

Do you have COVID-19 questions? Our scientists have answers.

Ask your question here...



## All Categories



### Symptoms, Tests, and Treatment

Guidance if you believe you or someone you know may have the coronavirus



### About Novel Coronavirus 2019

General information about the Novel Coronavirus 2019 (COVID-19)



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Find the latest information about current cases around the world



How to minimize your risk



Additional Information



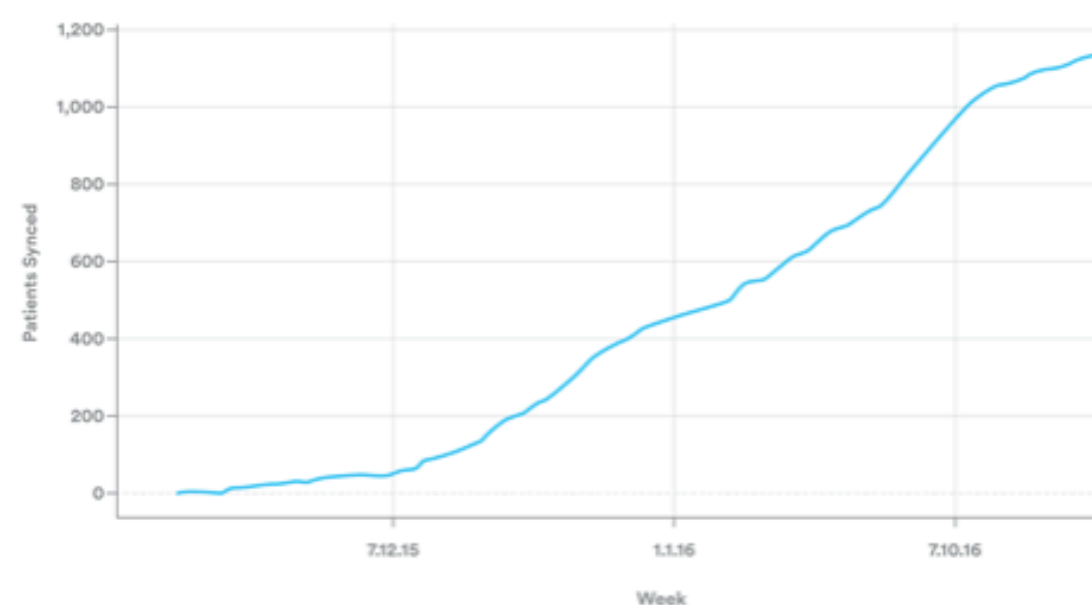
Information regarding





## AIR Louisville Results Summary

Louisville is a tough place for people living with lung diseases like asthma and COPD (chronic obstructive pulmonary disease). AIR Louisville was designed to be the largest public health study of respiratory disease ever conducted by a public-private collaboration. The data collected by AIR Louisville are being used to help the City improve conditions for citizens with asthma and COPD.



Launched in 2015, AIR Louisville enrolled 1,147 citizens of Louisville and, using medication sensors from Propeller Health, tracked where, when and why they had asthma or COPD symptoms. The project is a collaboration that includes Propeller, the Institute for Healthy Air Water and Soil and the Department of Civic Innovation at Louisville Metro. The Robert Wood Johnson Foundation funded the work.





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Collective Intelligence

CASE STUDIES

VIEW THE REPORT


ABOUT THE PROJECT

READ THE LITERATURE REVIEW




WeEuropeans

1.7 million Europeans help draft policies to reboot the European project



Abre

Nonprofit helps city build capacity for collective intelligence projects



AIR Louisville / Propeller Health

Using GPS-enabled inhalers, the Louisville Metro Government tracked asthma/COPD incidents and



**Imagine if**

we could expedite the path between innovative ideas  
and implementable new policies and services.



## Imagine if

the data scientist, epidemiologist, technologist, urban planner, public official, and artist – those with diverse backgrounds and experience – could talk and devise solutions to public problems.

**Imagine if**

public officials had the ability to steward a process  
that focused the most creative minds in our own  
communities on improving them.



The only way to solve a large-scale problem is with all hands on deck. Our **public institutions** therefore must be designed not only to represent citizenry through intermittent electoral engagement, but continuously **through systematic conversation** and tapping of talents and skills.

[bit.ly/2016v39](https://bit.ly/2016v39)







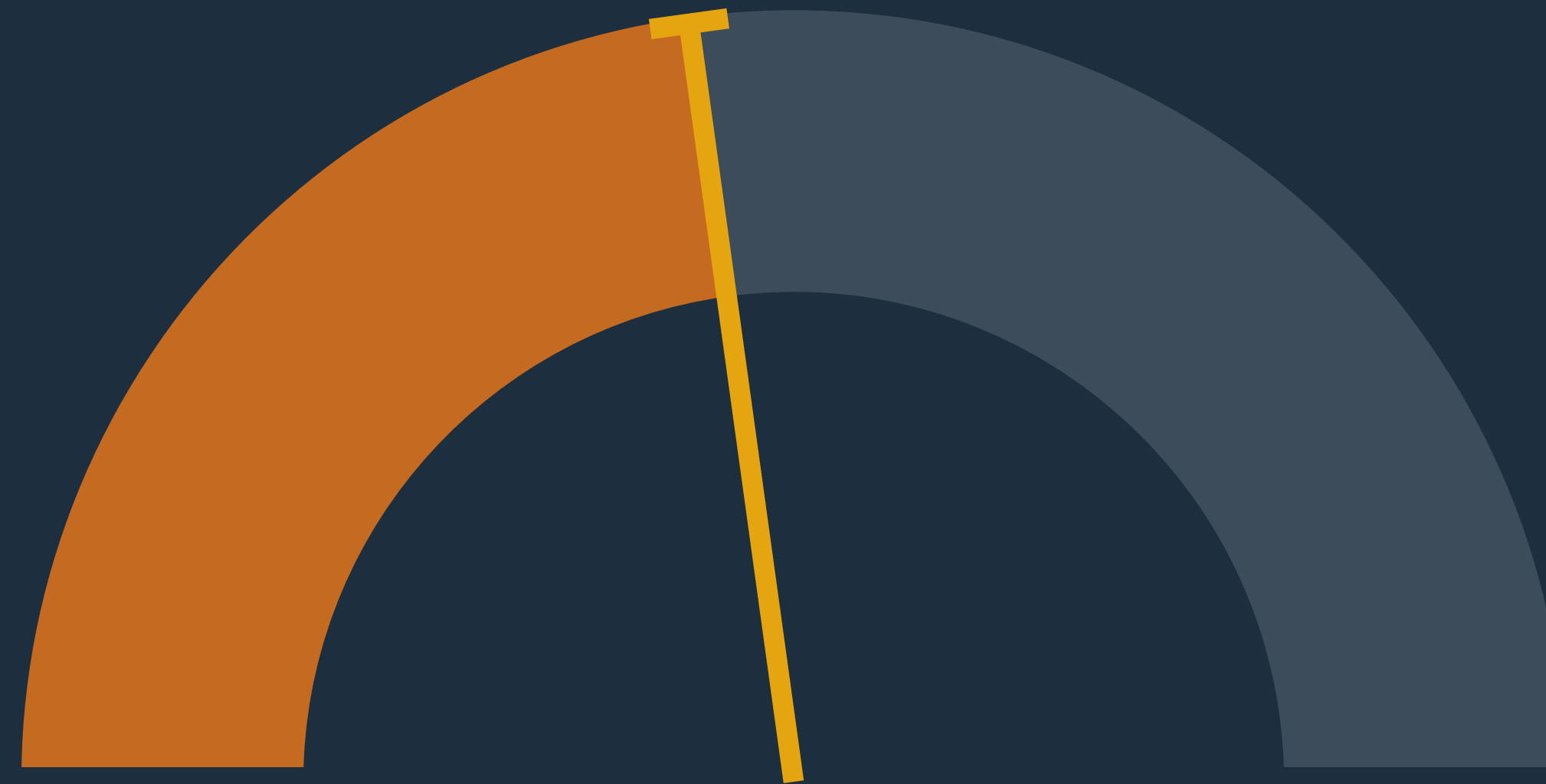
**THE PROBLEM WE'RE SOLVING**  
**OUR INSTITUTIONS ARE OUTDATED AND PUBLIC TRUST IN**  
**THEM HAS DECLINED SIGNIFICANTLY...**





