Our idea is that the combined effect of specific spatial, financial and authorities approval efficiencies will radically reduce the capital and operational cost of housing, while also providing the homes that people need and want.

The housing on which our idea is based is not product, that defined by ease of construction and profitability. Instead it is for a form of dwelling that matches more closely the way people live. The term housing can be traced back to Medieval Latin, meaning protective covering and suggests the importance of the close fitting relationship between people & housing & place. This relationship has held through time, as it should today.

Our idea is demonstrated via a pilot housing development called Pixel. The efficiencies our idea targets are played out on this and the following sheets. But first we should introduce some of the people who might appreciate a Pixel project. After all this whole thing is about them.
The base unit (literally) of typical new housing in the City of Sydney are the Studio, 1B, 2B and 3B Unit. The size and mix of this base unit is codified by the Apartment Design Guide via SEPP 65 and SDCP2012. When combined with tightly defined amenity controls and honed to maximum efficiency by industry, the resulting typical housing floor plate, or neighbourhood, currently being delivered in the government area is remarkably homogenous.

In 1932 Karel Teige proposed a new unit of housing called the Minimal Dwelling. His idea was a reaction to what he saw as the problematic miniaturisation of middle class housing types when built for lower income people. Instead he suggested a dwelling should contain only a single private room, with the remaining acts of domesticity shared amongst others in a similar situation. This housing model was the forerunner to contemporary versions of the boarding house, student housing and hotels.

His idea is our idea, but tuned for today’s world. Our base unit is called the Pixel. It is a nominally 16sqm unit which contains a room, with all the wonderful multiplicity and liberty such a thing entails, an ensuite and storage. The spatial efficiency of the Pixel enables a wonderful generosity in the arrangement of communal living space, while still offering a radical aggregate spatial efficiency, when compared with Business As Usual product.

The above planning arrangement plays out a typical Pixel project floor plate. To the left is business as usual, a typical SEPP 65/ADG project floor plate, for comparative analysis. And to the right is an alternate Pixel project floor plate demonstrating the mutability of the spatial arrangement and possible uses, including a WeWork like facility. The above planning arrangement is generally applicable for much smaller, or larger floor plates, for floor plates of great variability in shape due to the formal flexibility of the communal areas, and for buildings utilizing stacking of floor plates of only a few storeys, or those of tall towers. The above spatial arrangement is intended to mediate both specificity and scalability/ repeatability.
Financial

A Pixel project would result when a collective of people come together, organising themselves under existing Company Title legislation and adopting the following organisational principles.

The company agrees in perpetuity to pay a 99 year ground lease to the land owner, with first right of refusal to continue ground lease at market value at the term of the agreement. Each share holder will be given exclusive use of a designated area equal to their share holding within the company. If share holders' exclusive use area is sub let, it must meet the performance requirements of SEPP (Affordable Rental Housing) 2009 - Part 1(6)(1a). The development will not provide car spaces for individual car-use. If car-parking is to be provided onsite, it must be for vehicle share purposes, or the provisions of multi-use spaces for visitor parking, or for delivery/moving/ maintenance vehicles, etc. The development will be constructed to meet world’s best practice for its sustainable construction and operation.

To understand the unique benefits of a Pixel project we must consider the total life-cycle of a development, comparing business as usual with a mixed-use, communal living and working space. The model delivers great spatial efficiency, long term returns to land owners and greater quality, more sustainable, buildings via a design and building methodology very similar to the Nightingale model.

Approvals

A Pixel project would be permissible under current state and local government legislation. The design would meet SEPP65 and the Apartment Design Guide recommendations for certain parts, though utilise SEPP(ARH)2009, Boarding House standards for the majority. The design would also meet the requirements of SLEP 2012, SDCP2012 relating to Residential Flats and to Boardings houses and student accommodation, as well as the City of Sydney Development Guidelines for Boarding House (including student accommodation).

Our review of SEPP(ARH)2009 suggests that there is no control that would limit a collective to fund a development approved under that legislation and for the land owners to also be tenants paying peppercorn rent. The development standards of the legislature offers great flexibility in spatial arrangement and building form, which will increase the replicability and scalability of Pixel projects. The state based legislation permits such housing under a range of zoning, which will enable the establishment of Pixel projects in a wide range of locations, offering crucial dwelling diversity across the state.

Pixel projects would require the COS to relax car parking requirements, which are contrary to the shared economy and possible transition to an automated vehicle future. It should also be noted that the current COS Development Guidelines for Boarding houses prohibits strata sub-division, however this is not applicable as Pixel is organised under company title.

What makes Pixel more affordable is:

Ground lease land costs over a 99 year period which greatly reduces the interest paid to banks as part of home ownership.

Spatial efficiency of shared communal spaces that encourage socialisation, sharing and community.

Lower stamp duty (current plans are afoot for "stamp-duty" exemptions via the Nightingale-Baumgarten model, however the below modelling demonstrates that affordable ownership is possible even without decreasing government contributions.

No developer profit. The development is co-ordinated and managed under the company title charter.

Reduced marketing costs.

No sales commission costs.

Reduced capital costs via ground lease allowing for greater investment in energy, thermal comfort and water to reduce operational expenses.

The financial modelling is based on average costs and should be used for preliminary feasibility purposes only. Further detailed site specific feasibility is required at a future stage to confirm all financial assumptions.