

Leadership Academy on Circular Economy by SWITCH Asia Program

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Transitions towards Sustainable Consumption: Research and Practices



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We will discuss...

- ☯ Sustainable consumption as an emerging field of inquiry
- ☯ Academic responses
- ☯ Practices and innovations towards future



☯ Sustainable consumption as an emerging field of inquiry

社会系统和生态系统之间的关系

Interrelations between social systems and ecosystems

Societies (社会经济系统)
(socio-economic production/consumption systems)

再投资-更过剩
Reinvestment-
more surplus

WITHDRAWAL

S

提取



ADDITION

S

添加

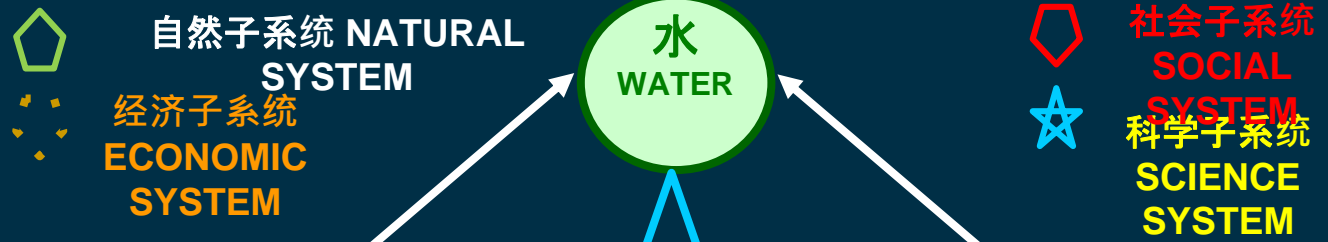
“质”和“量”
Quality and
quantity

Ecosystems (生态系统)
(environmental production/consumption Systems)

不断平衡
Immutable rule -
system balance

THE 'SUSTENANCE BASE' OF SOCIETIES社会的物质基础

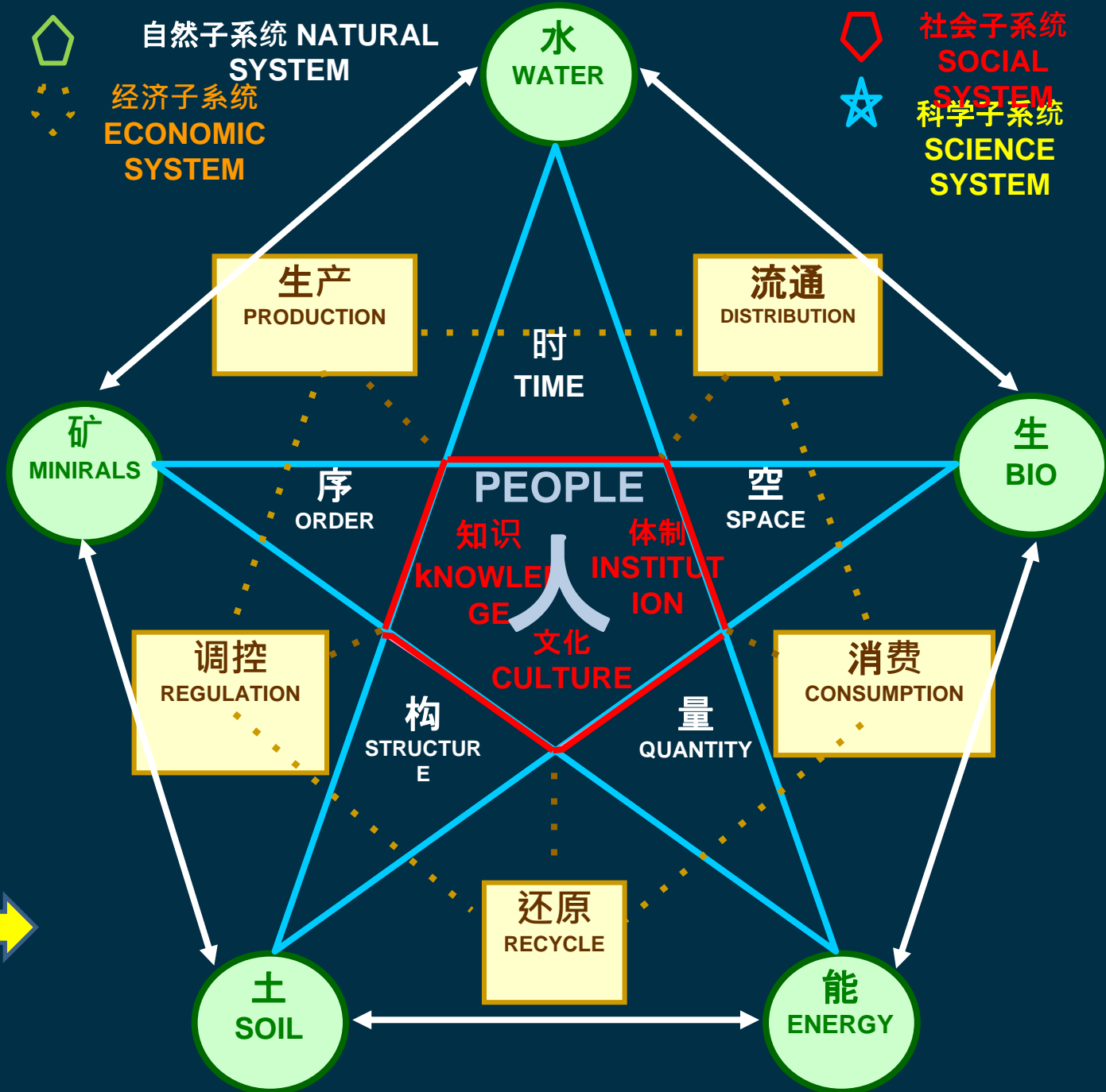
复合生态系统



The Chinese Theory Social-Economic-Natural Complex Eco-system

(SENCE, BY Shijun Ma and Rusong Wang, 1984)

中国复合生态系统理论 (马世骏, 王如松, 1984)