# TRUST IN GOVERNMENT

## GLOBAL



ONLY **47%** OF CITIZENS GLOBALLY TRUST GOVERNMENT



## **COLLECTIVE INTELLIGENCE: SOLVING PUBLIC PROBLEMS BY TAPPING THE PUBLIC'S INTELLIGENCE AND EXPERTISE**

The GovLab conducts applied research and hands-on projects with organizations and institutions around the world designed to help them learn how to identify and solve problems with public input. Done right, public engagement helps to solve problems more effectively as well as more legitimately.







# LEARNING GOALS

1. Understand why and when it is crucial to use such collective intelligence to define and to solve problems.
2. Describe a range of collective intelligence methods including open innovation, collaboration and co-creation.
3. Understand and apply the key considerations for designing an effective collective intelligence project.
4. Anticipate and mitigate common pitfalls when using collective intelligence to solve a public problem.





ERIC VON HIPPEL

# the dominant role of users in the scientific instrument innovation process\*

by

Eric von HIPPEL

*Alfred P. Sloan School of Management, Massachusetts Institute of Technology, Cambridge, Mass. 02139, USA*

## 1. INTRODUCTION

Quantitative research into the industrial good innovation process has, over the last few years, demonstrated convincingly that:

(1) Approximately three out of four commercially successful industrial good innovation projects are initiated in response to a perception of user need for an innovation, rather than on the basis of a technological opportunity to achieve them\*\*,

(2) Accurate understanding of user need is the factor which discriminates most strongly between commercially successful industrial good innovation projects and those which fail [2].

The studies which produced these findings were designed to test many hypotheses regarding the causes of successful industrial good innovation. Understandably, therefore, they are enticingly scant on detail regarding the “understanding of user need” hypothesis which showed such an encouraging correlation with innovation success. Among the interesting questions left unanswered are:



# KINDS OF COLLECTIVE INTELLIGENCE

- ▶ CROWDSOURCING
- ▶ COLLABORATION
- ▶ CO-CREATION



# KINDS OF COLLECTIVE INTELLIGENCE

- ▶ **CROWDSOURCING**
- ▶ COLLABORATION
- ▶ CO-CREATION





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- ▶ **COLLABORATION**
- ▶ CO-CREATION

## Bridging the Word Gap Challenge

Health Resources and Services Administration (HRSA)

### Summary

The word gap is the large difference in the number of words children from low-income families are exposed to as compared to children from high-income families. By age four, children from low-income families are hearing 30 million fewer words than their more affluent peers.

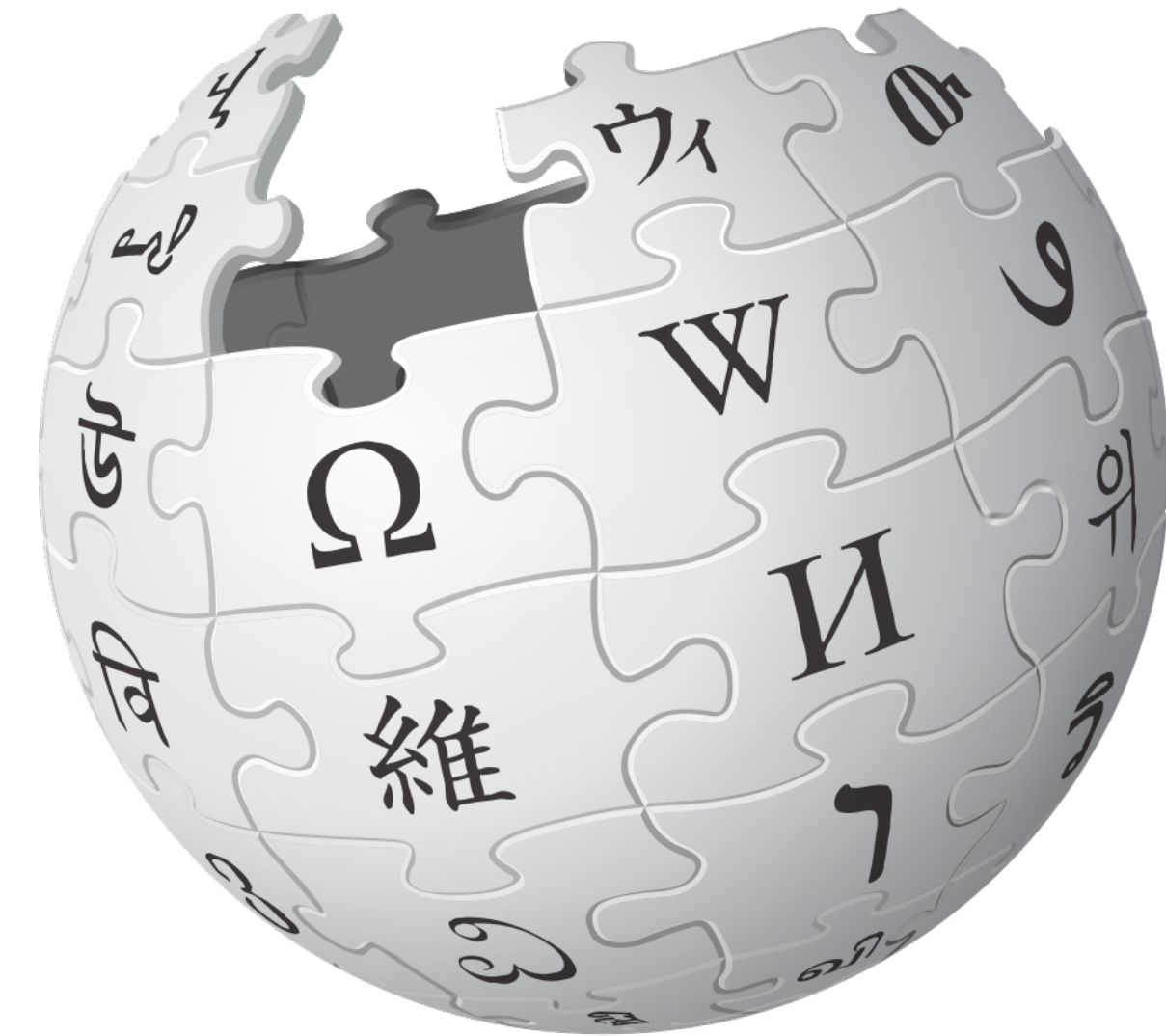


This is staggering. And it can have serious consequences. Children who experience this drought in heard words have vocabularies that are half the size of their peers by age four, putting them at a disadvantage even before they enter a classroom, and this word gap can lead to disparities not just in vocabulary size, but also in school readiness, long-term educational and



# KINDS OF COLLECTIVE INTELLIGENCE

- ▶ CROWDSOURCING
- ▶ COLLABORATION
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# KINDS OF COLLECTIVE INTELLIGENCE

