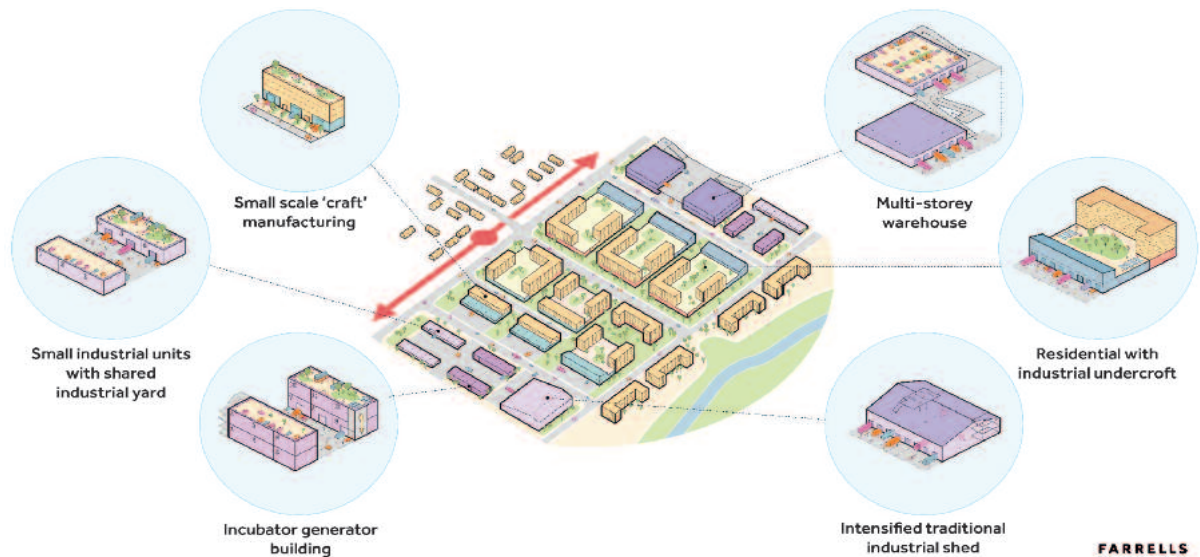


Making best use of London's industrial land



Maximising land use is most effective with co-locating residential and industrial uses says Katerina Karaga

IMAGE ABOVE:
Intensification of industrial uses can be achieved by developing a range of industrial typologies



Katerina Karaga is an associate at Farrells

The pressure on London's housing, workplaces, leisure and services is evident. We have all heard the latest numbers for London's growth: increasing population of 10.8 million by 2041, i.e. +20 per cent - with a demand for 19,000 new jobs and 66,000 additional homes to be created every year, all in a constrained and limited land area.

In dynamic cities such as London, change is imminent. The clear practical distinction between uses; residential, industrial and entertainment, is slowly disappearing. London could drastically change in the future; live, work and play could be further blurred.

So, what is the new pattern for London's urban growth? How do we make sure we fulfil the needs of the Londoners to come? What building typologies should we deliver to achieve the best balance for both the residential and workspace demand? What are the new truly mixed-development models for London?

The draft New London Plan has clearly identified the rules: no net loss of industrial floor space in designated industrial locations with possible consolidation of industrial facilities to release residential land, encouraging new work-live typologies.

Farrells project experience and our proactive exploration of the potential of industrial estate intensification has shown that by releasing land capacity for mixed-use development a clear way forward for London's industrial land transformation can be developed.

The potential is apparent in sites which have the benefit of being well-connected by existing or planned Tube and rail stations, or in opportunity areas and growth corridors. Opportunities along transport corridors, such as the Elizabeth Line, the Bakerloo line extension, and Crossrail 2, should be maximised to make the best use of land and support London growth. These investments in infrastructure assets should be used for more than one purpose, making best use of the transport connections not only for residents, but also for existing and future

workers in the area.

Farrells, in collaboration with Savills, have examined real world projects for re-provision of the existing industrial capacity with co-location and intensification into mixed residential and productive workplace uses. Most of the existing industrial estates are low-rise sheds with inefficient layouts and yard space with residual spaces. Working with the New London Plan requirement of 'no net loss of industrial floor space', the studies have shown that industrial net floor space can be re-provided and consolidated on as little as 45 per cent of the land, given innovative masterplanning and introduction of new industrial and residential typologies.

By increasing the plot ratio, these sites can deliver residential area floor space up to the equivalent of five times the area of existing industrial floor space, with no net loss of industrial net floor space capacity. For example, on an existing industrial estate of 25 hectares, up to 5,000 new homes could be delivered in a mixed-use development with total net re-provision of industrial floor space of up to 100,000 square metres, including space for yards and services.