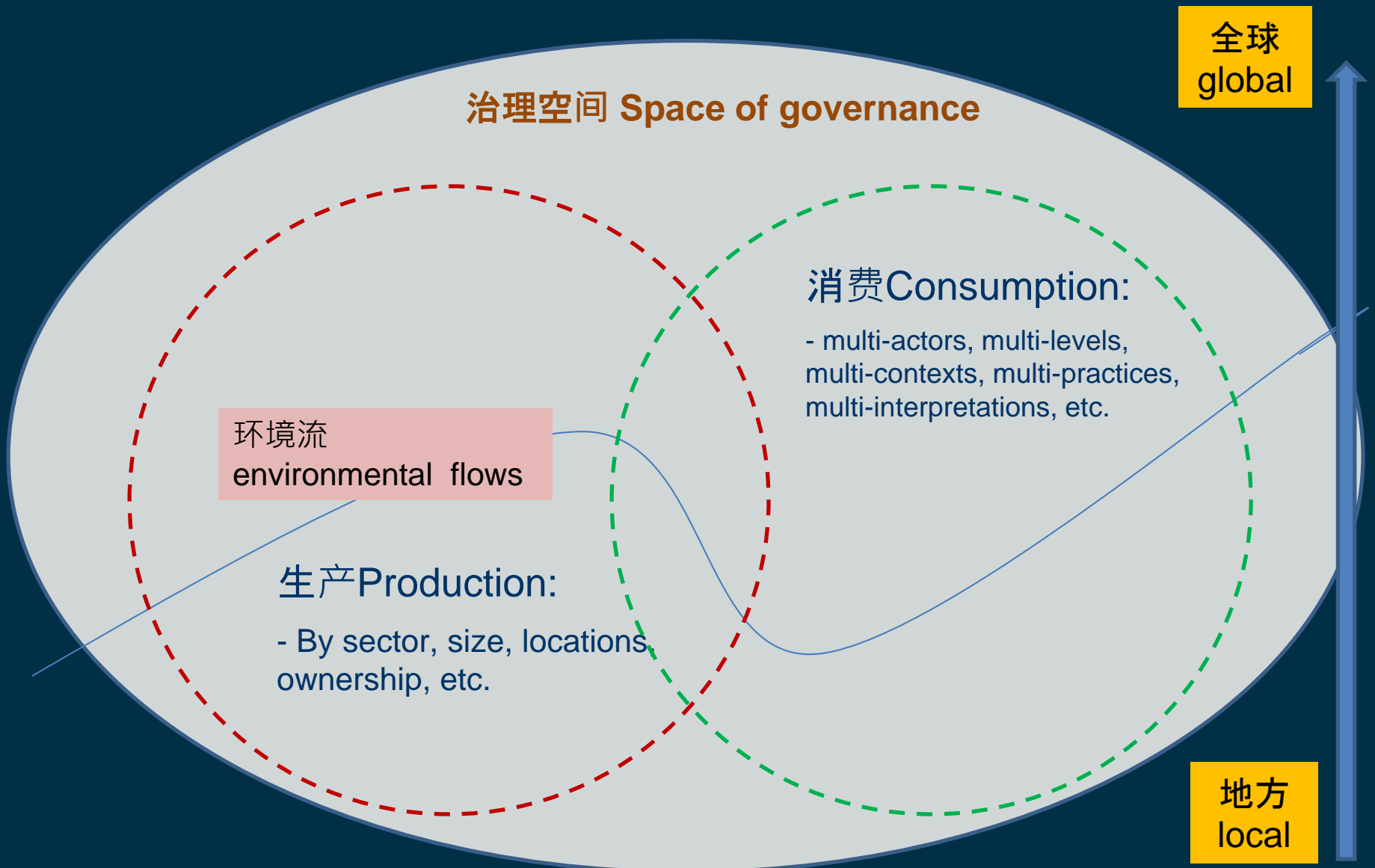


古代哲学思想

“天人合一”



Environmental flows going through complex ecosystems



Globalization of Environmental Flows & Politics

Environmental Flows (working definition):

“The combination of ‘material flows’ in natural-sciences-based literature and ‘non-material flows’ in the sociological literature, focusing on the networks, arrangements, and infrastructures that constitute and govern different sorts of environmental flows, rather than the material dimensions of environmental flows as such or in isolation” (Spaargaren, et al, p. 5).

Globalization of Environmental Flows & Politics

Examples:

Natural flows

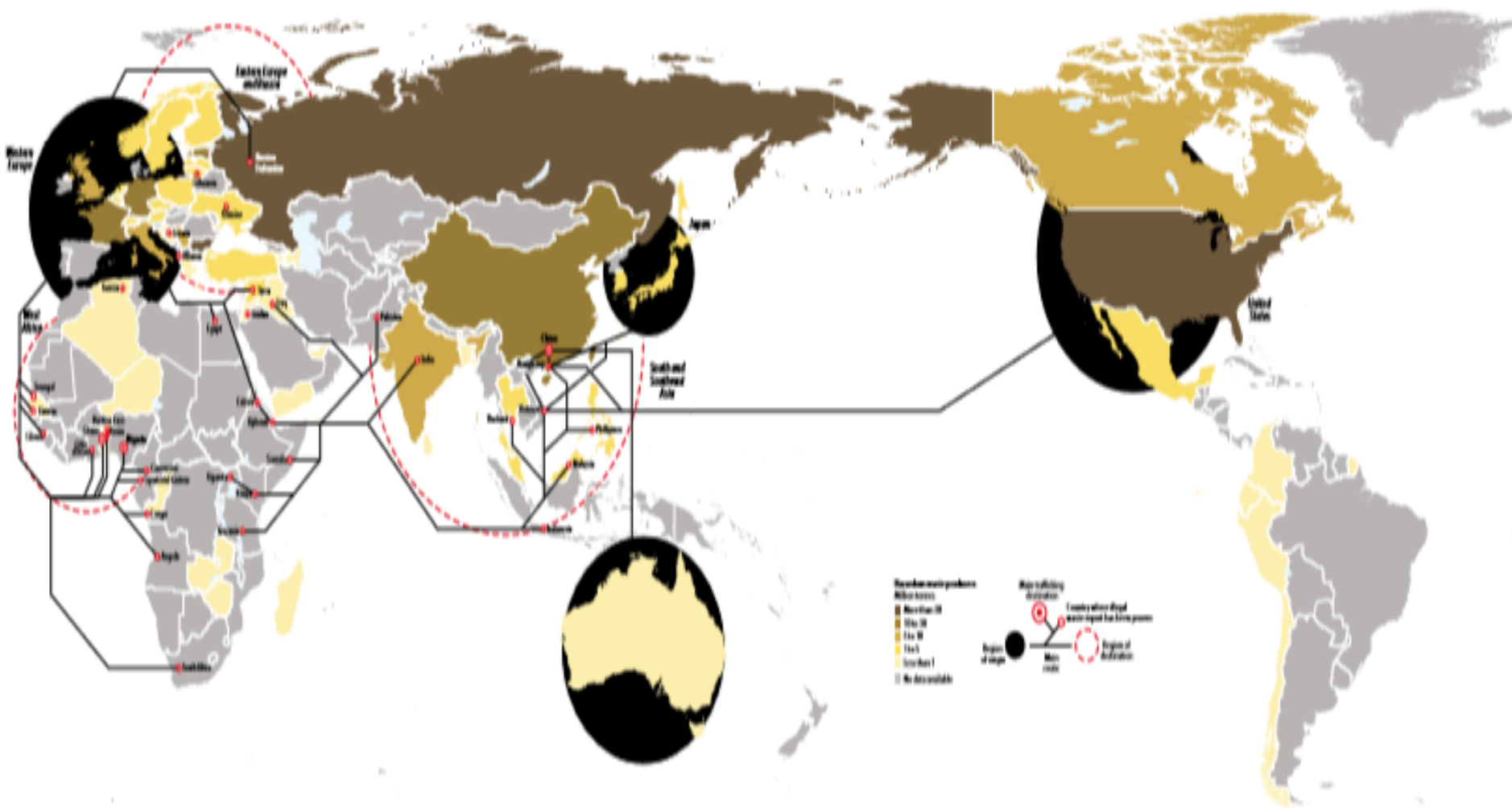
- Raw materials
- Timber/ fiber/ wood products
- Fish/ seafood
- Whaling
- Trade in endangered species
- Bio-prospecting
- Manufactured goods
- Toxic waste
- Air pollution/ haze
- Climate change



Social flows

- People
- Services
- Culture
- Images
- Information
- Money
- Investments
- Capital
- Etc.

