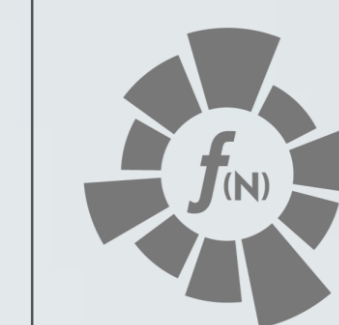




More than just a house.
Education. Research. Interaction. Awareness.



We are over 30 young and passionate students, from fields ranging from architecture, engineering, communication or management, and together we form the EFdeN team.

Here, we support interdisciplinary work and we believe in the union between theory and practice in the educational field. Also, we believe that, through education, we can turn to a life more responsible towards society and environment.



Solar Decathlon Europe 2014

In 2014 we represented Romania in the final for Solar Decathlon Europe in France, alongside 19 teams from 16 countries and 4 continents. We attended 10 interdisciplinary events, from architecture to engineering, innovation and communication.



Solar House

We designed and built a safe, comfortable, solar and energetically efficient house. The house is automated, being 100% electrical, without monthly bills and environmentally friendly.



Research Cente - EFdeN 4C

After many hours of work and dedication, the house became Romania's First Research Centre for Comfort Conditions and can be visited every Thursday and Sunday, on 66 Pache Protopopescu Boulevard.



2010



In 2010 the Solar Decathlon adventure started in Romania, once we qualified for the finals in the 2012 edition, held in Madrid, Spain.



2011



2011 was the year PRISPA grew and started being known, and the year the PRISPA house was designed.



2012



In 2012, PRISPA designed and built in Romania arrived in Madrid and then was transported back to Romania, in Luncani, Bacau, where it can be seen today.

2012



5 of the PRISPA members kept the vision alive, wrote the motion and qualified in the SDE2014, held in Versailles. The journey continued!

2013



We grew from 5 to 20, then to 50, and we became $f(n)$, where "n" is nature. We are an interdisciplinary team of passionate and ambitious students.

2013



In October we had the official launch, at the National Romanian Library, and nothing could stop us in our tracks.

2014



In 2014 we built the house on 6 simultaneous construction sites, in different cities, the whole process being completed by students.

2014



In 2014 we transported this extraordinary house 2500 km to Versailles, to Solar Decathlon and then brought it back to Bucharest with 9 trucks.

2015



After returning from France, we rebuilt the house in Bucharest, on 66 Pache Protopopescu Boulevard, in an easily accessible location for the general public.

2015



At the end of 2015 we opened EFdeN 4C – The First Center for Researching Comfort Conditions in Romania.

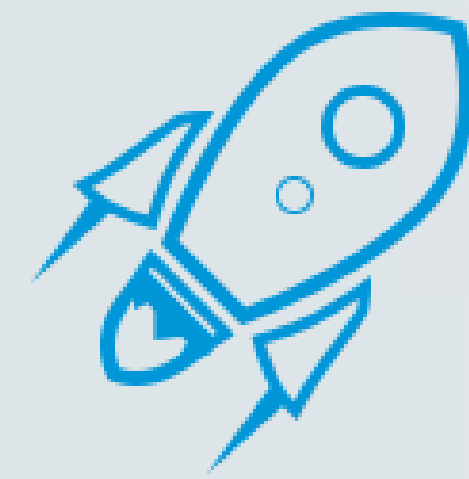
2016



Since January, the house is open for public visits, every Thursday and Sunday. Meanwhile, we are searching for support to industrialize our housing concept and realise our goals.



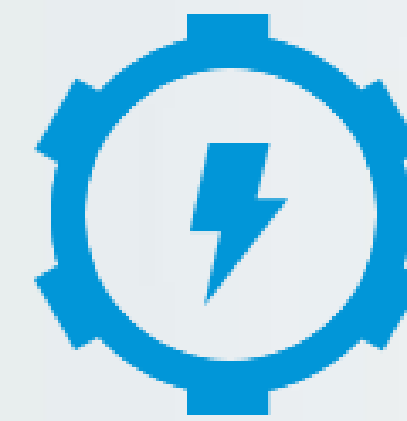
For 2016 we aim to achieve another 9 goals. We are inviting you to join us. Together we can make them a reality.



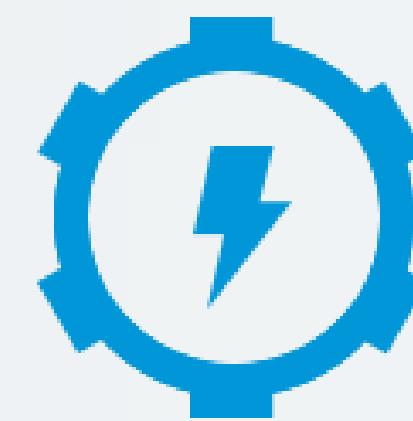
MANAGEMENT



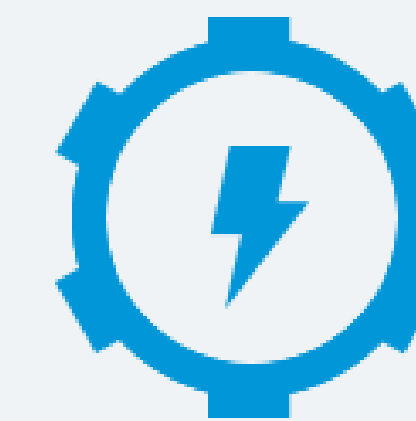
ARCHITECTURE



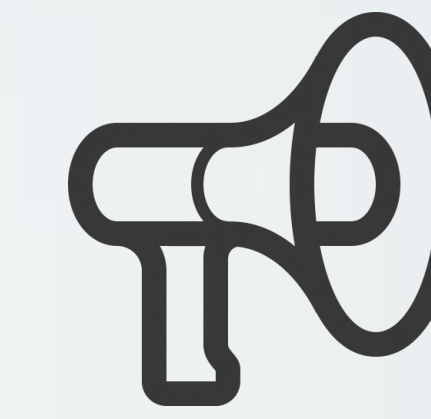
STRUCTURES



MECHANICS



ELECTRICS



FUNDRAISING



COMMUNICATION

*We designed, built a solar house while convincing over 120 companies to trust us.
Now we're monitoring and optimizing an incredible house and we have 9 goals for 2016.*

