

Dana Center  
**Mathematics**  
PATHWAYS

# DCMP Leadership Academy

October 19–21, 2016  
San Antonio, Texas



The University of Texas at Austin  
Charles A. Dana Center

[www.dcmathpathways.org](http://www.dcmathpathways.org)

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**You might notice a  
small difference...**

We used to be . . .

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THE

**New Mathways**

PROJECT

But it's not new anymore . . .

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THE

~~New~~ Mathways

PROJECT



Introducing . . .

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Dana Center

**Mathematics**

PATHWAYS

# So what's going on next door?

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## Accelerating Mathematics Pathways for Student Success (AMPSS)

- Transforming Postsecondary Education in Mathematics (TPSE)
- Charles A. Dana Center
- Complete College America (CCA)
- Carnegie Foundation for the Advancement of Teaching
- Association of Public and Land-grant Universities (APLU)
- American Association of State Colleges and Universities (AASCU)
- National Association of System Heads (NASH)

# Academy outcomes

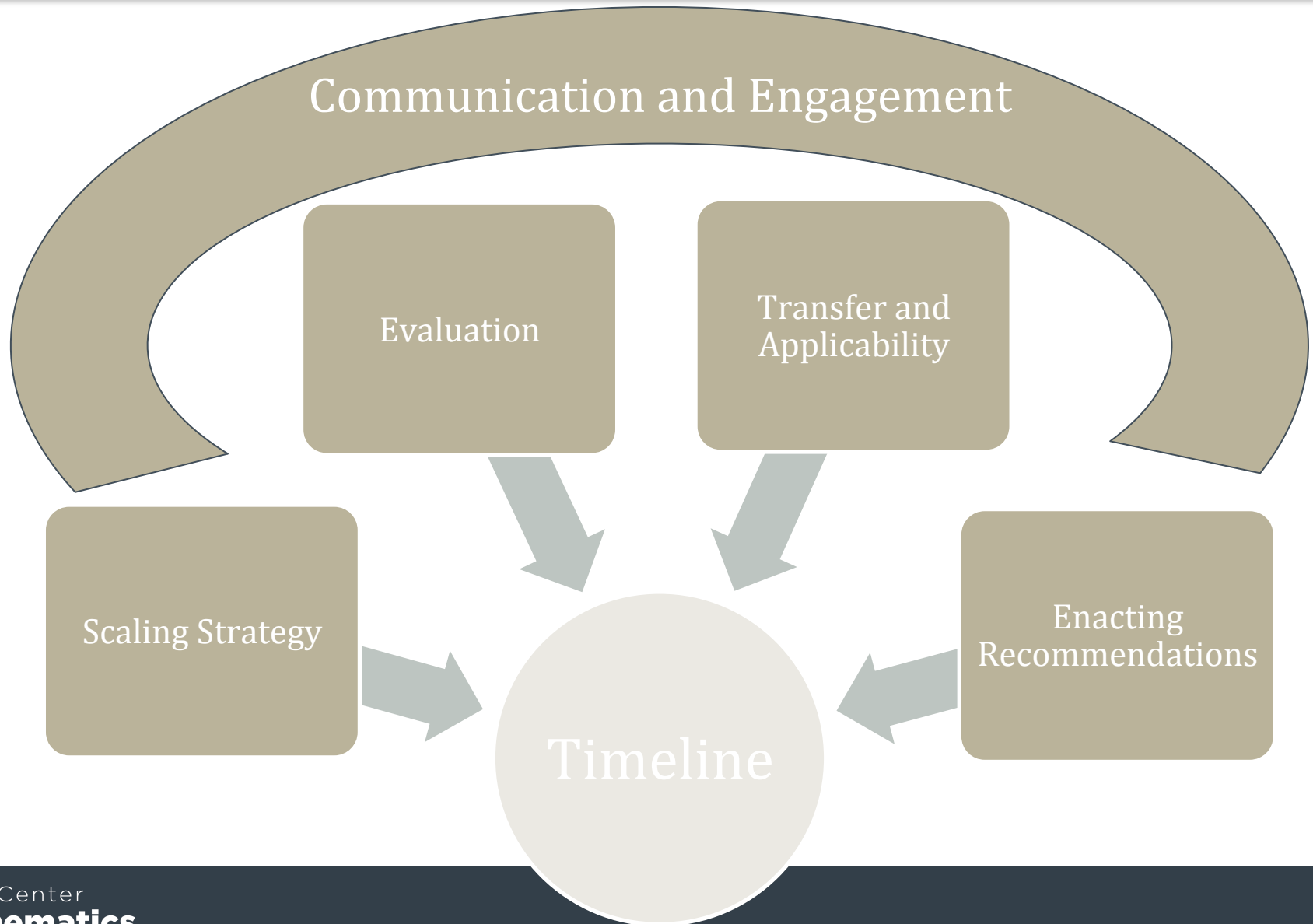
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- Share learning and experience.
- Understand Phase 2 expectations.
- Know how to access and use Phase 2 resources.
- Create customized timeline for Phase 2 activities.

Phase 2: Create the conditions that will enable institutions to scale.

