- **Video: Historical Background**

1st industrial revolution…2nd industrial revolution…3rd industrial revolution…4th industrial revolution…

The images of the 1st, 2nd, 3rd and 4th revolutions

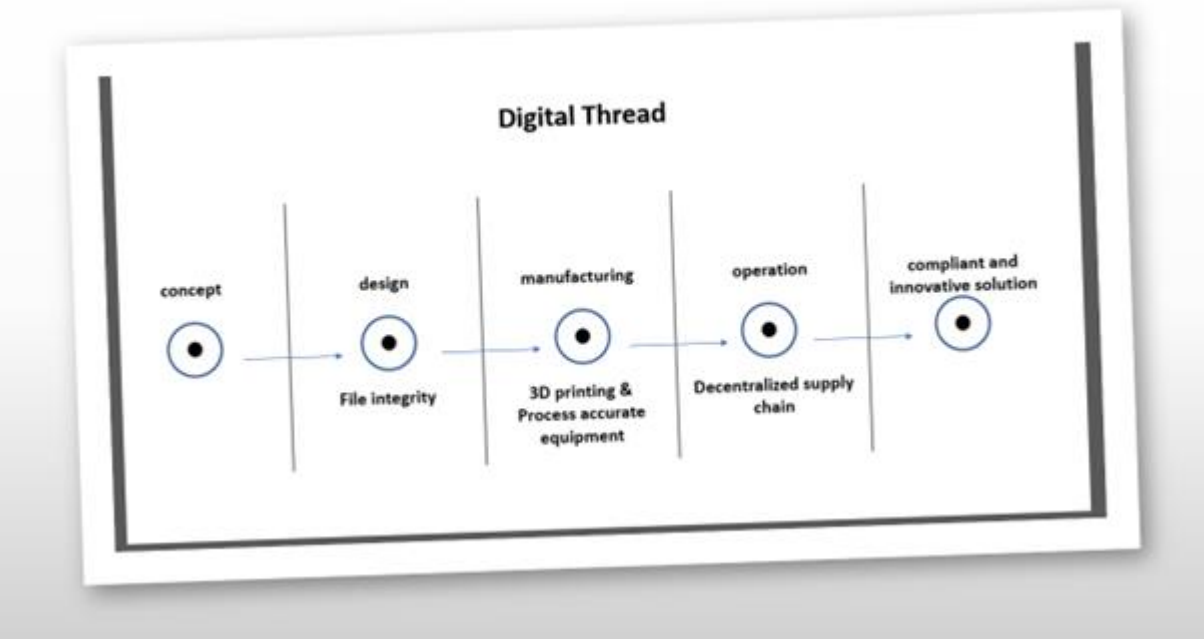
Each Industrial Era is defined by how things are made. For centuries, designs have been conditioned by what was *feasible*, what *materials* can achieve, what *technology* can build, and what *business models* can afford.
Now the feasibility paradigm has been raised to a higher level. A *higher level* of freedom is available in a manufacturing space with the same rigour and quality standards but unleash creativity, now your imagination is the limit. We are changing the way things are made. We are additive manufacturing.

