

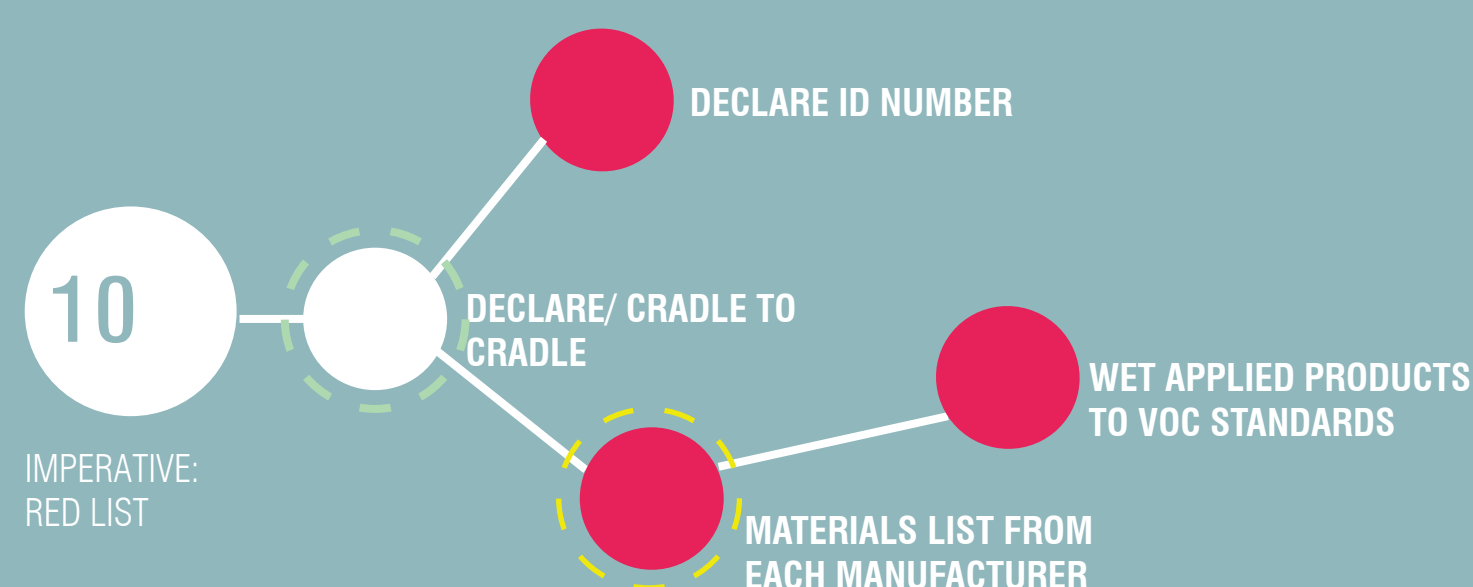
LIVING BUILDING CHALLENGE



SRG

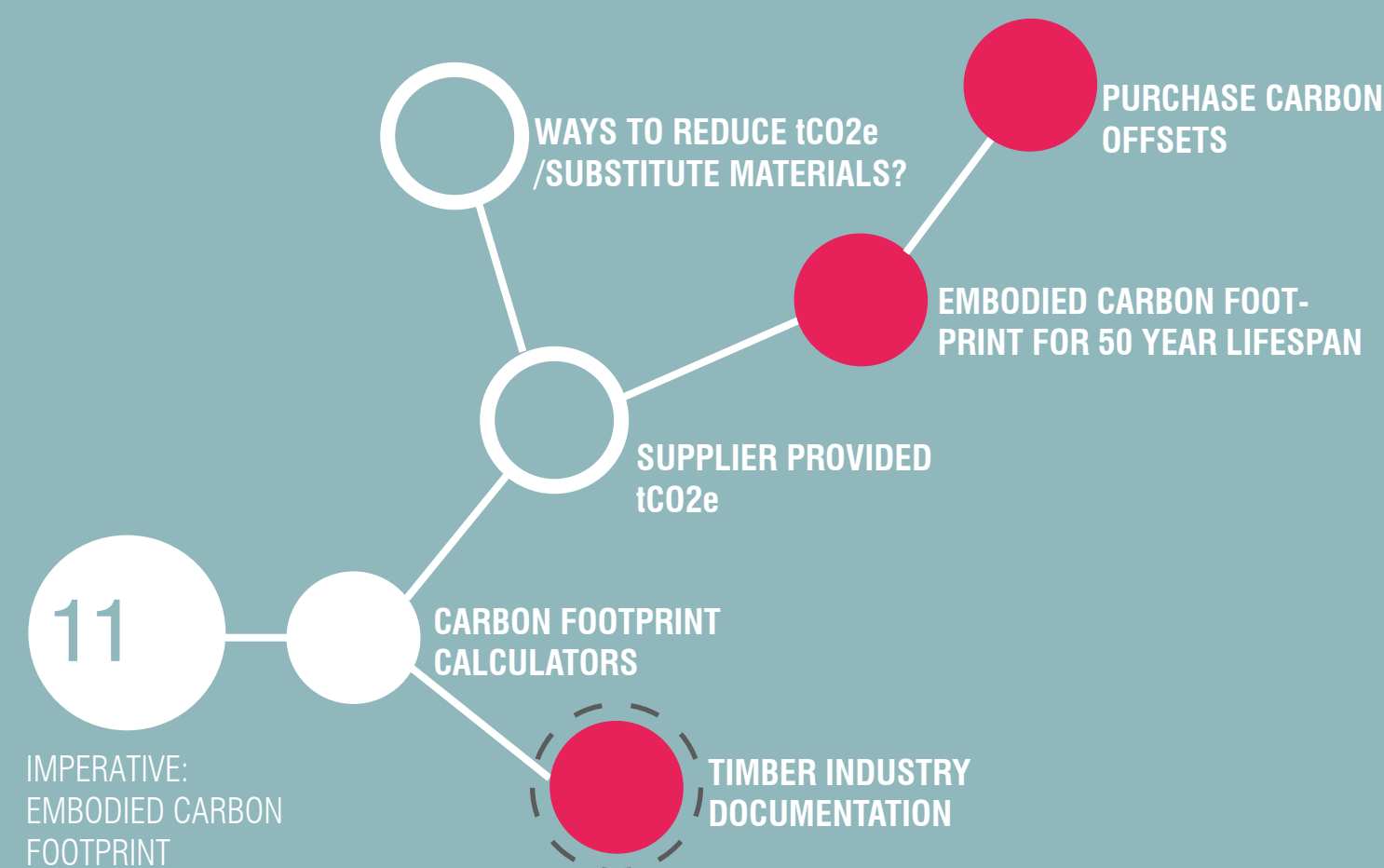
10
IMPERATIVE:
RED LIST

INTENT- FACTOR OUT THE MATERIALS WITH THE GREATEST NEGATIVE IMPACT ON HUMAN AND ENVIRONMENTAL HEALTH. PROJECT MAY NOT CONTAIN ANY RED LIST MATERIALS



