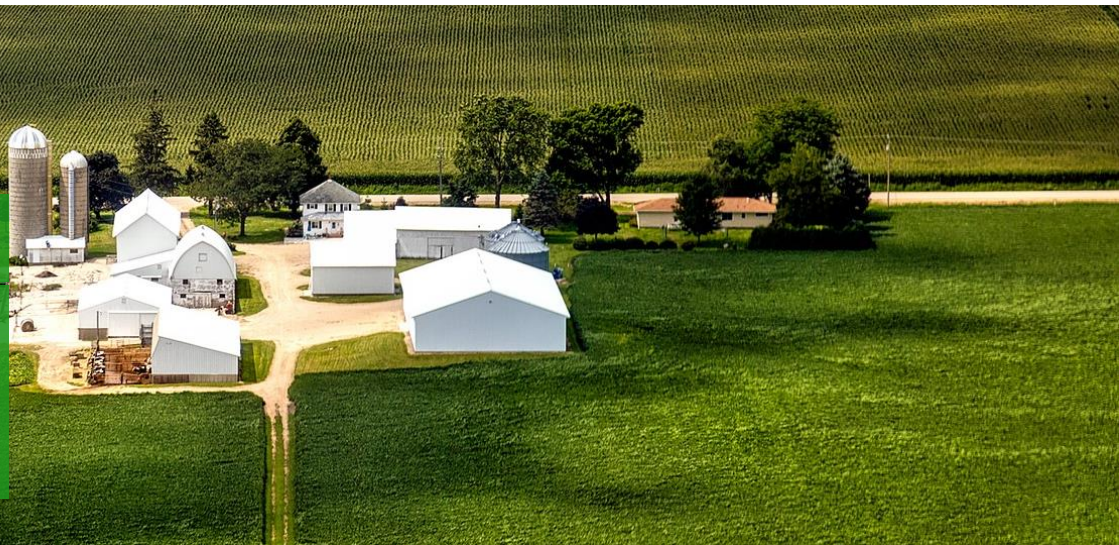




DIGITAL TOOLS FOR RURAL DEVELOPMENT PLANNING

SYSTEM DYNAMICS MODELLING

SEPTEMBER 30, 2022



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CONTENTS

- 1 – SDM Objective & Method
- 2 – From the template model to the local SDM
- 3 – Building Scenarios: Policy Options Explorer

1. SDM Objective and Method

OBJECTIVE OF THE SDM:

System Dynamics Modelling (SDM) helps us



1) understanding what is happening in rural areas
interrelations between ENVIRONMENT, SOCIETY, ECONOMY
dynamic relations: effect and cause have continuous interaction



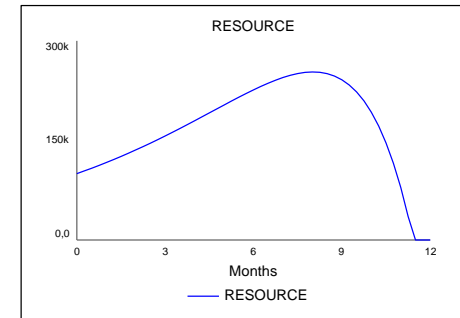
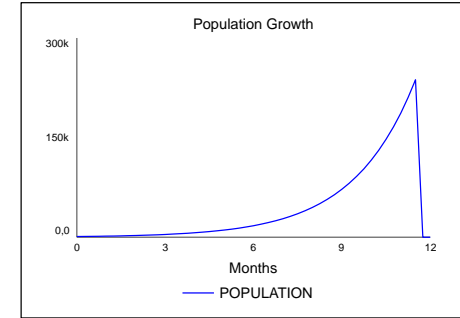
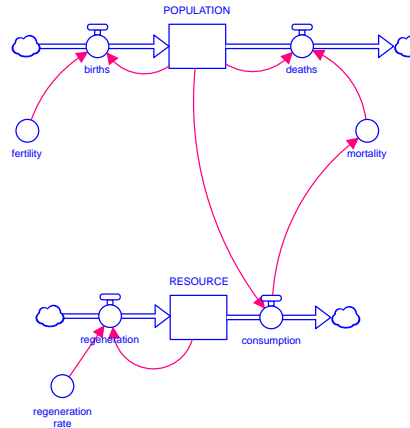
2) envisioning possible scenarios to reach goals

“Applying systems thinking principles and tools enables you to achieve better results with fewer resources in more lasting ways”

