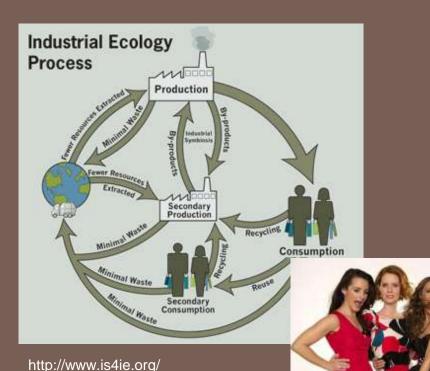
# CIRCULAR ECONOMY AND THE CITY

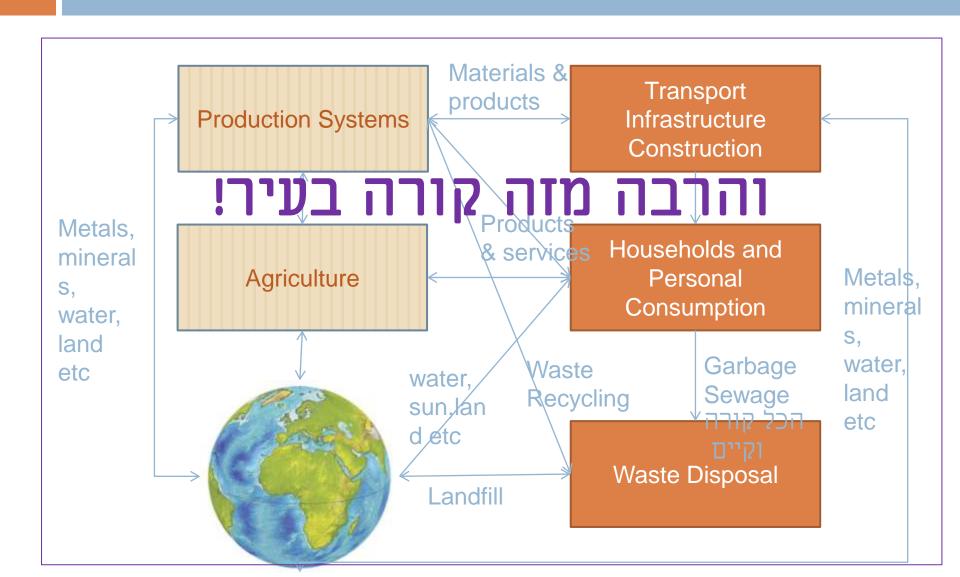


ד"ר ורד בלאס המעבדה לחדשנות באקולוגיה תעשייתית הפקולטה לניהול אוניברסיטת תל אביב

IE Applied
Innovations in Industrial Ecology
TELAUIU UNIVERSITY

http://bidur.nana10.co.il/Article/?ArticleID=822304

# הכל קשור ומשפיע!





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#### 1. The benefits of a circular economy

The limits of linear consumption

From linear to circular-Accelerating a proven concept

How it works up close-Case examples of circular products

An economic opportunity worth billions-Charting the new territory

- 2. Why the time to act is now
- 3. What are the leakage points?
- 4. What are the solutions?
- 5. Joining forces to make the change

