

What is Throughput and Why Does It Matter?

Throughput is an important concept that in general is defined as “the amount of material or items passing through a system or process.”

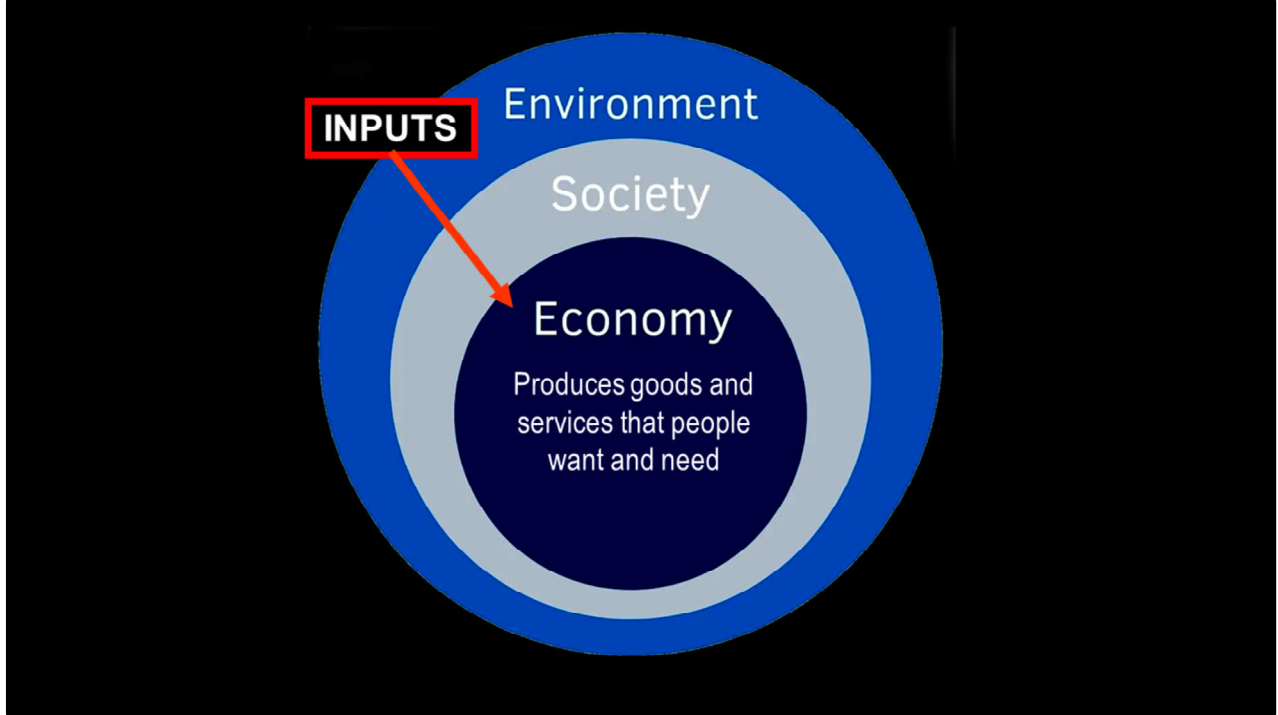
How does that work on planet Earth?



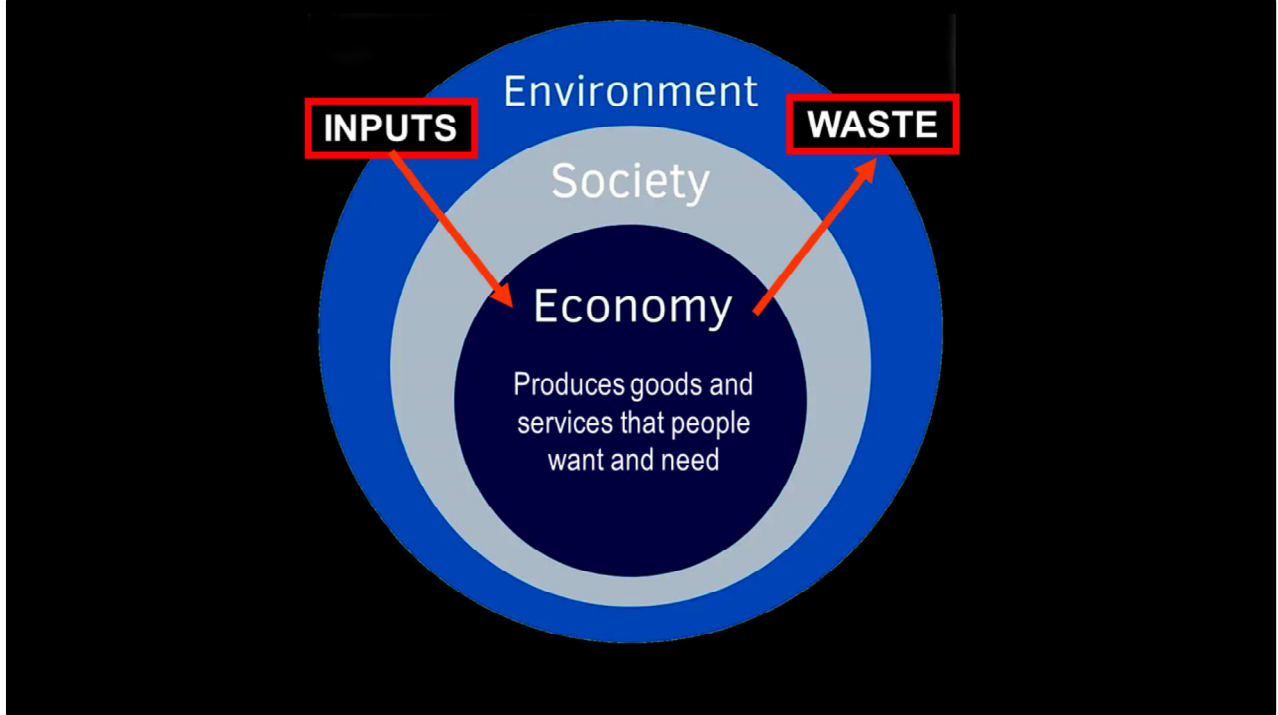
This model shows that human societies exist within the environment and that the economy is a system created by human societies. So, how do materials pass through this system?



The economy produces goods and services that people want and need.
So from where does the economy get the resources it transforms into goods and services that people want and need?



The economy reaches out into the environment for resources that it uses as inputs.



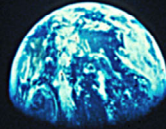
Then the economy deposits the wastes produced from the transformation of the inputs back into the environment.
And that is throughput.



So, why does throughput matter on our planet Earth?



An American family takes inputs from and deposits wastes into the environment at about a quarter of a billion semitrailer loads per year. And what's amazing to consider is that conventional economics does not even think about that – it is not included in their economic model.



“That’s a lot of throughput to abstract from - to leave out of our model! It all ends up as waste, but necessary waste to support our population at our standard of consumption, with our present technology. Better technologies, as well as a better ordering of our priorities, can reduce the throughput without lowering the quality of life.”

H. E. Daly and J. Farley, *Ecological Economics: Principles and Applications*. Washington: Island Press, 2011, p. 33.

But that is a lot of throughput to leave out of consideration

It matters because one wonders if the environment of Earth can sustainably provide and absorb that much throughput.

Fortunately, we can develop technologies and reorder our priorities to reduce that unsustainable amount of throughput without lowering our quality of life.