Figure 4.8: Global illegal waste traffic



Source: Pravettoni (2015).

Known and Suspected Routes of e-waste Dumping



There is currently no system for tracking legal or illegal (under international law) shipments of electronic waste, and therefore, there is no quantitative data on volumes or even all of the true destinations. Some electronic waste is shipped as "working equipment" only to end-up as waste upon arrival. This map indicates information collected through investigations by organizations such as the Basel Action Network, Silicon Valley Toxics Coalition, Toxics Link India, SCOPE (in Pakistan), Greenpeace and others.



© Robert Nemeth/Solent

Christmas is coming: The world's largest container ship, the CMA CGM Marco Polo, arrived at Southampton with thousands of Christmas presents on board, Dec. 10, 2012





PRE-ORDER \$9.99

THE TRUE COST



▶ 'THE TRUE COST'

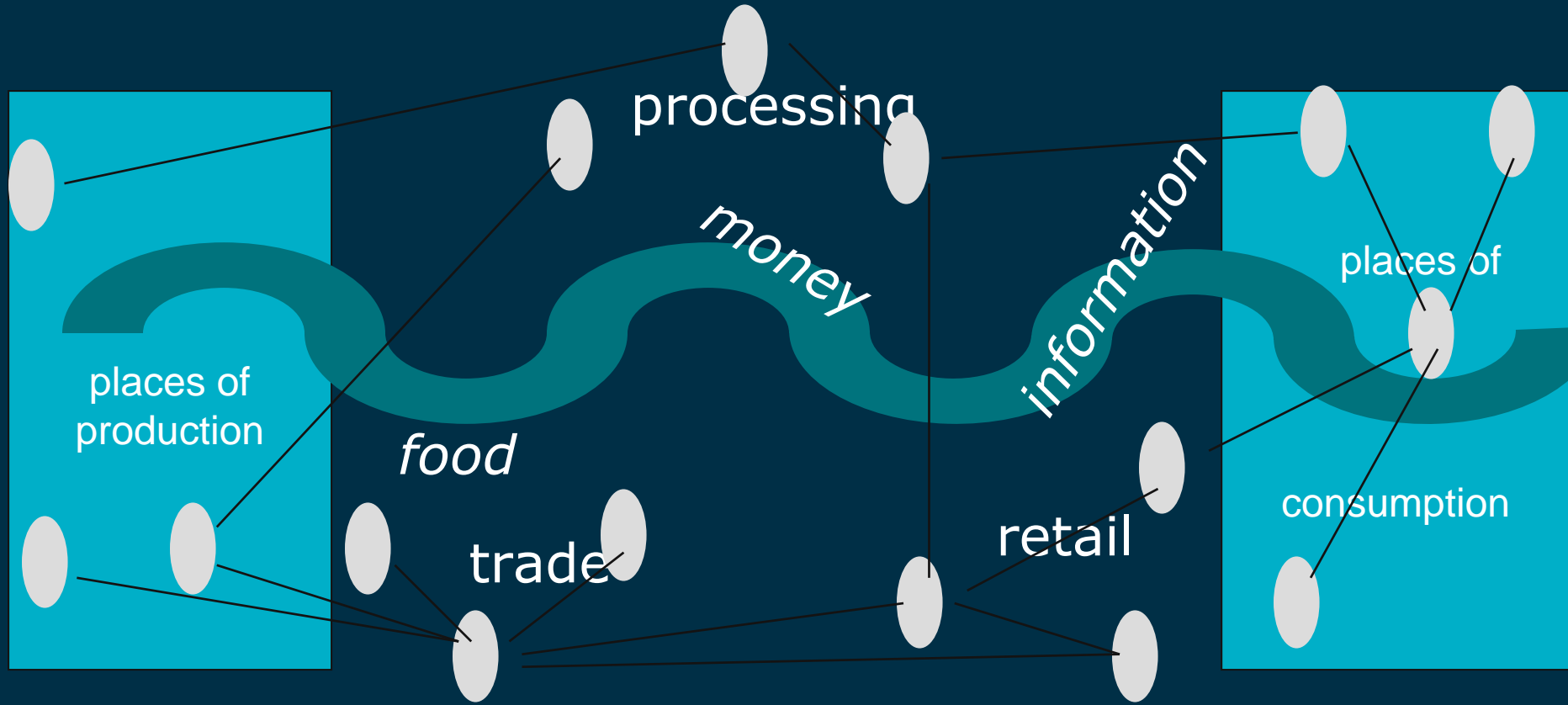


https://www.youtube.com/watch?v=OaGp5_Sfbss

<https://www.bilibili.com/video/av32501750>

AVAILABLE WORLDWIDE MAY 29TH 2015

e.g. Food flows and networks



e.g. Amazon rainforest



'He wants to destroy us': Bolsonaro poses gravest threat in decades, Amazon tribes say

🕒 26 Jul 2019



tyler
@tyswizzle



The Amazon has been burning for 3 weeks, and I'm just now finding out because of the lack of media coverage. THIS IS ONE OF THE MOST IMPORTANT ECOSYSTEMS ON EARTH. SPREAD AWARENESS #PrayforAmazonia



Jair Bolsonaro claims without evidence that NGOs are setting fires in Amazon rainforest

🕒 21 Aug 2019

US-China soy trade war could destroy 13 million hectares of rainforest

Study suggests Brazil likely to rush to fill China's sudden soy shortfall by boosting farming



▲ A soy plantation in the Amazon rainforest near Santarem, Brazil. Photograph: Ricardo Beliel/Getty Images

What is sustainable consumption? a matter of (re)framing

Define SC by clarifying what SC is not about:

