

FW761

1st PHASE

History and challenges

The layout of the Bijlmer area in Amsterdam South-east is based on a major urban plan rolled out in the 1960's and 70's. Following the ideas of the modernistic CIAM movement living and working were separated, as well as different layers of infrastructure. The stacking of dwellings resulted in large spaces green usable by the local residents. Despite these idealistic plans the results didn't live up to the expectations. Instead of middle-class families low-income residents moved in and the lack of economic functions resulted in a mono-functional character.

Due to this character the public space in this neighbourhood is only activated during certain parts of the day. This public space provides only a few functionalities related to recreation and leisure like parks and playing fields. The original infrastructural idea was that inhabitants would park their car in the garages, which are accessible from

elevated streets, after which they could either enter the ground level or take a bridge to their apartments. Later this resulted in a public space dominated by parked cars next to the flats and the deterioration of the parking garages.

The current inhabitants of the H-Buurt are ethnic diverse and on average low-income and low-educated, resulting in, among other problems, low social cohesion and participation, child obesity and high unemployment rates.

The top down creation of the Bijlmer resulted in a static concrete city in which there is little room for personal creation and expression. This is strengthened by the fact that most of the property is social renting giving little incentive for personal investment by the inhabitants. Overall this creates a disconnection between the inhabitants and their living environment.

During the years of economic crisis after 2008 many jobs in the building industry

were lost. A lot of unemployed workers chose for a profession in other sectors such as industrial production, retail and temporary work. The lack of work also resulted in a decline of enrollments for construction work education. Since the improvement of the economic situation the need of construction workers has also grown. The supply of educated laborers hasn't grown equally resulting in a lack of construction workers.

The sowing phase

As a reaction on the top down development of the Bijlmer the Frame Work Factory will be a growing process which has strong parallels with the life cycle of a tree. At first it starts of as a small seed growing underground and slowly but steadily it's increasing its influence on its surroundings. When the tree has matured it spreads its seeds

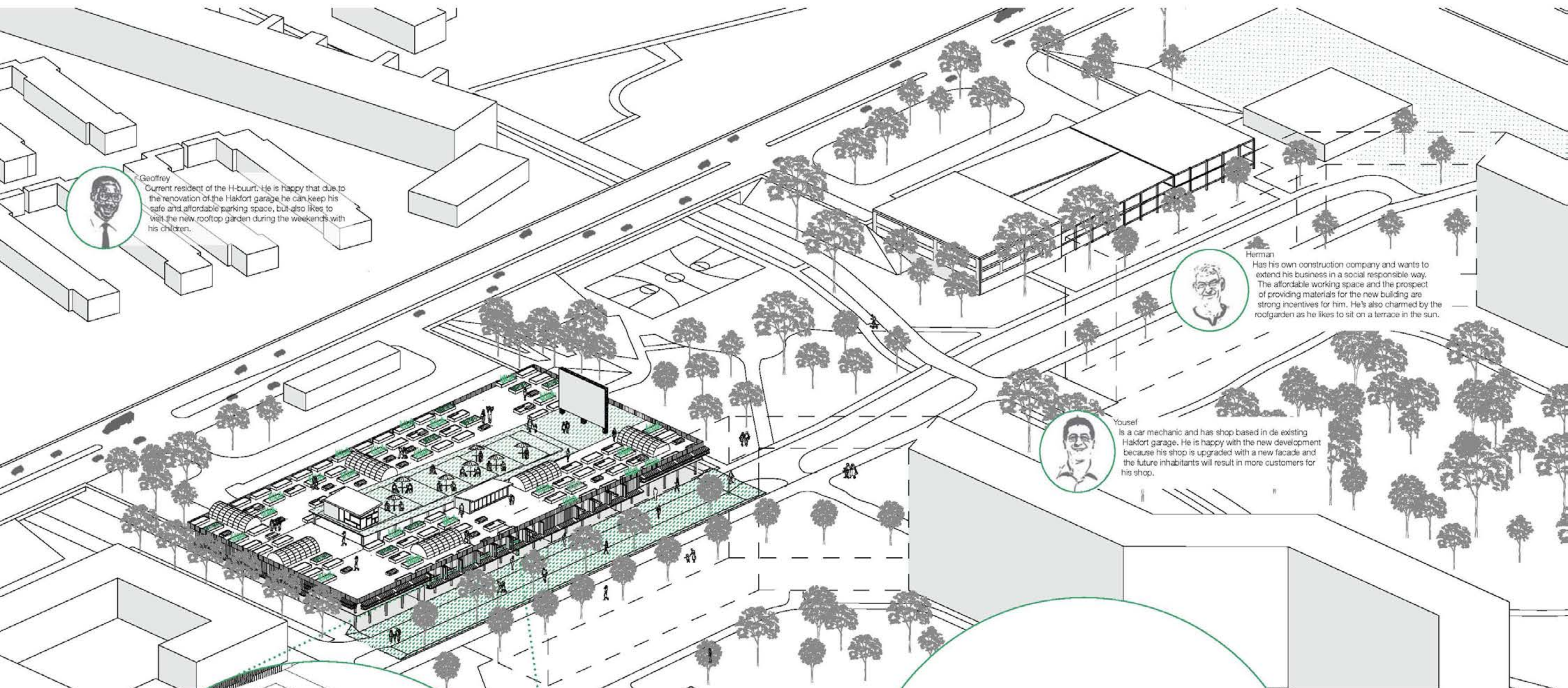
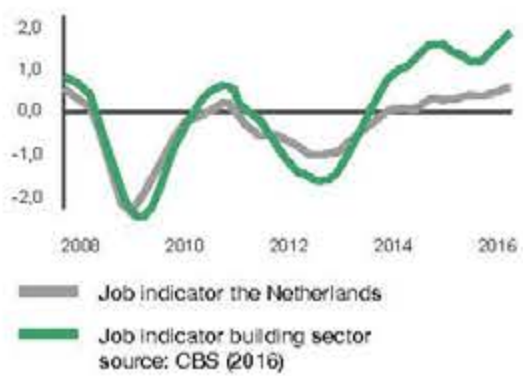
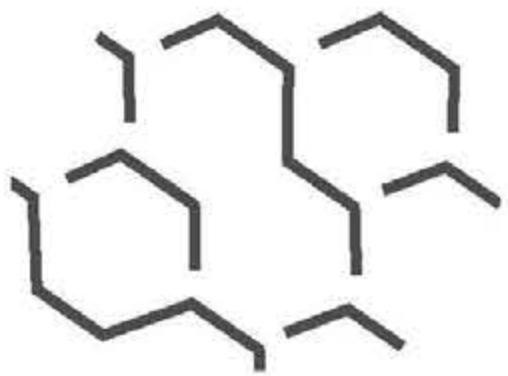
to different places. Some trees can stand for decades or even centuries, growing and adapting all the time, others turn into nutrition for new development.