PARTNER UNIVERSITIES



"Ion Mincu"
University of Architecture
and Urbanism

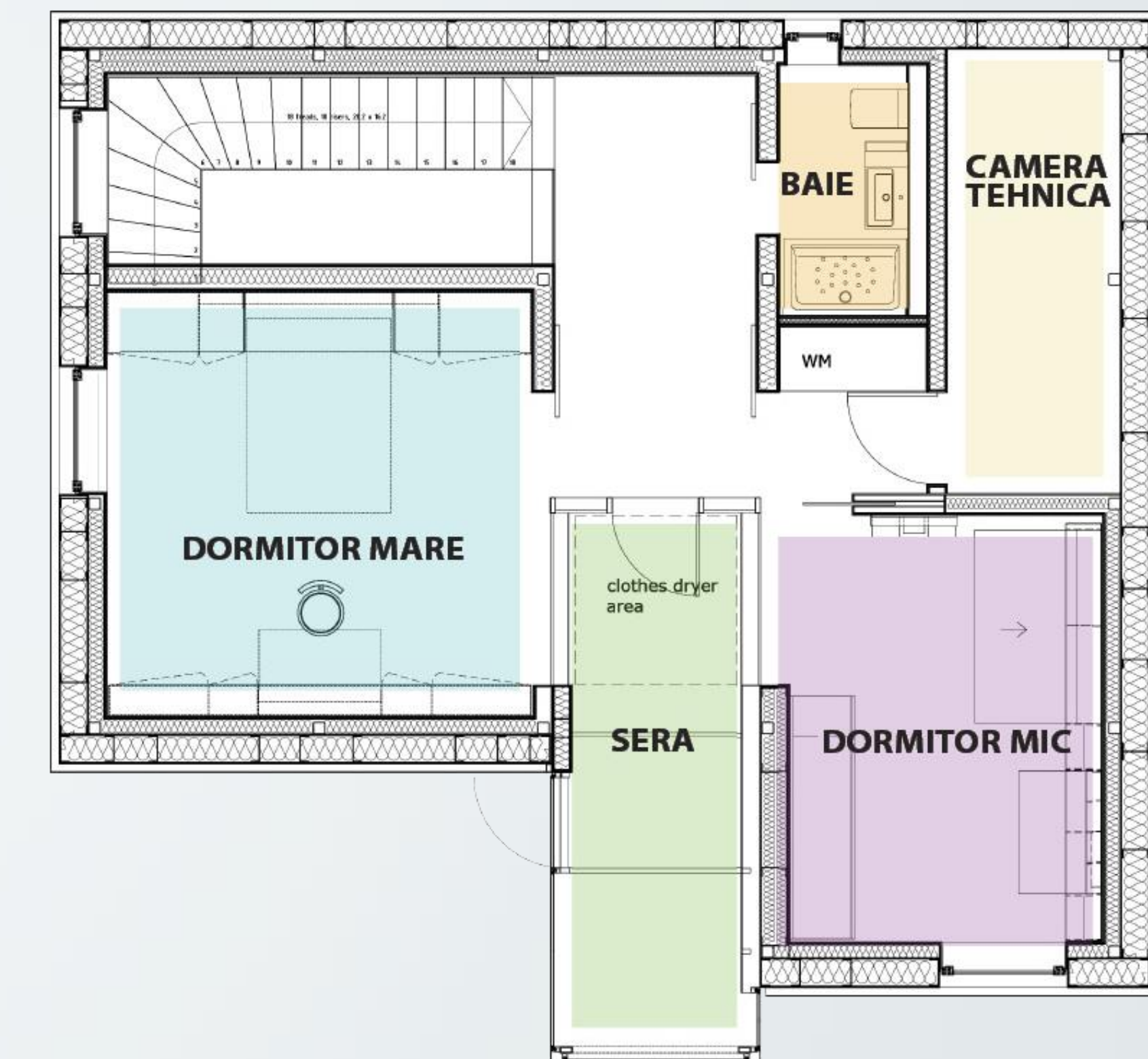




General information



First Floor



Built surface: 170sqm

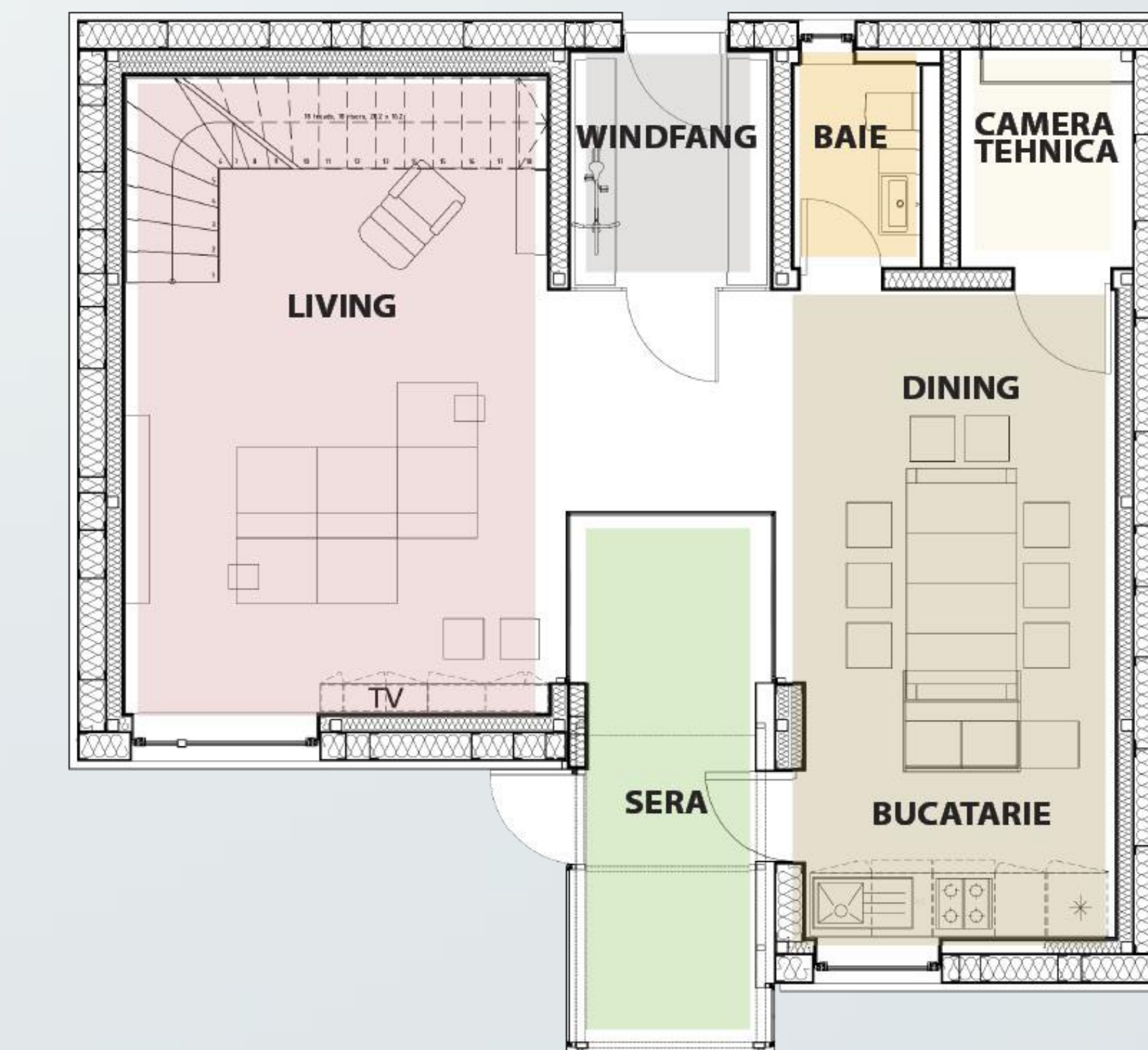
Footprint: 90sqm

Annual expenditure: 4330 kWh / year

Annual production: 6844 kWh/year

Annual surplus: 2514 kWh/year

Ground Floor



DESIGN

Over 12 versions.



CONSTRUCTION

On 6 sites in Romania.



TRANSPORT

2500km to France,



REASSEMBLY

In only 12 days.



OPTIMIZATION

As a research center.



Gallery Exterior + Ground Floor





Gallery First Floor + Greenhouse





An extraordinary house from every point of view

Solar

100% electric, with energy from the Sun

The house works only with energy provided by the sun, provided by the 22 photovoltaic panels and by the 2 solar panels for hot water.

Energy Efficient

Anually produces more than it consumes

Through careful designing, we managed to reduce expenditure to its bare minimum by limiting the thermal bridges and using passive strategies. Thus, we built a home with no monthly bills.

Sustainable

Only environmental friendly materials

Our equipment and materials have low embodied energy, are as local as possible and environmental friendly. For instance, we do not use any PVC, Formaldehyde or many other toxic chemicals. These are some of the requirements for obtaining the LBC certification.

Safe

Solid metal structure

Safety is one of the key aspects to any house, and EFdeN was designed to withstand earthquakes and fires. Furthermore, the prototype resisted during 5 assemblies, disassemblies and reassemblies.

Comfortable

A healthy home for you

We managed to assure all the interior comfort parameters, from temperature and humidity, to the level of Oxygen, CO₂, natural and artificial lighting and volatile organic compounds.

Automation

EFdeN adjusts to your needs

The intelligent automatisation system allows you to control and oversee the house from a distance, whether you're out of town and, upon arrival, you want to be provided with the optimal comfort, or if you want to know your house's consumption and production.



Sustainability

THE PLANET

Ecology

All our materials are recycled or recyclable, with low embodied energy and with a low carbon print. Using only the best materials, we manage to entirely avoid PVC, Chrome and Chlorine.

