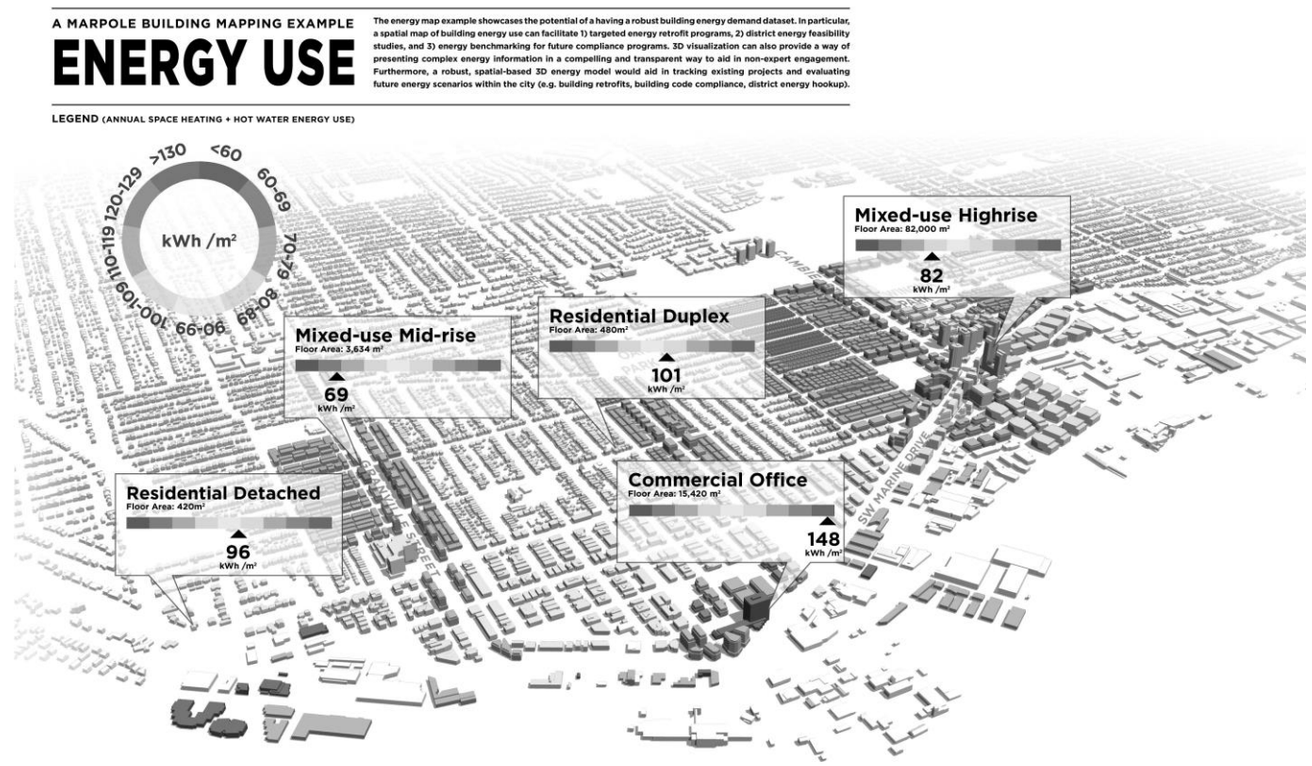

Tools for Engaging Youth in Urban Design + Emissions Reductions

Cynthia Girling
for the elementsLab

elementslab
RESEARCH FOR URBAN DESIGN AND ENVIRONMENT

School of Architecture and Landscape Architecture Ron Kellett, Cynthia Girling
School of Community and Regional Planning Maged Senbel
Department of Computer Science Kellogg Booth
University of British Columbia

