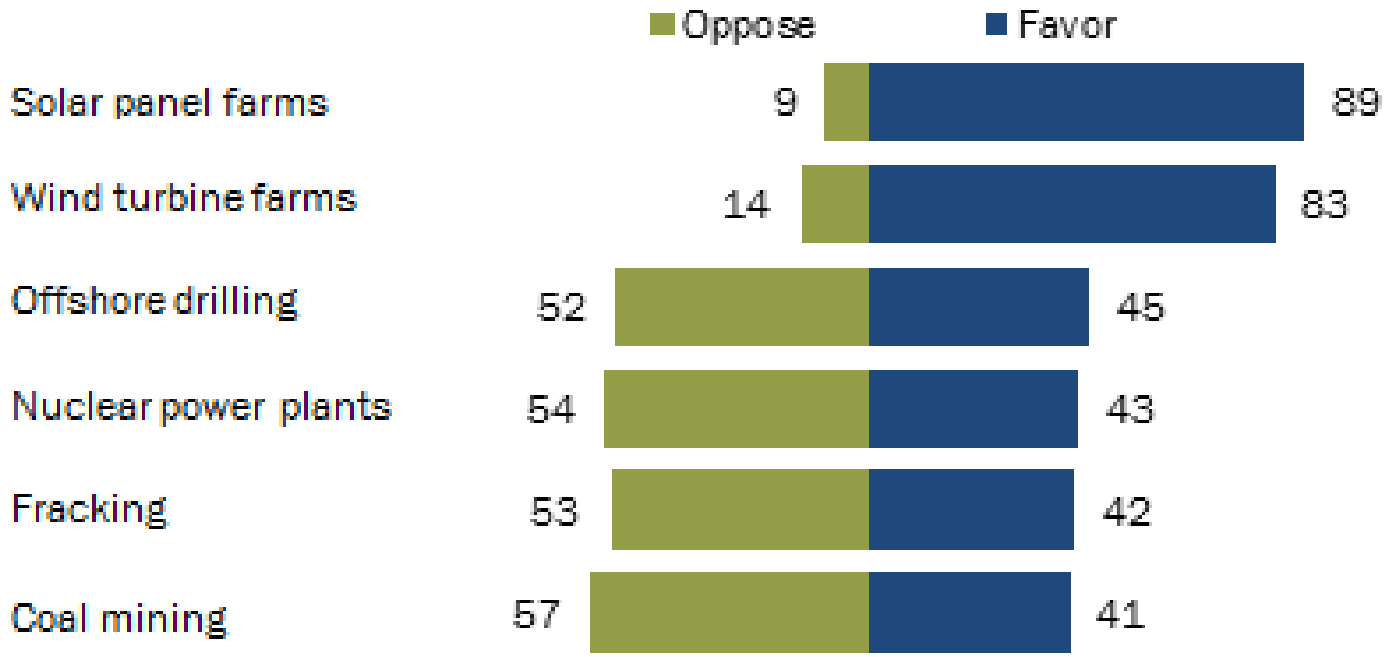
The communication dimension of wind energy:
Challenges and opportunities

OPPORTUNITIES

1.

Strong public support for expanding wind, solar power

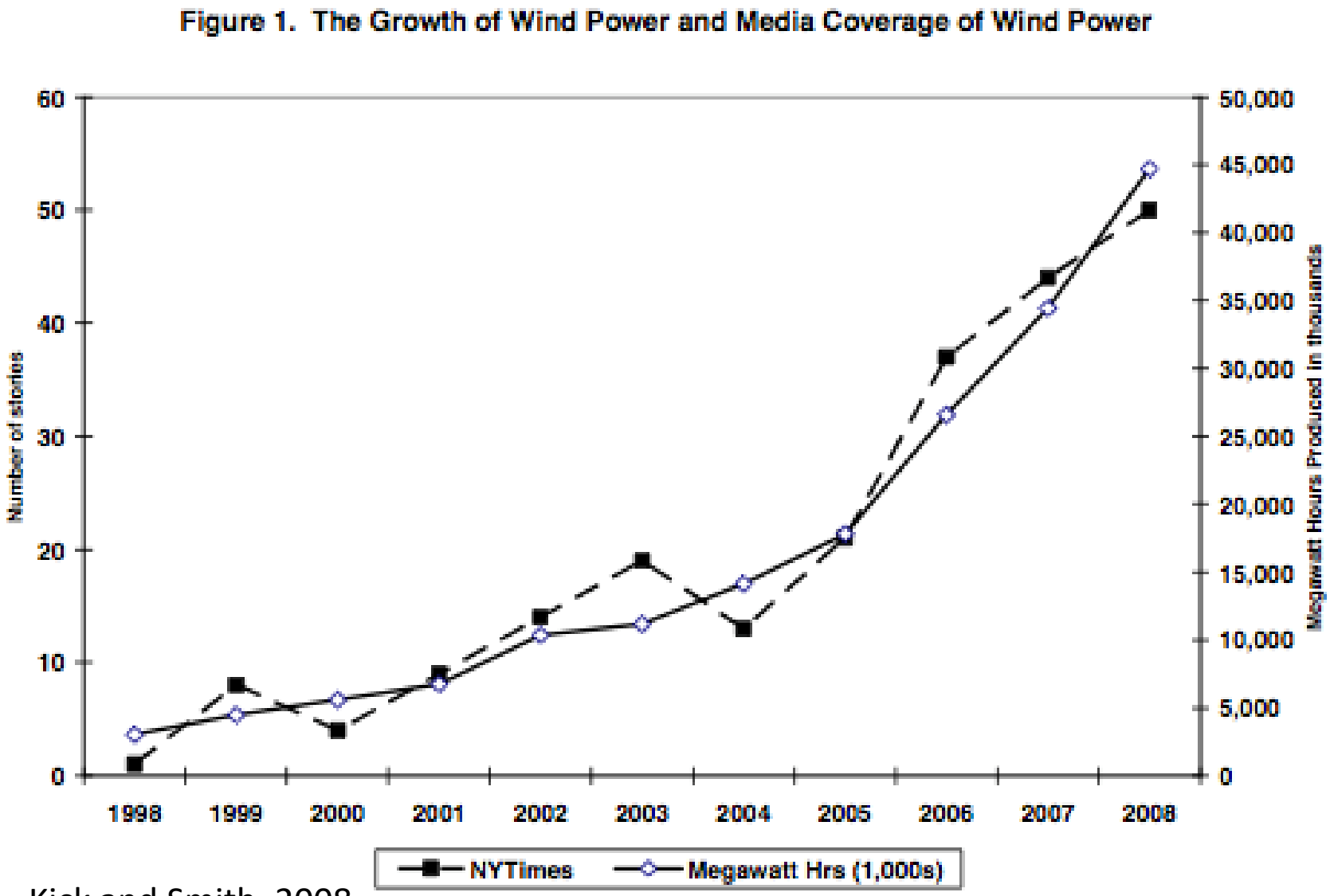
% of U.S. adults who say they favor or oppose expanding each energy source



Note: Respondents who did not answer are not shown.
Source: Survey conducted May 10-June 6, 2016.
"The Politics of Climate"