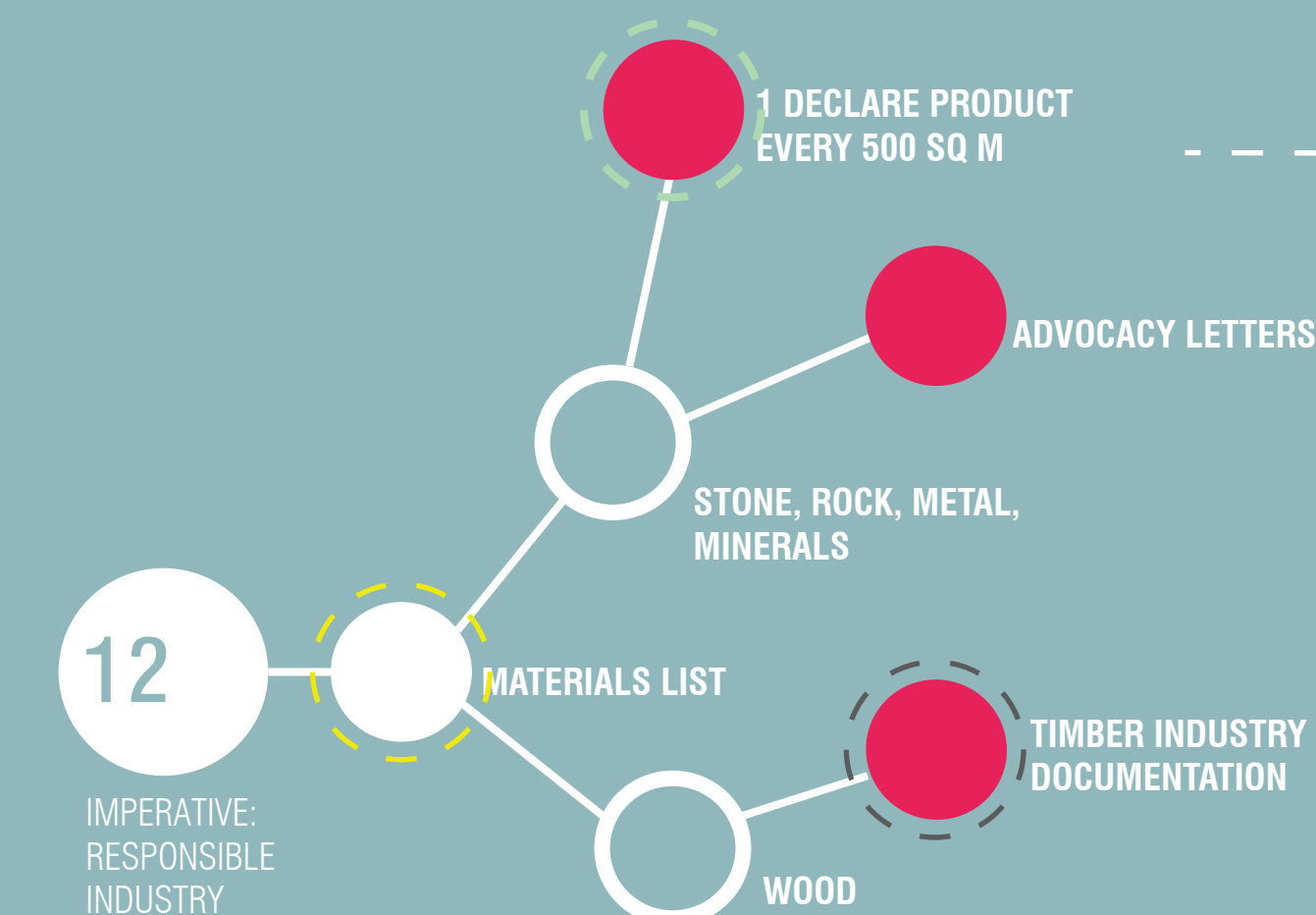
11
IMPERATIVE:
EMBODIED CARBON FOOTPRINT

INTENT- REDUCE EMBODIED CARBON FOOTPRINT OF BUILDING OVER ENTIRE LIFESPAN. CALCULATIONS MUST BE PROJECTED AT A 50 YEAR STANDARD TO PROVIDE ACCURATE AND CONSISTENT MEASUREMENTS.



