

# The Value(s) of Public Engagement

Understanding the motivation and purpose for engaging members of the public

The  
Alan Turing  
Institute



Recap

# Day 1

- What is Public Engagement?
- Climbing the ladder
- Models of public engagement
  - Deficit
  - Contextual
  - Lay expertise
  - Participatory
- Goals of public engagement
  - Improving public knowledge and awareness
  - Public deliberation
  - Establishing trust, legitimacy, and social license
  - Improving social welfare
  - Safeguarding and supporting human rights



Overview

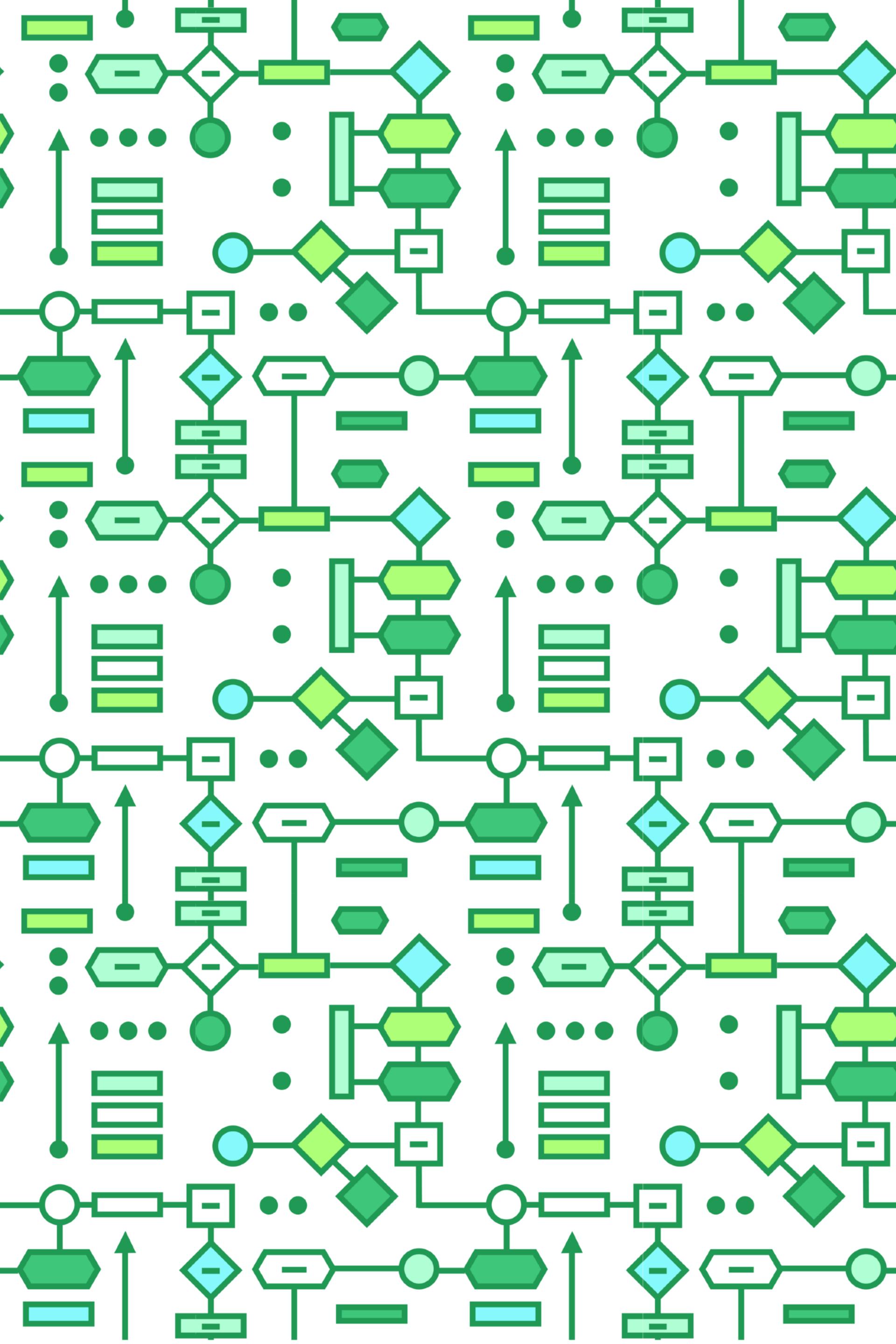
## Day 2

- The Value(s) of Public Engagement
  - Identifying values for effective deliberation
- Engagement in Principle vs. Engagement in Practice
- Responsible Public Engagement
  - SAFE-D Principles



Presentation 1

# Deliberative Values



Goals

## A Plurality of Values

For each model and goal we can expect to identify a plurality of supporting, underlying, or motivating values.

However, as all types of responsible public engagement are forms of communication, there are also shared communicative values that we can explore.



