

New Directions for Energy and Behaviour: Whither Organizational Research?

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Today's Talk

- Organizations matter to energy and climate issues
- Organization theory can be a useful guide to research and practice
- An example of when theory leads to insight...

Organizations matter to energy and
climate issues

Organizations...

- Have purposes (which may be explicit or implicit)
- Attract participants
- Acquire and allocate resources to accomplish goals
- Use some form of structure to divide and coordinate activities
- Rely on certain members to lead or manage others
- Are “open systems” that are influenced by and have an impact on the external world
 - External world is a source of: (1) Inputs like raw materials, capital, and labour; (2) Markets; (3) Technology; (4) Politics; and (5) Societal culture

See Shafritz and Ott 1996

Some influences that are commonly understood to shape energy behaviour

As seen through an organizational lens...

Behavioural Tools Application Framework

Help the Behaviour Changers Framework

1. Technology and other aspects of the physical environment;

For-profit organizations (i.e., firms) produce this

2. Social/media/marketing information;

For-profit, non-profit, and public organizations

Community actions:

Policy

Physical Env.

Media/Marketing

Community-Based

Individual

Policy

Physical Env.

Media/Marketing

Community-Based

Individual

Policy

Physical Env.

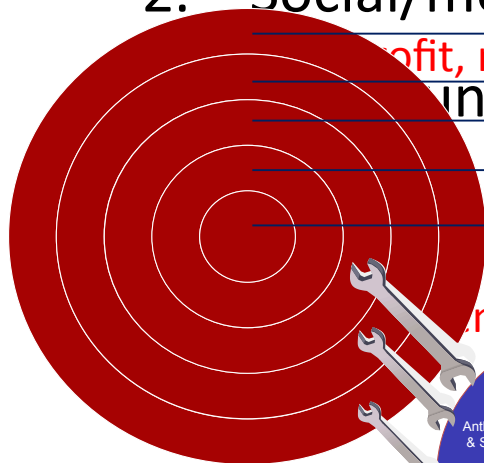
Media/Marketing

Community-Based

Individual

For-profit, non-profit, and public organizations foster and represent the public interest policy and the socio-political

Environment – a large non-profit organization – male



- Complementary interventions
- Many tools at each level



Environment

Infrastructure

Social

Technology

End-user

There is an identified need for more scholarship. There is also a need for more synthesis of what has already been done

See the paper for more detail

Organization theory can be a useful
guide to research and practice

Structuring Research

Orgs that consume energy-using goods and services	Orgs that produce energy-using goods and services via value chains	Other orgs
<ul style="list-style-type: none"> • Sorrell, O'Malley et al. (2004) - universities, breweries, mechanical engineering firms; • Cebon (1992) - universities; Cooremans (2012) - metal-working, clock- and watch-making, the chemical industry, the pharmaceutical industry, chain stores, parking lots, shopping malls, and conference/exhibition centres; • Taylor and Fujita (2012), Sourani and Sohail (2011), and Simcoe and Toffel (2014) - governments 	<ul style="list-style-type: none"> • Lovins (1992) and Lutzenheiser and Woolsey Biggart (2001) - the construction of commercial buildings; • de Almeida (1998) - high efficient motors in France 	<ul style="list-style-type: none"> • Parag and Janda (2014) – congregations • Rotmann and Mo (2014) - conscienc

Structuring Research

Theoretical Orientation	Orgs that consume energy-using goods and services	Orgs that produce energy-using goods and services via value chains	Other orgs
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Organization Theory

- A set of propositions that seek to explain or predict “how groups and individuals behave in varying organizational structures and circumstances” (Shafritz and Ott 1996)
- Major schools: classical, neo-classical, “modern” structural theory, organizational behaviour, systems theory, and organizational culture

Internally-Oriented Organization Theory

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Internally-Oriented Organization Theory

- Major schools: **classical**, neo-classical, “modern” structural theory, organizational behaviour, systems theory, and organizational culture

Dominant through the 1930s

- (1) Organizations exist to accomplish production-related and economic goals;
- (2) There is one best way to organize for production, and that way can be found through systematic, scientific inquiry;
- (3) Production is maximized through specialization and division of labour;
- (4) People and organizations act in accordance with rational economic principles.

Internally-Oriented Organization Theory

- Major schools: classical, **neo-classical**, “modern” structural theory, organizational behaviour, systems theory, and organizational culture

Dominant in 1940s and 1950s

- Important to recognize the humanness of organizational members, coordination needs among administrative units, internal-external organizational relations, and organizational decision processes
 - Chester Barnard: how cooperation holds an organization together
 - Herbert Simon: a new science of administration and a definition of org theory as “the theory of the bounded rationality of human beings who ‘satisfice’ because they do not have the intellectual capacity to maximize,”
 - Philip Selznick: “organizations consist of individuals whose goals and aspirations might not necessarily coincide with the formal goals of the organization.”