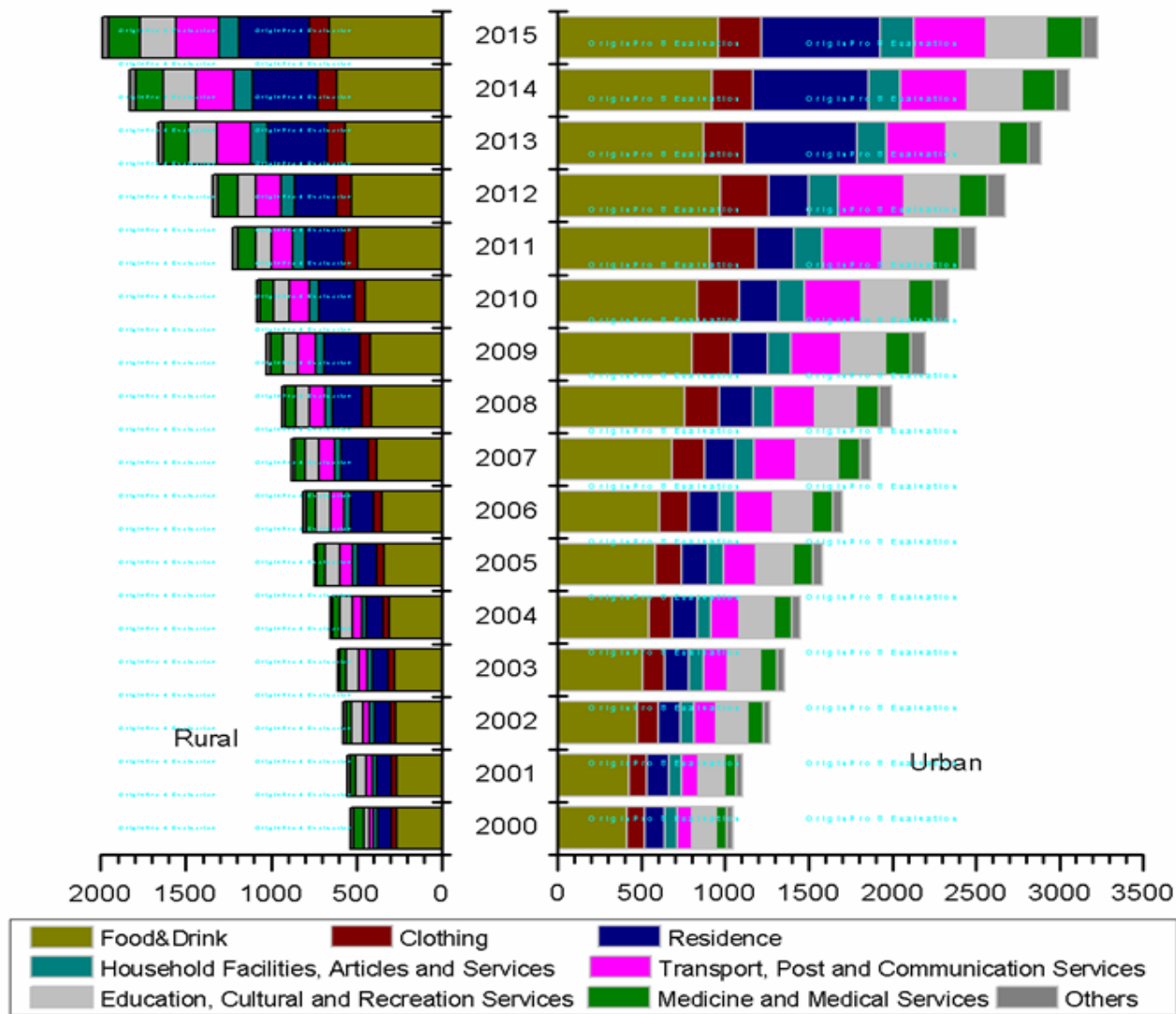
Green consumption? Durable goods?
Low-carbon? Peer production?/mass collaboration?
Sharing/renting/redistribution goods and services?
Sustainable lifestyle? Consume less? Consume differently?
De-growth? Simple healthy life?

...

It is impossible to talk about sustainable consumption in general. Without **differentiation** and **specification** of the target groups and the social practices, conclusions on consumers traits can hardly support any effective policy making.

“Why achieving the Paris Agreement requires reduced overall consumption and production” (Eva Alfredsson et al., 2018)

- consumption and production levels are a primary determinant of GHG-emission levels.
- infrastructure and capacity building investments needed in the coming decades will limit the room for consumptive emissions.
- improving the standard of living of the world’s poor will require increased consumption of energy and materials and a global rebalancing of consumption opportunities.



Annual per capita consumption expenditures between 2000 and 2015
 (Data source: China Statistical Yearbook, 2001-2016; the prices are corrected for inflation, taking 1985 as the base year. Zhang and Liu, 2019)



(Source: World Business Council on Sustainable Development - Sustainable Lifestyles Program
The GoodLife 2.0 Playbook - US Edition - May 2017)



 **Academic and policy responses**

How to study? Theories, concepts and methods



Social causes of environmental degradation: micro-analyses

To treat structure and culture more or less as a 'given' (as an 'external variable' one good say) and pay special attention to the attitudes and behaviour of concrete individuals, to explain why environmental problems come about.

The specific outlook of micro-level analyses

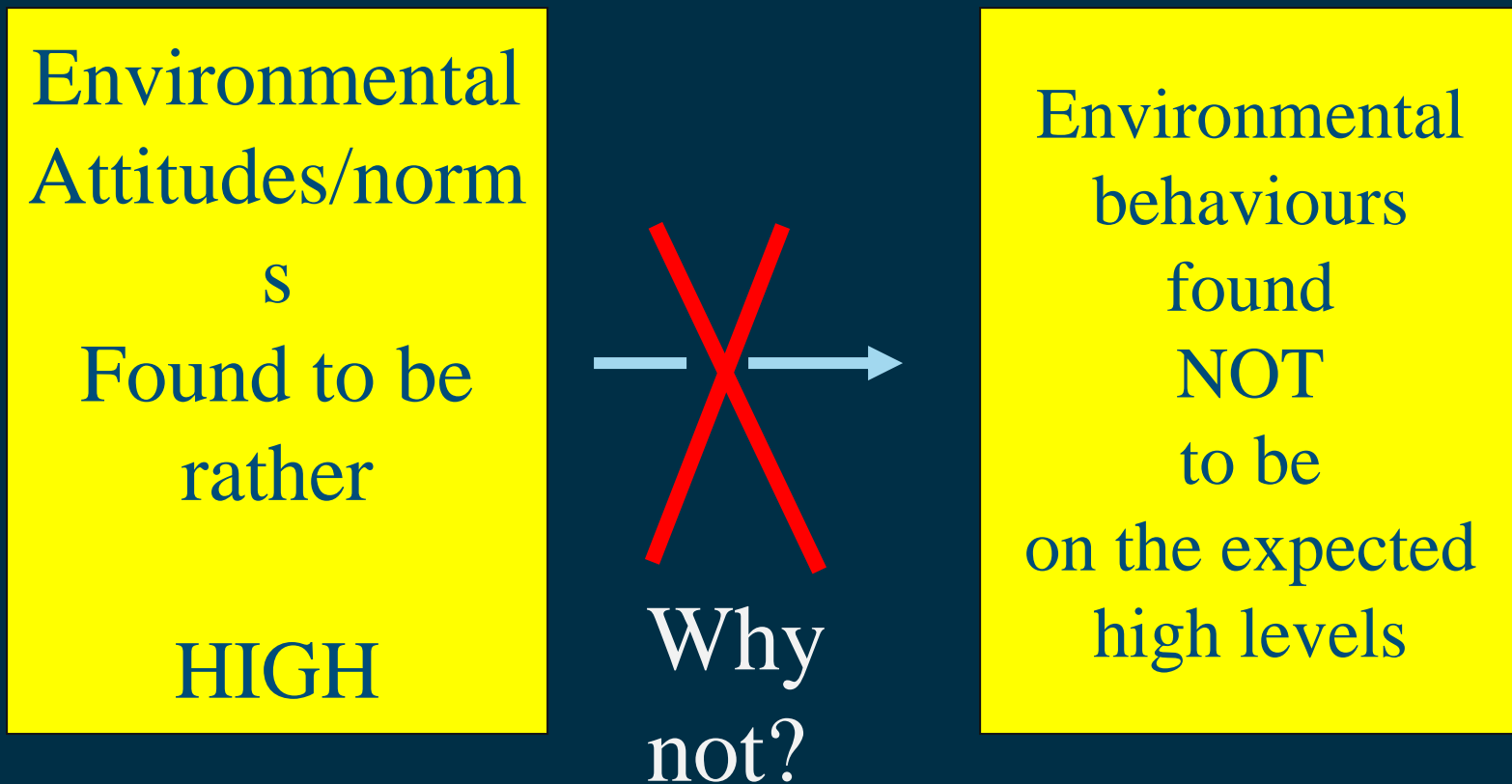
- “If all members of society would apply in their homes energy efficient light-bulbs, the CO₂-emissions related to domestic energy would be substantially reduced”
- “If all people would be selective on the packages of products and also refuse plastic bags for taking home their shopping's, this would reduce the problem of domestic waste considerably etc.