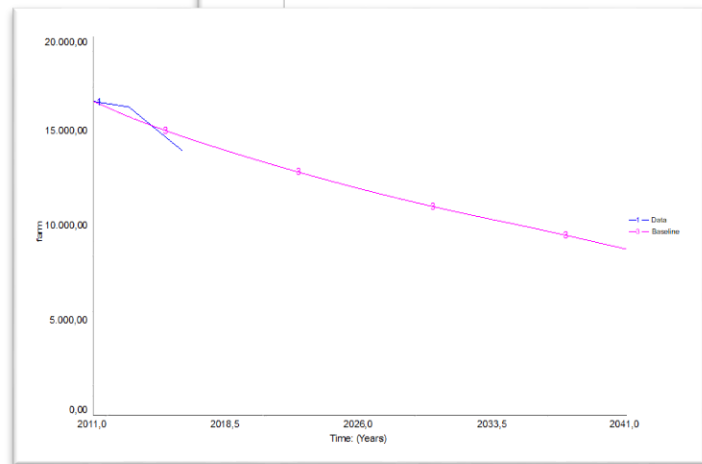
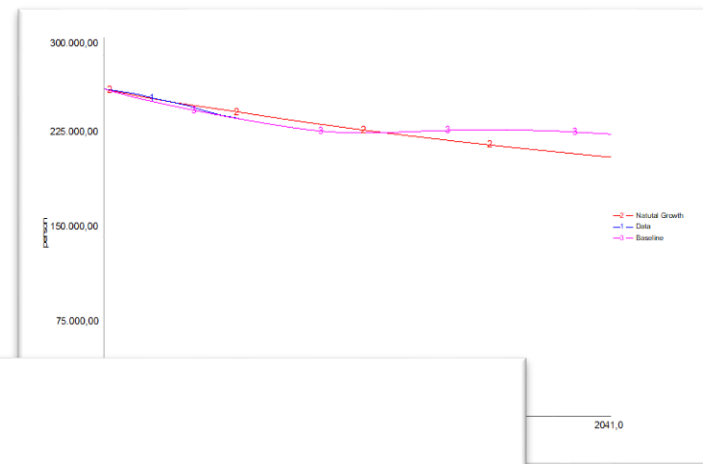
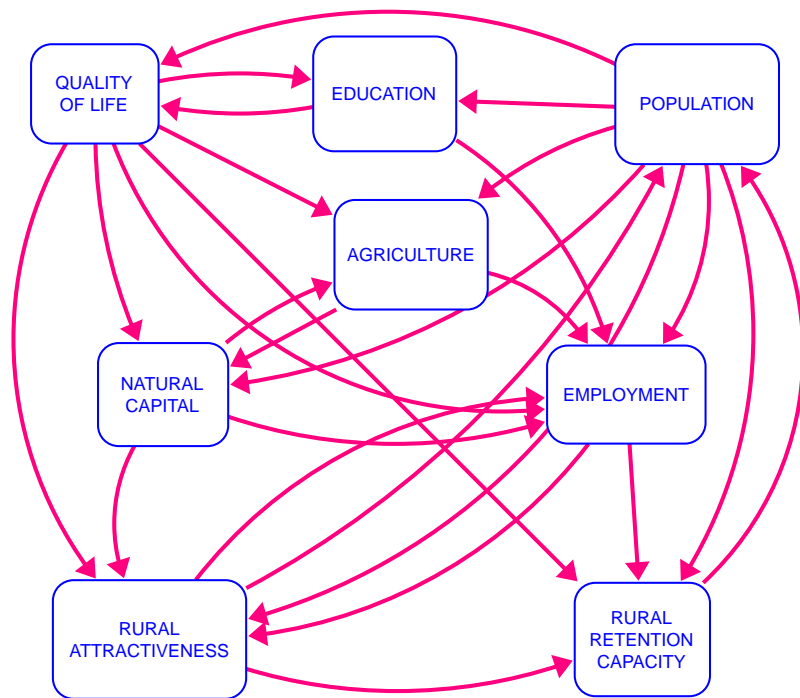
Systems Thinking For Social Change