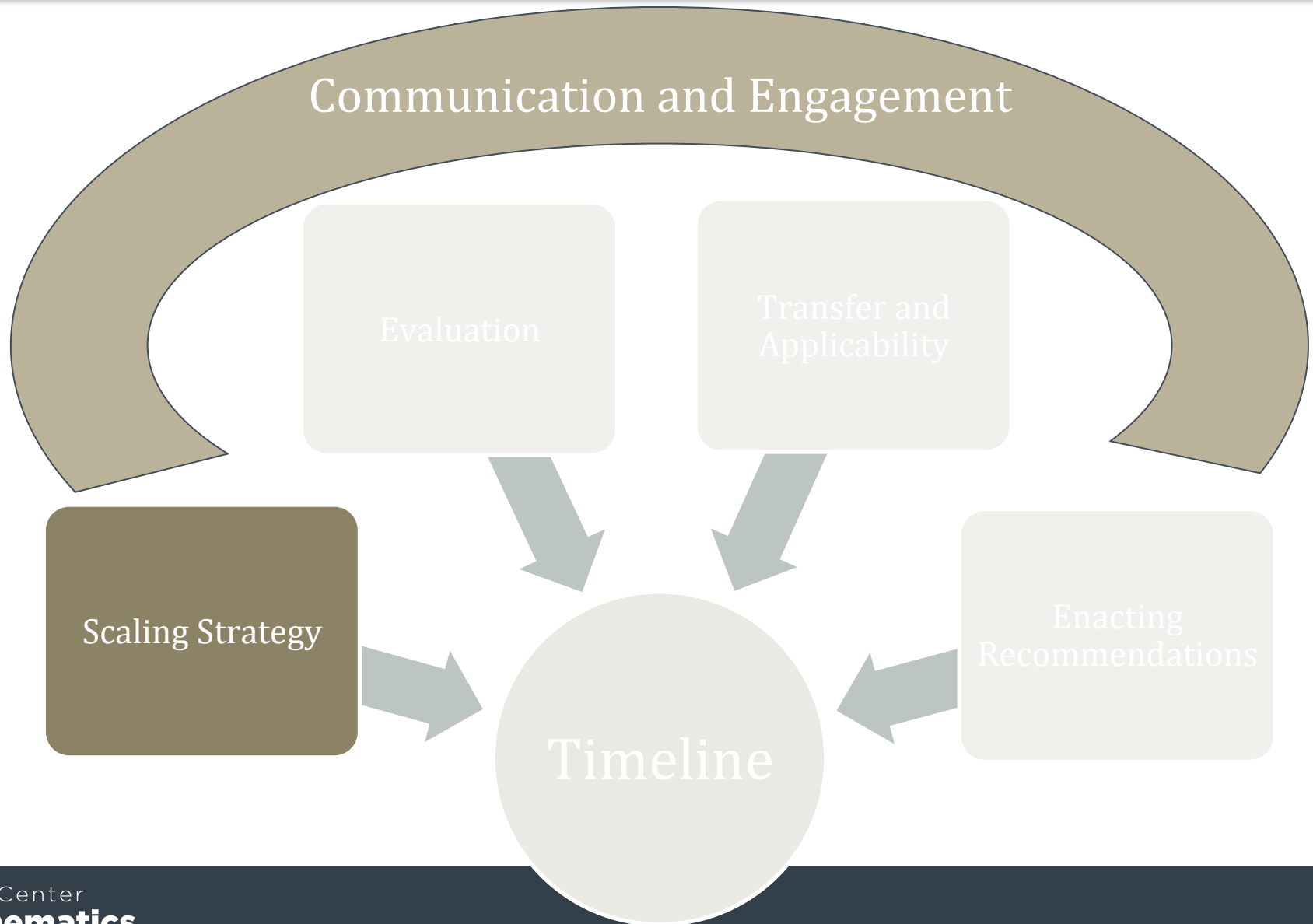
# 5 major areas of planning

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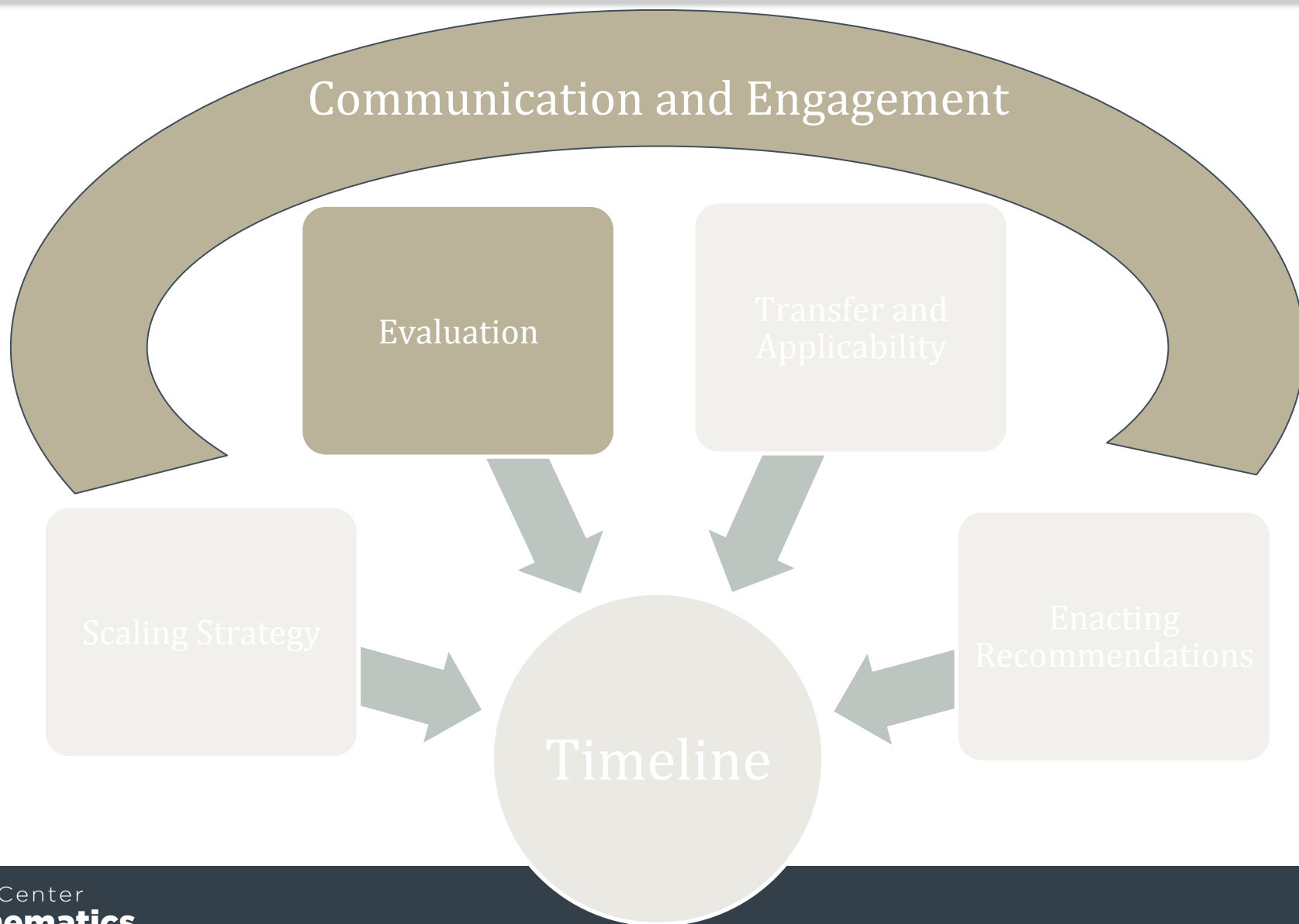
# 5 major areas of planning