Internally-Oriented Organization Theory

- Major schools: classical, neo-classical, “modern” structural theory, **organizational behaviour**, systems theory, and organizational culture
 - Focuses on the internal dynamics of the organization, including the role of human behaviour.
 - Seeks to redefine the relationship between organizations and people “from dependence to co-dependence.” (Shafritz and Ott 1996)
 - Typical research topics include “motivation, group and intergroup behaviour [e.g., avoiding “groupthink”], leadership, work teams and empowerment; effects of the work environment on individuals; power and influence; and organizational change processes”
 - Roots are in organizational psychology

Internally-Oriented Organization Theory

- Major schools: classical, neo-classical, “modern” structural theory, organizational behaviour, **systems theory**, and organizational culture

Dominant Today

- Sees an organization as “a complex set of dynamically intertwined and interconnected elements, including its inputs, processes, outputs, feedback loops, and the environment in which it operates and with which it continuously interacts”
- Interest in quantitative methods
- important concept: organization as an “open system”
- Related to contingency theory, the population ecology of organizations, and organizational economics (includes agency theory and transaction cost theory)

Internally-Oriented Organization Theory

- Major schools: classical, neo-classical, “modern” structural theory, organizational behaviour, systems theory, and **organizational culture**
 - Culture includes such things as “values, beliefs, assumptions, perceptions, behavioural norms, artefacts, and patterns of behaviour,”
 - Culture stems from basic assumptions that are held by and influence members of an organization in large part because they “worked in the past” and “with repeated use [they] slowly drop out of peoples’ consciousness.”
 - Culture is shaped by such factors as “the societal culture in which it resides; its technologies, markets and competition; and the personality of its founder(s) or dominant early leaders”
 - Knowledge about culture-shaping factors (i.e., structure, information systems, strategic planning processes, goals, etc.) will not “accurately or reliably” “identify or measure” culture due to its basis in “unconscious, virtually forgotten basic assumptions.”
 - Culture can be so strong as to predetermine organizational behaviours and decisions

Externally-Oriented Organization Theory

- Systems theory and other perspectives on organizational theory that focus on the organization as an open system
- Economics sub-fields (e.g., industrial organization, institutional economics)

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- Systems theory and other perspectives on organizational theory that focus on the organization as an open system
- Economics sub-fields (e.g., **industrial organization**, institutional economics)
- Considers limitations to perfect competition (e.g., market power, transaction costs, imperfect information, etc.)
- Major research thread draws from case studies in industries like utilities, finance, agriculture, marketing, etc.
- “More basic theoretical-empirical” research thread based on concept of market structure, incorporating:
 1. The economic characteristics of the product
 2. Cost and production characteristics of the firm's operations [including issues of vertical integration]
 3. Numbers and relative sizes of buyers and sellers and relative ease of entry of new firms
 4. Demand conditions
 5. Differences in distribution channels
- Infers organizational behaviour from external conditions

Example in which theory led
to insight for energy policy

Two examples in the paper

- Internal example: Public procurement of EE products
 - Organization as consumer of energy-using goods and services
- External example: Appliance policy
 - Organization as producer of energy-using goods and services

