How the Logic Model Concept can help you in your projects and career

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SAi STEM ADVOCACY INSTITUTE

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Key Point

A problem well stated is
a problem half solved.

Charles Kettering

What is a logic model?

A theory of change visually linking the connections between <u>the problem</u>, solution, activities, outputs, outcomes, and the intended impact desired by a given **program**.

Read: Foundation, W. K. K. W.K. Kellogg Foundation Logic Model Development Guide. Development 72 (2004). (Intro + Pages 1-4)

SCAN ME

In other words…

A link of causes and effects leading to measurable outcomes of interest.

Problem Space: what is the problem you are trying to address?

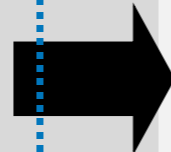**Solution Space**: what is your hypothesis/strategy?

Inputs

what resources are needed to run your program?

+

Activities

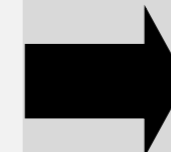**What actions does the program take to achieve desired outcomes?**

Outputs

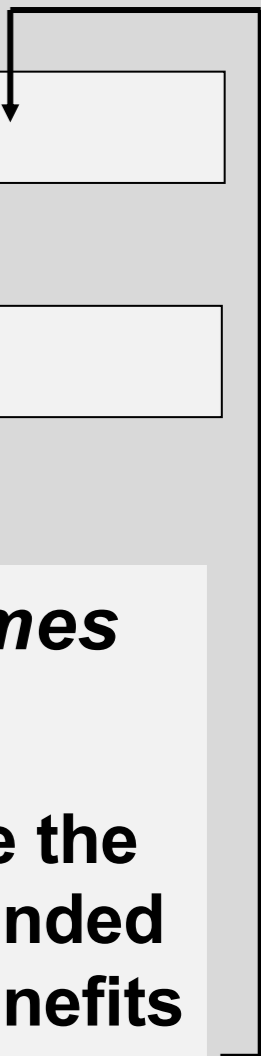**What measurable products will be produced from your program's activities? Be specific.**

Outcomes

What are the main intended effects/benefits of the program/tool/database etc?

How?

So what?

Major Assumptions: *what does the approach assume?*

Another way to see the logic model is a series of **"If-Then"** Statements

| **Input**	**Activities**	**Outputs**	**Outcomes**
Certain resources are needed to run your program	IF you have access to them, THEN you can accomplish your activities	IF you can accomplish these activities THEN you will have delivered the services you planned	IF you have delivered the services as planned THEN there will be benefits for clients, communities, systems or organizations

The Fellows Program at SAi practices the use of the logic model

The program provides mentorship and funding to early stage project ideas that aim to make science more accessible, diverse, and inclusive around the world.
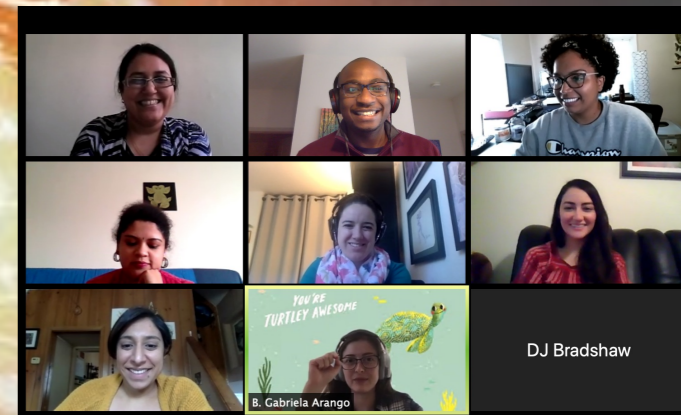
Could the project/program logic model be used at the individual level?

Why not?

We are calling this the professional logic model (PLM)

What is the professional logic model (PLM)?

A theory of change visually linking the connections between <u>the problem</u>, solution, activities, outputs, outcomes, and the intended impact desired by a given **individual**.

However:

Most programs (and professionals) don't have a logic model written down. *(Or it loosely exists in their heads)*

So, you don't have a logic model?

Well, build one!

And keep iterating.

What is the most important part of the logic model?

