



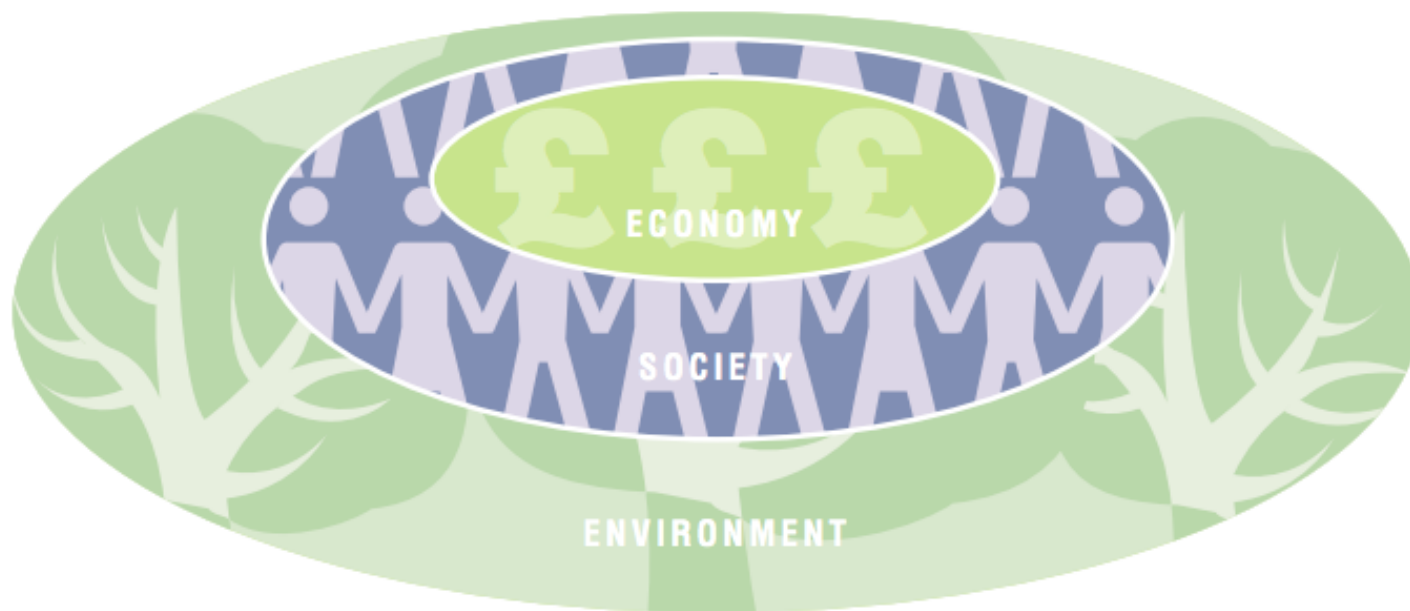
Održivi razvoj i izgrađeni okoliš

Iva Kvakić

Održivi razvoj



Održivi razvoj



Ekološki otisak



Hrana

Voda

Energija

Prijevoz

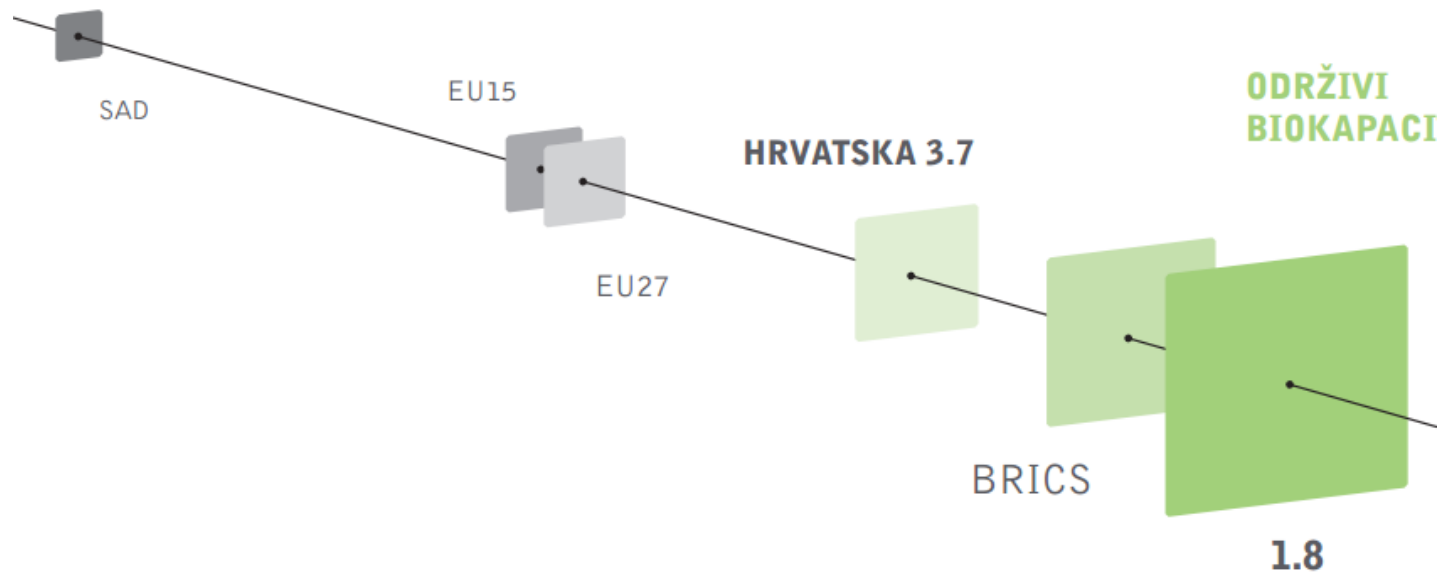
Otpad

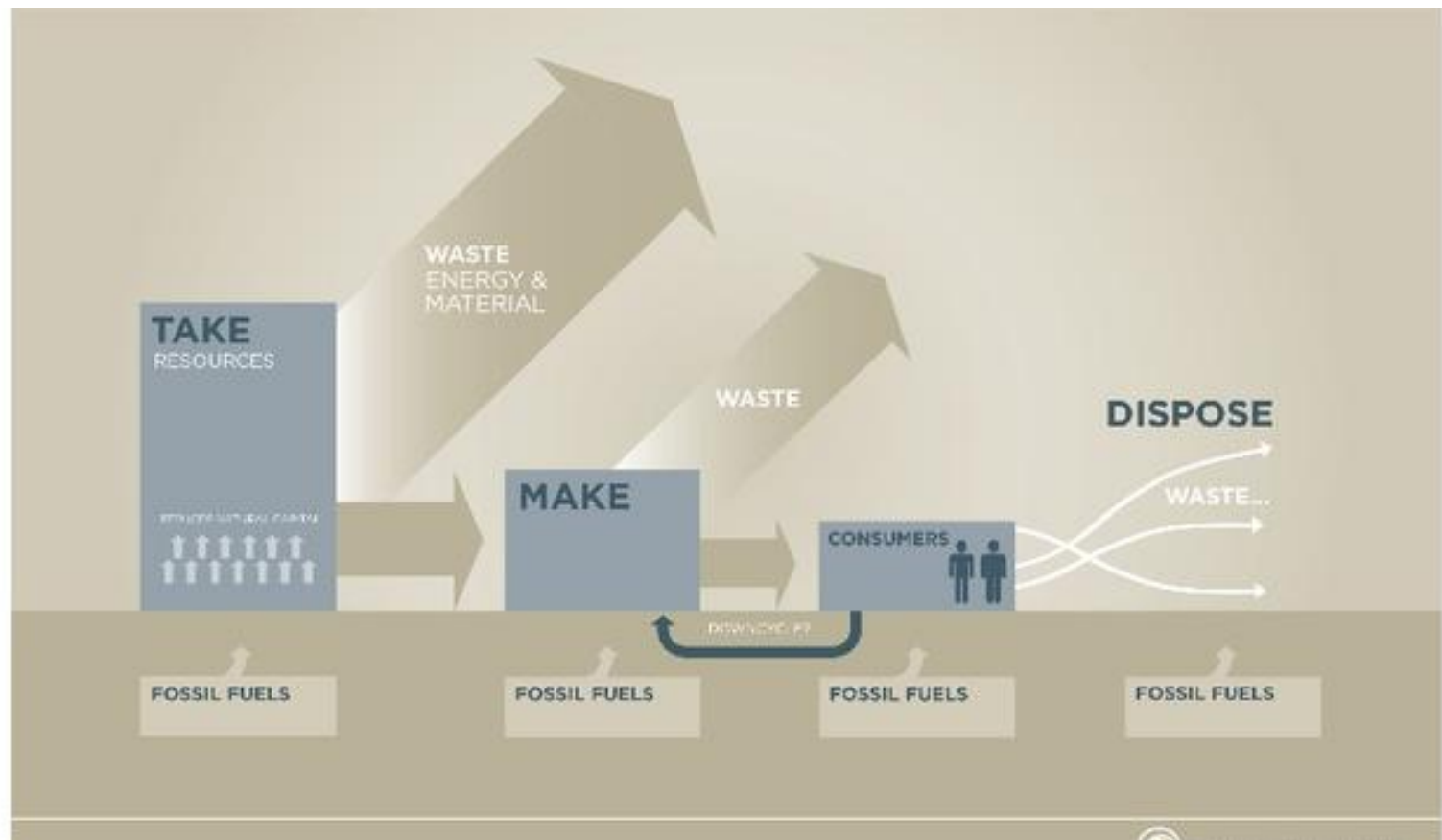
