NAVIGATE Webinar,
30 June 2021

Navigating scenario ensembles

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CLIMATE INTERACTIVE

International Institute for Applied Systems Analysis
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News & Views | Published: 03 March 2021

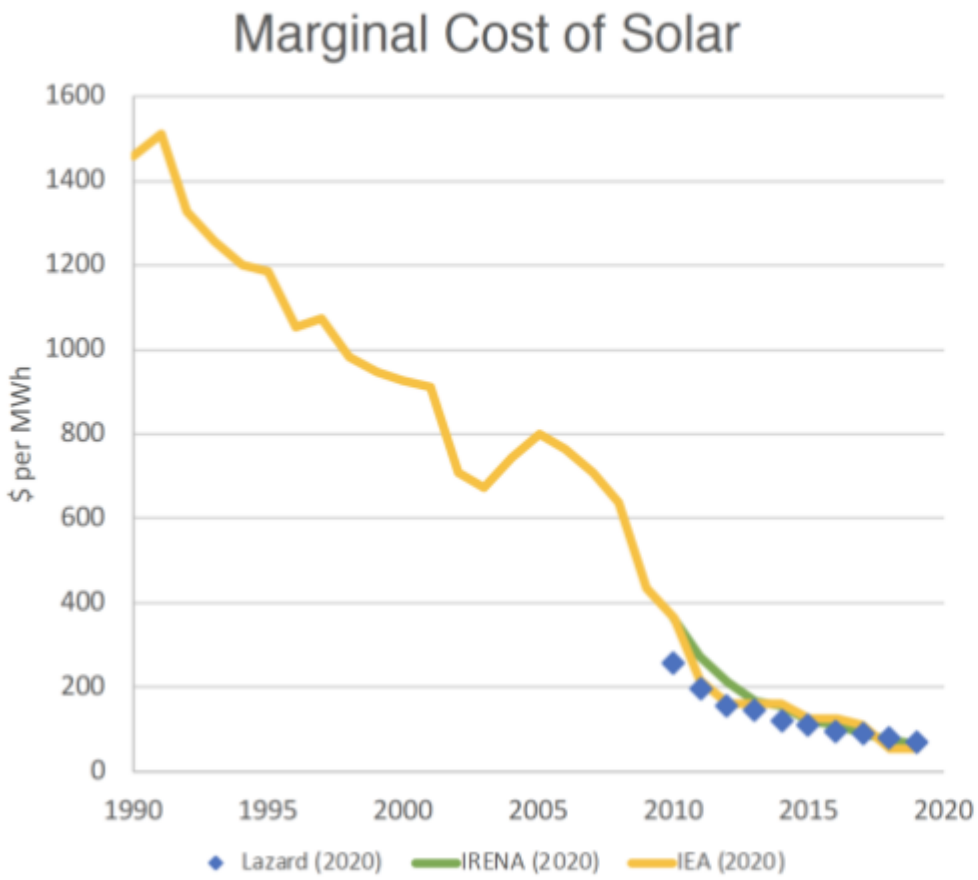
MITIGATION SCENARIOS

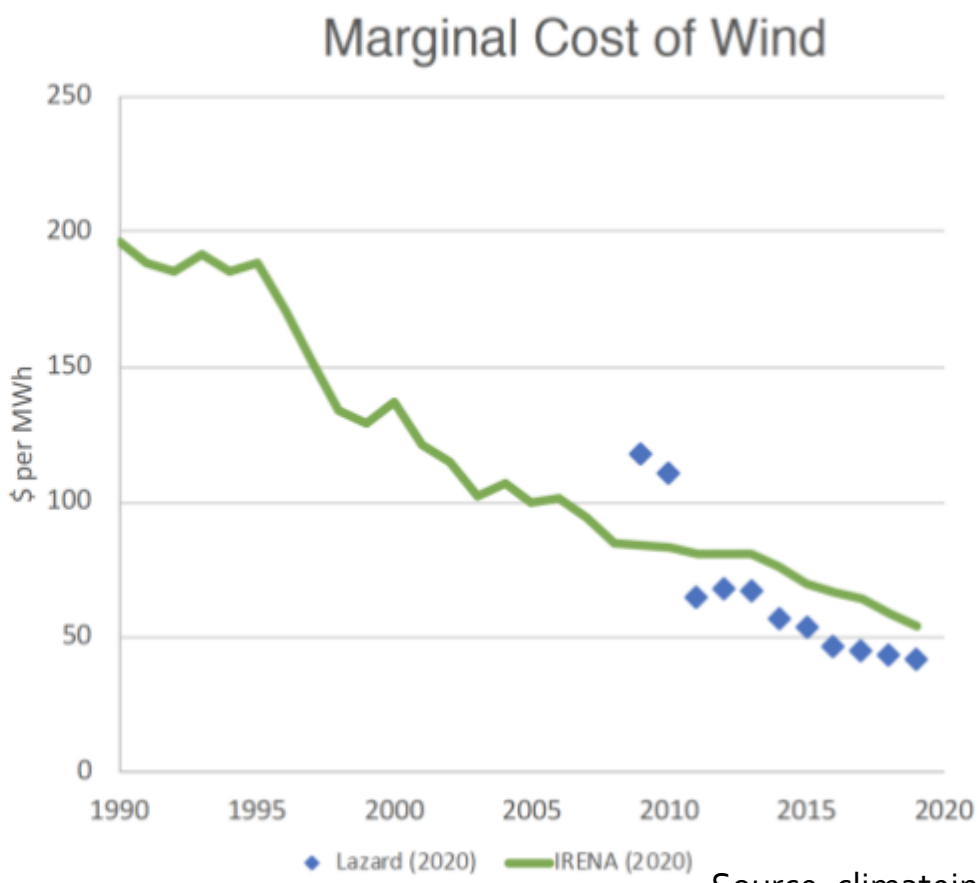
