

# Introduction to System Dynamics with Vensim

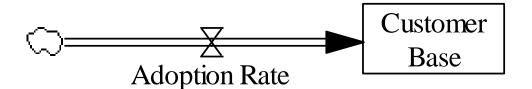
Tom Fiddaman 2022

# **Road Map**

<b>Vensim Mechanics</b>	System Dynamics	<b>Modeling Process</b>
Diagramming	Stocks & flows	Choosing a method
Equations	Feedback loops	Conceptualization
Units	Behavior modes	Debugging
Runs	Nonlinearity	Model testing
Managing constants	Equilibrium	Validation
Causal tracing	Representing behavior	Collaboration
Synthesim <sup>®</sup>	Archetypes	Automation
Data I/O	Molecules	Learning from surprise
Interfaces	Policy resistance	Presenting
Lookups	Events-Behavior-Structure	Change management



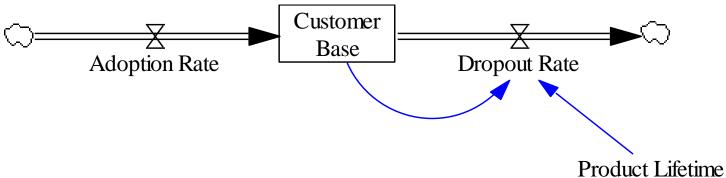
#### Model 0



- Accumulation
- Diagramming
- Writing equations
- STEP test input
- Ordinary simulation
- Seeing output



# **Model A**

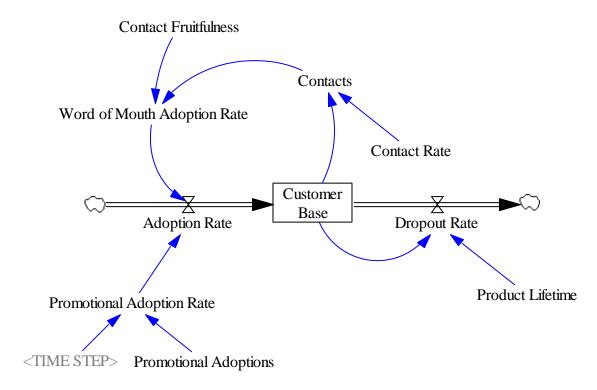


- Outflow & feedback
- Units
- Managing datasets



## **Model B**

- Growth loop
- A discrete event
- Causal Tracing





## **Model C**

- Custom graphs
- A mini control panel