PROFIT

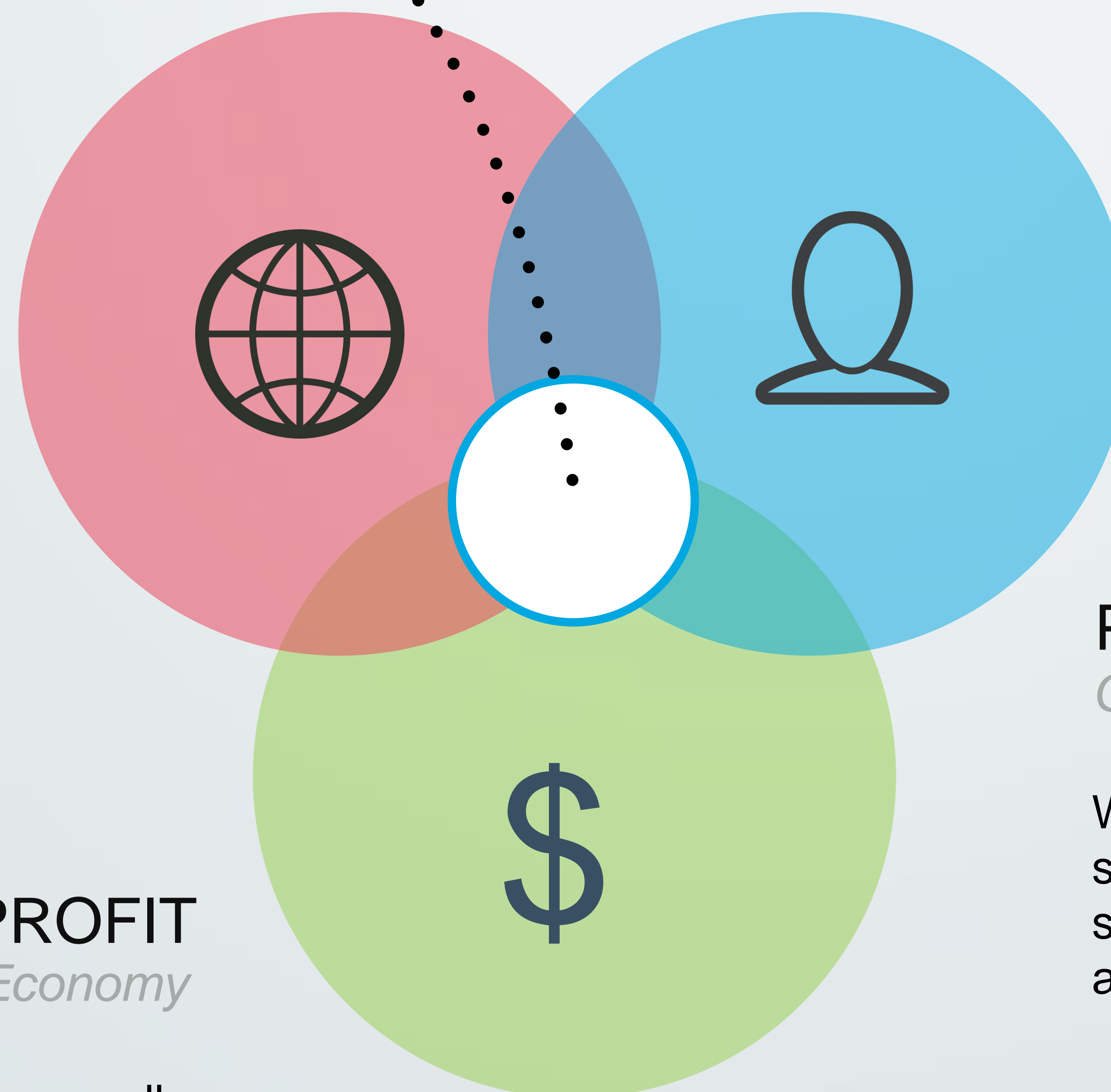
Economy

The EFdeN house is electrically positive annually productions are higher than its expenditure. With an investment cost of only 20% over an ordinary house you get rid of the monthly bills.

POPULATION

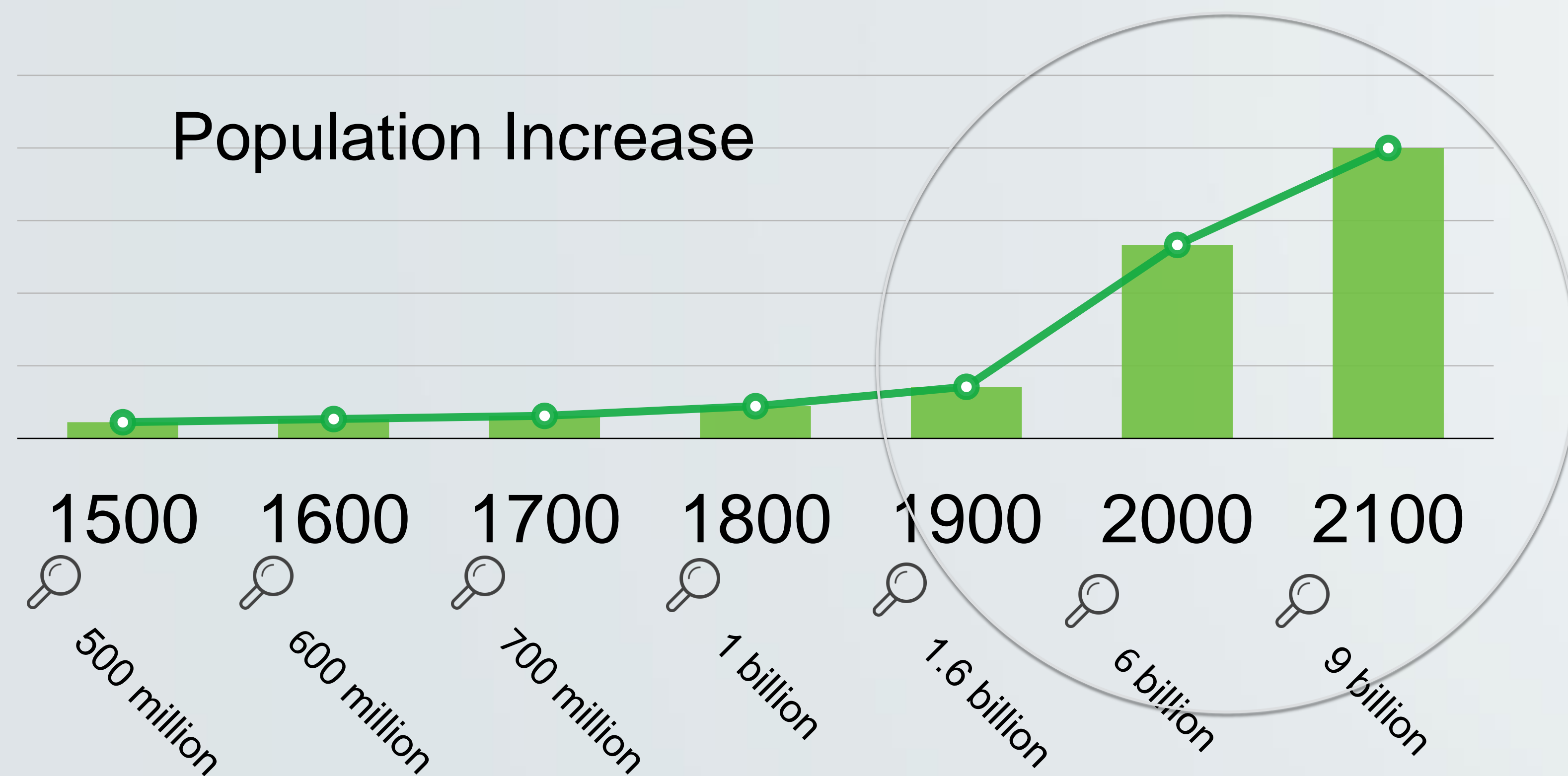
Comfort and safety

We developed a house on a resistant metal structure, which complies with the highest standards for indoor air quality and for natural and artificial lighting.



