Como está, Campanhã?

Waiting for the new economy?

Campanha is a diverse neighbourhood in the North-East of Porto. Located directly next to the same-named train station. This district has been and still is one of the underdeveloped neighbourhoods of the city.
The municipality of Porto yet published a masterplan with a strategic vision for this neighbourhood. A new street should improve the lacking connectivity of the plot, and 10.000 sqm of space of for new economy can be added.

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Diversity in Use

From a car repair shop, to a café and industrial craftsmanship - most of the uses are within the service section, bottom up and initiated by people from the neighbourhood. Self-employment in family-owned businesses is probably the main income for most people.

Informal Developments

The typology is changing within the neighbourhood. Next to small houses with a nearly historical face, apartment buildings with balconies were added.
Ilhas, years ago still informal settlements that were first a garden extension with a shed, became informal micro-settlements inside the neighbourhood and are now renovated and been rent as Air'n'b to tourists.
But also the plots got informally extended in their backyard. Via side streets they can be accessed, and after passing an open gate you find yourself all of the sudden inside a parking garage.

The actual center of the plot is not accessible due to the high differences of the area. Fences and walls are closing off the private terrain of the school or vacant industrial buildings. Only a few small paths allow to cross the green space inside the area.

Designing something unique that's fitting to the place!

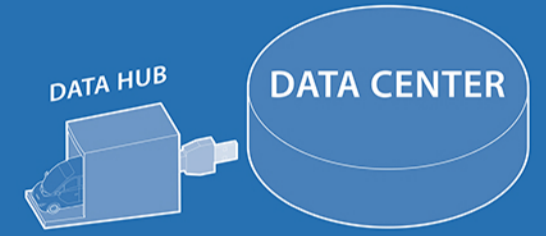Vacant warehouses „Campanha style" are now renovated and used for craft enterprises.

Campanha is changing. Do locals have to fear gentrification?

Residents have the approach of DIY. Repairing their car, taking care of the garden. Also most of the people living here are self-employed having their own business in the area.

Most of the time their business is within the service sector. Like having a car repair workshop

Not only the percentage of elderly people in Porto is relatively high. In Campanha most of the people walking along the streets are over 66.

CHECK POSSIBLE SOLUTIONS

DATA HUB

DATA CENTER

Mobile Data Hubs is a new introduced concept from oversee. Companies like Amazon run side-business of portable data storages in trucks, that can upload data from companies und download them inside massive data centers.
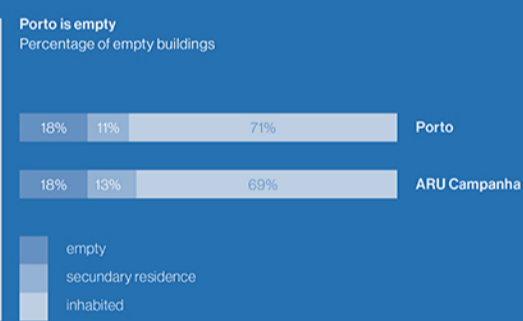
AMS-01
PORTO-010
PORTO-02
PORTO-02

A data center can be a catalyst innovative economy. A network of data facilities can help an area to develop towards a smart city.
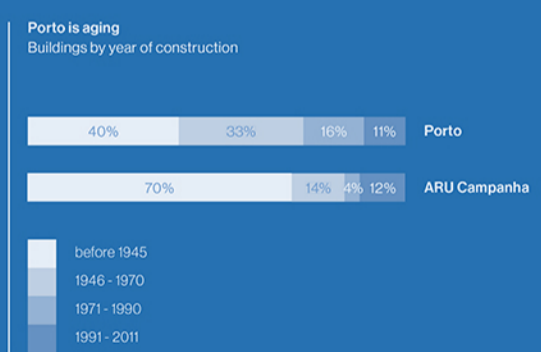
DATA CENTER