Drivers of photovoltaic uncertainty

Sibel Eker

1. PV uncertainty
2. Dealing with uncertainty
3. Scenario ensembles

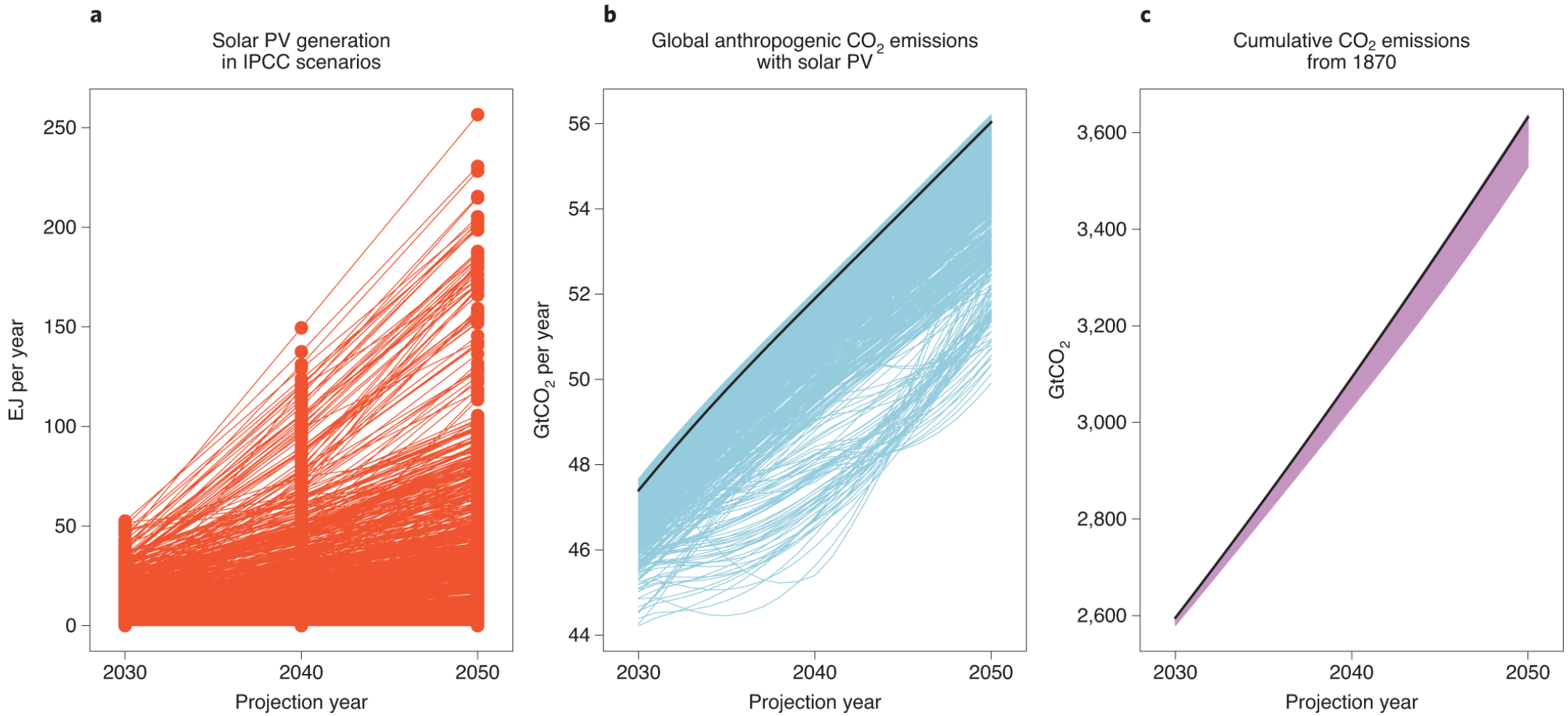
History: Marginal Cost of Wind and Solar 1990-2019