PEW RESEARCH CENTER

2. Growth of media coverage parallels growth of industry



Kick and Smith, 2008

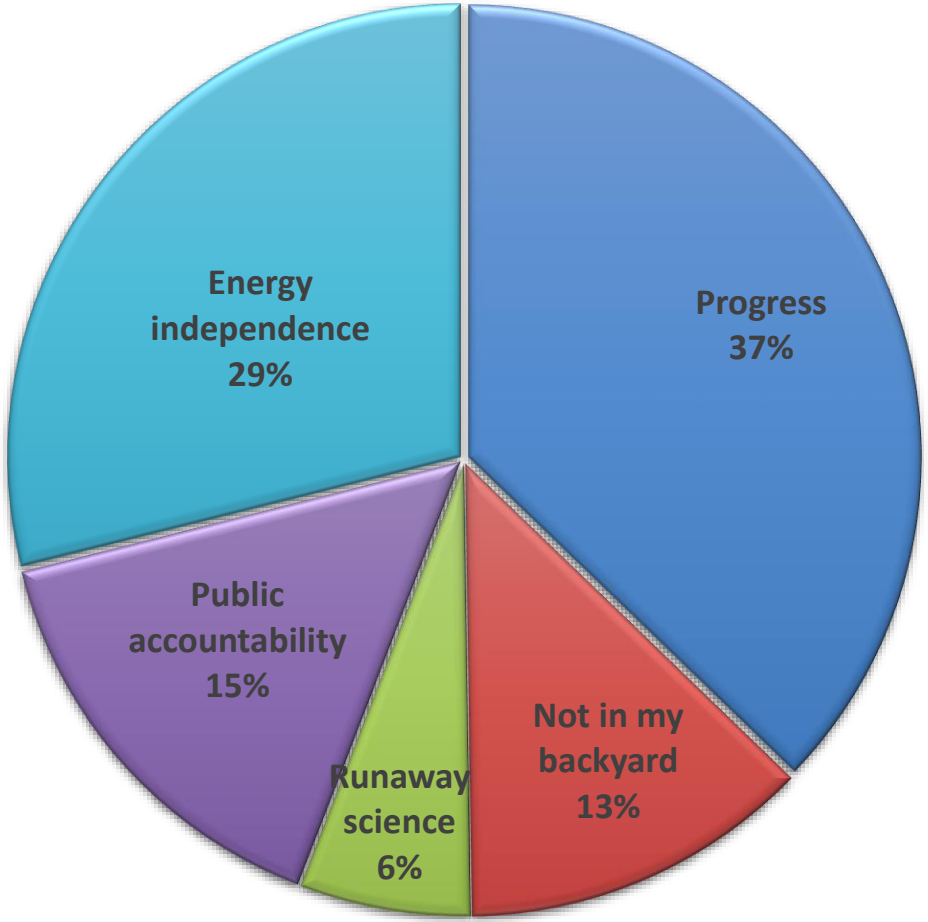
3. In general, across media, wind energy coverage is positive

Brandt, 2014

https://www.youtube.com/watch?v=Qk_lzHCvdds&t=3s

4.

Major frames used in media stories about wind energy predominantly positive Zukas, 2017



5.

A relatively engaged audience Rodriguez & Lin, 2014

- A public relatively informed about wind energy
- People see the advantages of wind power as being more important than the disadvantages

CHALLENGES

1. A slew of unanticipated threats from the White House and Congress

https://www.youtube.com/watch?v=AtCLwYFRp4o

Donald J. Trump
@realDonaldTrump

It's Friday. How many bald eagles did wind turbines kill today? They are an environmental & aesthetic disaster.

1:55 PM - Aug 24, 2012

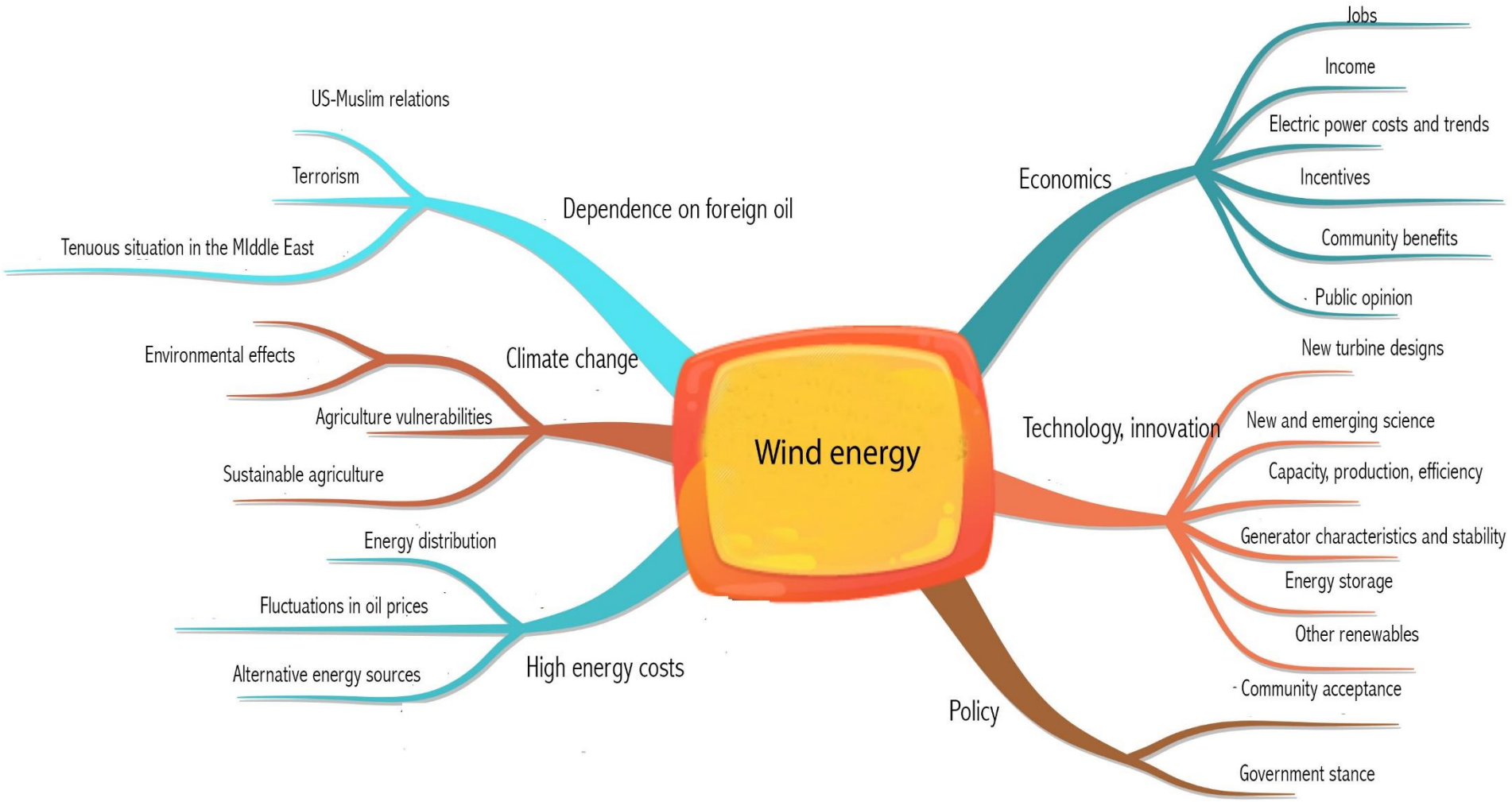
2,376 3,736 people are talking about this