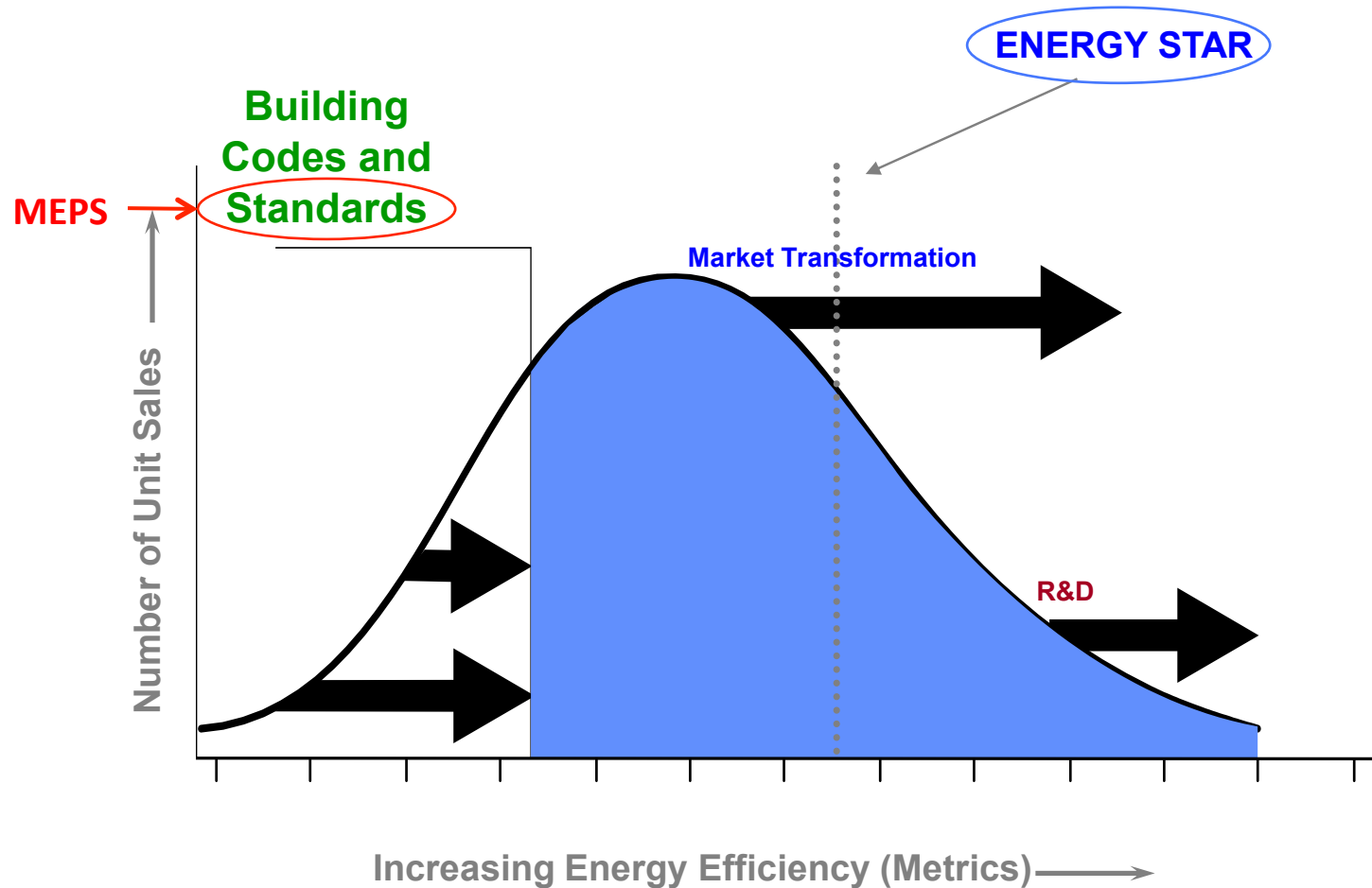
Theoretical Orientation	Orgs that consume energy-using goods and services	Orgs that produce energy-using goods and services via value chains	Other orgs
Internal	Box 1 – Public Procurement	Box 2	Box 3
External	Box 4	Box 5 – Appliance Policy	Box 6

External Org Theory Example:

- Fischer (2005) pointed out that the appliance manufacturing industry is highly concentrated
- In industrial organization theory, this implies likely organizational behaviour regarding product pricing and feature introduction
- Empirical follow-up includes Houde (2012), Houde (2014), Spurlock (2014), and Taylor Spurlock and Yang (2015), which have strong implications for the dynamics of consumption of EE products

Concept Underlying Federal Policy

The Energy Star “Theory of criteria setting” Source: Karney (2004)