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- ▶ **CO-CREATION**





# KINDS OF COLLECTIVE INTELLIGENCE

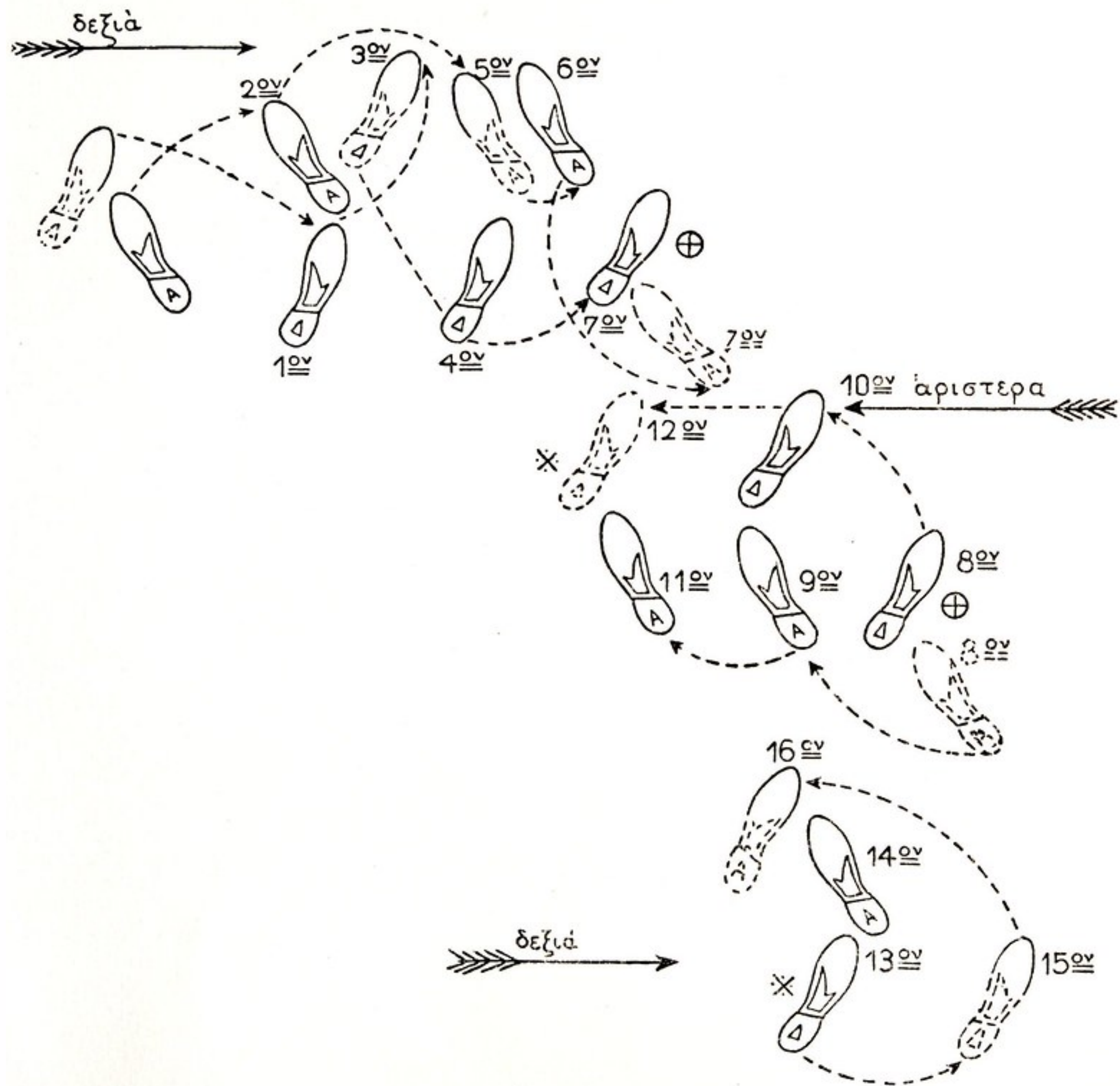
- ▶ CROWDSOURCING
- ▶ COLLABORATION
- ▶ **CO-CREATION**















# Designing a Collective Intelligence Exercise

1. Define a clear and compelling goal
2. Identify participants and eligibility criteria
3. Define the tasks the crowd should perform
4. Determine appropriate incentives
5. Decide on assessment criteria
6. Develop a timeline





# **1. Define a clear and compelling goal**

2. Identify participants and eligibility criteria
3. Define the tasks the crowd should perform
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1. Define a clear and compelling goal

- 2. Identify participants and eligibility criteria**

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1. Define a clear and compelling goal
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## Strawberry plants to map European air pollution

There is a citizen science project called AIRbezen that has made its way into Europe. People in six different countries are going to map air pollution in their cities. They are also going to try and find a link between how dirty the air and how much green space there is. This will be done under the guidance of the University of Antwerp in Belgium.







# Our languages

Thanks to our volunteer TED Translators, TED Talks are subtitled in over 100 languages.

*Don't see your language? [Help us translate!](#)*

**Afrikaans**

32 talks

**Amharic**

16 talks

**Assamese**

1 talk

**Basque**

106 talks

**Bislama**

1 talk

**Albanian**

784 talks

**Arabic**

7774 talks

**Asturian**

2 talks

**Belarusian**

155 talks

**Bosnian**

127 talks

**Algerian Arabic**

19 talks

**Armenian**

572 talks

**Azerbaijani**

128 talks

**Bengali**

129 talks

**Bulgarian**

2522 talks

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## What's Trending

[Certain Medical Care Arrangements](#)

Closing on Aug 10, 2020

[Refuge-Specific Regulations; Public Use; Kenai National Wildlife Refuge](#)

Closing on Aug 10, 2020

[Meetings: 2020 Dietary Guidelines Advisory Committee](#)

Closing on Aug 13, 2020

[Security Bars and Processing](#)

Closing on Aug 10, 2020

[FR-6152-P-01 Making Admission or Placement Determinations Based on Sex in Facilities Under Community Planning and...](#)

Closing on Sep 22, 2020

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[Next 15 Days \(348\)](#)

[Next 30 Days \(639\)](#)

[Next 90 Days \(922\)](#)

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[APIs for Developers](#)



See how developers are using  
Regulations.gov APIs!





LEARN MORE



In 2020, The GovLab is collaborating with the Inter-American Development Bank and its client governments in Latin America and the Caribbean to source innovative solutions to key problems arising from the COVID-19 pandemic.