TIME

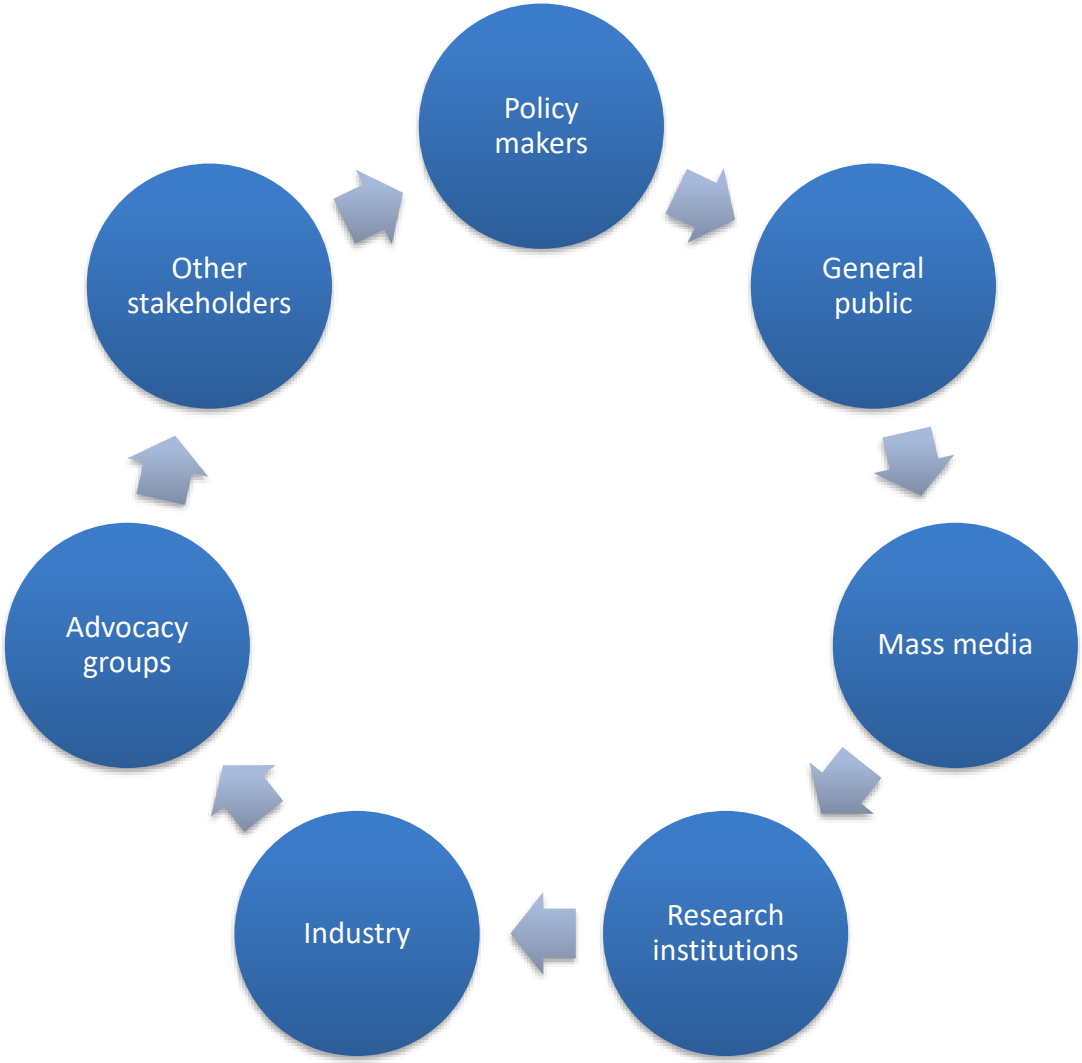
Trump's Interior Secretary Claimed Wind Power Leads to Global Warming. His Numbers Are Wrong

Ryan Zinke, U.S. secretary of interior, speaks during the 2018 CERAWeek by IHS Markit conference in Houston, Texas, U.S., on Tuesday, March 6, 2018. Bloomberg—Bloomberg via Getty Images

2. A multi-faceted technical issue that is difficult to explain



3. Different audience segments require agility in forming communication strategies

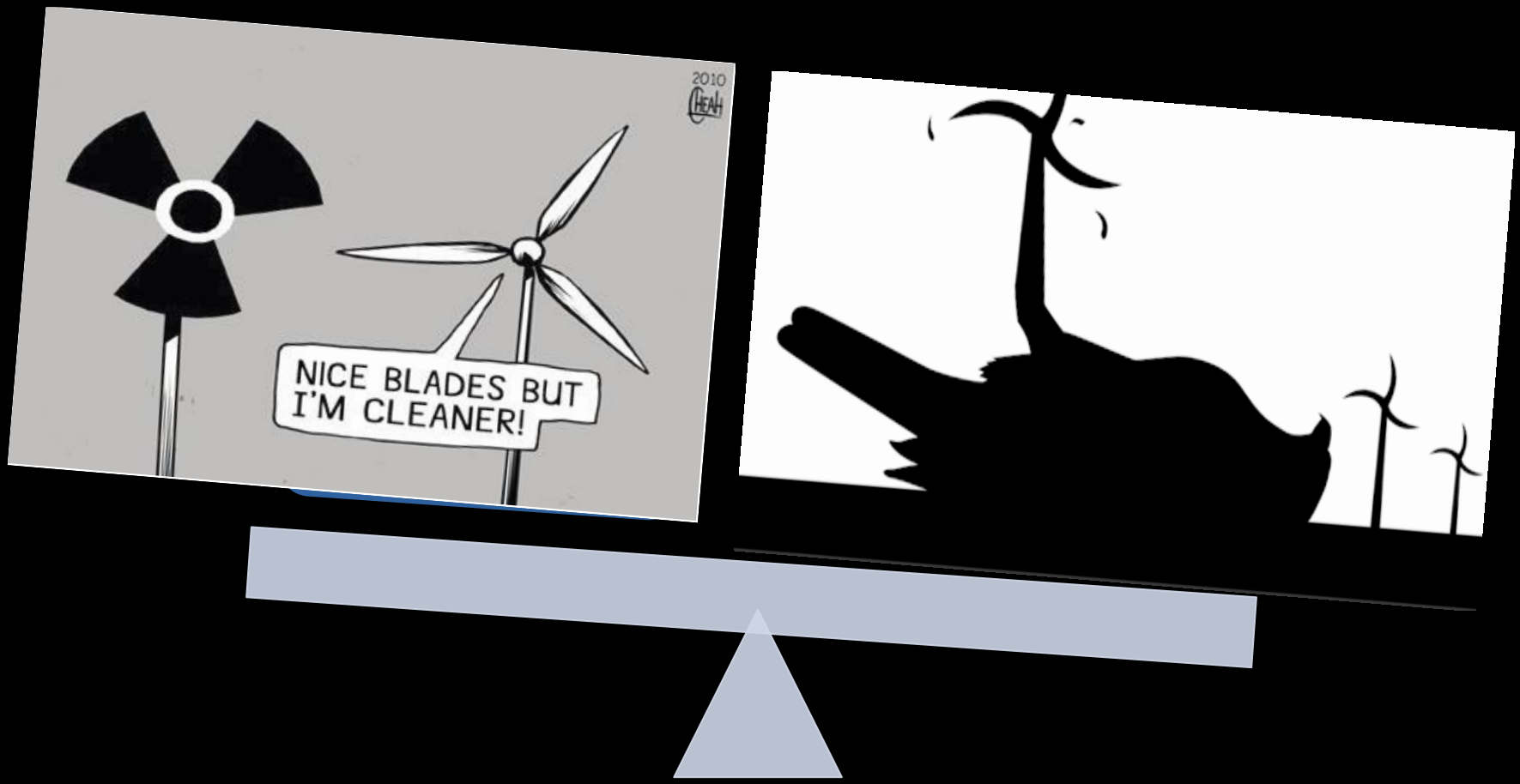


4.