## Identifying Values

# Effective Deliberation



*"We define deliberation minimally to mean mutual communication that involves weighing and reflecting on preferences, values, and interests regarding matters of common concern."*

(Bachtiger et al. 2018, p. 12, emphasis added)

- Participants will enter into deliberation from a mixture of social, culture, and economic backgrounds.
- They will, therefore, have potentially conflicting values and preferences.
- Consensus does not have to involve *unanimous agreement* on a final outcome.

Example

## Conflicting Preferences

A team of social research scientists working with the local government is undertaking research into public attitudes concerning the environmental impact of potential traffic policies:

1. Increased electric vehicle charging point
2. Automated number plate recognition on “quiet streets”

What would happen if the research team asked participants to simply vote on these policies, without any prior deliberation?



Shared Values

# Communicative Values

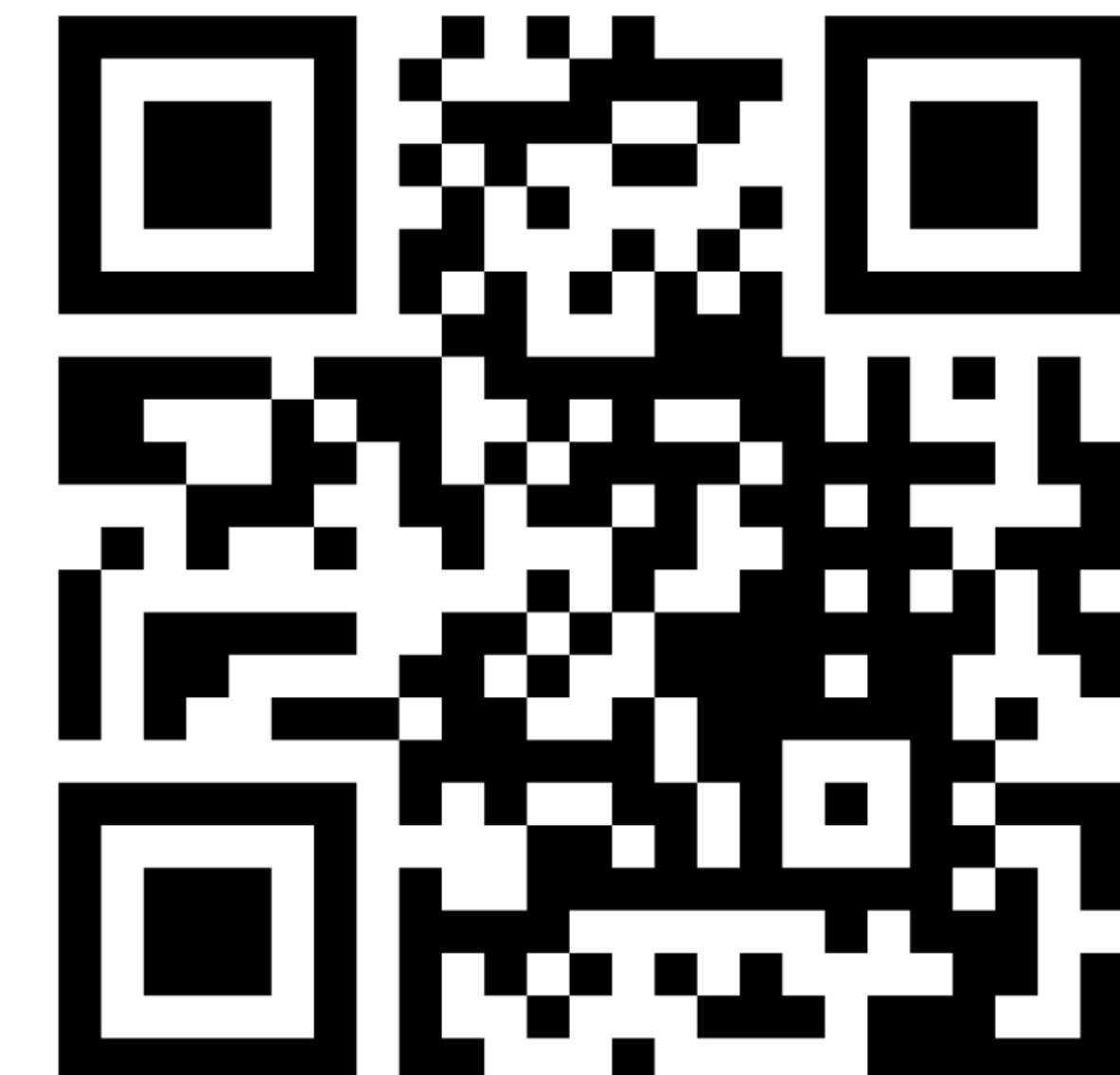
The following table displays two generations of standards for effective deliberation.

At root, these standards are communicative values that serve as preconditions for effective and ethical communication and deliberation.