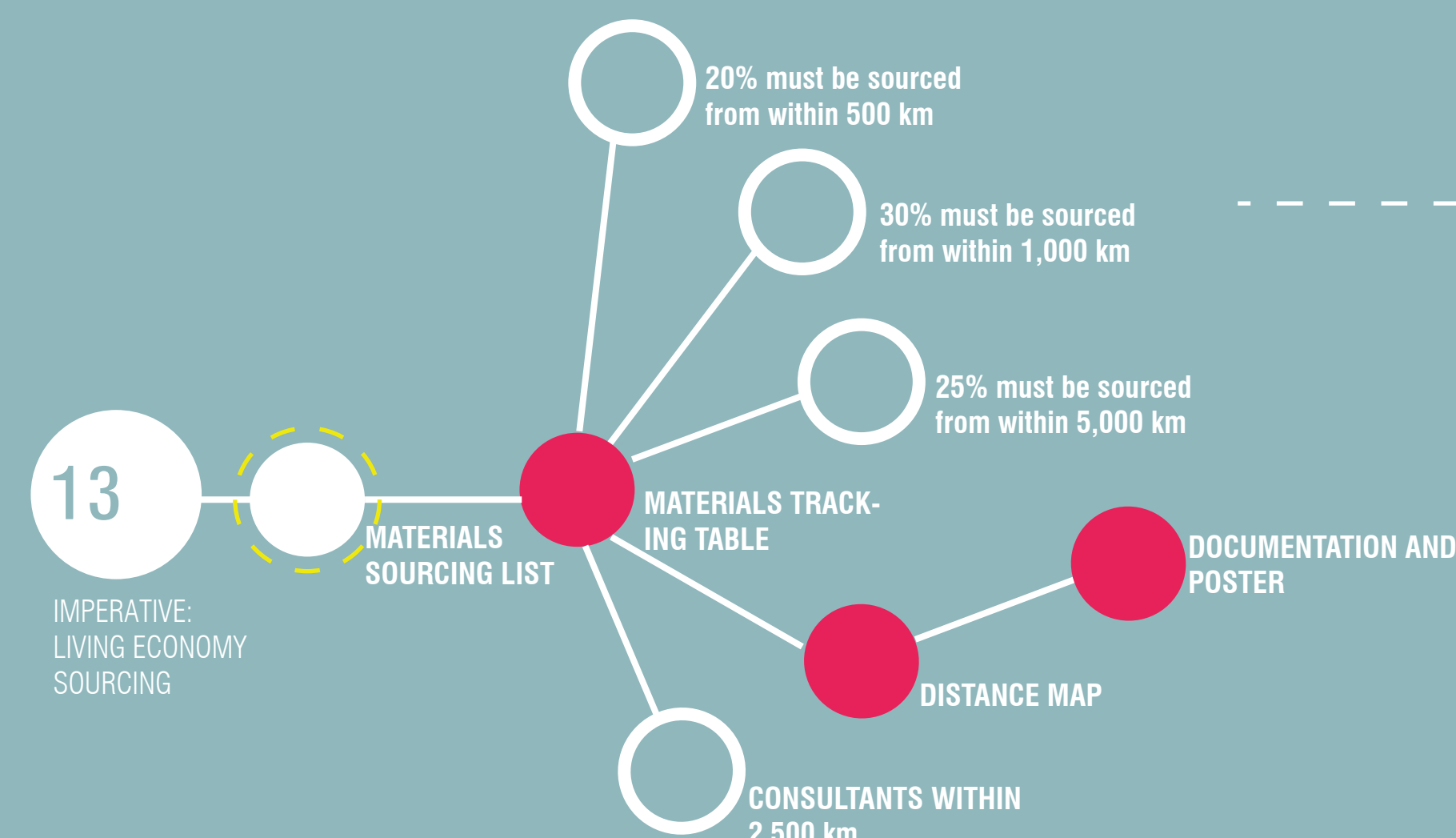
12
IMPERATIVE:
RESPONSIBLE INDUSTRY

INTENT- PROMOTE AN AWARENESS WITHIN THE INDUSTRY AND REDUCE RELIANCE ON HARMFUL INGREDIENTS AND EXTRACTION OF NATURAL RESOURCES