Materijali

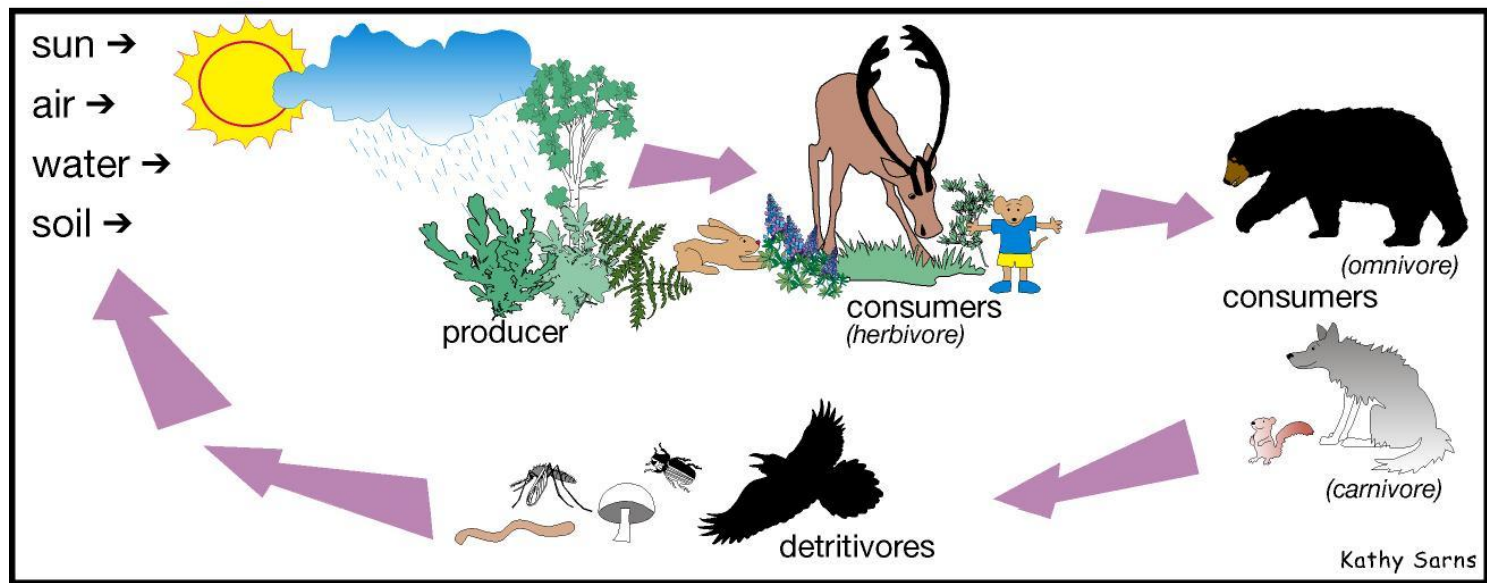


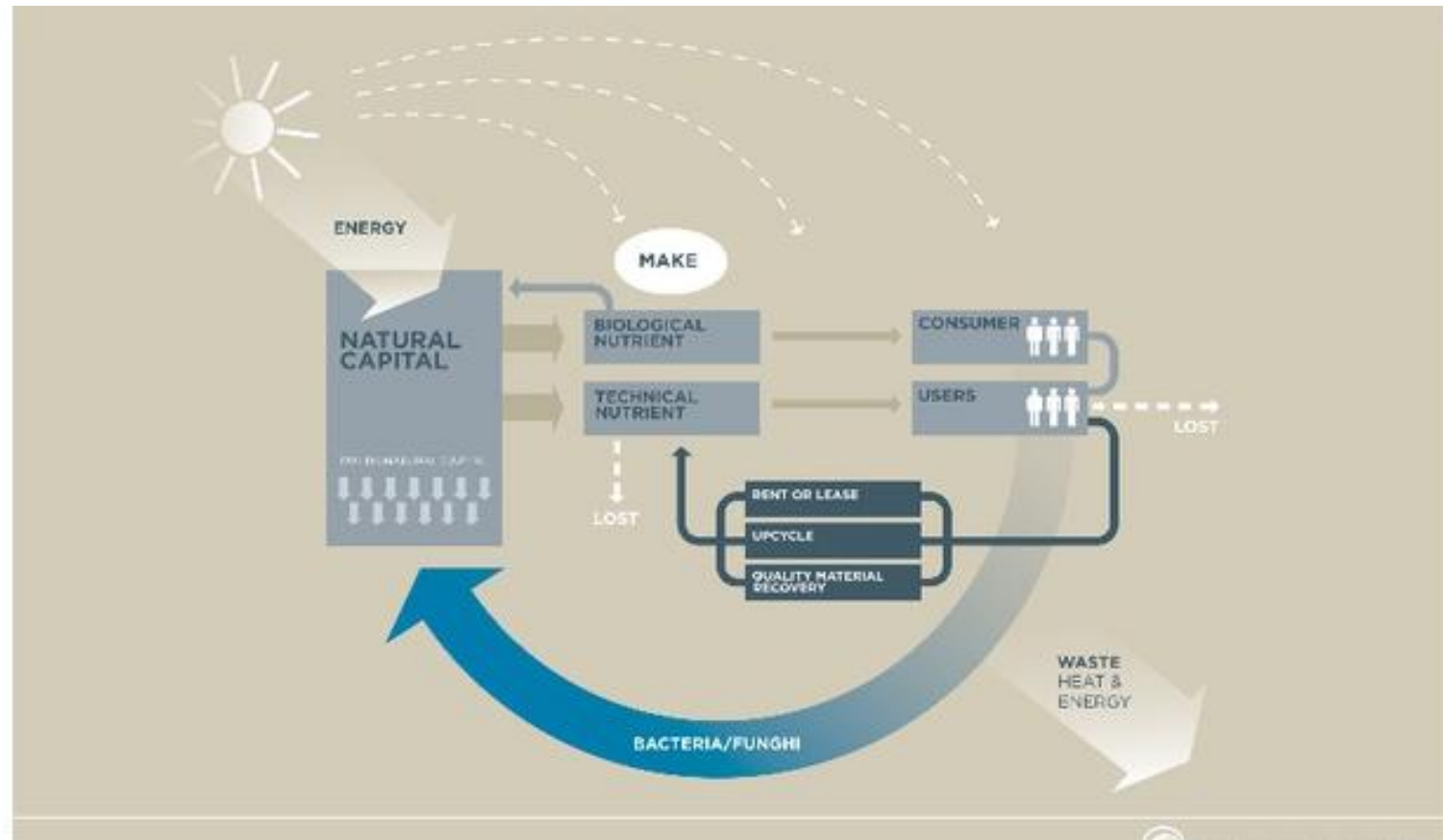


Ekološki otisak

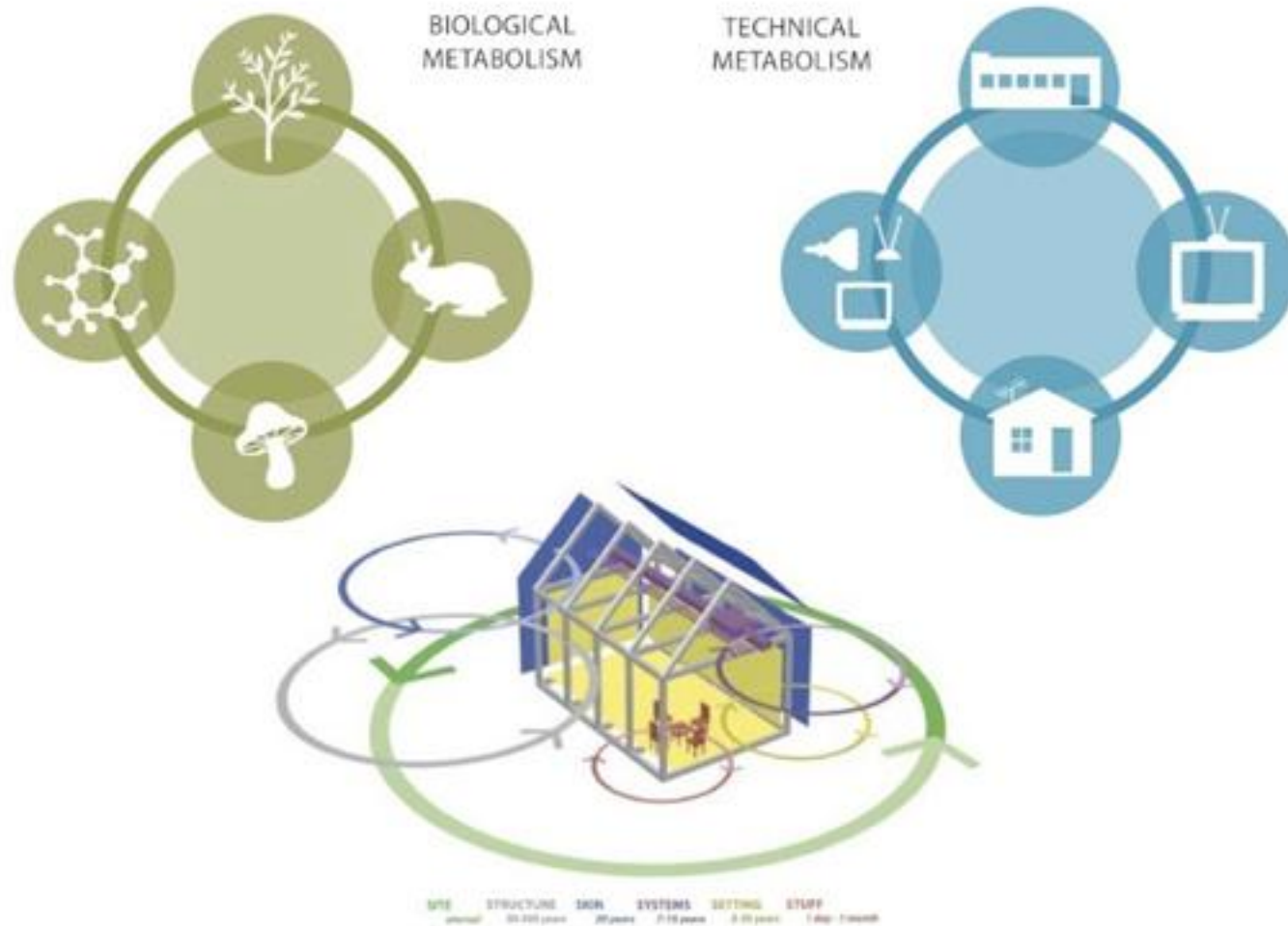




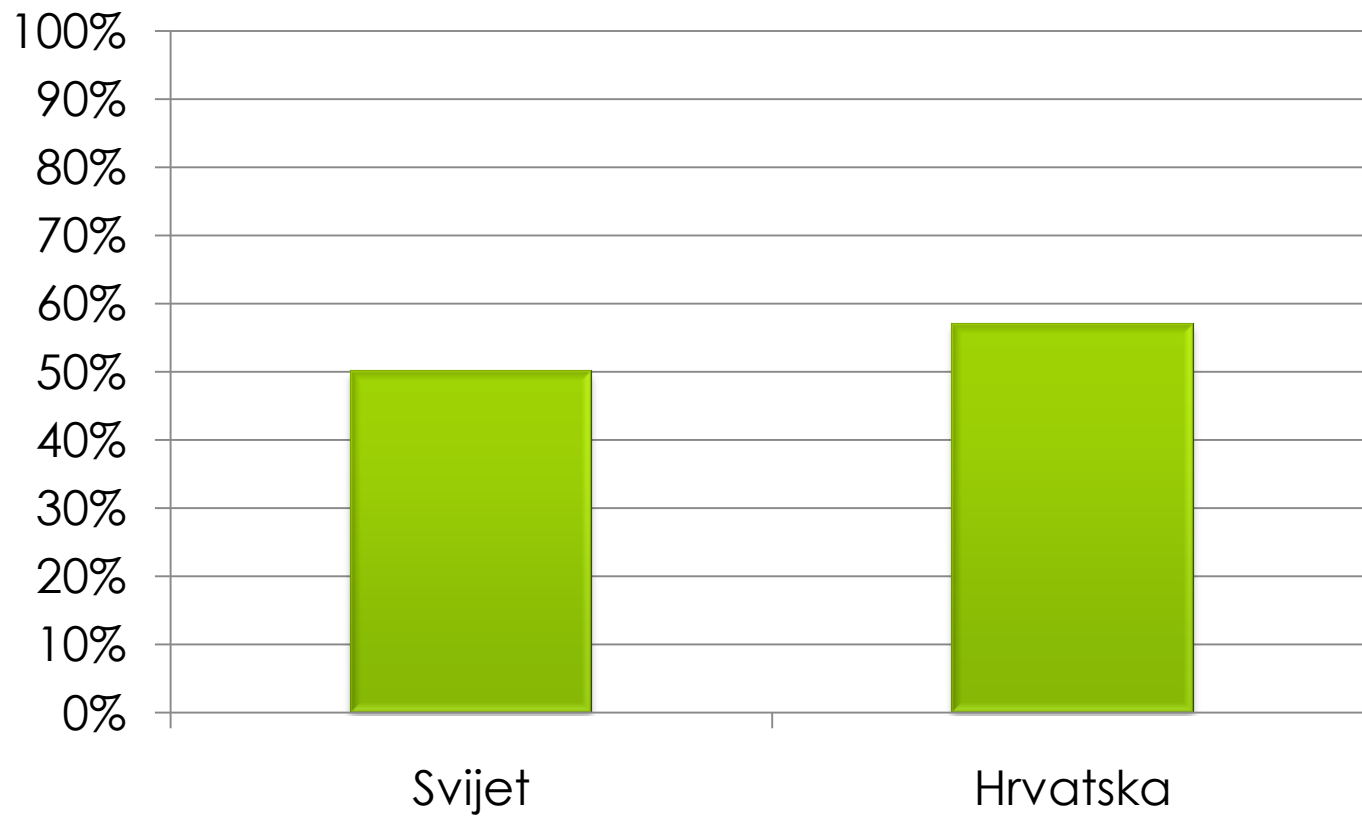


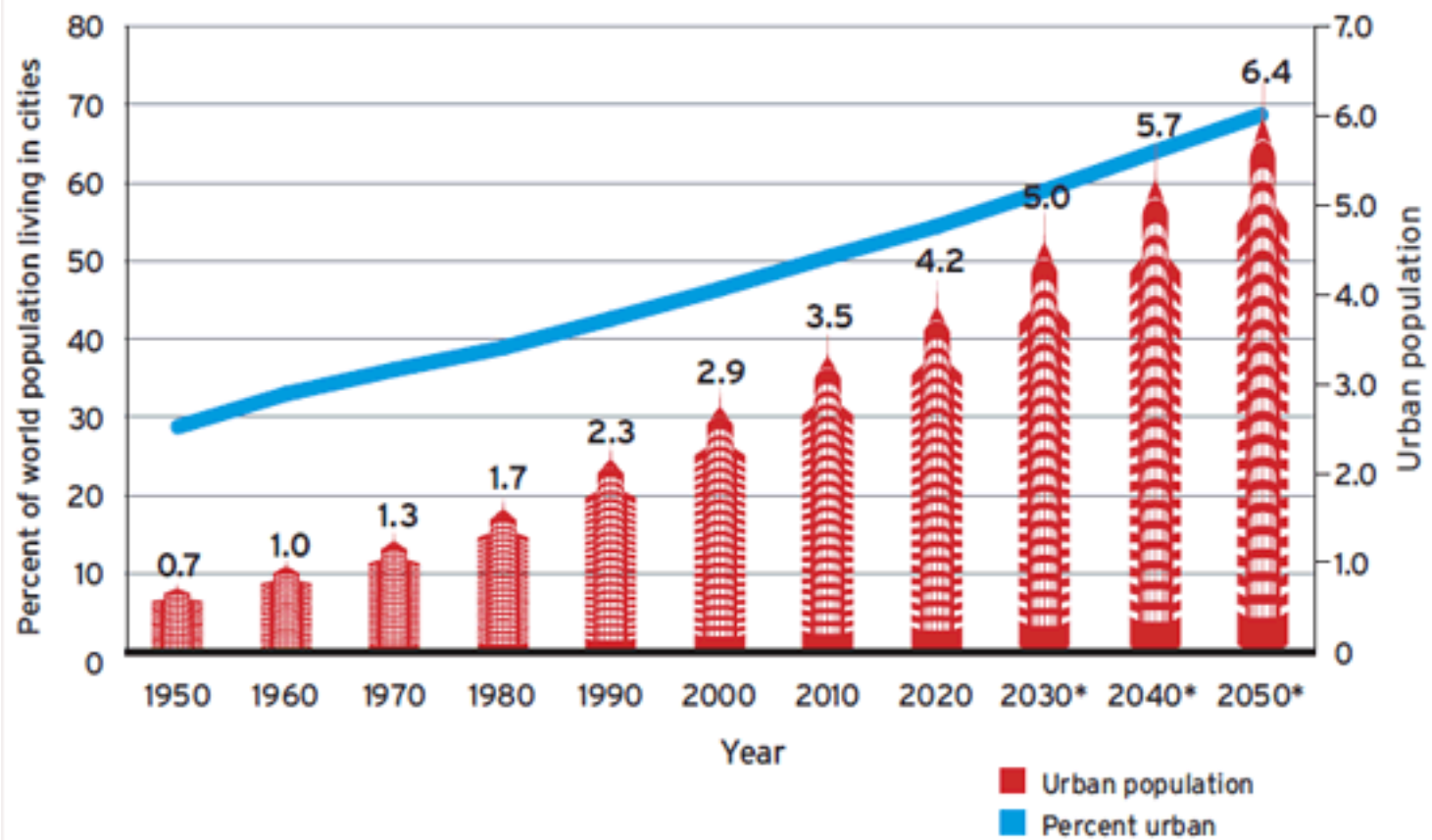


CRADLE TO CRADLE



Urbanizacija







