



Key Elements of Successful Clean Energy Project

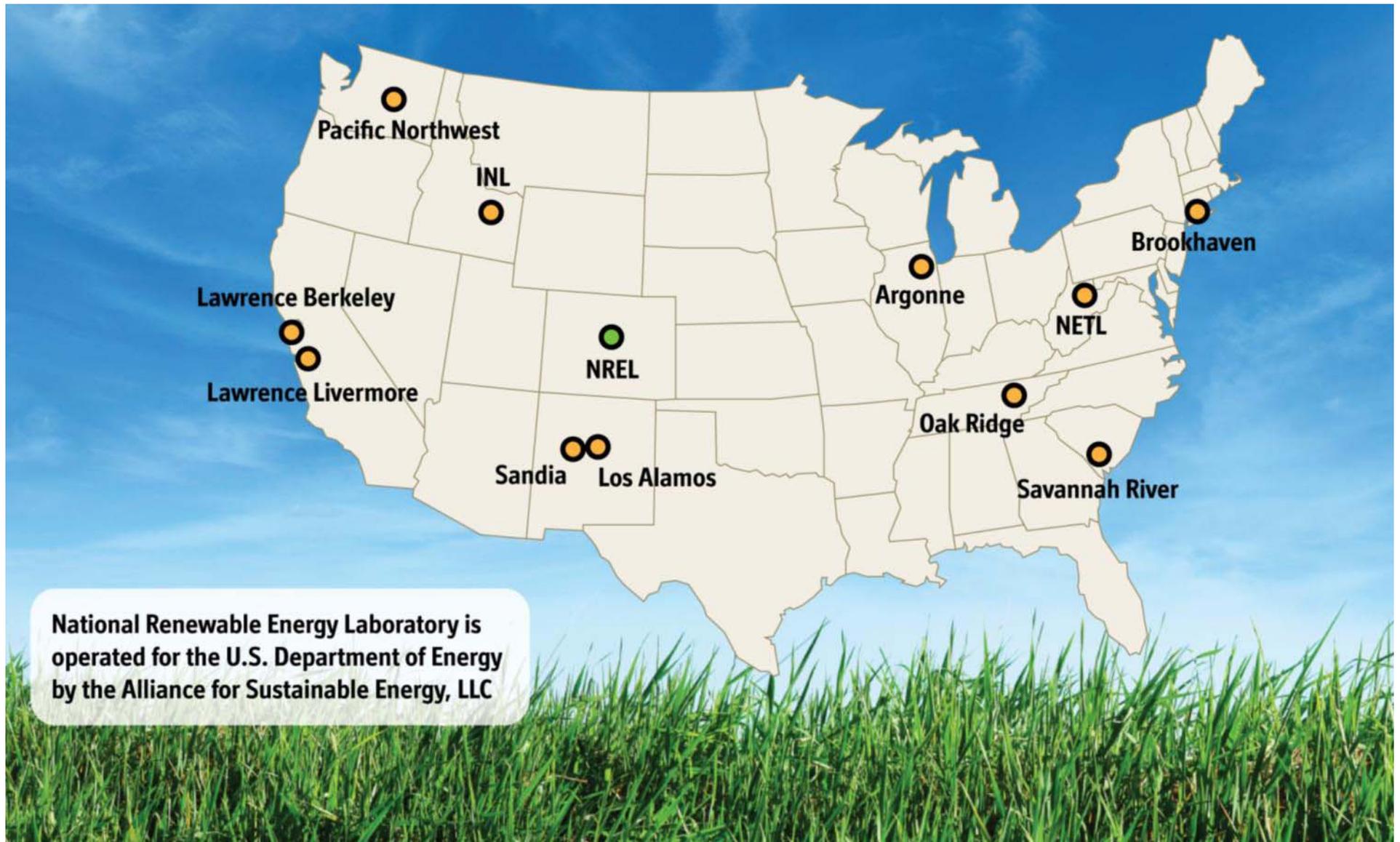


Bob Springer

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We Are Part of the Constellation of DOE National Laboratories



National Renewable Energy Laboratory is operated for the U.S. Department of Energy by the Alliance for Sustainable Energy, LLC