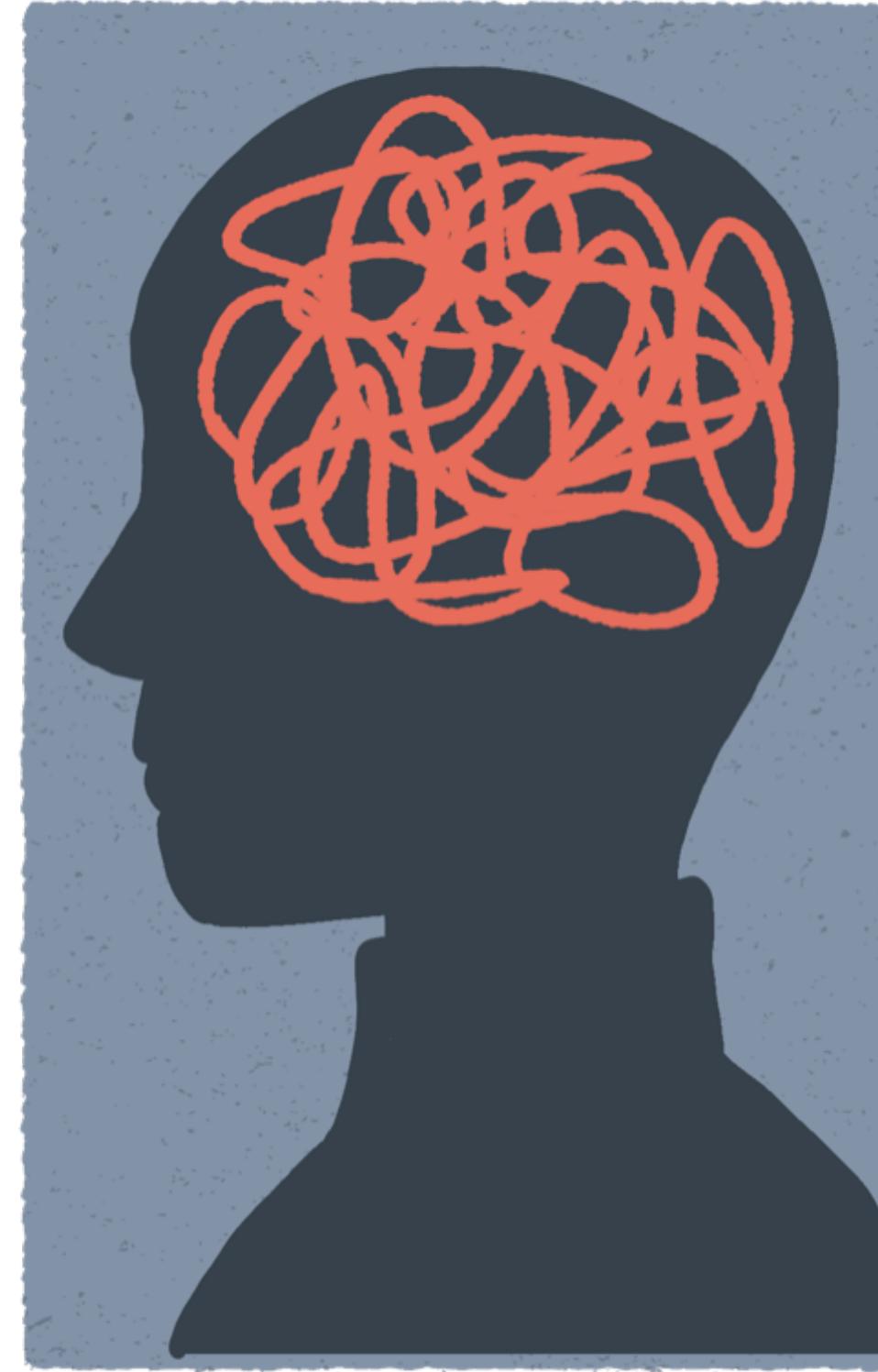
First Generation	Second Generation
Respect	Unrevised
Absence of power	Unrevised
Equality	Inclusion, mutual respect, equal communicative freedoms, equal opportunity for influence
Reasons	Relevant considerations
Aim at consensus	Aim at both consensus and clarifying conflict
Common good orientation	Orientation to both common good and self-interest constrained by fairness
Publicity	Publicity in many conditions, but not all (e.g., in negotiations when representatives can be trusted)
Accountability	Accountability to constituents when elected, to other participants and citizens when not elected
Sincerity	Sincerity in matters of importance; allowable insincerity in greetings, compliments, and other communications intended to increase sociality

# **What additional values do you associate with the remaining goals of public engagement?**

- Improved Public Awareness of Science and Technology
- Establishing Trust, Legitimacy, and Social License
- Improving Social Welfare
- Safeguarding and Supporting Human Rights



