Who are we?
Who are we?
Who are we?

1996 Skanska Sweden becomes the first Skanska business unit to have its environmental management system become ISO 14001:1996 certified.
1997 Skanska publishes its first Environmental Report.
1999 Dow Jones lists Skanska on its Dow Jones Sustainability Index.
2000 All Skanska operations around the world are ISO 14001: 1996 certified.
2000 Skanska becomes a member of the U.S. Green Building Council (USGBC), the year the LEED™ rating system is launched.
2001 Skanska is one of several hundred companies to join the United Nations Global Compact.
Our triple bottom line

Who are we?

1. We care about our people
2. We help build communities
3. We play fair
4. We use natural resources with care
5. We respect the local environment
6. We choose projects with care
7. We choose like-minded partners
8. We create shared value
Why do we care?
Why do we care?
Why do we care?
Keep global average temperature increase “well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C”

Paris Climate Agreement, December 12, 2015
**IPCC Carbon Emissions Projection Scenarios**

**Why do we care?**

**Source:** IPCC 2013, Representative Concentration Pathways (RCP); Stockholm Environment Institute (SEI), 2013; Climate Analytics and ECOFYS, 2014. Note: Emissions peaks are for fossil fuel CO2-only emissions.

**SKANSKA**
IPCC Carbon Emissions Projection Scenarios

**Why do we care?**

Source: IPCC 2013, Representative Concentration Pathways (RCP); Stockholm Environment Institute (SEI), 2013; Climate Analytics and ECOFYS, 2014. Note: Emissions peaks are for fossil fuel CO2-only emissions.
Why do we care?

IPCC Global Temperature Projection Scenarios

Source: IPCC 2013, Representative Concentration Pathways (RCP); Stockholm Environment Institute (SEI), 2013; Climate Analytics and ECOFYS, 2014. Note: Emissions peaks are for fossil fuel CO2-only emissions.
What is our impact?
Over the next 35 years, two trillion ft$^2$ of new and rebuilt buildings will be constructed in cities worldwide.

An entire New York City every 35 days for 35 years!
What is our impact?

U.S. Energy Consumption by Sector

Source: ©2013 2030, Inc. / Architecture 2030. All Rights Reserved.
What is our impact?

Energy Profile (Building Built to Current Code Standards)

- Building Materials & Construction
- Building Operations

Materials & Construction:
- 2015: 58%
- 2065: 46%

Operations:
- 2015: 42%
- 2065: 54%
Two Trillion Square Feet Energy Consumption Footprint: 2015-2050

What is our impact?

- Construction Impacts: 90%
- Materials Manufacture & Transport: 30%
- Building Operations: 10%

Source: ©2016 2030, Inc. / Architecture 2030. All Rights Reserved.
What are we doing?
What are we doing?

- RSF: >100,000 SF
- Goal Achieved: LEED Platinum
- Type: Office/Mixed/Open

- Worker Transport: 497 tonnes of CO2e
- Material Transport: 321 tonnes of CO2e
- Materials: 4,186 tonnes of CO2e
- Fuel: 442 tonnes of CO2e
- Waste: 24 tonnes of CO2e

- Structural Steel: 2,202 tonnes of CO2e
- Concrete: 1,073 tonnes of CO2e
- Aluminum: General: 486 tonnes of CO2e
- Copper: General: 232 tonnes of CO2e

- Total CO2e emissions:
  - Steel: 2,022 tonnes (53%)
  - Concrete: 1,079 tonnes (26%)
  - All Other Materials: 812 tonnes (19%)
  - Curtain Wall: 249 tonnes (6%)
  - Fuel: 625 tonnes (14%)

- Craftwork emissions per day:
  - Alone: 72%
  - Mass Transit: 3%
  - Carpool: 25%

- Carbon credits:
  - -30% reduction
  - -40% reduction
  - Hi-eff Chillers/Systems
What are we doing?

**Total Carbon**

<table>
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<tr>
<th>Project</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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**Carbon PSF**

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<th>C</th>
<th>D</th>
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<td>60.0</td>
<td>20.0</td>
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**% of Tons of Carbon**

- Concrete
- Curtain Wall
- Steel
- All Other Materials
DRAFT
Life Cycle Assessment (LCA) for Low Carbon Construction
Stage 1: Embodied Carbon Benchmarks

Co-Sponsors:
Pankow-Skanska-Oregon Department of Environmental Quality

I. Project Description:
This project will develop guidance for the use of industry professionals looking to integrate carbon into life cycle based decision making of buildings through two initiatives: the establishment of embodied carbon benchmarks of buildings and creation of an environmental life cycle assessment (LCA) practice guide. This document outlines the research plan for Stage 1: Embodied Carbon Benchmarks and includes the following tasks as
Initial Embodied Carbon Data Visualization

This reports the embodied carbon per unit area for over 1,000 buildings included in the Embodied Carbon Benchmark Study.
What are we doing?

Tackling climate change is one of Washington’s greatest economic opportunities of the 21st Century – and it’s simply the right thing to do.
What are we doing?
GREENHOUSE GAS AND CLEAN ENERGY POLICY PRINCIPLES

WBCA supports a set of principles to inform the development of effective policies that reduce greenhouse gas emissions (GHG), create jobs and promote clean energy in the state of Washington.

Policies should:

1) Support science based limits.
2) Support the establishment of a carbon pricing mechanism.
3) Minimize bureaucracy, ensure business has a level playing field and avoid unduly burdening vulnerable businesses.
4) Use a significant portion of proceeds to create jobs, transition to a clean energy economy and support long term resiliency.
5) Encourage the development of clean transportation
6) Provide predictability and stability for private sector capital investment
WHAT ARE WE DOING?

Our Mission

WHY OREGON BUSINESSES AND INDUSTRY SHOULD CARE ABOUT CLIMATE CHANGE

The Alliance’s mission is to provide a framework for Oregon industry leaders to collaborate in policy and business engagements aimed at promoting investment, job creation, competitiveness and economic growth towards Oregon’s low carbon economy.
We look forward to exploring ways to drive a low-carbon economy and a more sustainable future with our partners and clients because it’s in our blood... And it’s smart business.

We made our decision on the Paris Accord long before it was ratified and the decision was easy: we are all in.

-Beth Heider, Chief Sustainability Officer, Skanska