

# Building Technology Roadmaps

**DOE'S OFFICE OF BUILDING TECHNOLOGY, STATE AND COMMUNITY PROGRAMS (BTS) IS FACILITATING AN INDUSTRY-LED INITIATIVE TO DEVELOP A SERIES OF TECHNOLOGY ROADMAPS THAT IDENTIFY KEY GOALS AND STRATEGIES FOR DIFFERENT AREAS OF THE BUILDING AND EQUIPMENT INDUSTRY. THIS ROADMAPPING INITIATIVE IS A FUNDAMENTAL COMPONENT OF THE BTS STRATEGIC PLAN AND WILL HELP TO ALIGN GOVERNMENT RESOURCES WITH THE HIGH-PRIORITY NEEDS IDENTIFIED BY INDUSTRY.**



## **A new way of doing business**

For each major industry area, the roadmapping process brings together participants to develop a vision of where that industry sees itself in 20 years. A larger group of stakeholders then uses a similar process to develop a technology roadmap that identifies the strategies needed to achieve that vision.

Technology roadmaps serve to align government resources with the needs of industry. The roadmapping process creates a shared vision among diverse groups within each industry. It also provides a framework for the creation of strategic partnerships that will help to accelerate the adoption of new technologies in the marketplace.

Technology roadmaps represent a new way of doing business — for both the building and equipment industry and BTS — that will result in

improved building quality, performance, asset value, affordability, and energy efficiency.

## **Six roadmaps under way**

BTS is working directly with industry to develop technology roadmaps in six key areas:

- Lighting
- Heating and cooling
- Windows
- Insulation
- Whole buildings in the commercial sector
- Whole buildings in the residential sector

BTS is committed to facilitating technology roadmaps for major areas of the building industry in order to better align its research and deployment agenda with the specific needs identified by industry.

## **THE ROADMAPPING PROCESS**

**The roadmapping process begins with Executive Forums, where leaders in each area of the building industry develop a vision of their industry in 2020. These visions provide the foundation for technology roadmaps that identify the research and market transformation activities needed to make the vision a reality.**

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## Phase I: Develop the vision

Roadmapping begins with Executive Forums in which industry leaders develop a vision of their industry in 2020. Participants represent all phases of the building process and may include manufacturers, developers, contractors, owners, architects, engineers, financial backers, utilities, and researchers. The final products of the Executive Forums include:

- A draft vision statement that articulates where the industry area sees itself in 20 years
- A set of performance targets for the technology area

These documents will be available for review and become the basis for the next phase, development of the technology roadmap.

## Phase II: Develop the roadmap

Once the vision is complete, a larger group of industry stakeholders gathers for a second series of workshops. In these workshops, participants develop short-, mid-, and long-term strategies for achieving the goals established in the vision.

The roadmap describes the research and market transformation strategies required to make the vision a reality.

It also identifies technology performance targets, industry trends and drivers, and technology barriers.

## Phase III: Realize the vision

Once completed, the roadmap becomes a framework for cooperative research, development, and deployment (RD&D) in the building industry. The roadmap encourages other groups such as manufacturers, States, and utilities to align their RD&D efforts with the high-priority needs identified in the roadmap.

This approach ensures the most strategic allocation of public- and private-sector resources for technology development and accelerates the RD&D process. BTS supports activities that align with its mission to promote energy technologies and practices that make buildings more efficient and affordable — and communities more livable.

**For more information, contact:**  
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**202-586-1510**

**Or visit the BTS Web site at:**  
**[www.eren.doe.gov/buildings](http://www.eren.doe.gov/buildings)**

## THE ROLE OF DOE

**DOE'S OFFICE OF BUILDING TECHNOLOGY, STATE AND COMMUNITY PROGRAMS IS COMMITTED TO A NEW WAY OF DOING BUSINESS, CHARACTERIZED BY:**

- **STRONGER AND MORE EFFECTIVE PARTNERSHIPS WITH INDUSTRY AND STATES**
- **JOINTLY DEVELOPED GOVERNMENT-INDUSTRY TECHNOLOGY ROADMAPS**
- **COMPETITIVELY SELECTED AND PEER-REVIEWED PROJECTS**
- **ESTABLISHMENT OF BTS AS THE INTEGRATOR OF COST-EFFECTIVE, TECHNOLOGY-BASED, ENERGY-EFFICIENT PRODUCTS AND PRACTICES**
- **CUSTOMER-FOCUSED, HIGHLY PRODUCTIVE, AND RESULTS-DRIVEN ORIENTATION**

**THE INDUSTRY-LED BUILDING TECHNOLOGY ROADMAPPING PROCESS REPRESENTS A KEY ELEMENT OF BTS' STRATEGY TO PROMOTE MORE ENERGY-EFFICIENT, COMFORTABLE, AND AFFORDABLE BUILDINGS FOR THE 21ST CENTURY.**

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