

Descartes Labs Santa Fe October 5, 2018

Data-animated organizations

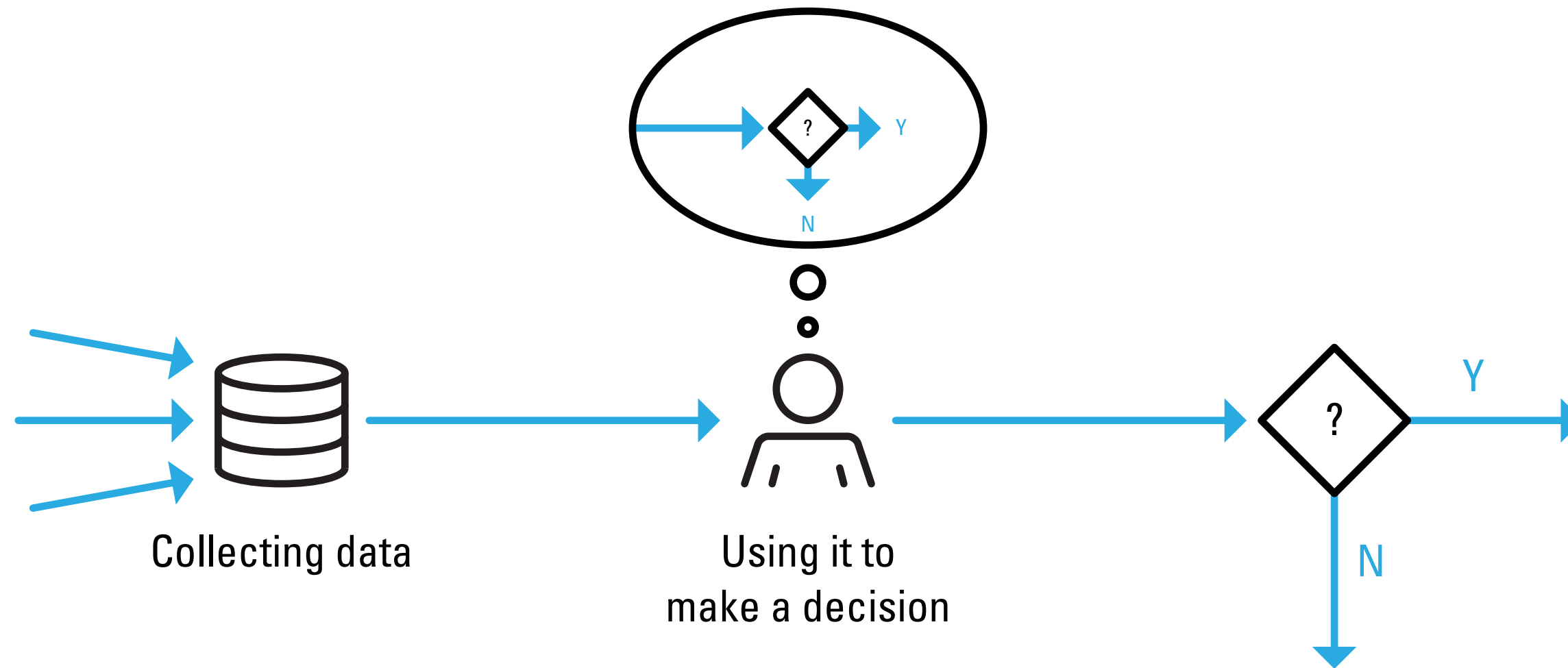
A blueprint

Hugh Dubberly
Dubberly Design Office

Every manager wants a data-driven organization.

What does data-driven mean?

For most people, data-driven means ...



In the last 10 years, the process has become more robust ...

Data

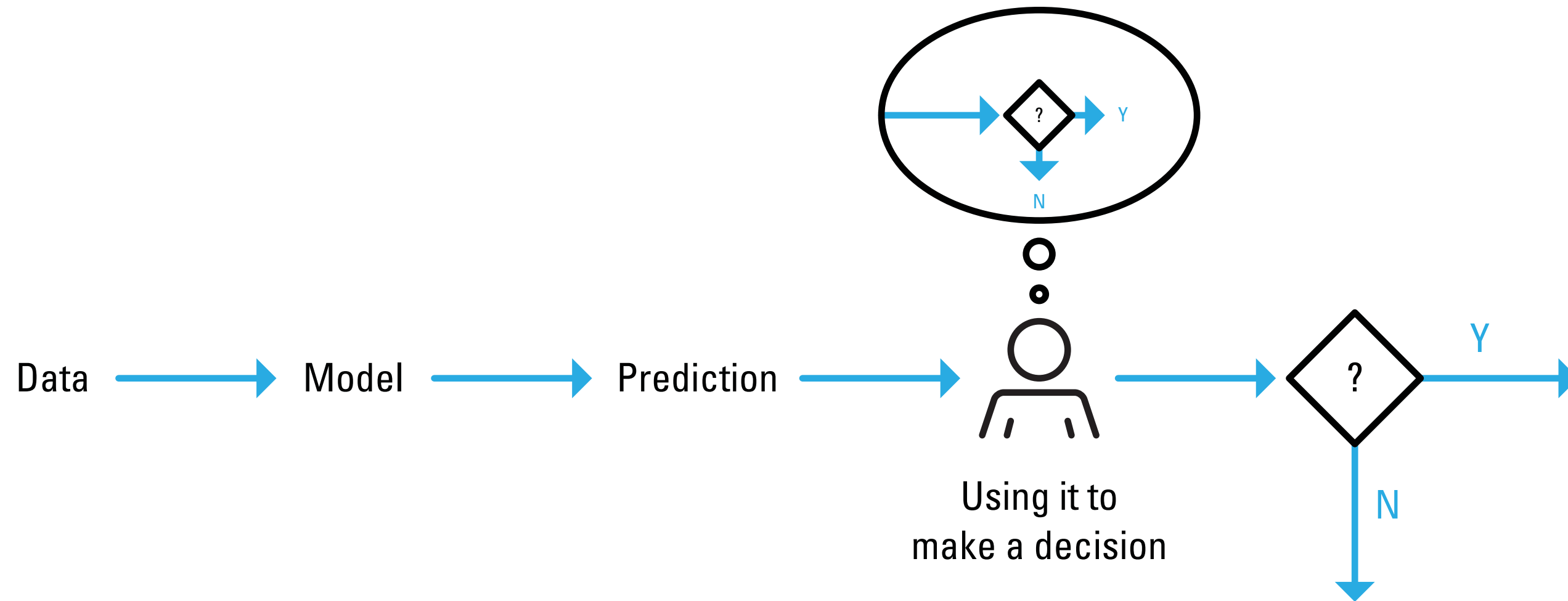
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Data  Model