Parks and other forms of natural heritage are important for **authenticity** as it creates a collective memory. Native species emphasise the unique location of a city. Parks function as resilient 'lungs' of a city - improving the air quality.

Resilient cities need economic stability. They should strive for economic diversity to reduce dependence on one economic model, job creation, as well as entrepreneurship.

Everyone in the city is **included** has rights, and is entitled to a better life. The elderly, disabled and poor are seen as potentially valuable social capital.

Social cohesion implies that a city is **inclusive** and breeds cooperation and tolerance between citizens with different values and beliefs.

Resilient cities realize that they are connected and interdependent within a system of other cities and also with the rural environment surrounding them.

The history of a city makes it **authentic**. It reflects local culture and local knowledge and reinforces a sense of place and the local identity.

The relationship with the surrounding rural area is important for **resilience**. Food supply and urban agriculture need to be considered.

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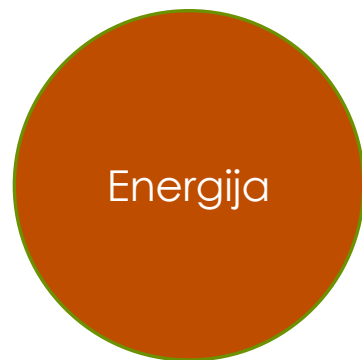
Energija

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Zgrade konzumiraju
40% svjetske energije

