



**WEBUILD  
GREENCITIES**  
**PORTLAND**  
OREGON

**PDC** | PORTLAND  
DEVELOPMENT  
COMMISSION  
[www.pdc.us](http://www.pdc.us)

***Pathways to Urban Sustainability Workshop:  
A Focus on the Portland Region***

**National Academies**

May 28, 2013

# PDC Mission

***“Create one of the world’s most desirable and equitable cities by investing in job creation, innovation and economic opportunity throughout Portland.”***



J. Scott Andrews  
Commission Chair



John C. Mohlis  
Commission  
Secretary



Charles A. Wilhoite  
Commissioner



Steven Straus  
Commissioner

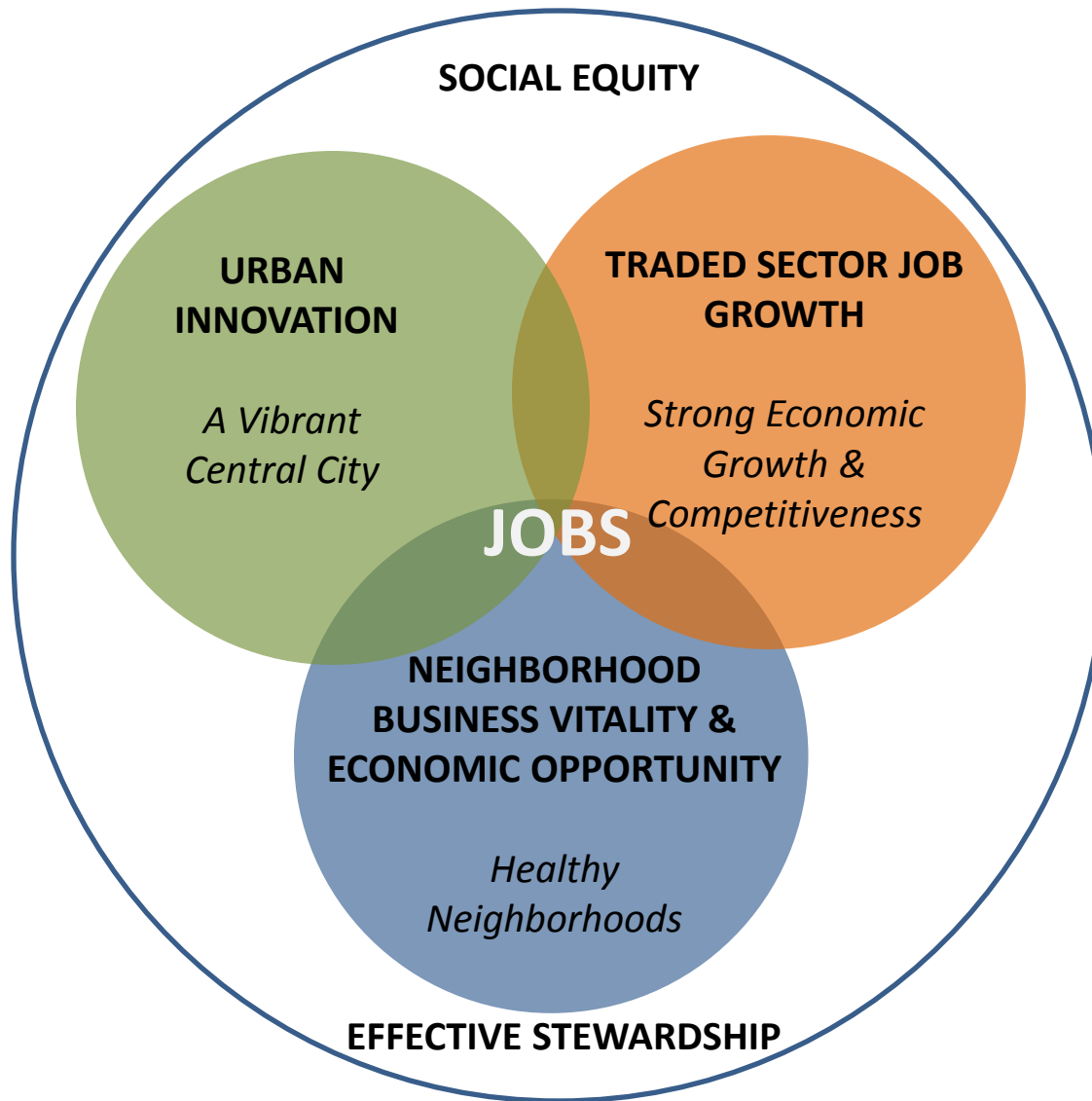


Aneshka Dickson  
Commissioner



Patrick  
Quinton  
Executive  
Director

# Economic Development Strategy



# Cluster Strategy – Clean Tech



## TRADED SECTOR JOB GROWTH

*Strong Economic Growth & Competitiveness*

## URBAN INNOVATION

*A Vibrant Central City*

Core B&I Activities



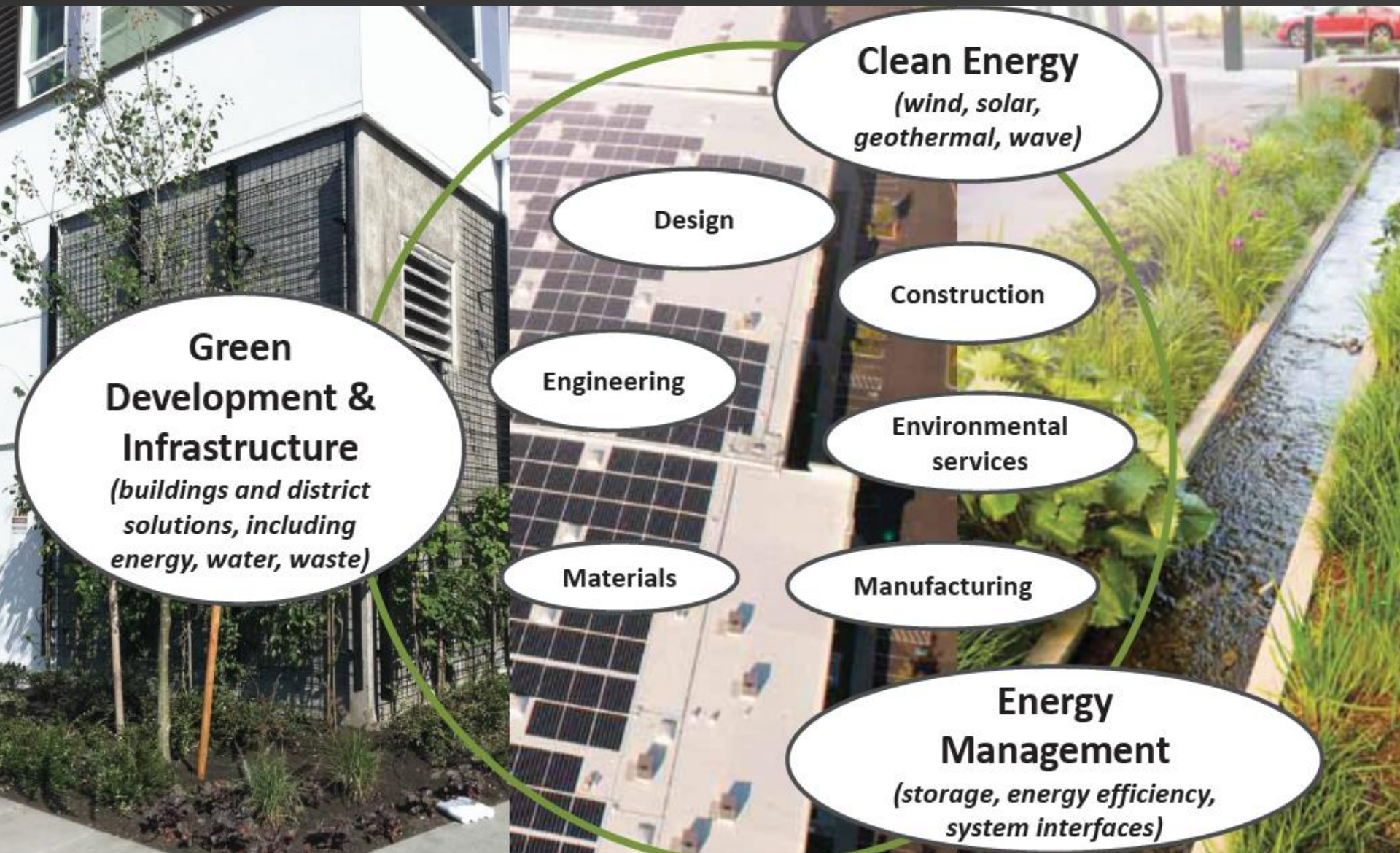
- Retention/Expansion
- Recruitment
- Export Promotion
- Entrepreneurship & Innovation
- Industry Program & Initiatives

