

Citizens will help introduce new green roofs as well as green links to Neugraben-Fischbek. Pupils will be engaged in nature projects including, among others, the co-creative and eco-friendly redesign of school playgrounds.

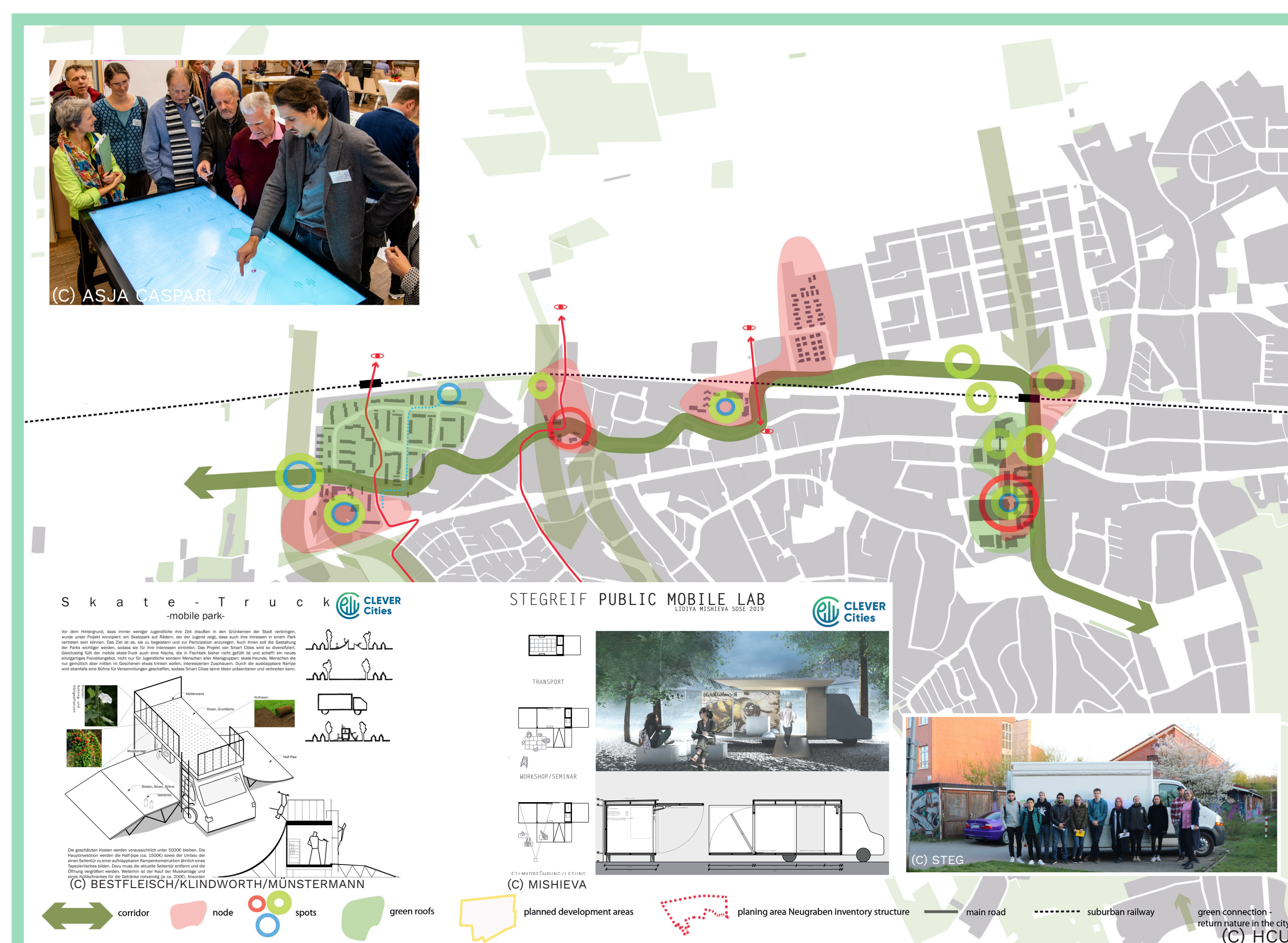
CLEVER CITY HAMBURG

Summary of Hamburg's goals and challenges as part of CLEVER Cities

HOW CLEVER CITIES FITS INTO LONDON'S CONTEXT

What: Can nature-based solutions contribute to future urban development in the outskirts of cities? **How:** Do we gain respect for nature from city residents without barring them from enjoying it? **How:** Can we design new open spaces in the urban periphery that will respond to the challenges of climate change, migration, social disparities and threatened biodiversity? The corridor is a visible network of places, green roofs / facades, schoolyards and community gardens, which fosters interaction between different groups of residents. It is commonly developed by local stakeholders in order to improve livelihood in the neighborhood and is known beyond district borders.