<https://www.menti.com/d6k6rmrcan>



The role of values and principles

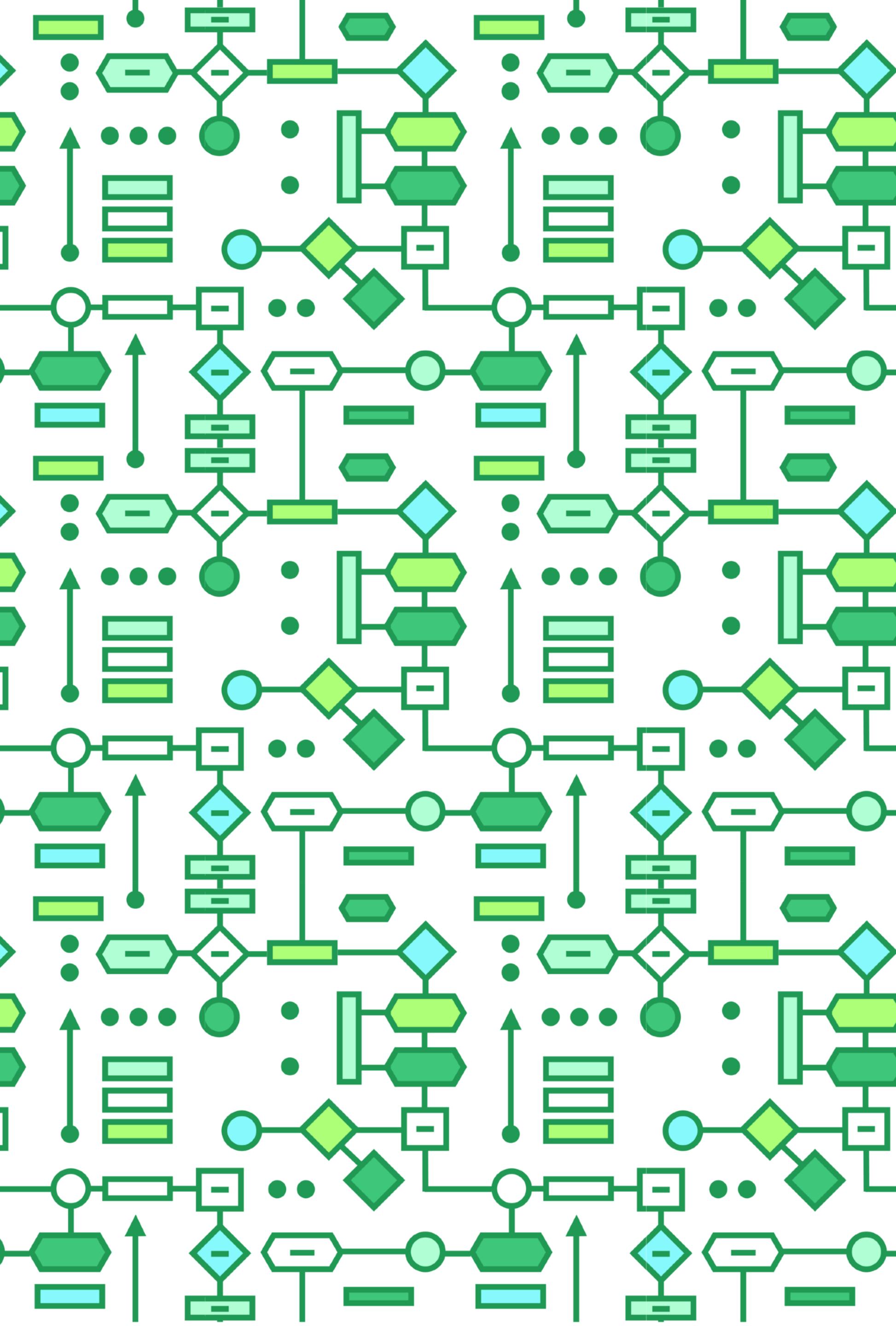
## Engagement in Principle vs. Engagement in Practice

- Consider the following principle:
  - "Ensure all individuals can participate equally".
  - Is this realistic? Can such a goal be achieved?
  - Values and principles help us determine *what we ought to do under ideal circumstances* (e.g. as rational agents with perfect information).
  - They serve an *action-guiding role*, even if they cannot ever be attained.
  - Some values may be worth striving harder for than others.