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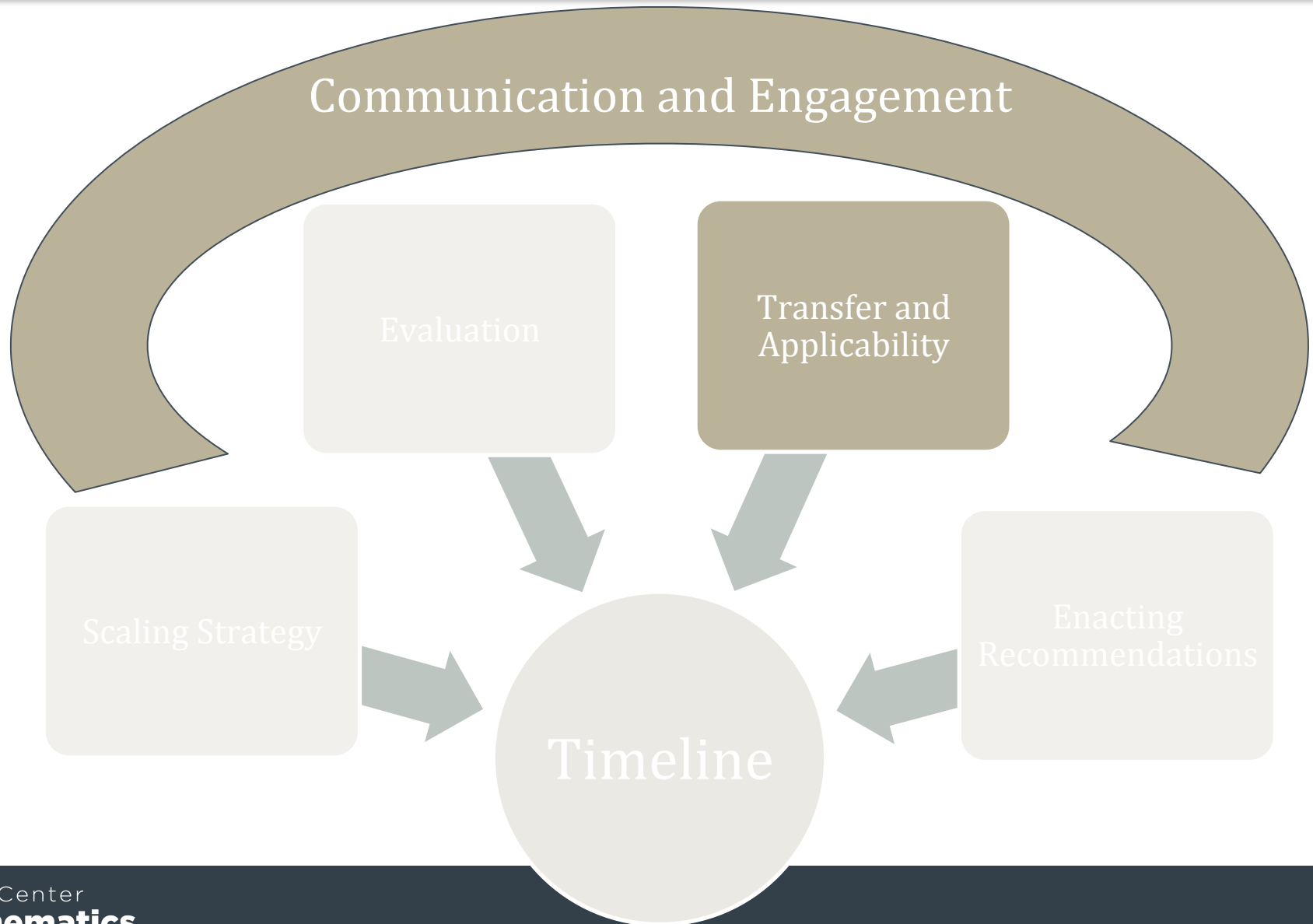
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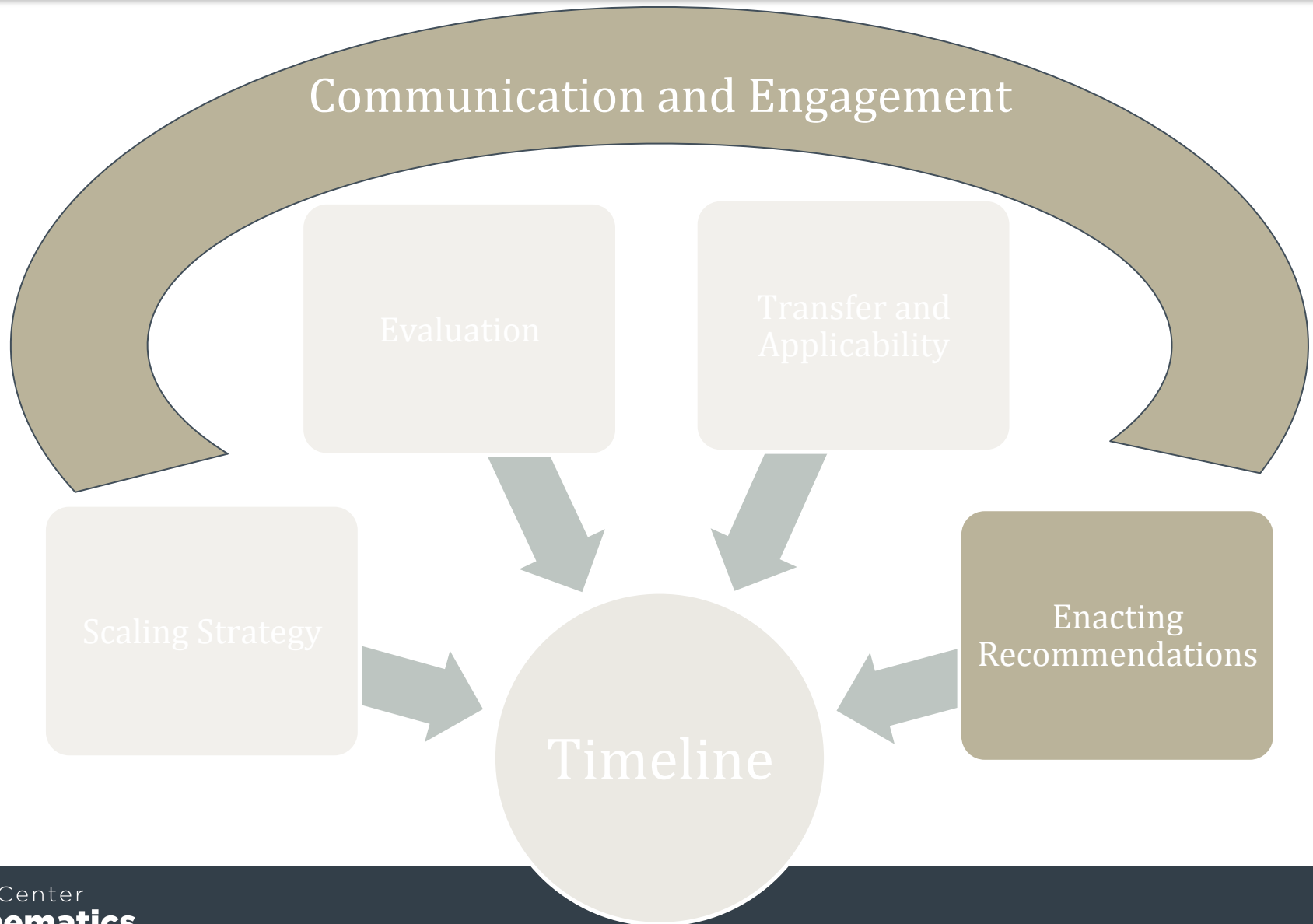
# 5 major areas of planning