Why do individual micro-actions not deliver the expected results at the aggregate/ macro-level?

1. 'cultural' explanations

- People do not *know* about the environmental consequences of their behaviours, hence we must provide them with more and more adequate information in this respect
- People have set their individual priorities in a wrong way, hence we must raise their *awareness* in a way that environmental considerations are given relatively more weight when compared with other priorities
- In sum: the '*environmental attitudes*' of the people are too low, and by changing the attitudes into a more environmental friendly direction, there will also result more environmental friendly behaviours of the people.

Research in the Attitude - Behavior Tradition: ± 1970 – 1990



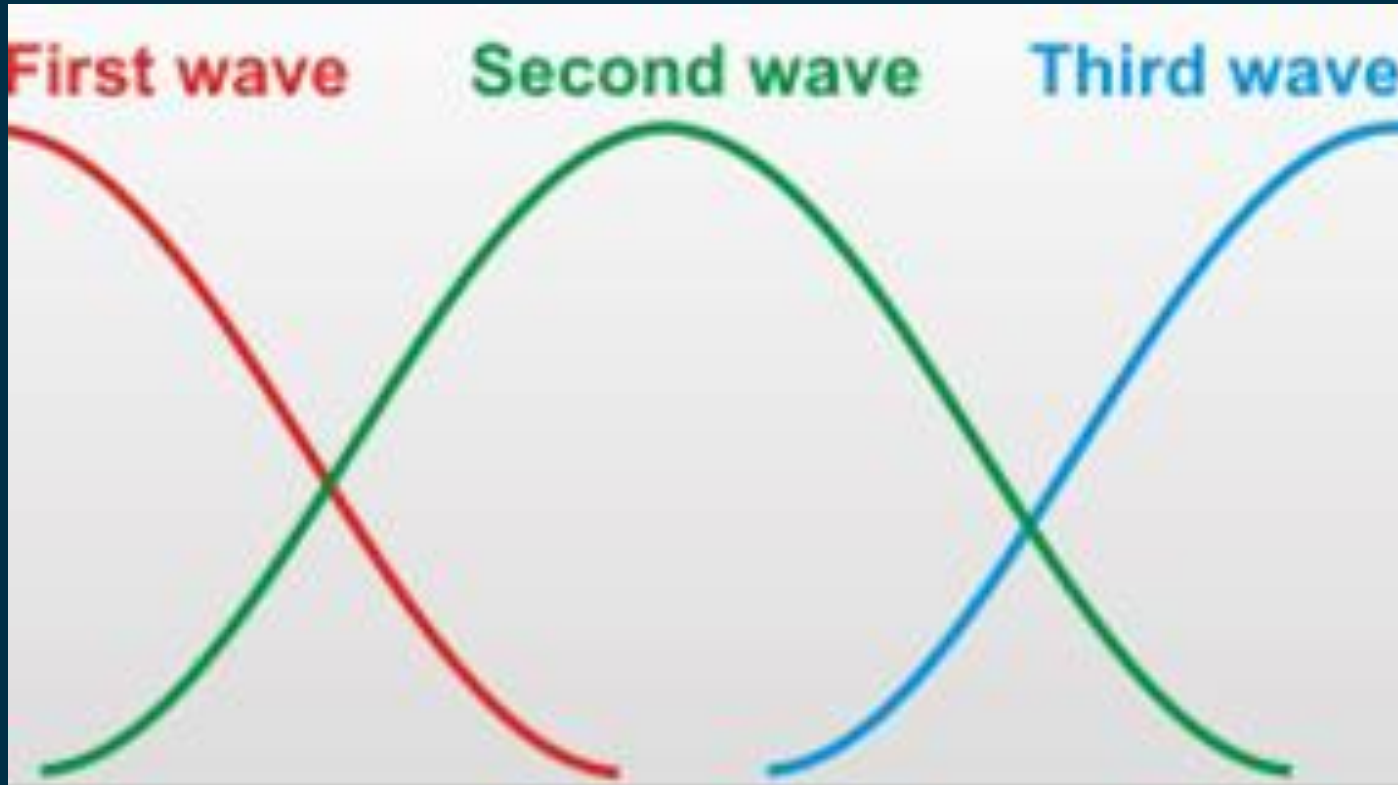
Why do micro-action not deliver the expected results at the aggregate/ macro-level?

2. 'structural' explanations

- There are **different dynamics** at work on the micro-level when compared to the macro-level
- What appears to be **'rational'** from an individual point of view is not necessarily **'rational'** from the perspective of the collectivity or group.