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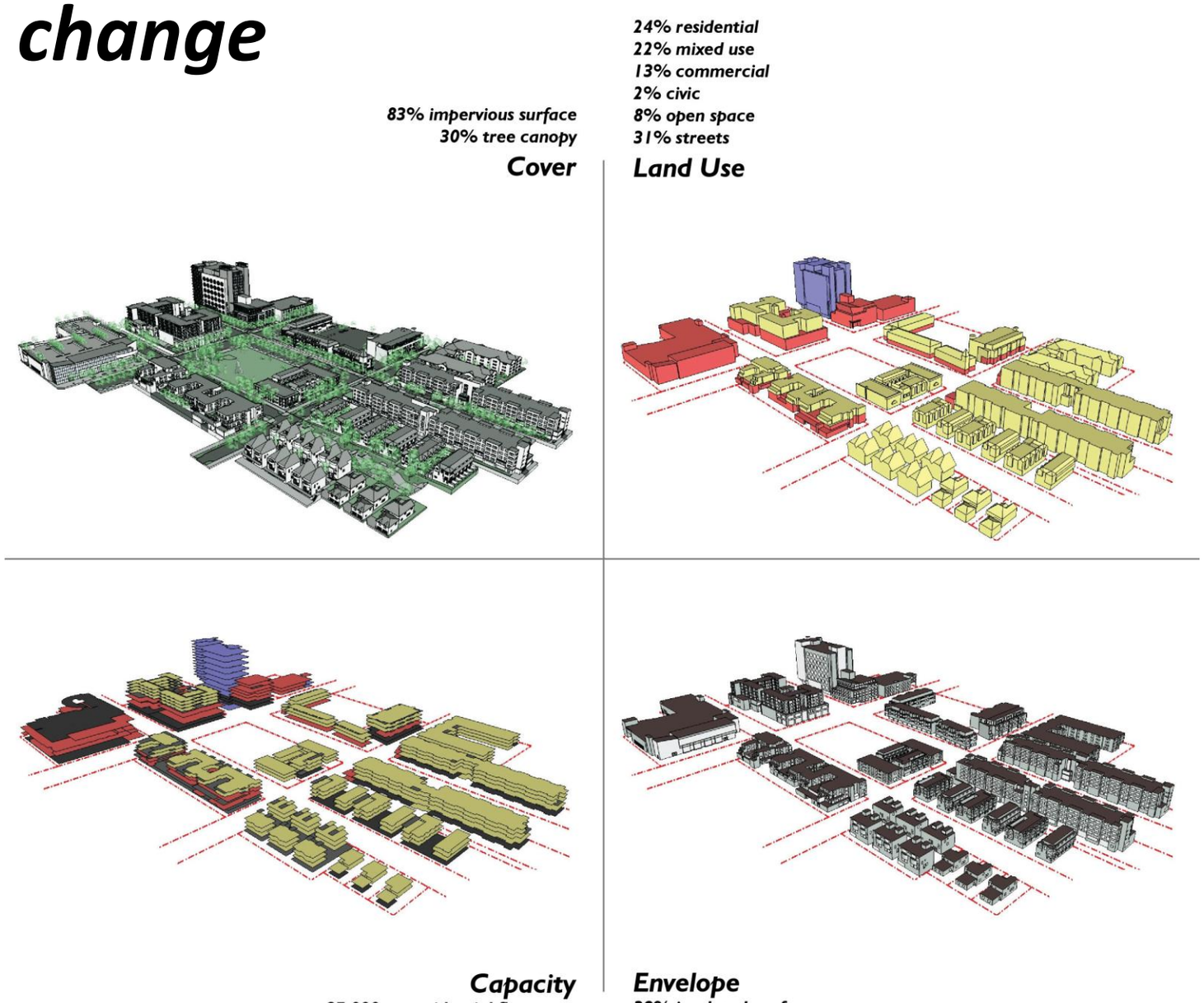
Elevate—

awareness and knowledge of urban design + climate change

compactness
diversity
energy efficiency
access to amenities
walkability

+ emissions . . .



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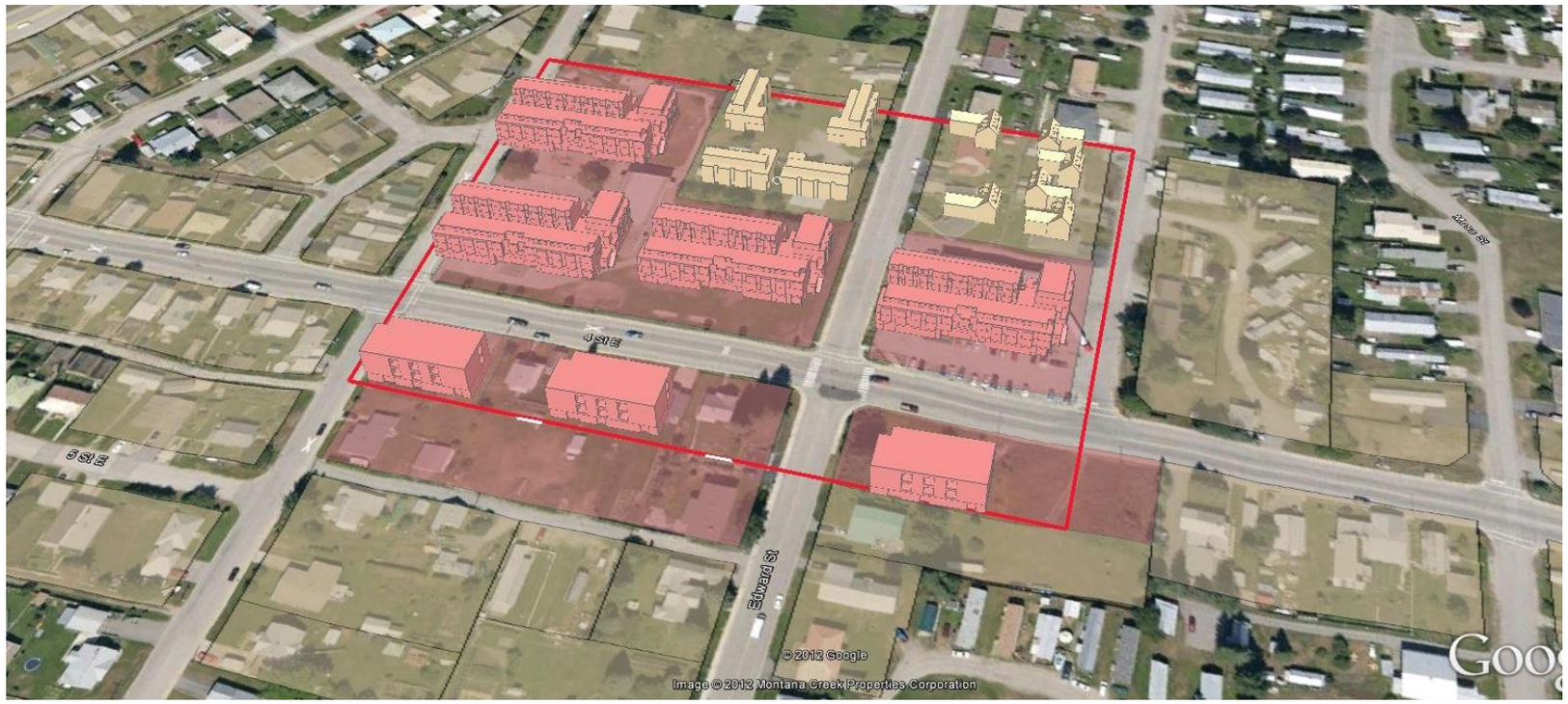
Tools for engagement