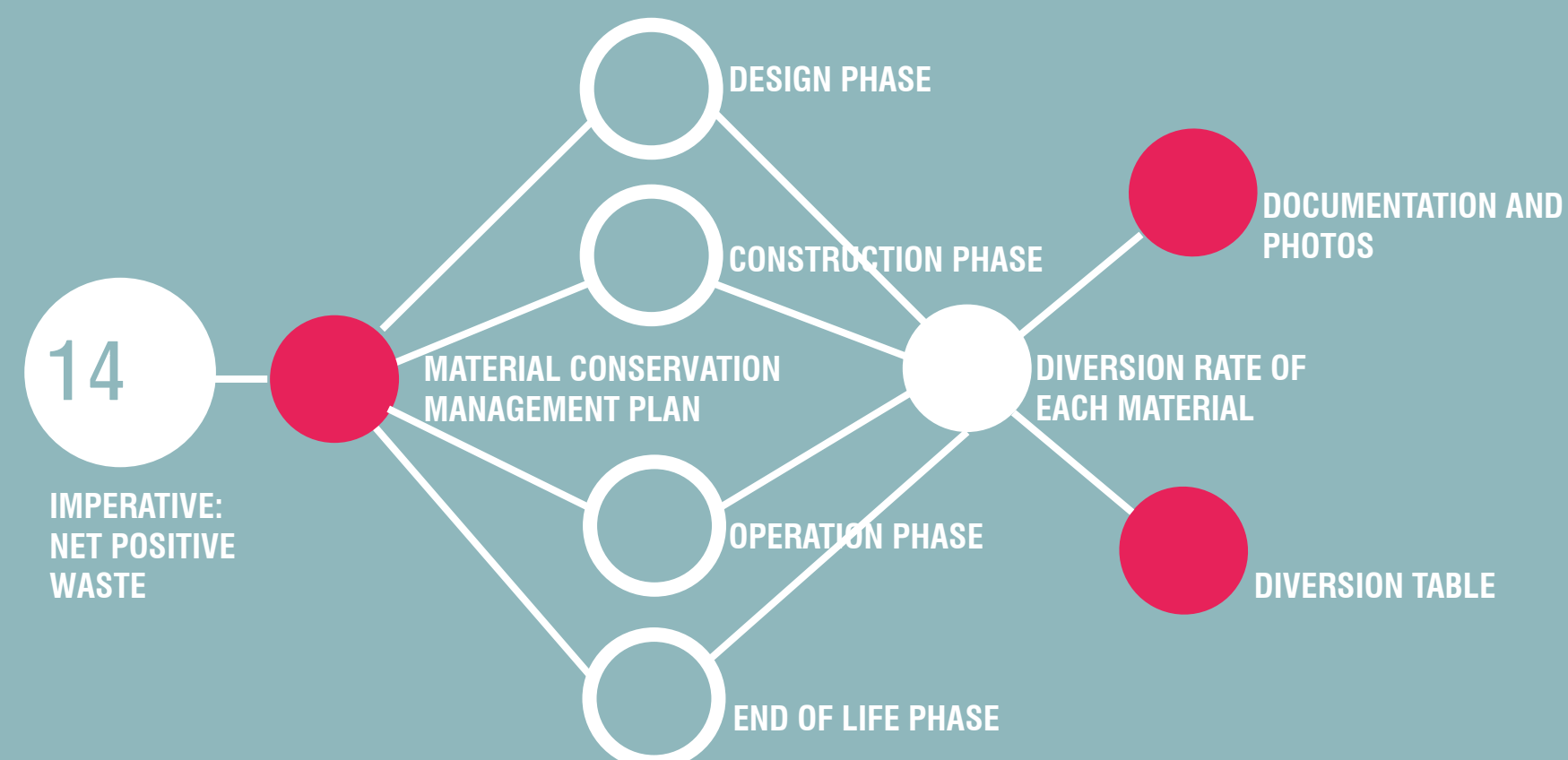
13
IMPERATIVE:
LIVING ECONOMY SOURCING

INTENT- PROMOTE GRWTH OF LOCAL ECONOMIC STRUCTURE WHILE REDUCING NEGATIVE TRANSPORTATION RELATED EFFECTS ON HUMAN AND ENVIRONMENTAL HEALTH