## SMARTER CROWDSOURCING FOR ANTI-CORRUPTION



**SMARTER CROWDSOURCING**  
AND THE FUTURE OF CORRUPTION

**Smarter Crowdsourcing for  
Anticorruption**  
A Handbook of Innovative Legal, Technical,  
and Policy Prospects and a Guide to Best  
Implementation

Mark A. Miller  
David A. Miller  
David L. Phillips

**OGB**

APRIL 2015

[www.ogb.gov/publications](http://www.ogb.gov/publications)







## START A PROJECT

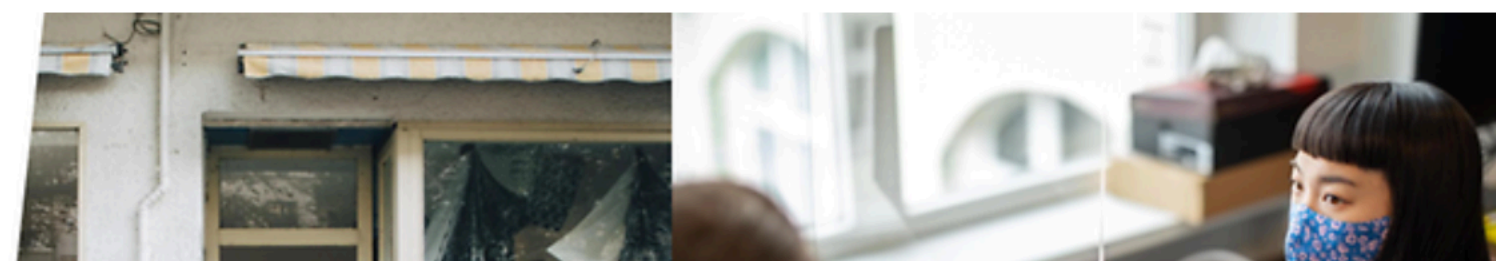




Fragen und Antworten zum Hackathon UpdateDeutschland

# Ein Update für Deutschland

Vom 19. bis 21. März findet der Hackathon UpdateDeutschland statt. Die Bundesregierung möchte damit an den Erfolg von #WirVsVirus aus dem letzten Jahr anknüpfen. Lesen Sie hier mehr über das digitale Gemeinschaftsprojekt.







1. Define a clear and compelling goal
2. Identify participants and eligibility criteria
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- 4. Determine appropriate incentives**
5. Decide on assessment criteria
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# INCENTIVES

- ▶ Knowledge Building
- ▶ Skill Development
- ▶ Community Building
- ▶ Civic Responsibility
- ▶ Public Recognition
- ▶ Competition
- ▶ Making a Difference
- ▶ Financial Incentives





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## **6. Develop a timeline**



# PLANNING

- ▶ What needs to be done prior to launch?
- ▶ How long the exercise will be open for participation?
- ▶ How long the results will take to analyze?
- ▶ Who will support the process?
- ▶ Who will use the outputs?
- ▶ What platform will be used to undertake the activity?



# COMMUNICATIONS STRATEGY

- ▶ Posting on Social Media
- ▶ Engaging Key Stakeholders
- ▶ Contacting Partners
- ▶ Contacting Publications
- ▶ Distributing Information







## COMMON PITFALLS

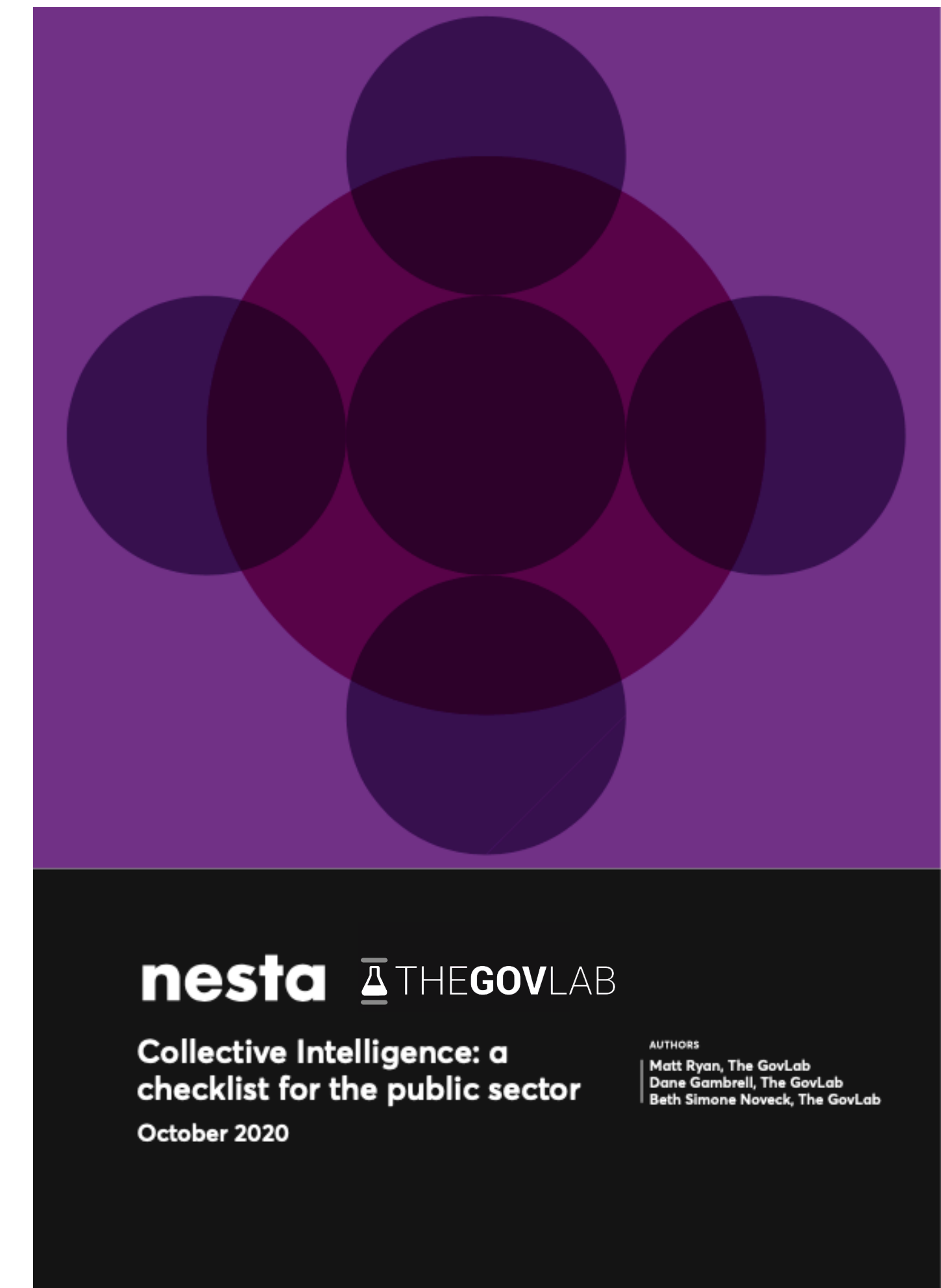
- ▶ Using collective intelligence at the wrong time
- ▶ Not motivating the right audience to participate
- ▶ You have the input, but you are not sure what to do with it