UD Co-spaces
A collaborative urban design tool

Climate & Community: an on-line interactive planning simulation

UD Co-spaces

3D view



Touch table

iPad metrics

Richmond Earth Day Youth Summit 2013

READY! Summit

Cities as if energy mattered

THE UNIVERSITY OF BRITISH COLUMBIA
School of Architecture + Landscape Architecture

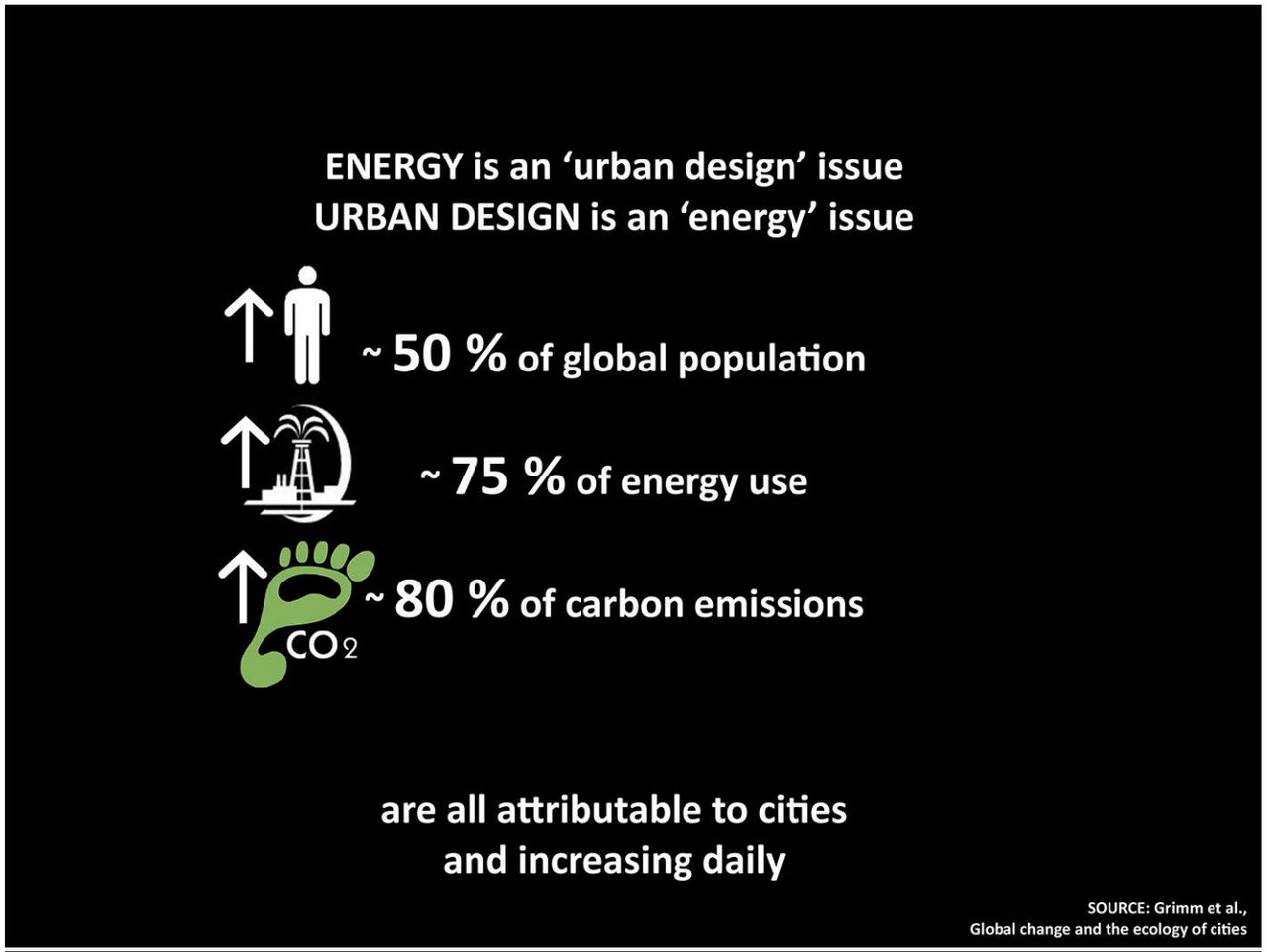
SCARP
School of Community And Regional Planning

