# “The room where it happens”
# Co-producing scenarios for the FACETS project

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**Feb 2022 Water Institute Symposium**

USDA United States Department of Agriculture National Institute of Food and Agriculture

Award Number: 2017-68007-26319

UNIVERSITY OF GEORGIA

Albany State University
University System of Georgia

UF Water Institute
UNIVERSITY of FLORIDA

# Floridan Aquifer

FACETS

Floridan Aquifer Collaborative Engagement for Sustainability

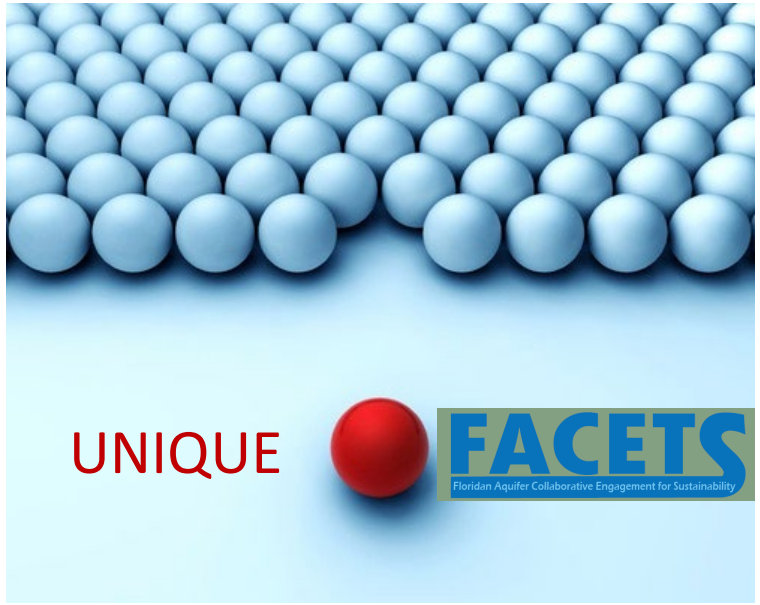


Image Source: https://www.searchenginejournal.com/how-unique-can-an-seo-firm-really-be/44379/

# Participatory Modeling Process (PMP)

brings scientists and stakeholders together to

- co-create models and collaboratively interpret results
- explore economic and environmental tradeoffs among alternative future scenarios
- understand changes needed to achieve agricultural water security and environmental protection
- develop a shared understanding of the problem

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# PMP Network

## PMP Membership

**Project Team**
(Researchers, Extension)

UNIVERSITY OF GEORGIA

UF | Water Institute
UNIVERSITY of FLORIDA

Albany State University

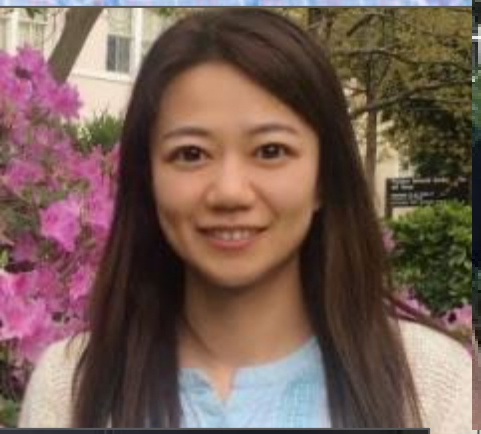
**Stakeholders**
(regional experts rec'd by PAC)

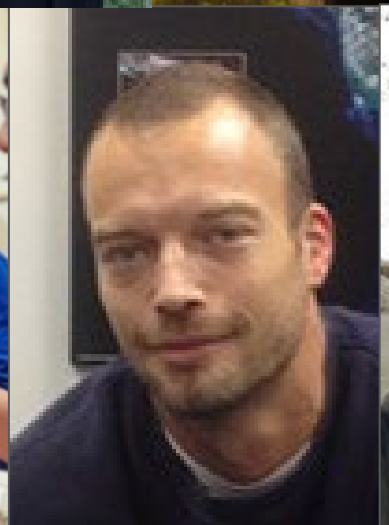
* Stakeholders highlighted in orange are members of PMP and PAC

