

**IABR-2018+2020-**

**ATELIER ROTTERDAM**

**CALL FOR ARCHITECTS:  
NEW BUILDING TYPOLOGIES  
FOR THE ENERGY TRANSITION**

**IABR-2018+2020**

IABR-2018+2020-THE MISSING LINK starts from the challenge that was put on the agenda of the world community in 2015 by the UN's Sustainable Development Goals and the Paris Agreement on Climate Change (COP21). They clearly marked a spot on the horizon. We are now in a position to change track; this is an opportunity for a fundamental transition. The next two editions of the International Architecture Biennale Rotterdam center on the development of prospects for action at all scale levels. With *The Missing Link*, IABR-2018+2020 focuses on the vital need to scale up and accelerate our transition to a resilient future.

IABR President George Brugmans therefore appointed the Chief Government Architect of the Netherlands Floris Alkemade, Flemish Government Architect Leo Van Broeck and Belgian architect Joachim Declerck as curators of IABR-2018+2020, a two-part Biennale that has the Netherlands and Belgium as its workspace and the world as its source of inspiration.

IABR-2018+2020 provides a workspace as well as a platform for a future agenda. In the coming years, the IABR aspires to couple local and regional initiatives and challenges, share existing insights, develop new knowledge, and implement them in practice. Even more than before, the biennale is used as a shared space that stimulates encounter and interaction. With each other and with the world. The diptych shape allows the biennale to maximize this ambition and to optimally use the 2018 work biennale for research and exchange, debate, and brainstorming. The results will be presented in 2020. Even more emphatically than in previous years, the IABR-2018+2020 exhibition wants to be more than a collection of good practices. From 2018 to 2020, a single curator team will be devoted to a single program for two biennales with the objective of mobilizing global thinking and the power to activate and design for an in-depth research by design process that focuses on spatial transformations that facilitate the realization of the SDGs.

**IABR-ATELIERS**

The IABR is a knowledge institute as well as a cultural platform and its main objective is to generate real world change, using the power of imagination and design as its main instrument. How does the IABR do this? By bringing together key disciplines and sectors to carry out result-oriented research by design into the city of tomorrow, both in the Netherlands and abroad. By adding value to policy making and decision making and by influencing the social agenda. By bringing the results – knowledge, plans and projects – extensively into the limelight in an international setting once every two years. And, last but not least, by assisting in the realization of all those results and thus bridging the gap between planning and realization, between the things we know and ways to implement them. The two most important tools the IABR uses to achieve its objectives are the IABR-Ateliers and the Biennale itself.

An IABR-Atelier is a long-term research by design project that is always established in collaboration with governments and other stakeholders to work towards concrete, applicable solutions to existing problems. An Atelier uniquely enables involved governments to carry out actual research by design, to bring in extra quality, to explore new ideas and unexpected options, to test and to try, to learn and to exchange knowledge in a free and international setting and concretely take their challenges to the next level. The Ateliers commit to the in-depth development of the joint research process and the practical implementation of its results. The research by design is explicitly aimed at realization. This involves putting the results of the Ateliers into practice locally and regionally and having them make a contribution to urban development as a whole.

The IABR initiates and produces the Ateliers as a lead partner for the Regional and Local Design Dialogue Program, within the framework of the Ministry of the Interior and Kingdom Relations' Action Agenda for Spatial Design 2017-2020.

**ATELIER ROTTERDAM**

*The IABR-Atelier Rotterdam: Energy Transition is a collaboration between the IABR, the City of Rotterdam (Urban Planning Department and Resilient Rotterdam) and the Port of Rotterdam Authority, covering the 2017 to 2020 period. The purpose of the Atelier is to instigate solutions that municipalities and other stakeholders can subsequently implement in practice.*

*Lead Designer is Joachim Declerck (Architecture Workroom Brussel), member of the Curator Team of IABR-2018+2020.*

The IABR-Atelier Rotterdam will turn the opportunity created by the energy transition the city and port face into a driver for inclusive urban development and an engine for other important challenges regarding food, the productive city, living, social equality, and others.

This means the Atelier considers energy transition not only a goal, but also a means to work on an attractive future and a resilient and inclusive Rotterdam.