1. SDM Objective and Method

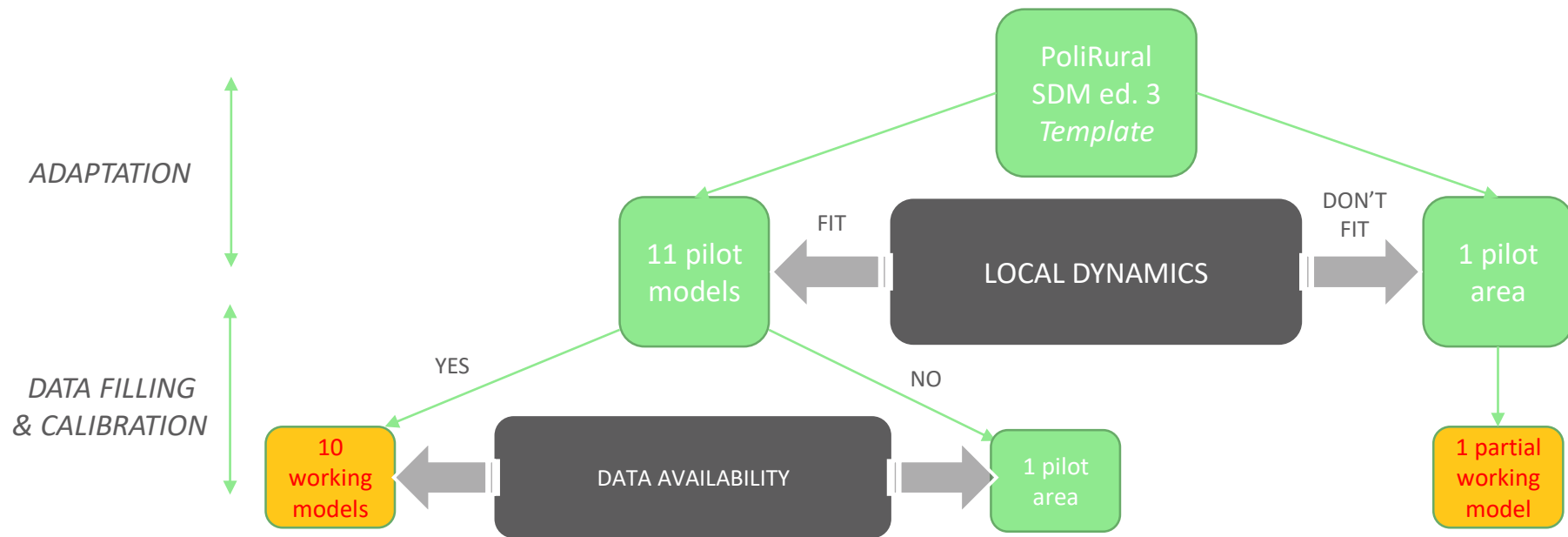
TRENDS → BEHAVIOUR
RELATIONS → STRUCTURE



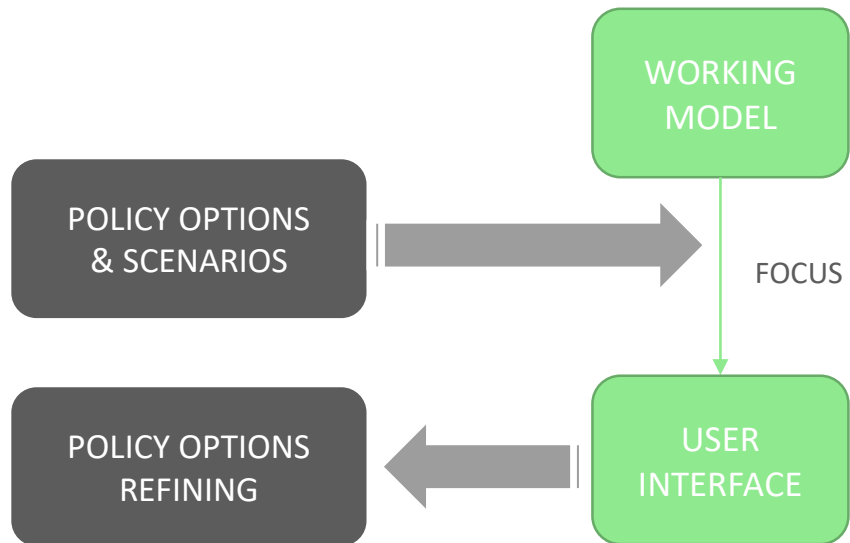
1. SDM Objective and Method



2. From the template model to local SDM

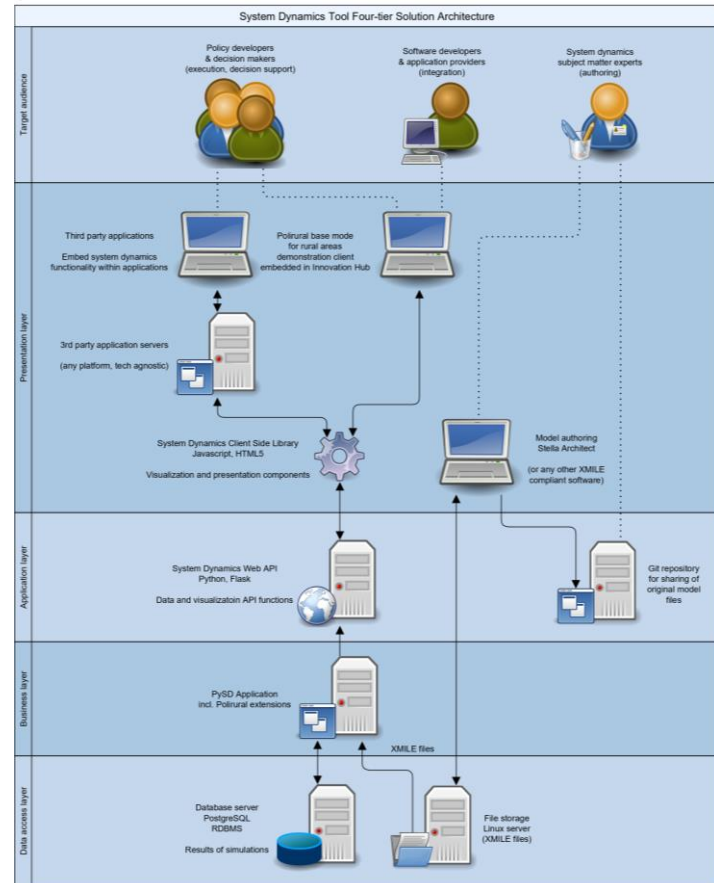


3. Building Scenarios: Policy Options Explorer



3. Building Scenarios: Policy Options Explorer

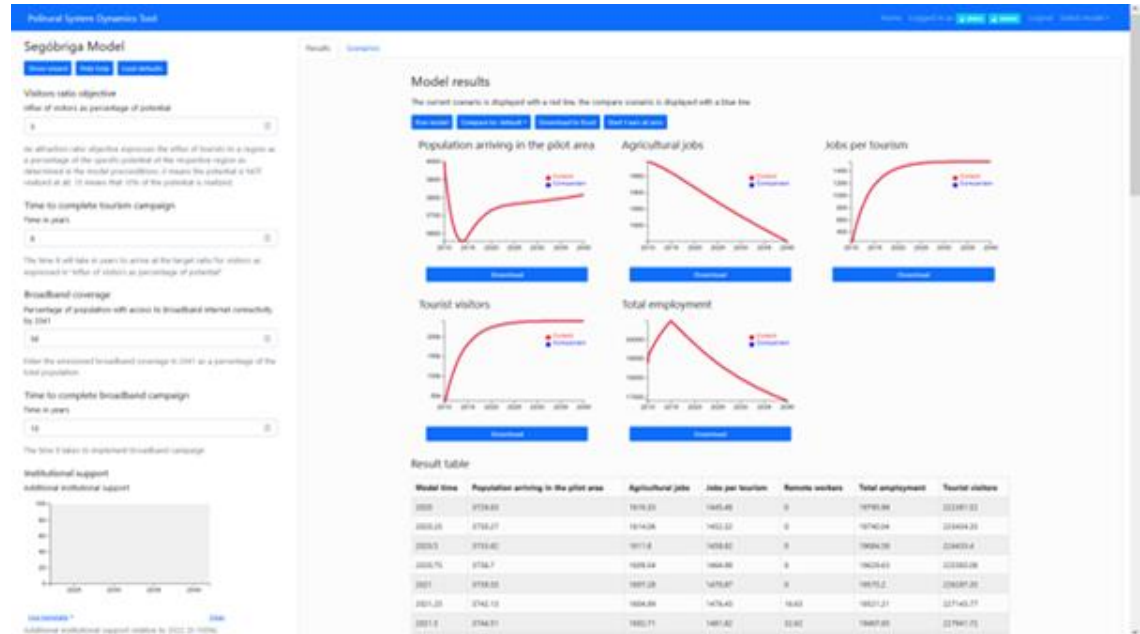
- Build model in standards compliant modelling software
- Export to SD interchange format
- Convert interchange format to executable code
- Build a web application that can execute the model and visualize results



2. Building Scenarios: Policy Options Explorer

CAVEATS

- This is an experiment to raise issues and conversations with the different stakeholders
- Model has much room for improvement
- It will never have predictive power





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