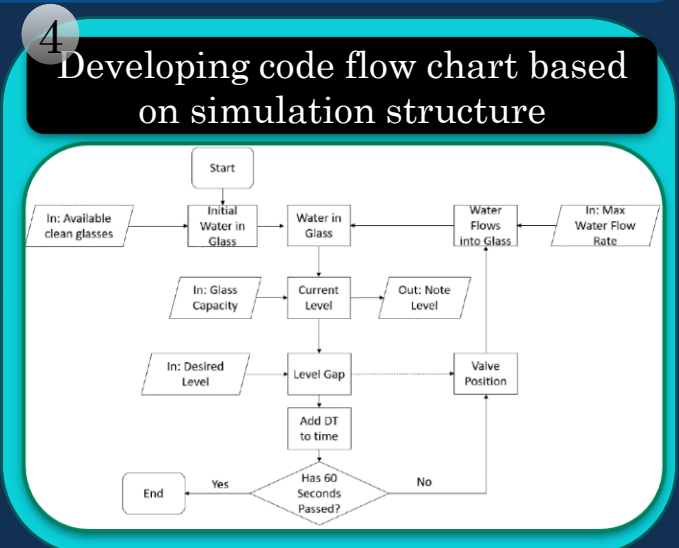
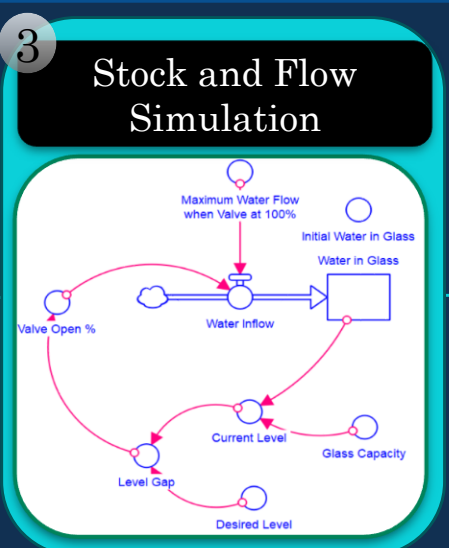
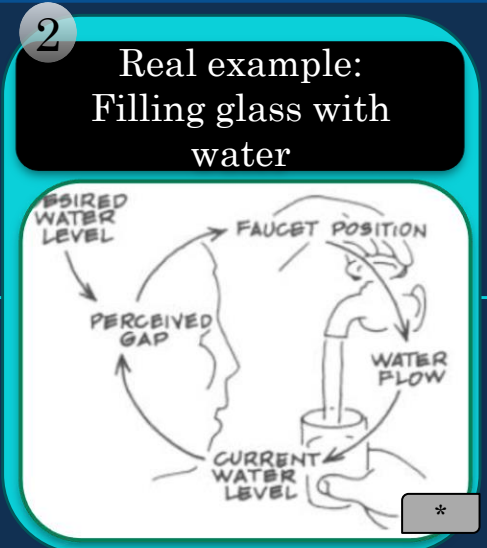
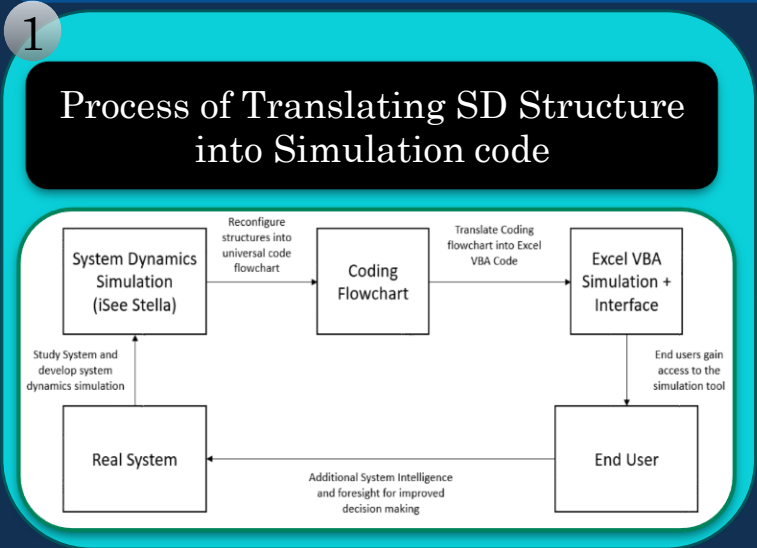


# Roots to New Branches

## Generic translation of System Dynamics Simulations into Code

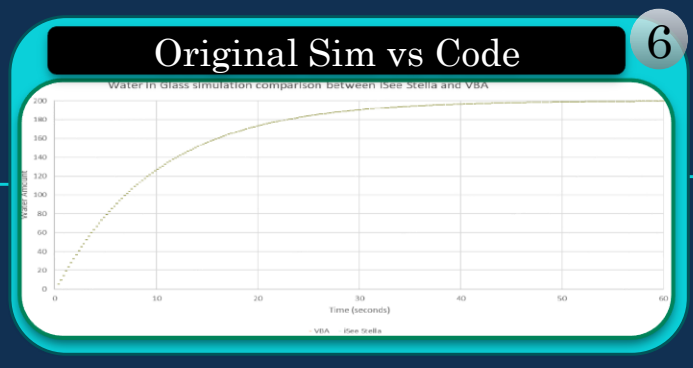
Corné du Plooy – Access To Medicines - KU Leuven - Belgium

The paper grapples with the intriguing challenge of converting system dynamics simulations into code, a crucial step for their broader adoption and seamless integration with other software systems.



**7** Explorative Interface for End User

**Successful Translation + Potential Integration**



**5** Develop code with proposed template [Example in VBA]

```

Sub GeneralSimulationCodeLayout()
    'Create variables using Dim _variable_ As TYPE
    Dim DT As Double
    Dim simStartTime As Double
    Dim simEndTime As Double
    'Assign values to constants:
    DT = 0.25
    simStartTime = 0
    simEndTime = 12
    'Initialise the simulation variables with initial conditions:
    'Start Simulation Loop - For Loop
    For time = simStartTime To simEndTime Step DT
        'Perform Simulations Calculations, all equations like those in converters of ISee Stella:
        'Calculate the equations within the flows:
        'Use Euler to calculate the next value of each Stock:
        'Store Values for future use:
    Next
End Sub
    
```

\*Ovaska J.P. (2014). "Systems Thinking Example 3: the faucet", JP Ovaska: Thoughts about complexity, systems thinking and sustainability