibre optic network that covers the entire Quartier (1 km²) and that:

- Interconnects all public spaces, the eight architectural video projection sites, and a variety of specialized public amenities (fountains, cameras, public address systems, water misters, street lights, etc.)
- Connects to a large number of institutions and cultural venues, of which several have built their own networks connected to the Quartier's network (UQÀM, BAnQ, Place des Arts, etc.).
- Gives festivals and other events held in the Quartier's public spaces, as well as most of the Quartier's cultural and institutional stakeholders, access to systems and equipment that improve the effectiveness of their activities, reduce their operating costs and add value to the audience experience.
- Facilitates intercommunication and significantly speeds up data transmission, making it possible to produce new types of projects with interactive elements or integrated indoor and outdoor components.



The fibre optic network is operated 365 days a year from a central control room equipped for remote control of the various systems and equipment connected to the network.

As an integral part of the Quartier's planning and design, the UDL offers significant potential for technological development, in step with the rapid progress being made in digital technology and its uses. Geolocation, sensors, virtual-reality headsets and international telepresence are just a few of the technologies that can be used thanks to the UDL.

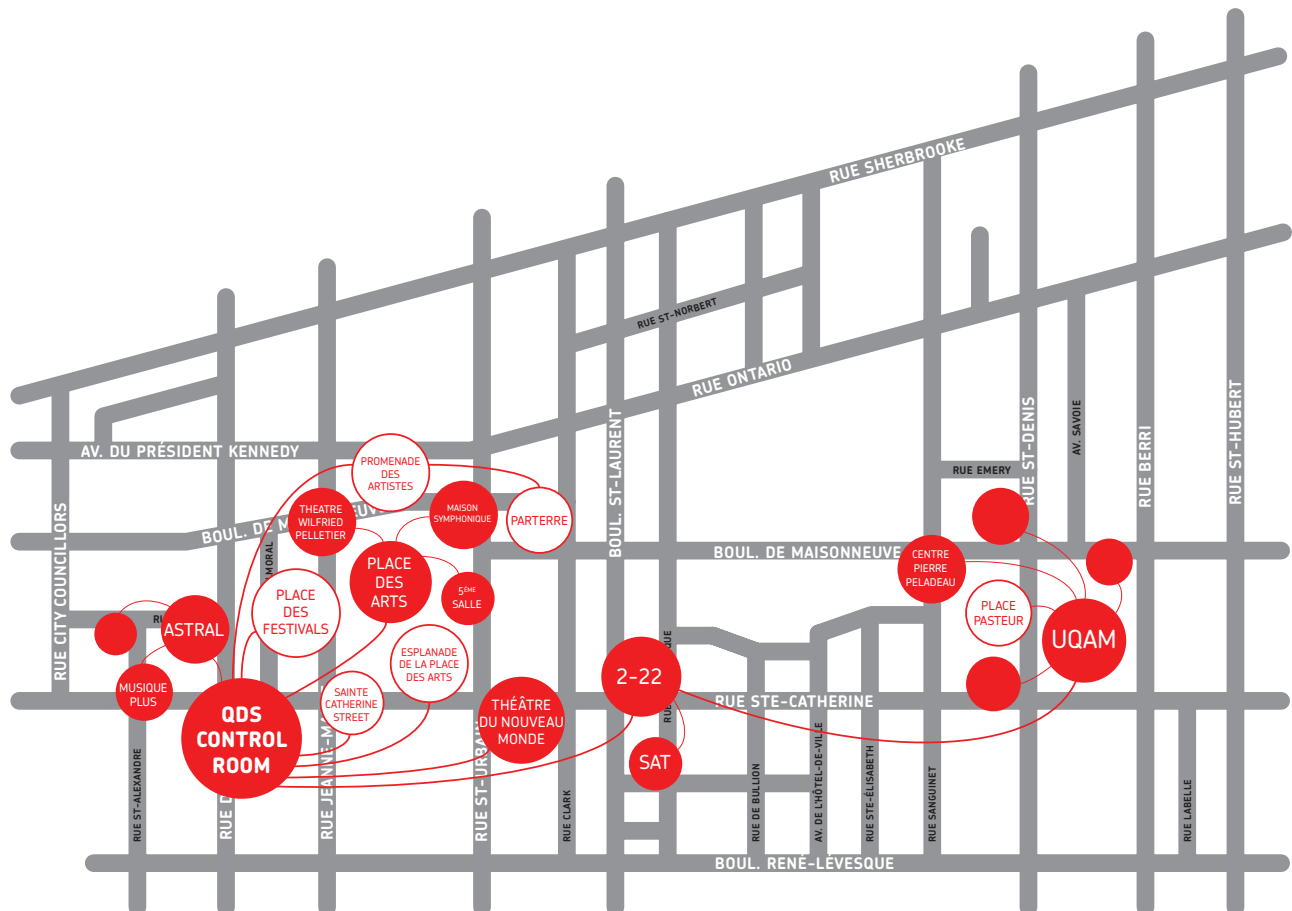


1. The Quartier des Spectacles Partnership's mission is to contribute actively to the advancement and promotion of culture in the Quartier des Spectacles.
2. The fibre optic network comprising the UDL is owned by the Ville de Montréal.

THE UDL: IMPROVING THE QUARTIER DES SPECTACLES EXPERIENCE

The UDL's infrastructure makes it simple to control the various parameters for several projects being presented in the Quartier des Spectacles simultaneously, such as:

- A major show in Place des Festivals
- An interactive exhibition on Promenade des Artistes
- Video projections on several building façades in two major zones: Place des Arts and Quartier Latin
- The live broadcast of a Canadiens game in Place de la Paix during the Stanley Cup playoffs
- The recording of a television program at Théâtre Saint-Denis, including outdoor components taking place in Place Émilie-Gamelin.