Emergent anti-wind energy advocacy groups

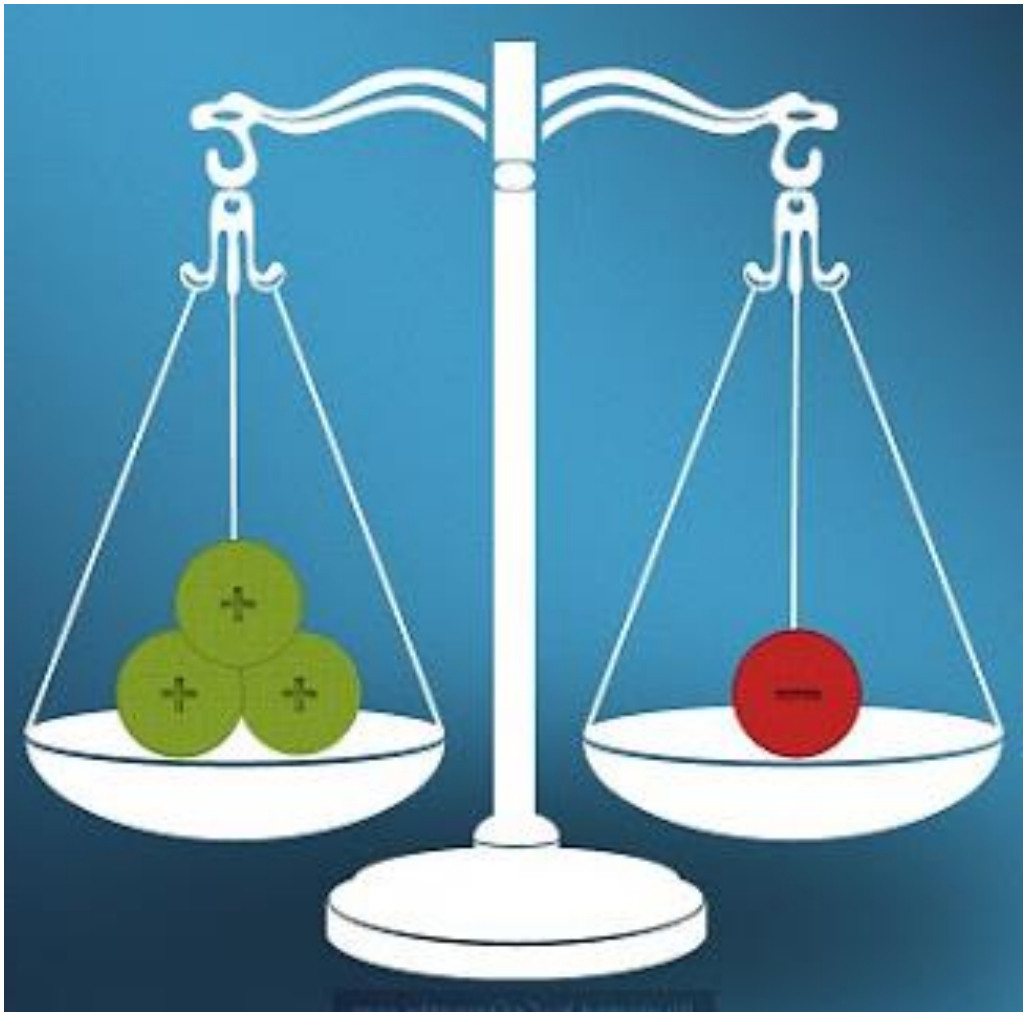
Negative dominance theory

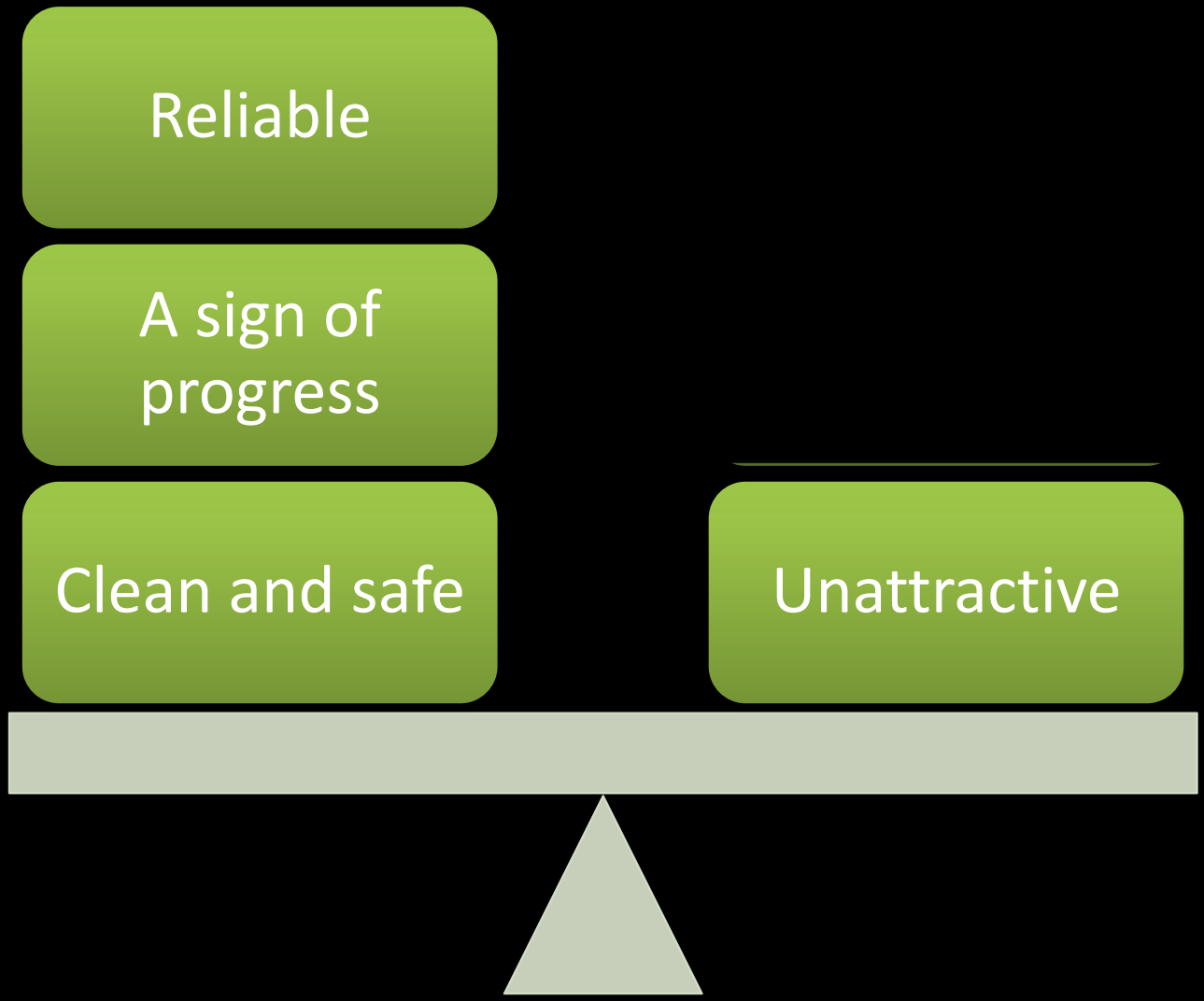
Covello, 2001



Solution: 1N=3P

One negative message=three positive, constructive or solution-oriented messages

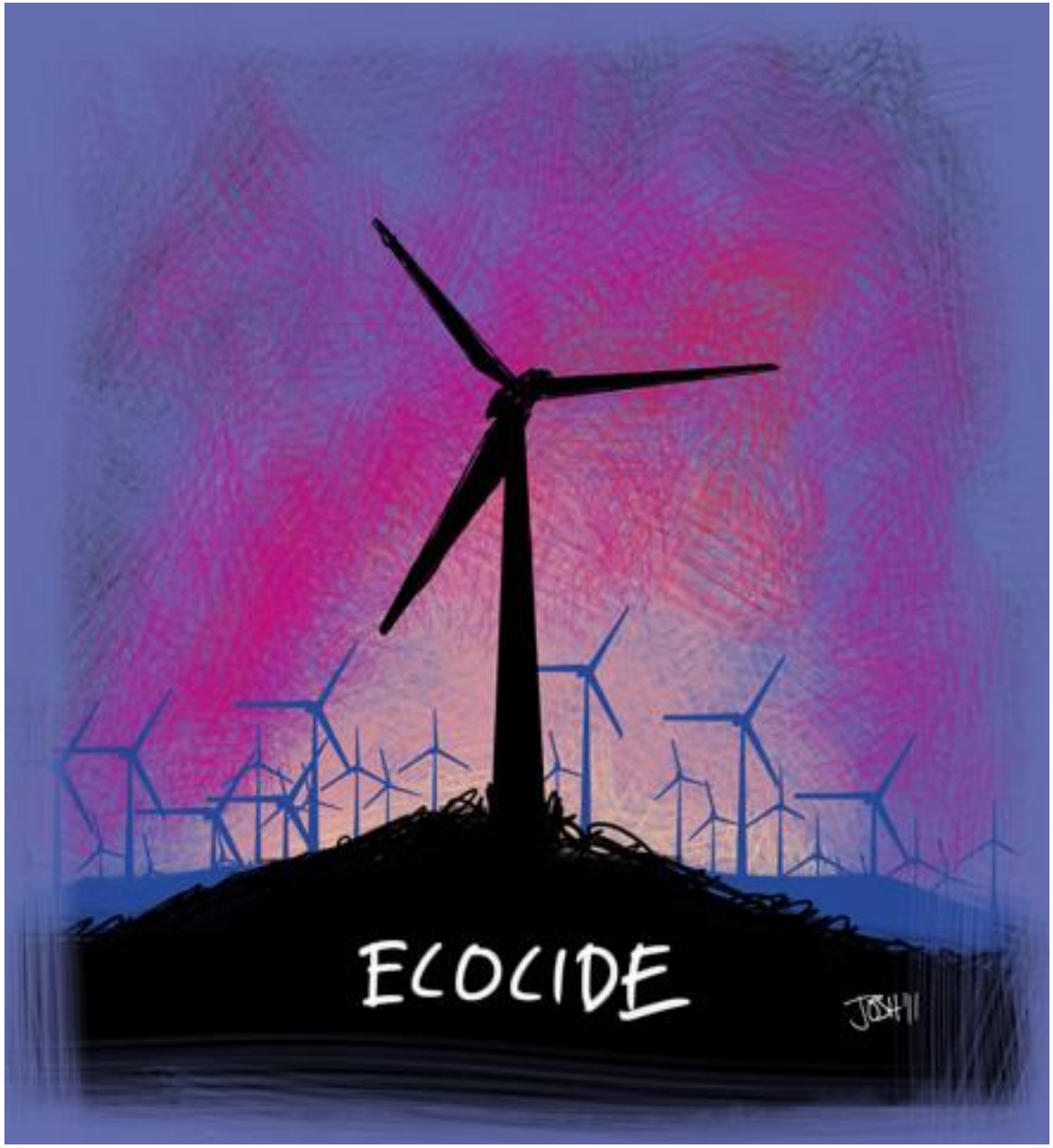



Reliable
A sign of progress
Clean and safe
Unattractive

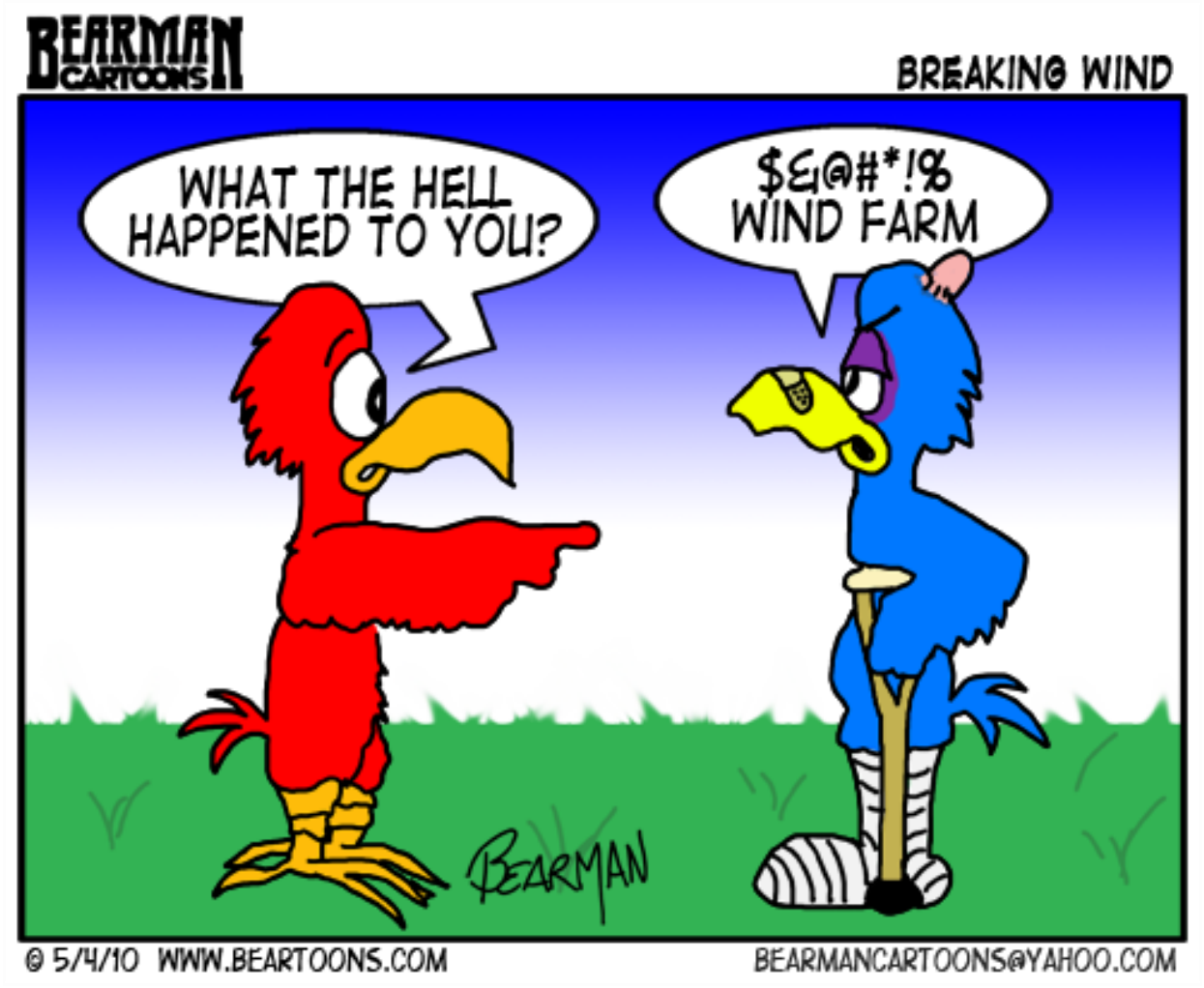
What people complain about wind energy

“The noise! The noise!”

“They’re ugly.”



“They kills birds, bats, wildlife.”



“Not green. Not cheap.”

“It offers very little electricity.”

“I cook everything with an alternative energy source, so it may take a while.”

General attitudes about wind energy Swofford & Slattery, 2010

Wind energy	Agree (%)	Disagree (%)	Neutral (%)
1. Causes TV interference	7.2	41.1	51.8
2. Creates a disturbing noise from the turbines	30.1	40.3	29.6
3. Creates a strobing effect from turbine blades	22.6	36.9	40.5
4. Requires too many turbines	24.0	40.3	35.7
5. Is an unattractive feature of the landscape	47.2	30.5	22.3
6. Is a danger to wildlife	19.5	55.7	24.7
7. Is an unreliable source of electricity	32.5	36.5	31.0

(N=200 Texans)

General attitudes about wind energy

Wind energy	Agree (%)	Disagree (%)	Neutral (%)
8. Increases property values	18.1	49.7	32.1
9. Allows land to be reverted to its natural state	34.0	37.0	28.9
10. Allows multiple land uses	55.4	18.9	25.6
11. Requires too many turbines	24.0	40.3	35.7
12. Is an attractive feature of the landscape	26.7	49.7	23.6
13. Is a safe energy source	79.5	18.1	12.8
14. Is a clean energy source	79.5	7.7	12.8

(N=200 Texans)