Farrells' tool-kit employs mixed-use typologies across a range of densities to provide facilities meeting the needs of both the modern and traditional industrial occupiers, with flexible layouts to encompass variety of businesses, such as light and general industrial, data centres, warehousing, storage and distribution, big retailers, creative industries and offices.

Small industrial units, up to 5,000 square metres, can be effectively integrated with residential uses or optimised by creating incubator buildings with shared industrial yard and goods lifts for operation on the upper floors. Food and drink manufacturing, catering, small scale 'craft' manufacturing, servicing, and repair businesses, last-mile businesses, small scale storage and wholesale can also operate on ground floors of residential buildings with separated access.

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LEFT: Mixed use development deploying both vertically stacked and horizontal programmes

BELOW: Schematic diagrams of existing and proposed site layout Image

>>> Maximising land use is most effective with co-locating residential and industrial uses, such as integrated residential with industrial under-croft and with the multi-storey warehouse typology.

The multi-storey industrial development typology has vehicle accessible space with stacked yards on multiple levels, ensuring that industrial and logistical operations can continue to operate within dense urban settings. Traditional low-rise sheds could be intensified by adding internal levels with modern lifting equipment to take advantage of the full building volume for storage and adding mezzanine levels for office space. Large rooftop areas could increase utilisation with spaces for leisure activities, communal gardens and allotments, rooftop cinemas and bars, sports playgrounds, car parking along with the potential to improve sustainability by adding solar panels for natural energy or green roofs.

The studies have also shown that up to a quarter of the land of existing industrial estates is used as surface car parking. On the exemplar sites considered, the demand of car parking spaces could partially decrease because of the transport network improvements and employees using public transport or car sharing scheme. Another principle of densification could be the provision of rooftop car park over some industrial units or a consolidated car park rationalising the land take.

Industrial estates were historically placed in close proximity to waterways, used as transport corridors, often now with unexploited potential in this post-industrial age. This urban setting could be highly valuable, and it could bring benefit for the existing local communities. Unused canal frontages can be transformed into vibrant public spaces accessible to everyone. Often there is also the opportunity to open and enhance neglected amenity spaces, such as approaches to existing green spaces, water bodies or natural assets, which are clogged in the patchwork of industrial estates. The Lea Valley industrial estates are a perfect example for this.

One schematic spatial approach to masterplanning is to have a mixed-use and residential core close to the transport node, extending into a residential spine through the centre of the site. Industrial units could be organised in the outer part of the site with associated yards and services around the edges, providing clear separation of industrial and residential traffic and the maximum possible distance between the access for the different uses. The new developments should not preclude 24-hour operation of the industrial units. The 'agent of change' principle should

be applied, and existing industrial businesses operation should not be constrained by the inclusion of residential uses. The build form should therefore be adaptable to mitigate noise and light pollution. Innovative solutions such as buildings orientation, green buffers, covered yard and electric vehicles can be used to mitigate the impact.

Wider range of tenures, such as build-to-rent and student housing, are desirable to unlock development or speed up delivery when integrating industrial and residential use on sites because of landownership and building lifespan challenges. The difference in building lifespan between industrial and residential use should be acknowledged and planned for, with a clear horizontal split of uses when possible; clear lease arrangements, potential vertical stacking with active rooftops and temporary buildings over industrial spaces.

The regeneration of employment areas must start with the re-provision of the industrial units. Starting with jobs, culture and homes, leading the way into successful urban regeneration. Transitional uses, such as craft-workshops spaces, creative industry units, training centres and co-working space are crucial in the creation of natural buffers between the uses and the curation of the local culture. Mixing of uses should be happening on various levels, within buildings, public spaces, roof tops and all places where possible. Heritage and newness should be innovatively fused to develop a sense of place.

Farrells strongly believe that the new generation of industrial typologies will facilitate the transformation of industrial land; unlock the delivery of a functional and intensified ecosystem of small and large industrial business while releasing land for residential development. However, there are still a number of factors that make this process challenging, such as funding and viability issues in the delivery process, the affordable housing threshold and the upfront investment that will need to be resolved on a case by case basis and by careful revision of the relevant policies in the Draft London Plan. Time is needed for people to accept the transformational changes and positively shift the human perception of these new types of development - at least until there are successful high-quality examples of co-location schemes in the UK market.

We positively believe that the future trends of master planning for London are hidden behind the progressive way of thinking, delivering truly mixed-use developments, where both residents and workers share the benefit of the public spaces and the good transport connections. ■