THE QUARTIER DES SPECTACLES AS AN URBAN DIGITAL CREATIVE HUB

NEW, LARGE-SCALE EXPERIENCES FOR AUDIENCES

The UDL allows audiences in the Quartier des Spectacles to discover bold, novel cultural experiences. Examples include *21 Balançoires*, now synonymous with the arrival of spring, *Mégaphone*, an innovative interactive installation for capturing and amplifying citizens' thoughts, *Iceberg* and *Entre les rangs*, two large installations presented in Place des Festivals as part of the wintertime Luminothérapie event.

In addition to projects commissioned by the Partnership, more and more of the Quartier's cultural partners are using the UDL's digital infrastructure and specialized equipment to deliver new experiences to their audiences.

The UDL makes it possible to create these **new types of cultural experiences that fill and bring life to public spaces**, in the process transforming each visit to the Quartier des Spectacles. The UDL helps increase the distinctive, exceptional character not only of the Quartier des Spectacles, but of Montreal as a whole.



EMERGING CREATIVE PRACTICES

The UDL opens up new creative possibilities. Competitions and calls for proposals organized by the Partnership are steadily gaining prestige. The number of proposals received for the Luminothérapie competition has grown more than fivefold in its first four years. After initially attracting proposals from the digital arts and new media, the competition now draws entries from many different fields, including animated film, video games, visual arts, architecture, design and the performing arts.

In the process, the Quartier des Spectacles has become **one of North America's leading sites for the incubation and discovery of new creative practices for large-scale public works**.



MONTREAL'S INTERNATIONAL PROFILE

The Partnership's activities in recent years have allowed it to build a **true community of creators and partners** interested in projects that use the UDL as a platform.

The first international competition, held in 2013 for the *McLaren — Wall to Wall* event, presented in the spring of 2014 in collaboration with the National Film Board, had more than 200 submissions from all over the world. Among them were 93 proposals from 17 countries in the Americas, Europe and Asia. Four of these proposals eventually became works presented in the Quartier des Spectacles.