The concept of the Frame Work Factory is a inclusive development in which many actors are encouraged to participate. It starts with the redevelopment of the existing garages creating space for productive companies in the plinth which provide construction materials and products for the future development of the site. In this way the building will be growing from the inside. The companies are stimulated to hire a certain amount of (unemployed) locals thus giving them the opportunity for a new career in construction. This will also decrease the shortage of construction workers and distribute the economic revenue created by the project directly to the neighbourhood.

On the roof an urban farm will be developed where various activities can take place, ranging from

educational activities informing parents and children about growing healthy food. Better food education is essential for neighbourhoods like the H-buurt where obesity rates, especially among children, are far higher than the Dutch average. Various projects around the world have shown that growing food together has a positive influence on social cohesion and participation in an neighbourhood. More leisure related functions like a restaurant which uses the products of the farm or even an open air theater in the summer can be developed.

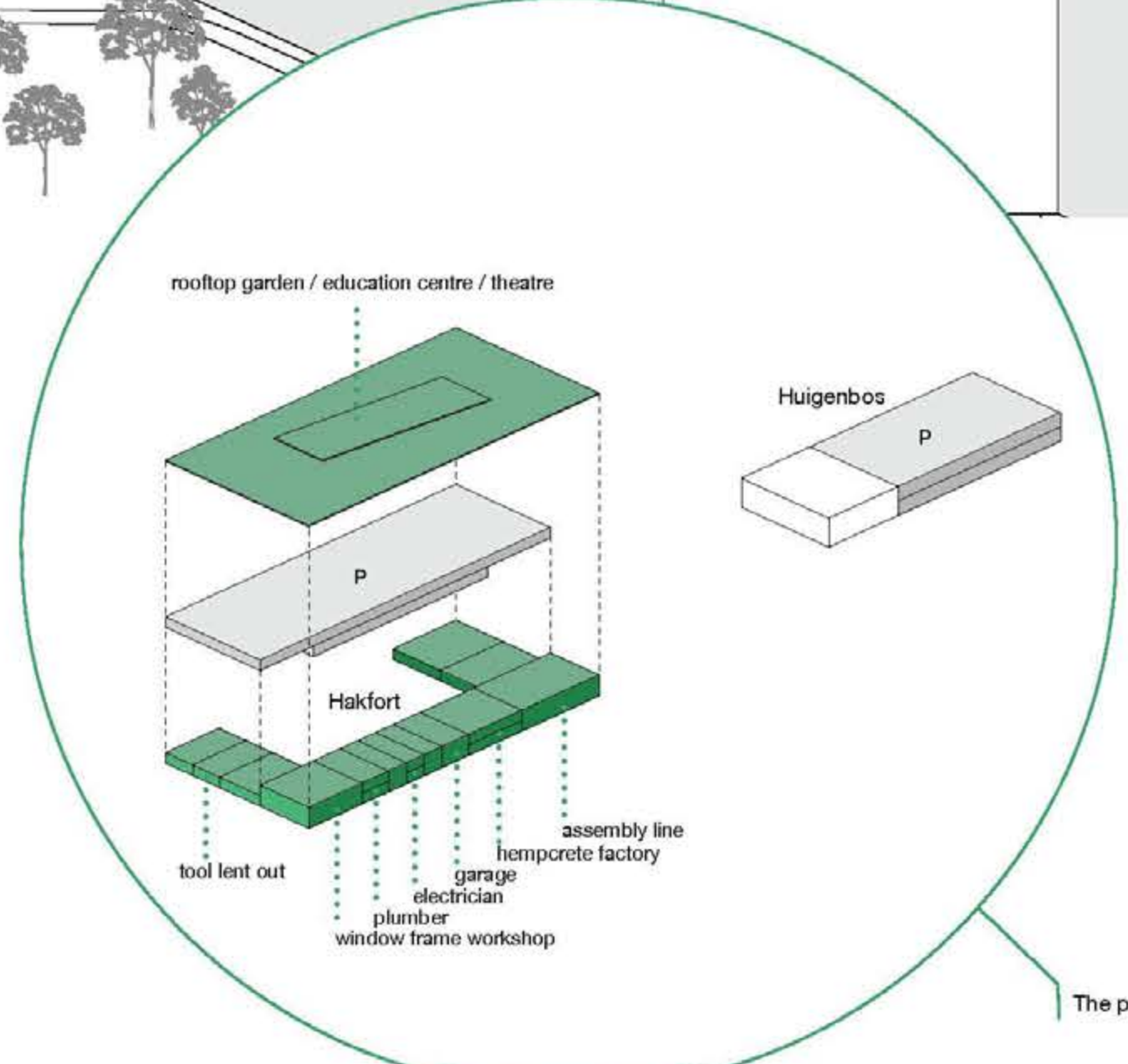
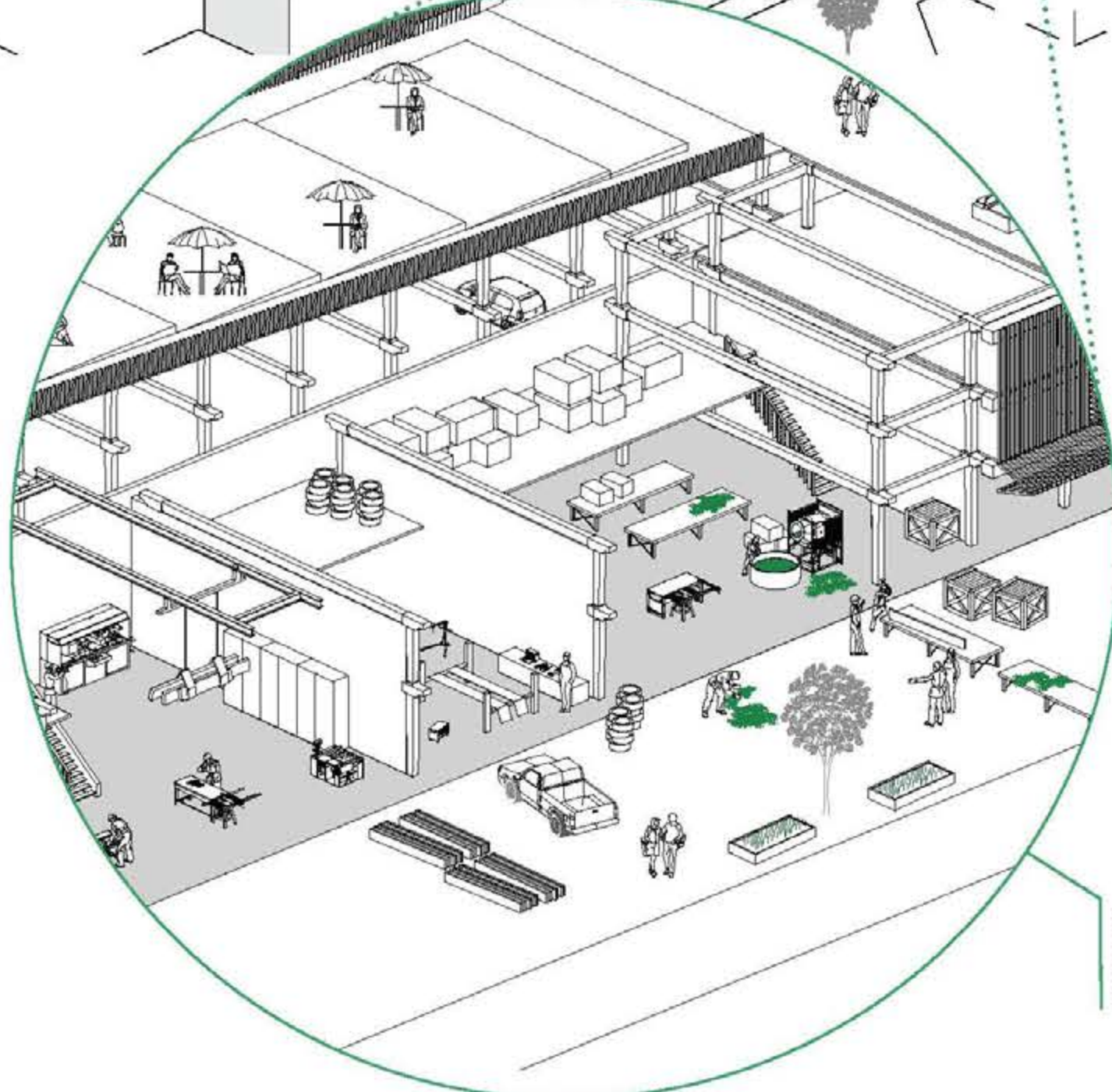
By reusing the existing garages the need of new building materials is reduced as much as possible. It also enables the creation of affordable productive space and retains a certain amount of the existing parking space which are normally an expensive part of a building development.