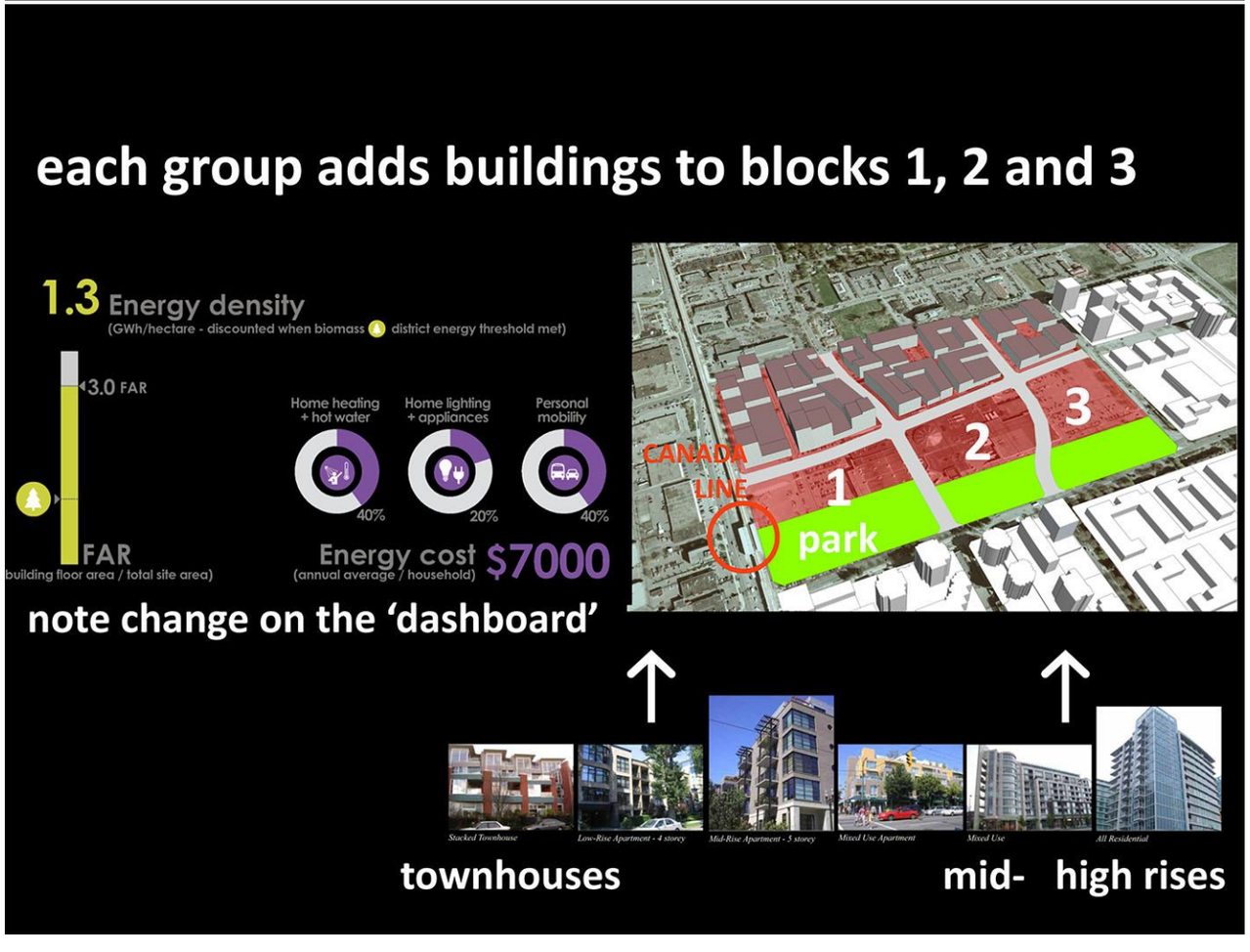
Richmond

BC hydro
powersmart

What if…

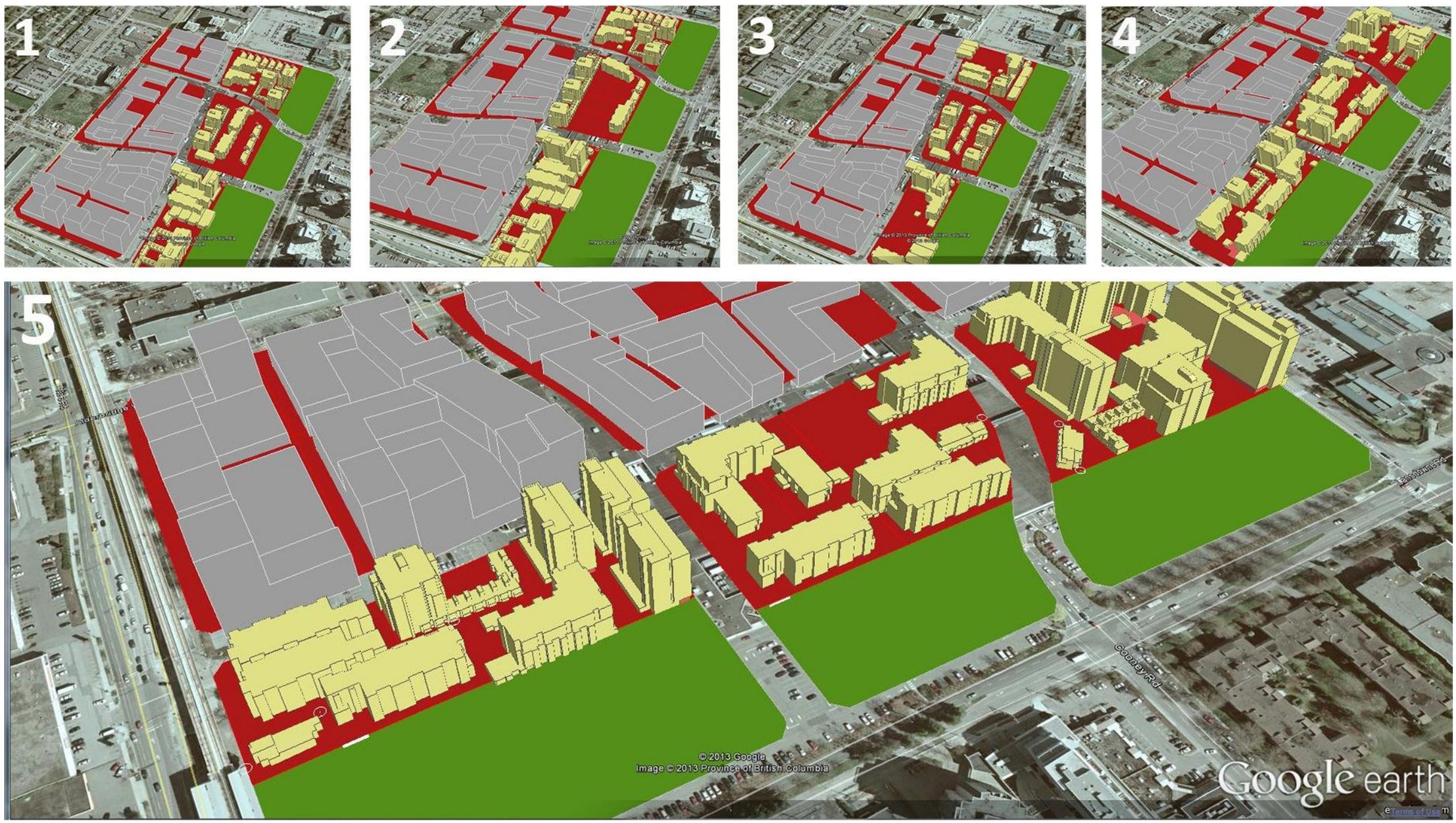
you could design the redevelopment of Lansdowne Mall …as if energy mattered?





Which block is the best?
Is the density about right?
Is there enough density at the Skytrain station?
Is the land use mix right?
Is there enough shopping?
Are the buildings by the park right?
Is the energy efficiency OK?
Would you live here?


EMISSIONS
3.1
1.7
Individual
(tonnes CO_2e per capita)
DE emissions discounted when district energy threshold met
Home heating + hot water
Home lighting + appliances
Personal mobility
61%
13%
25%
ENERGY
DE
Building Density
(floor area per neighbourhood area)
Household $2159
(annual average cost of energy)
373
Population Density
(People per hectare and mode thresholds)