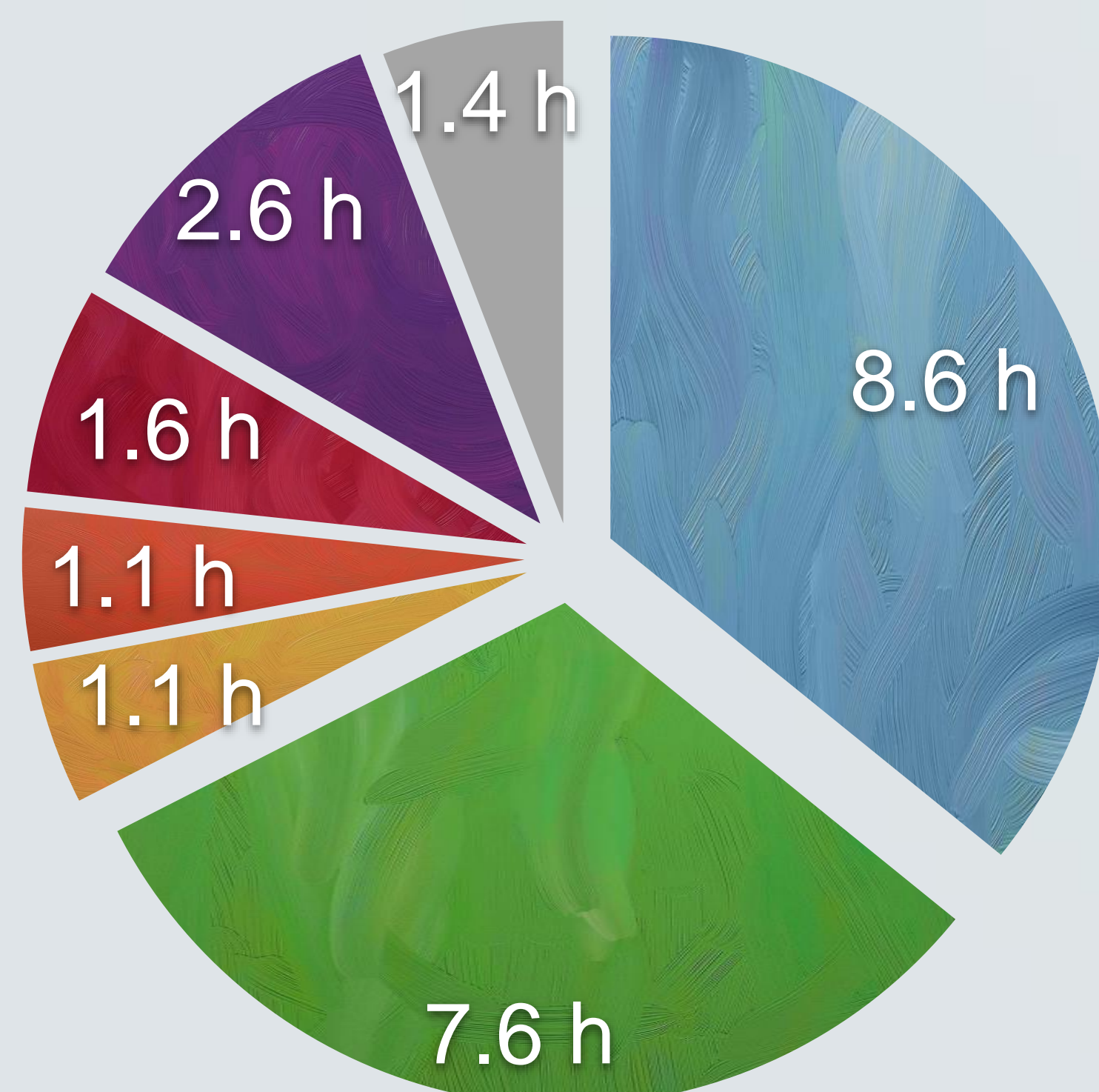


The responsible consumption of resources isn't an option, but a necessity.



For the last 100 years the population and life quality increased rapidly, generating a fast depletion of our resources. For us, as a civilization, in order to be sustainable, we have to try and use only renewable energy sources. Therefore, we must reuse and recycle, for a durable and intelligent usage of our resources.

We spend almost 80% of our time in buildings of various types and it is essential for us to be safe, comfortable and healthy.



■ Work
■ Logistics

■ Sleep
■ Sport and Leisure

■ Eating and Drinking
■ Other

■ Household activities.



Sleep + Work + Nourishment + Household Activities = 18.4h = 77.5%



IDEAS

born from the purest wish to be happy

Media

24 media partners

With their help we managed to inform as many people who were interested in a sustainable way of living.

120 partners

Private Sector

People and organizations without which we couldn't have managed this wonderful project, estimated to 1.1 million Euros.



Students

250 youths

In the over 3 and a half years, over 250 students participated in the EFdeN project, grew up together and learned to be their best.