Core CC Activities



- City as a Living Laboratory
- Demonstration Projects

# Portland's Green Industry Cluster



# Metro Clean Tech Index

## 2012 U.S. METRO CLEAN TECH INDEX



LOWER RANKING HIGHER RANKING

RANK	METRO AREA	LEADERSHIP SCORE
1	San Jose, CA	82.2
2	San Francisco, CA	81.4
3	Portland, OR	64.8
4	Sacramento, CA	59.4
5	Seattle, WA	56.5
6	Denver, CO	54.5
7	Los Angeles, CA	52.2
8	Washington, DC	50.4
9	Boston, MA	49.4
10	Austin, TX	48.6
11	San Diego, CA	44.7
12	Chicago, IL	43.9
13	New York, NY	41.2
14	Salt Lake City, UT	40.1
15	Minneapolis, MN	36.9
16	Riverside, CA	33.5
17	Philadelphia, PA	32.0
18	Hartford, CT	32.0
19	Atlanta, GA	29.4
20	Phoenix, AZ	29.4
21	Houston, TX	28.7
22	Dallas, TX	28.2
23	Charlotte, NC	27.4
24	Milwaukee, WI	27.0
25	Buffalo, NY	26.2
26	Oklahoma City, OK	25.0
27	Raleigh, NC	24.8
28	Las Vegas, NV	23.8
29	Nashville, TN	23.8
30	Providence, RI	23.6
31	San Antonio, TX	20.3
32	Detroit, MI	19.9
33	Kansas City, MO	18.9
34	Baltimore, MD	18.8
35	Indianapolis, IN	18.3
36	Orlando, FL	18.3
37	Pittsburgh, PA	17.4
38	Columbus, OH	16.5
39	Cleveland, OH	15.2
40	Tampa, FL	14.5
41	Virginia Beach, VA	14.4
42	Cincinnati, OH	13.7
43	Miami, FL	12.7
44	Louisville, KY	11.7
45	St. Louis, MO	11.5
46	Jacksonville, FL	10.6
47	Richmond, VA	9.5
48	Memphis, TN	6.6
49	New Orleans, LA	3.6
50	Birmingham, AL	2.9

CLEAN EDGE

© 2012 Clean Edge, Inc. (www.cleantedge.com). This executive summary contains findings and excerpts from the 2012 U.S. Metro Clean Tech Index, a subscription-based service.