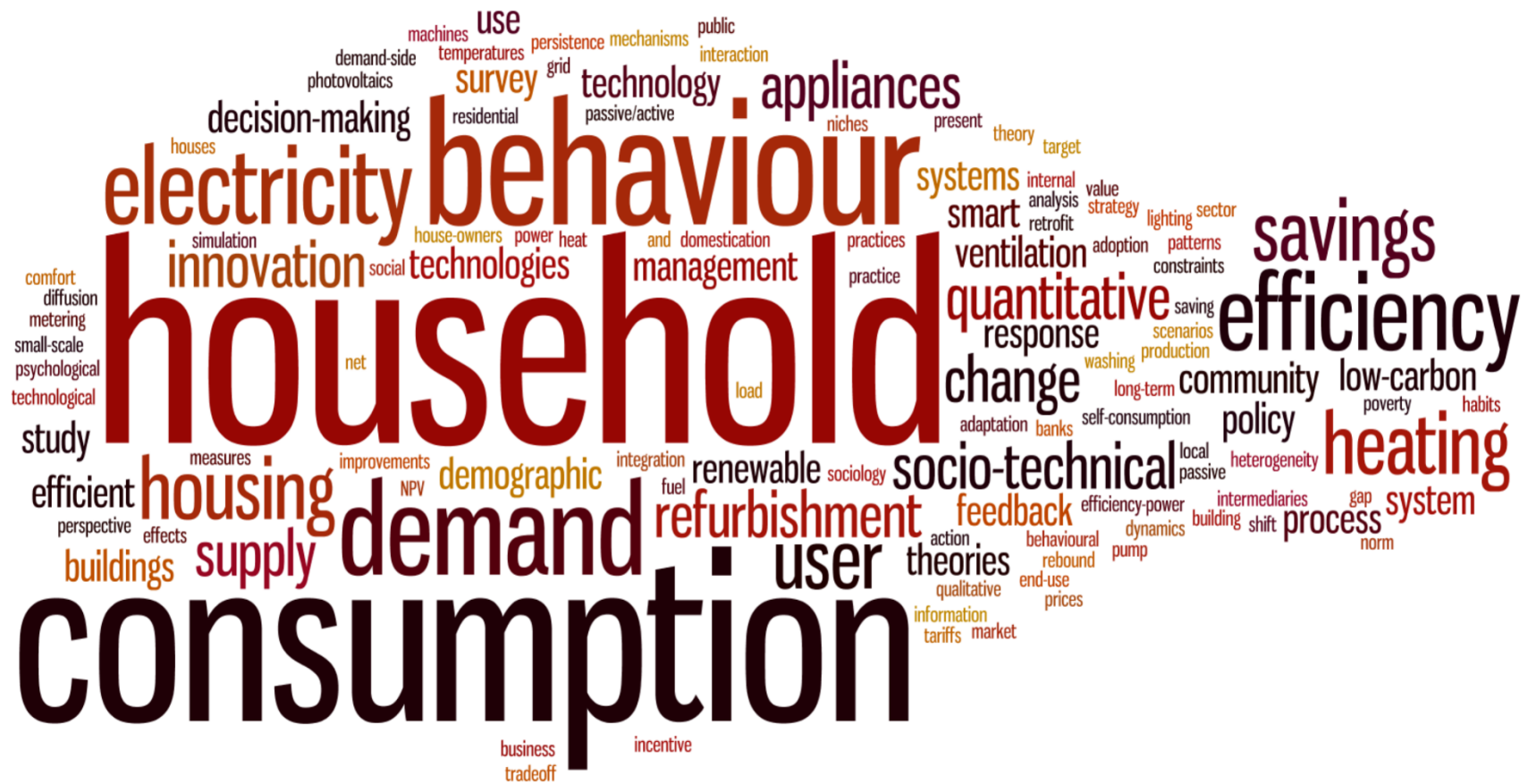


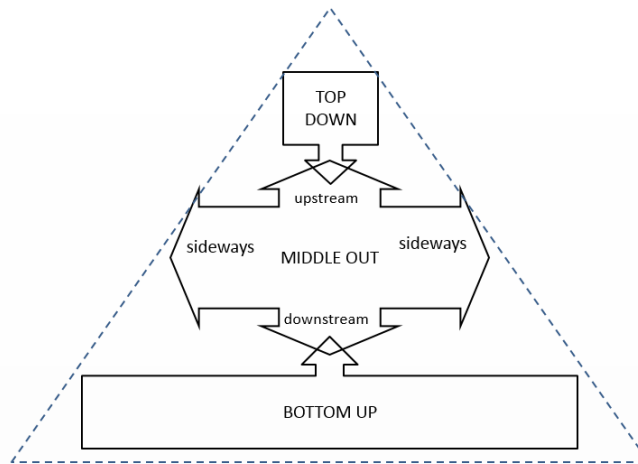
Discussion

THANKS FOR YOUR ATTENTION!!!!