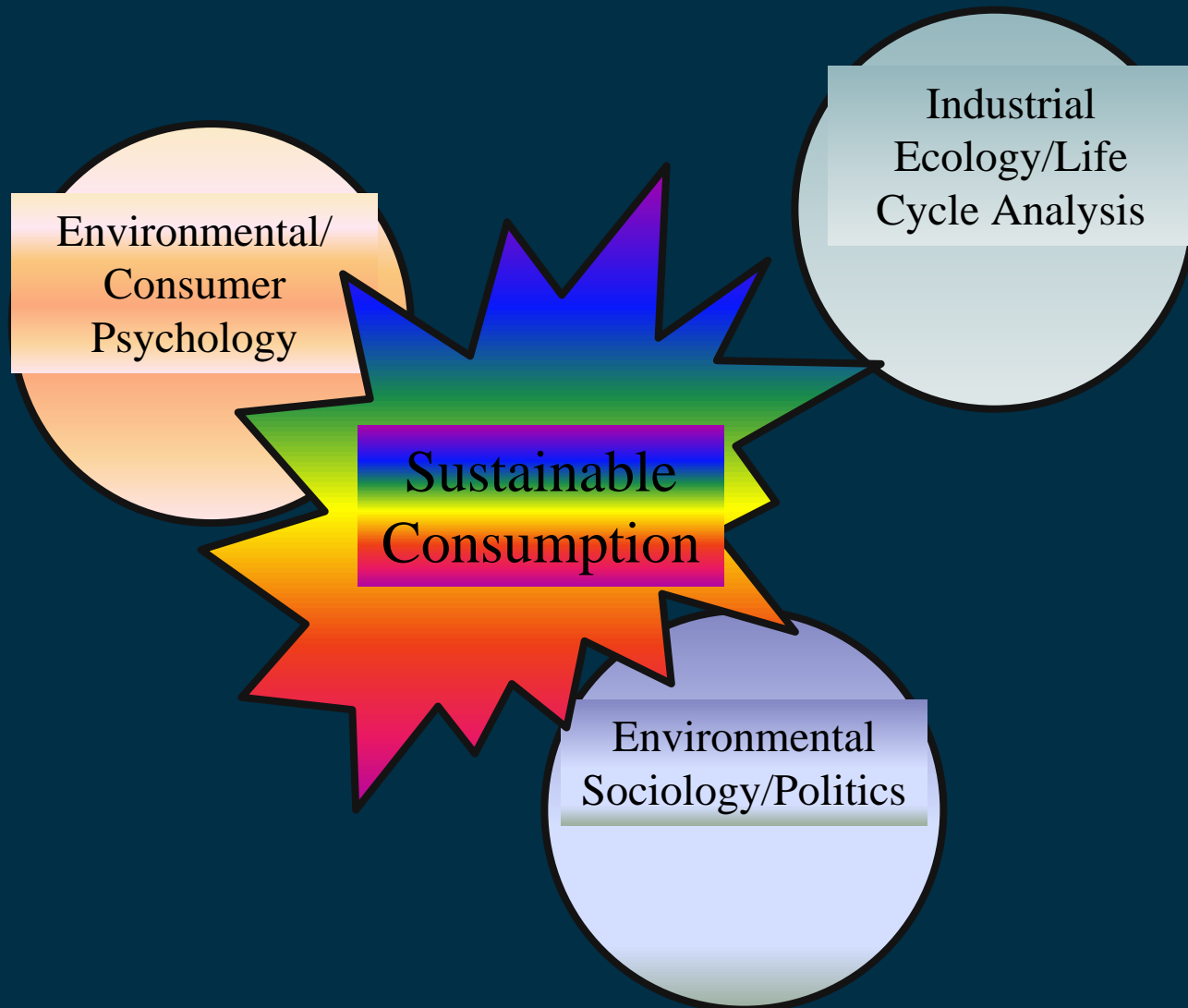
可持续消费研究的三大阶段（1995-）

Three Waves of Sustainable Consumption Research (1995–Present)



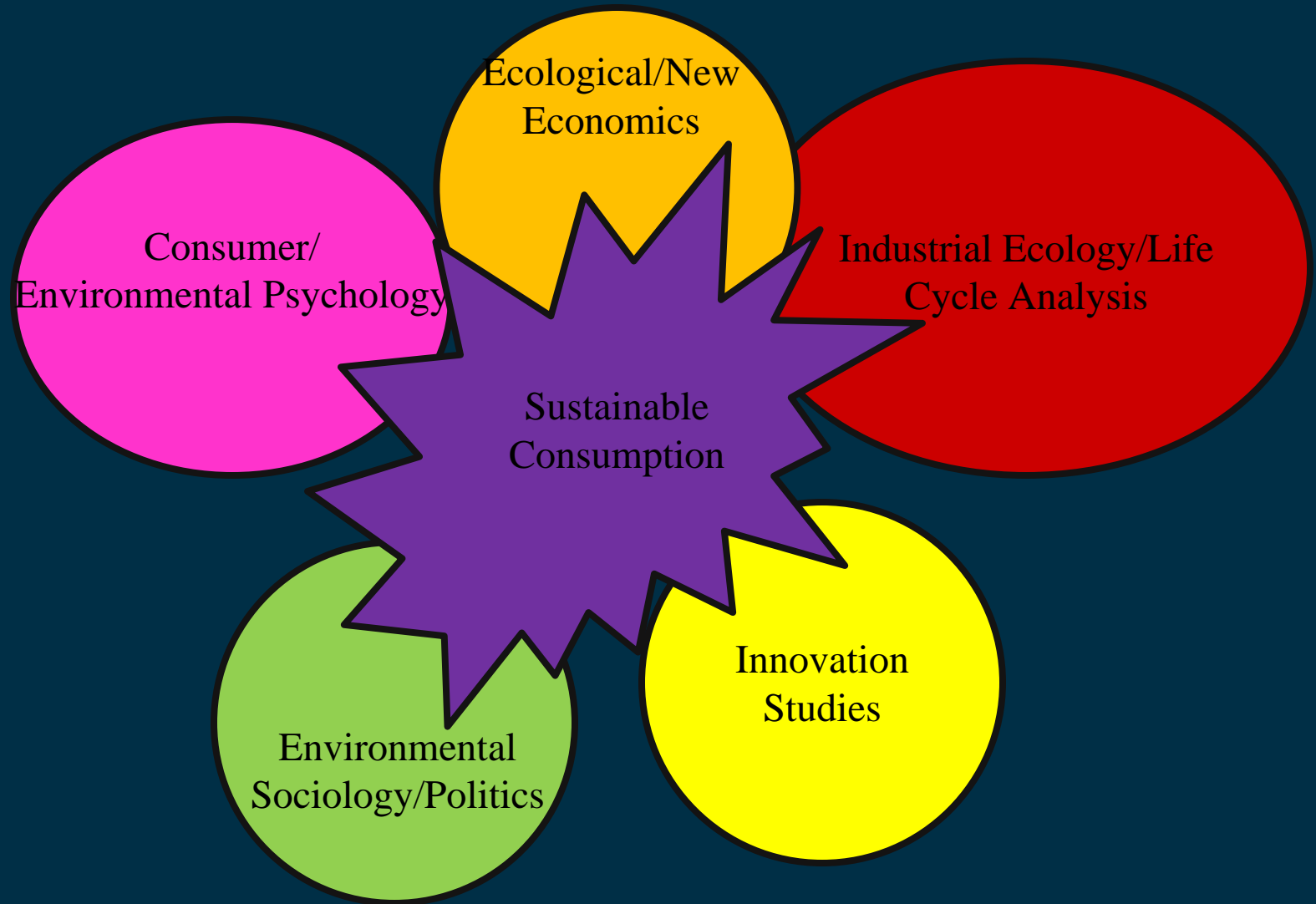
This part of review is based on presentation by M. Cohen on March 2, 2016 at Research Institute for Humanity and Nature (RIHN), Kyoto.

Sustainable Consumption Research (~1995–2008)