| GEORGIA STAKEHOLDERS |
|---|
| **Hillside Farms,** *Mike Newberry* |
| **RW Griffin,** *Greg Murray* |
| **UGA Sustainable Forestry Initiative,** *Chase Cook* |
| **Southern Forestry Consultants,** *Michael Dooner* |
| **Flint River Soil & Water Conservation District,** *Perri Campis* |
| **Georgia Environmental Protection Division,** *Anna Truszczynski* |
| **The Nature Conservancy,** *Sara Gottlieb* |
| **Flint Riverkeeper and USGS,** *Elliott Jones* |
| **Jones Ecological Center,** *Steve Golladay* |
| **City of Camilla,** *Steve Sykes* |
| **Baker County,** *Connie Hobbs* |
| **Georgia Farm Bureau,** *Jeffrey Harvey* |
| **Georgia Forestry Commission,** *Bert Early* |

| FLORIDA STAKEHOLDERS |
|---|
| **Brock Farms,** *Kirk Brock* |
| **Grimmway Farms,** *Jason Chandler* |
| **Florida Farm Bureau Federation,** *Charles Shinn* |
| **Rayonier Inc.,** *Dan Roach* |
| **Usher Land and Timber Inc.,** *Eric Handley* |
| **Suwannee River Water Management District,** *Hugh Thomas* |
| **Florida Department of Agriculture and Consumer Services,** *Kathryn Holland* |
| **Florida Department of Environmental Protection, Transitioning from,** *Kevin Coyne* |
| **Santa Fe Springs Protection Forum,** *Stacie Greco* |
| **Ichetucknee Alliance,** *Lucinda Merritt* |
| **Audubon,** *Jacqui Sulek* |
| **The Nature Conservancy ,** *Lesley Bertolotti / David Royal* |