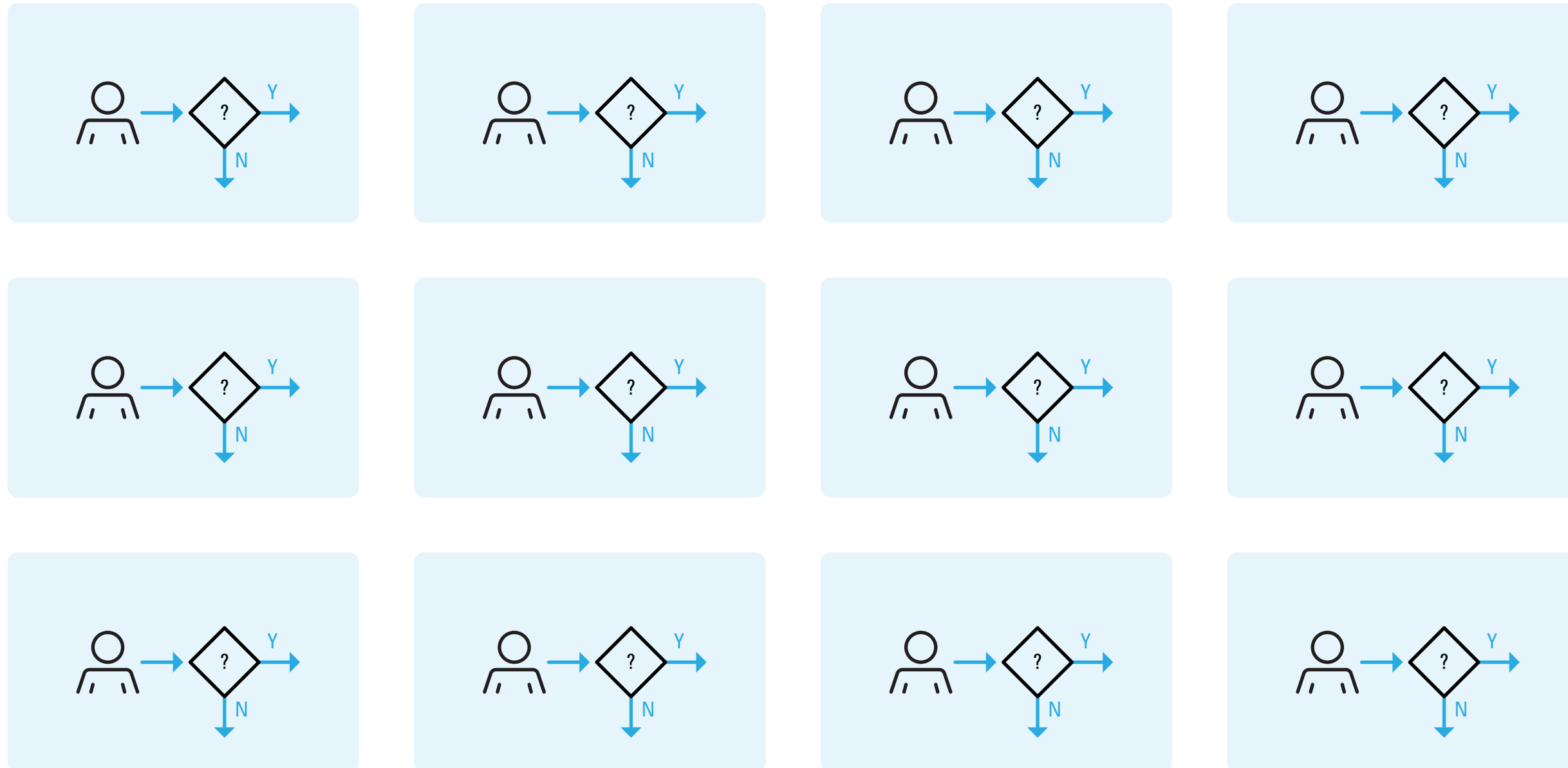
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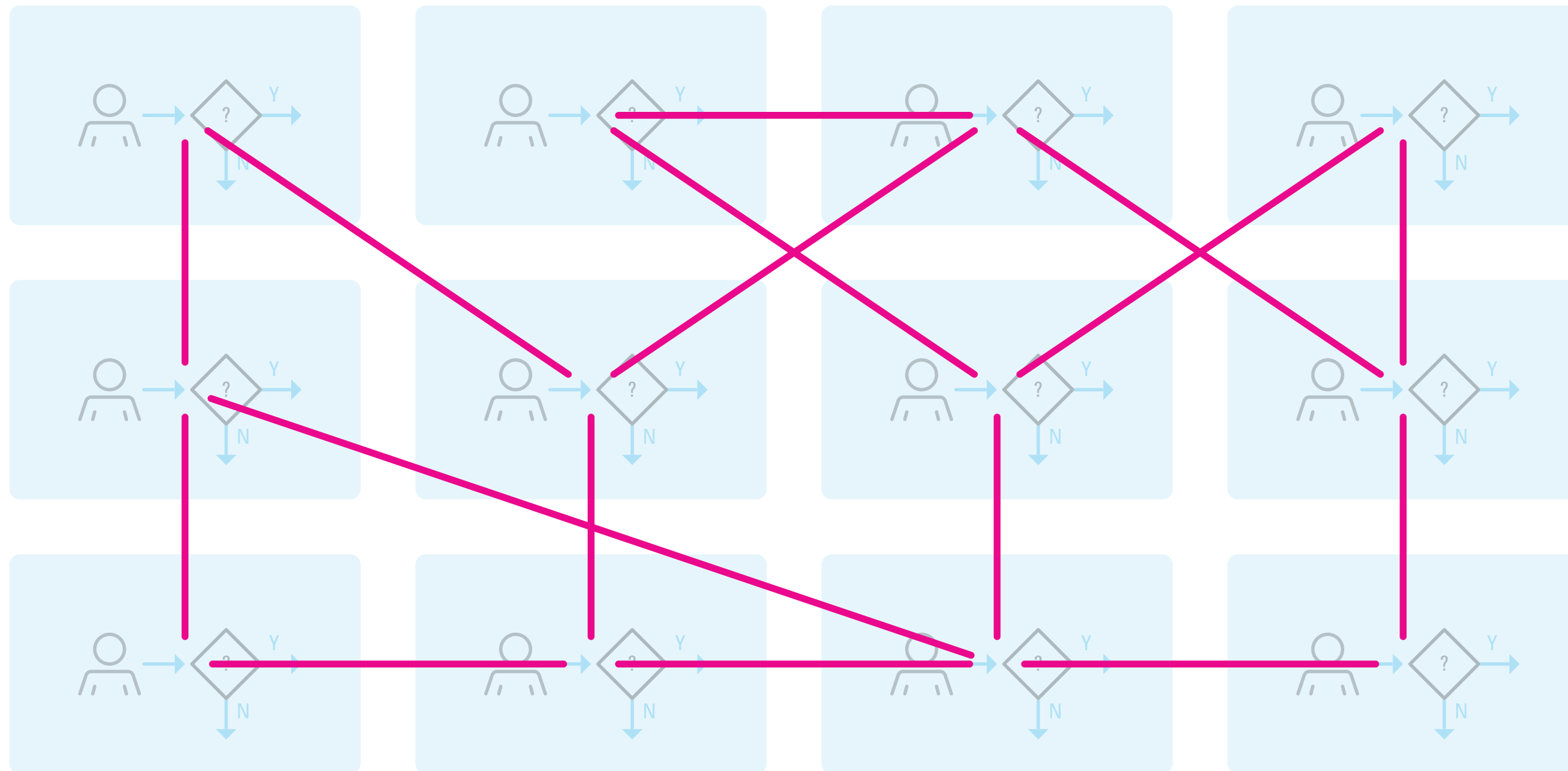