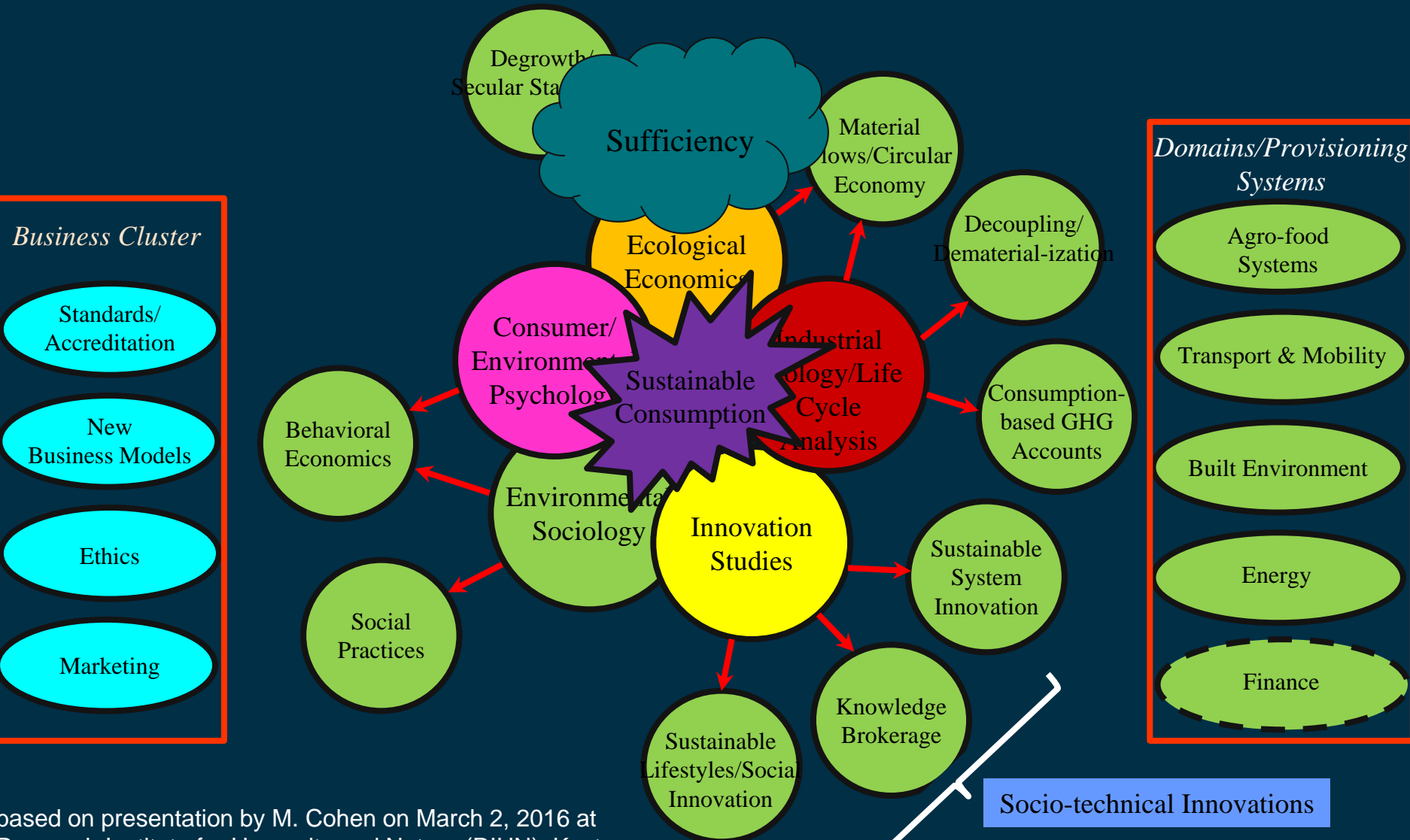


based on presentation by M. Cohen on March 2, 2016 at
Research Institute for Humanity and Nature (RIHN), Kyoto.

Sustainable Consumption Research (~2008–2015)



Sustainable Consumption (~2015–Present): Post-consumerism?

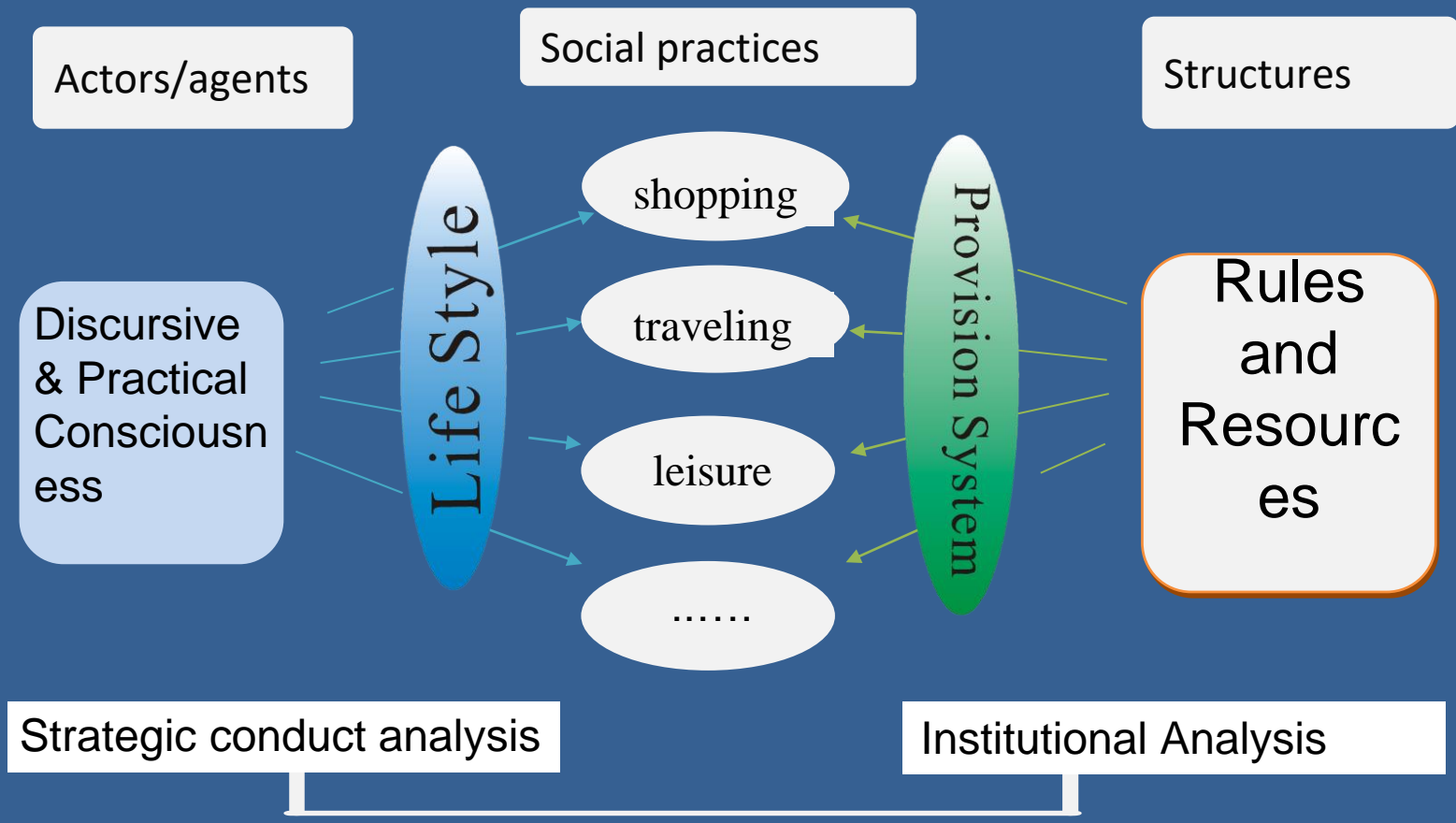


based on presentation by M. Cohen on March 2, 2016 at Research Institute for Humanity and Nature (RIHN), Kyoto.

Characteristics of Practices

(def.) Shared ways of 'doings and sayings'

- ❑ Highly routinized and taken for granted
- ❑ Performed by members/participants who possess knowledge and skills which are relevant to the practice
- ❑ 'Governed' by Teleo-Affective Structures (TAS)
- ❑ Material elements/components are (co) constitutive parts of practices
- ❑ Practices are situated in time-space



The Lifestyle-Social Practice model

(Spaargaren et al., 2010)



 **Practices and innovations
towards future**

Pictures from: Envisioning Low-Carbon Sustainable Lifestyles Project

under the Sustainable Lifestyles and Education programme of the UN-led One Planet Network.



one earth



One planet
handle with care



Pictures from project: Envisioning Future Low-Carbon Lifestyles and Transitioning Instruments Project “, implemented by IGES and One Earth under the Sustainable Lifestyles and Education programme of the UN-led One Planet Network.