Acceptance decreases closer to wind farms

Swoford and Slatery, 2009

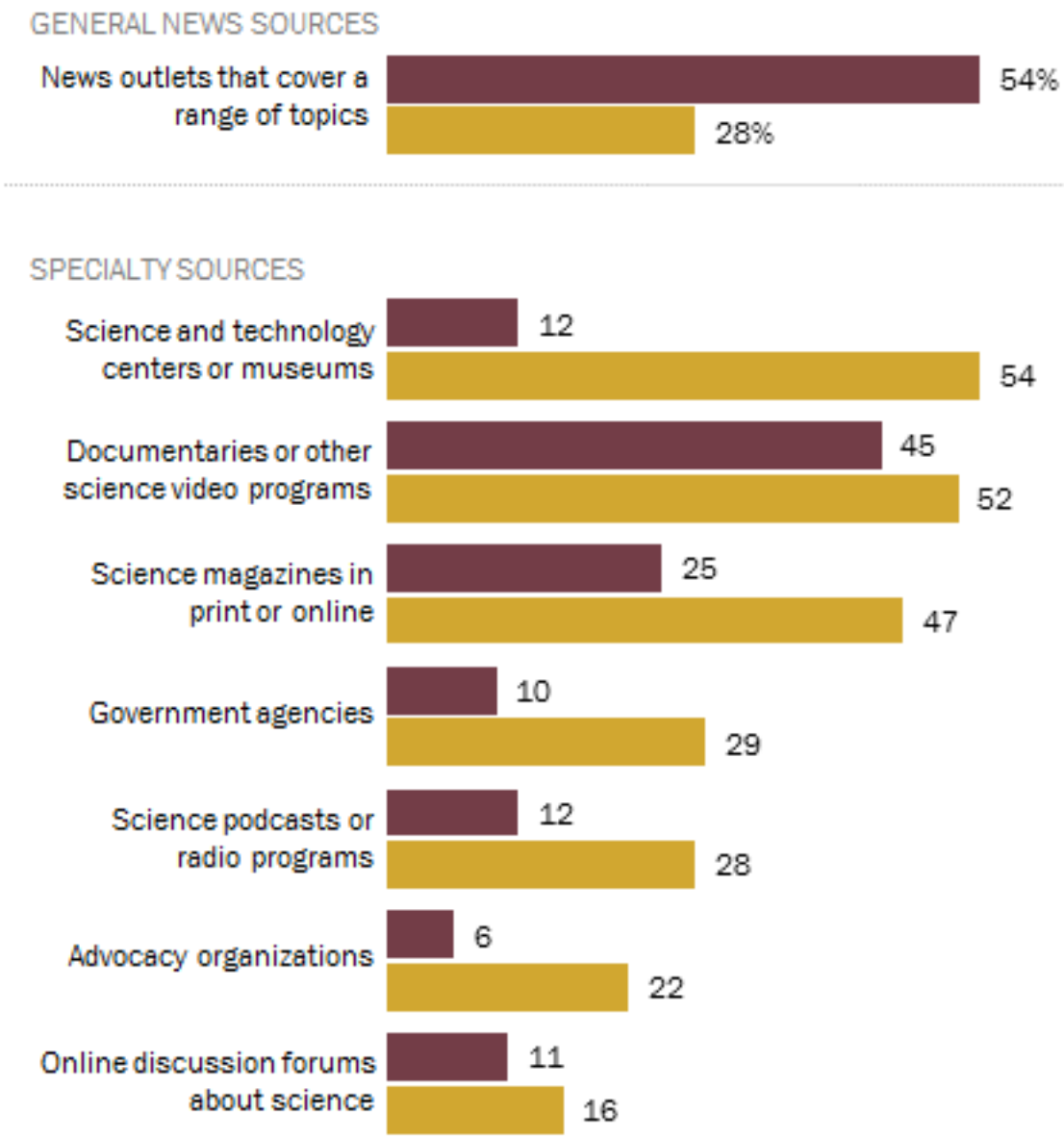
Despite these, there is no popular consensus on causes or significant contributing factors for local opposition to wind.

Wolsink, 2000; Jones et al., 2009

Why you should bother to tell the stories of wind energy

1. The media are still the major sources of science and risk information

Sources of science and technology information, US



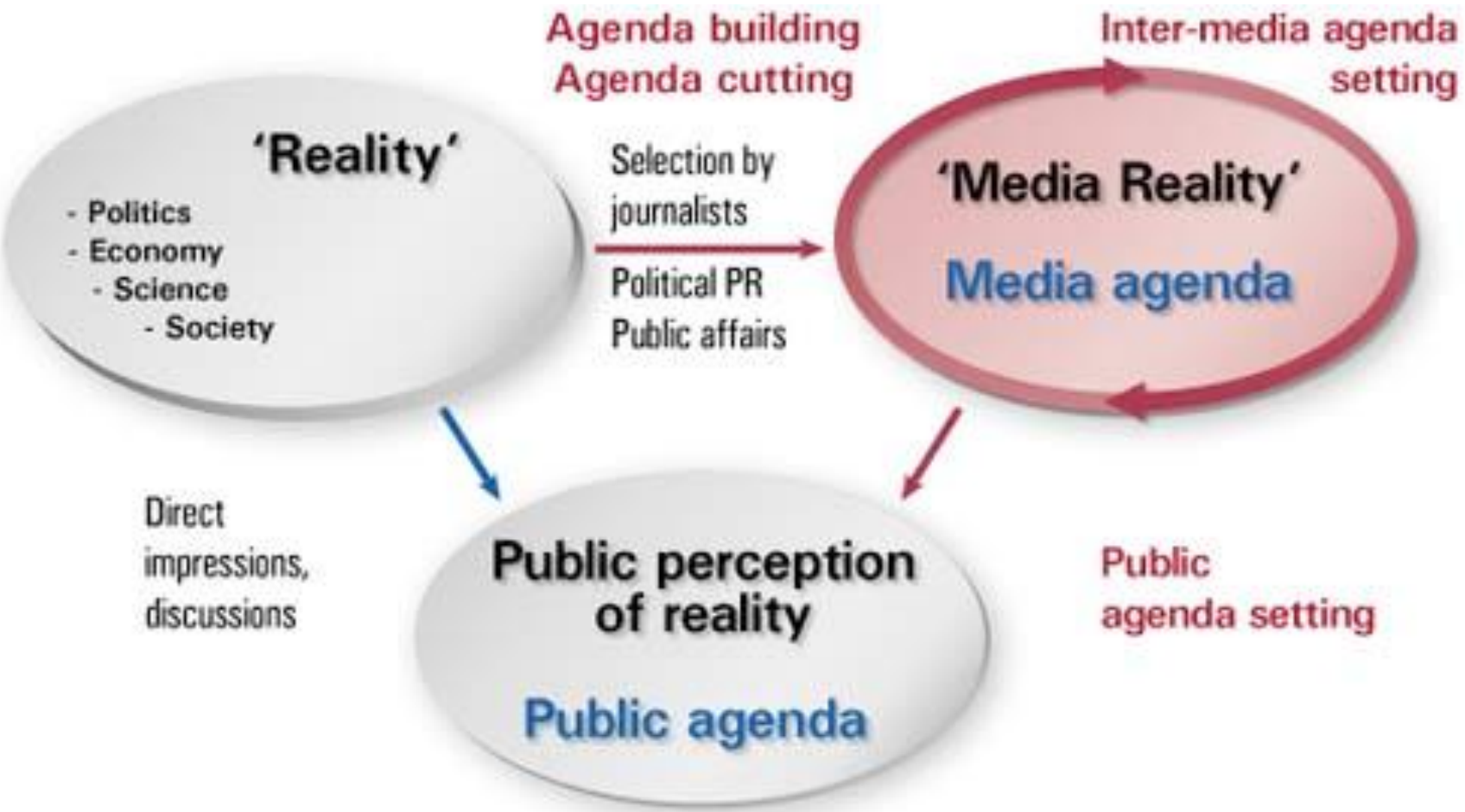
Pew Research Center, 2017
N=4,024 US adults