14
IMPERATIVE:
NET POSITIVE WASTE

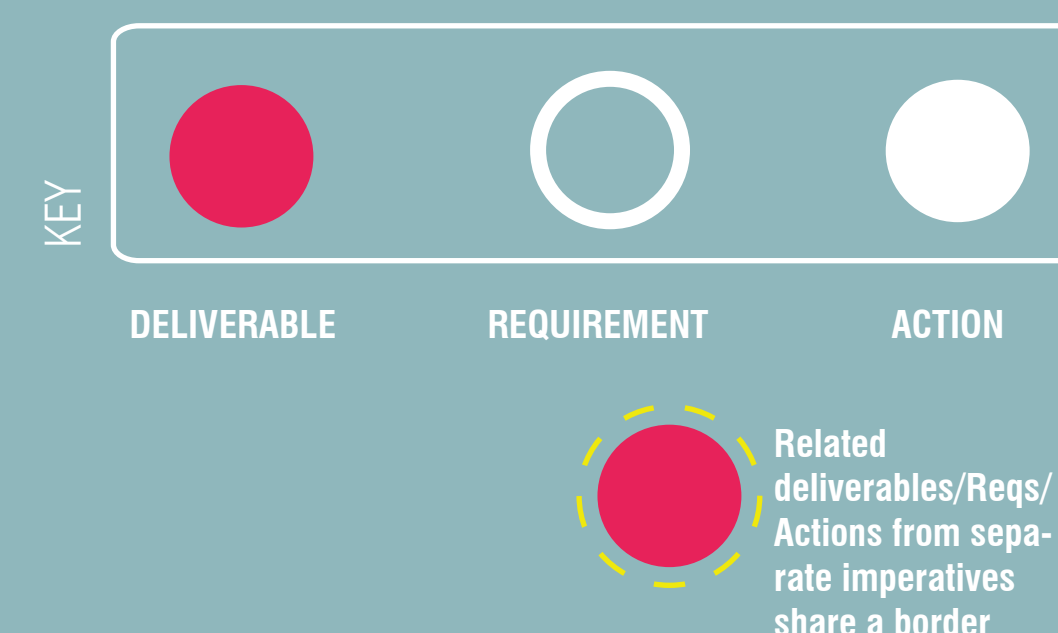
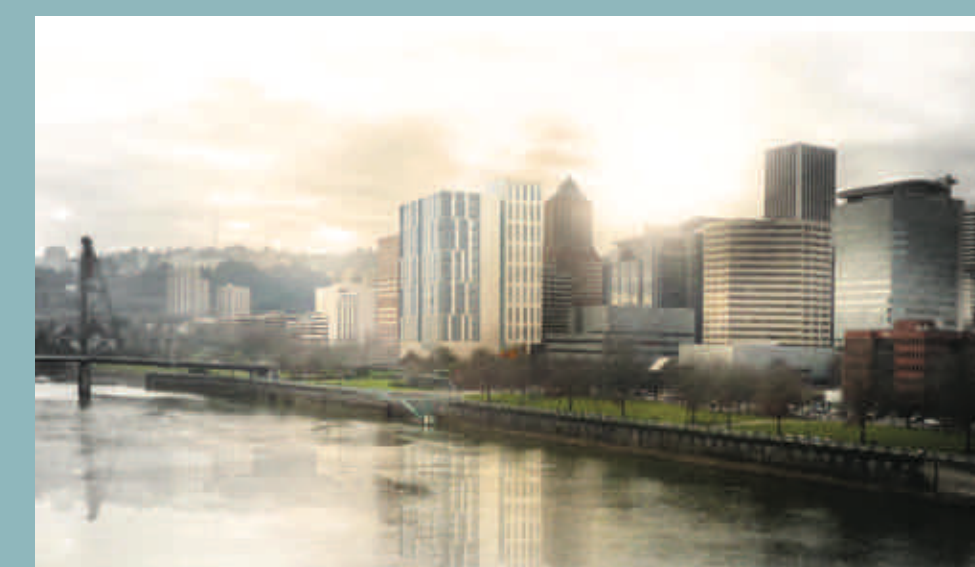
INTENT- DIVERT WASTE STREAM THROUGH REUSE AND REINTRODUCTION AS PRODUCT NUTRIENTS.



- PLACE:**
01- LIMITS TO URBAN GROWTH
02- URBAN AGRICULTURE
03- HABITAT EXCHANGE
04- HUMAN POWERED LIVING
- WATER:**
05- NET POSITIVE WATER
- ENERGY:**
06- NET POSITIVE ENERGY
- HEALTH AND HAPPINESS:**
07- CIVILIZED ENVIRONMENT
08- HEALTHY INTERIOR ENVIRONMENT
09- BIOPHILIC ENVIRONMENT