*Energy Transition as an Urban Project*

But is there a level playing field for everyone involved, can everyone keep up with the changes or even benefit by them? Energy poverty as a consequence of the energy transition is already imminent, especially in the more vulnerable neighborhoods.

Given the right approach, conversely, the energy transition can contribute to a high-quality, attractive future if it is used as a means to work on a resilient and inclusive Rotterdam in which citizens are enabled to be not only energy consumers, but also energy producers. The question the IABR-Atelier Rotterdam raises is about what this new urban quality is that the energy transition will allow us to achieve. What ecological and social added value for the city, its neighborhoods, and every individual citizen will the energy transition be able to generate? The underground infrastructure, for example, also touches on the water challenge in the districts, and new skills will be needed to make the transition possible, creating new jobs.

## THE ENERGY TRANSITION IS A SPATIAL AND SOCIETAL URBAN CHALLENGE

*Energy = Space*

Rather than only underground and in distant power stations, the new energy system is suddenly becoming manifest in our living environment. Spatially, it will strongly influence our cities and the way we organize and design them. The energy transition is therefore preeminently a spatial challenge. The fact that the energy production potential varies per region and even per district creates an opportunity to rethink and renew the spatial organization of cores, districts, and public facilities in connection to new infrastructure. At the district level we will see collective energy facilities of necessity develop their own language, beyond utilitarian form and function. It is only possible to reduce energy demand if the existing housing stock is thoroughly renovated and new construction projects are as energy neutral as possible.

*Research by Design to Create Prospects for Action*

Against the background of the challenge of the energy transition the IABR-Atelier Rotterdam will test new methods for inclusive urban development and generate concrete spatial proposals with the intention of eventually realizing them. The 2017 to 2020 period will focus on several work trajectories that together, each at their own scale level and in their own field of action, build on the energy transition as a social and inclusive urban project. The Atelier focuses on research by design that addresses the collective strategies of energy districts, to be tested in three different Rotterdam districts. An architectural-typological exploration researches how new architectural typologies in relation to their immediate environment can contribute to the development of concrete spatial solutions as building blocks for the energy transition.

Test Site M4H+ examines and tests the circular area development of new residential-industrial districts. The unifying trajectory integrates the output of the other work trajectories and existing studies

## THE 2017 TO 2020 PERIOD WILL FOCUS ON SEVERAL WORK TRAJECTORIES THAT TOGETHER BUILD ON THE ENERGY TRANSITION AS A SOCIAL AND INCLUSIVE URBAN PROJECT

to develop prospects for action. The platform of IABR–2018 is mainly used to present and exchange expertise and knowledge and to actively involve partners and actors (from the city and region as well as beyond) in shared knowledge development. The final results will be presented at the IABR–2020, after which they will be implemented.

## ASSIGNMENT: NEW BUILDING TYPOLOGIES FOR THE ENERGY TRANSITION

The challenges and opportunities of the energy transition are largely situated in the built environment. As a result, the coming years will see the crucial transformation of the existing building stock, both in scale and impact.

Every change in the supply of energy comes with major spatial transformations in residential and industrial building typologies. The introduction of central heating, for example, changed both the dwelling and its use. Many current spatial proposals for the energy transition at the building level work with accumulations of minor adaptations. In many cases these are mainly technological adjustments: improved insulation, different installations. At the level of the use, organization and planning of residential and industrial buildings, design as such has hardly made a contribution so far. That means that the architectural discipline is letting an opportunity and responsibility pass. In addition to technological challenges, energy neutral or even energy producing buildings represent substantial spatial design tasks. Which new typologies – from new construction to renovation, from high-rises to walk-up flats – include energy transition interventions that simultaneously

energy, which will put pressure on the urban public space. This, too, requires a search for possible links between new typologies and the development of a qualitative public and shared space, and for the spatial opportunities that the new collective energy infrastructure entails. At the scale of the building and the neighborhood, collective energy facilities of necessity will develop their own language, one that goes beyond utilitarian form and function. The relationship between user and producer is in transition and will also have to be spatially organized. This means the energy transition will thoroughly transform our living environment, from our homes to the public space. However, this will also provide us with the opportunity to build the city that we want.