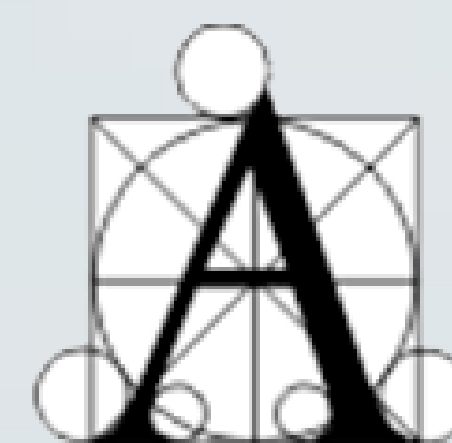
Public Administration 2 supporters

With our partnerships with The Ministry of National Education and Bucharest City Hall, we managed to take a step towards the collaboration with our public sector.

Academia

2 universities

Technical University of Civil Engineering Bucharest
"Ion Mincu" University of Architecture and Urbanism

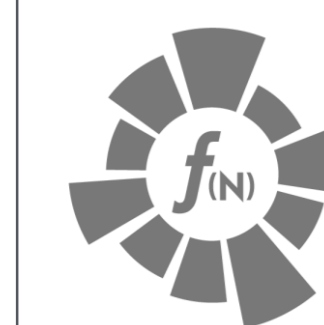


Universitatea de Arhitectură și Urbanism
"Ion Mincu"



REALITY

Even though, at first, it all started as a distant dream.



Main Partners



Gold



BUILDING TRUST



Silver





Bronze



Media



Supporters



Main Universities





Goal 1. Public tours for information and education

Goal 2: Starting our Research Programs

Goal 3. Completion of CampusHUB

Goal 4. Receiving the LBC Certification

Goal 5. “Consultant in Sustainability” platform

Goal 6. National Campaign in High Schools, Schools and Kindergartens

Goal 7. Organizing Lobby groups

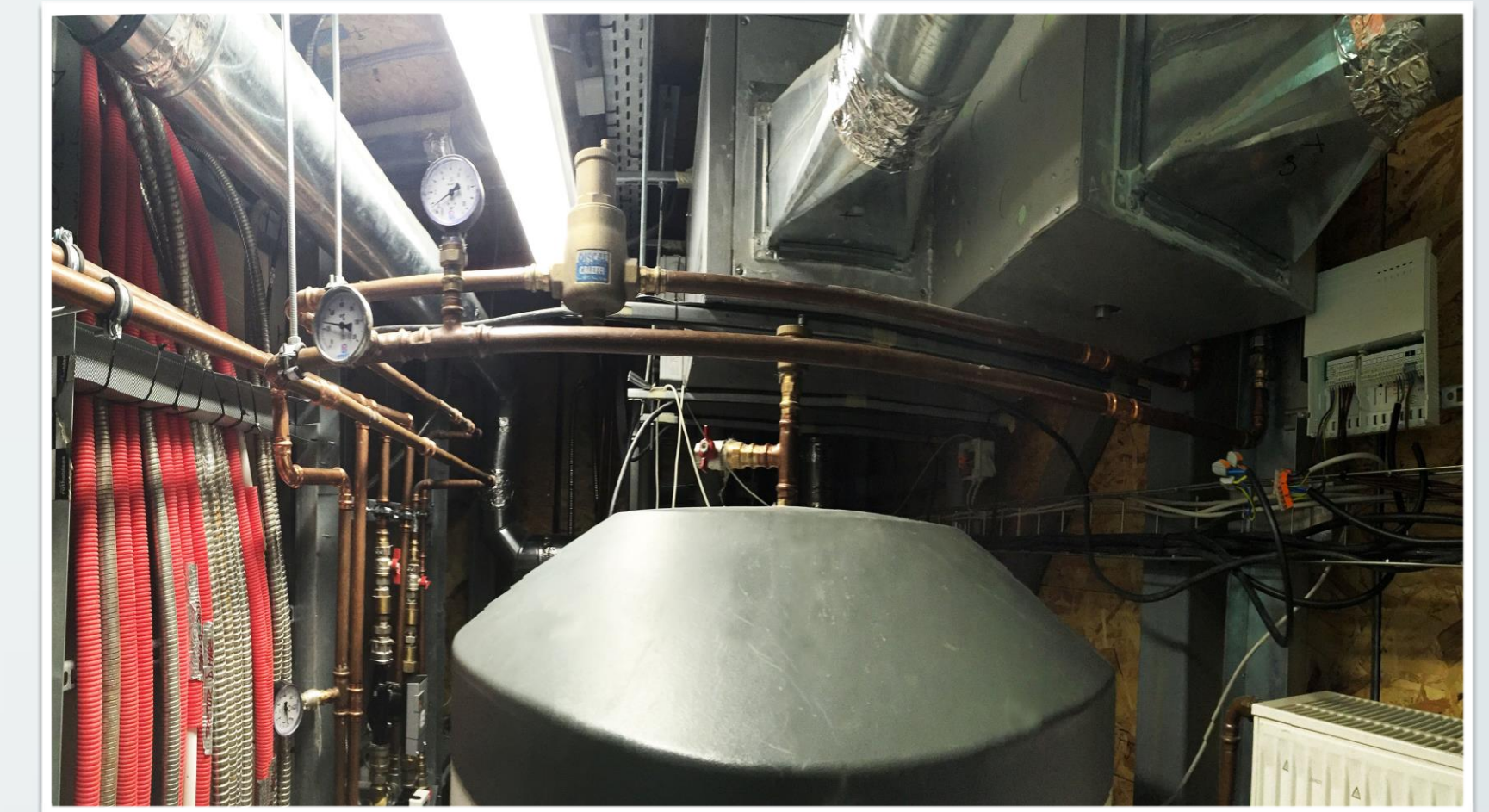
Goal 8. “Contractors move forward” TV-series

Future projects

Goal 9. Participation in the Solar Decathlon, 2018 edition

Goal 10. Organizing Solar Decathlon 2020 in Romania

Goal 11. Mass Production





Solar Decathlon Middle East 2018

Solar Decathlon is one of the most important international competitions of architecture and integrated technologies. Every edition reunites around 20 teams all over the world.