A – Problem framing
B – Solution design
C – Figuring out the inputs
D – Finding the resources
E – All the above

Problem Space: what is the problem you are trying to address?

Solution Space: what is your hypothesis/strategy?

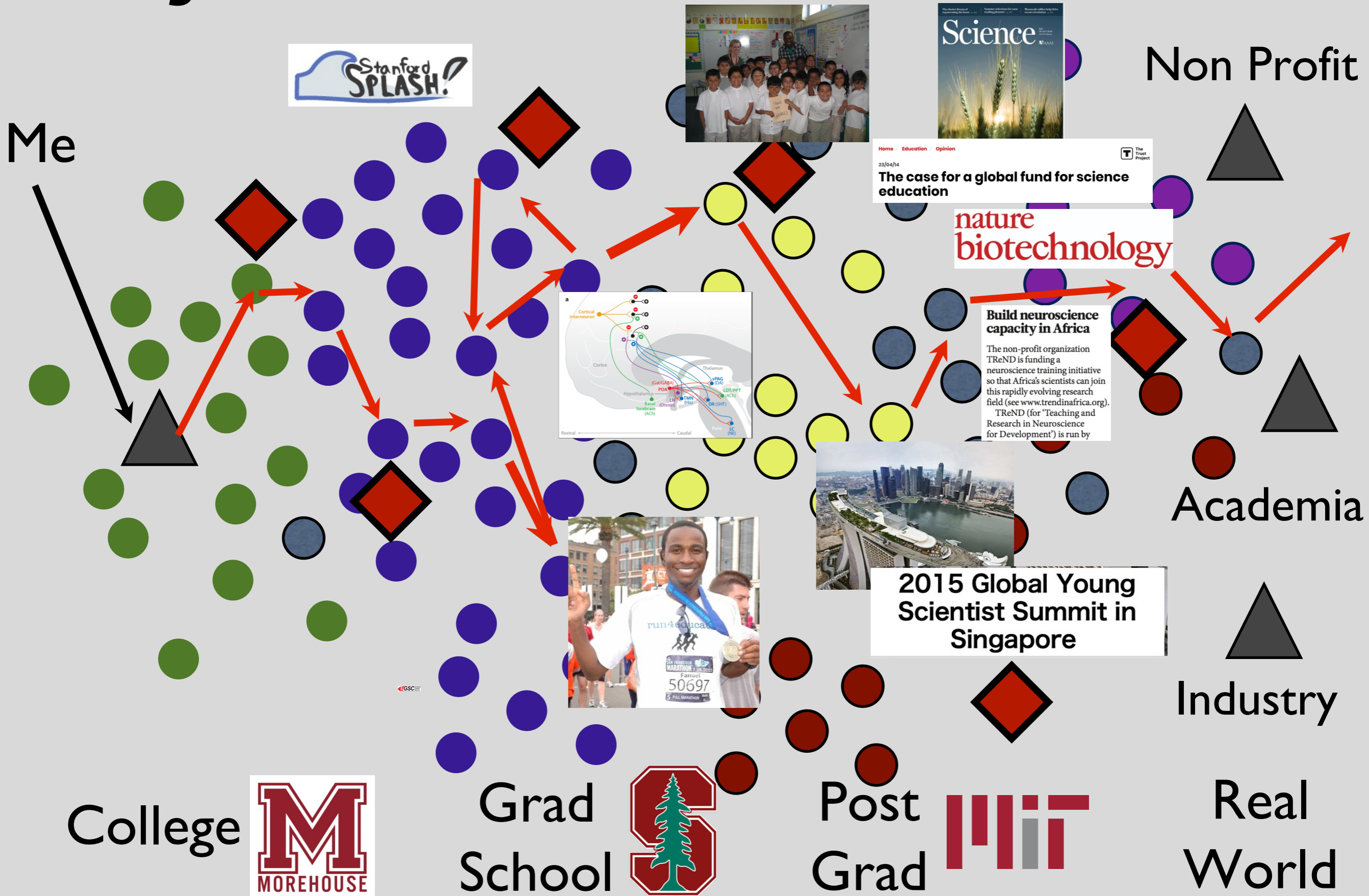| *Inputs*		*Activities*	*Outputs*	*Outcomes*
what resources are needed to run your program?	**+**	**What actions does the program take to achieve desired outcomes?**	**What measurable products will be produced from your program's activities? Be specific.**	**What are the main intended effects/benefits of the program/tool/ database etc?**

How? ◄► **So what?**

Major Assumptions: *what does the approach assume?*

My Search for the Problem

Non Profit

Me

Stanford SPLASH!