# Doing much of the heavy lifting … graduate students and post-docs





# Original Process Design

## = 8 workshops, 5 years

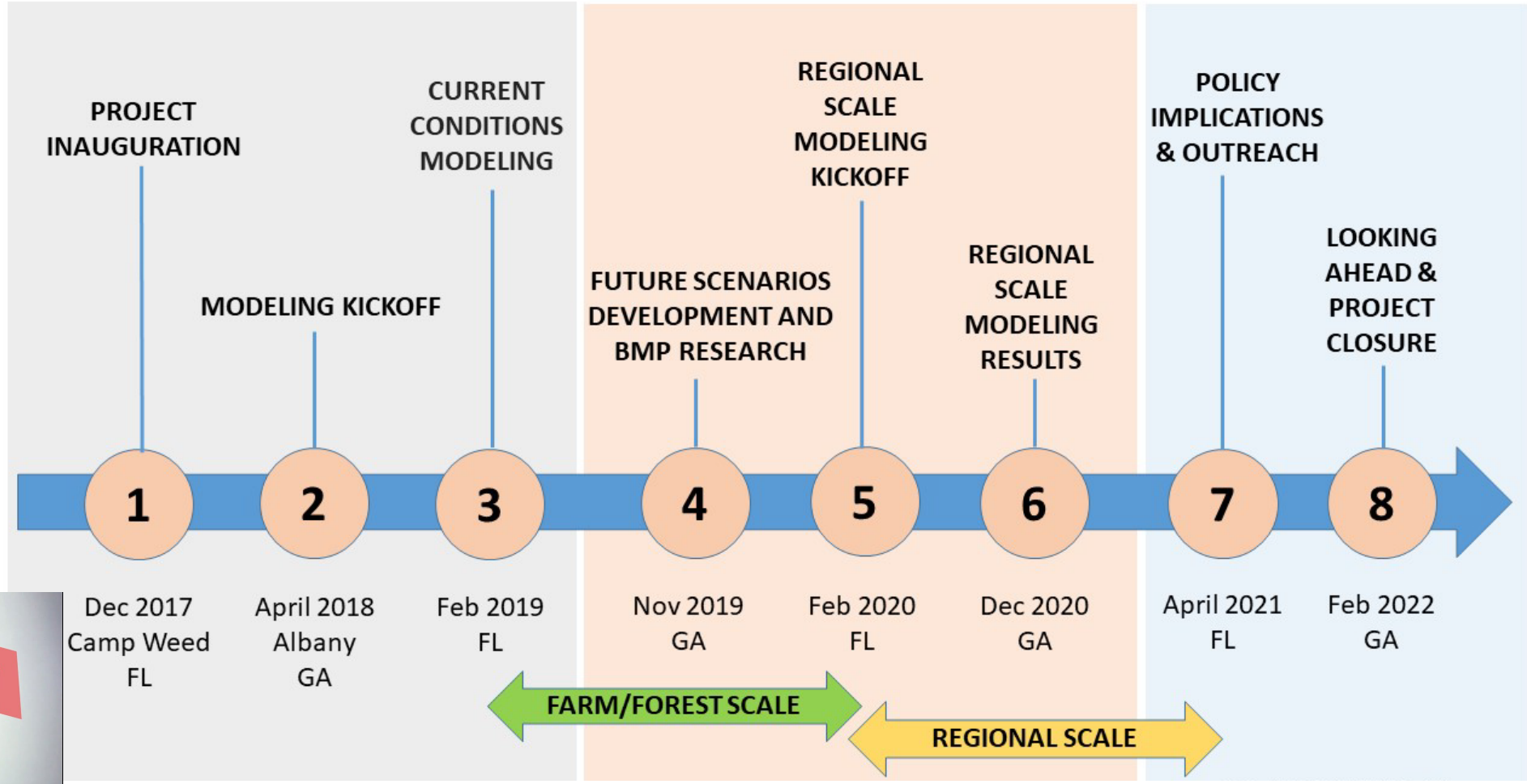


Image Source: https://www.youtube.com/watch?v=u7bgv0nhhIs

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**Dec. 2017 – March 2020**
**In Person**

**March 2020 – Currently**
**Online – Zoom**

# Social Learning Research FRAMEWORK

## 3 PHASES

### Community Building

**Project Goal**
To create a space to share ideas, expertise, and experiences. So that we can integrate our understandings, productively discuss issues, and co-develop the model.

**Research Themes**

1. ***Group Composition***
2. ***Experience and Expertise***
3. ***Expectations***

### Knowledge Integration Co-Production

**Project Goal**
To co-develop model outputs (at farm and watershed scales) and interpret results
- Current Practices
  - management systems /rotations
- Scenarios
- Trade Offs

**Research Themes**

1. ***Participation & Power***
2. ***Integration & Learning***
3. ***Time Cost Benefit***