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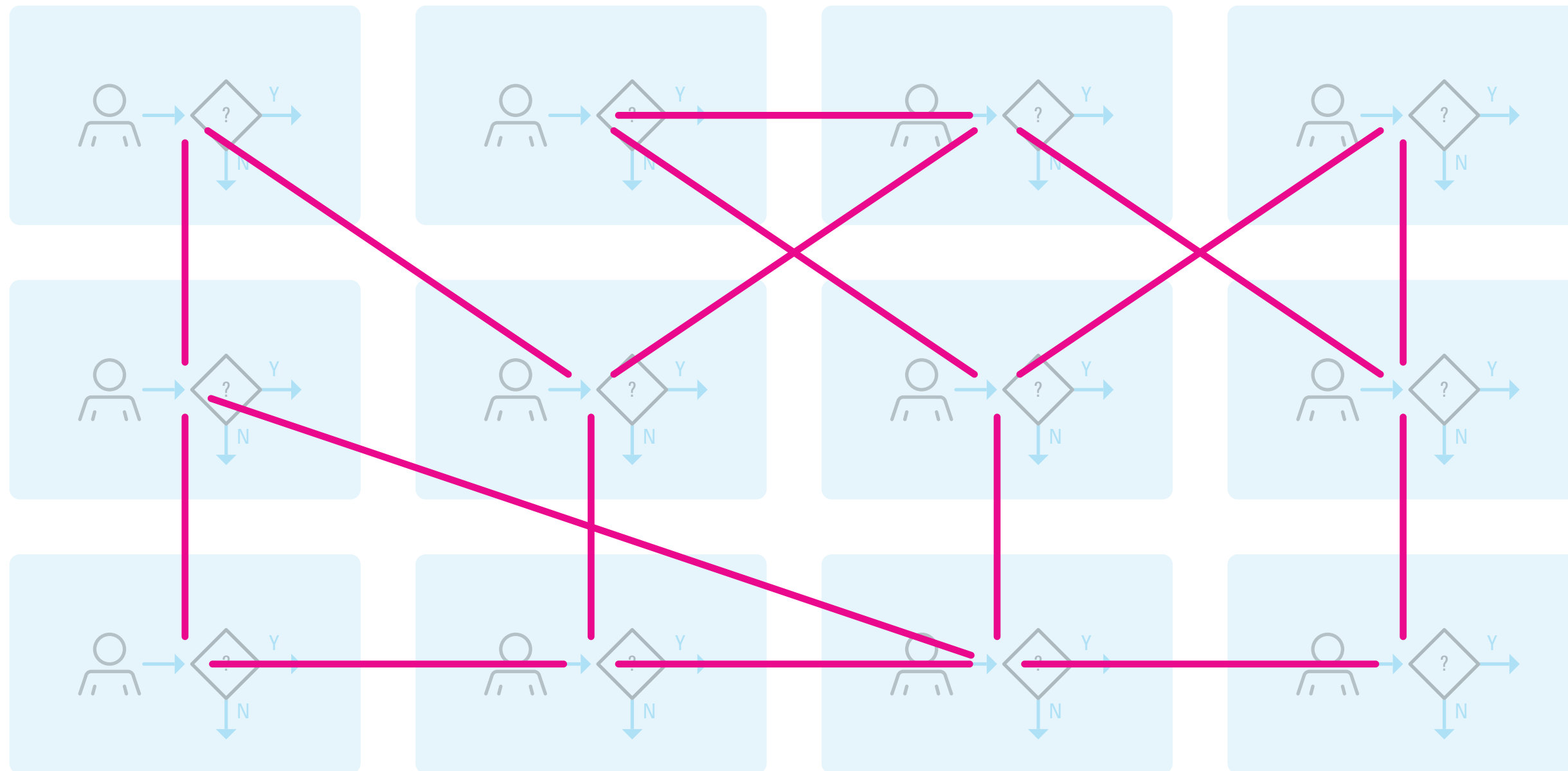
Most organizations are siloed—data decisions are isolated