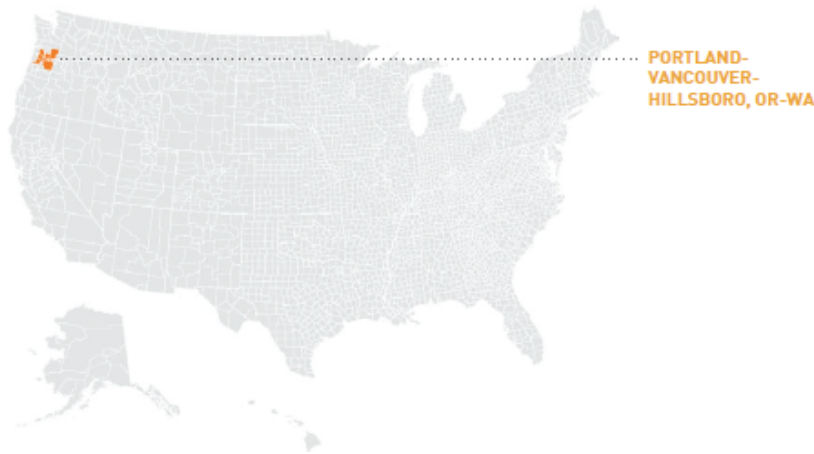
THE CLEAN-TECH MARKET AUTHORITY

CLEAN EDGE

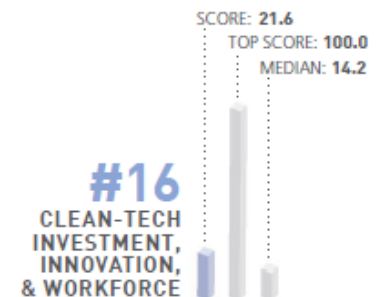
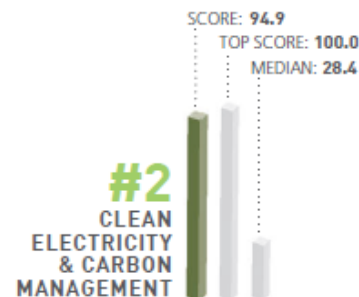
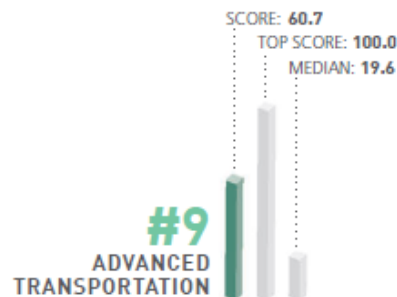
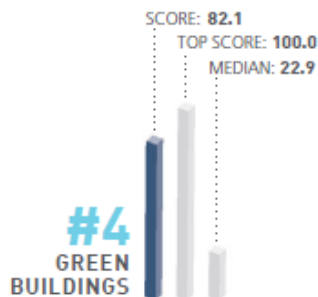
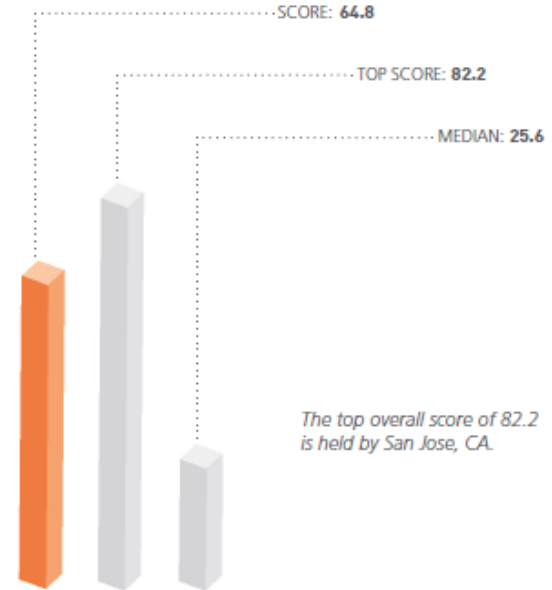
# Portland's National Rankings

## 2012 Portland Report Card

PORTLAND, OR



**#3**  
OVERALL



THE CLEAN-TECH MARKET AUTHORITY

CLEAN EDGE

# Regional Market



## Strengths

- Policy leadership
- Early adopter culture
- Talent
- Location

## Challenges

- Venture investment
- Intermittent incentives
- Research \$ and patent activity
- Low energy costs

# Portland Heritage

## POLICY

- MAX for regional transit system
- Comprehensive land use bill
- Metro regional government
- Urban growth boundary
- 1<sup>st</sup> to adopt a Global Warming Action Plan
- 1<sup>st</sup> to implement car-sharing
- Streetcar reintroduced
- City/PDC Green Building Policy adopted
- Ambitious renewable energy and fuels laws
- Clean Energy Works launched

1970



2035

## ECONOMIC ACTIVITY

- 1,000 recycling related jobs
- Drive 20% less than comparable cities
- 5 car sharing programs active in the Portland market
- Portland firms helping to institute bike sharing programs nationwide
- Most LEED buildings / capita
- Firms working globally & nationally as 2M SF/day become LEED-certified
- Epicenter of U.S. wind energy industry

# Clean Tech Strategy: Goals

- Create Jobs
- Attract Investment
- Drive Innovation
- Improve Resource Efficiency
- Promote Leadership

# Clean Tech Core Strategies

## Living Laboratory

- First adopter - pilot new approaches & technologies
- Partnerships to accelerate market adoption
- Assist with certification