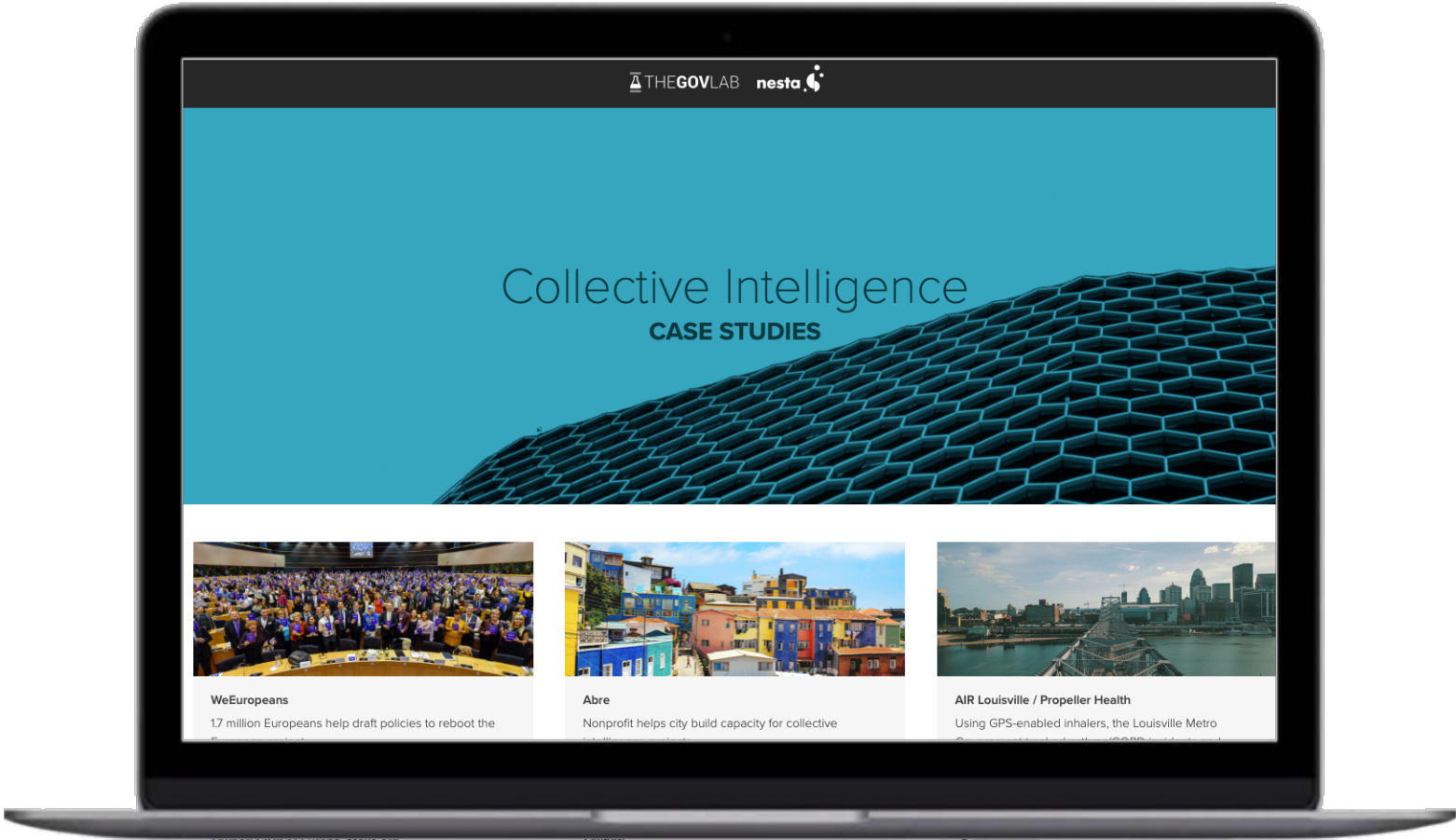
# CHECKLIST FOR COLLECTIVE INTELLIGENCE INITIATIVES

Nine questions to ask when designing collaboration between crowds and institutions

1. Can you articulate the project's goals?
2. Can you identify the right participants?
3. Can you reach the participants you have identified?
4. Who is the right owner?
5. Can you select the incentives that will encourage participation?
6. Can you define the tasks?
7. Can you design the workflow?
8. Can you evaluate inputs?
9. Can you use what the group creates?



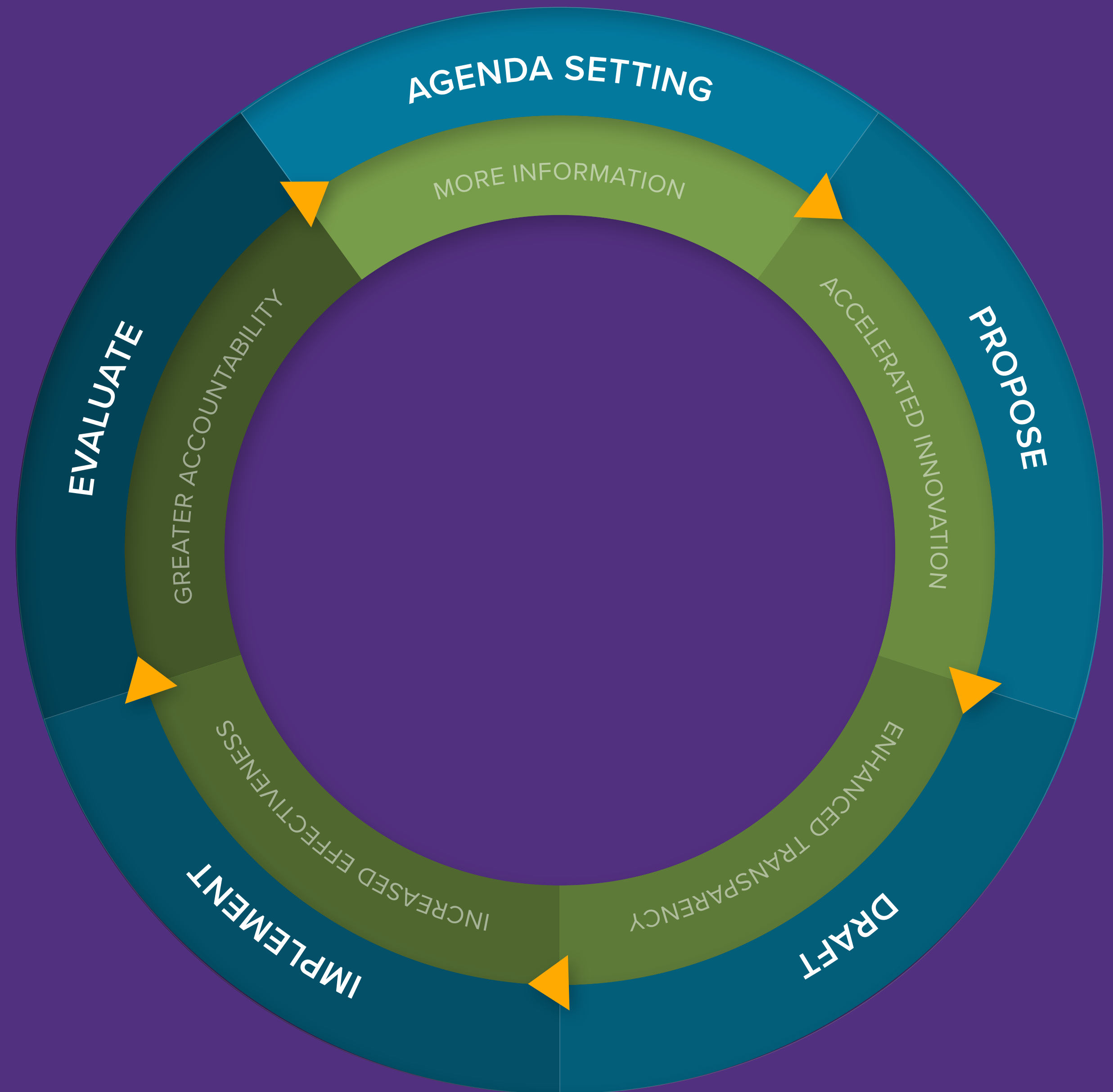


#RevoluciónCR/Desafíos (Costa Rica/Monterrey, Mexico)	Carbon-Neutral Helsinki 2035 (Finland)	Finnish Citizens' Initiative (Finland)	Governador Pergunta (Brazil)	New Start Career Network (United States)	synAthina (Greece)
Abre (Chile)	challenge.gov (United States)	Flint Property Portal (United States)	iPaidABribe (India)	PetaBencana (Indonesia)	Syria Tracker (Syria)
Air Louisville/Propeller Health (United States)	Cidade Democratica (Brazil)	<div>30 CASES</div>  <div>www.thegovlab.org/collective-intelligence.html</div>		PulsePoint/GoodSAM (United States/United Kingdom)	Ushahidi (Kenya)
All of Us (United States)	Civic Bridge (United States)			Safecast (Japan)	vTaiwan (Taiwan)
Belgian Sortition Models (Belgium)	Congressional Science Policy Initiative (United States)			Sharing the Roads Safely Citizens' Jury (Australia)	We Europeans (Europe)
Bristol Approach (United Kingdom)	Decidim Helsinki (Finland)	Listening to Africa (Sub- Saharan Africa)	Lakewood Sustainable Neighborhoods (United States)	Smarter Crowdsourcing for Zika (Latin America)	York Neighbourhood Approach (United Kingdom)