In reality, individual decisions affect others—and the whole



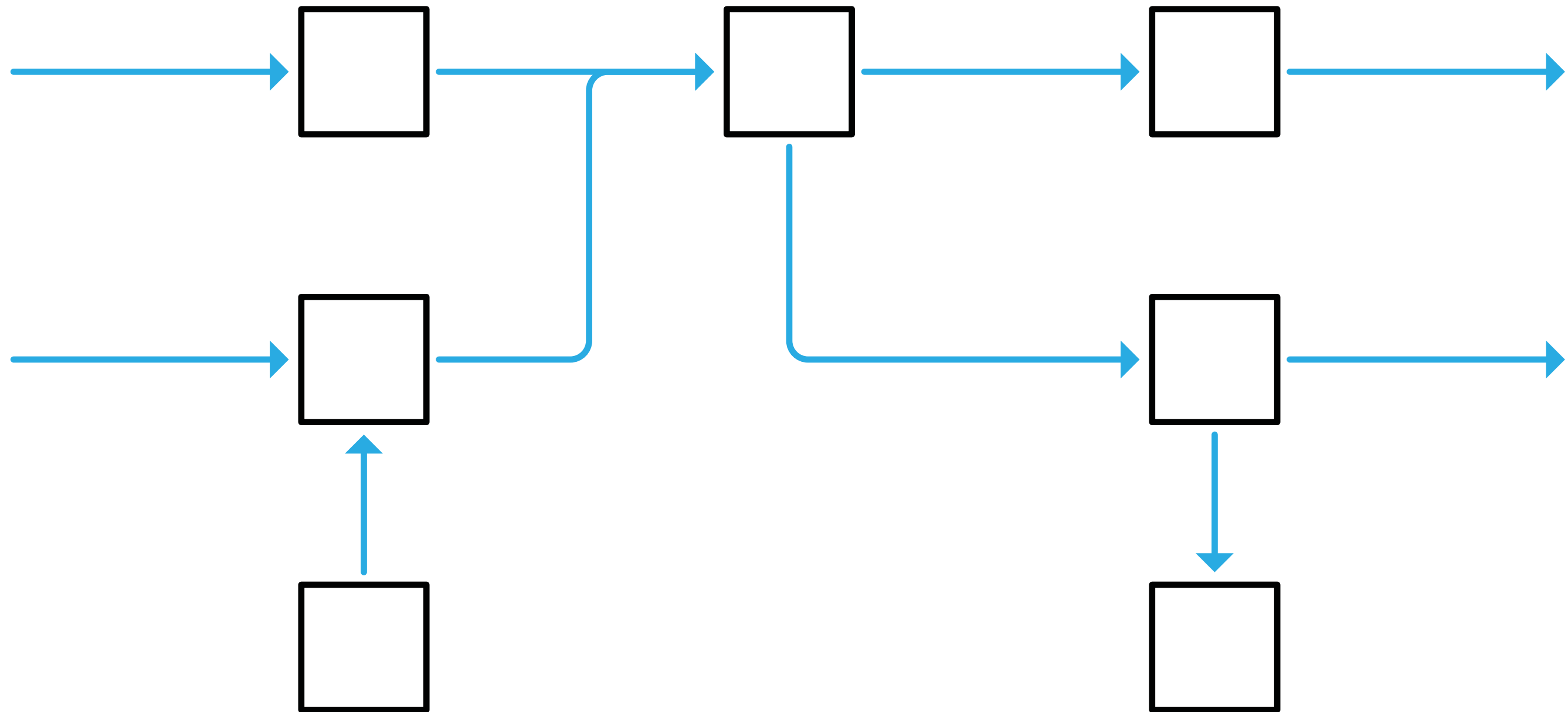
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The org is **not** a tree;
it's a graph,
and it's changing,
continually

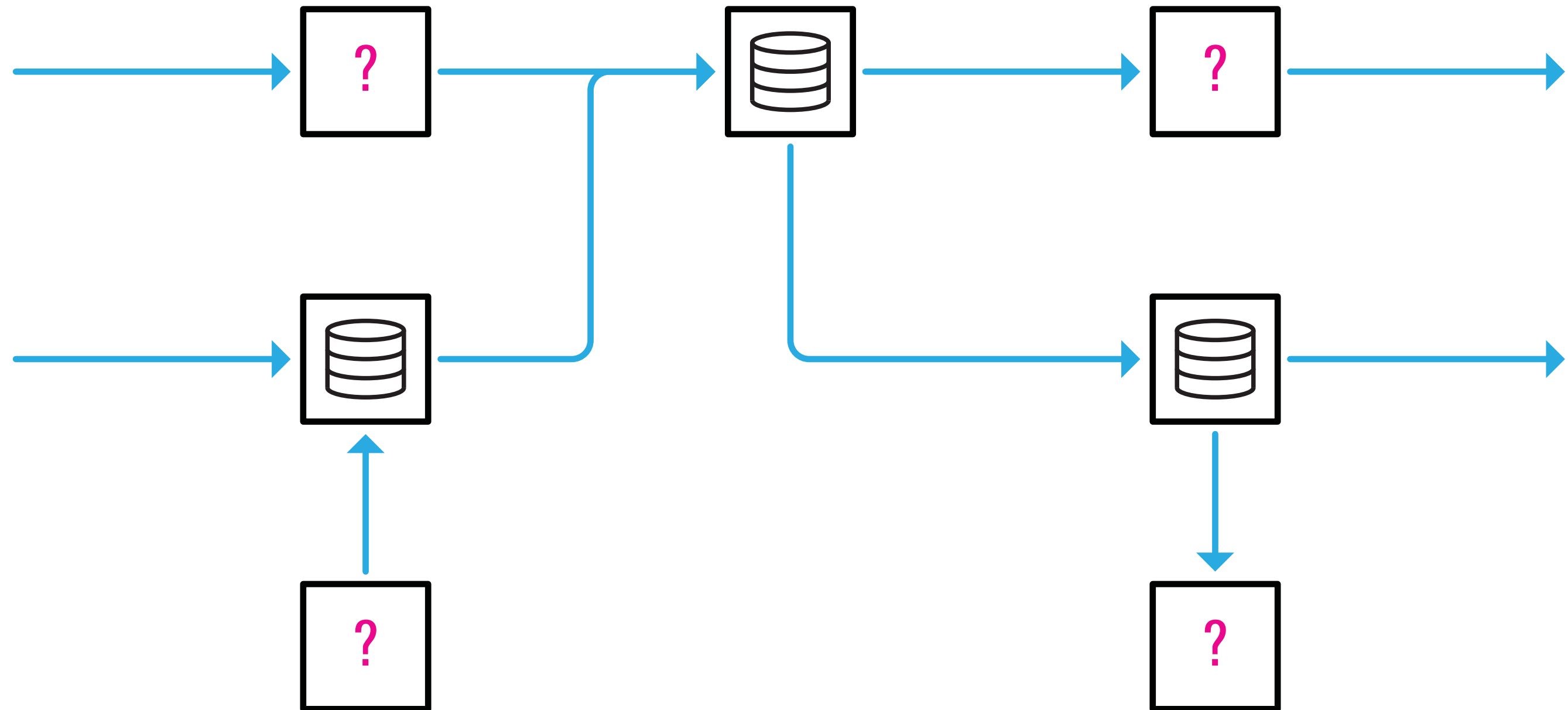
Can we understand the organization—as a whole?

