



National Science Foundation  
WHERE DISCOVERIES BEGIN



# Mid-Scale Research Infrastructure – 1



Wednesday, 06-Feb-2019  
and Thursday, 07-Feb-2019





# *Big Idea*

## *Mid-scale Research Infrastructure*

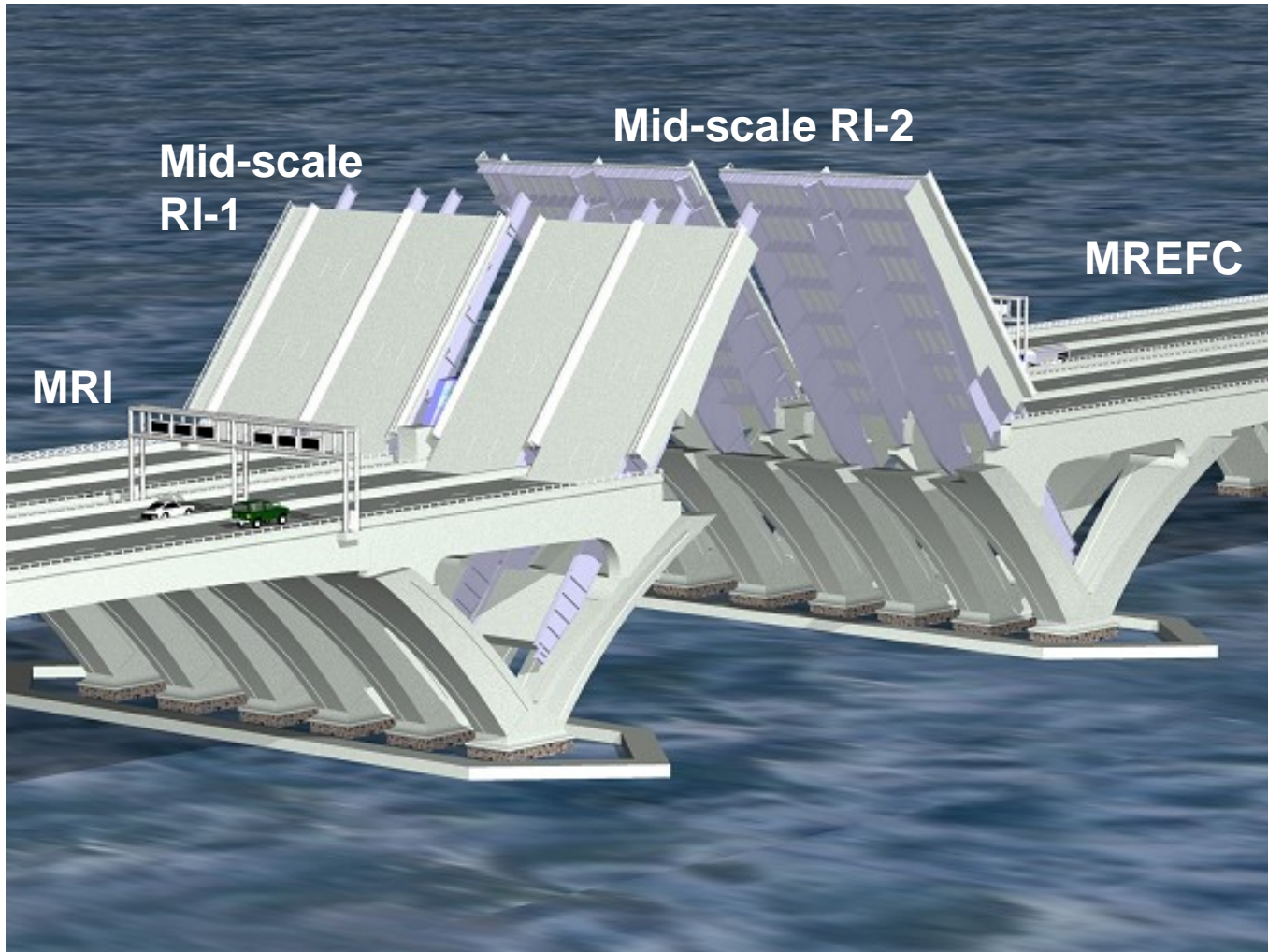


- Many important potential experiments and facilities fall between the \$100K to \$4M<sup>1</sup> Major Research Instrumentation (MRI) program and the > \$70M Major Research Equipment and Facilities Construction (MREFC) account.
- This gap results in missed opportunities that may leave essential science undone.
- NSF needs a new agile process for funding experimental research capabilities in the mid-scale range.

<sup>1</sup>\$5.7 million with the addition of Congressionally mandated cost sharing



## *Mid-Scale Research Infrastructure (Mid-scale RI)*





## ***Mid-scale RI-1***

- Broadly defined research infrastructure, e.g.,
  - Upgrades and major new infrastructure for existing major facilities,
  - Infrastructure that supports high-priority research experiments/campaigns,
  - Major cyberinfrastructure that addresses community and national-scale computational- and data-intensive science and engineering research, and
  - Major shared community infrastructure and resources as may be required to enable community-scale research.
- Mid-scale \$6<sup>1</sup> million to \$20 million range

<sup>1</sup>Lower limits: 1) \$6 million for Implementation Projects. 2) \$600,000 for Design of >\$6 million infrastructure.



## ***Mid-scale RI-1***

**Implementation Projects** e.g., Procurement, Assembly, Construction and Commissioning:

- a) Enable well-defined, limited-term research experiments with broad community buy-in and shared data resources and/or
- b) Shared-use, mid-scale infrastructure for broad community use.

**Design Projects:** May cover Preliminary or Final Design, preparing a future mid-scale or larger project to a level of readiness that allows for a determination of the feasibility for implementation (assembly/construction).

Lower limits: a) \$6 million for Implementation Projects. b) \$600,000 for Design of >\$6 million infrastructure.



## ***Mid-scale RI-1 Pre-proposals (1)***

***Due Date: February 19, 2019***

**Project Summary.** (1-page maximum) First line of the Project Summary should list the most relevant Directorate(s)/Division(s) for review of the proposal.

**Project Description** (10-pages maximum), including the following:

- Note any anticipated environmental and/or cultural impacts
- **Scientific Justification**, including unique research capabilities and lack of general availability of the infrastructure and its potential to significantly advance the Nation's research infrastructure. Connections to Big Ideas?
- Description of the **Research Community Priority** of the infrastructure.
- Discussion of student training, increased participation of underrepresented groups and a description of tangible benefits to the wider U.S. research community.
- Outline of ongoing operations and maintenance plans: Will NSF \$ be sought?



## ***Mid-scale RI-1 Pre-proposals (2)***

**Budget and Budget Justification**, including budgets for any subawards. For preliminary proposals cost estimates may be preliminary estimates with the Basis of Estimates (BoE) included. Copies of vendor quotations should not be included in preliminary proposals.

**Supplemental Documents**.....An *outline* of the **Project Execution Plan (PEP)**. (See the LFM/MFG. Greater detail will be required in invited full proposals should that occur. See Full Proposal Preparation section for further information.)



## *Mid-scale RI-1*

**Merit Review:** Along with the NSB-approved Merit Review Criteria, important solicitation-specific elements of the review include the project's:

- 1) Potential to significantly advance the Nation's research capabilities,
- 2) Relevance to any research community-established priorities, e.g., through strategic goals and/or roadmaps,
- 3) Potential to train the next generation of leaders in technological innovation, and
- 4) Demonstration of appropriately robust project management and cost estimation plans.





# ***MSRI-1 Mid-Scale Coordinating Committee***

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*Thank You!*