Can the waste heat of data centers be a solution for the lacking heating system in Campanha?
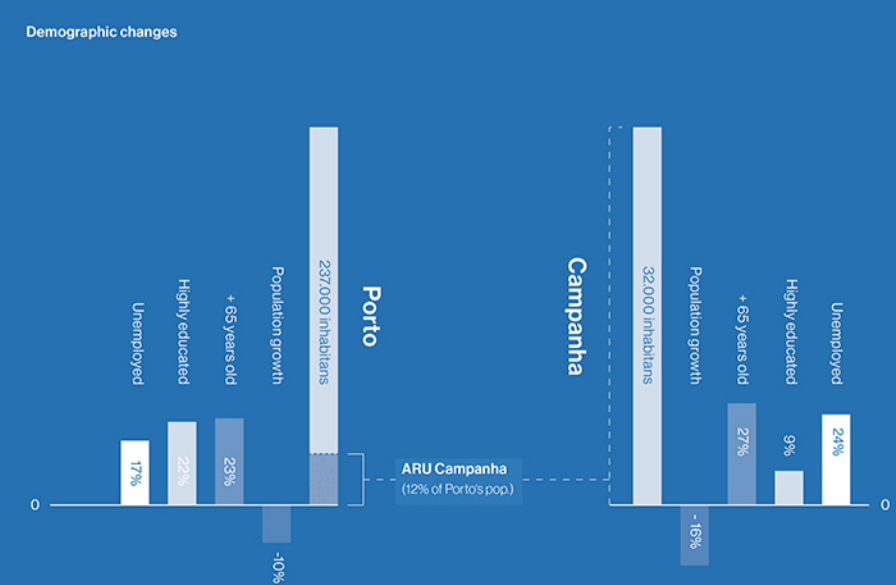
THE CENTER OF THE PLOT IS NOT ACCESSIBLE

NO HEATNETWORK & BAD ISOLATED HOUSES

m² PORTO WANTS TO ADD 10.000 m² FOR INNOVATIVE BUSINESSES

PORTO IS EMPTY

Porto is empty
Percentage of empty buildings

18%	11%	71%	Porto
18%	13%	69%	ARU Campanha

empty
secondary residence
inhabited

BUILDINGS ARE AGING

Porto is aging
Buildings by year of construction

40%	33%	16%	11%	Porto
70%	14%	6%	12%	ARU Campanha

before 1945
1946 - 1970
1971 - 1990
1991 - 2011

DEMOGRAPHIC SHIFTS

Demographic changes

Porto
Unemployed 17%
Highly educated 22%
+ 65 years old
Population growth 237.000 inhabitans
-40%

Campanha
Population growth 32.000 inhabitans
+ 65 years old 47%
Highly educated 9%
Unemployed 24%
ARU Campanha (02% of Porto's pop.)
-30%

Where do the tourists come from? Germans in flipflops are normally unlikely to be seen here, but since Campanha discovered it's position in the market of AirB'nB, a lot of Ilhas got renovated and are rent out as apartments for short-stay guests.

A lot of houses were built before 1945, this means that nowadays many buildings are in need of renovation.

Rules of buildings have been changed, and so the skyline of Campanha consists of small Ilhas inbetween apartmentbuildings and warehouses.

PORTO-010

With a Data Center to a circular Neighbourhood

1 Everything is starting with the necessities, so the infrastructure. Like planned by the municipality of Porto, a new shortcut will be added inside the plot. The twist: to integrate it with the underground data center, its going to be partly underground. More space for the residence and for new economy.

2 Existing infrastructures are getting reused.
The old parking lot of a caravan rental service becomes the facility of mantaining the data mobile. It's a service, that already exists in the area and can be taken over by residents.