*Our main goal is to participate in the next edition of the Solar Decathlon competition, this time in Dubai 2018. The first step was made on 5th this year during the World Green Economy Summit 2016, when **Romania was announced among the 22 finalists from 16 countries and 4 continents.***



We plan to build an affordable and easy to operate house that provides high-quality living conditions at a minimal maintenance cost and effort, using renewable resources.

We do this by improving traditional architecture elements, combining them with modern technologies that increase their efficiency.



Campus Hub – a different kind of place for students



CampusHUB is an outdoor space, in the middle of nature, where Internet access and electricity are free of charge. It is located on the surroundings of the EFdeN prototype, in an easily accessible area, on 66, Pache Protopopescu Boulevard, on the premises of the University of Installation Engineering.

Your company has the possibility, through this project, to help create a public space, which will make the citizens of Bucharest more responsible towards the environment and society.

Creating a space where you can work without a cost, so that the expenses won't be a problem for those who want to learn, read or start their own business. Also, we wish to bring people closer to nature, so as to reevaluate its importance.



Cumpără o locuință EFdeN

În această iarnă vom încheia primele contracte pentru locuința EFdeN pentru a le livra în primăvara lui 2017. Detalii legate de specificații, preț și termenele de livrare în curând.

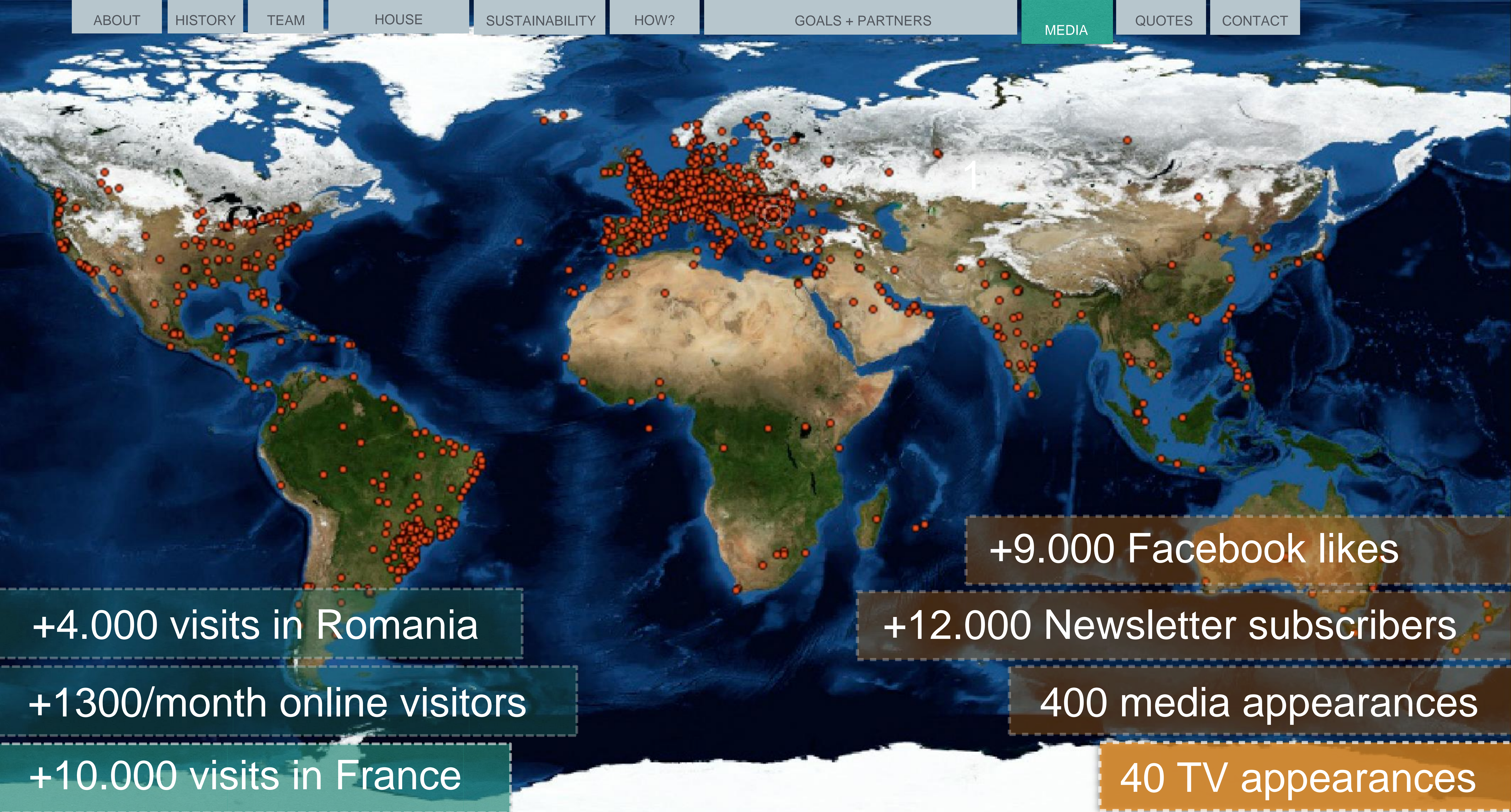
Lansarea va avea loc pe 4 Noiembrie 2016. Înscrieți-vă acum pentru a avea în 2017 o locuință sigură, 100% electrică, ce produce mai mult decât consumă, confortabilă și automatizată ce folosește cele mai prietenoase materiale cu mediul.