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# 5 major areas of planning

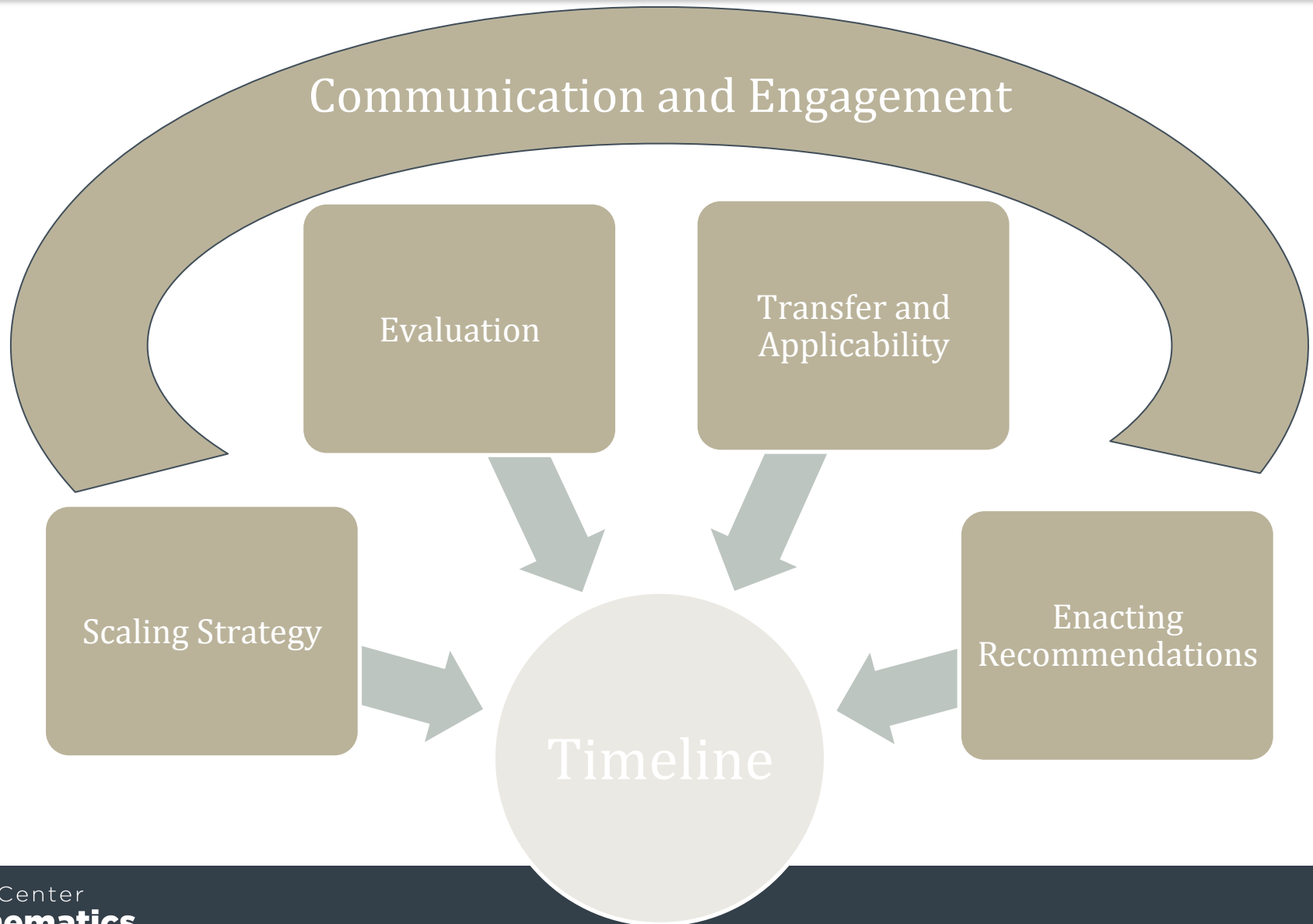
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# 5 major areas of planning