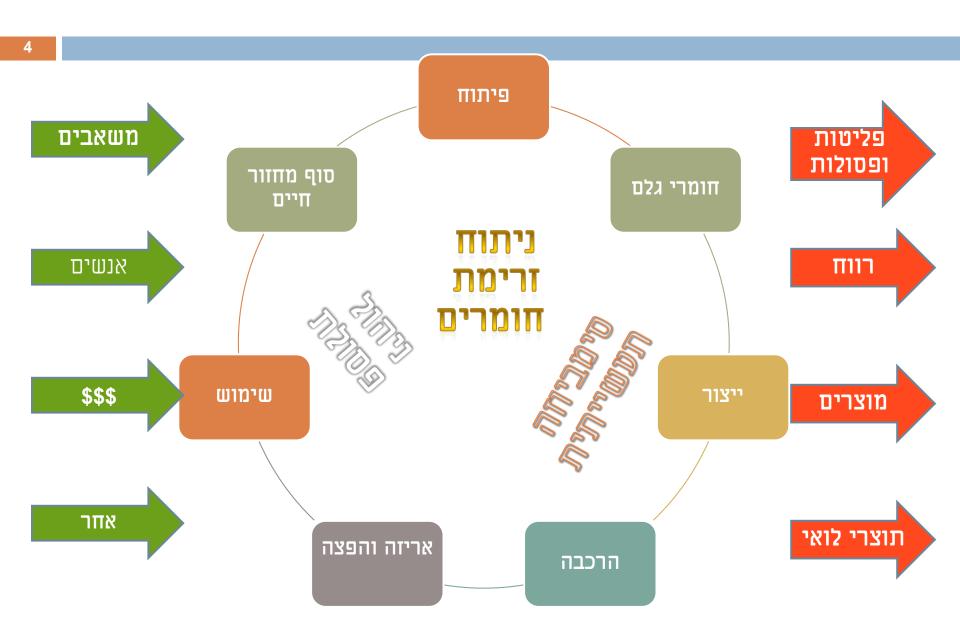
#### 1. The benefits of a circular economy



Linear consumption is reaching its limits. A circular economy has benefits that are operational as well as strategic, on both a micro- and macroeconomic level. This is a trilliondollar opportunity, with huge potential for innovation, job creation and economic growth.



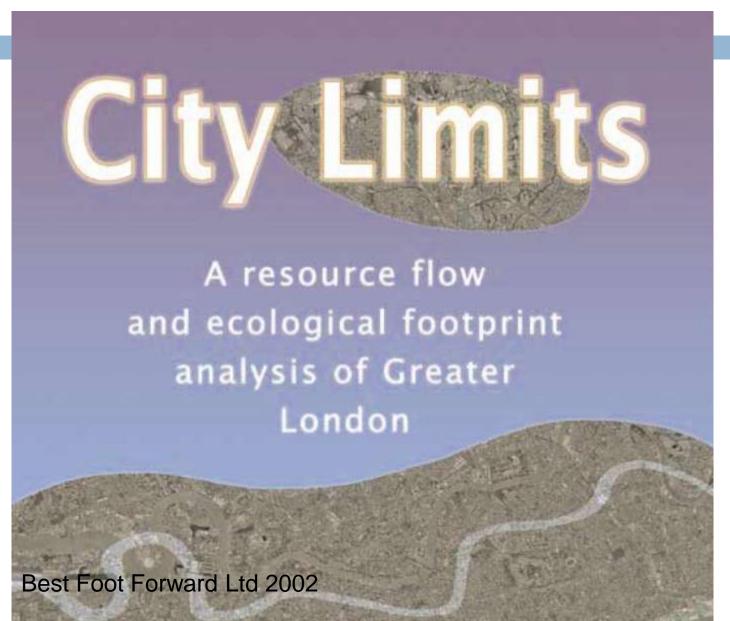
## הבסיס – ראיית מחזור חיים



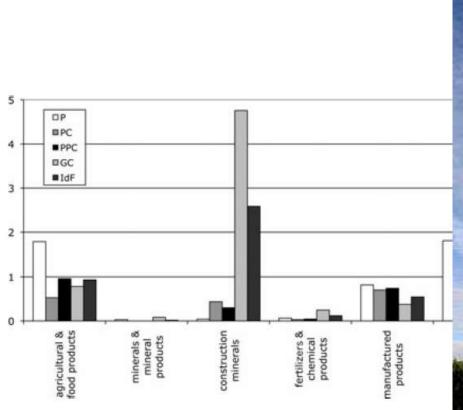
#### ניתוח זרימת חומרים

- Assess materials needs
- Assess flows and stocks of materials
- Assess materials criticality
- MFA: A systematic assessment of the flows and stocks of materials within a system defined in space and time
  - Worldwide
  - Country
  - City
  - Region
  - Supply chain
  - Firm level
- Understand alongside Economic implications