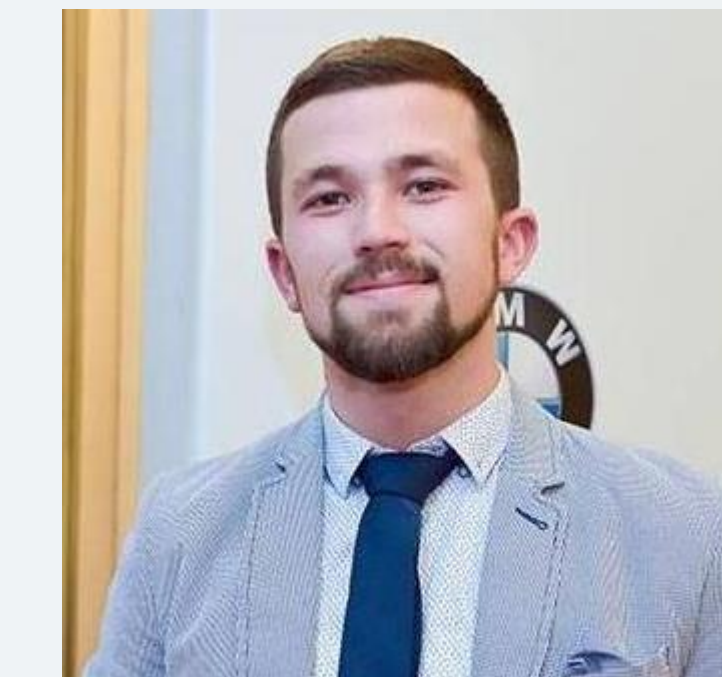
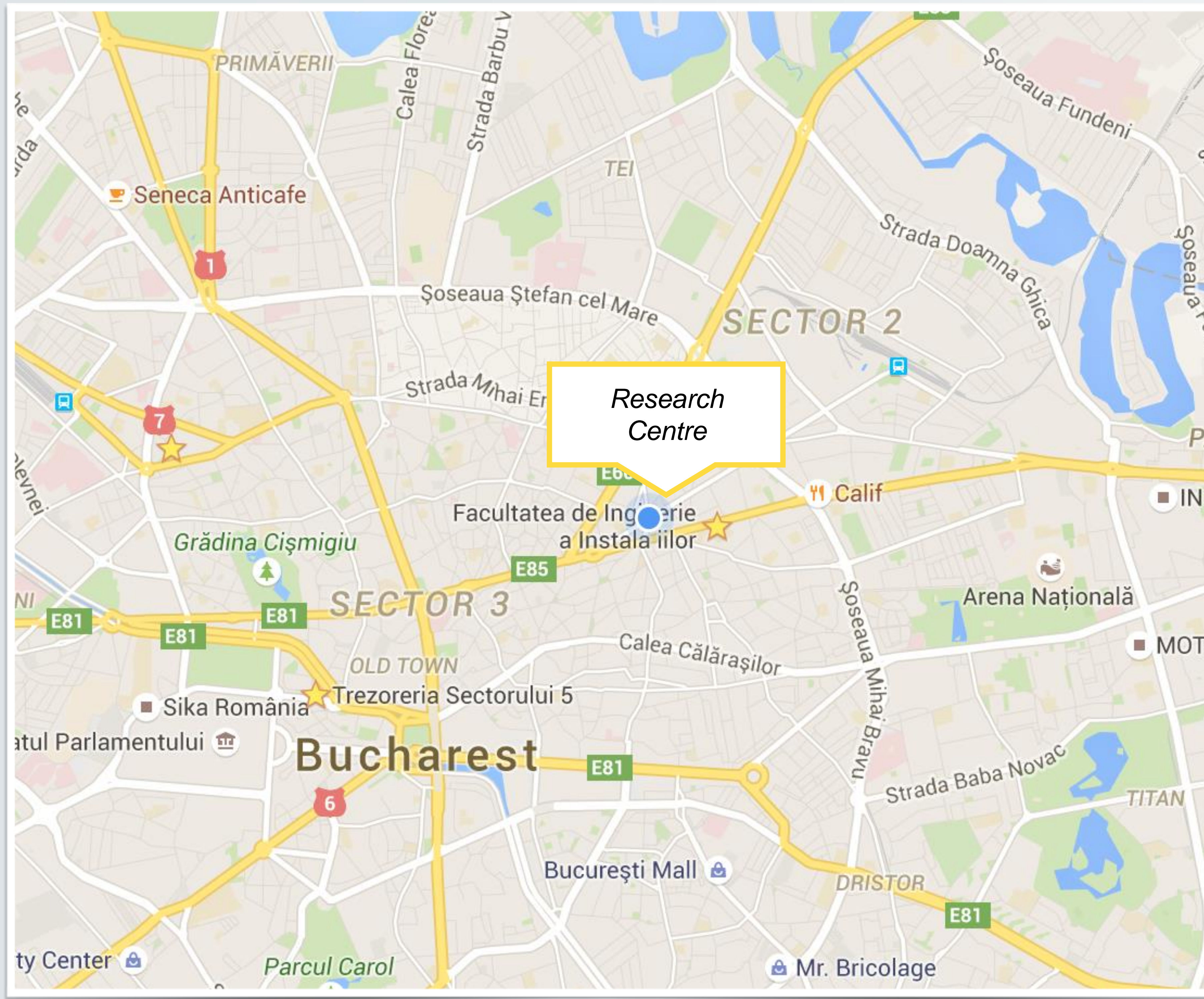
După sute de mii de ore de proiectare și execuție a venit și acest moment! Locuința premiată național și internațional devine acum și mai bună! Să fie într-un ceas sustenabil!

[Detalii despre proiectul EFdeN aici.](#)



www.efden.ro





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Team Bucharest 2018
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daniel.butucel@efden.org

Public Tour Schedule

THURSDAY

18:00 - 20:00

SUNDAY

12:00 - 16:00



The Solar Decatlon Association Headquarters

116, Bd. Lacul Tei, 2nd District, Bucharest
CIF: 32342400
office@efden.org



EFdeN Research Center

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2nd District, Bucharest,
prototip@efden.org

For logistics reasons, please register before:
www.efden.org/visit