Several works originating as commissions for the Partnership have won international recognition or been presented internationally. They include *21 Balançoires*, recent winner of the Grand Award of the Shenzhen (China) Design Awards for Young Talents and an Interaction Award (United States), and *Iceberg*, which attracted large crowds when it was presented in Place de la Monnaie in Brussels in the winter of 2013-14.

As both a showcase and a springboard, the UDL helps establish Montreal as one of the world's **great centres for digital creativity**. Already a member of the Lighting Urban Community International (LUCI), a network of European cities working on lighting plans, in 2012 the Quartier des Spectacles became one of only two non-EU members of the Connecting Cities Network, an organization dedicated to exploring issues around the exhibition of public digital art.



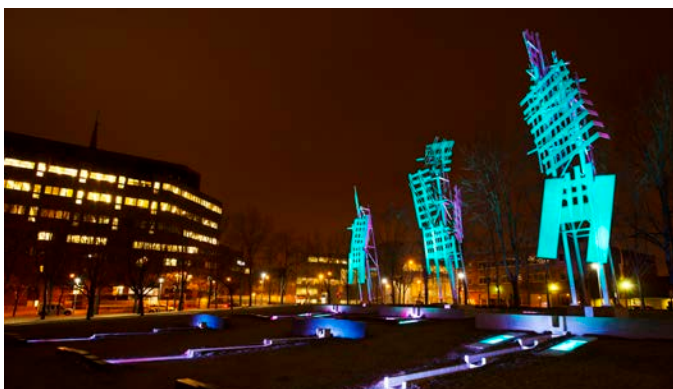
AN EMERGING SPACE FOR PUBLIC AMENITIES

The public nature of the UDL makes it easy to envision its increasing use for public services and utilities by various departments of the City of Montreal. Dynamic parking guidance system, signage, traffic control, urban equipment control, street lighting, surveillance cameras, downtown traffic and trip analysis, crowd counting and sensor-equipped parking spaces are just some of the many possibilities offered by the UDL in the area of municipal services.

In addition to improving services, the UDL will also generate data that will contribute to the open-data movement in which the municipal government participates.

The possibilities opened up by the UDL are all incentives to **contribute to the development of digital culture among Montrealers, and to build new relationships between residents and their city.**





A POWERFUL TOOL FOR ADVANCING AND TRANSMITTING KNOWLEDGE

Through the UDL, the Quartier des Spectacles has established itself as a space for learning, research and experimentation for Montreal's university community. Since the beginning, UQAM has been a partner in the Partnership's digital projects. To take one example, the students at the university's media school have access to a **massive open-air laboratory** that allows them to apply their knowledge in real-world settings and create productions based on leading-edge research.

While it enables the advancement of knowledge, the UDL also makes it possible to create original projects designed to educate audiences. So, for example, the video projection *Le Cycle de l'eau*, on UQAM's President-Kennedy Building, allowed the university's faculty of science to bring art and science together to inform the public about the critical importance of water. Projects of this kind enrich neighbourhood life while raising public awareness of important issues.

AN INCUBATOR FOR TECHNOLOGY AND INDUSTRY

The UDL's technological and technical infrastructure comprises original components that were custom-developed for the Quartier des Spectacles by select companies based in Quebec and elsewhere in Canada. The result: the Quartier des Spectacles is a research and development space that allows companies to **design and commercialize new technology products or attract innovative new talent**.

The UDL inspires the organization of different types of gatherings designed to stimulate innovation and generate new partnerships: thematic workshops for sharing experiences and generating new projects, open-experimentation events such as hackathons, or test sessions and co-creation spaces open to the general public.





A LARGE-SCALE TEST BED

As an incubator of ideas, projects and companies, the UDL allows the Quartier des Spectacles to serve as a **solutions space** both for equipment manufacturers and the creative industries.

The Quartier des Spectacles is consequently a large-scale space for demonstrating and launching new products. For example, an Italian company recently demonstrated a prototype wireless public address system during the *McLaren* event. It is also possible for video game companies to develop new ideas for larger-than-life environments and experiment with types of interaction as yet little-developed for large-scale use. Audiences are invited to play with games available in the Quartier's public spaces with another player located in another country, or to watch as others play such games.

