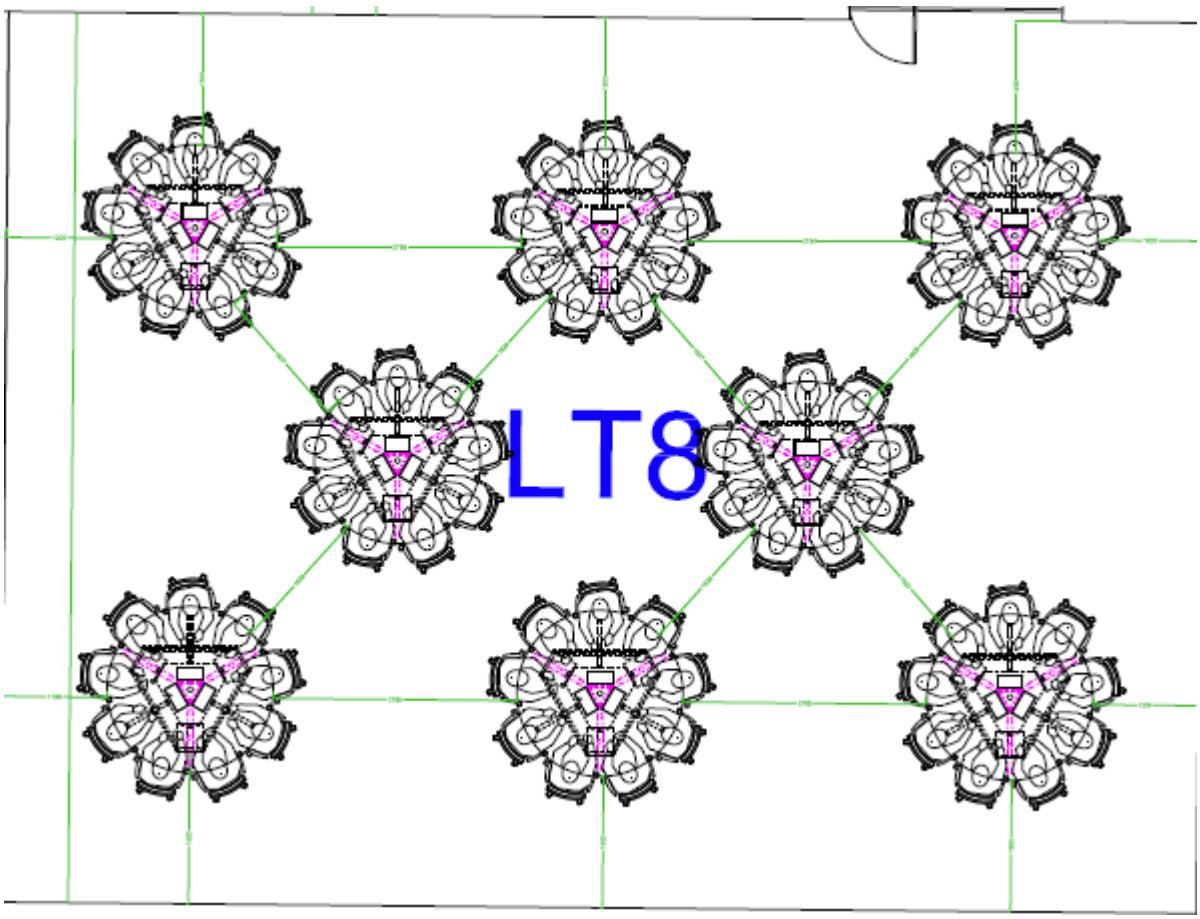
SCALE UP – A BRIEF PERSPECTIVE FROM ESTATES & RESOURCES

Spatial Requirements and Room Geometry

SCALE-UP can require considerably more space per student compared to traditional lecture theatres (circa 3.5m2/person compared to 1.7m2/person respectively). This is to facilitate space between desks to allow students to move and lecturers to walk around (minimum of 1500mm). Many of our SCUP rooms are refurbishments of existing space so existing geometry of the room produces constraints, so there is a fine balance of maximising occupancy against providing sufficient space for SCALE-UP to work effectively.



Furniture

The initial requirement when we first started providing SCUP accommodation was the use of 2300mm diameter tables. This proved difficult due to the associated "walk round" space required and also the manufacture of the tables, so we finally settled on a table of 1900mm diameter as the NTU standard SCALE-UP.

As the table accommodates 3 groups of 3, obviously the tables require 3 legs as opposed to 4. It's proved almost impossible to procure an "off the shelf table" of this diameter with 3 legs so we've used a variety of suppliers to build bespoke 3 legged 1900mm tables and now have a NTU standard SCALE-UP table. The educational furniture market has been slow to catch up with the prevalence of SCALE-UP teaching; they don't like building them as they are deemed inefficient due to their

diameter; it doesn't comply with the standard sizing of laminate sheeting, so can be seen as a wasteful and expensive way to build a table.

Audio Visual and IT

Another key component of the SCALE-UP rooms is the provision of student use laptops, for use at the SCALE-UP tables. These require the table to accommodate power provision for each group of 3 (and sometimes data as well, dependent upon the software being used) plus distribution of these services from floor to table top (another conundrum as due to the diameter of the table and its weight, the legs are usually at the perimeter. Of course, this distribution from the floor to the table top needs to be accessible to technicians if a fault arises. Siting of the table has to align with floorboxes. So, the design of the table has been quite tricky but we now have a preferred prototype. We've started putting in SCALE-UP tables without all the IT and power wizardry to the desks as WiFi is now the preferred medium for the data transmission and omitting power to the table tops in some instances (due to greater confidence in the charging units) has made it a lot simpler.

The provision of a laptop charging unit with laptops and the provision of repeater screens (as the SCALE-UP room occupants are facing differing directions) adds to the costs.

In summary, we have had a number of prototypes but the more rooms and tables we've used the easier and simpler the designs we're embracing, particularly in relation to the power/data distribution. SCALE-UP rooms are expensive (the tables are circa £2.5k each) plus the additional audio-visual requirements. However, the feedback from NTU's academic community has been positive and we're being asked to repurpose existing rooms for SCUP; they have become a key requirement for new teaching buildings we're designing and constructing.