Why you should bother to tell the stories of wind energy

2. Public sentiment drives
   - regulatory policies
   - level of government spending on science

Why you should bother to tell the stories of wind energy

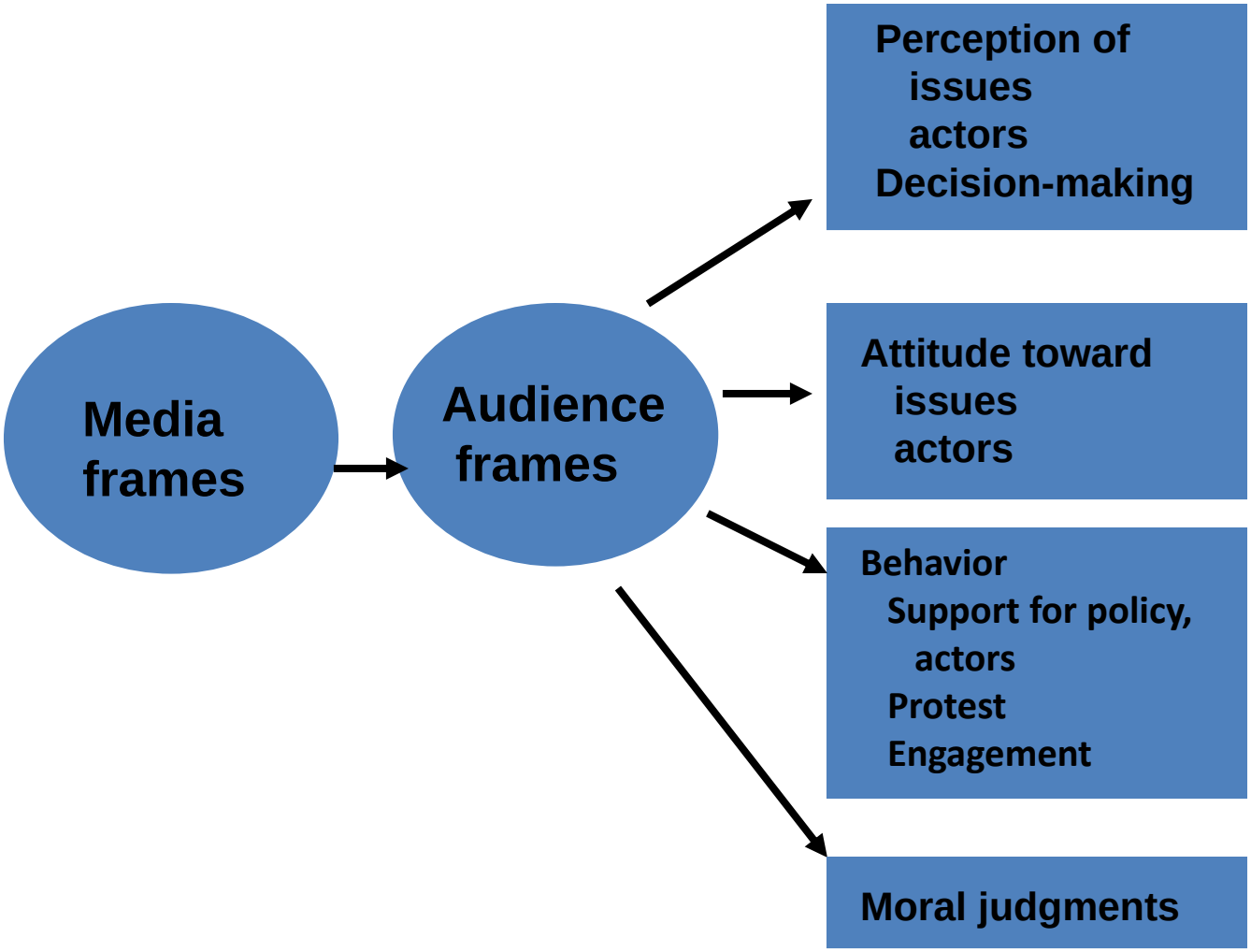
3. Media agenda influences public agenda