Science

The case for a global fund for science education

nature biotechnology

Build neuroscience capacity in Africa

The non-profit organization TReND is funding a neuroscience training initiative so that Africa's scientists can join this rapidly evolving research field (see www.trendinafrica.org). TReND (for 'Teaching and Research in Neuroscience for Development') is run by

Academia

2015 Global Young Scientist Summit in Singapore

Industry

College — MOREHOUSE

Grad School — Stanford S
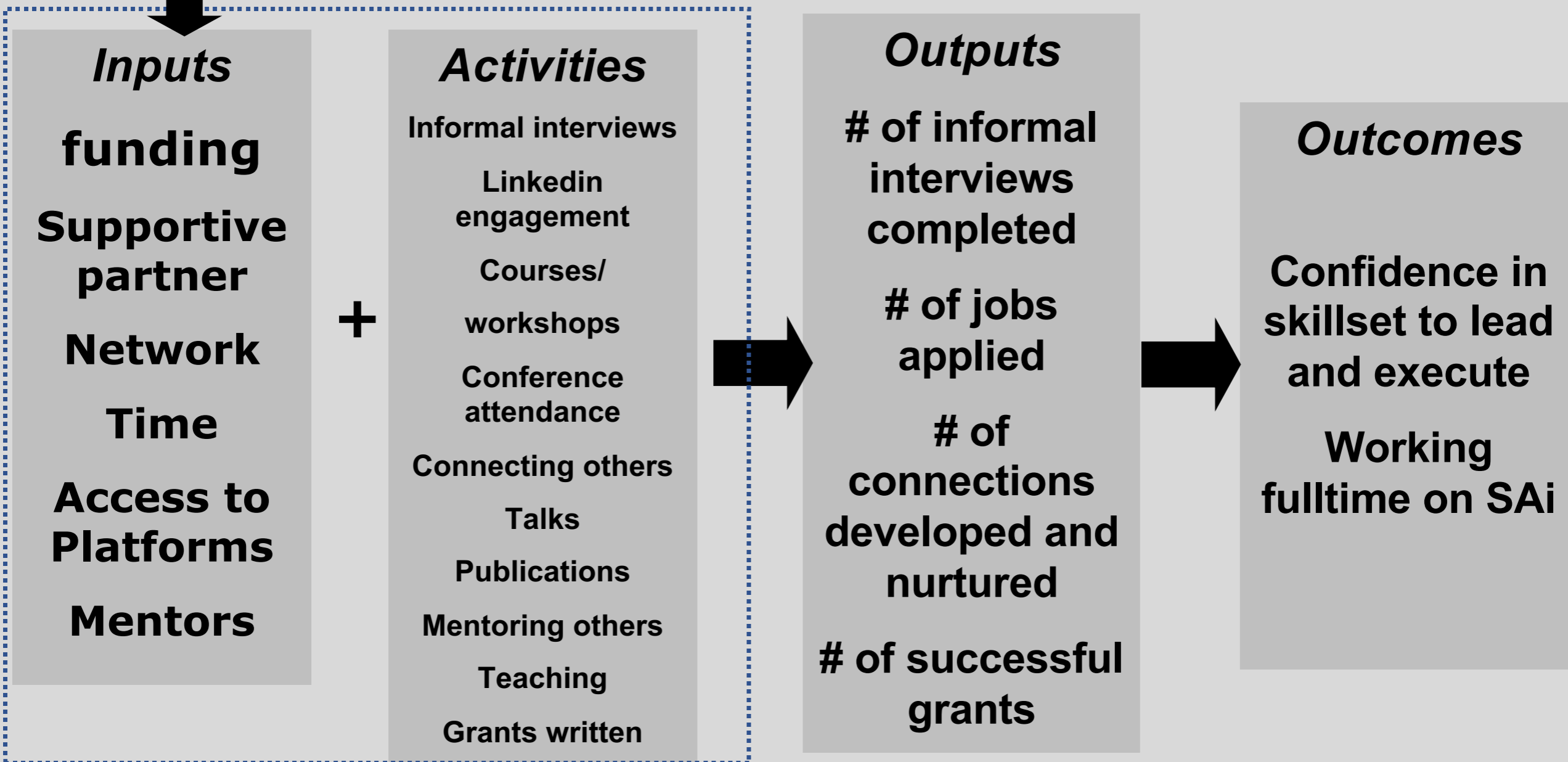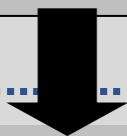
Post Grad — MIT