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## Phase 2 expectations: Scaling

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Develop a plan for scaling math pathways across all public institutions.

- Ambitious and visionary
- May extend beyond the time of the grant.
- Address both depth and breadth.

## Phase 2 expectations: Scaling

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Develop a plan for scaling math pathways across all public institutions.

Elements of the plan:

- a) Secure commitments from a cohort of institutions to implement no later than Fall 2018 (earlier is preferred).
- b) Prepare to support the cohort and evaluate progress.
- c) Plan to engage and inform other institutions.

# Major scaling objective for 2017

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Three part process to prepare for the scaling objective:

- Part I: Set goals for full scale.
- Part II: Define institutional commitment.
- Part III: Develop a strategy for scaling.

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# Planning for Scale, Part I: Goals

# Defining full implementation: Institutional

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What would tell you that an institution has successfully scaled mathematics pathways?

- Number, type, and structure of pathways
- Scale
- Entrance into the pathways
- Alignment of pathways
- Design of pathways
- Student success measures

# Planning for scale, Part I

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Complete the template.

# Planning for scale, Part I

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Review an example of scaling goals within and across institutions.

- Suggested template
- Provides technical assistance notes

Add to and/or revise your list.



# Planning for scale, Part I

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Completing your own goals for scale.

- Template is suggested but not required.
- Must address implementation within and across institutions.
- Submit for review and feedback.

# Planning for scale, Part I

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Our recommendations:

- Have a small group create a draft.
- Have the full task force and possibly others vet and give input.

## Poster timeline: A planning tool

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- Build a timeline over the course of two days.
- At the end of each session, we will give you a list of deliverables to put on the timeline.
- You will also add activities that build towards the deliverables AND communication and engagement activities.

# Deliverables on timeline: Scaling, Part I

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## Required:

- Publish recommendations
- Submit “Plan for Scaling, Part I: Goals” for review and feedback.

## Discretionary:

- Activities prepare the submission of the plan?
- Related communication and engagement activities?

What supports do you need? → Add to list.

## After break

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- Return at 10:15am. You will be joined by participants from the AMPSS orientation.
- Please include the newcomers in your discussions and share your insights about mathematics pathways and the task force process.

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# Overview of Work Across the Project

# Gallery walk

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- Posters on the walls contain:
  - Draft recommendations from each task force.
  - Greatest accomplishment and challenge.
- Groups go to assigned poster. Take a chart marker with you. One person will act as a recorder.

# Gallery walk

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- Discussion prompts:
  - What do you find interesting or surprising about the information?
  - What would you like to know more about?
- On poster:
  - Record any questions or comments you have.

Go to next set of posters when prompted.



# Gallery walk

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Debrief questions and comments.

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# **Dana Center Mathematics Pathways Resource Site**

# Dana Center Mathematics Pathways (DCMP) Resource Site

[www.dcmathpathways.org](http://www.dcmathpathways.org)

The University of Texas at Austin  
Charles A. Dana Center  
College of Natural Sciences

NEWS CONTACT

Dana Center  
**Mathematics**  
PATHWAYS

The DCMP Learn About Take Action Where We Work Resources

The Right Math for the Right Student at the Right Time

The Dana Center Mathematics Pathways seeks to ensure that ALL students in higher education will be:

- **Prepared** to use mathematical and quantitative skills in their careers and lives

It takes coordinated action across all...

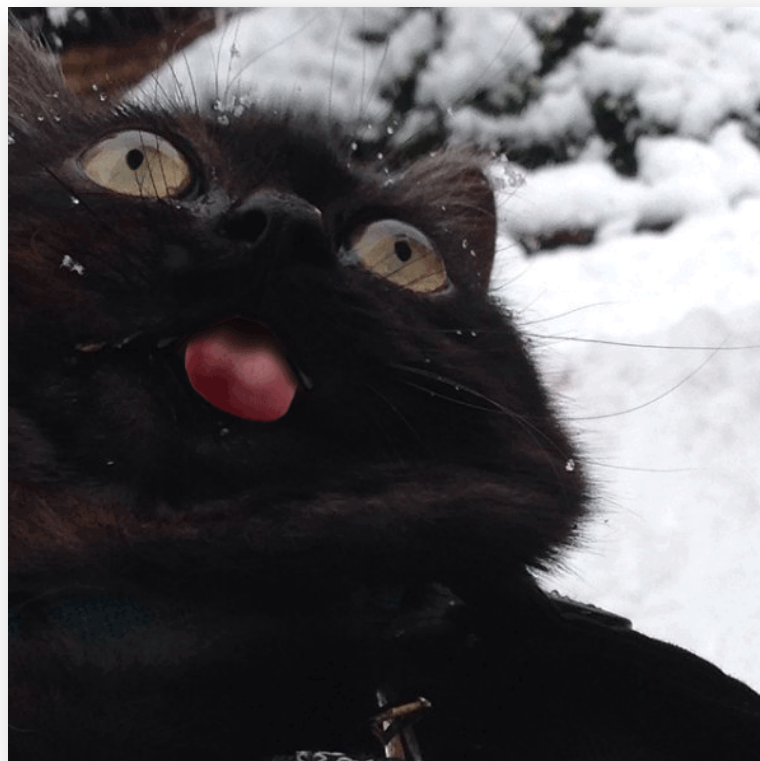
In order to...