### Assessment & Communication

**Project Goal**
To reach new understandings, solidify new relations and work toward communicating outcomes.

**Research Themes**

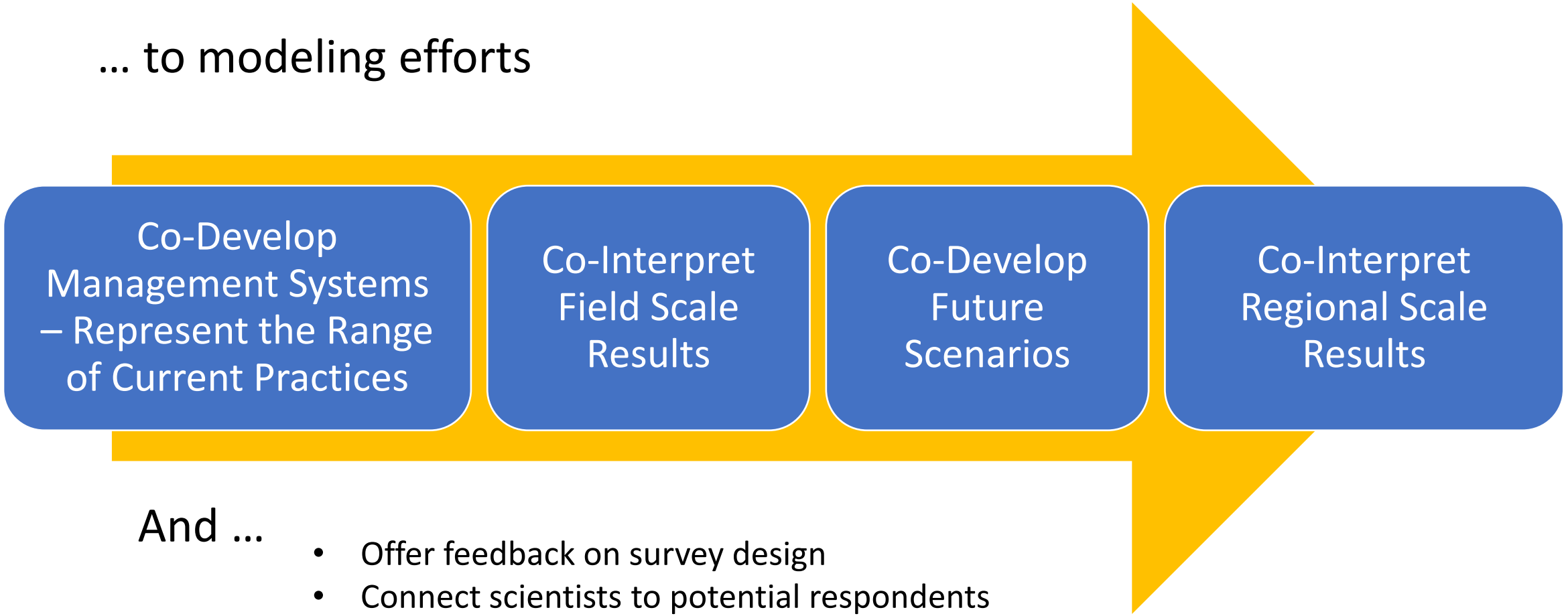
1. ***Outcomes: Divergence & Consensus***
2. ***Reflection on Insights & Utility***