# Break

Activity 1

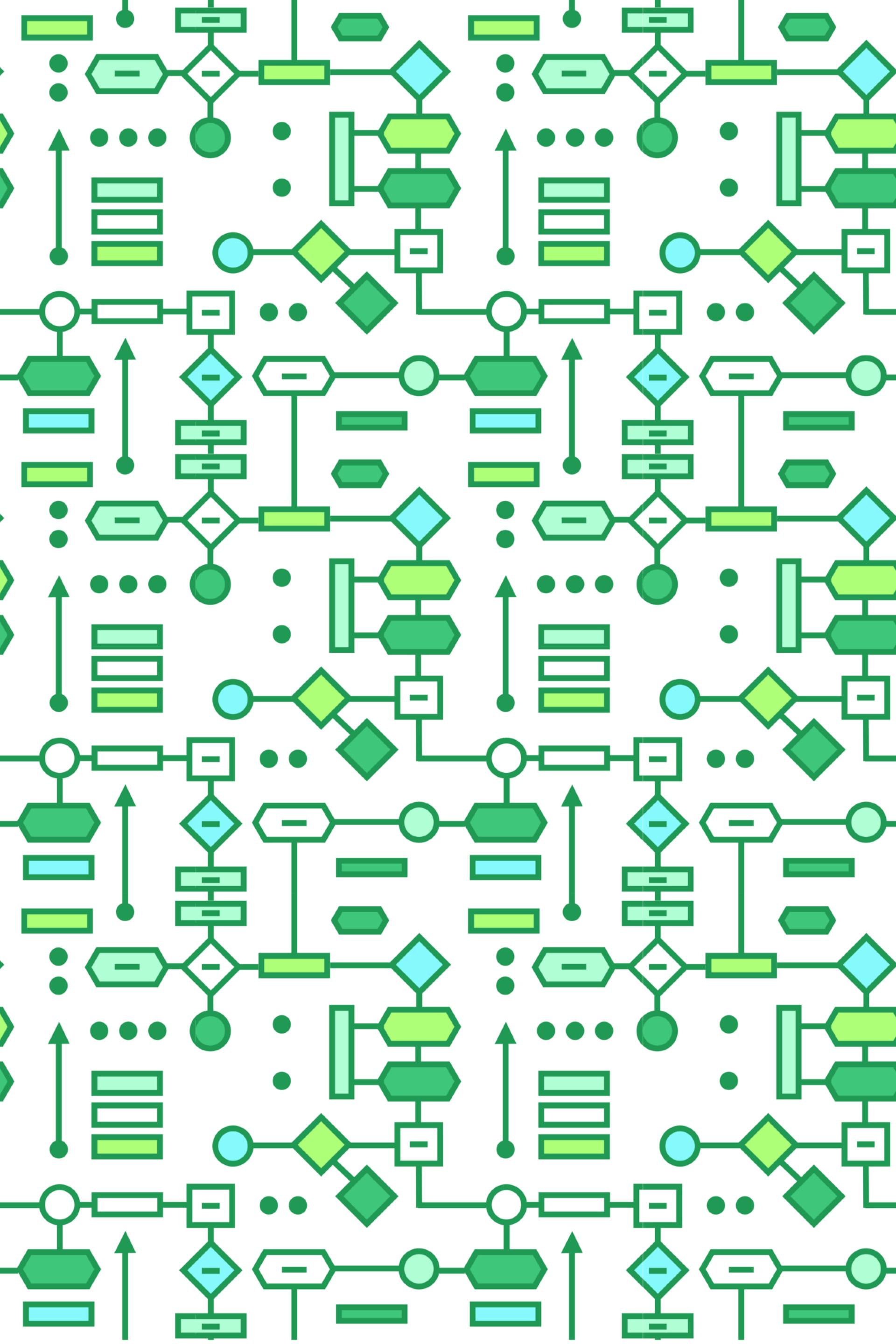
# Weighing Values



# Lunch

Presentation 2

# Responsible Public Engagement





Social Consequences

## Responsible Research and Innovation

*The public have to live with the consequences of science and technology. As such, RRI is above all "an opportunity for truly collective stewardship of our highly technologized future."*

(Sebastian Pfotenhauer quoted in Pain, 2017)

**What does it mean to conduct *responsible* public engagement in data science and AI?**



## Public Engagement

# Responsible Data Science and AI

- Data and digital literacy (e.g. understanding of statistics)
- Varied conceptual understanding (e.g. 'autonomous and adaptive behaviour', 'intelligence', or 'algorithmic system')
- Variability in attitudes (e.g. data privacy, algorithmic aversion)
- Values and norms towards data-driven technology are still in flux

## Competing Pressures

# The Burden of Responsibility

### ” Quote

The lack of diverse jobs after a PhD, a shrinking funding budget and lack of public support all seem daunting to graduate students. In the face of these major hurdles, many scientists isolate themselves from these issues and focus on their own research. A recent study has shown, however, that increased interaction with reporters and the more Twitter mentions a study receives correlate with a higher *h*-index of the author, a metric for measuring the scientific impact of a publication. To determine whether media coverage of a published science article is causative of increased citations, a 1991 study looked at journal articles that would have been covered by the New York Times, but due to a writer's strike in the late 1970s, were not. Researchers found that the journal articles that were not covered had consistently less citations than other research articles covered by the Times. There is clear value for the science research community to publicise new findings to the public. (Pham, 2016)