**Geoffrey**  
Current resident of the H-buurt. He is happy that due to the renovation of the Hakfort garage he can keep his safe and affordable parking space, but also likes to visit the new rooftop garden during the weekends with his children.

**Herman**  
Has his own construction company and wants to extend his business in a social responsible way. The affordable working space and the prospect of providing materials for the new building are strong incentives for him. He's also charmed by the rooftop garden as he likes to sit on a terrace in the sun.

**Yousef**  
Is a car mechanic and has shop based in de existing Hakfort garage. He is happy with the new development because his shop is upgraded with a new facade and the future inhabitants will result in more customers for his shop.



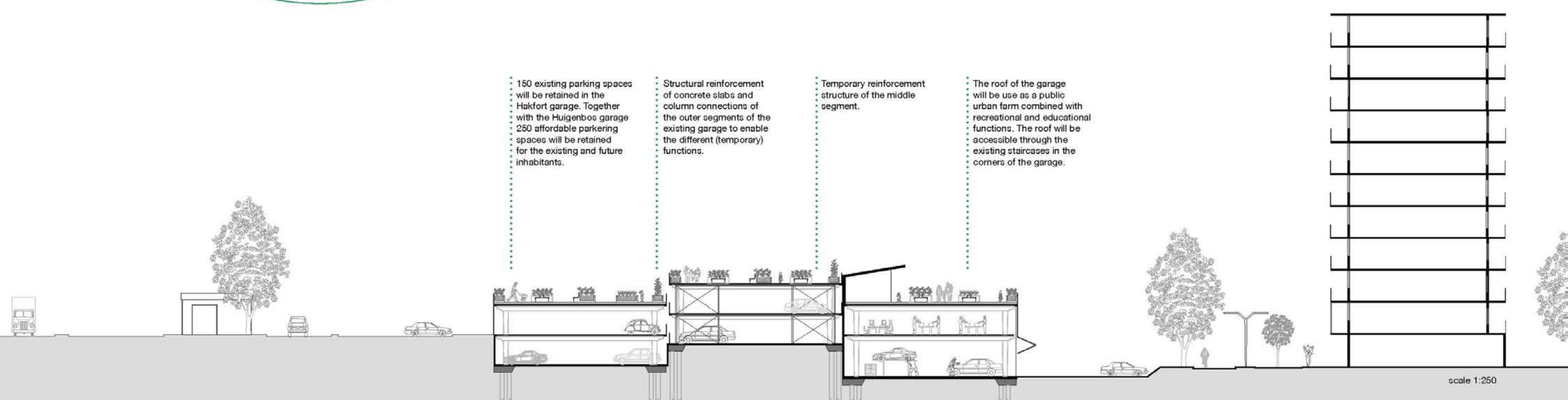
With a low investment the parking garage is transformed into workshops. In these workshops the preparations are made for the construction of the apartments. The door and window frames are made here and the builders can do preparatory experiments with hempcrete.

150 existing parking spaces will be retained in the Hakfort garage. Together with the Huigenbos garage 250 affordable parking spaces will be retained for the existing and future inhabitants.

Structural reinforcement of concrete slabs and column connections of the outer segments of the existing garage to enable the different (temporary) functions.

Temporary reinforcement structure of the middle segment.

The roof of the garage will be use as a public urban farm combined with recreational and educational functions. The roof will be accessible through the existing staircases in the corners of the garage.



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### The growing phase

As the seed begins to grow it will increase the attractiveness of the area. A Collective Private Commission (CPC) structure is created for the new dwelling which will be developed on top of the garage. The developer will create the main frame which acts as a zoning plan taking into account the site characteristics like orientation to the sun and noise reduction from the adjacent Karspeldreef. Future inhabitants will develop the building together. This will result in a variety of dwelling types and sizes.