On the plot of the former supermarket the building gets replaced by a service center for the data trucks, including office space for design and research.
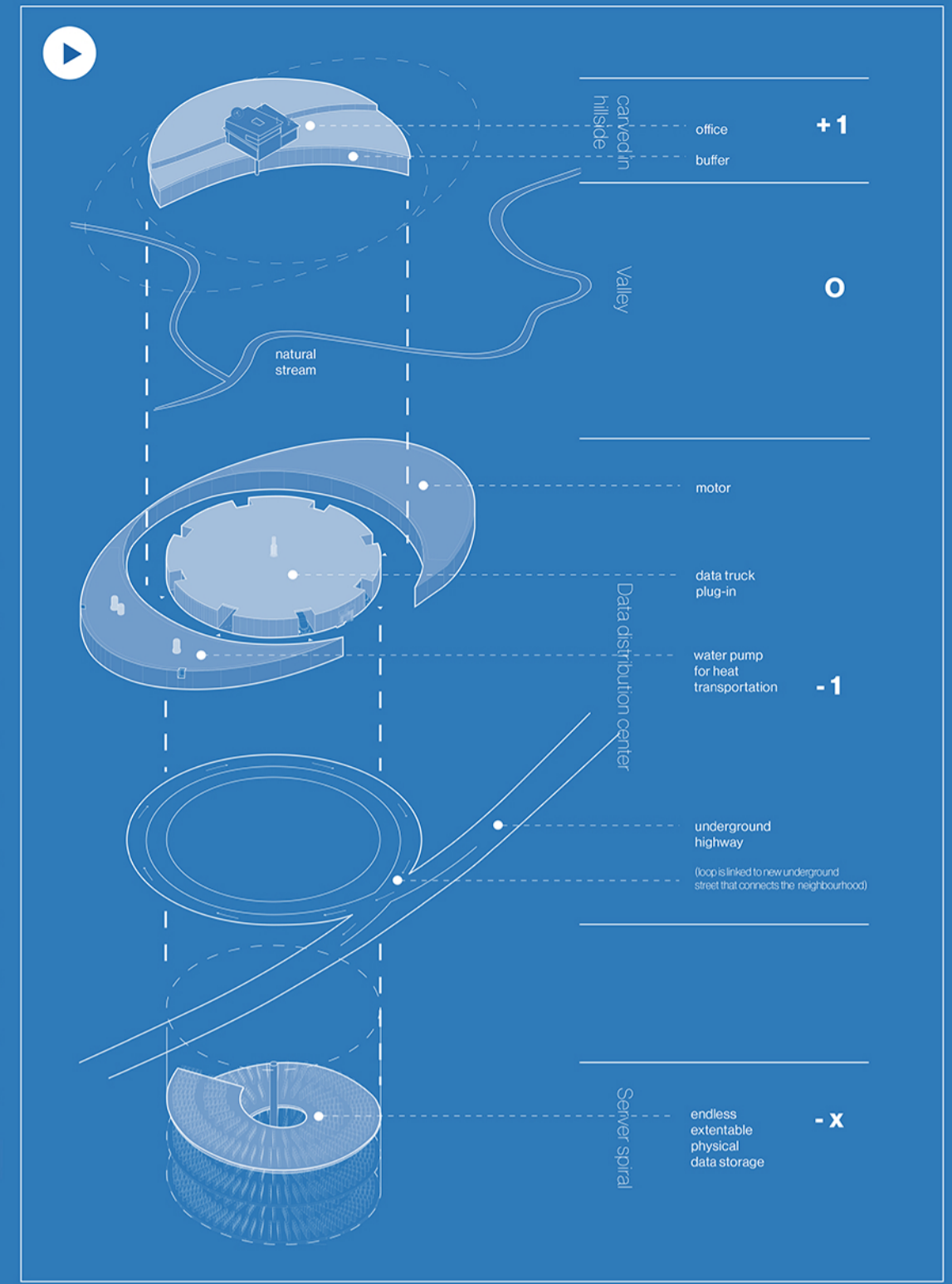
3 On the other end of the underground shortcut and vacant plot gets restored. Soon the hardware for the data centers are going to be produced locally in the neighbourhood.

4 An island for new economy. In the middle of the plot three buildings are added. Two towers and a integrated bioingeneering center. The clue - the two little streams are renatured and the buildings are following the water. Connecting work and recreating.