McCombs and Shaw, 1972

Why you should bother to tell the stories of wind energy

4. Media frames shape audience understanding of issues

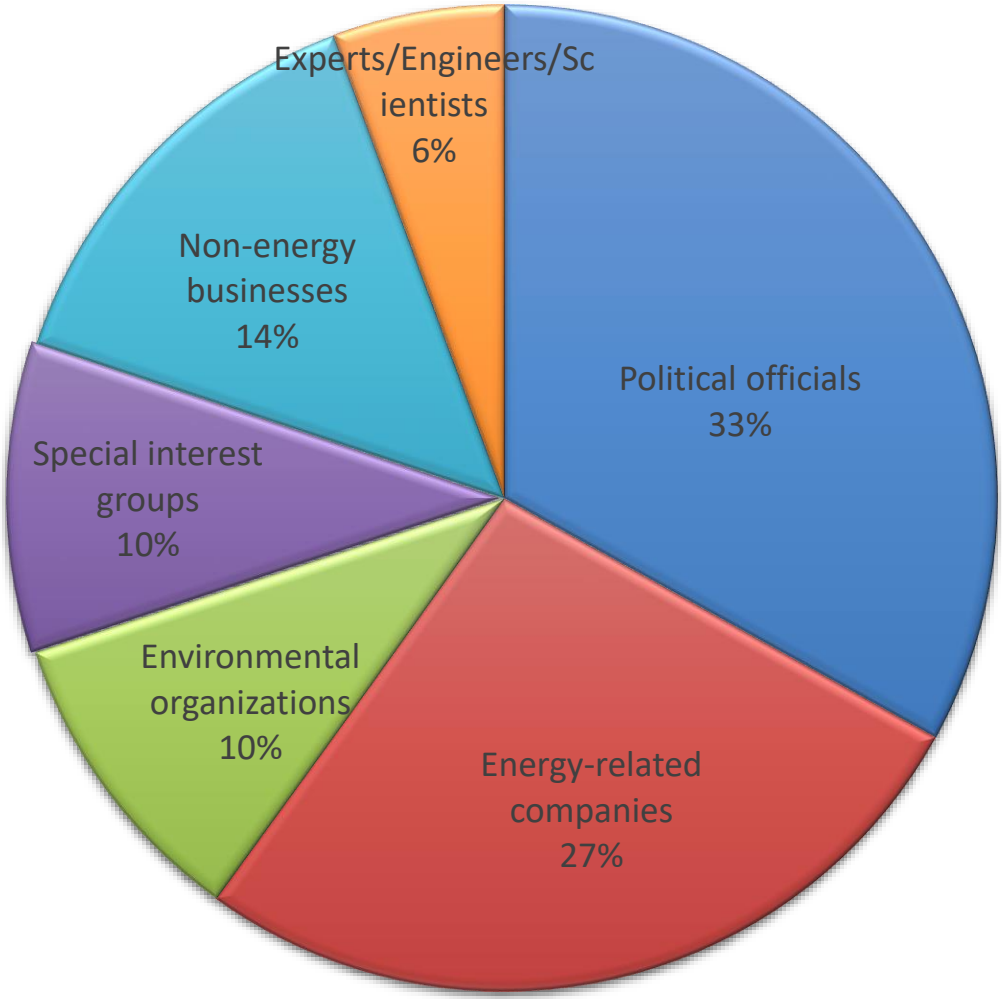


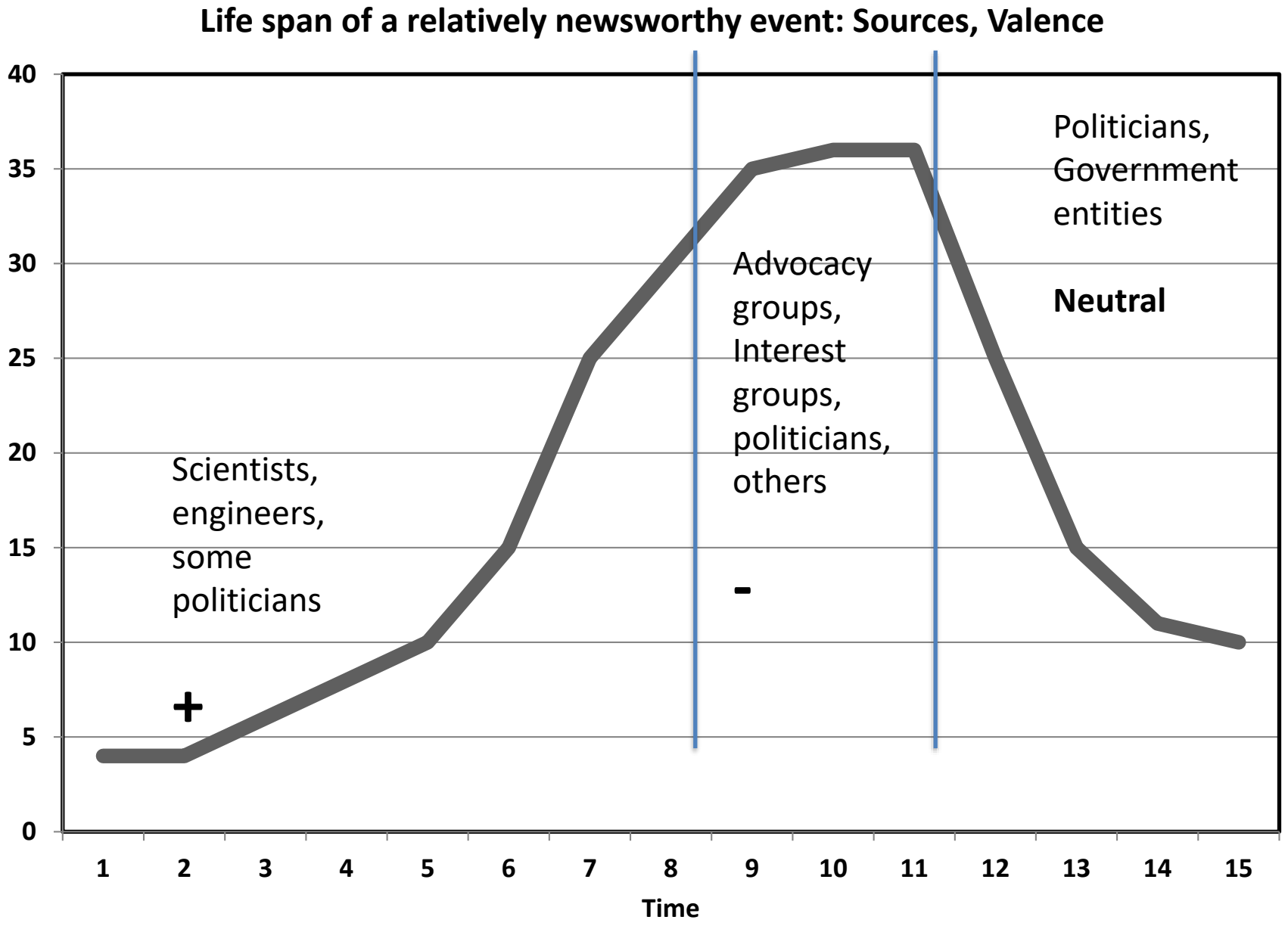
Scheufele, 1999

Why you should bother to tell the stories of wind energy

5. No one tells it better than engineers and scientists

Major information sources cited in articles about wind energy Zukas, 2017




Life span of a relatively newsworthy event: Sources, Valence
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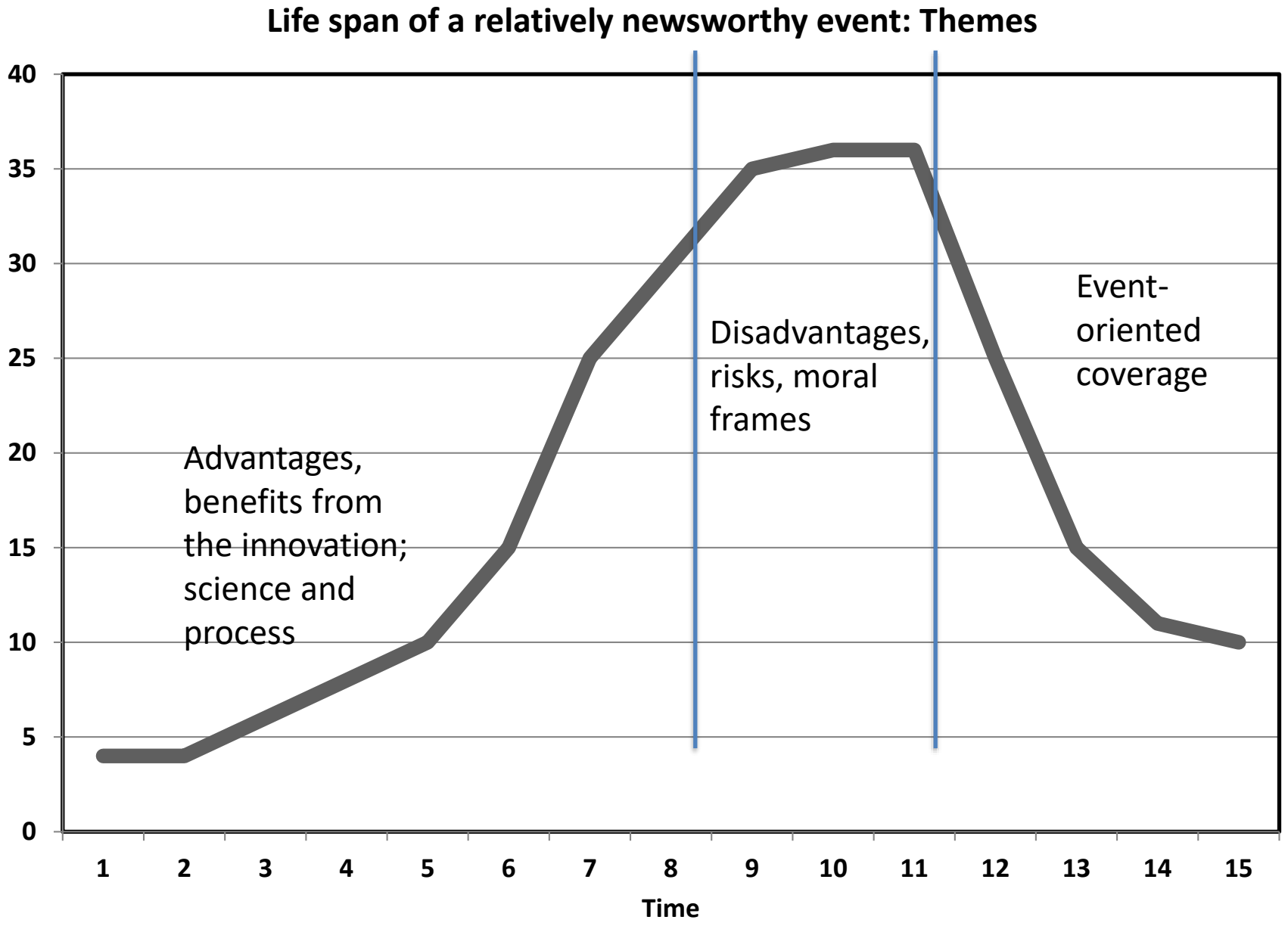
15
Time
Scientists, engineers, some politicians
+
Advocacy groups, Interest groups, politicians, others
-
Politicians, Government entities
Neutral


Life span of a relatively newsworthy event: Themes
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Time
Advantages, benefits from the innovation; science and process
Disadvantages, risks, moral frames
Event-oriented coverage

Communication research areas related to wind energy

- Understanding public perception of wind energy
- Assessing media performance (quality of information) in covering wind energy
- Redefining “fair and balanced” in the reporting on wind energy
- Testing communication factors that have a bearing on the amplification or attenuation of perceived risks

Communication research areas related to wind energy

- Characterizing the psychometric attributes of risk perception concerning the expansion of wind energy
- Applying the mental models approach to determine what the public should know

Recommendations on how to use funding to educate the public

- Establish grade school coursework to cover climate, energy, and the environment
- Initiate public demonstrations and tours of renewable energy facilities
- Provide free energy audits and workshops for electricity consumers;
- establish a national information hub that collects and provides resources for decision-makers and electricity users.

Thank you, Iowa State!