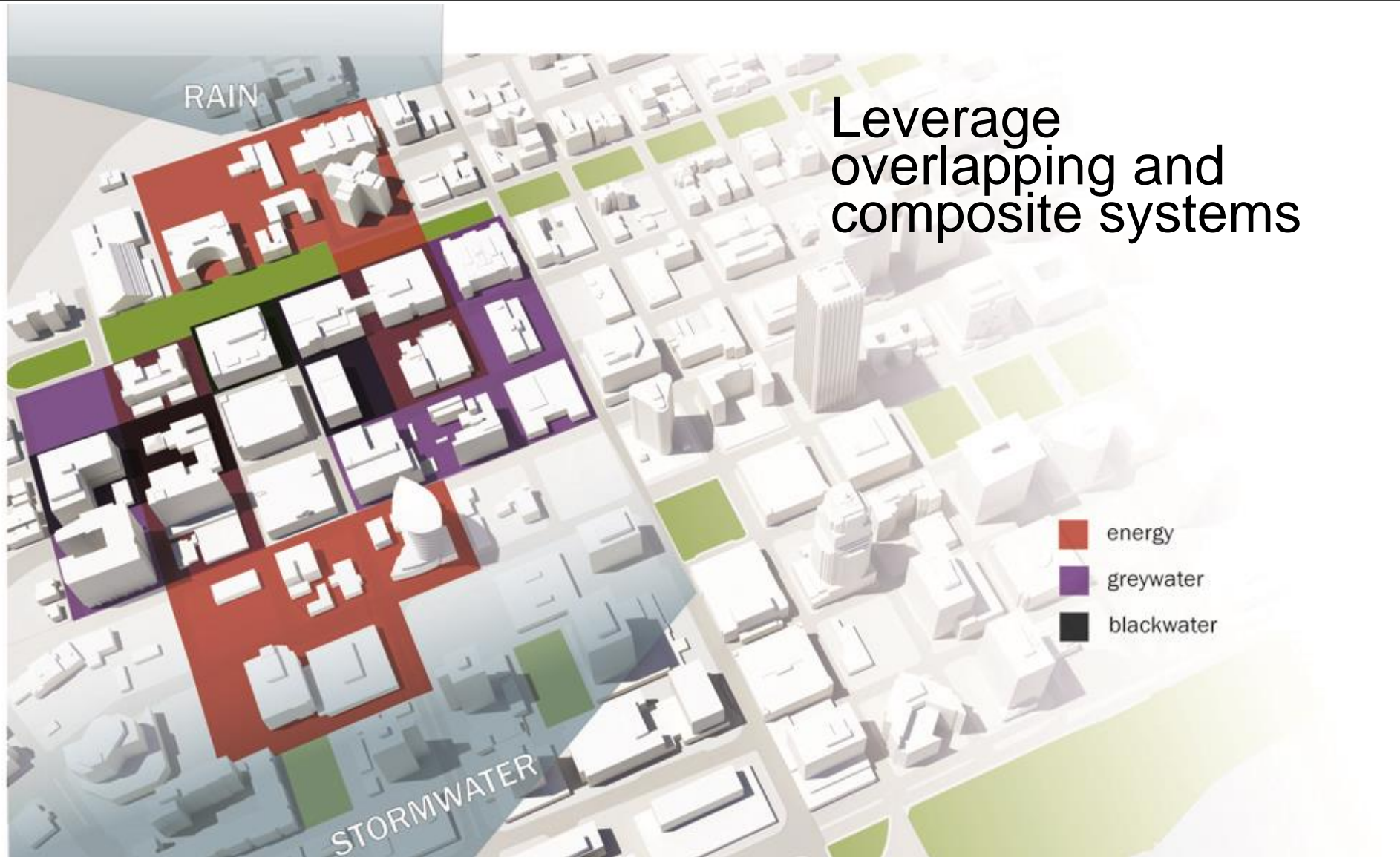
## Entrepreneurship Ecosystem

- Research to commercialization
- Matchmaking big & small firms for new investment & deployment
- Cross industry fertilization

## Market Expansion

- Conduct export market research
- Build relationships in new markets
- Brand & leverage Portland leadership on behalf of industry

# Living Laboratory: EcoDistricts



# Living Laboratory: Energy Efficiency

## Residential (Clean Energy Works)

- Appliances
- Building envelope
- HVAC
- Energy monitoring

## Commercial (Developing Model & Partnerships)

- HVAC
- Lighting & controls
- Sub-metering and sensors
- Energy monitoring dashboards
- Enhanced portfolio management.

## Benefits

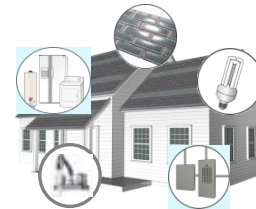
- Grouped audits & implementation
- Bulk purchasing
- Testing/commercialization opportunities
- Reduced cost of capital
- Establishment of standards for grid interoperability
- Increased community engagement