TRAVEL
5000
13100 Existing
Distance
(km per person in a year)
Active
Transit
Vehicle
39%
49%
13%
Mode
(% of annual trips by travel mode)
DWELLING
94%
Residential
Floor area
(% of floor area used for Residential)
2532
People
251
Dwellings
Single detached
Rowhouse
0%
0%
Unit typ
(% of all residential u

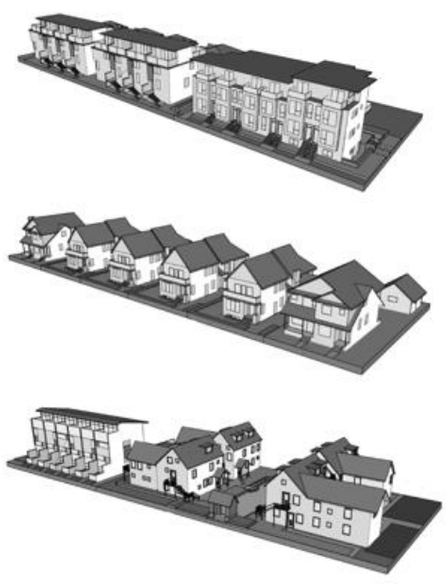

1
2
3
4
5
Cooney Rd
© 2013 Google
Image © 2013 Province of British Columbia
Google earth

MyRevelstoke2030

Imagine the future of two neighbourhood centres under the Unified Development Bylaw

Testing cutting edge design visualization technology developed at UBC for use in Revelstoke

Are you interested in attending two 2-hour meetings, one at the beginning of June and one in September, to visualize different possible futures for Revelstoke neighbourhoods?