# STAGES OF LAWMAKING

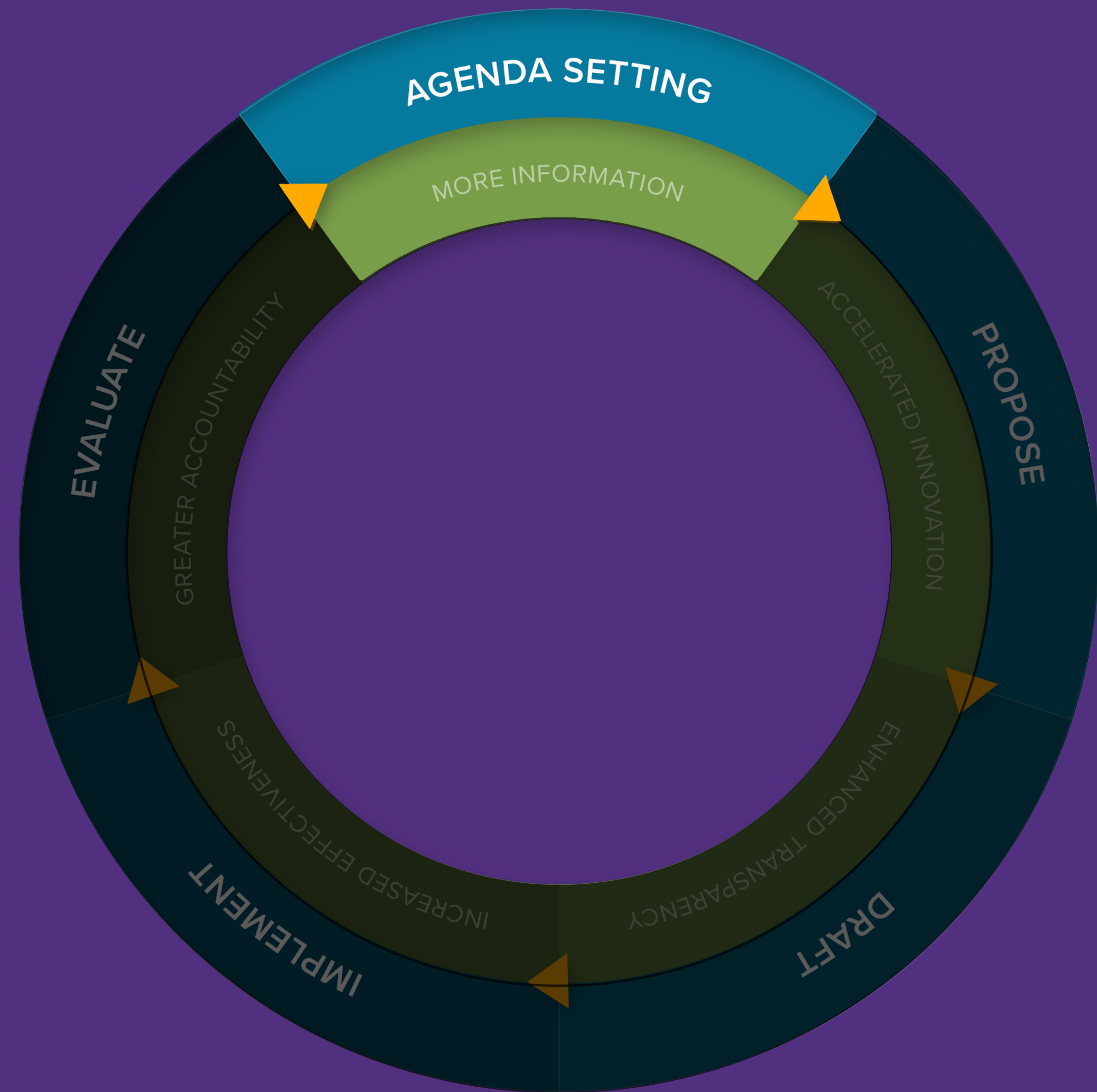
Public has the potential  
to enhance governance  
in every legislative phase



