



Transition is about local resilience and one excellent example of rapidly adapting to a crisis is when Sam Bailey (one of our directors) swung into action in March 2020, to manufacture desperately needed PPE to be donated to healthcare workers, using open source design and 3D printers borrowed from our local community arts centre; Colonnade House, and other owners of 3D printers in the community.

Never having used a 3D printer before, the most pressing task was to learn to operate the machinery. This then enabled Sam to produce the 3D printed frames used in the assembly of face shields, which, when worn in conjunction with a face mask, provide additional protection to the wearer against large droplets and infection via the eyes. This is particularly critical during certain medical procedures that can generate large volumes of droplets, such as during the intubation process used to ready a patient for mechanical ventilation.

Sam joined up with 3D Crowd CIC, an emerging organisation of over 8000 volunteers across the UK, who gathered in a channel in the online communications platform Slack and began pooling their resources and sharing their expertise in fields such as 3D printing, software design, logistics, and crucially, the regulatory process surrounding medical supplies. What grew out of that was something quite remarkable.

Software was developed to manage the orders and delivery, a warehouse in Sheffield was converted into an assembly hub, and when word got around the NHS and care homes, something akin to the panic buying of toilet roll we witnessed around the same time occurred, resulting in orders in excess of 600,000 units, and the largest single order, 5,000 units, was right here in Worthing!

The first 100 that Sam made were shipped to Sheffield to form part of the 'Big Print' campaign. The expected peak of the first wave was rapidly approaching and with one central assembly and distribution hub, the aim was to fill as many of the most urgent orders as possible before the peak came. What we achieved was 40,000 critical items of PPE on

NHS covid wards and intensive care units before the first wave peak in April when the PPE shortage was most urgent, that would not have been there had the community not stepped in, and had instead left it up to those in charge and their chums.

Once the peak of the first wave had passed, there was just enough room to breathe to scale up the distribution model as it was clear it would be some time before the commercial supply chain got tooled up and negotiated their lucrative contracts before they could begin supplying PPE where it was urgently needed. Local co-ordination and distribution was needed. Sam volunteered as area coordinator for Sussex and established an assembly and distribution hub in Worthing Town Hall, with the help of Adur & Worthing Council and a team of fantastic volunteers.

Throughout April, May and the first half of June Sam and his team were at the Town Hall every day, assembling face shields, punching holes in elastic, and cleaning, always cleaning, while thousands of 3D printed components made by people all across Sussex streamed in. When it came to delivering the boxes of face shields, there was no shortage of eager locked-down volunteers keen for a good reason to go for a drive.

We filled all the orders in Sussex, and nationally the project delivered over 250,000 face shields, saving lives of those who save lives, and really demonstrating the power of community.

We had some wonderful support along the way, too many individuals to name, however we must thank Worthing Community Chest, Worthing Small Change and West Sussex County Council who have helped fund the efforts here in Worthing, Adur & Worthing Council who provided the Assembly Rooms and lots of other support, Brighton & Hove Community Works for advice and volunteer recruitment, and Design Packaging Ltd, who kindly donated packaging materials.