***How is TRUST built and maintained throughout the process?***

***What lessons are learned from the iterative process management?***

# STAKEHOLDER CONTRIBUTIONS

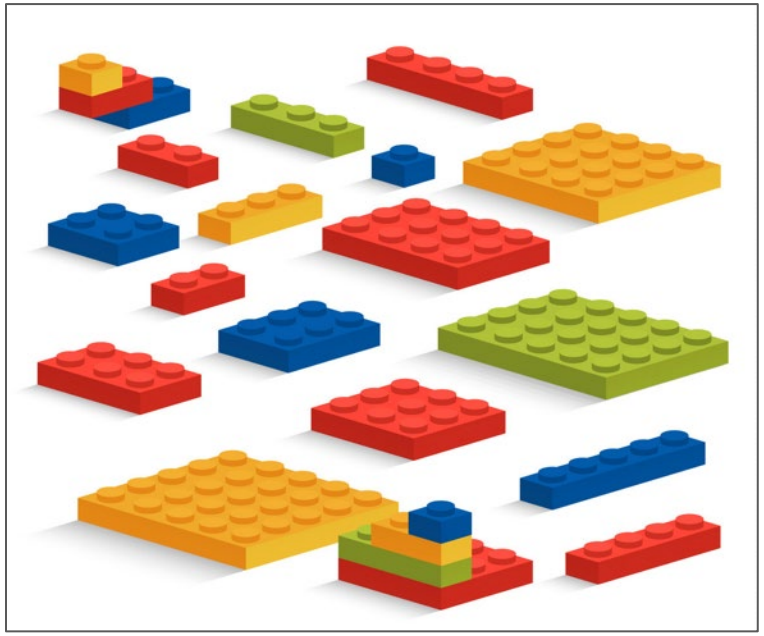
… to modeling efforts




And …

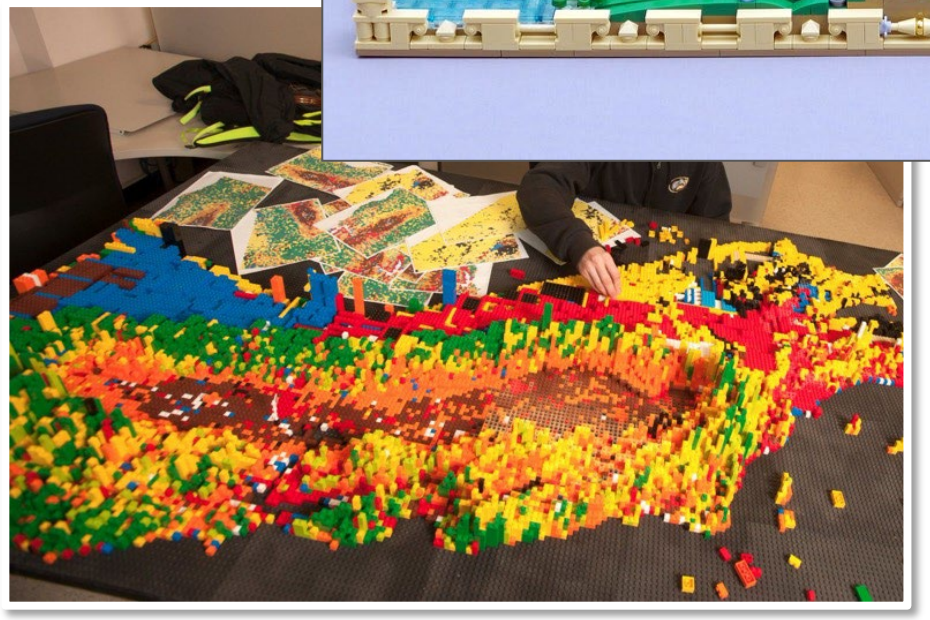
- Offer feedback on survey design
- Connect scientists to potential respondents
- Contribute to Water School program
- Provide expertise on “best practices” for participatory modeling
- Help the team craft FACETS key messages from key findings
- Consider implications & utility of FACETS findings

# Co-Developing Modeling Components



Farm/Forest-Scale Models

Regional/Watershed-Scale Models



a) Management Systems

b)Future Scenarios

# Session Abstract

- Who was in "the room" & **how were modeling components generated together?**
  - expectations for the participatory process among project team members and stakeholders
  - perceived contributions to the process and outcomes (focusing on participation, integration and power relations)
  - trust dynamics (in **product, process, and people**)
- How did a virtual exchange space impact interactions and outcomes.

# Focus Groups

## March, April 2022

- To explore the **process of knowledge co-production** through modelling in FACETS.
- Discussions will examine when and how PMP members came together to develop core modeling components **a) management systems and b) scenarios**

- Together, we will review the engagement process to
  - identify key moments that added value or raised concerns
  - understand the dynamics of participation (who were key players, when and how)
  - talk about examples of expertise integration
  - consider transaction costs of engagement (time spent vs. benefit gained)
  - begin to reflect on how we could have done this differently …

Image Source; https://climate.nasa.gov/faq/16/is-it-too-late-to-prevent-climate-change/

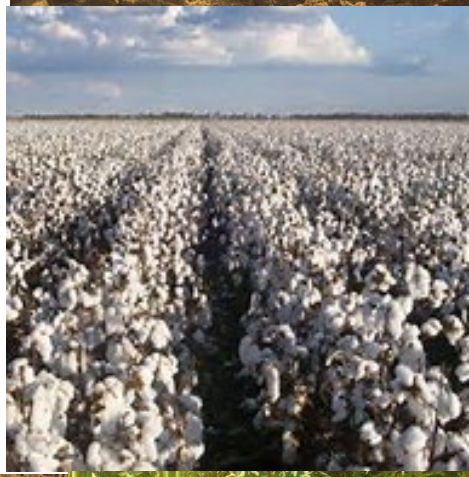
Image Source; https://www.lifehacker.com.au/2012/11/sneak-peek-misuse-reaches-new-peaks/

# Results of Scenario Co-Development Process

i.e., scenarios selected to model in Florida

**Phase 1**

- Current Conditions
- Restoration Forestry (long leaf pine) Everywhere
- Restoration Forests on a % non-irrigated ag lands
- All current forest land suitable for ag switches to row crops