Real World

The Discovery

Society

Science

Professional Logic Model – Fanuel Muindi

Problem Space: how to build a top tier fundable, sustainable, and impactful global organization at the intersection of science and society.

Solution Space: seek learning opportunities; reframe jobs as learning projects/opportunities

Inputs

funding

Supportive partner

Network

Time

Access to Platforms

Mentors

+

Activities

Informal interviews

Linkedin engagement

Courses/ workshops

Conference attendance

Connecting others

Talks

Publications

Mentoring others

Teaching

Grants written

Outputs

# of informal interviews completed

# of jobs applied

# of connections developed and nurtured

# of successful grants

Outcomes

Confidence in skillset to lead and execute

Working fulltime on SAi

Major Assumptions: *job alignment, time, growth mindset*

By Day

HARVARD UNIVERSITY

By Night + Weekends

SAi STEM ADVOCACY INSTITUTE

Spend time in the problem-solution space
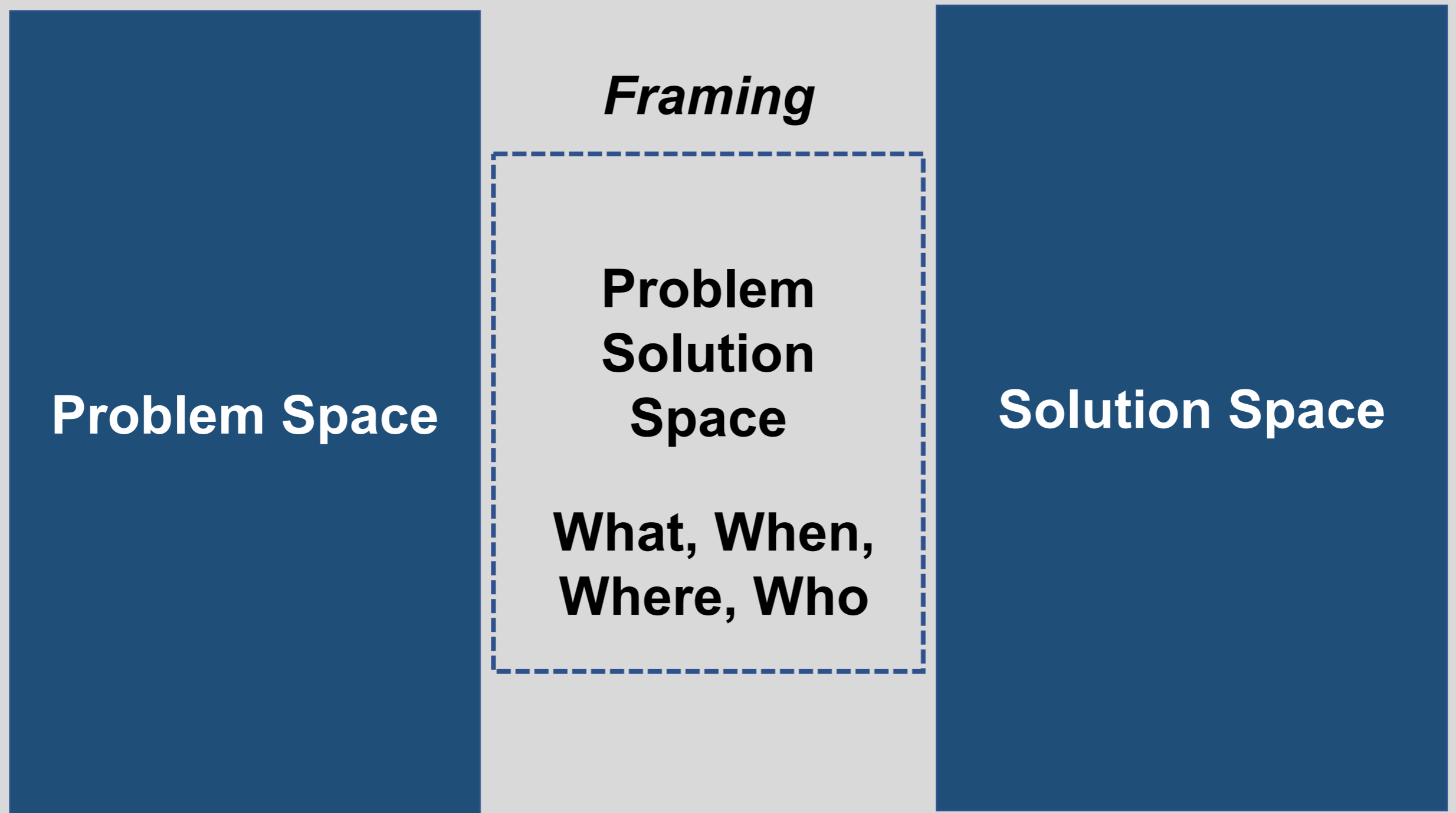
Problem Space