## SAFE-D Principles

# Sustainability

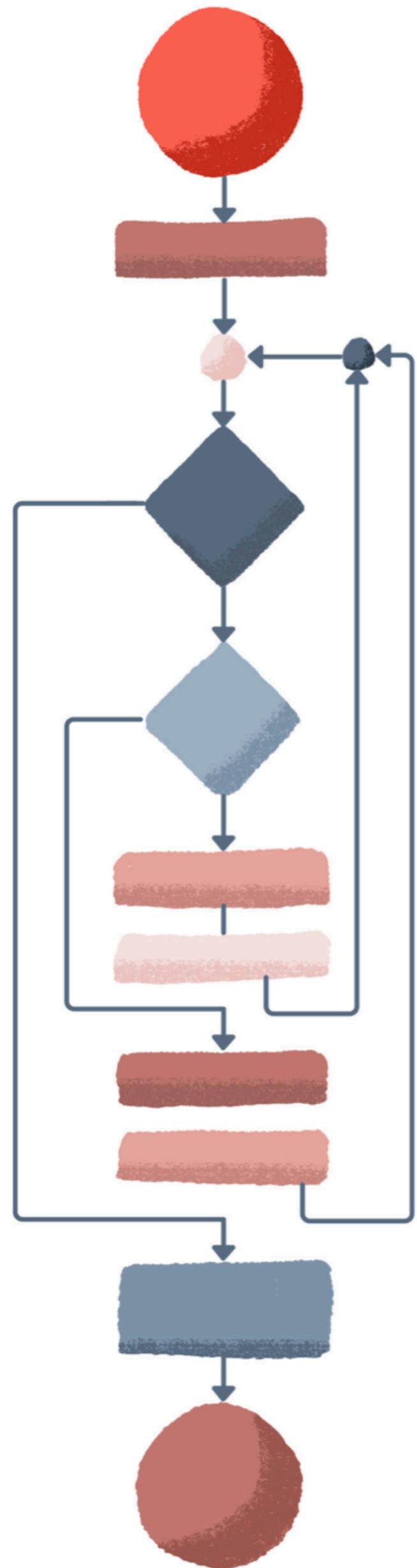
Sustainability requires the outputs of a project to be:

- safe, secure, robust, and reliable
- informed by ongoing consideration of the risk of exposing individuals to harms even after the system has been deployed and the project completed—a long-term (or sustainable) form of safety.



SAFE-D Principles  
**Sustainability**

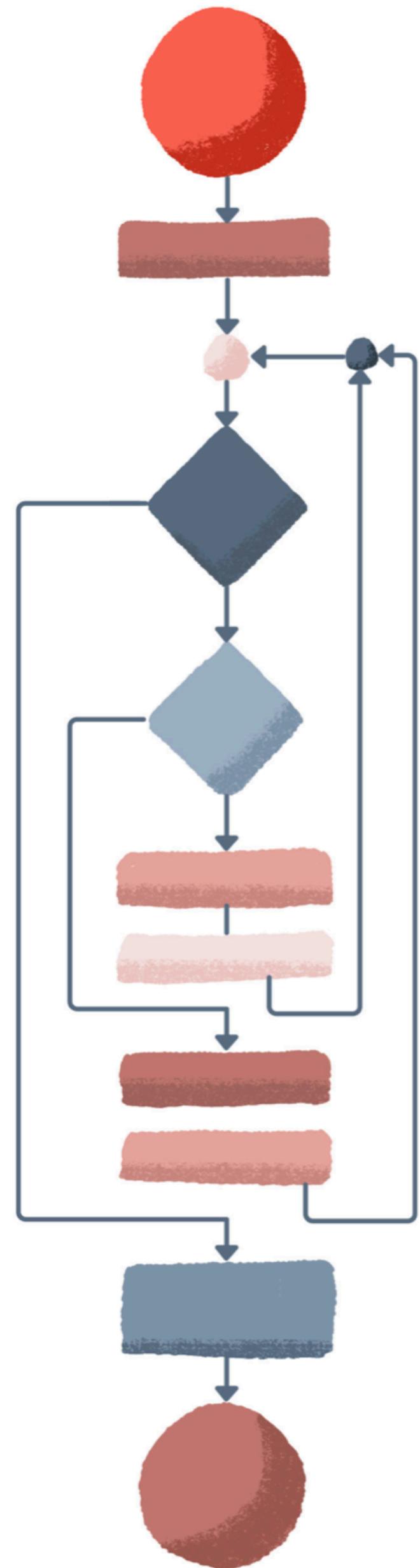
*Who designs the future?*



SAFE-D Principles

## Accountability

Accountability can refer to transparency of processes and associated outcomes that enable people to understand how a project was conducted (e.g., project documentation), or why a specific decision was reached. But it can also refer to broader processes of responsible project governance that seek to establish clear roles of responsibility where full transparency may be inappropriate (e.g., confidential projects).



SAFE-D Principles  
**Accountability**

*“Sometimes we want everyone’s voice to be heard because we think that will make a better decision as a result, and sometimes we want everyone’s voice to be heard simply because we think that everyone has a right to be heard.”*

(MacGilvray, 2013)



SAFE-D Principles  
**Fairness**

*“15 per cent of scientists come from working class backgrounds; and in the US, children from the top 1 per cent of richest families (by income) are ten times as likely to have filed for a patent as those from families in the bottom half of the income distribution”*

(Nesta/Saunders, 2018, p. 1)



SAFE-D Principles

## Fairness

Fairness is inseparably connected with legal conceptions of equality and justice, which may emphasise a variety of features such as non-discrimination, equitable outcomes, or procedural fairness through bias mitigation.