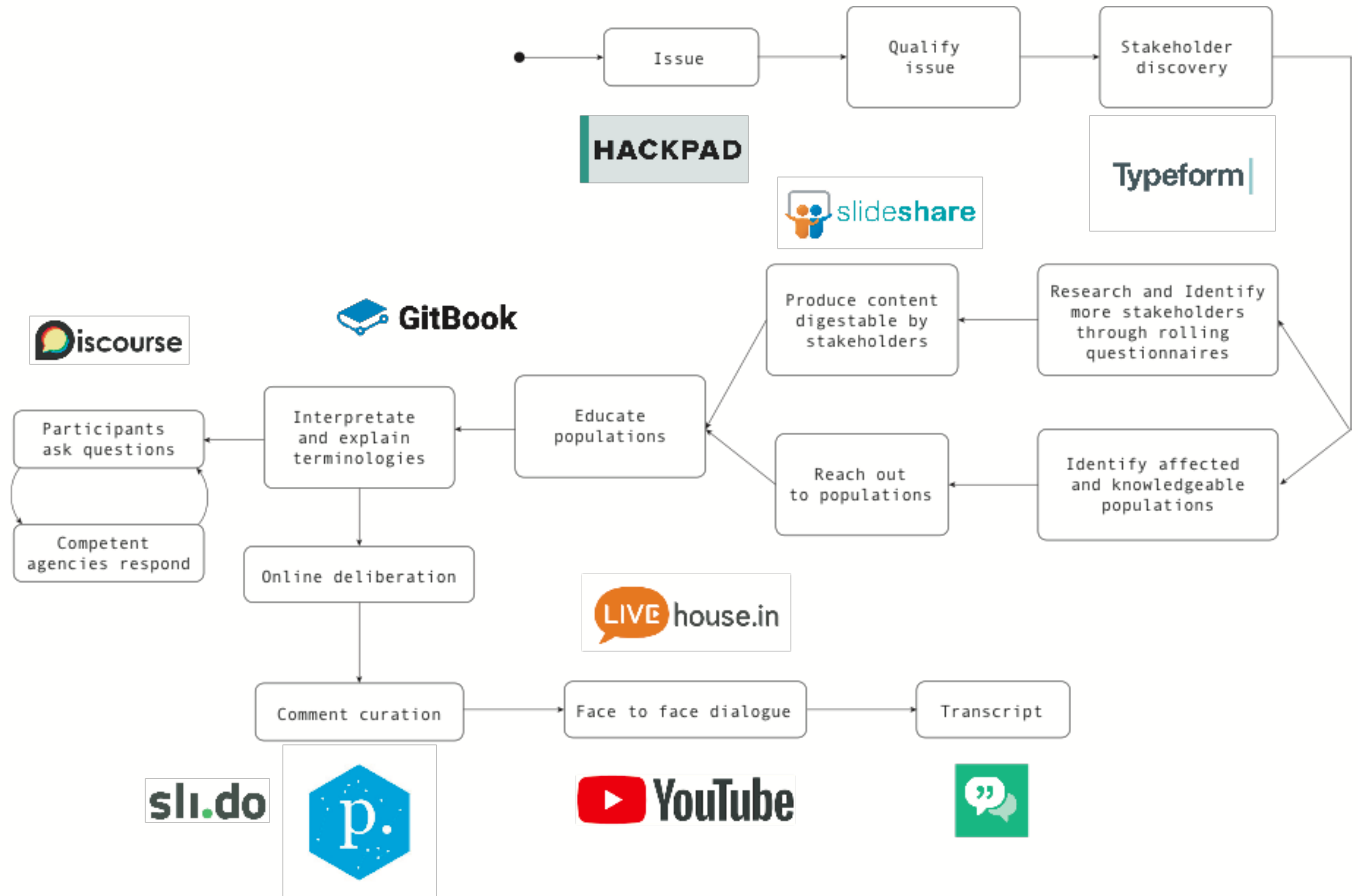


# STAGES OF LAWMAKING

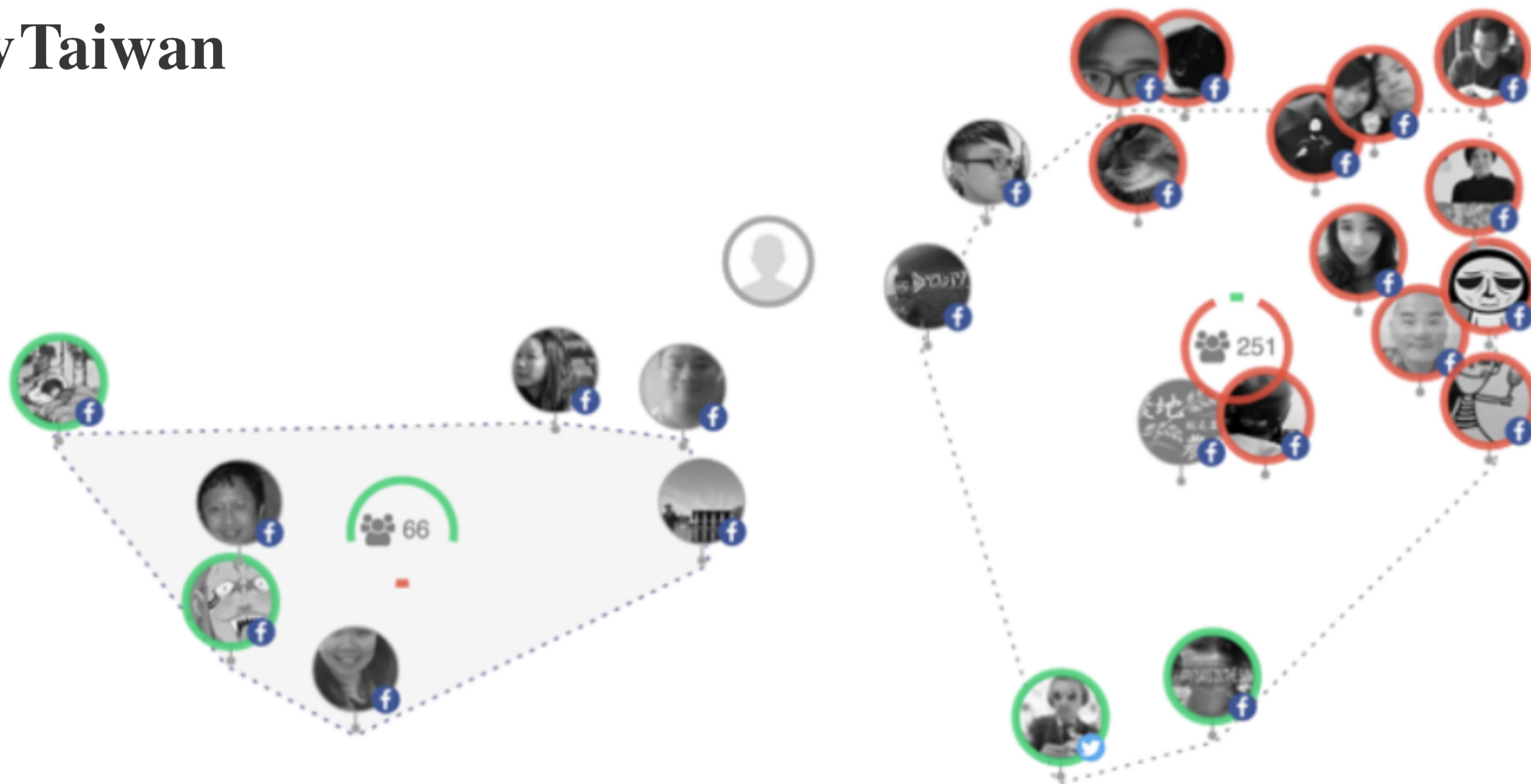
Public has the potential  
to enhance governance  
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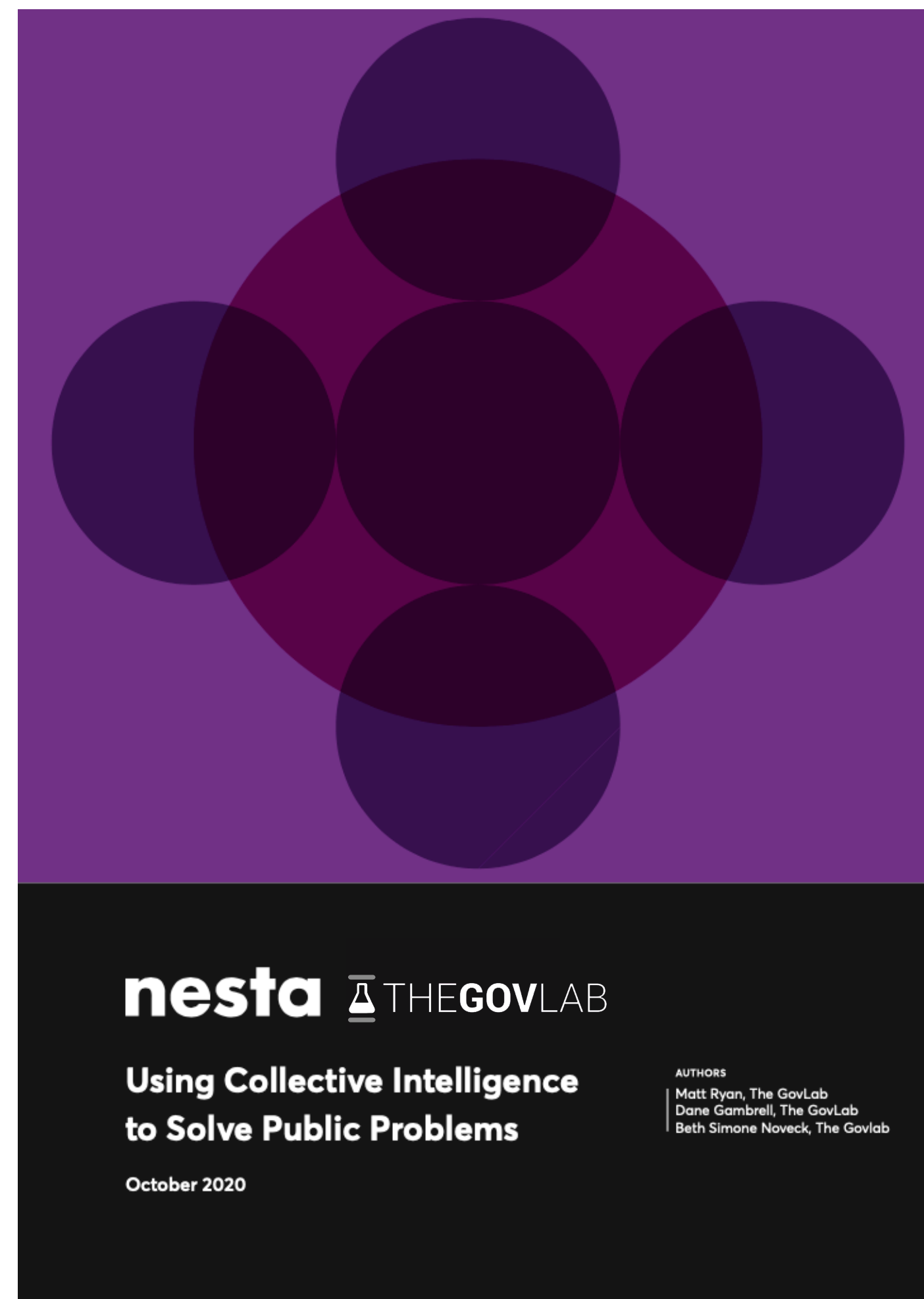
# THE MULTI CITY CHALLENGE