The National Renewable Energy Laboratory (NREL)

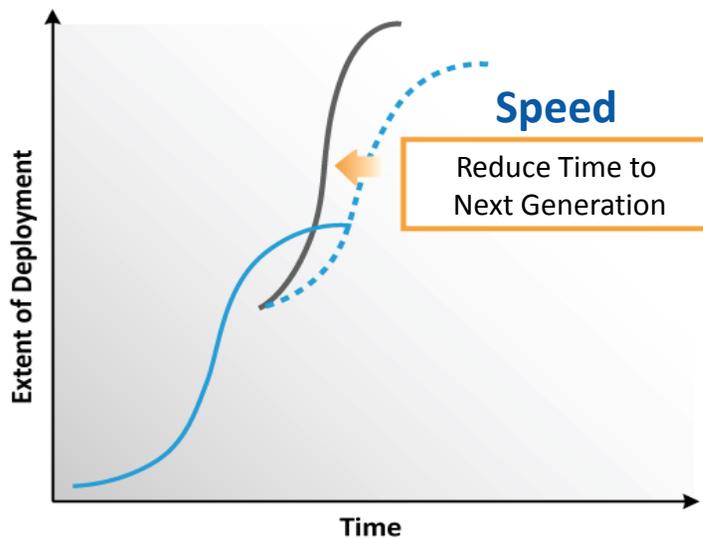
NREL is the only federal laboratory dedicated to the research, development, commercialization and deployment of renewable energy and energy efficiency technologies.

- ✓ Basic Scientific Research - R&D
- ✓ Applied Research and Engineering
- ✓ Testing, Scale-up and Demonstration
- ✓ Strategic Analysis
- ✓ Deployment and Market Transformation

Commercialization and Deployment Goals

Commercialization

Goal:
Accelerate the availability
(speed) of *next generation* technologies

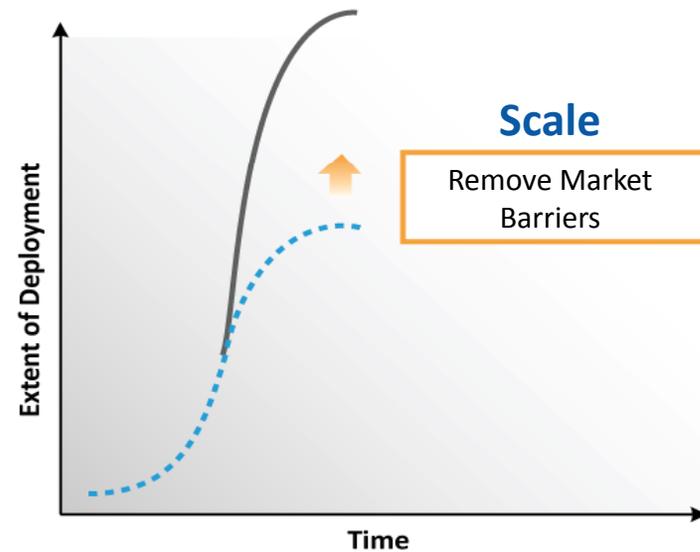


Examples

- Cellulosic ethanol by 2012
- Cost-competitive photovoltaics by 2015

Deployment

Goal:
Maximize market adoption of
(scale) *current generation* technologies



Examples

- Full E10 market penetration
- Compact fluorescents and adv. windows

Innovation and Entrepreneurship Center - IEC

Entry point for cleantech companies looking for business or technical support/education/resources:

