

# Seeing the forest for the trees

Building on historic and new strengths in teaching and research, MU defines key areas of competitiveness.

Story by John Beahler Photo by Rob Hill

**THERE'S BEEN A LOT OF BUZZ** lately about biomass fuels — plant materials such as wood chips, switchgrass and comcobs — that could be burned to generate electricity instead of using greenhouse gas-producing coal. If biomass fuels take off, it could change Missouri's landscape, and MU could be at the forefront of a new energy revolution.

That's because Missouri is covered with more than 12 million acres of privately owned forests. Right now, few of the smaller woodland tracts are thinned to improve tree stands, and the small-diameter trees have little commercial value. If fuel made from wood chips or pellets found a viable market, landowners could have a more lucrative option.

The technology hasn't come that far yet, but it could in the future with strategic investments by MU into sustainable energy

research. By 2012, the campus will install a biomass boiler in its power plant that will burn wood chips. The boiler will help reduce greenhouse gas emissions, but it could also become a laboratory for sustainable energy research and training for both graduate and undergraduate students.

Over the past three years, campus administrators have been working with faculty, staff and students to develop a plan that would use Mizzou's competitive advantages to give it a bigger edge in teaching and research initiatives. The initiative program, with an annual budget of \$6 million, will be phased in over the next several years.

The team has identified five areas in which MU has unique advantages that separate it from other universities:

- Sustainable Energy could be the single most promising area for federal research

funding over the next decade. This initiative could build on such strengths as MU's research reactor — the most powerful university-operated research reactor in the United States — and research programs in nuclear power generation and biofuel development.

- Food for the Future will capitalize on Mizzou's traditional strengths in plant and animal sciences, and a range of emerging programs such as nutrition, chronic disease research and treatment, aging and obesity.
- New Media will draw on the J-School's century of international leadership in media research and training, along with campus strengths in digital technologies, business, public policy, graphic design and creative writing.
- One Health, One Medicine will expand on

Mizzou icons Jesse Hall and Memorial Union stand out from the landscape. The university is developing a plan that will use its competitive advantages in five areas to give it a bigger edge in research and teaching initiatives. In this photo, taken southwest of campus from along Stadium Boulevard, the crane shown below is for a construction project at Boone Hospital Center.

More: [provost.missouri.edu/mizzou\\_advantage.html](http://provost.missouri.edu/mizzou_advantage.html)



MU's pioneering work in the convergence of human and animal health, and connect it with expertise from medical and veterinary medicine faculty and the public health program.

- Understanding and Managing Disruptive and Transformational Technologies will touch on virtually every part of the university to explore areas in which existing technologies, and everything based on them, are changing rapidly.

"The perspective is this: It's very difficult for us to take on the biggest, best-resourced universities," says Provost Brian Foster. "We just can't win on their turf. What we want to do is find the assets that we have that differentiate us from them, the assets that allow us to do the things they can't do." As provost, Foster is MU's chief academic officer.

"The goal all along was to find the assets that give us a really strong competitive position and position us uniquely in higher education, then to take those assets and build some program thrusts so we can do some things that really matter. It's investing strategically in our strengths," he says.

"It is especially important to think this way in this time of difficult fiscal conditions," Foster says. "The one thing we surely don't want to do is to just be cutting opportunistically to make the budget balance. We need also to be investing strategically, continuing to move forward, and this is a way to do that."

Foster emphasizes that these initiative areas are not intended to be new centers or institutes, but rather networks of collaborators. "These are all areas that are changing with the speed of light. Creating a hard struc-

ture is probably not a good idea," he says.

Planners hope those activities will include large grants. "More and more federal money is going into big megaprojects — \$100 million and \$200 million projects — that are run by consortia, including, for example, universities, big consulting firms and national laboratories," Foster says. "We'd like to get our share of those kinds of big projects."

Another priority will be to include outside partners in the program. "It's very important that it's not just the campus that's engaged in this; it's going to be external collaborators as well," he says. "It's important that we create strong programs that serve the communities and businesses across the state of Missouri." Those collaborations will also bring scholars of international stature to campus and enhance the intellectual vitality of the campus. ■