What does it mean to model the organization (and its environment) as a set of dynamic systems?

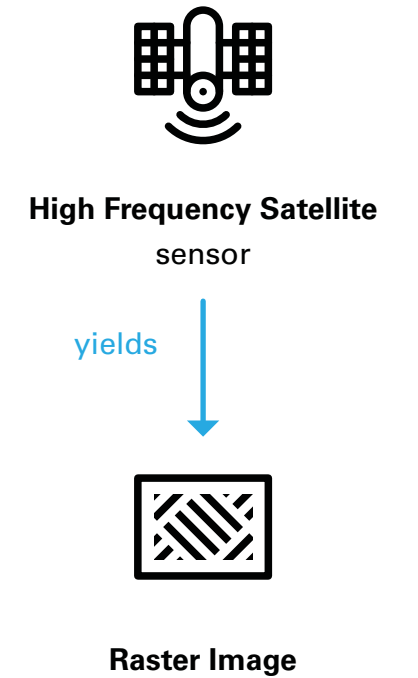
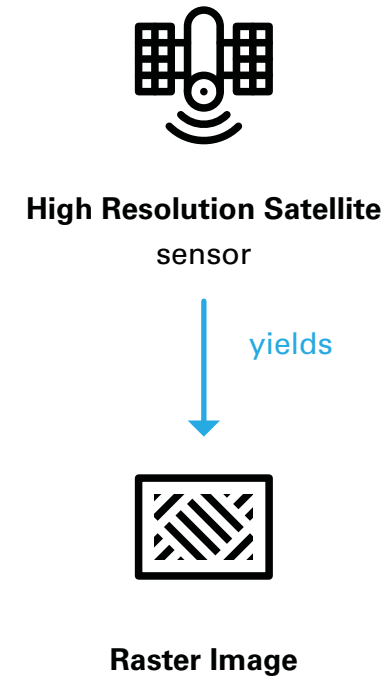


Where do we have visibility—i.e. data

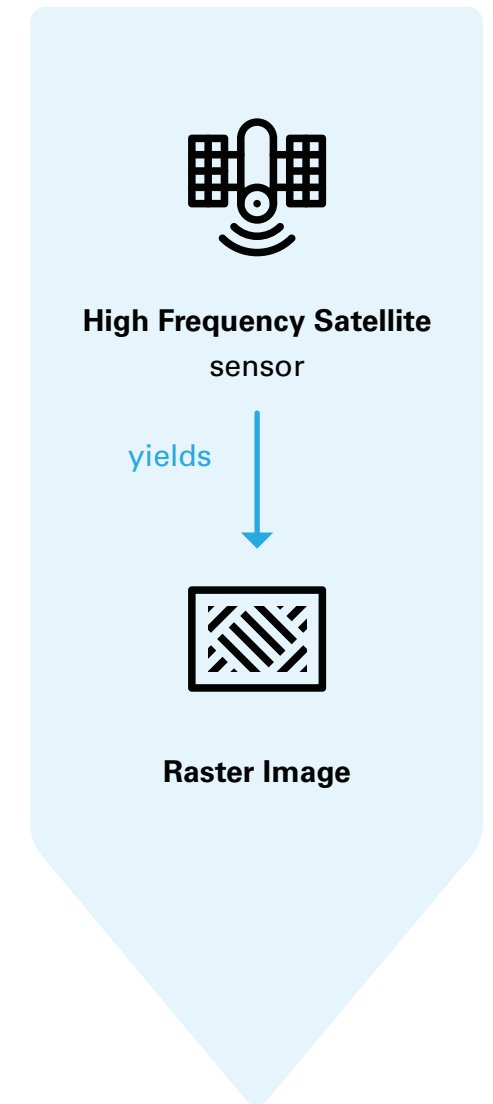
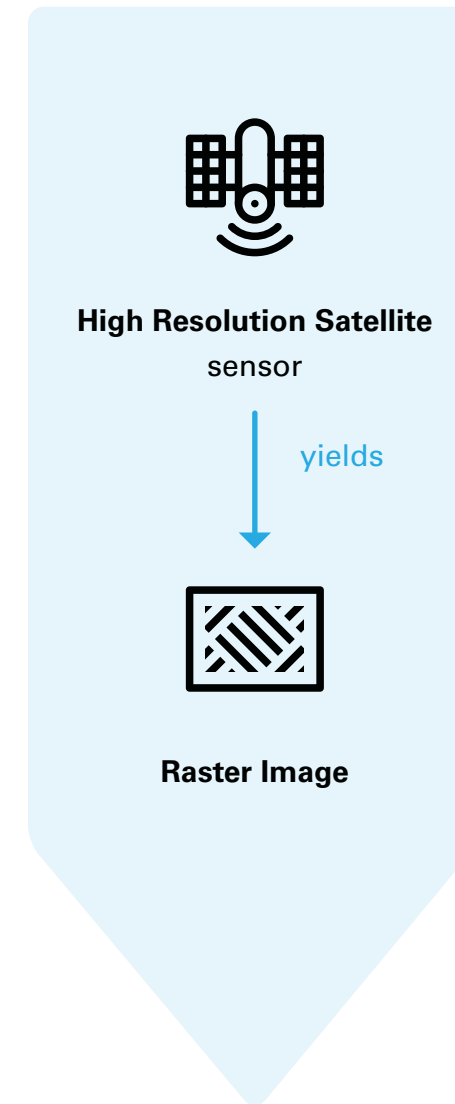
Where could we increase visibility through data?