- Levels of the system (national, state, institution, classroom)
- Redesign course and institutional structures that deter success;

# DCMP Resource Site

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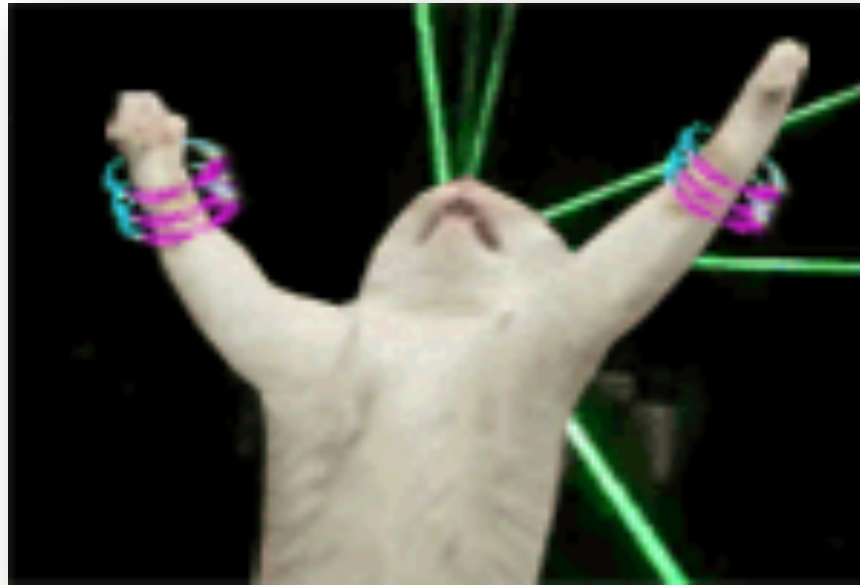
[www.dcmathpathways.org](http://www.dcmathpathways.org)



# DCMP Resource Site

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[www.dcmathpathways.org](http://www.dcmathpathways.org)



**Purpose:** (1) Help people move to action, and (2) Learn about Dana Center work and math pathways in general.

# DCMP Resource Site

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The Dana Center Mathematics Pathways seeks to ensure that ALL students in higher education will be:	It takes coordinated action across all...	In order to...
<ul style="list-style-type: none"><li>Prepared to use mathematical and quantitative skills in their careers and lives</li></ul>	<ul style="list-style-type: none"><li>Levels of the system (national, state, institution, classroom)</li></ul>	<ul style="list-style-type: none"><li>Redesign course and institutional structures that deter success;</li></ul>

# DCMP Resource Site Scavenger Hunt

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[www.dcmathpathways.org](http://www.dcmathpathways.org)

**Instructions:** Work with a partner to identify specific DCMP website pages, content, and resources. All scavenger hunt activity supports partner discussion and some activity transitions into whole-table discussion.

- 1. Quick Response** questions demonstrate efficiency to locate DCMP resource site pages and information.
- 2. Discussion Response** questions enable deeper exploration of the site with both partner and whole-table discussion.



# DCMP Resource Site Scavenger Hunt

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CAN YOU...?

## Quick Response Questions:

1. Locate information that identifies **National Work** among “joyful conspirators”.
2. Locate information that explains the coordinated effort for the MPC project.
3. Locate your state’s webpage.

## Discussion Response Question:

4. Examine your state’s MPC page to identify what content is most helpful to those in your state.



# DCMP Resource Site Scavenger Hunt

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CAN YOU...?

## Quick Response Questions:

1. Locate how to **Learn About** the Joyful Conspiracy.
2. Locate what math pathways looks like and an example from Indiana.
3. Locate information and it's related graphic that explains a “pathways perspective”.

## Discussion Response Question:

4. **Learn About** your role and math pathways.

# DCMP Resource Site Scavenger Hunt

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CAN YOU...?

## Quick Response Questions:

1. Locate where **state level** leadership can learn more about stages, steps, and resources available to **Take Action**.
2. Locate information that examines how to avoid pitfalls of **state level planning**.
3. Locate suggested steps and resources for **state level planning**.

## Discussion Response Question:

4. Browse through the State-, Institutional-, and Classroom-Level pages.

# DCMP Resource Site – Wrap-Up

Learn More about the  
Multiple Levels of

National Momentum

Leaders set a common national vision for math pathways.

State-Level Mobilization

Mathematics faculty and other leaders mobilize to set a vision for math pathways in their state.

Institutional Action

## Dana Center Mathematics Pathways (DCMP) Resource Website

Dana Center  
**Mathematics**  
PATHWAYS



[www.dcmathpathways.org](http://www.dcmathpathways.org)

The Dana Center Mathematics Pathways (DCMP) resource site offers **ideas**, **tools**, and **resources** provided by the Dana Center and fellow joyful conspirators to help make math pathways a reality.