To indicate your interest please use your smart phone with this code to take you to the website and provide your contact information or visit

http://blogs.ubc.ca/magedsenbel/my-revelstoke-2030

This work is part of a research study entitled Measured visualization of urban form scenarios as a means to community engagement in planning. For information please contact Maged Senbel at the University of British Columbia (maged.senbel@ubc.ca)

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School of Architecture -|- Landscape Architecture

SCARP
School of Community And Regional Planning

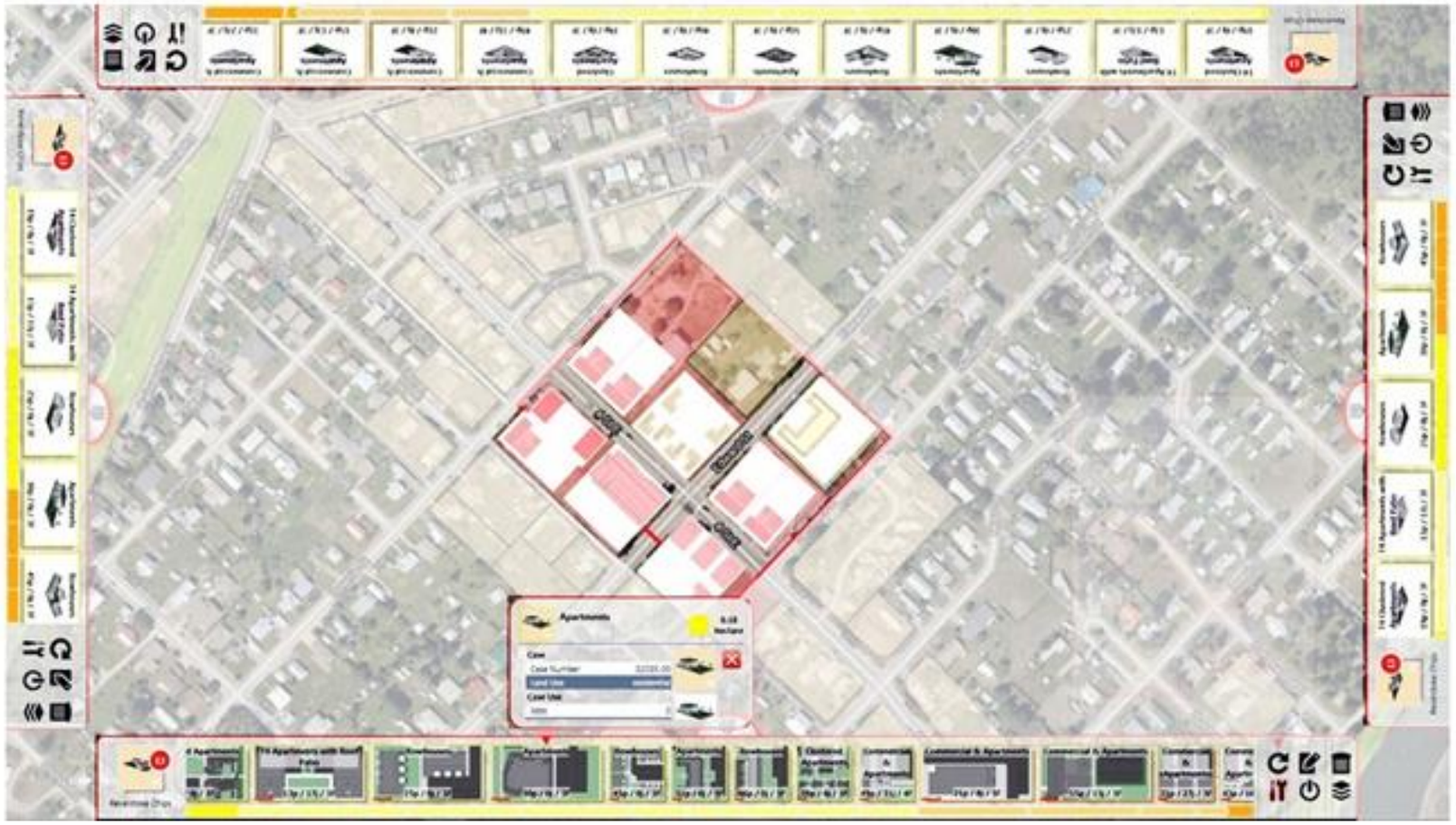
Task: ‘Design’ the neighbourhood centre you would like to see……