### London

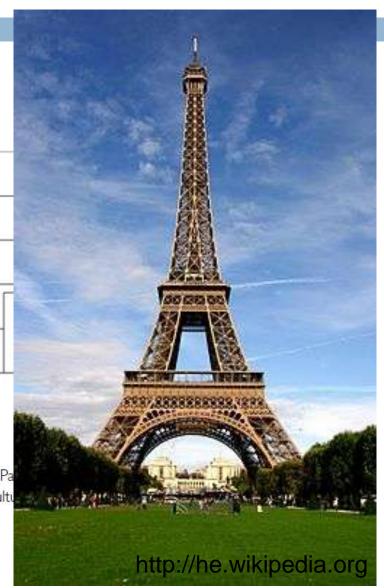


## מטבוליזם אורבני בפריז



**Figure 4** Domestic material consumption (DMC), 2003 (tonnes per capita). P = Pa of Paris; PPC = dense urban area (PPC = P + PC); GC = urban sprawl and agricultu Île-de-France region.

Urban metabolism of Paris and its region, Barles 2009



#### סימביוזה תעשייתית

- "like the biological system, it rejects the concept of waste. Dictionaries define waste as useless or worthless material. In nature, however, nothing is eternally discarded; in various ways all materials are reused, generally with great efficiency" (Graedel and Allenby 2002)
- Exchange of waste, energy, and by-products within firms in a geographical proximity for increased eco-efficiency
- Economic implications: all parties save money
- Municipality Involvement

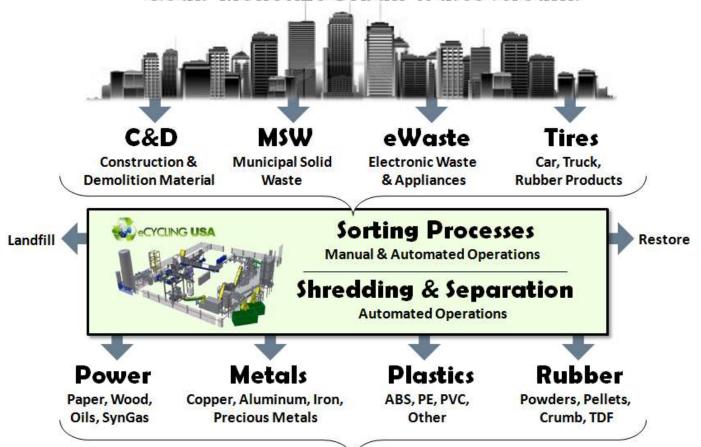
# אפשר לכמת את החסכון (דוגמת **NISP** באנגליה ל8 שנים אחרונות)

- £1 billion cost savings achieved
- £1.4 billion generated in additional sales
- Over 10,000 jobs created
- 45 million tonnes materials recovered and reused
- 39 million tonnes industrial carbon emissions reduced
- 71 million tonnes industrial water savings made

## כרייה עירונית (1)

#### **Urban Mining**

Goal: Monetize Urban Waste Streams



#### **Business & Job Creation**

http://jobenomicsblog.com/urban-mining/

# (2) כרייה עירונית



## בישראל

- שלבים ראשוניים 🗖
- ם מהפכת ההפרדה במקור ומחזור עדיין בתהליך 🗖
  - ראיית מחזור חיים מתחילה לתפוס תאוצה 🗖
- אנחנו לא יודעים מספיק על זרימת חומרים בכלכלה 🗖
  - פארקים תעשייתיים אקולוגיים תופסים תאוצה 🗖
    - ם פתיחות קובעי המדיניות לנושא קריטית 🗖
  - בוא נלמד מאחרים ונשתמש במה שרלוונטי לנו 🗖

# תודה על ההקשבה

vblass@post.tau.ac.il