Framing

Problem Solution Space

What, When, Where, Who
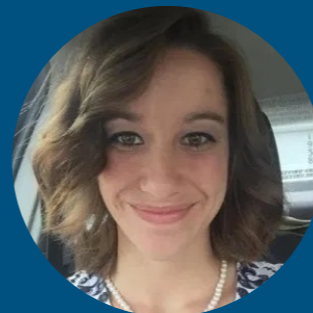
Solution Space

But, building solutions to these issues is also really hard.

Nonetheless, the number of people that want to tackle the challenges continues to grow.

SAi is a dedicated one-stop shop to incubate and launch their ideas.

So that we can **enable and accelerate** the building of new tools and programs that expand pathways of access between STEM and society.

SAi Fellows Logic Model v2.0

Problem: lack of funding/mentorship and training for graduate trainees, postdocs, and scicommers to build impactful science engagement tools, programs and events.

Mission: Assist graduate trainees (PhD students and postdocs) and scicommers in developing innovative ideas in science outreach and engagement that address issues of access in science particularly in underrepresented populations and underserved areas around the world.
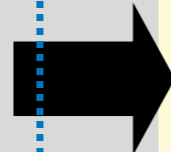
Input

Graduate trainees

Scicommers

Mentors

Fellow Funding

Virtual Space

Supplies

Program Partners

Technology

Reviewers

+

Activities

1:1 Mentoring

Logic model development

Professional and project development

Lectures

Office hours

Outputs

of members of public that have been exposed to additional STEM programming developed the fellows

# of fellows applying and participating

diversity of fellows participating

# of projects developed

fellows that receive additional funding/awards for their projects

of fellows invited to join SAi fellows

Fellow feedback
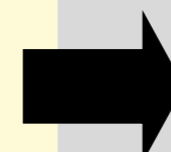
Outcomes

Increase the number of self sustaining impactful tools and programming that increase access to science (I)

Increase the number of PhD programs and postdocs that provide funding/training to trainees to develop citizen science and science outreach projects (L)

Expand the *pool* of scicommers trained in project development, management and assessment (S)

Assumptions: *trainees have the time to do projects and are able to secure additional future funding*