Each site page is purposefully designed to help higher education stakeholders take action towards math pathways and build awareness of the Dana Center's work and math pathways in general.

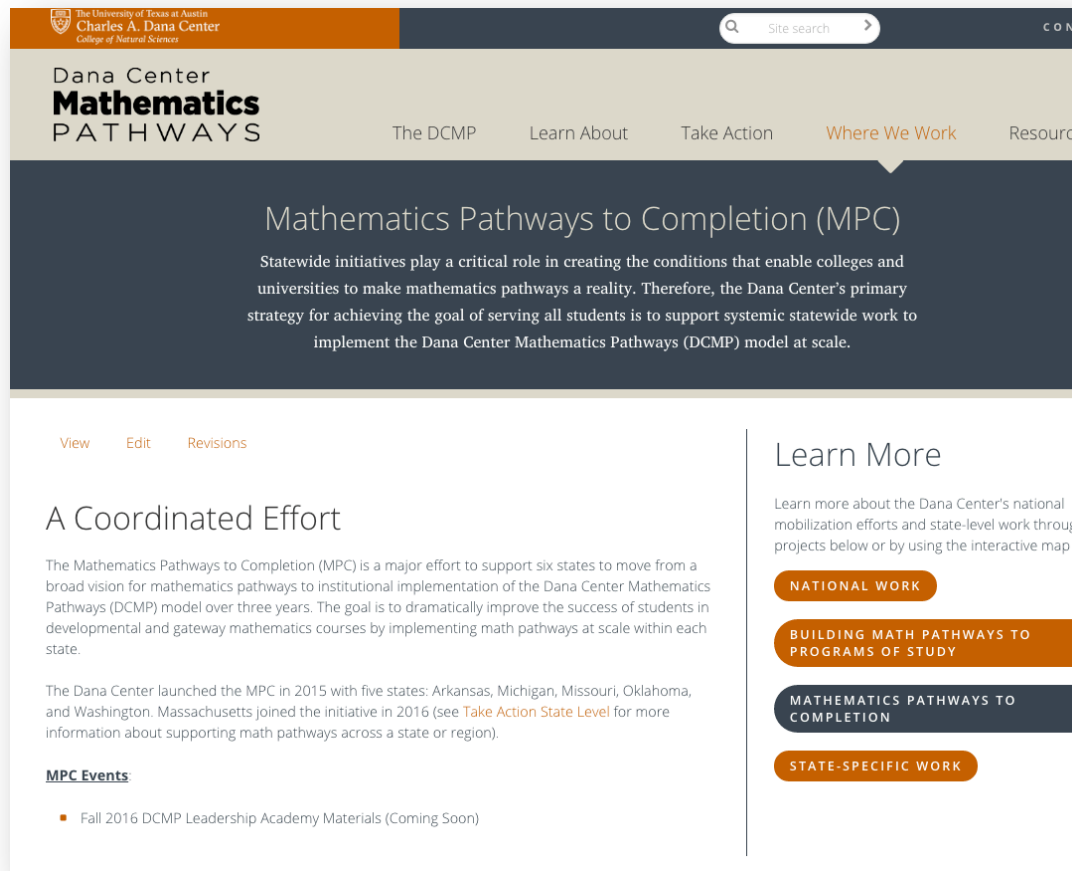
Site Page	Ideas, Tools, & Resources
<b>The DCMP</b>	Explore the DCMP background, the DCMP model and its principles, and how the Dana Center approaches this work.
<b>Learn About</b>	Learn about math pathways, read about the evidence supporting pathways, and Essential Ideas for people in different professional roles, including: <ul style="list-style-type: none"> <li>• Policy</li> <li>• Institutional Leadership</li> <li>• Math Faculty</li> <li>• Partner Disciplines</li> <li>• Advisors &amp; Coordinators</li> </ul>
<b>Take Action</b>	Take Action with recommendations and resources specific to different levels of the system, including: <ul style="list-style-type: none"> <li>• State</li> <li>• Institutional</li> <li>• Classroom</li> </ul>
<b>Where We Work</b>	Learn more about the Dana Center's national mobilization efforts and state-level work in more than a dozen states.
<b>Resources</b>	Search the Dana Center's products, tools, and resources that support efforts to plan, implement, and scale math pathways.

For questions or concerns, please contact [dcmathpathways@austin.utexas.edu](mailto:dcmathpathways@austin.utexas.edu).

10/2016

# DCMP Resource Site – Evaluation

Go to Where We Work / Mathematics Pathways to Complete page and evaluate your experience with the [DCMP Resource Site](#).



# Instructions for lunch

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# Evaluation

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# **Planning for Scale, Part II: Define Institutional Commitment**

## Phase 2 expectations: Scaling

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- 1) Develop a plan for scaling math pathways across all public institutions.

Elements of the plan include:

- a) Secure commitments from a cohort of institutions to implement no later than Fall 2018 (earlier is preferred).
- b) Prepare to support the cohort and evaluate progress.
- c) Plan to engage and inform other institutions.



# Defining “initial implementation”

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What does implementation look like in the first year?

A few non-negotiables:

- Multiple math pathways aligned to programs of study
- Acceleration for underprepared students
- An effective way to get students into the right pathways at scale

Task forces will determine what else is important for their goals.

# Defining “initial implementation”

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What does implementation look like in the first year?

- Creating new pathways?
- Expanding use of existing pathways?

# Defining “institutional commitment”

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What does implementation look like in the first year?

Start with draft list. →

Refine individual ideas. (10-15 min) →

Discuss with team. (35 min) →

Draft of an institutional commitment.

# Plan for Scale, Part II example

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Review the example.

Discuss with your team for both Parts I and II:

- Who should draft the different parts?
- What information/input would they need?
- Who should review/vet?

What questions do you have?

# Deliverables on timeline: Scaling, Part II

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## Required:

- Submit “Plan for Scaling, Part II: Institutional Commitment.”