- **Topics / KPI** number of participants in actions, events etc., area of newly established public green spaces, job or volunteering opportunities created; economic value of green spaces
- **Risks and challenges** integrating numerous small and big scale stimuli / projects in a comparably diverse and large area, ensuring realization within CLEVER time frame, aligning co-creation with co-monitoring



CAL 1: GREEN CORRIDOR

It is intended that the CLEVER corridor will connect the different NBS interventions implemented as part of CLEVER Cities. It also **connects the city to the nature** and puts an emphasis on the **nature within the city**. The aim is to have a pilot project on one part of the East-West walking/cycling path in order to use the experiences made when redesigning the rest of the path. Along the corridor, nature-based solutions prospectively will be implemented to **increase biodiversity and overcome gaps inbetween surrounding natural heritages**. A guiding tool will probably be developed e.g. telling the CLEVER story through creative ways along the path.

- **Hamburg partners** (BUE, FHH, HCU, LGV, steg)
- **Participants** local citizens, “cultural workshop”, landscapers, refugees, pupils
- Initiating the CAL with a **stimuli** will start with several **small scale, highly individual and place-specific interventions** on spot adressing distinct groups to integrate in co-creation. Also high potential for co-monitoring is expected from integrating e.g. a mobile App and sensors along the corridor. Further means of co-creation and innovation are expected from re-designing cycling lanes, labelling and guiding system or lighting. Parts of the guiding system could be co-developed with the help of a bottom up initiative “cultural workshop”. Participating vulnerable groups has taken place at a green space close to a refugee accomodation by introducing a low threshold format (picnic) with the help of translators.
- **KPI** improvement of fear spaces with the help of e.g. mobile App “Sensafety” of Technical University Berlin; utilisation/frequency of use/visits of NBS; saving resources; rainwater management
- **Risks and challenges** developing a common understanding of the character of the corridor, activating especially vulnerable groups, ticking to the time frame of CLEVER project



Every member of the school community will engage at least once with the school garden – which creates joint and clear responsibilities paired with visibility and outreaching into the neighbourhood

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CAL 2: GREEN ROOFS / GREEN FACADES

Along the CLEVER corridor and within the project area, it is planned to develop and implement green roofs as well as green facades in cooperation with public and private stakeholders. They create green spaces that can not only enhance **recreation activities** and the **attractiveness of the neighbourhoods**, but also create a **living environment for animals, insects and plants**. Furthermore, the urban climate can be improved and the local rain retention capacity increased. The main focus is the **modernisation of existing roofs and walls** in order to use them as roof gardens, recreation areas, or habitats. Depending on the loading capacities of the roofs extensive vegetation it is possible to bridge gaps of two highly diverse nature reserve areas. Accompanying research aims to test new construction methods and materials, while research will also monitor effects on rainwater retention and wellbeing due to expected positive effects on local climate.

- **Hamburg partners** (BUE, FHH, HCU, steg, TUHH)
- **Participants** SAGA housing company, elderly, youngsters, pupils
- Initiating the CAL with a **stimuli** will start with Sandbek dwelling managed by state-run housing company SAGA. It is planned to introduce several green facades at the entry to metro station Fischbek, while before joint planting events will take place as a visible and hands-on kickoff.
- **KPI** biodiversity, price development of housing market, energy and water fee savings; pollutants and noise immissions
- **Risks and challenges** granting co-financiation, concerns of housing companies, defining maximum level of co-creation, integrating a distinct set of innovation and monitoring measures

CAL 3: SCHOOLYARDS

The CAL schoolyards refers to **three different schools** in the project area Neugraben-Fischbek (Stadtteilschule Fischbek-Falkenberg, Schule Ohrnschweg and Grundschule Neugraben). All three school yards are or are planned to be renewed, which offers the possibility to **design and implement multifunctional green spaces** that can be used by local pupils. Besides the physical environment of the schools, the schools are an important element of CLEVER Cities as they have **high potential with regard to environmental / sustainability education**. Not only can the pupils gain knowledge about the environment and sustainability in general, but they are also disseminators when transferring ideas to their friends and families. Besides community gardens on the schoolyard also green roofs and rainwater management aspects are discussed.

- **Hamburg partners** (BUE, FHH, HCU, steg)
- **Participants** pupils, teachers, parents, neighbours
- Initiating the CAL with a **stimuli** will start with one school (Stadtteilschule Fischbek-Falkenberg) in order to serve as a blueprint for two other schools following, which are located along the corridor. A designated area has been defined according to existing plans for redesigning. Pupils, a specialized teacher and the principle will be strongly involved co-designing and co-implementing e.g. raised beds or fences.
- **KPI** level of knowledge about gardening, food and health aspects, number of pupils taking part in gardening activities, number of affected “outsiders”
- **Risks and challenges** activating further pupils and schools, sticking to the time frame of CLEVER project, reaching out beyond school area into the neighbourhood

