

***National Academies of Science and Engineering
Pathways to Urban Sustainability in Portland***

The role of research in urban policy

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May 29, 2013***



Urban solutions can come from four sectors

Governments



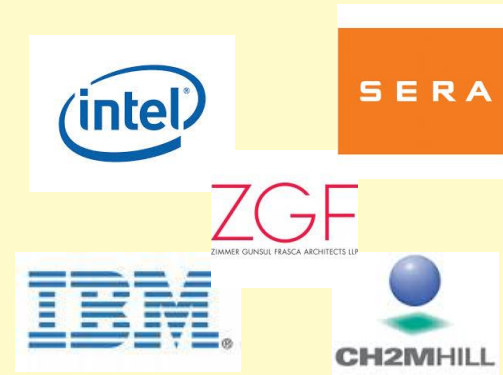
NGOs



Universities



Corporations



Urban solutions can come from four sectors

Governments

Fund basic research
Fund applied research
Set policies and laws
Fund infrastructure

NGOs

Define positions
Fund applied research
Conduct applied research
Disseminate results



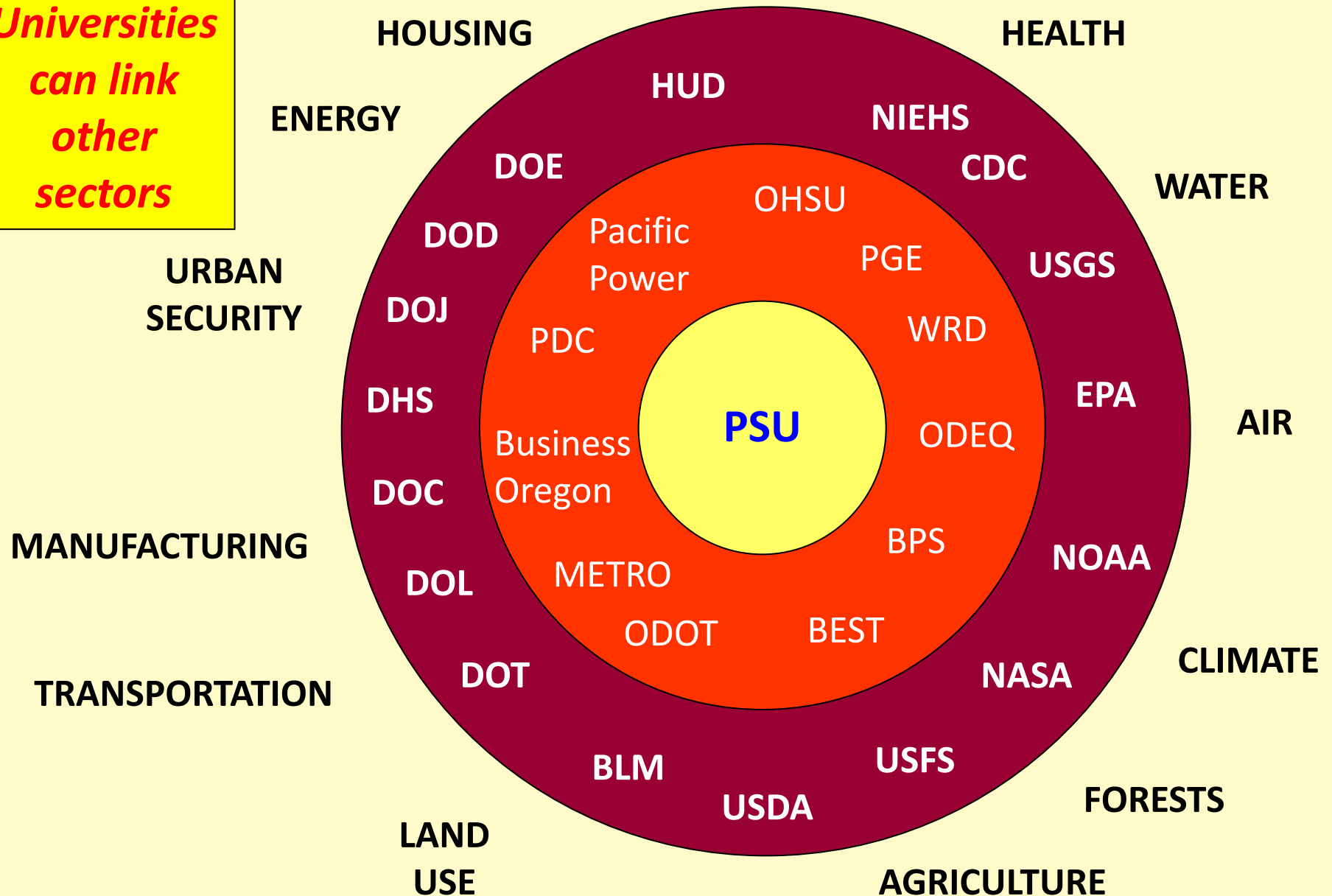
Universities

Conduct applied research
Conduct basic research
Manage campus 'labs'
Inform public policies