The future inhabitants are free to design and build their own dwelling as long as they comply with the ground rules of the project. These rules are set

to ensure the sustainable and social goals of the project.

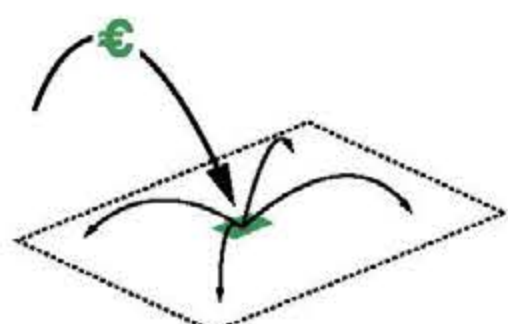
All building elements and materials need to be of a high circular and sustainable level, it is therefore mandatory to build the outer walls with Hempcrete. This material will mainly be grown on processed locally and constructed by the present companies. Other building elements like window frames and interior walls will also be produced and installed by the factory plinth companies.

The main frame is constructed of wooden beams thus strengthening the circularity and adaptability of the structure. The combination of the wooden mainframe and the outer walls also creates a load reduction of 30% compared to a similar structure in concrete or steel thus reducing the

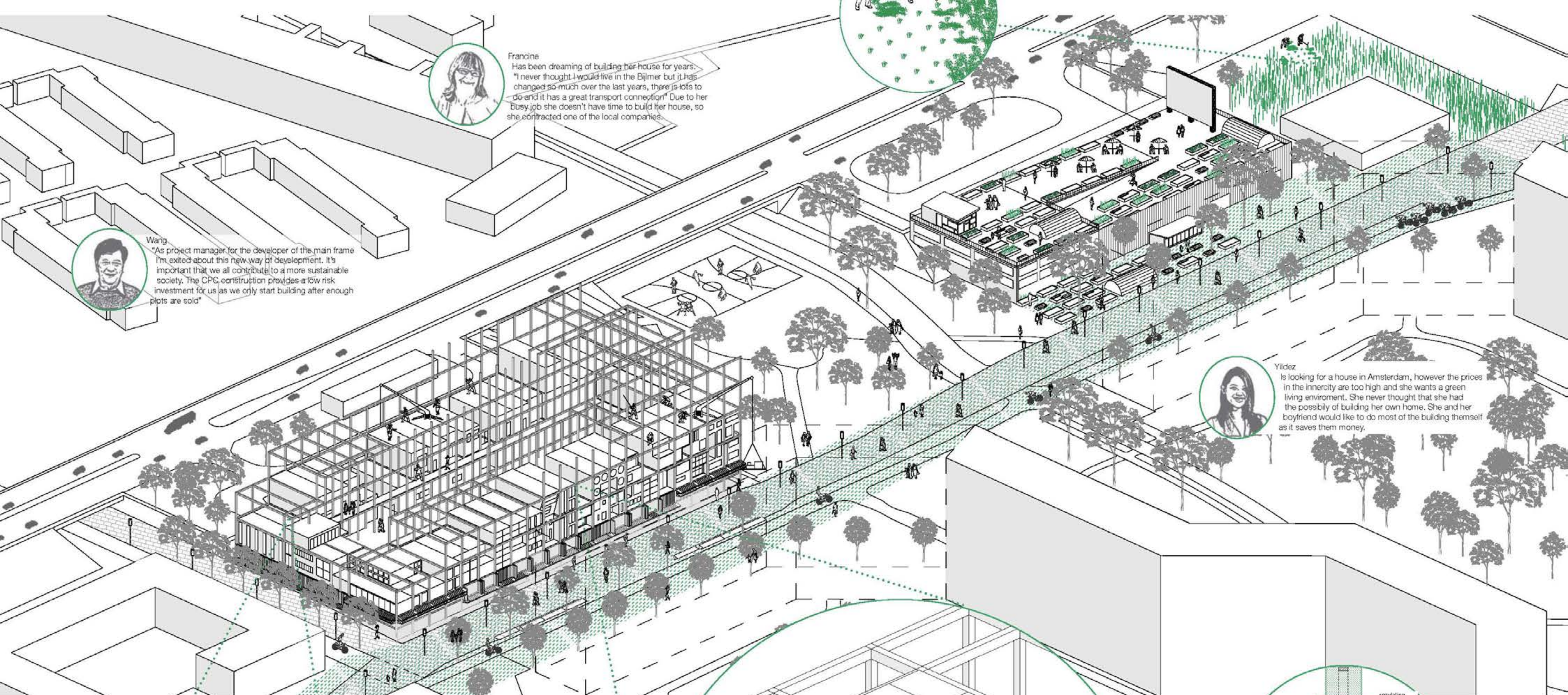
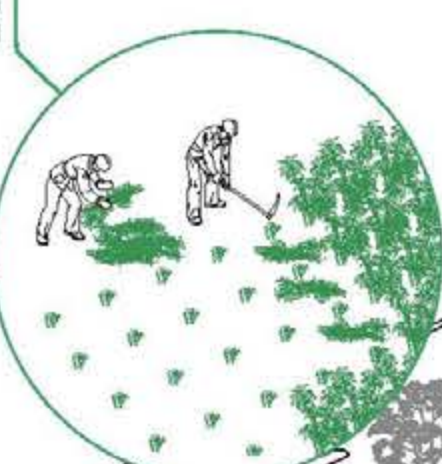
amount of additional foundation and structural strengthening of the existing structure.

The two plots are developed one after another. When construction of the Hakfort plot starts the rooftop urban farm is moved to the Huigenbos garage and the space in the plinth of this garage is utilized by construction companies.

Simultaneously with the development of the Hakfort garage the public space surrounding the garage is upgraded. The Bullewijkpad area is transformed into the Boulevard, the parking spaces along the Bullewijkpad are replaced by a broad boulevard which will be filled with elements like benches and planters produced by the local companies.