A HUB FOR URBAN EXCHANGES

With its central location, infrastructure unmatched anywhere in the world and strategic role in the fulfillment of Montreal's digital potential, the Quartier des Spectacles is a leading-edge interface and exchange zone for digital creativity.

The UDL becomes a **driver of digital development in different Montreal neighbourhoods**. It is an important player in the city's public digital art exhibition network. By forging links with other Montreal spaces dedicated to digital creativity – particularly libraries and maisons de la culture – the Quartier des Spectacles is a key participant in Montreal's overall dynamic, both feeding into and feeding off it. The advances made possible by the UDL in so many fields will ultimately benefit all residents of the metropolitan area.

Already a cultural hub for the greater Montreal area, the Quartier des Spectacles has incorporated the digital realm into its DNA to become a **metropolitan hub of digital creativity**. It is connected to international networks and will continue to improve through exchanges with other cities around the world and a variety of international partners, among other things by hosting professionals, conferences and events and by producing joint projects.



CONTRIBUTING TO THE DIGITAL ECONOMY

The UDL is part of a broader innovative vision for the planning of the entire Quartier and its public spaces. By unifying efforts and breaking down boundaries between artists, institutions, entrepreneurs, researchers, students and citizens, the UDL creates **fertile ground for growing the digital sector of Montreal's economy**.

As its activities expand, the UDL is working with the private and institutional sectors to establish a network of business incubators and accelerators. The links forged with foreign partners also serve to create opportunities to improve the visibility and recognition of Montreal as a whole. The benefits are as much social and cultural as they are economic.

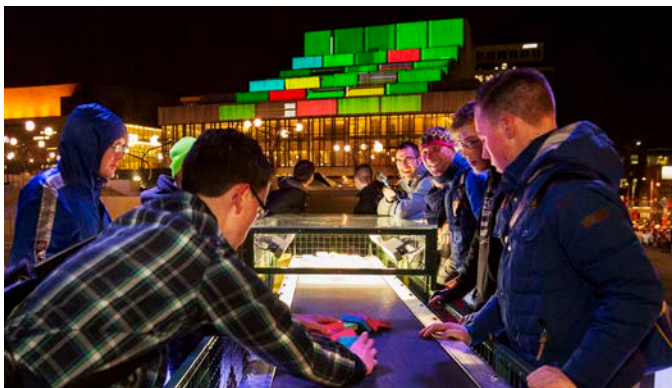


THE UDL: HELPING MONTREAL BECOME A SMART CITY FOR THE DIGITAL AGE

The digital sector is transforming cities in significant ways, and society as a whole is undergoing profound changes. The changes and progress that make the digital realm possible are constantly accelerating. The **smart cities phenomenon is taking off**; cities large and small are seeking ways to find their place on the global stage.

Montreal is very much in the race. From art and design to entrepreneurship, academia and industry, the city has been active in digital-related areas for many years. With its strong base, Montreal is now seeking to strengthen its position and equip itself with the means to keep growing and excelling as a smart city.

Creative, playful, instructive, participatory, innovative and located at the heart of public space, the UDL makes it possible to create a dense web of projects and experiences of all kinds, **rapidly producing results and a precise image of digital Montreal**. Already a true pole of excellence, the UDL has the potential to become an essential showcase for the city's creativity and innovations based on digital technology. It is becoming **an essential tool for building the smart city**.



PARTENARIAT DU **QUARTIER DES SPECTACLES**

1435, Saint-Alexandre St., Suite 500
Montreal, (Quebec) H3A 2G4
Telephone: 514 879-0009
Email: info@quartierdesspectacles.com



Video projection on UQAM's Saint-Jacques bell tower on Place Pasteur. *Un point, c'est tout!* by Congo Bleu (Julien Pavillard) and L'Acte Lumière (Jean-Yves Soëtinck).