No less than 70 percent of the dwellings in Rotterdam currently have an energy certification of 'C', or even lower. In the Metropolitan Region Rotterdam The Hague, some 300,000 homes have to be renovated by 2035 to realize the necessary reduction in energy demand. This will require (demolition and) new construction on the one hand and overhauling the existing and often outdated housing stock on the other. In addition, some 150,000 dwellings have to be connected to heat networks in the same period. In terms of scale, the challenge is huge and the

## EVERY CHANGE IN THE SUPPLY OF ENERGY COMES WITH MAJOR SPATIAL TRANSFORMATIONS IN RESIDENTIAL AND INDUSTRIAL BUILDING TYPOLOGIES

improve the quality of the use of buildings and their environments?

In addition to the challenges at the level of the individual building, another major design issue is how these new typologies and their energy infrastructure relate to public space. The infrastructure of renewable energy is largely situated aboveground, close to our homes. Production will no longer only take place at a great distance. At the level of the neighborhood, citizens will have to organize collectives to produce and share

necessary interventions are major. That is why Rotterdam, the perfect test site, will be used to try out new typologies.

Atelier Rotterdam calls on architects who focus on the design of sustainable buildings and on the wider search for new architectural typologies and their use in relation to their immediate environment to respond to this research by design challenge. In this typological design quest, the spatial transformation challenge of the built environment is

examined and visualized on the basis of still to be determined types of building transformations (new construction, high-rise, renovation of collective residential blocks, etcetera), in which architectural language, layout, organization, and use play an important part. The focus is also on the collective energy infrastructure and facilities of these buildings, their relation to public space, and their shared use. Rotterdam will be the first test site, but to allow the upscaling of the developed solutions, this will be done using universal types.

The study will create an understanding of new typologies that can accelerate the energy transition and generate spatial and user-oriented quality, as a reproducible exploration for Rotterdam and other cities. An appealing visualization of the results that is fitting for an exhibition will be developed as part of the presentation of Atelier Rotterdam at the IABR-2018.

The assignment starts after the selection procedure on 16 January 2018, will continue during the IABR-2018, and ends on 1 August 2018.

## REQUIRED ACHIEVEMENTS

### Assignment

- Carry out a research by design assignment concerning:
  - a / New building typologies (from renovation of the existing to new construction, from residential to industrial) that are energy neutral or energy producing.
  - b / The collective energy infrastructure and facilities of these buildings and their relationship to, and opportunities for the public domain.
- Develop the defined typologies while focusing on the relationship between visual language, planning, organization, layout, and use.

### Process & Exchange

- Participate in the work sessions in the context of this assignment and actively exchange information with other research projects in the context of Atelier Rotterdam under the direction of the Lead Designer.
- Synthesize the research and the designs to make insights usable in other research projects of Atelier Rotterdam

and beyond (eg. a publication with the development principles of the typologies).

### Products & Participation IABR-2018

- The office is expected from the outset to think about the production of (graphic and visual) materials that can be used in an exhibition concept. This involves consulting with the Lead Designer and the IABR.
- Develop appealing presentation materials for the IABR-2018 exhibition including at least one model per typology supplemented by, for example, diagrams, collages, architectural drawings, maps, etcetera.
- Supply all necessary materials for the exhibition catalog.
- Participate in public debates in the context of the IABR-2018.

After the selection there may be additional conditions, namely if the work process, the exhibition, the public program, the publication, and/or other activities and products require them. All this is done in consultation between the commissioner and the selected office.

## PLANNING/PROCESS

The assignment starts immediately after its commissioning, which immediately follows the selection on 16 January 2018. A first kickoff meeting will take place on 23 January 2018 (to be confirmed).

During the term of the assignment, work sessions with the office, the IABR, the Lead Designer, and experts from the project group are set up at regular intervals. The office that is awarded the assignment is expected to make time for this (at least once a month). These sessions will take place in Rotterdam. Early February 2018 the selected office will submit input on the (form and concept of the) end results in such a way that the Lead Designer can include this into the exhibition concept of Atelier Rotterdam. This will include a provisional list of materials and a proposal for the concept of the presentation of the output as such. The 2D material (text and image) to be included in the graphic design of the exhibition must be submitted by mid-March. All 3D material must be submitted by mid-May.