Source: climateinteractive.org

1. PV uncertainty



Source: Eker (2021)

1. PV uncertainty

2. Dealing with uncertainty

Table 5 Synthesised uncertainty matrix

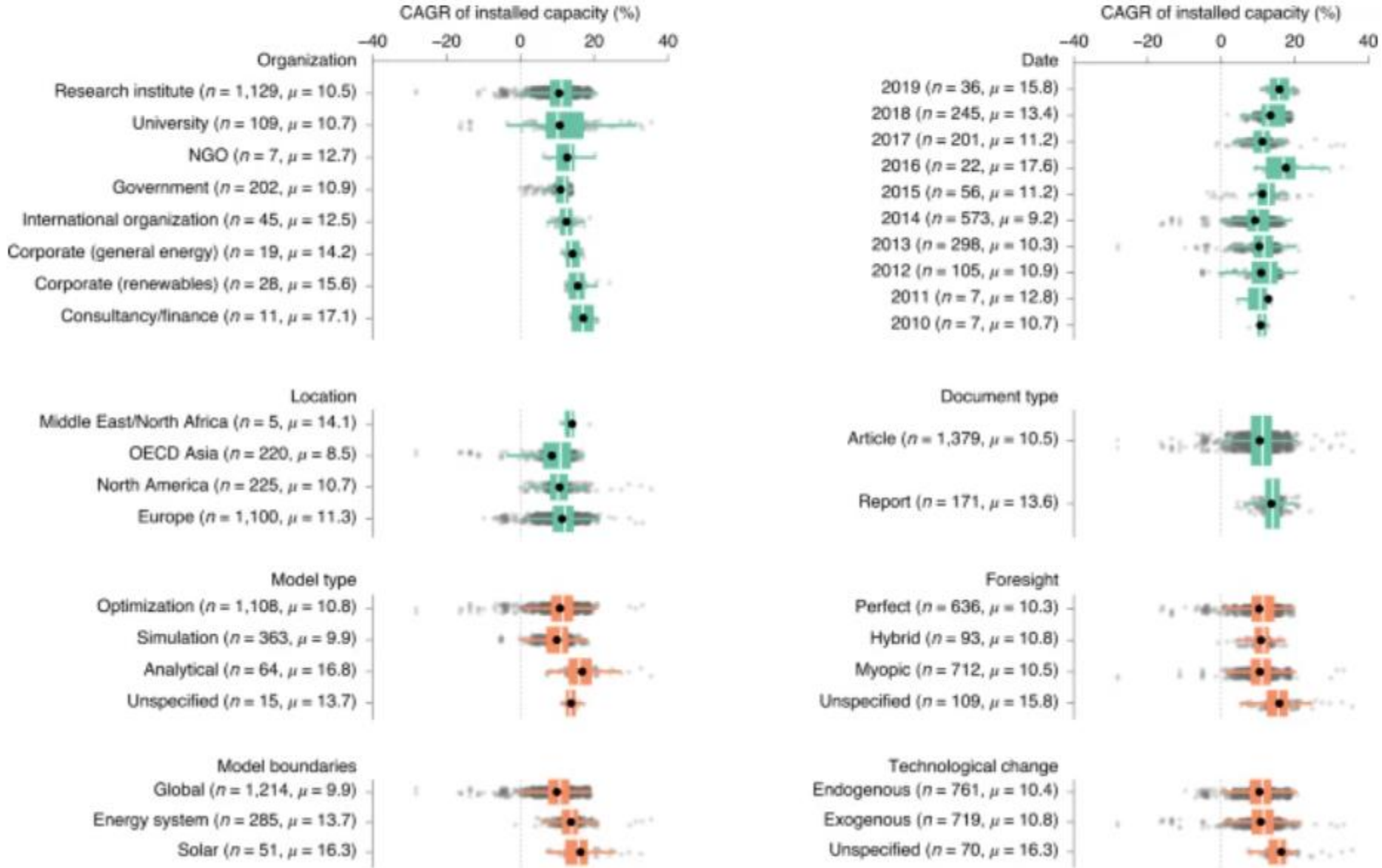
		Level				*Nature*		
Location		*Level 1: shallow uncertainty*	*Level 2: medium uncertainty*	*Level 3: deep uncertainty*	*Level 4: recognised ignorance*	*Ambiguity*	*Epistemology*	*Ontology*
System boundary								
Conceptual model								
Computer model	Model structure							
	Parameters inside the model							
	Input parameters to the model							
Input data								
Model implementation								
Processed output data								

Source: Kwakkel et al. (2010)