Part of the hemp is grown and yield in the neighbourhood



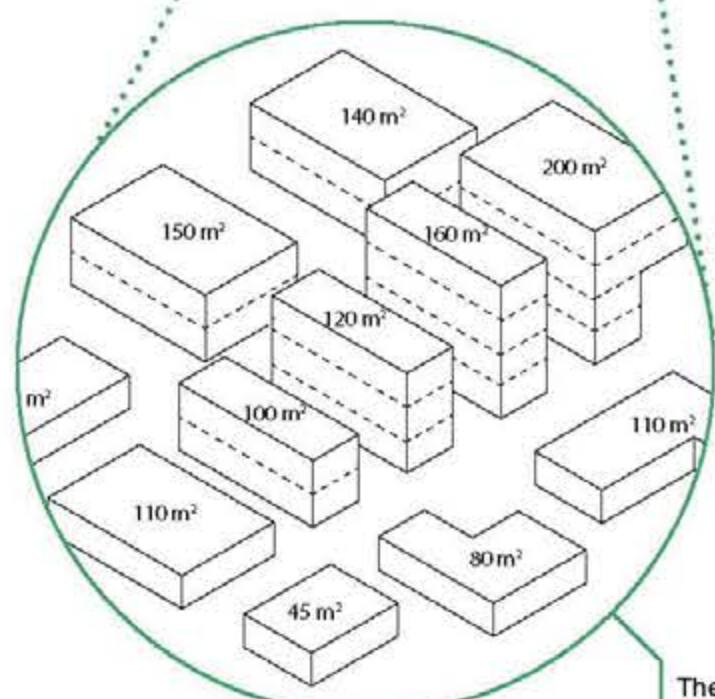
**Francine**  
Has been dreaming of building her house for years. "I never thought I would live in the Bijmer but it has changed so much over the last years, there is lots to do and it has a great transport connection" Due to her busy job she doesn't have time to build her house, so she contracted one of the local companies.



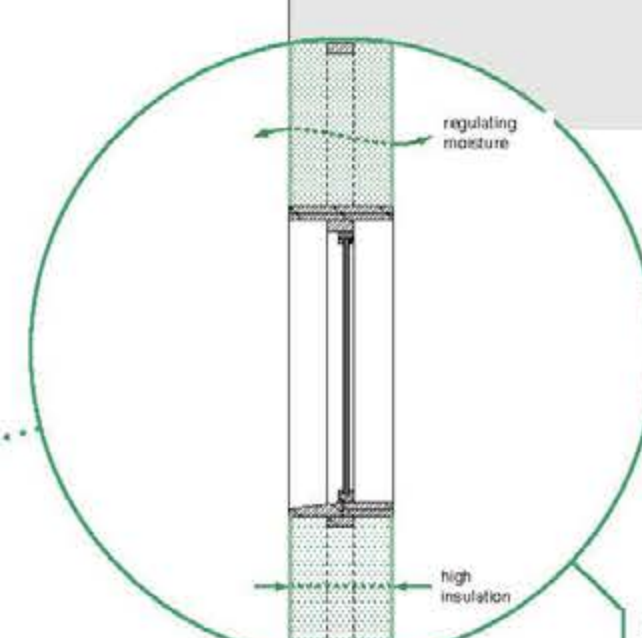
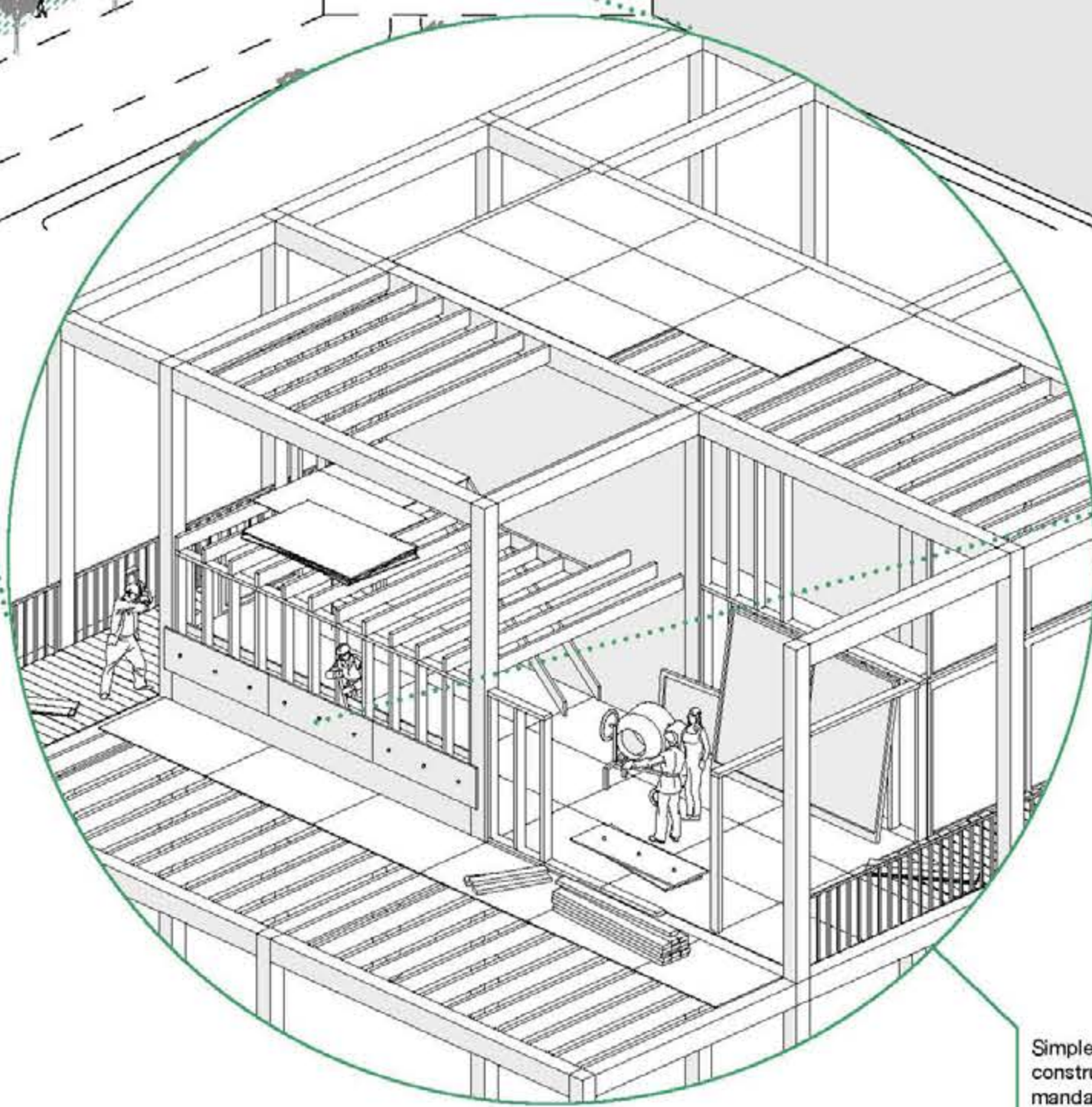
**Wang**  
As project manager for the developer of the main frame I'm excited about this new way of development. It's important that we all contribute to a more sustainable society. The CPC constitution provides a low risk investment for us as we only start building after enough plots are sold.



