

# virtual factory solutions



# step into the future of food processing and packaging technology

with tna Virtual Factory Solutions

To help you succeed responsibly in a changing world, TNA is developing pioneering solutions that will leverage the power of extended reality (XR) to create an immersive digital twin, of your planned or current operation. Automation demands that we look beyond just the procurement of great machines, and to drive success by identifying the best controls, integration and insight required to get the most out of them. Wherever you are in the world, you will be able to extend your reality to achieve amazing things simply by donning a VR headset and entering this tailor-made Virtual Factory.



## simplify planning, commissioning and installation

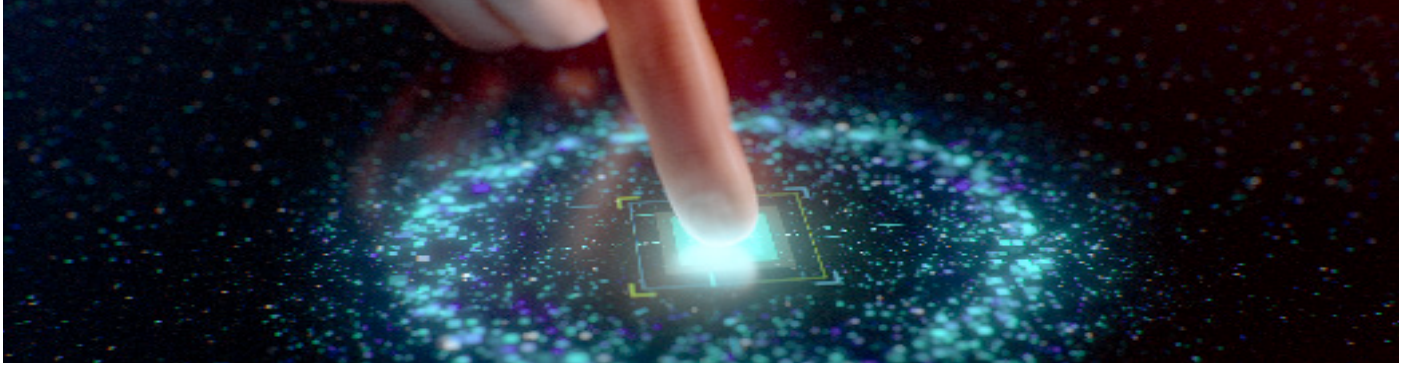
Through the creation of a **virtual space** that is identical to your planned or existing site, it will be possible to be immersed in the layout and to interact with the project team (not the equipment), with training, all stakeholders can meet with the TNA team as avatars in real time 3D to make your plan a reality. This will allow you to test different layouts and configurations before committing to a physical build, providing planners, designers, engineers and production teams the insight required to troubleshoot before any challenges occur.

This ability to see exactly what you wish to create will allow the physical footprint to be optimised, for example, while areas such as access, potential hazards and the successful integration of line equipment can be assured before a single person sets foot on site. All stakeholders will have the ability to meet, discuss and finalise plans virtually from the comfort of their homes or offices wherever they are located globally, and when the time comes to execute the plan there will be no hidden surprises.

## run lines, identify bottlenecks and reduce downtime

TNA's Virtual Factory will enable you to see your chosen production line as a static 3D replica, giving you a complete overview. Looking at a carbon copy means every element of the process can be scrutinised in forensic detail, meaning any potential bottlenecks or situations that may lead to wastage or unscheduled downtime events, for example, can be identified and addressed.

This next level insight will be applied ahead of installation and after, giving you the flexibility to tackle potential issues outside of the physical environment and to implement changes at a time that suits your production schedule. Efficiency, productivity and enhanced uptime are the ultimate goals, and everyone involved will have a clear picture from wherever they are.



## remote capabilities facilitate training and support

The fully immersive experience will mean operators can be trained on your actual line virtually – either via live or pre-recorded sessions – ahead of stepping onto the production floor. Trainers and operators' avatars will meet and interact with all elements within the digital twin, enabling a single session to reach as many people as you require regardless of their physical location globally. Trainers will have the ability to run all scenarios likely to be experienced day-to-day, arming operators with the tools they need through as close to a hands-on experience as possible with zero possibility for errors.

**Remote maintenance solutions** harnessing the power of augmented reality (AR) will also give operators the ability to share exactly what they see with technicians and to receive clear and accurate instructions as if those technicians were standing right next to them. The accessibility of experts via AR technology means producers have access to a wealth of options that would ordinarily require a costly on-site visit – such as the calibration of lines for different bag sizes or packing designs, tuning-up existing equipment and even commissioning new solutions.

## drive sustainability through the adoption of extended reality

The positive impact the Virtual Factory has on the environment is a firm positive for TNA's customers. The ability to plan, design, commission, install, optimise and train in a virtual manner will lead to less waste throughout the execution of plans of any size. It will also reduce the need for stakeholders to travel – often via air – for meetings throughout the process and facilitates these in a way that is far simpler to coordinate with the exceptionally busy schedules of today. This will not only reduce carbon emissions but also save valuable time, increasing productivity.

There will be no guesswork, no need for trial and error, just successful installations first time with ramp up of production that is faster than ever before. Embracing digitalisation in the form of our Virtual Factory is the future realised today, and we would like to invite you to share in the many benefits it can deliver for your business as its capabilities are rolled out.

**Customers will be able to interact with this unique metaverse via:**

- » iPad
- » Web version
- » Mobile Desktop / laptop computers
- » Full VR via headset

To book a demo with TNA experts, please contact [tnateam@tnasolutions.com](mailto:tnateam@tnasolutions.com)



[tnasolutions.com](https://tnasolutions.com)

Contact us anywhere, anytime: [tnateam@tnasolutions.com](mailto:tnateam@tnasolutions.com)

With presence in over 30 locations our global experts are available to support you anytime, anywhere!