myRevelstoke 2030

Visualize the Future of Two Neighbourhood Centres

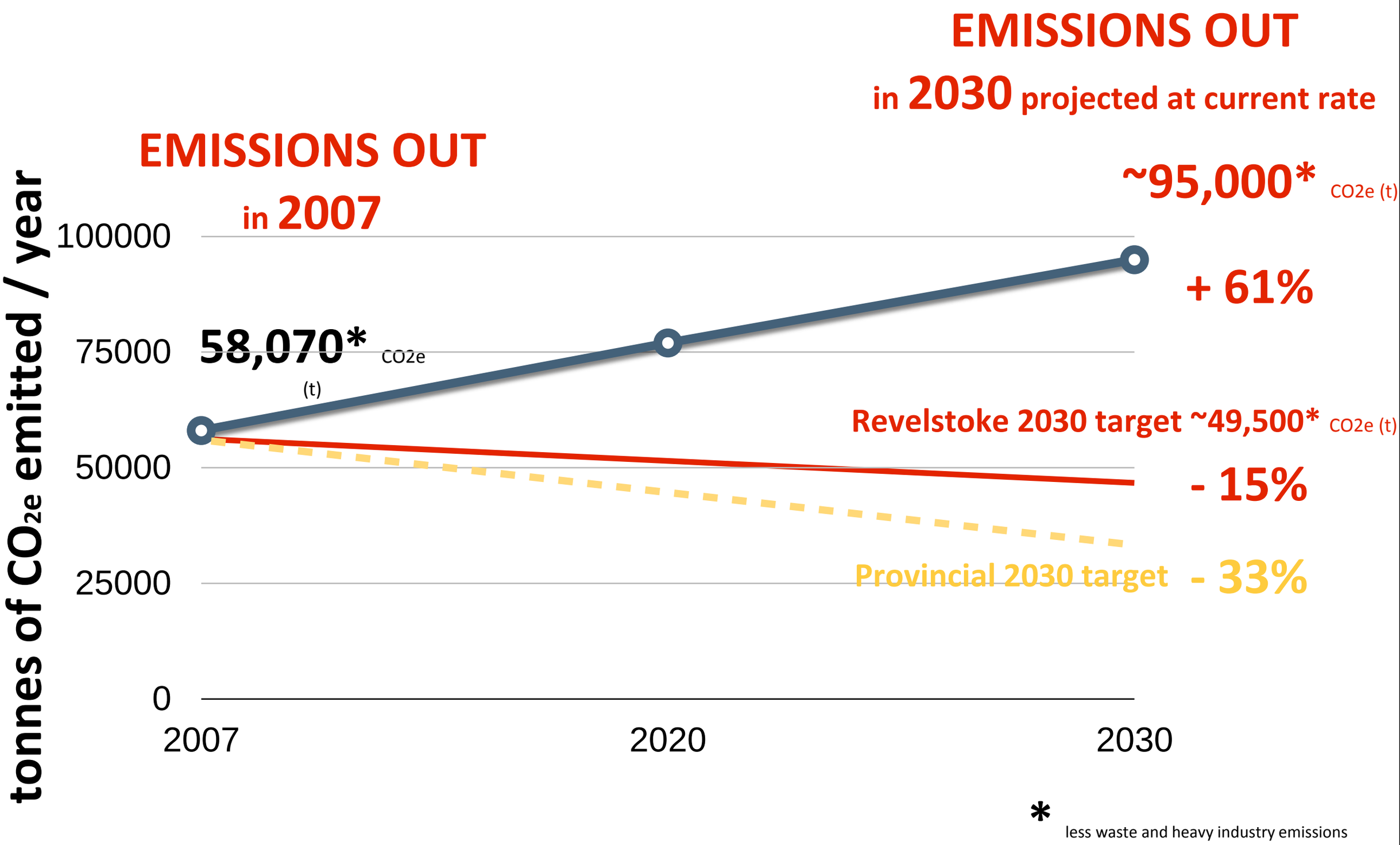
Solutions:
June workshop

Group 4



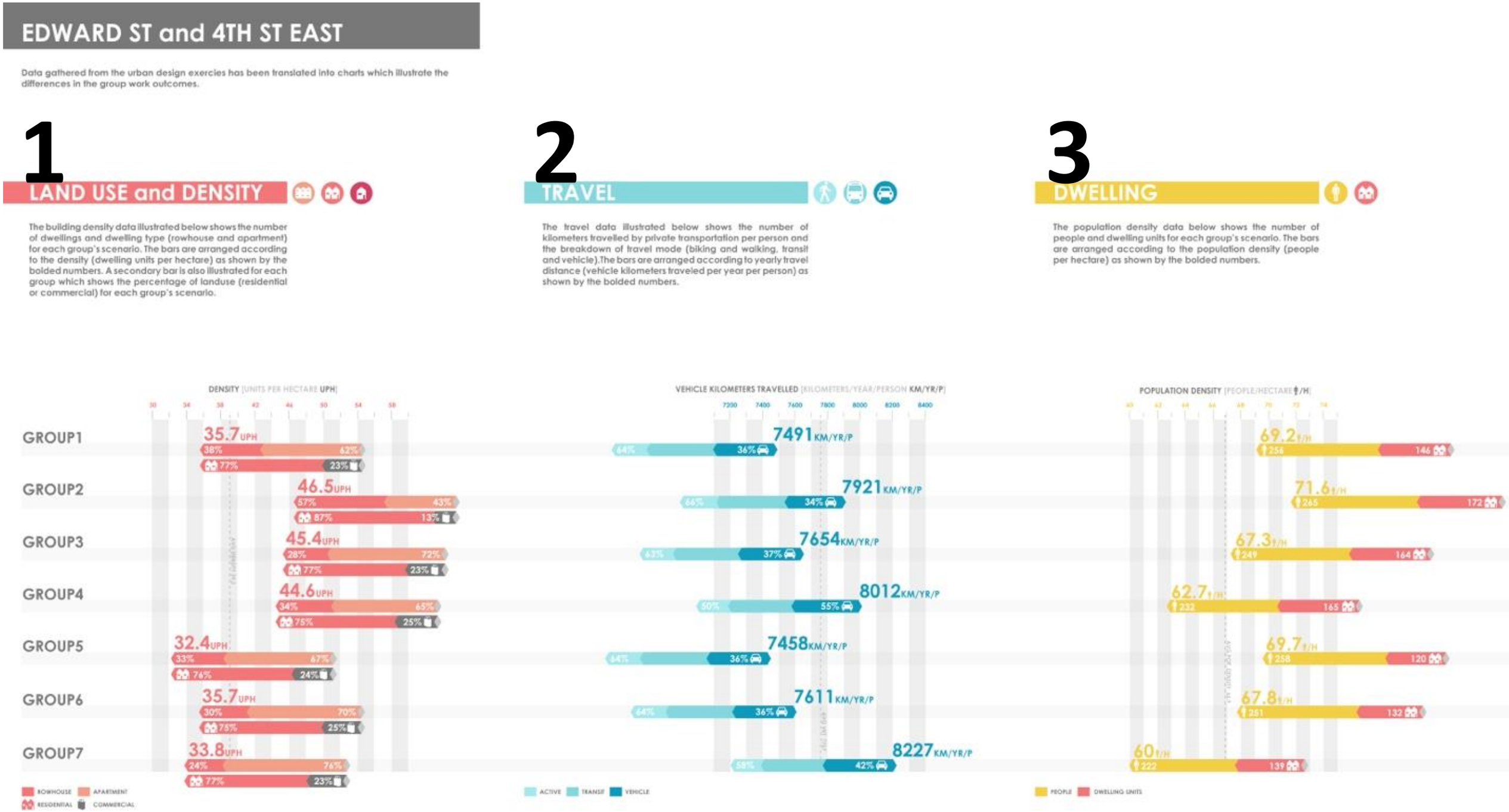
Revelstoke:
Projected energy and emissions miss local targets by ~75%