5 A new terrace for the school, extending the public space of the building and connecting it to the neighbourhood.

6 On the top of the data center crops and grass can be cultivated even in late autumn. Pioneers like SKREI Architects can motivate residents to harvest and reuse the materials for isolating and existing their homes. In the end everyone is benefiting from the data center.

7 The data center is sharing its waste energy with the neighbourhood. Every kind of this facility produces an enormous amount of heat when servers are running. With a water pump and natural water (from the streams) the servers can be cooled and the heat be transported to the households. It's summer and no heating is needed? Then the energy can be used for aqua farming in the glass house or the swimming pool.

car/edin hillside
office **+1**
buffer

Valley

natural stream **o**

motor

data truck plug-in

water pump for heat transportation **- 1**

Data distribution center

underground highway
(loop is linked to new underground street that connects the neighbourhood)

Server spiral

endless extentable physical data storage **- x**

4000 m²

1710 m²

1760 m²

650 m²

Small factsheet

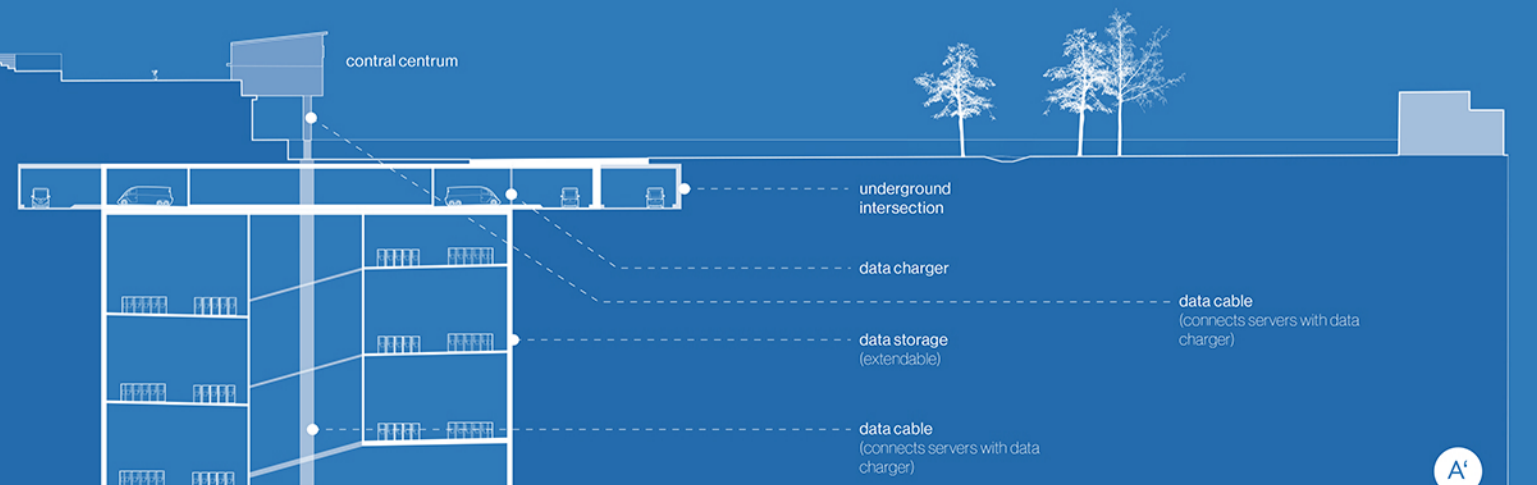Amount of squaremeters added to the surface (ground floor of buildings):   8.123 m²

Size data center in square meters:
2.500 m2 (-I)
per. floor of servers: 1.800 - m2 (-x)

Lenght intersection
underground:
overground:

Number of stairs used for public space:

Programs used for making this posters:
SketchUp
ArchiCAD
Illustrator
Photoshop
Google Earth
Coffeemachine + tostimaker

SECTION 1:100

central centrum

underground intersection

data charger

data storage (extendable)

data cable (connects servers with data charger)

data cable (connects servers with data charger)