Corporations

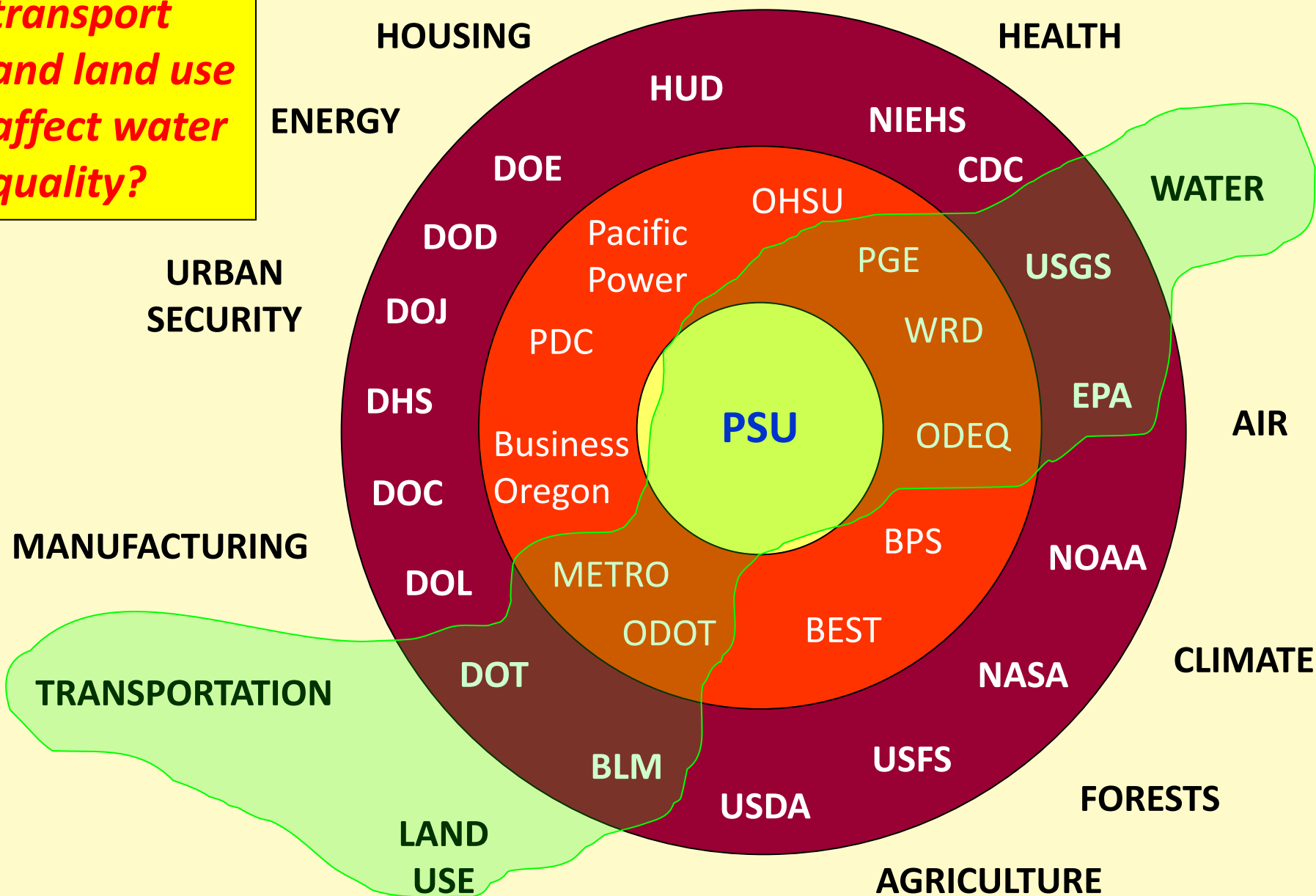
Fund research
Conduct research
Invent technologies
Create markets

**Universities
can link
other
sectors**



**How do
urban
transport
and land use
affect water
quality?**

and Strategic Partnerships



Do We Need an “Urban Genome Project”?

- **Human Genome Project (HGP) sought to cure human diseases**
- **Urban Genome Project seeks to cure planetary diseases**
- **Each person has unique characteristics embedded in DNA**
- **Each city’s unique characteristics are reflected in its “DNA”**
- **HGP required multiagency and private sector funding**
- **Urban Genome Project needs multi-sector support**
- **But who oversees it? Federal agency, global NGO, academia?**



Conclusions

- Four sectors address urban sustainability complementarily
- The sectors differ in how they fund or conduct research
- Federals, companies, academia can create a science of cities
- Universities and foundations can convene as honest brokers
- “Urban Genome Project” could be grand challenge for cities
- Technology of cities must be reinforced by culture