Data is available as reusable building blocks
They can be assembled to form a “solution”—
a way to answer a question.
Blocks vary from raster to vector,
from “raw” to highly refined.

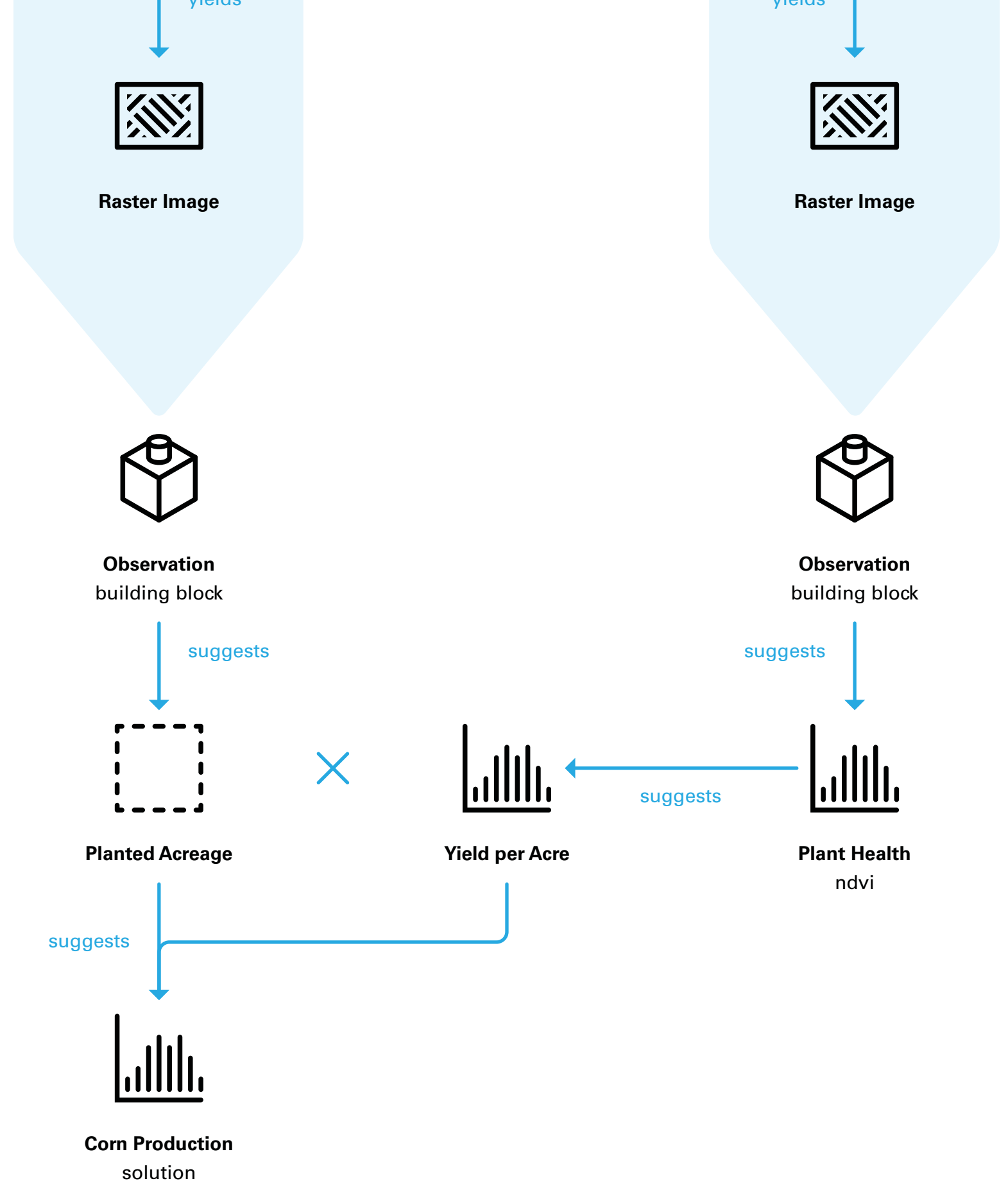


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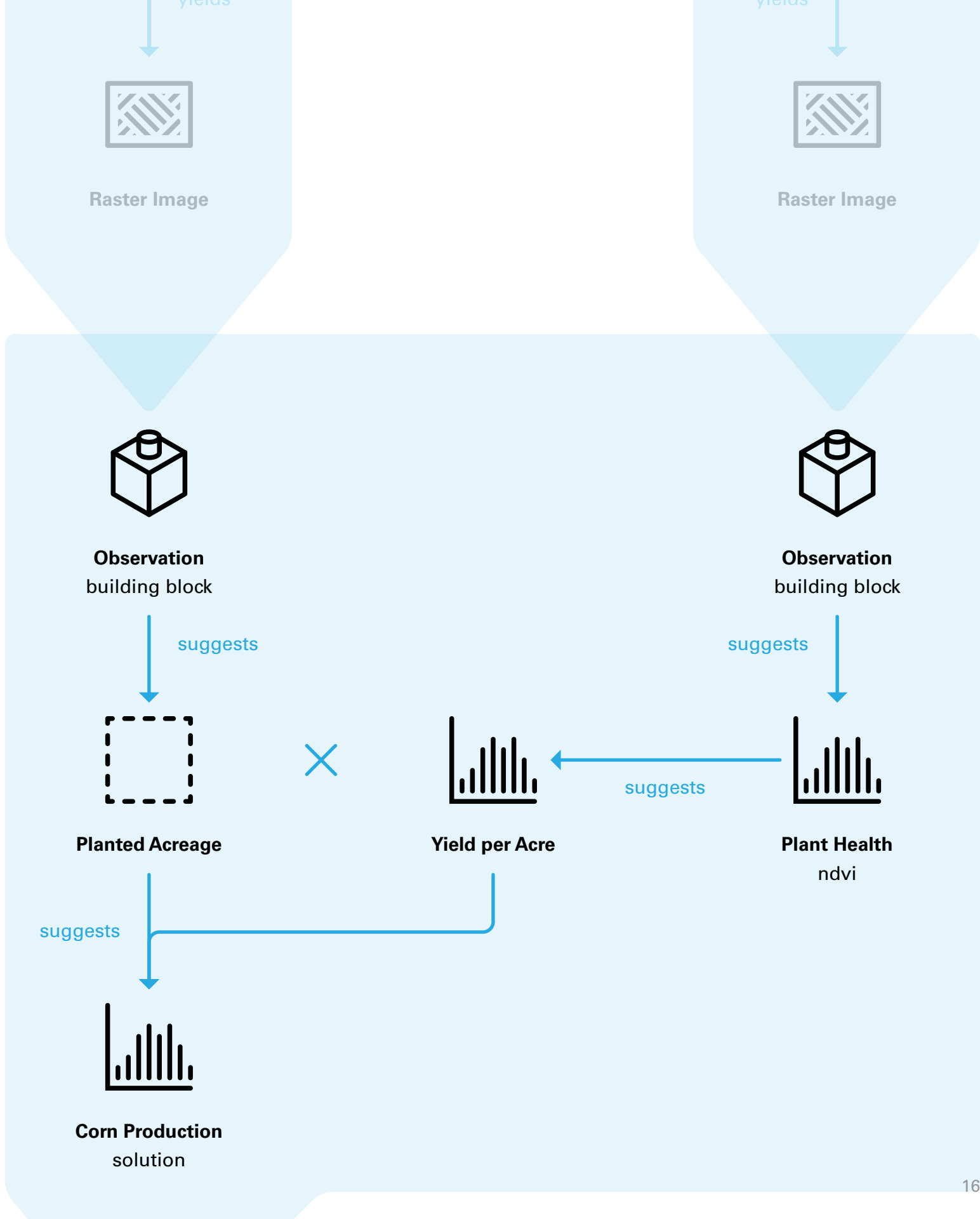
Assemble building blocks to find the answers that matter.

Solutions are structured as a graph, where building blocks are nodes, and operations are edges.