Table 5 Synthesised uncertainty

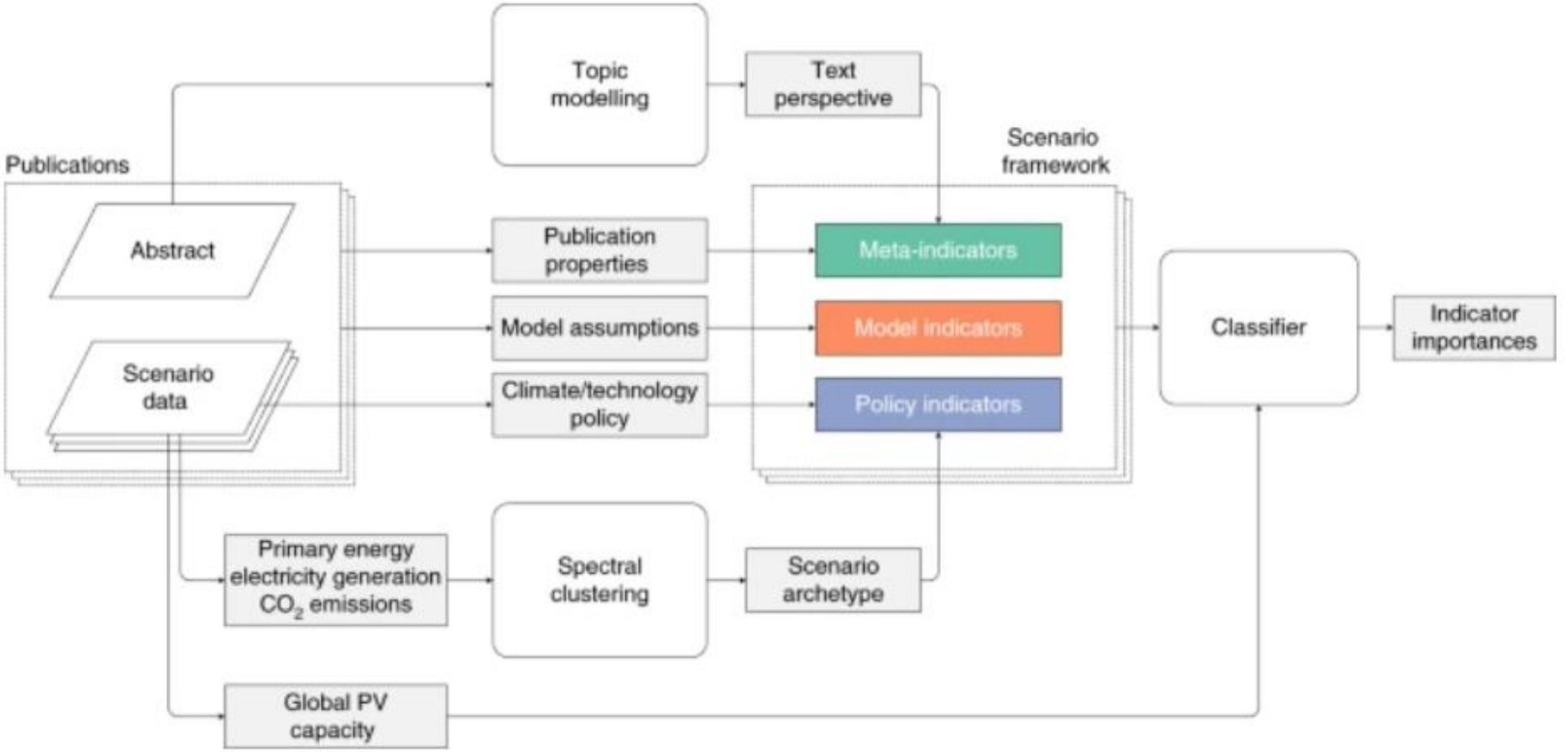
Location		*Level 1: shallow uncertainty*	*Le me unce*
System boundary			
Conceptual model			
Computer model	Model structure		
	Parameters inside the model		
	Input parameters to the model		
Input data			
Model implementation			
Processed output data			

Fig. 3: Visualization of projected PV growth in the overall ensemble, grouped by indicators.



3. Navigating scenario ensembles

Fig. 2: Workflow of the analysis and data sources.



News & Views | Published: 16 April 2018

DECISION SUPPORT

A few scenarios still do

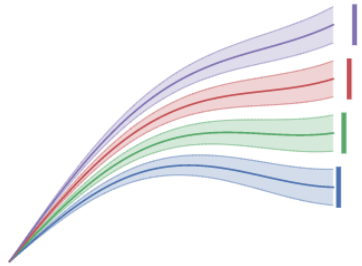
Vanessa Schweizer

Perspective | Published: 25 November 2020

Achievements and neec scenario framework

Brian C. O'Neill, Timothy R. Carter, Kristie E Kriegler, Benjamin L. Preston, Keywan Riahi, J Carlisle, Cecilia Conde, Jan Fuglestvedt, Carol Ramon Pichs-Madruga

Nature Climate Change **10**, 1074–1084 (2020) | Cite this article



pyam

analysis and visualization
of integrated-assessment
& macro-energy scenarios

Watch 9

Navigation

pyam: analysis and visualization of integrated-assessment & macro-energy scenarios

Release v1.0.0.