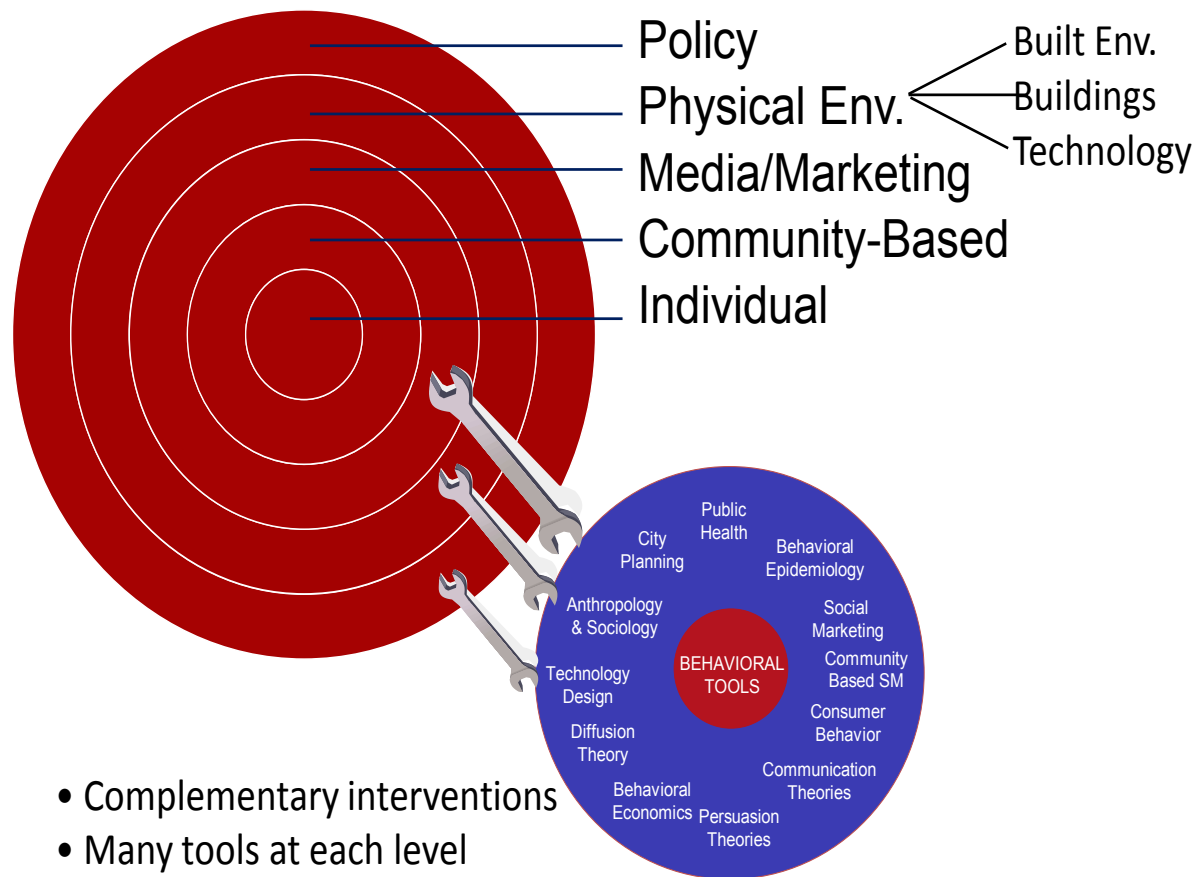
Contact Info: Margaret Taylor mrtaylor@staford.edu

Back-Up Slides

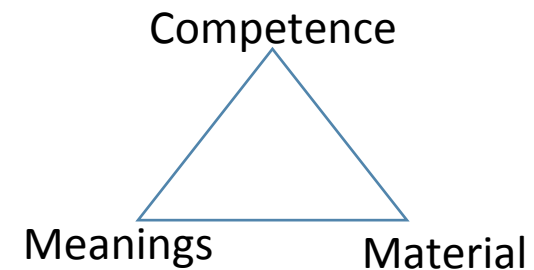
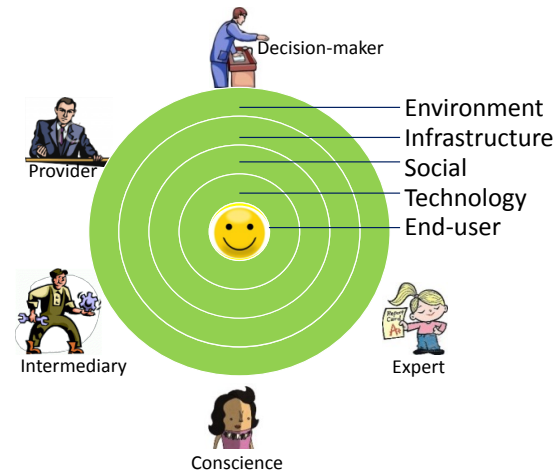