Lower utility bills & operating costs

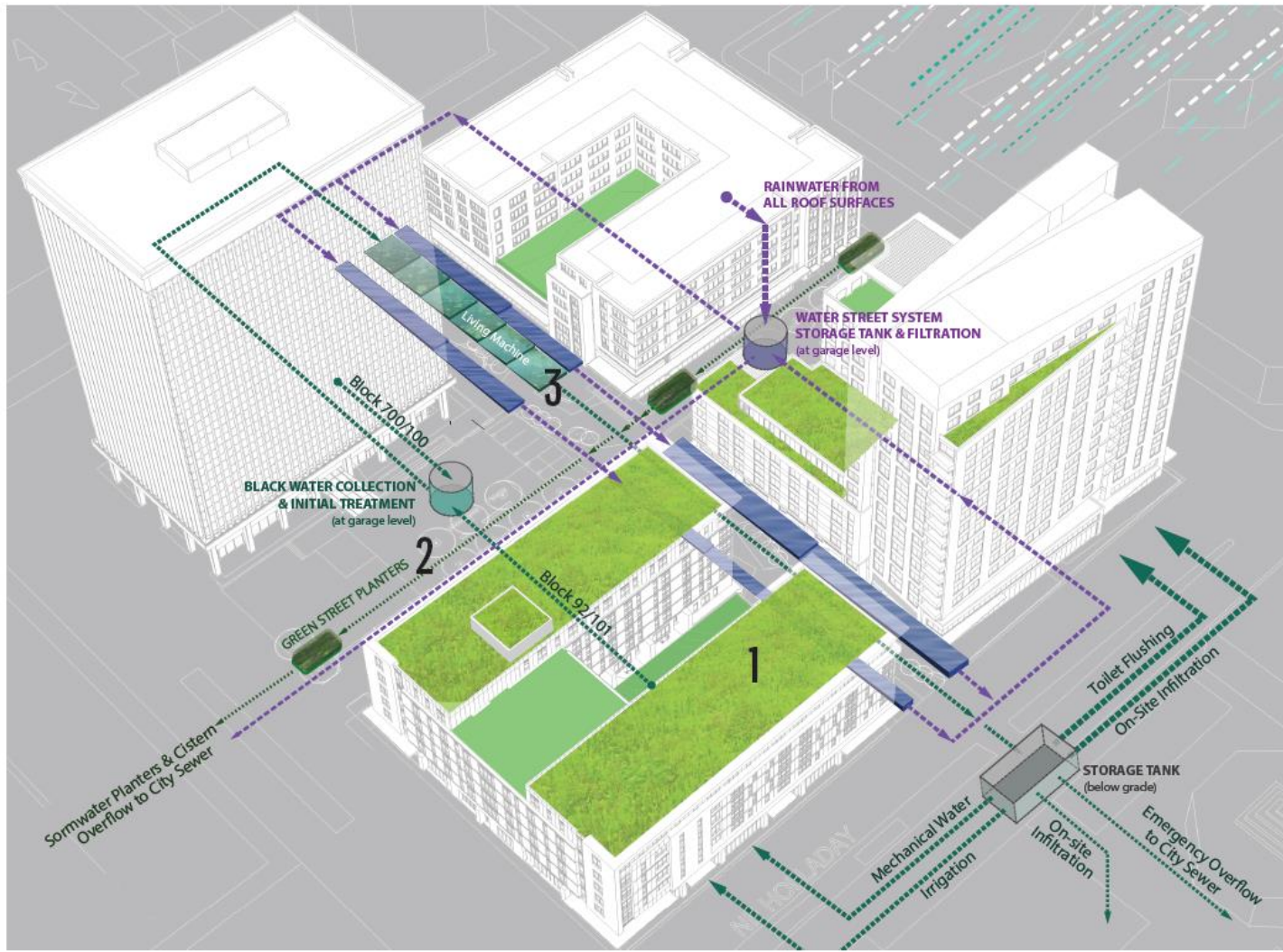


Increased awareness & new technology availability



Revitalized landscape & building performance

# Living Laboratory: High Performance New



## 1 ECO ROOFS

Rooftop water is absorbed in an extensive. Excess water is directed to podium level rain gardens and on to cisterns. Street level "curbside" provides further filtration, detention and aesthetic purpose.



## 2 GREEN STREET

Rainwater collected on Placerville Street and surrounding hard surfaces is directed to shallow stormwater planters for detention and filtration.



## 3 WATER STREET

Rainwater collected in "curbside" are visually combined with a "Living Machine" black-water treatment system to form a new "Water Street" running north-south through the site. Planting will amplify the new conceptual system for a highly functioning and visually attractive pedestrian experience.

The "Water Street" will become the landmark element to define the District's public realm.





**WEBUILD**  
**GREENCITIES**  
**PORTLAND**  
OREGON

Questions?