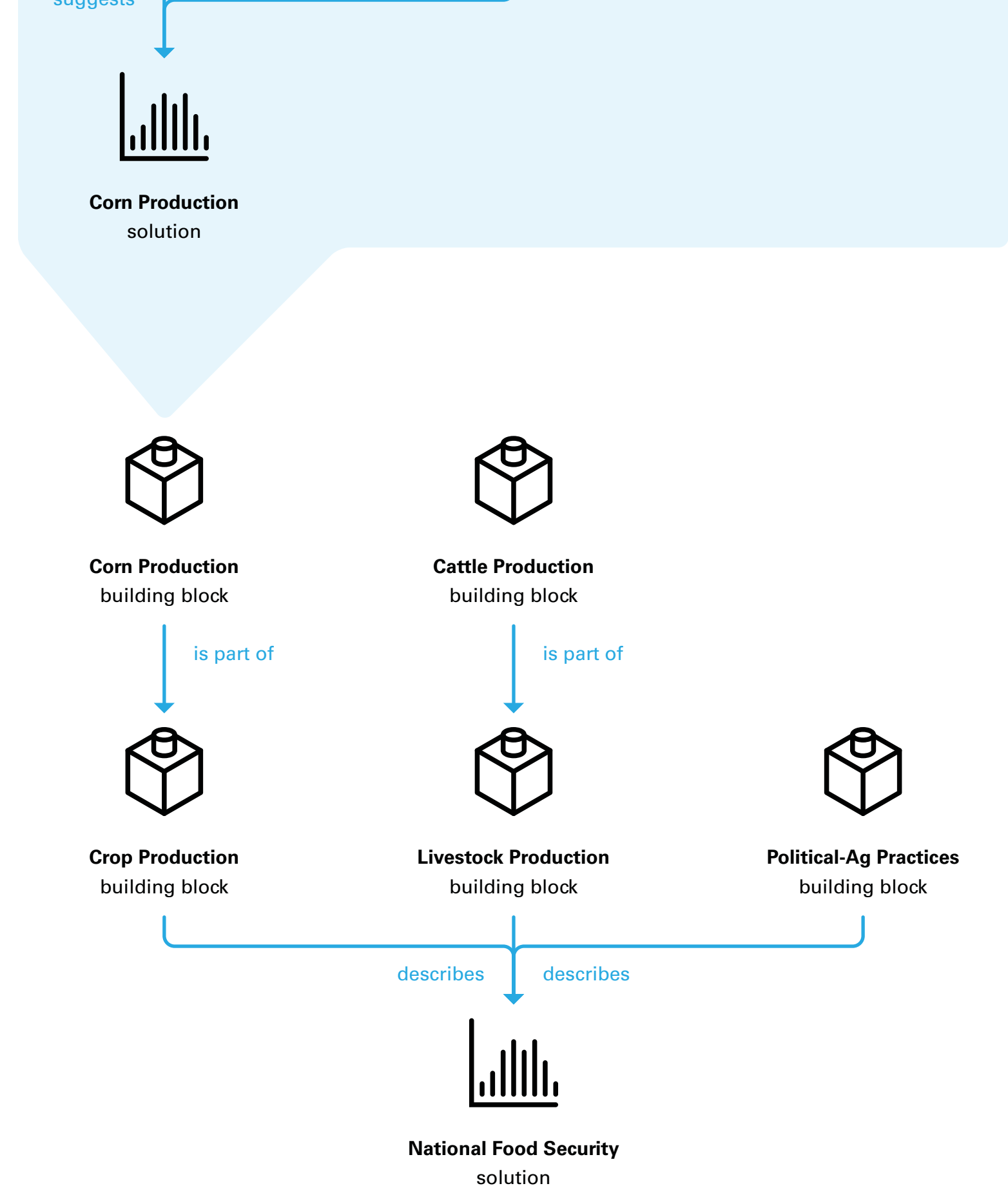


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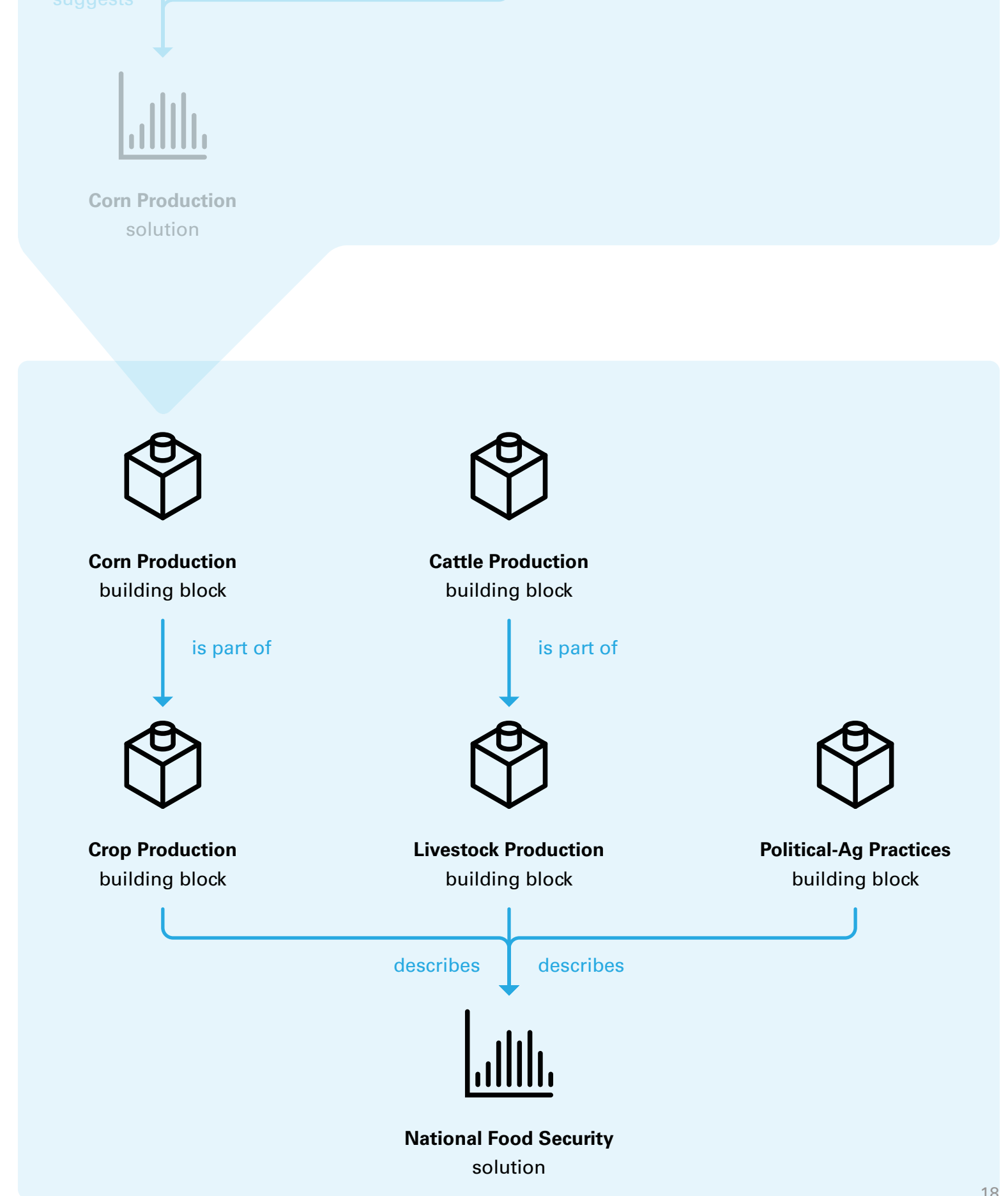
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Infinitely nest solutions to tackle even the hardest problems. Solutions are building blocks too, available for use in other solutions.



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What is the result?

**A digital twin of the organization—
a data-animated organization**

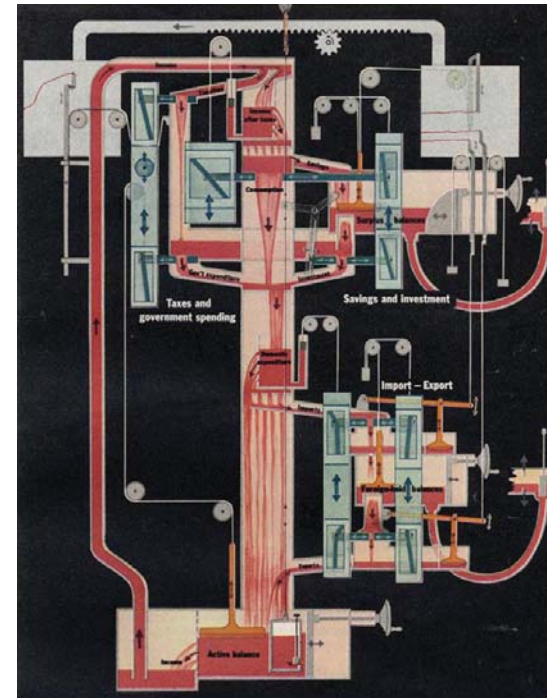
Data-driven is a precursor

**It's not exactly a new idea,
except now we have supercomputers in the cloud.**



Mississippi River Basin Model

Built between 1943–1966



MONIAC
(Monetary National
Income Analogue
Computer)

Built 1949



U.S. Army Corps of Engineers Bay Model

Built in 1957

How do we get there?

- Small, low cost trials
- Expand early successes
- Consider a couple of moonshots
- In short, develop a portfolio
- Develop a data governance structure
- Develop a data infrastructure (centralize? federate?)
- Choose a platform!

A related idea

Al Gore says the sustainability revolution will have a greater effect on the economy than the industrial revolution.

It requires data analytics platforms and data-animated organizations.

A corollary

Michael Lewis frames government as a system for managing risk.

Again reforming government requires data analytics platforms—turning government into a data-animated organization.

**Special thanks to
Knut Synstad**

hugh@dubberly.com
@DubberlyDesign

Presentation posted at
www.dubberly.com/presentations/data-animated_organizations.pdf