(BC CEEI report, 2010)



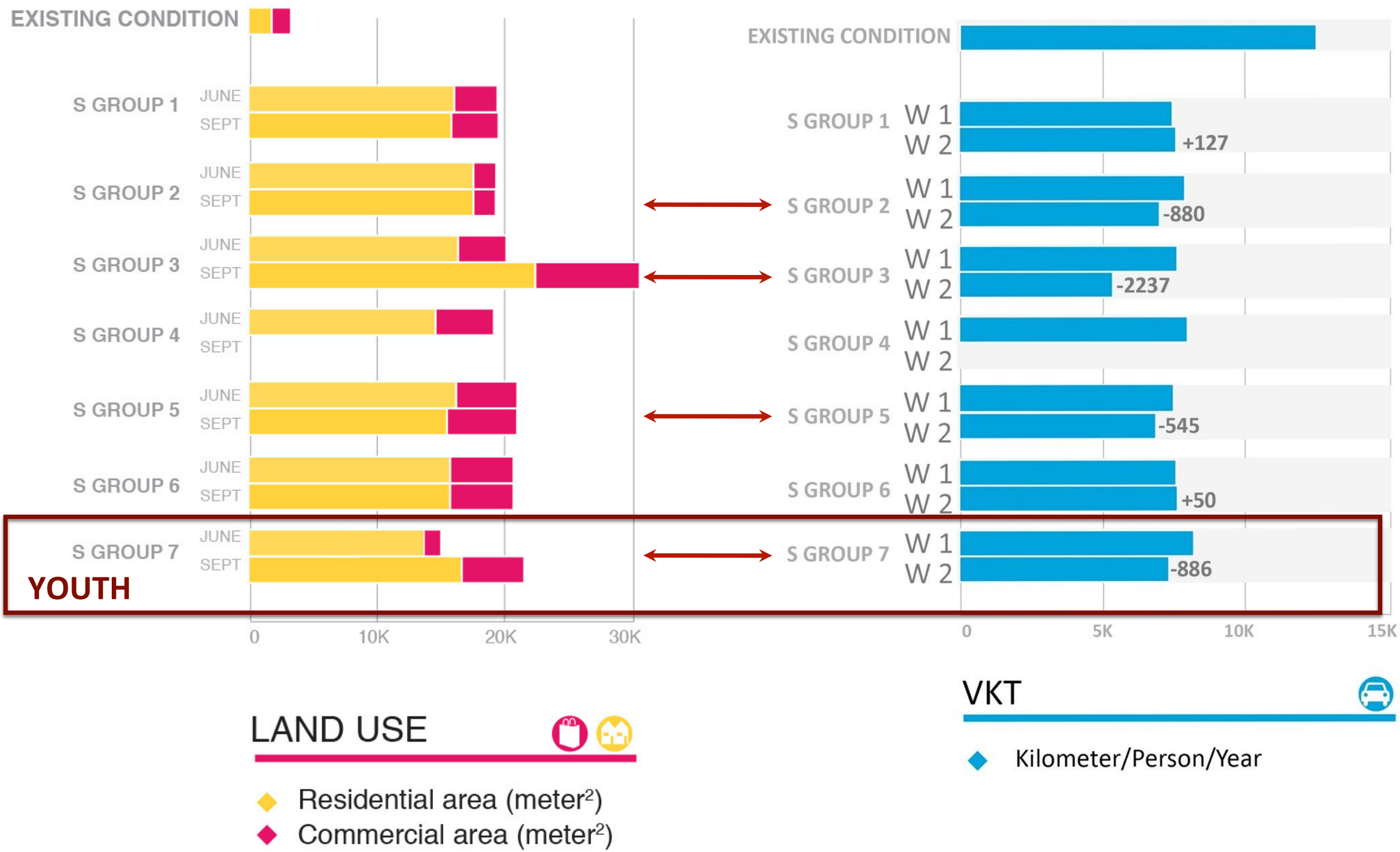
* less waste and heavy industry emissions

2nd workshop…reconvened 27 participants



Energy and emissions implications explained…

How did participants respond to new information about energy and emissions?



engaging workspace
interactive
3D visualization
embedded information

discourse
self-learning
peer learning
collaboration

CLIMATE AND COMMUNITY