However, these notions serve as a subset of broader normative considerations pertaining to social justice, socioeconomic capabilities, diversity and inclusivity.



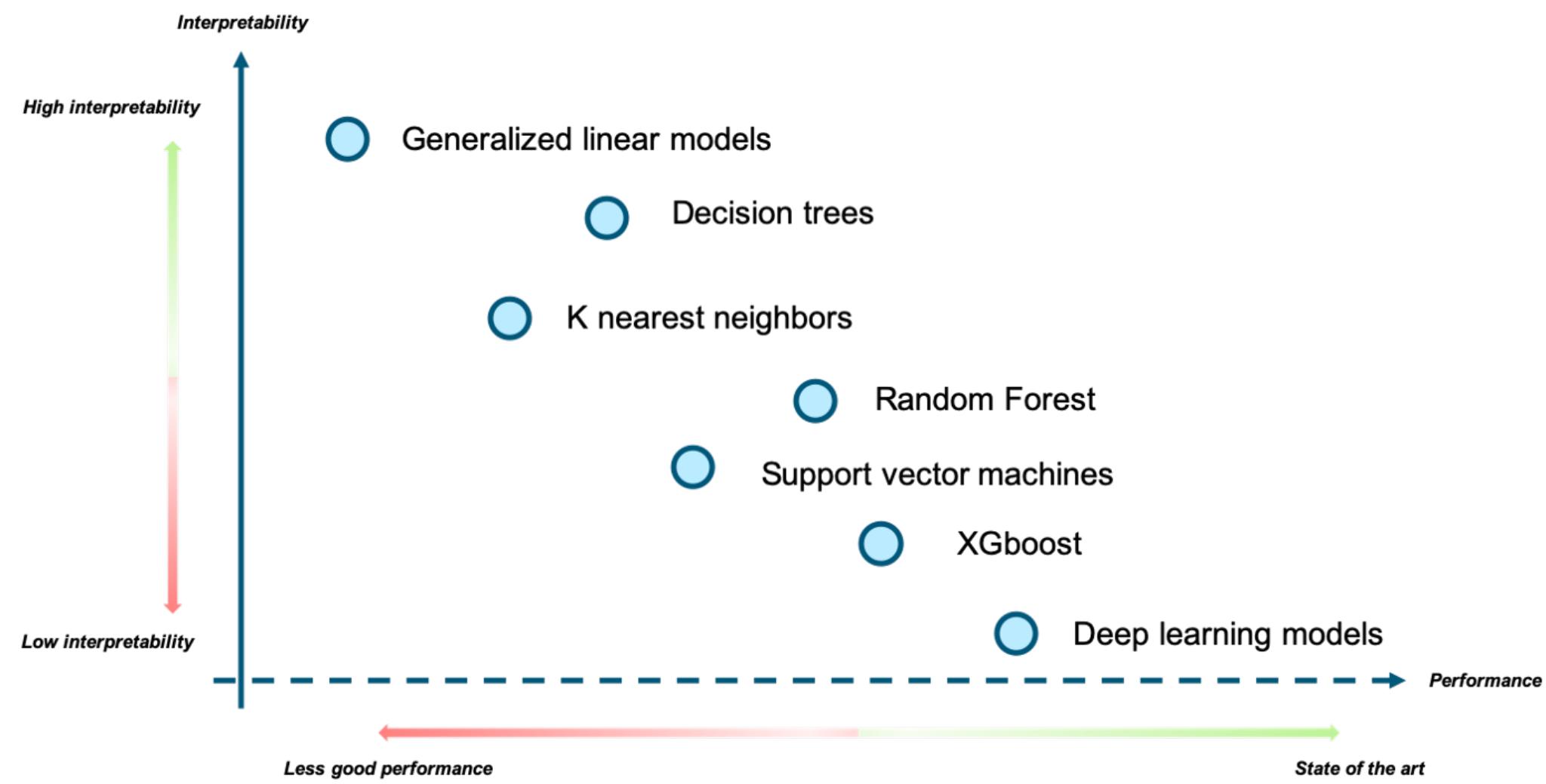
SAFE-D Principles

## Explainability

Explainability goes beyond the ability to merely *interpret* specific aspects of a project (e.g., interpreting the parameters of a model); it also depends on the ability to provide an accessible and relevant information base about the processes behind the outcome.

## SAFE-D Principles

# Explainability



Public engagement can support evaluation and determination of both the accessibility and usability of different explanations, as well as providing input on possible trade-offs between, say, the interpretability and accuracy of possible system types (e.g., decision trees versus neural networks).



## SAFE-D Principles

# Data Quality, Integrity, Protection and Privacy

‘Data Quality’ captures the static properties of data, such as whether they are (a) *relevant* to and *representative* of the domain and use context, (b) *balanced* and *complete* in terms of how well the dataset represents the underlying data generating process, and (c) *up-to-date* and *accurate* as required by the project.