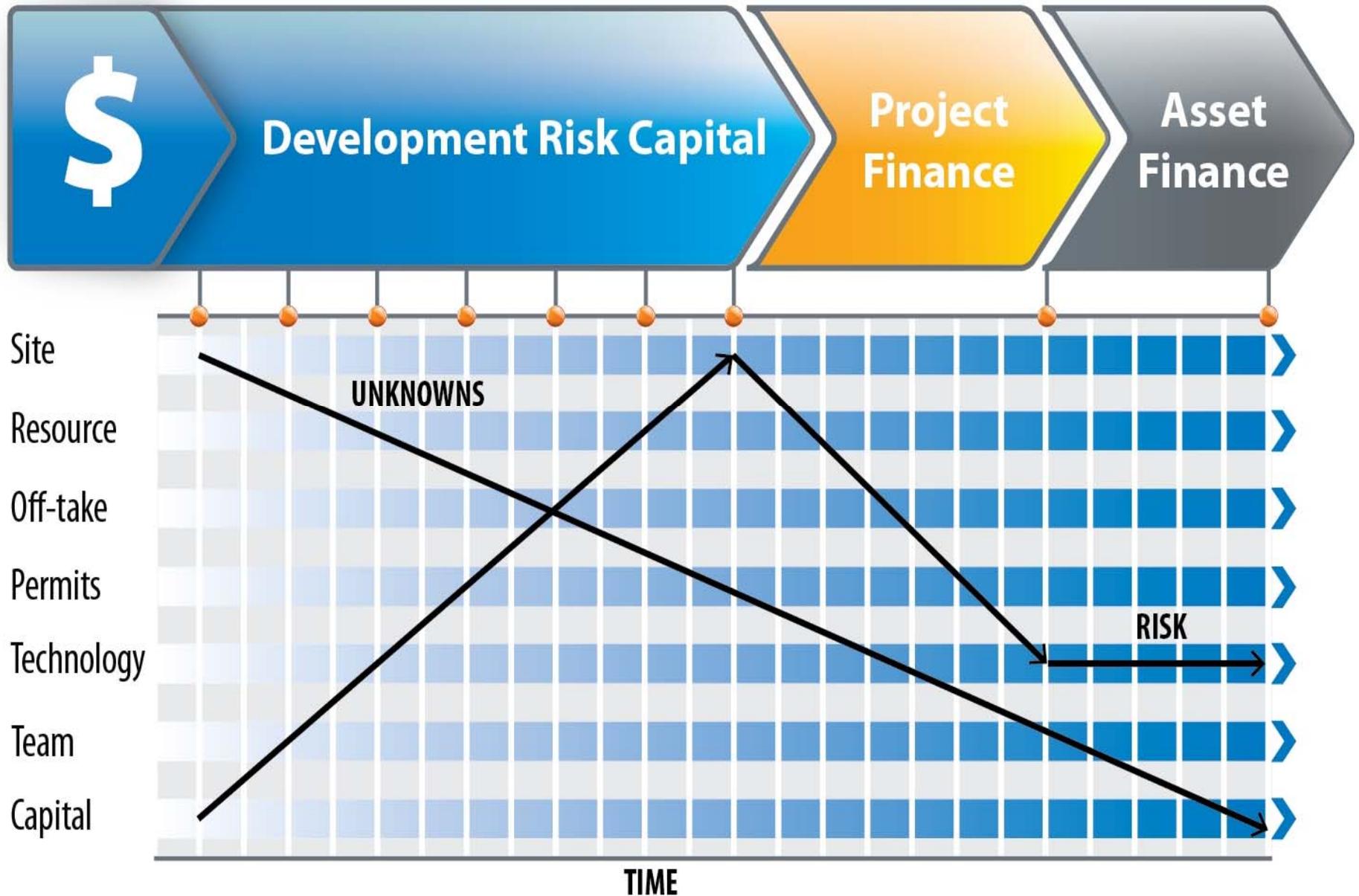
- NREL is “open for business”
- NREL itself does not invest money

IEC is conduit to:

- Technology testing/verification
- Cooperative development agreements (R&D)
- Education – entrepreneurship and finance
- Industry Growth Forum – VC and project investors
- NCAP – 40 hours of free expertise from NREL

CONTACT: Richard Adams, 303-275-3051
Richard.Adams @nrel.gov

Project Development Framework



Project Development and Finance – PD&F

Entry point for project-oriented services for public and private agencies and organizations:

- NREL can work with private companies
- Typically government agencies in early-stage of deployment

PD&F is conduit to:

- Project development services
- Techno/economic feasibility
- Portfolio analysis
- Advisory on markets and project performance

CONTACT: Bob Springer, 303-384-7444
Robert.Springer @nrel.gov



Mahalo