**Yildiz**  
is looking for a house in Amsterdam, however the prices in the innercity are too high and she wants a green living environment. She never thought that she had the possibility of building her own home. She and her boyfriend would like to do most of the building themselves as it saves them money.



The houses within the framework can vary from 25 m² to 200+ m² and can be live/work units as well.



Low tech, high sustainable facades with hempcrete, in combination with timber frames produced in plinth workshops.

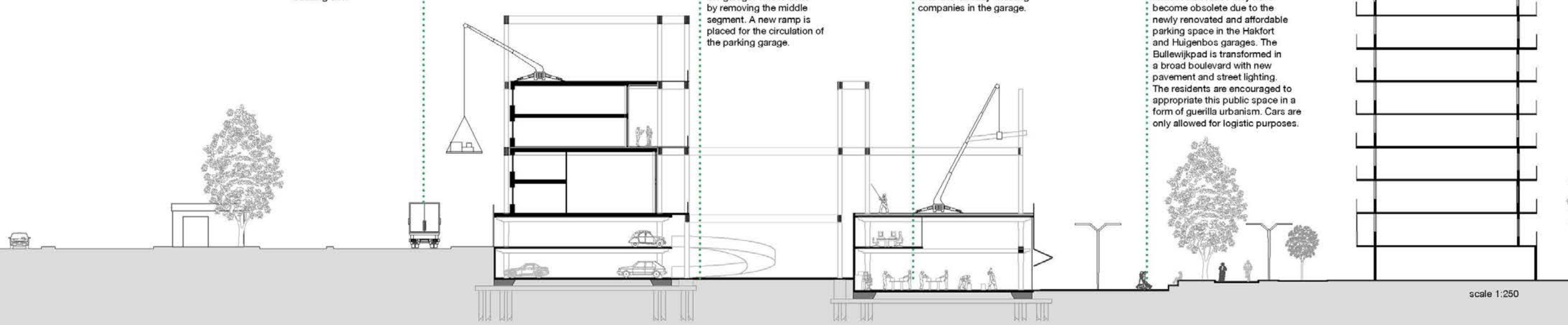
Simple and low tech construction methods are mandatory when building the apartments.

The existing infrastructure of the Karspeldreef gives the opportunity for easy delivery of materials for the production workshops and building site.

To accommodate the increased load on the existing structure additional foundation is created next to the outer segments of the garage. This is done by removing the middle segment. A new ramp is placed for the circulation of the parking garage.

Multiple workshops are placed in the plinth facing the Bullewijkpad thereby activating the public space together with the already existing companies in the garage.

The municipality invested in the upgrade of the public space of the Hakfort en Huigenbos neighbourhood. The parking spaces on the Bullewijkpad are removed because they have become obsolete due to the newly renovated and affordable parking space in the Hakfort and Huigenbos garages. The Bullewijkpad is transformed in a broad boulevard with new pavement and street lighting. The residents are encouraged to appropriate this public space in a form of guerrilla urbanism. Cars are only allowed for logistic purposes.