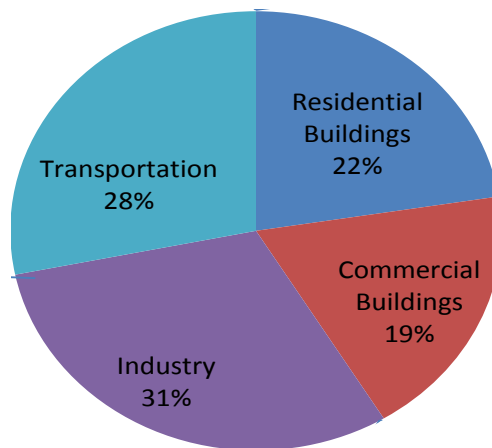


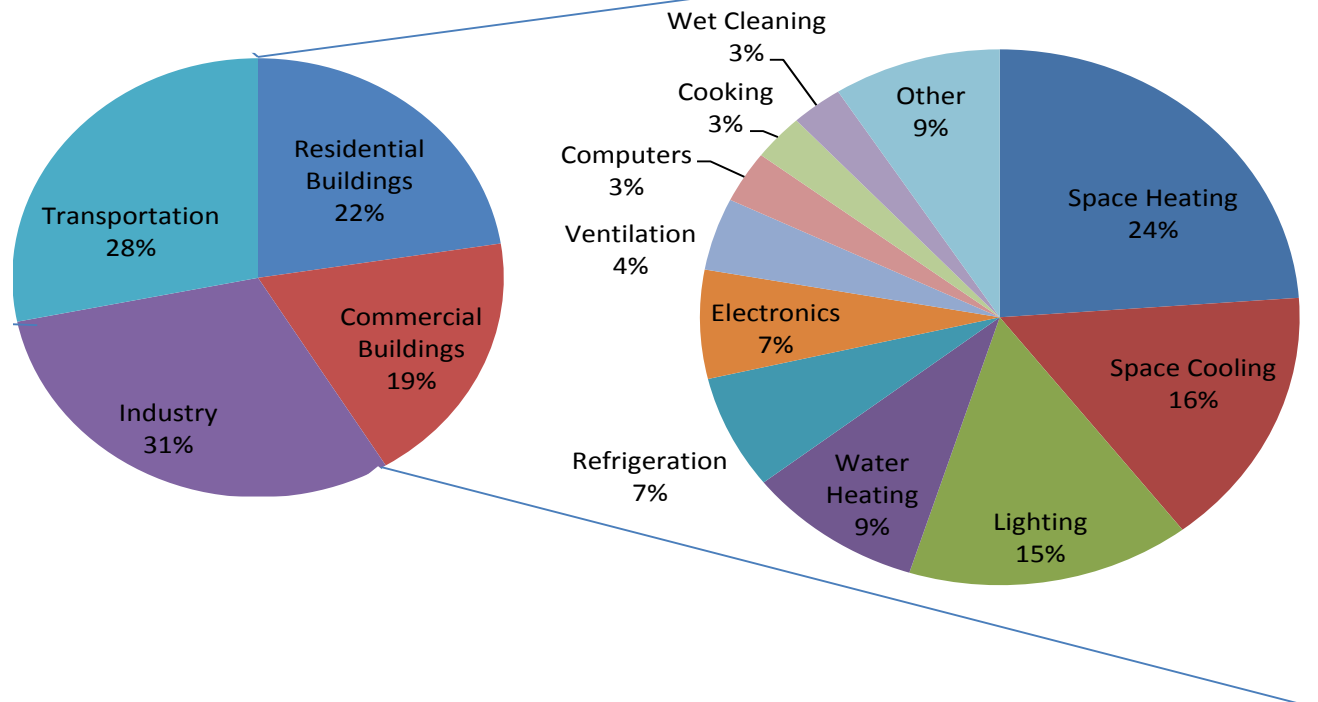
Behavioural Tools Application Framework

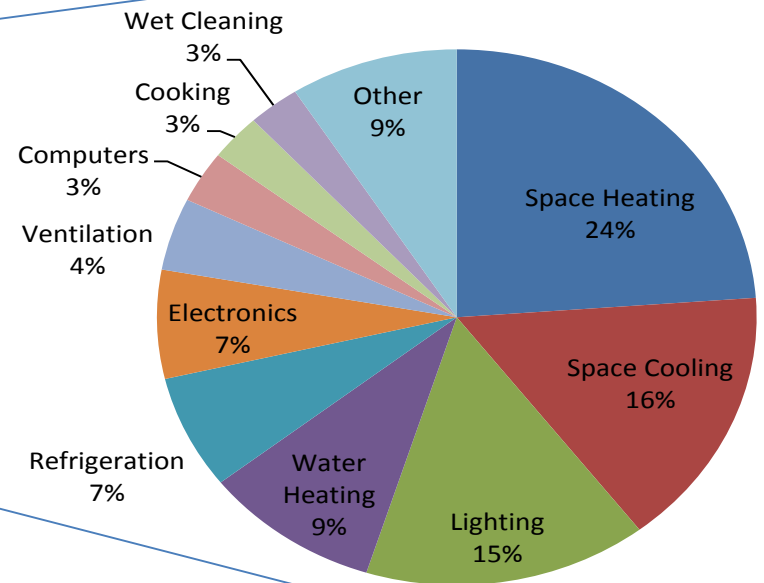
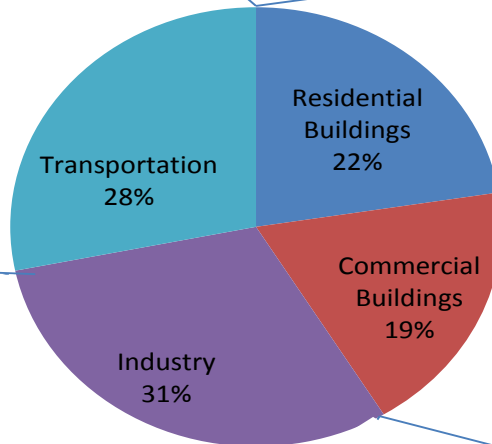