License Apache 2.0 | pypi v1.0.0 | Anaconda.org 1.0.0 | Last updated 29 Jun 2021

code style black | python 3.7 | 3.8 | 3.9 | pytest passing | docs passing | codecov 94%

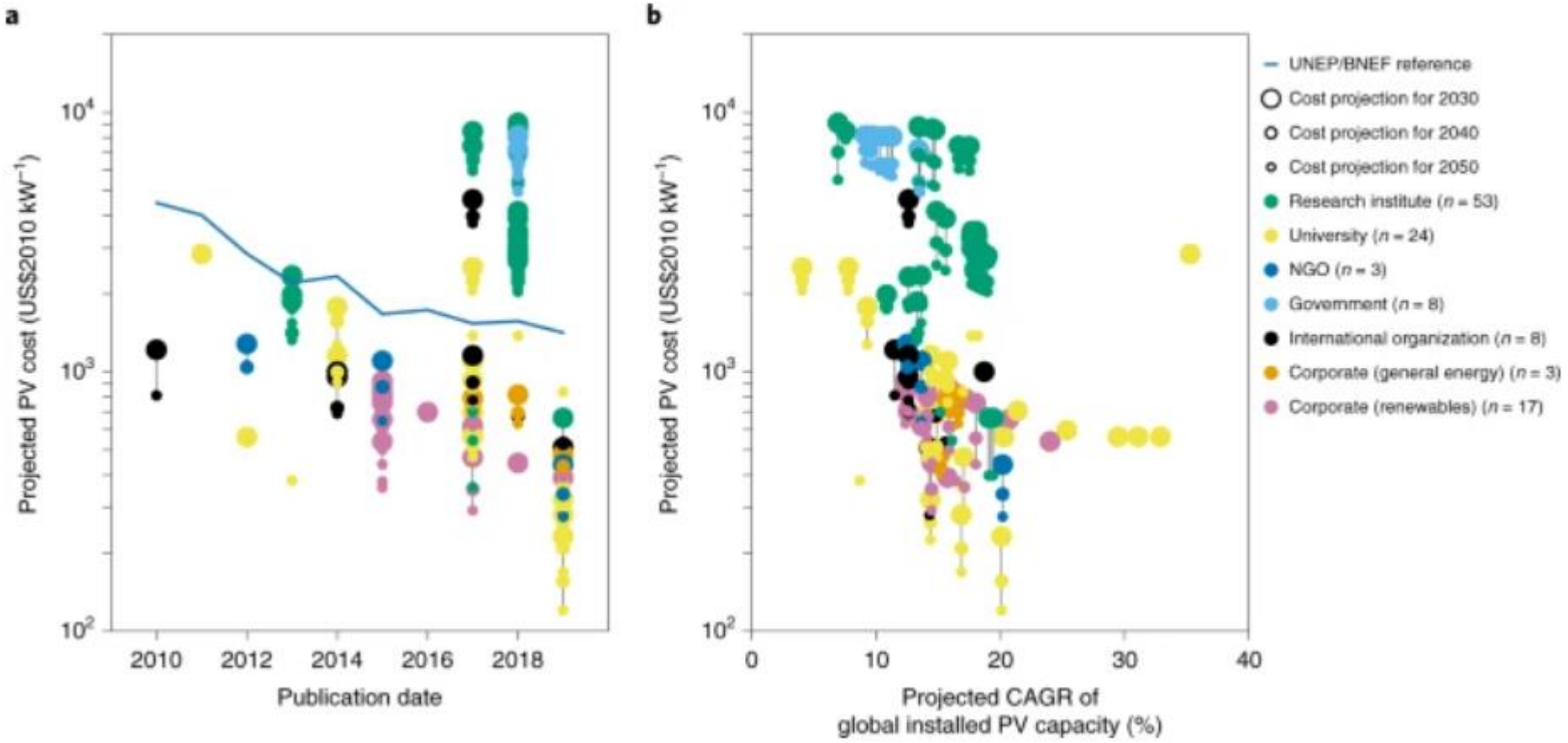
DOI 10.5281/zenodo.5038125 | ORE 10.12688/openreseurope.13633.1 | JOSS 10.21105/joss.01095 | listserv groups.io | chat Slack

Overview

The open-source Python package `pyam` [1][3] provides a suite of tools and functions for analyzing and visualizing input data (i.e., assumptions/parametrization) and results (model output) of integrated-assessment models, macro-energy scenarios, energy systems analysis, and sectoral studies.

Transparency and documentation

Fig. 4: PV cost data in the overall scenario ensemble.



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