

## **DIA 1**

Sustainable city models

## **DIA 2**

**Lappeenranta** has made efforts to recycle and waste and combat climate change.

Our goal is to stop generating landfill waste or releasing emissions by 2050.

Lappeenranta was elected the National Earth Hour Capital in 2014 and 2016, and the cycling city of the year in 2015. The university campus was selected the world's most ecological campus in 2013 and 2016. Lappeenranta was in the top three in this year's European Green Leaf contest.

**Lahti** was selected the European green leaf capital of 2021. It's the first Finnish city to have this title. Lahti has set the goal to be carbon neutral by 2025 and waste free by 2050. Their largest investments in recent years have been towards public transportation. Lahti has upgraded its public transportation in 2014 to a bus fleet with the lowest emissions in Finland.

## **DIA 3**

Eric Lloyd Wright is an American architect. Currently he's 89 years old. Most of his works are in the United States. Before establishing his own firm, he worked for his grandfather's and father's firms. His grandfather Frank Lloyd Wright coined the concept of "Organic Architecture". Eric Lloyd Wright is known for restoration of buildings designed by his grandfather. On the left you can see a house Wright designed for a Finnish artist Simo Santapukki. The other pictures there is the sauna. And in the upper picture there is the house.

Santapukki, by the way, started his career as a punk rocker in a band called Apulanta, in English, Fertilizer; now he is a successful real estate investor. His band Apulanta no longer plays punk rock; it trades in stocks, bonds and real estate.

## **DIA 4**

Sustainable building materials are:

- wood
- slate
- stone
- bamboo
- steel
- straw bale

These are the most sustainable building materials, you can find a lot of these materials and they are easy to get. And they are also renewable: they grow again.

**Steel is nonrenewable but recyclable.**

## **DIA 5**

Joku voi sit kertoa täst diast ku mie (saana) en osaa:)

- Architecture that seeks to minimize the negative impact of buildings
  - The negative impacts of buildings may come from:
    - Heating
    - Ventilating
    - Air conditioning
    - Manufacturing of the building materials

The important element of heating, ventilation, and air conditioning (HVAC) system efficiency is a well-insulated building.

## **DIA 6**

Maximize the input of heat-creating light

Minimize the loss of heat through the glass

A large number of south-facing windows to collect direct sun

A limited number of north-facing windows

Insulated windows

- Double or triple glazed windows
- Gas filled spaces between the individual glass sheets
- Low emissivity coatings

Trees:

Planted in front of windows

- Block the excessive sun in the summer with their leaves
- Allow light through in the winter, when leaves fall off

Planted to the north of buildings to shield against cold north winds