

SOCIÉTÉ
D'HABITATION
DU QUÉBEC

LABORATOIRE
D'HABITATION
NORDIQUE



SEPTEMBER 2013

PRESENTATION DOCUMENT

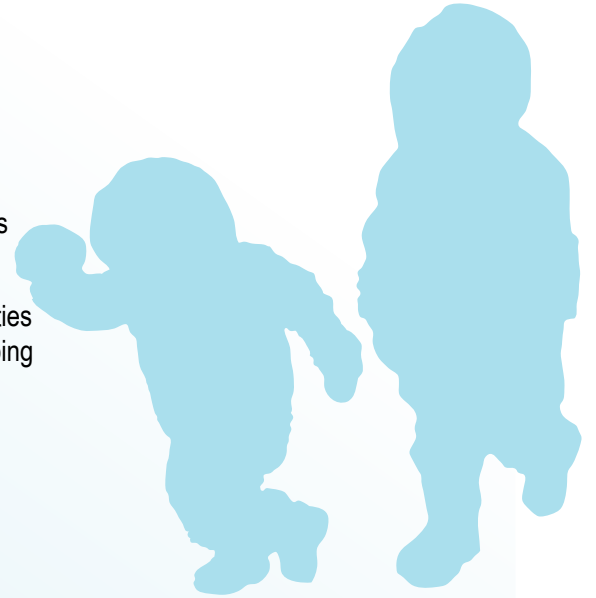


CONTEXT

In 1981, a few years after the signature of the James Bay and Northern Québec Agreement (1975), the Société d'habitation du Québec (SHQ) gained ownership of the 800 northern housing units built by the Government of Canada in Nunavik, as of the 1950s. These housing units, which were in an advanced state of disrepair, had neither basic utilities (including running water) nor furniture, and were equipped solely with a rudimentary oil-fired stove. Called “matchboxes” because of their small size, these units were the first real “houses” of the newly-sedentary Inuit.

In this context, the SHQ had to overcome several challenges:

- ➔ To modernize an outdated housing stock that was ill-adapted to Arctic living conditions;
- ➔ To ensure the construction of a sufficient number of houses, since Nunavik was already suffering from a housing shortage at the time;
- ➔ To develop skills and technology that would allow the use of modern basic utilities adapted to the northern climate and local infrastructure (heating, heated plumbing vents, drinking and waste reservoirs, etc.).





NEW CHALLENGES

At the beginning of the new millennium, after less than 20 years of involvement in the North, the SHQ had a housing stock of nearly 2,000 housing units adapted to the northern climate, in addition to having built public buildings for several governmental departments and organisations, such as CLSCs (local community services and health centres), rehabilitation centres, etc.

In the present context, new challenges have arisen with respect to sustainable housing construction in a northern environment:

- ➔ The significant population increase and the important changes in the makeup of households;
- ➔ The impacts of climate change;
- ➔ The sustainability of housing units in a harsh climate;
- ➔ The integration of new technology.

Strengthened by the partnerships it has established during the last 30 years, the SHQ wishes to push the boundaries of innovation in order to face these new challenges. Because these challenges are not unique to Nunavik, the SHQ is also looking to exchange knowledge on northern housing with international partners that share its concerns.

THE ANSWER

It is with this in mind that the SHQ has established the *Laboratoire d'habitation nordique* (Northern Housing Laboratory), which will allow the SHQ to expand its northern expertise and to reach its objective of improving northern housing in an ongoing and sustainable way.

The *Laboratoire* will be:

- ➔ A central point for research and the development of practical projects related to northern housing;
- ➔ A forum for experiments focused on sustainable development;
- ➔ A source of synergy thanks to the participation of various partners.

THE LABORATOIRE D'HABITATION NORDIQUE'S MANDATE

The main mandate of the *Laboratoire* is to stimulate research on northern housing-related issues, which will be translated into specific projects. These projects will address one of the SHQ's main concerns in Nunavik, that of the ongoing and sustainable improvement of northern housing through the search for innovative solutions.





To launch this initiative, the SHQ and its partners have initiated a few innovative projects.

Good Practices Guide for Housing Construction in Nunavik

Creation of a guide that explains the construction principles of homebuilding in Nunavik, notably with respect to procedures and local authorizations, siting and exterior design, architecture, foundations, and mechanics. The guide is based on the experience that the SHQ has acquired in northern housing throughout recent decades.