The words on the image: Are you ready for a change? Join the revolution

- **Video: Additive Innovation**

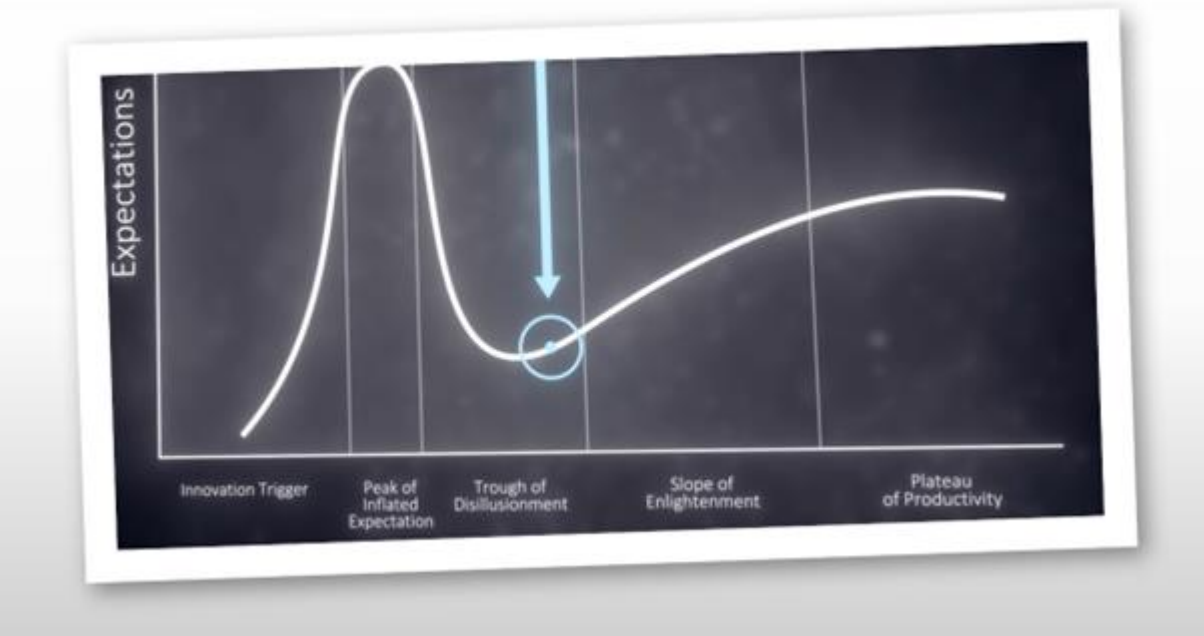
The image shows the Waterford and Carlow SETU campuses

Additive manufacturing is an outstanding solution to the manufacturing feasibility paradigm. For centuries designs have been constricted by what was feasible, depending on the materials, what the technology was able to make and what business models were able to afford. That is the fundamental difference with subtractive manufacturing. We start from a block of material and remove it until we find the object within.
As nature does, we grow parts, and that's exactly what Additive does by building parts layer by layer. The 3D printer is the fundamental piece of the ecosystem, but it's not the only one. There are consistent rigour and quality standards to keep. So, there are pre-stages when we have to prepare either the filaments, the powers or the liquid essence that we work with.
Certainly, several operations will happen afterwards: Powder removal, Support removal, Sintering and Thermal curing, and Quality control.
And that's what we call post process. All these stages have to be at the same level of quality.



The image shows Digital Thread development from Concept, Design, and Manufacturing to Operation and Compliant and innovative solution

So Additive Manufacturing is at an inflexion point because it's moving from prototyping to becoming an industrial solution.



The graph of Expectations development in terms of Innovation Trigger, Peak of Inflated Expectation, Trough of Disillusionment, Slope of Enlightenment and Plateau of Productivity

That is the moment we are in history. The industry is now ready to adopt. I am thinking of aerospace, automotive, and healthcare.
Precisely now is when an up-skilled workforce is needed, and that's what we are doing in the Southeast – A Batchelor of Science in Additive

Manufacturing. We are seeking innovative individuals that want to be part of this story.
Are you ready for a change?
Join the revolution

- ## Video: Course Structure

Regulated industries are adopting Additive Manufacturing potential changing forever things are made. There is an increasing demand for an up-skilled workforce able to understand and implement Additive Manufacturing capabilities. Here in South Est, we are leading the way with the introduction of a new Bachelor of Science in Additive Manufacturing.
This is a level 7 Major Award and 4 individual Minor Awards.

The words on the image: Level 7 Major Awards, Individual Minor Awards

1 – Introduction to Additive Manufacturing
2 – Design for Additive Manufacturing
3 – Additive Manufacturing Health & Safety and Regulatory Affairs
4 – Additive Manufacturing Lab Technologies & Post Processing

Are you an innovative individual seeking a new and exciting challenge?
New Bachelor of Science in Additive Manufacturing
Coming Soon

The image of the Technology Gateways board in SEAM