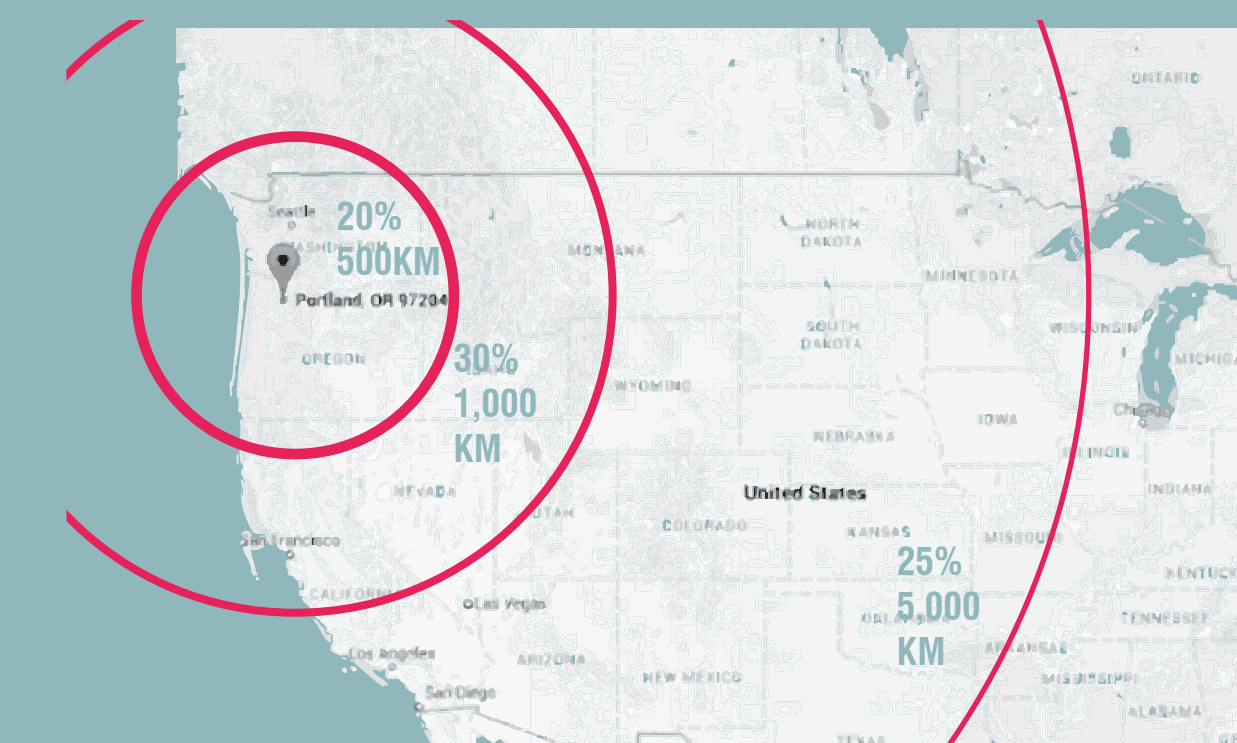
- MATERIALS:**
10- RED LIST
11- EMBODIED CARBON FOOTPRINT
12- RESPONSIBLE INDUSTRY
13- LIVING ECONOMY SOURCING
14- NET POSITIVE WASTE
- EQUITY:**
15- HUMAN SCALE+ HUMANE PLACES
16- UNIVERSAL ACCESS TO NATURE + PLACE
17- EQUITABLE INVESTMENT
- BEAUTY:**
18- JUST ORGANIZATIONS
19- BEAUTY+ SPIRIT
20- INSPIRATION+ EDUCATION

The objective of this research is to investigate, in depth, the Materials Petal of the Living Building Challenge and present a methodology to easily navigate the Petal. The Multnomah County Courthouse building was used as a case study for the methodology. This research hopes to affect the building specifications to create a more sustainable and environmentally conscious procedure for building material selection.



LIVING BUILDING CHALLENGE
MATERIALS PETAL-IMPERATIVE

The Living Economy Sourcing imperative intends to promote growth of local economic structure while reducing negative transportation related effects on human and environmental health. Requirements for material sourcing distances are presented in this imperative, as seen in the map below, from Portland, OR. The manufacturer location is defined as the place where the final product is fabricated and assembled. A distribution facility does not qualify as a products' manufacturer location. Methods of improving and localizing the total sourcing radius should be researched.



The objective of the Responsible Industry imperative is to improve the industry's social and environmental impacts of their practices. The standard wishes to promote awareness within the industry and reduce reliance on harmful ingredients and extraction of natural resources. The requirement is that there be at least one Declare product for every 500 square meters of gross building area.