## SAFE-D Principles

# Data Quality, Integrity, Protection and Privacy

'Data Integrity' refers to more dynamic properties of data stewardship, such as how a dataset evolves over the course of a project lifecycle. In this manner, data integrity requires (a) *contemporaneous* and *attributable* records from the start of a project (e.g., process logs; research statements), (b) ensuring *consistent* and *verifiable* means of data analysis or processing during development, and (c) taking steps to establish *findable*, *accessible*, *interoperable*, and *reusable* records towards the end of a project's lifecycle.



## SAFE-D Principles

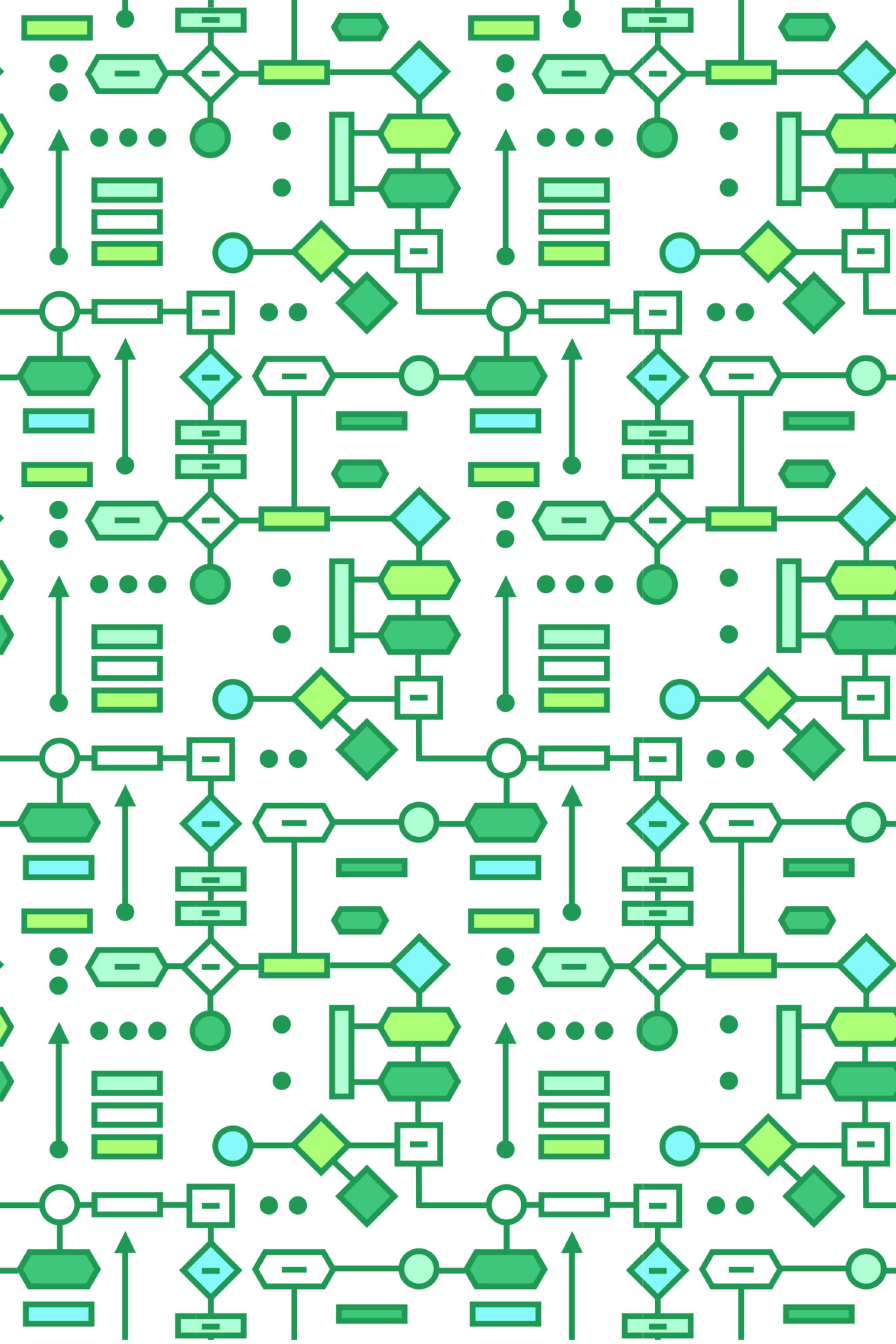
# Data Quality, Integrity, Protection and Privacy

‘Data protection and privacy’ reflect ongoing developments and priorities as set out in relevant legislation and regulation of data practices as they pertain to fundamental rights and freedoms, democracy, and the rule of law. For example, the right for data subjects to have inaccurate personal data rectified or erased.

# Break

Activity 2

## Developing your Case Studies



Day 3

## Tomorrow

- Professor David Spiegelhalter (Guest Lecture)
  - Trustworthy communication about data and algorithms
- Practical Methods and Processes
  - Who should you engage?
  - When should you engage?
  - How should you engage?
- Analysing Stakeholders (Guest Activity)



# Thank you!

See you tomorrow!