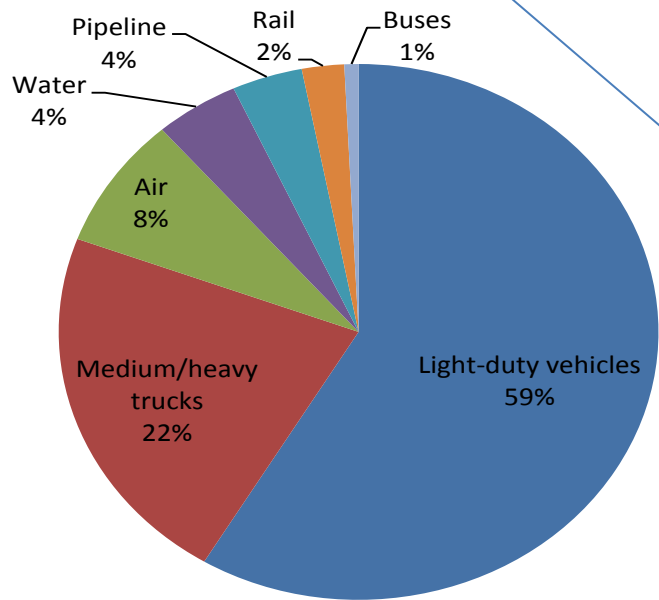


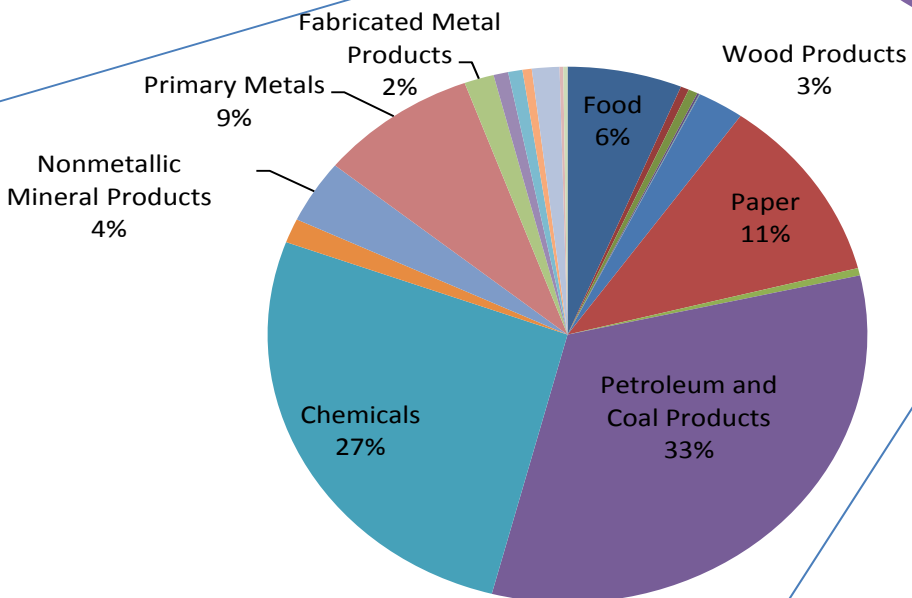
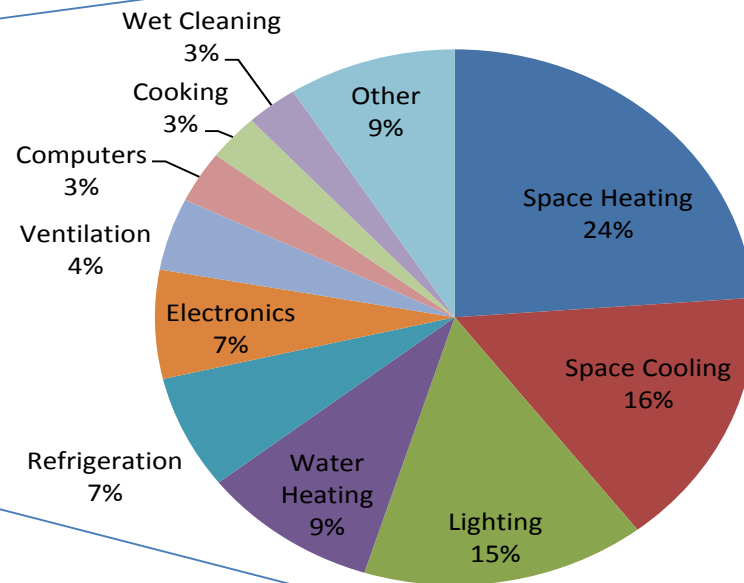
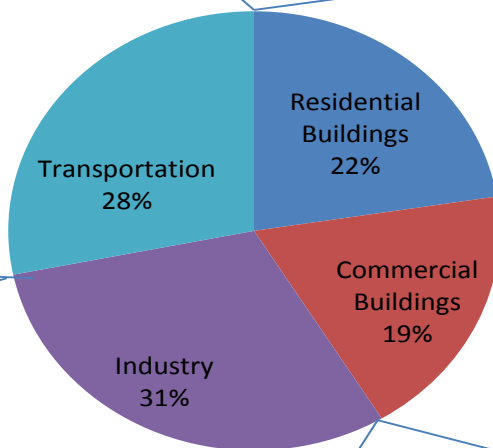
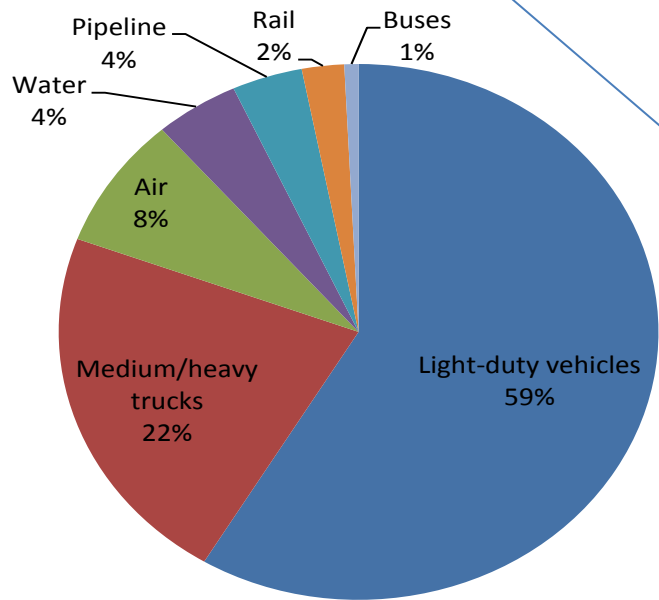
Help the Behaviour Changers Framework