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Transition to maintenance

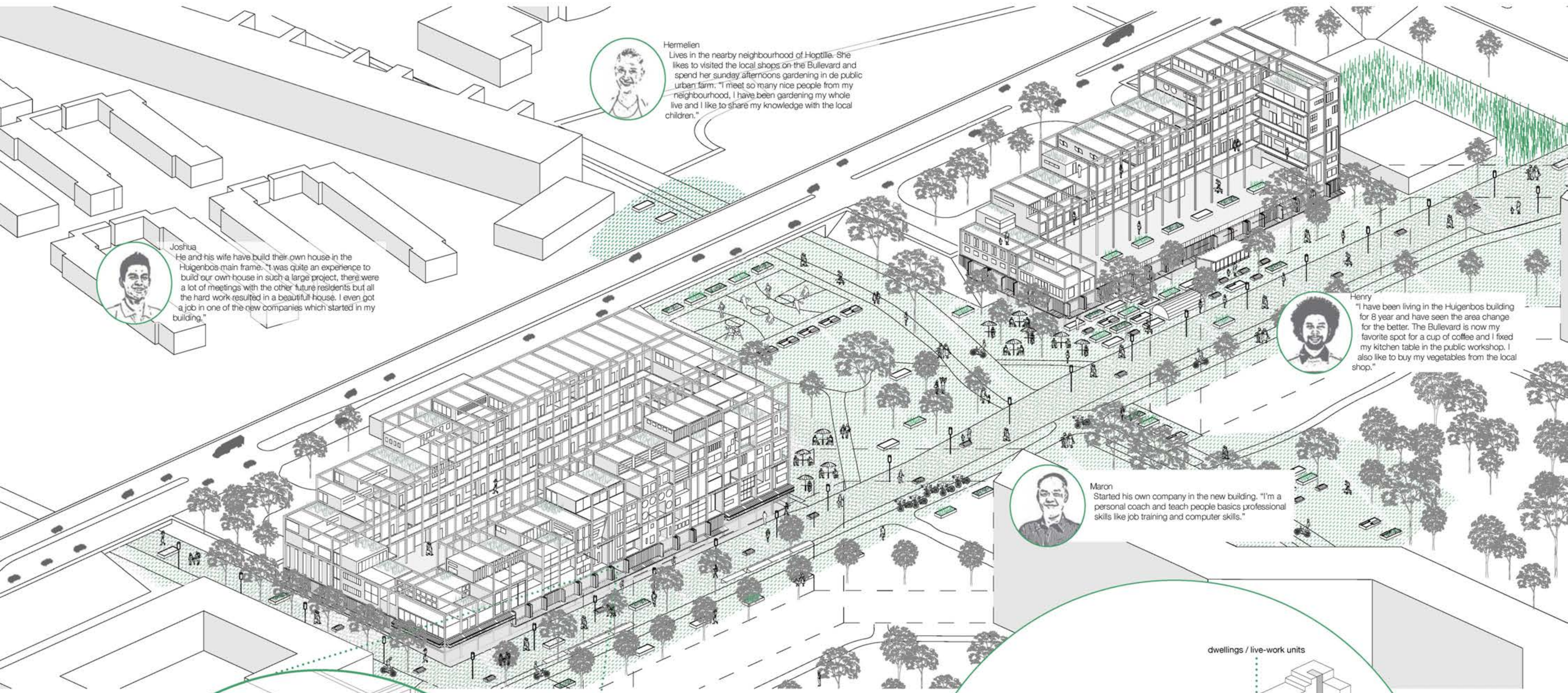
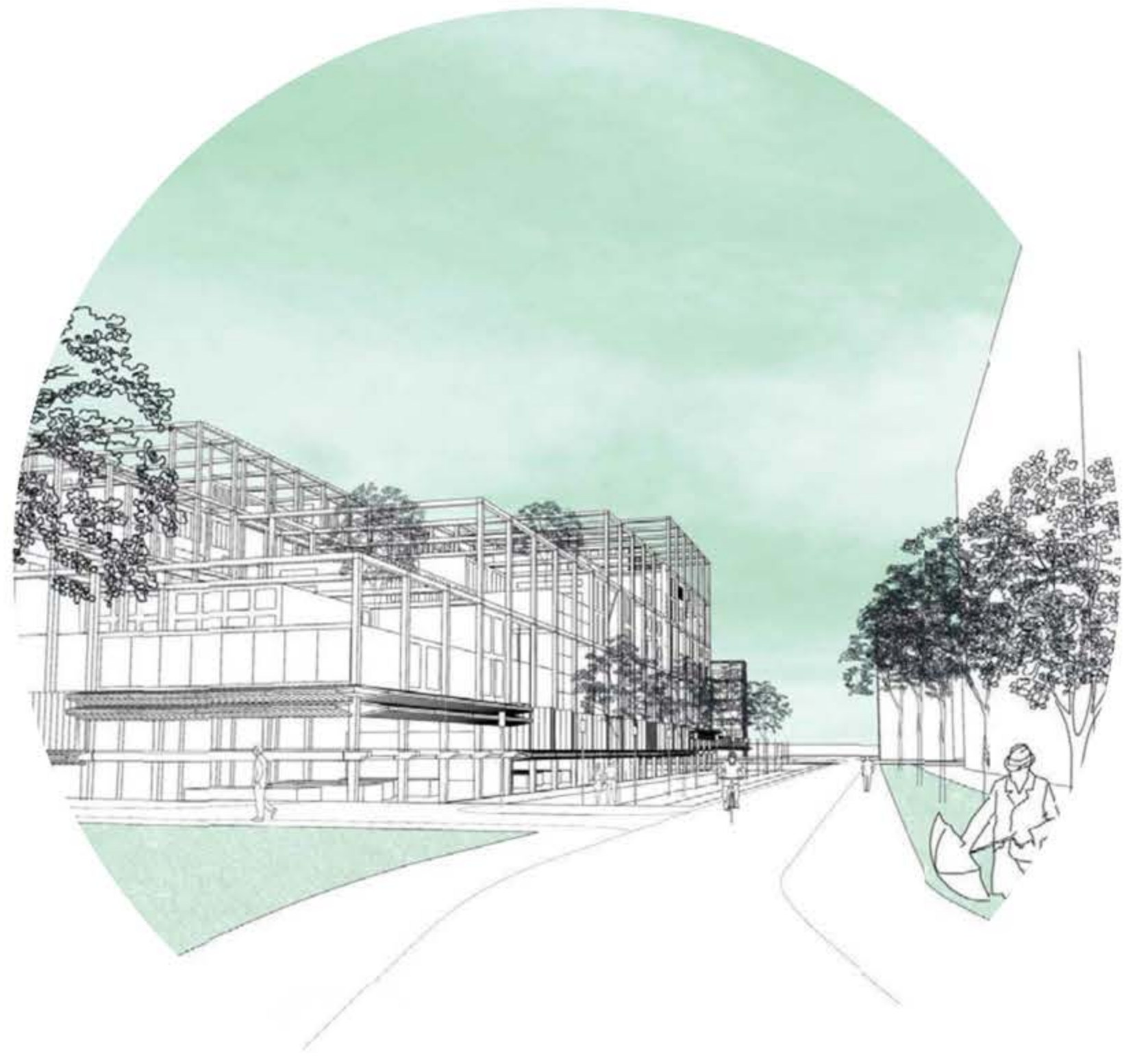
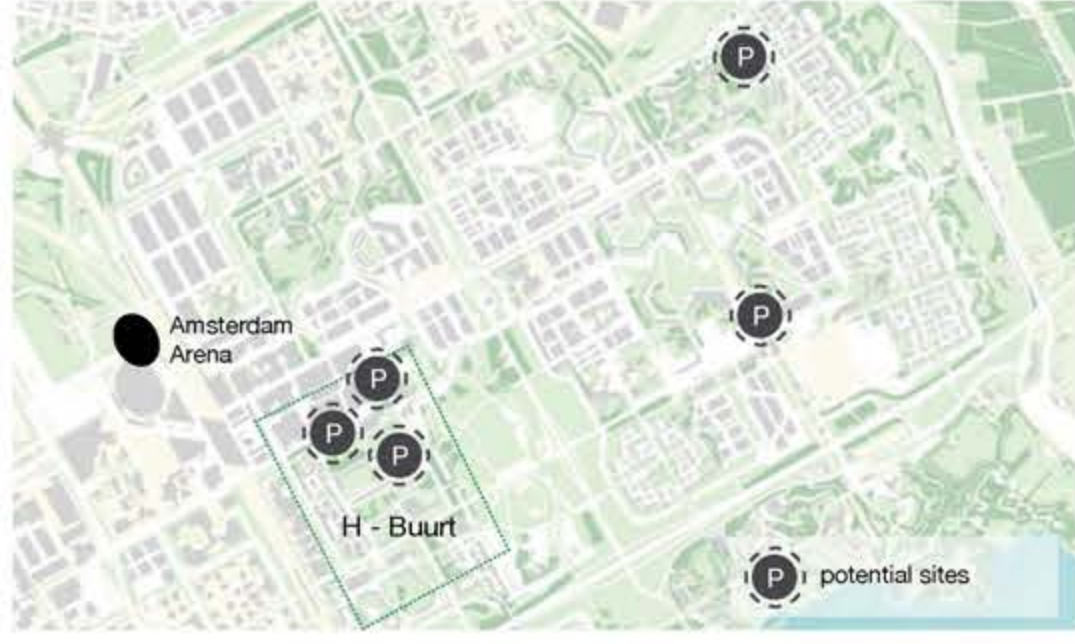
As the project matures its seeds begin to spread to neighbouring areas where they can take root. Some of the productive companies might migrate to these new projects creating space for functions and companies that focus more on the maintenance of the city. These functions can range from bicycle repair, furniture repair or plumber workshops to a public workshop where people can rent tools.