The demand for our incubator is accelerating.
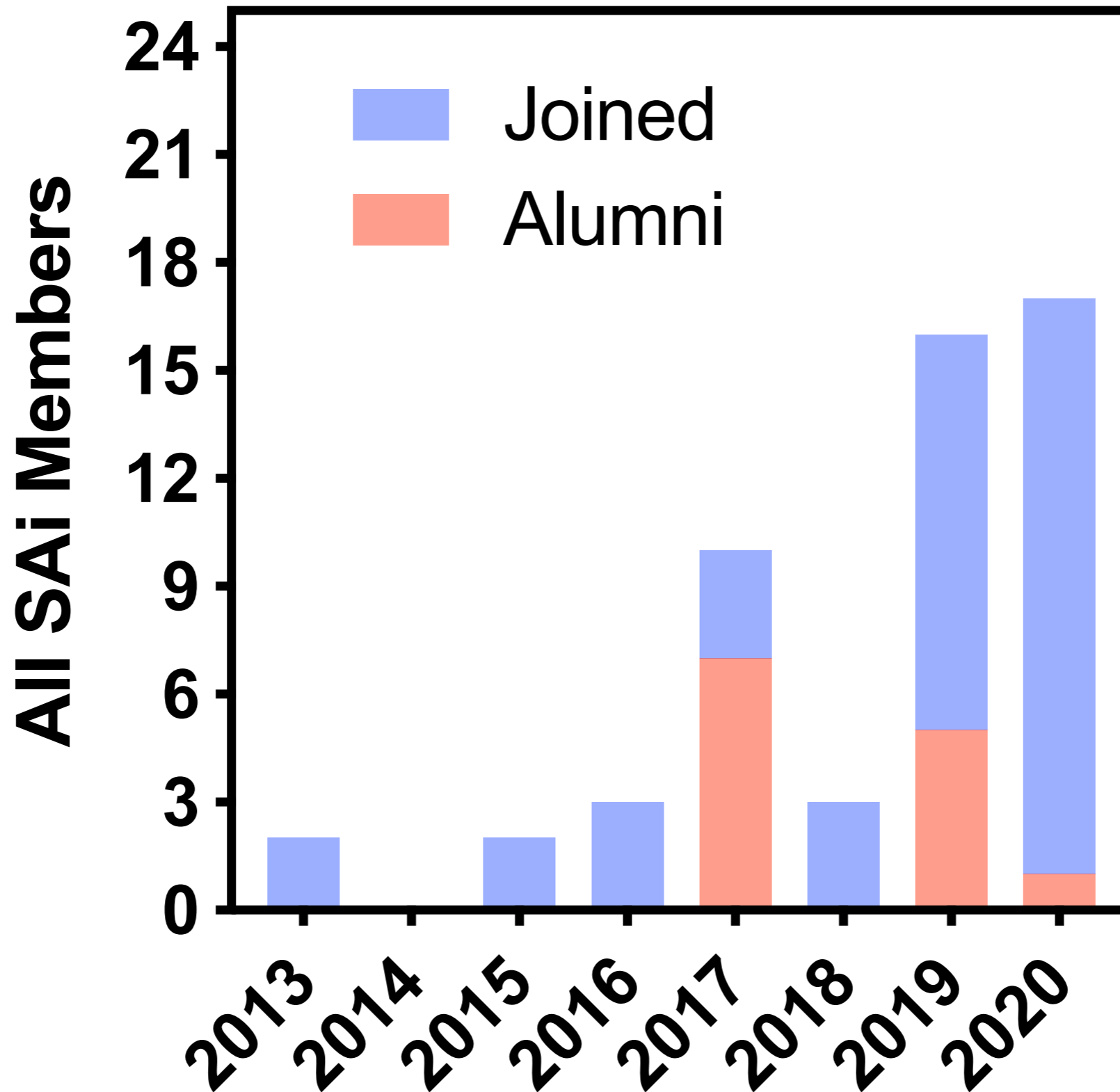
We now have over
25 SAi residents
& staff with diverse
expertise.

Residents work on diverse projects with diverse impacts

Our revenue comes from 3 main sources

Grants

Donations

Contracts + Sales

We are thankful for the growing number of organizations that continue to fund us:

Our diverse senior leadership team has been instrumental in our development

Fanuel Muindi, PhD
Founder, Chief Resident
& Trustee
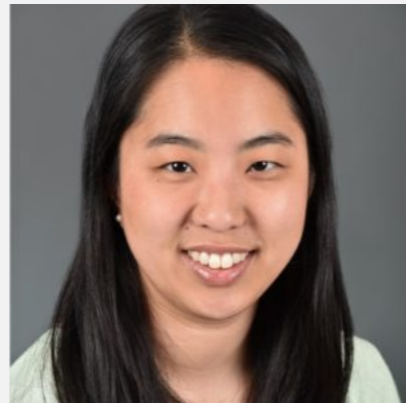
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& Trustee