Housing Prototype

Use of an integrated design approach to produce a housing prototype that meets tomorrow's requirements, such as adapting the building to climate change (foundation adaption, aerodynamic improvements to counter the adverse effects of snowdrifts, improved building envelope for better heat conservation, etc.) and adapting it to suit the social and cultural lifestyle of Northerners (adaptation of interior and exterior design).



THE LABORATOIRE D'HABITATION NORDIQUE'S MISSION

In setting up the new *Laboratoire d'habitation nordique*, the SHQ hopes to fulfill its role as a housing manager and an advisor by bringing together the driving forces behind the northern housing research and development.

This is why the SHQ wishes to involve partners with the additional skills and knowledge required to complete research projects and apply leading-edge technologies as part of the *Laboratoire's* activities.

The *Laboratoire* will bring together experts and researchers who are key players in the following fields:

- ➔ Health and Culture
- ➔ Social Development and Social Housing
- ➔ Sustainable Development and the Environment
- ➔ Land Use Planning and Urban Planning
- ➔ Architecture and Building Engineering
- ➔ Construction and Energy Efficiency
- ➔ Technological Research and Innovation

The collaboration of the public and private sectors will allow the SHQ and its partners to:

- ➔ Design, define, and assess research projects directly related to the *Laboratoire's* mission, namely the ongoing and sustainable improvement of northern housing, especially in Nunavik;
- ➔ Ensure that newly acquired knowledge is shared with all industry players concerned about, or interested in, the future of northern housing and construction.

The results of the *Laboratoire's* research projects will be shared and could be applied in different northern environments.

**THE
LABORATOIRE'S
MISSION:**
Continued and
sustainable improvement
of northern housing



TO ENSURE THAT THE LABORATOIRE FUNCTIONS PROPERLY, THE SHQ AND ITS PARTNERS HAVE ADOPTED THE FOLLOWING STRUCTURE:



1. Steering Committee

The Steering Committee will determine the guidelines of the *Laboratoire's* activities, will ensure the coherence of research and development projects, and will establish priorities for future projects. The Committee will follow the progress of projects and evaluate their results. It will be made up of representatives from the SHQ, the Kativik Municipal Housing Bureau, Makivik Corporation, and the Kativik Regional Government.

2. Advisory Committee

An Advisory Committee can be called on by the Steering Committee to obtain recommendations on the nature or implementation of specific projects. Additionally, it can feed ideas on potential research projects to the Steering Committee. The Advisory Committee will be made up of the members of the Steering Committee and other partners from public and parapublic organisations and agencies, as well as representatives of the private sector.

3. Project Committees

The Project Committees will be in charge of developing and implementing specific *Laboratoire* research projects in accordance with mandates developed by the Steering Committee. They will be made up of experts and key players in fields relevant to the projects.

4. Invited Partners

Invited partners will be kept informed about the progress of the *Laboratoire's* work in the spirit of knowledge-sharing. They may be invited to actively participate in the *Laboratoire's* activities through ad hoc meetings, or on the sidelines of international events (forums, symposiums, conferences) dealing with northern issues.



TERRITORY



TO SUM UP

Fortified by its 30 years of experience in the North, the Société d'habitation du Québec wishes to bring together the driving forces from the Inuit community, as well as other professionals, researchers, and experts from different fields to work together on the current and future projects of the *Laboratoire d'habitation nordique*.



NORTHERN ORGANIZATIONS

In collaboration with:

- ➔ Makivik Corporation;
- ➔ Kativik Municipal Housing Bureau;
- ➔ Kativik Regional Government.

Produced by the SHQ, this document is available upon request from the SHQ's Service de documentation et d'information en habitation (Housing Document and Information Services):

Quebec City: 418 643-4035

Montreal: 514 873-8775

Toll-free: 1 800 463-4315

www.habitation.gouv.qc.ca

You can also download a PDF version of this document from the SHQ's website (see address above).

Photos of the village: Xavier Dachez
Page 5 photo: Soleica

ISBN 978-2-550-69338-3 (print edition)

ISBN 978-2-550-69339-0 (PDF edition)

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