Some space will be reserved for residents that want to start their own business and are looking for affordable space and if needed a storefront to sell their products.

Due to the dimensions of the main frame multiple functions can be hosted inside. The first floor of the mainframe is especially suited for offices and high-end makerspaces as it has a good logistic connection with the Karspeldreef.

The residents of the H-buurt have started to appropriate their public space filling it with elements like benches and planters produced by one of the local companies.

On a sunny afternoon the Boulevard is filled with different people, children playing on the street, residents gardening in the public urban farm, a mechanic working on a bicycle and some tourists enjoying their lunch at a local restaurant.



**Hermelen**  
Lives in the nearby neighbourhood of Hoopville. She likes to visit the local shops on the Boulevard and spend her Sunday afternoons gardening in de public urban farm. "I meet so many nice people from my neighbourhood, I have been gardening my whole life and I like to share my knowledge with the local children."



**Joshua**  
He and his wife have built their own house in the Hugenbos main frame. "It was quite an experience to build our own house in such a large project, there were a lot of meetings with the other future residents but all the hard work resulted in a beautiful house. I even got a job in one of the new companies which started in my building."



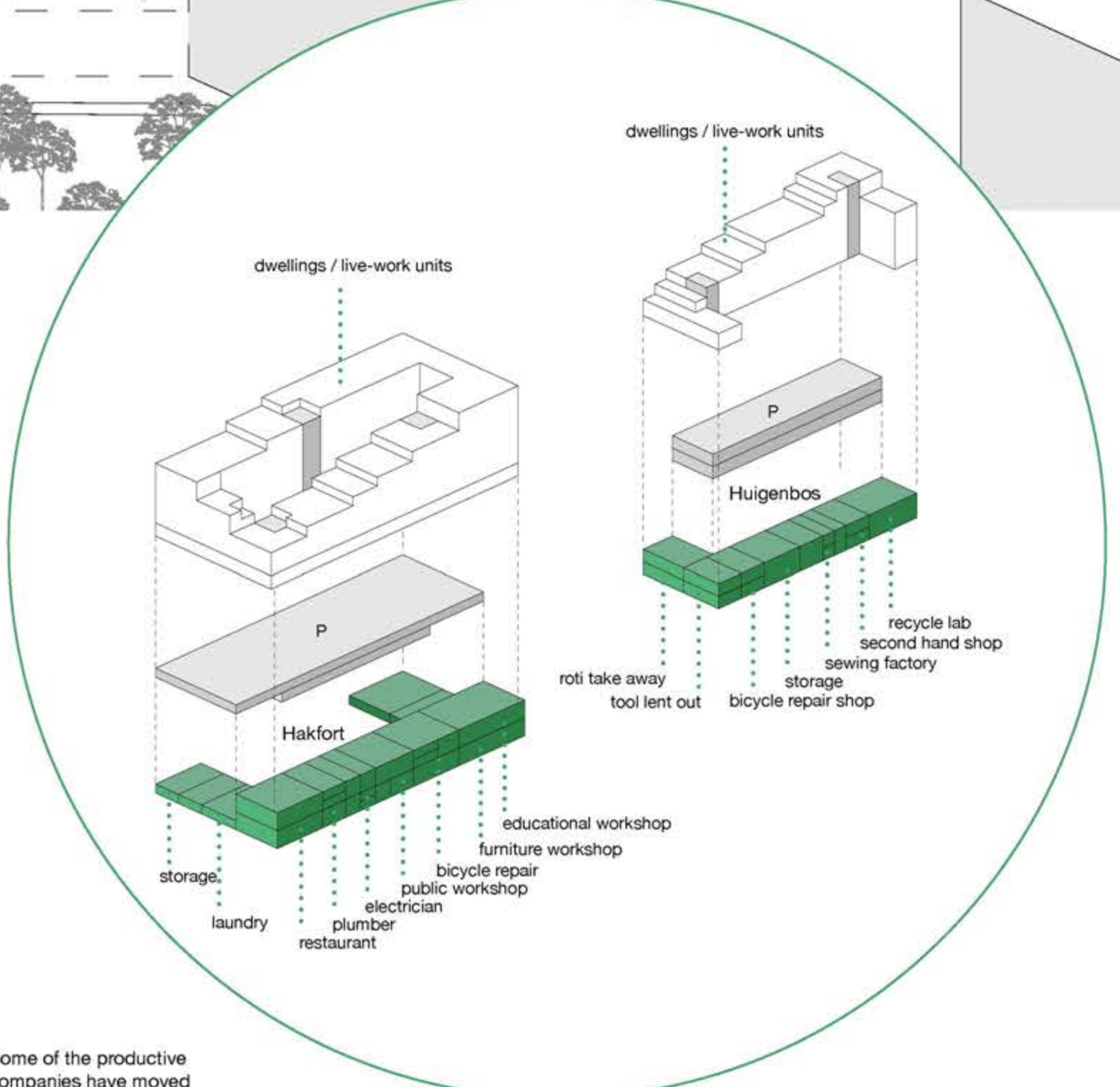
**Henry**  
"I have been living in the Hugenbos building for 8 years and have seen the area change for the better. The Boulevard is now my favorite spot for a cup of coffee and I fixed my kitchen table in the public workshop. I also like to buy my vegetables from the local shop."



**Maron**  
Started his own company in the new building. "I'm a personal coach and teach people basics professional skills like job training and computer skills."



The 6 meter floor height of the main frame can accommodate a wide variety of functions. It can either be split to accommodate dwellings or office spaces but it can also be used as maker space utilizing its full height.



Some of the productive companies have moved to a new location to start a new development. In their place local residents have started their own companies in a wide variety ranging from repair shops, clothing workshop with adjacent store and some small restaurants and bars.

The residents of the H-buurt have started to develop their public space. Multiple elements like benches and planters which have been created in the local workshops have been placed on the Boulevard.

The offices and workspaces have sufficient logistic possibilities due to the connection with the Karspeldreef.