Phase 2

- Rotational Production (Integrating Livestock into Row Crops)
- High Tech Precision Ag
- Likely Expansion – FL 2070
- Solar: % ag land to solar, with option of native habitats

# How did we get here?

- So many conversations
- 15 unique opportunities to interact
  … probably MANY more

Image Source: https://www.180biz.com/blog/JOT-two-steps-forward-one-step-back

# Multiple interactions & opportunities for input & feedback on SCENARIOS

1. **2019 Sept** Email from facilitator to Stakeholders
2. 2019 Sept **Project Annual Meeting** Discussion
3. 2019 Nov **Workshop 4 PMP Network** Discussion
4. 2020 March **Meeting Facilitators x Modelers**
5. 2020 May **Simple Scenarios at Workshop 5 Online Survey of PMP Network**
6. 2020 Dec **Zoom Meeting Facilitators x Modelers**
7. 2021 Sept **Webinar with PMP stakeholders**
8. 2021 Oct **Zoom Meeting PMP network**
9. 2021 Oct **"Office Hours" on Zoom: FL stakeholders**
10. 2021 Nov. **Phone Follow Up w FL stakeholder**
11. 2021 Nov **Email Exchange among Modelers x Facilitation Team**
12. 2021 Dec **Post 1 Zoom Meeting with Facilitators**
13. 2021 Dec **Online Survey to all FL PMP network**
14. 2022 Jan Modeling Team Discussions, selections and final proposal - **shared via email with PMP network**
15. **2022 Feb FACETS PAC Zoom Meeting**
16. **???**

**The ROOMS where it happened**

CAVEATS

- Not representing all Post 1 discussions
- Slight FL Bias

# Diverse goals for interacting

- Share experience and familiarity with scenarios
- Brainstorm scenarios of interest
- Understand the why’s
- Discuss sensitivities
- Add ideas
- Manage Expectations
- Consider feasibility & confidence (from modeling perspective) – Easy/Out of bounds
- Rank
- Re-rank
- Select final suite

Image Source: https://www.tlnt.com/the-first-4-steps-to-creating-a-great-company-culture/

1. 4 Simple Scenarios – Exercise the models

2. Co-Develop and discuss 18 potential scenarios for Florida

3. Modeler Ranking: Very Course
Yes-Can Do, Maybe/ No, Do Not do this!

4. FL PMP Preferences: More Refined
-- 7 rose to the top, rank them!
-- Comfortable letting these 8 go?

5. Modelers RE-order: According to feasibility
-- need for data, what the models will struggle to simulate

6. List of 8 scenarios in two phases

# Observations on Content

*** how we choose scenarios

Image Source: https://www.beautifullife.info/industrial-design/15-creative-bookends/

Image Source: https://learnthis.ca/2011/11/17-ways-to-be-more-realistic/

# Observations on Content

*** only 4/19

not comfortable letting some scenarios go

# Observations on Process

*** Oh, the COVID!

- **Info Overload in Zoomlandia**
  - Presentation TMI
  - No soak time
  - Time lapse between interactions
    Difficult to remember from one meeting to next – Repetitive (?)
- **FL X GA different models & contexts**
  = parallel pathways
  Wicked temptation to compare & contrast
- **So much feedback**
  - Consistently monitoring outcomes & satisfaction
  - How to document & internalize broadly?
  - What is important? What is actionable?

Image Source: https://thegauntlet.ca/2021/03/18/ooh-hell-is-a-place-on-earth-zoom-university/