## PAYMENT

The office awarded the assignment receives a fee of € 33,000 (excluding VAT). This fee covers the conducted research and design work, participation in work sessions and debates in the context of the IABR–2018, and the development of presentation materials for the exhibition and includes all travel expenses and other expenses.

## PROCEDURE & GUIDELINES

### TIMING

19 December 2017	DEADLINE SUBMISSION CANDIDACY (STAGE 1) <i>(before 14h00)</i>
22 December 2017	SELECTION FIRST STAGE <i>(candidates will be informed of selection for the second stage before 23 December 2017)</i>
12 January 2018	DEADLINE SUBMISSION TENDER (STAGE 2)
16 January 2018	SELECTED CANDIDATES EXPLAIN THEIR TENDERS, FINAL SELECTION OF ONE OFFICE
23 January 2018	KICKOFF MEETING <i>(to be confirmed)</i>

### REQUIRED COMPETENCES

- General expertise in architectural design assignments, construction projects and conceptual research by design;
- Searching, in this respect, for the relationship between architecture, architectural language, typology, layout, organization, use, and sustainability;
- Experience in how the energy transition can be approached on the scale of the building is a plus;
- Capacity to produce audience-friendly, provocative, and appealing presentation materials;
- Experience with culture production for the public debate is preferable.

### SELECTION PROCEDURE

#### Candidacy (stage 1)

Offices must submit their candidacy by e-mail

- to call\_atelierrotterdam@iabr.nl
- no later than 19 December 2017 at 2 p.m.
- in PDF, max. 10mb, max. 6 A4.

The candidacy must include:

- All relevant contact details of the candidate;
- A short description of relevant expertise supplemented with a number of reference projects from the portfolio (max. 4 A4 pages);
- A concise vision for the assignment (max. 2 A4).

#### Tender (stage 2)

Only the selected agencies submit their tender by e-mail

- to call\_atelierrotterdam@iabr.nl
- no later than 12 January 2018 at 2 p.m.
- in PDF, max. 10mb, max. 8 A4.

The tender includes the previously submitted candidature extended with:

- A first outline of the method and plan of action (max. 1 A4);
- A reflection on the planned end products and bundled insights regarding the presentation at the IABR-2018 exhibition, also usable for other IABR projects (max. 1 A4).

Candidates selected after the first stage are invited to submit their tenders by 12 January 2018 at the latest (before 2 p.m.) and to present them on 16 January 2018, between 9 a.m. and 1 p.m., to the IABR in Rotterdam. A detailed presentations agenda will be communicated at a later time. After the presentations and question rounds the commissioner assisted by an advisory committee will make a selection. Shortly thereafter the appointment will follow and the assignment will start.

Selection – in the first stage on the basis of the submitted written candidacy and, in case of selection, in the second stage on the basis of the tender and the verbal explanation – will take place on the basis of the degree to which offices (their expertise, experience, tender) match the above described competences set forth by the IABR.

### **COMPENSATION**

Offices that are selected for the second stage after submitting their candidacy and submitting a tender and presenting this at the IABR in Rotterdam will be reimbursed for expenses to the amount of € 500 (excluding VAT) per office. The office that is awarded the assignment is not reimbursed.

### **AWARD CRITERIA**

The tenders are first examined for their compatibility with the above submission formalities.

To select the most interesting tenders of the selected candidates, they will be examined for their compatibility with the following award criteria.

The quality of the proposal relates to:

- A Vision for the assignment (40 percent)
- B Reflection on participation exhibition IABR-2018 (20 percent)
- C Planned approach (20 percent)
- D Office experience and expertise in accordance with required skills (20 percent)

Candidates are allowed to add elements or suggestions to the assignment description – if substantiated. This can create added value that will be taken into account in the awarding of the assignment. It can also demonstrate the candidate's familiarity with this type of assignment. However, additions will not affect the available budget or the planning.

# IABR—

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## COMMISSIONERS IABR–ATELIER ROTTERDAM:



Government of the Netherlands



City of Rotterdam