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Evaluation Officer
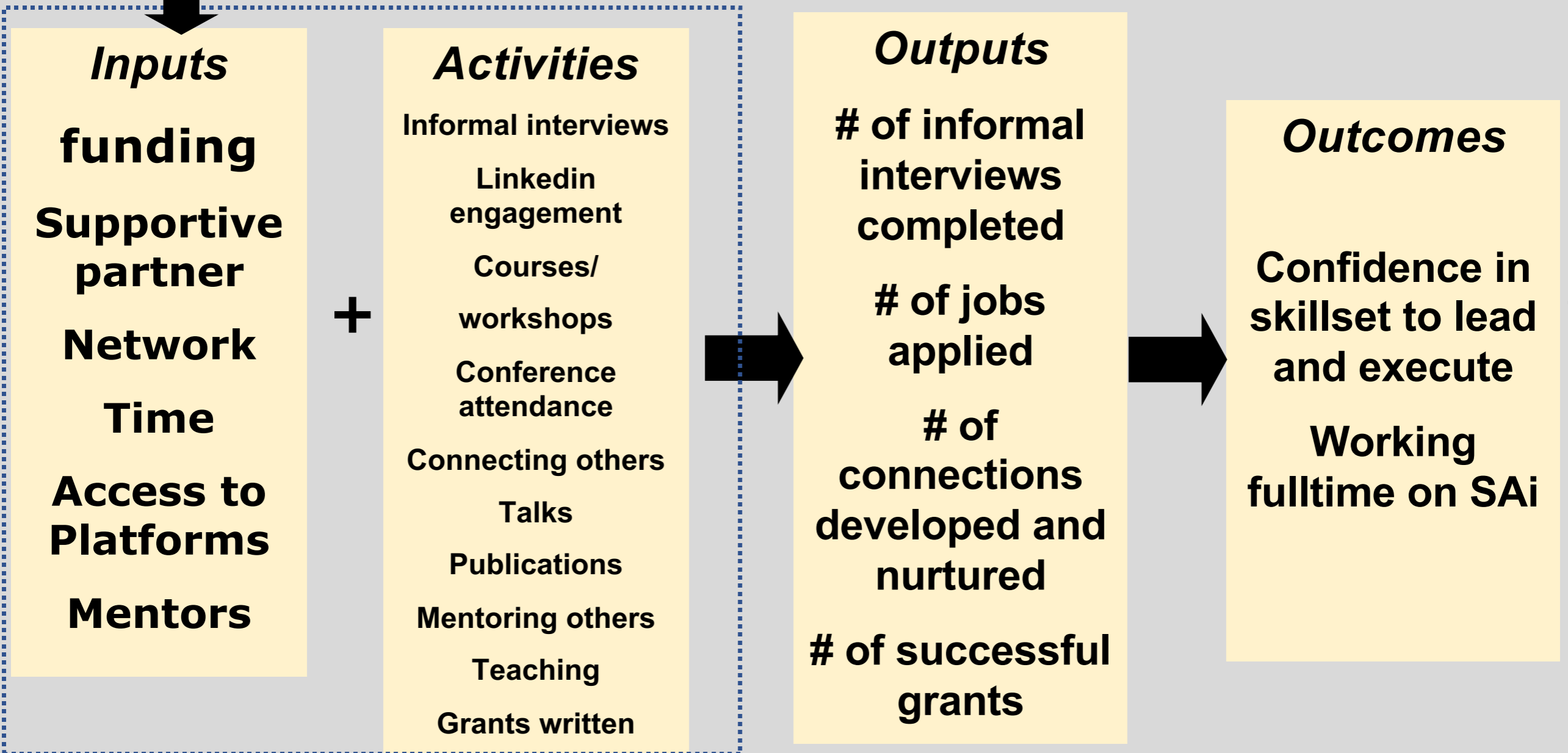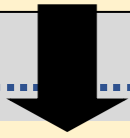
Noelle Romelfanger
Administrator

Anne Meier
Finance Officer

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Get in Touch!

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