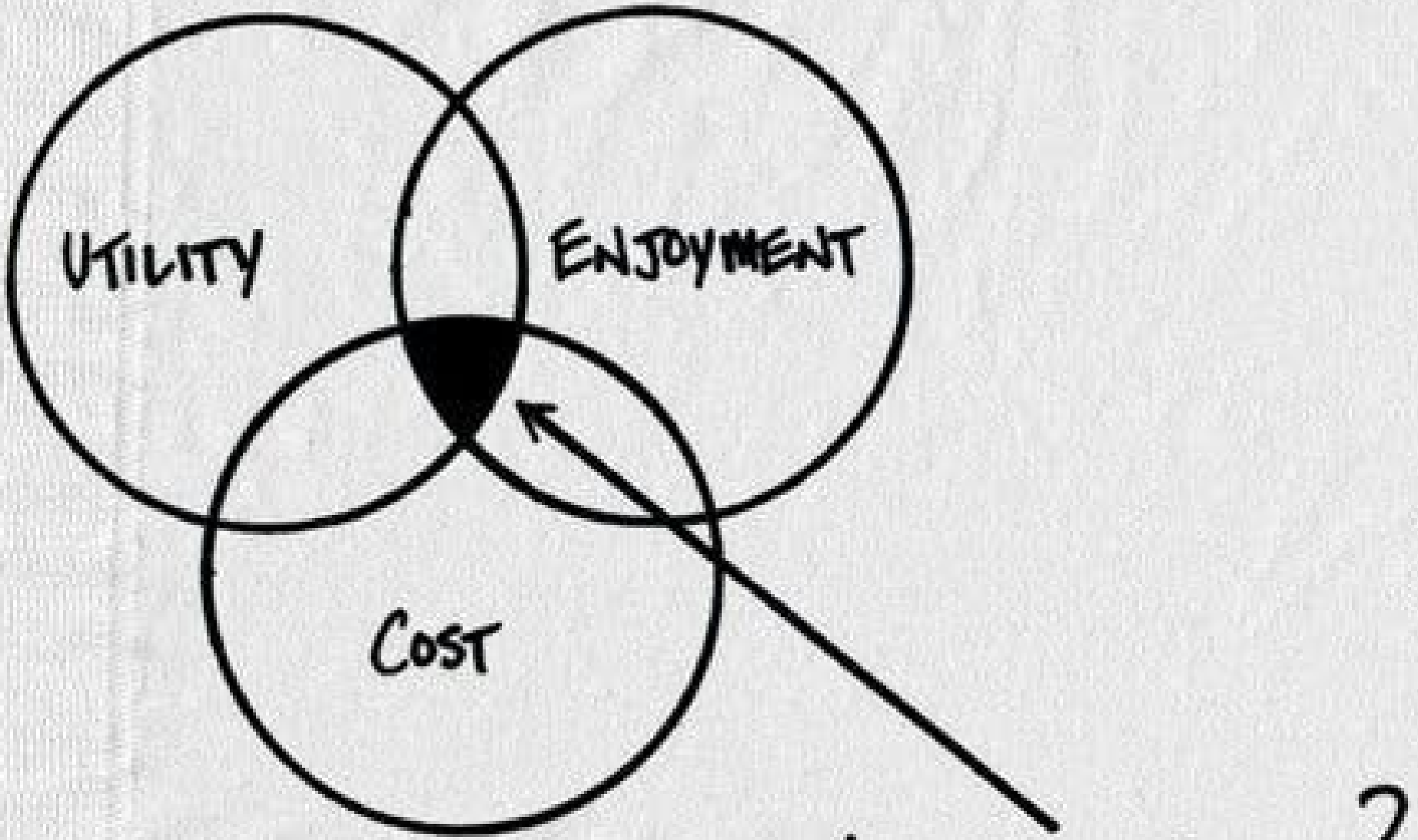



Image Source: https://www.nytimes.com/2016/05/10/your-money/three-ways-to-think-about-is-it-worth-it.html

# Stay Tuned!

*No one else was in the room where it happened….*

*No one really knows how the game is played*
*the art of the trade*
*how the sausage gets made*
*we just assume that it happens….*

*But no one else was in the room where it happened*

*…We never really know what got discussed…*
*…When you got skin in the game, stay in the game …*

*I wanna be in the room where it happens*

https://www.youtube.com/watch?v=WySzEXKUSZw

1:10

# Thank You!

FACETS

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USDA United States Department of Agriculture

National Institute of Food and Agriculture

UF University of Florida

University of Georgia

Auburn

Albany State University

University System of Georgia