## Discretionary:

- Activities prepare the submission of the plan?
- Related communication and engagement activities?

What supports do you need? → Add to list.

# After the break

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Discuss on *Modernizing Entry-Level Mathematics Pathways: The Case for Mathematics Pathways*.

May want to take your copy (paper or electronic).

By 4:00pm:

- There is a number on your badge. Go to the table with the corresponding number.
- Introduce yourselves.

# The Case for Math Pathways: Discussion

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What points about the case for math pathways do you think resonate the most for the different groups?

Facilitators record key points.

# The Case for Math Pathways: Discussion

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How might you use this resource?

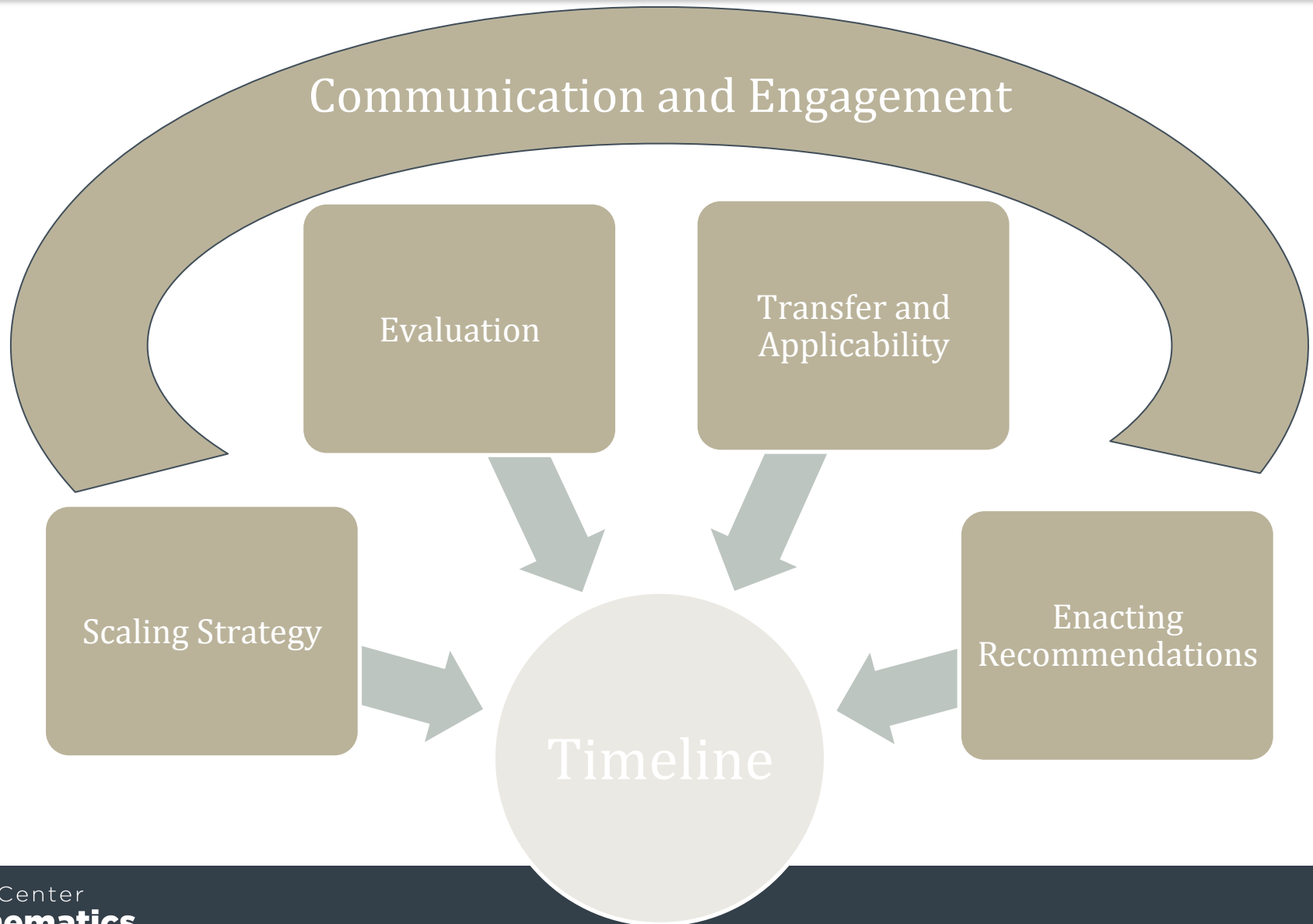
- Dissemination
- Engagement

Who, when, how?



# 5 major areas of planning

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# Contact Information

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- General information about the Dana Center  
[www.utdanacenter.org](http://www.utdanacenter.org)
- Dana Center Mathematics Pathways Resource Site  
[www.dcmathpathways.org](http://www.dcmathpathways.org)
- To receive monthly updates about the DCMP,  
contact us at  
[dcmathpathways@austin.utexas.edu](mailto:dcmathpathways@austin.utexas.edu)

# Staff Contacts

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- Martha Ellis (interim director, higher education services)  
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- Nancy Stano (student success course development)  
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- Erica Moreno (materials, events information)  
[ericamoreno@austin.utexas.edu](mailto:ericamoreno@austin.utexas.edu)

# About the Dana Center

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The **Charles A. Dana Center** at The University of Texas at Austin works with our nation's education systems to ensure that every student leaves school prepared for success in postsecondary education and the contemporary workplace.

Our work, based on research and two decades of experience, focuses on K–16 mathematics and science education with an emphasis on strategies for improving student engagement, motivation, persistence, and achievement.

We develop innovative curricula, tools, protocols, and instructional supports and deliver powerful instructional and leadership development.

2016



The University of Texas at Austin  
**Charles A. Dana Center**