Through problem definition training, increasing connectivity within and between communities, and driving towards implementation, the Multi City Challenge enables committed cities to collectively tackle problems they have been unable to solve on their own.







# INSTITUTIONALIZING COLLECTIVE INTELLIGENCE

Ten examples of crowd and institution collaboration in practice



# CROWDLAW FOR CONGRESS

## congress.crowd.law

Videos, case studies and practical strategies showcasing how and why legislatures are using technology to engage with the public improve the quality and legitimacy of lawmaking.

[thegovlab.org](https://thegovlab.org)





# CROWDLAW FOR CONGRESS

STRATEGIES FOR 21<sup>ST</sup> CENTURY LAWMAKING



CrowdLaw For Congress Intro



CROWDLAW FOR CONGRESS



STRATEGIES FOR 21<sup>ST</sup> CENTURY LAWMAKING



INTRODUCTION TO CROWDLAW



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Videos, case studies and practical strategies showcasing how and why legislatures are using technology to engage with the public improve the quality and legitimacy of lawmaking.

EXPLORE CASE STUDIES

## Problem Definition

The arc of the lawmaking process begins with defining which problems to tackle. In the vTaiwan process, hundreds of thousands are translating broad issues into actionable problems. Such online participation enhances the level of information in the legislative process.

LEARN MORE ABOUT THIS STAGE →



CrowdLaw: Problem Definition

CROWDLAW FOR CONGRESS

STRATEGIES FOR 21<sup>ST</sup> CENTURY LAWMAKING



CROWDLAW STRATEGIES FOR PROBLEM IDENTIFICATION



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## Solution Identification

Lawmakers must devise effective and workable solutions to problems. *Parlement & Citoyens* in France enables citizens to submit solutions to a problem posed by a representative. Public participation in developing solutions enhances innovation in lawmaking.

LEARN MORE ABOUT THIS STAGE →



CrowdLaw: Solution Identification

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CROWDLAW STRATEGIES FOR SOLUTION IDENTIFICATION



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## Drafting

Lawmaking involves turning good ideas into written proposals for a bill. WikiLegis enables Brazilians to edit and comment on draft legislative text. By giving the public insight into the drafting process, online participation enhances transparency.

LEARN MORE ABOUT THIS STAGE →



CrowdLaw for Congress: Drafting

CROWDLAW FOR CONGRESS

STRATEGIES FOR 21<sup>ST</sup> CENTURY LAWMAKING



CROWDLAW STRATEGIES FOR DRAFTING



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## Evaluation and Oversight

Evaluation processes examine how a law is working. With new technology, a watchful community can



CrowdLaw for Congress: Evaluation

CROWDLAW FOR CONGRESS

STRATEGIES FOR 21<sup>ST</sup> CENTURY LAWMAKING



CROWDLAW STRATEGIES FOR EVALUATION AND OVERSIGHT



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By The GovLab

Telling the amazing story of the ways that cities are solving problems with citizens.

Listen on  Spotify

 **Message**

## WHERE TO LISTEN





# KEY LEARNINGS

## Ten Lessons Learned: How to Institutionalize Collective Intelligence



### Design for Success

The most successful projects are those where organizers have planned ahead, can articulate a concrete and specific task, involve the right people, and, above all, use what they learn.



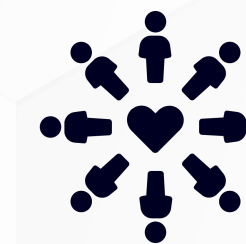
### Use Open Source Tools

Use of open source software enables projects to learn, evolve, develop tailored designs, and refine them based on citizens' feedback.



### Solving a Problem, Transforming an Institution

The projects that live longest combine a concrete and specific task with a broader mission to transform institutional cultures and their way of working from closed to open.



### Tap Existing Passions and Interests

Projects that address a strongly felt need can tap the enthusiasm and skills of people, both leaders and participants, who wish to solve public problems.



### Provide Training to Participants

Many civil servants and citizens are keen to help solve problems, but often lack the know-how. Training can amplify participants' impact and make them more likely to stay involved.



### Secure Robust and Predictable Funding

Collective intelligence projects can benefit from diverse, changing, and often unexpected sources of funding.



### Test, Adapt, and Test Again

As problems shift, collective intelligence projects need to continuously test new approaches, and adapt to meet emerging challenges and remain relevant in the public eye.



### Resource Availability

Scarcity of time and money in public institutions can hamper their ability to collaborate with crowds, yet engaging crowds can be an efficient way of using public resources to solve problems.



### Organizational Culture

Fostering a culture of transparency can help a public organization to communicate information internally and to the public, and to show that the government is listening.



### Political Support

The most successful collaborations between crowds and institutions are strengthened by public champions within the institution, and political support outside it.



# SOLVING PUBLIC PROBLEMS



How to take advantage of technology, data and the collective wisdom in our communities to design powerful solutions to contemporary problems.

TAKE THE COURSE

READ THE BOOK


SIGN UP FOR UPDATES!

"Nothing can stop the power of a committed and determined people to make a difference in our society." –The Late Member of Congress John Lewis


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Solving Public Problems [i](#)

Curated Tweets by [@TheGovLab](#)

 **Beth Simone Noveck** [✓](#)  
[@bethnoveck](#) [🐦](#)

For more on how [#CivicBridge](#) [@sfgov](#) coordinate engagement at scale between city governments and volunteer technologists, listen to [@deebrar](#) and then read more [collective-intelligence.thegovlab.org/case/civic-bri...](#)  
[https://twitter.com/TheGovLab/status/1370436715681361926](#)

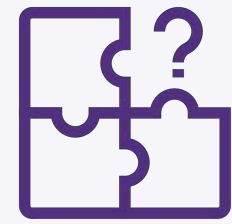
 **Collective Intelligence Case S...**  
More and more institutions have...  
[collective-intelligence.thegovlab...](#)

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EMS





**PROBLEM DEFINITION**



**DATA-ANALYTICAL THINKING**



**HUMAN-CENTERED DESIGN**



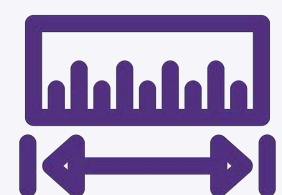
**COLLECTIVE INTELLIGENCE**



**RAPID EVIDENCE REVIEW**



**POWERFUL PARTNERSHIPS**



**MEASURING WHAT WORKS**