Zgrade proizvode
21% stakleničkih plinova

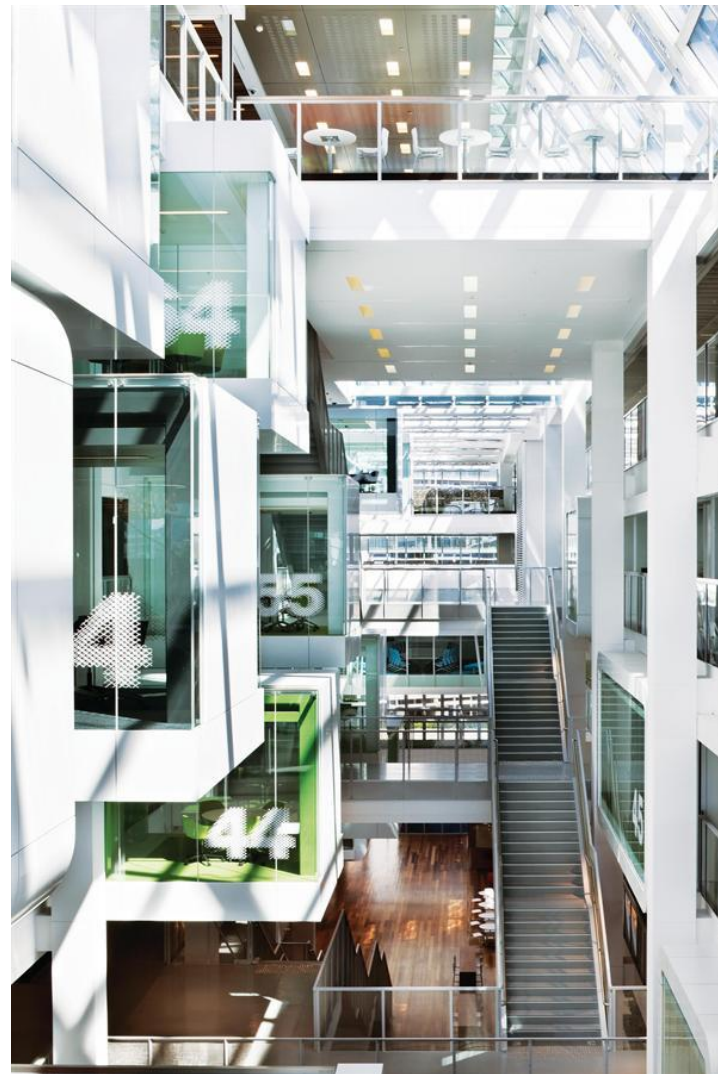
Energija

- Dizajn za maksimalnu iskorištenost sunčeve energije
 - Orijentacija i oblik
 - Prozori – orijentacija i tip
 - Termalna masa
 - Elementi za zasjenjivanje
 - Unutrašnjost
 - Aktivna/pasivna zgrada

Elementi zasjenjivanja



Unutrašnjost



Aktivna/pasivna zgrada



Hrana

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Prijevoz

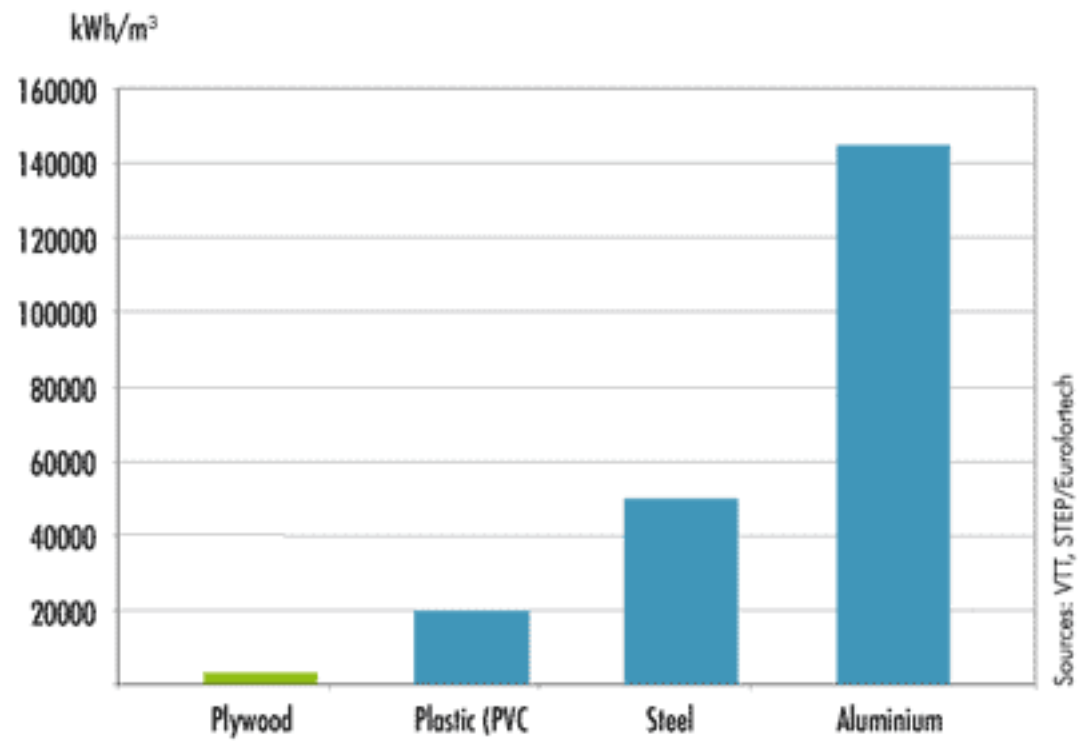
Otpad

Materijali



Efikasnost materijala

- Životni ciklus
- Obnovljivi
- Lako reciklirani
- Lokalno dostupni
- Energetska i materijalna efikasnost proizvodnog procesa
- Otporni





Hrana

Voda

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Materijali









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Materijali









Zaključak

- Dugoročno razmišljanje
- Fokus na životni ciklus
- Zatvaranje tokova materijala
 - Cradle to cradle
- Integracija s prirodom

BIOLOGICAL
METABOLISM

TECHNICAL
METABOLISM



STEP 1: MATERIALS STEP 2: STRUCTURE STEP 3: FORM STEP 4: SYSTEMS STEP 5: DETAILING STEP 6: CONSTRUCTION