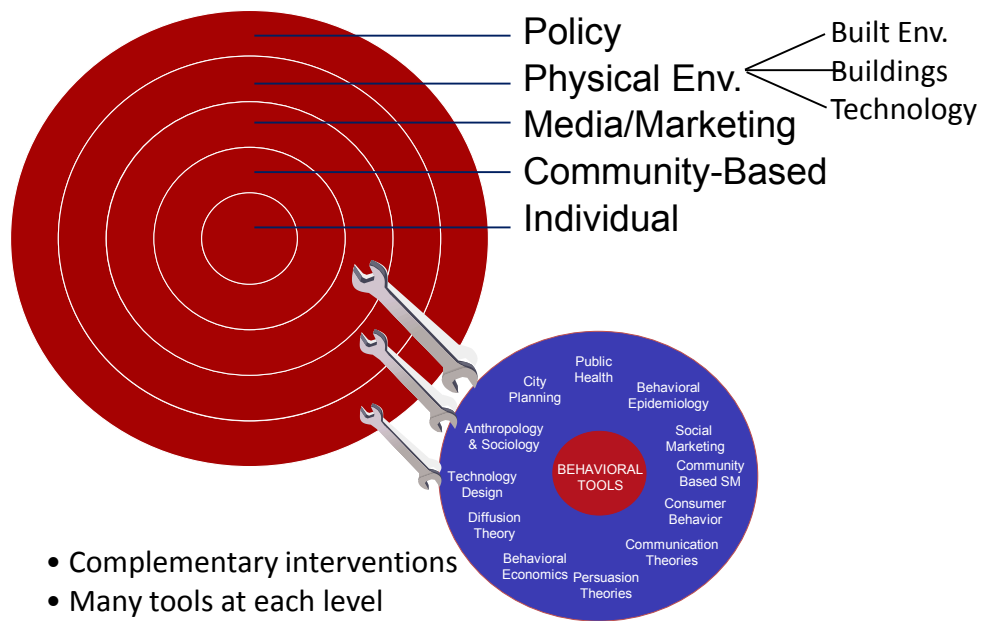






Some analytical frames on the energy system

Behavioural Tools Application Framework



Help the Behaviour Changers Framework