Pictures from project “Envisioning Sustainable Lifestyles”

[The Lilypad by Vincent Callebaut](#)

Paris 2050



Pictures from project “Envisioning Sustainable Lifestyle”
<https://archello.com/project/2050-paris-smartcity>



Pictures from project “Envisioning Sustainable Lifestyle”



WORLDWIDE PEER TO PEER SUPPORT ON LOCAL CHALLENGES?



Pictures from project "Envisioning Sustainable Lifestyle"

SELF-PRODUCTION OF FOOD WITH TECHNOLOGICAL SUPPORT?



Pictures from project “Envisioning Sustainable Lifestyle”



**LOW-TECH AND HIGH-TECH COMPLEMENTARITY
FOR SUSTAINABLE AGRICULTURE?**

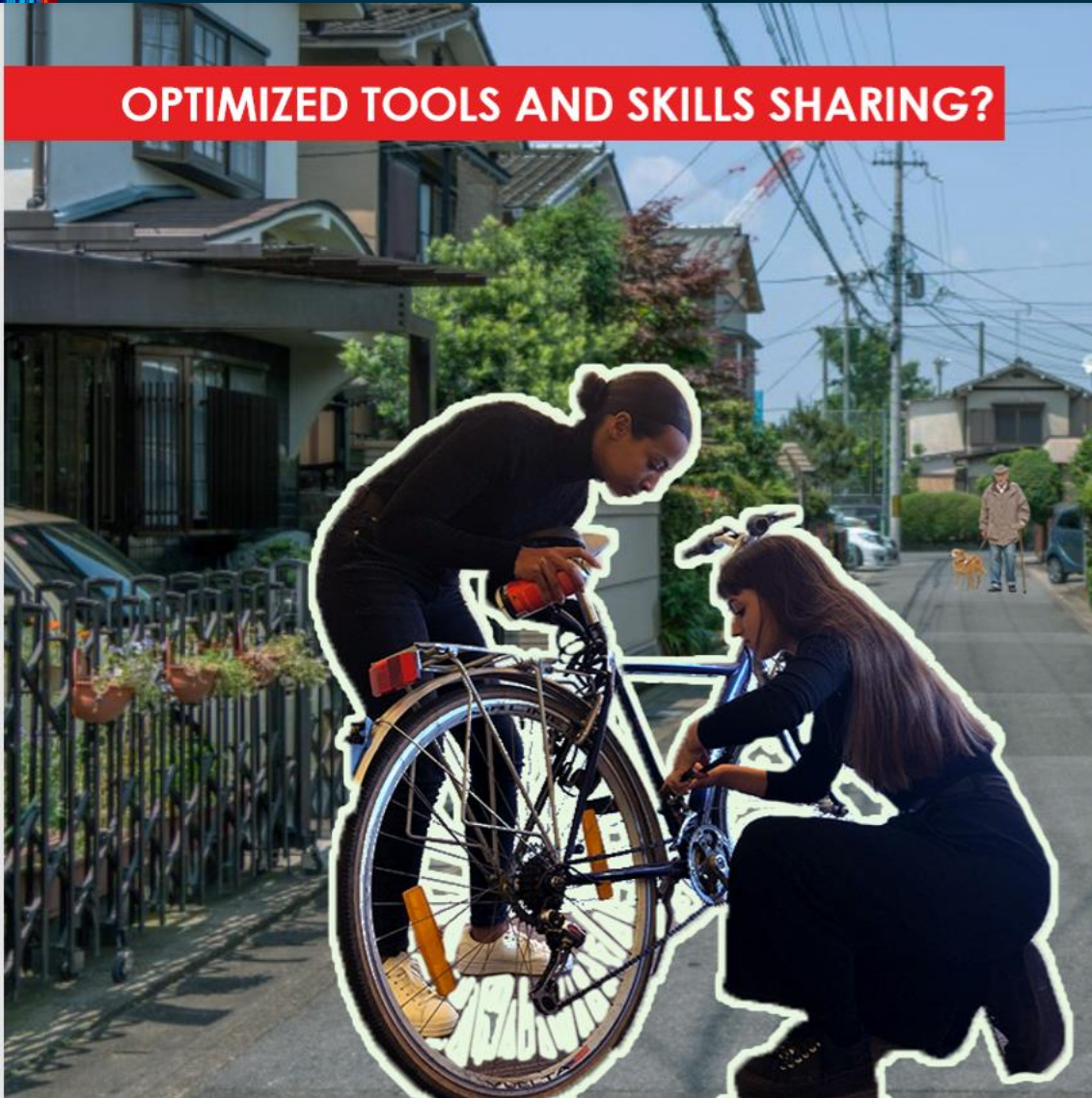


CITIZEN SCIENTISTS FOR MONITORING NATURE?



Pictures from project "Envisioning Sustainable Lifestyle"

OPTIMIZED TOOLS AND SKILLS SHARING?



Pictures from project “Envisioning Sustainable Lifestyle”



SDS

strategic design
interiors



This vehicle will be in circulation in
00:09:14

TOLERANCE TO
SLEEPING CARS

PARKINGLESS CITIES?



You don't own a car but you have thousands of them at your service.
Anywhere, anytime ...

Pictures from project "Envisioning Sustainable Lifestyle"

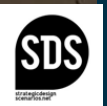
**EXPLORE THE WORLD,
PROTECTED NATURAL AREAS,
UNIQUE & SENSITIVES SITES
WITHOUT CAUSING ANY HARM.**



VIRTUAL TOURISM ?

Pictures from project “Envisioning Sustainable Lifestyle”

ALL PART-TIME EMPLOYEE, PART-TIME PRODUCERS?



Pictures from project "Envisioning Sustainable Lifestyle"

Nihuan and her green lifestyle



Ni Huan lives a low-carbon, environmentally friendly lifestyle. Ni installed the first CIGS solar cell home power plant in China's mainland on the balcony of her first-floor apartment in 2014. In 2016, Ni established Shanghai Green Eight-year Shanghai Green Eight-year Environmental Service Center, a nongovernmental organization (NGO), to promote the sustainable lifestyle in urban and rural communities. "I hope the low-carbon, environmentally friendly lifestyle will be adopted by more people," says Ni.

高知环保公益组织“绿色八年”的创始人倪欢，在自家阳台上搭建了中国大陆首个CIGS太阳能电池发电系统。她希望更多人在生活和工作中践行环保理念，能够节约能源、低碳生活，能环保、会生活。



"The next step was to receive permission to install the home power plant from the local residential committee and the property management company of our community. Under the support of the local government, it all went well. Then, the custom-made home power plant was installed on the balcony. It was the first CIGS (a semiconductor material composed of copper, indium, gallium, and selenium) solar cell home power plant in China's mainland," Ni continues.

"Every year, the money we receive from selling the surplus energy and the subsidies from the State Grid is more than 2,000 yuan (US \$308). We spent nearly 31,000 yuan (US \$4,769) on the construction of the home solar plant. The service life of the plant is nearly 25 years. We will earn its cost in less than eight years. Even though we have the home power plant, we still try our best to save the electricity. Now, our family is an energy-positive family," says Ni.

However, Ni's "magic weapon" for a sustainable lifestyle is more than the home power plant. She has established outdoor aquaponics, a system that combines aquaculture in one integrated system. The fishes' waste provides an organic food source for the plants, and the plants naturally filter the water for the fish. She uses kitchen garbage to make organic fertilizer. She puts the oil-free kitchen garbage, including peelings, bones and vegetables' leaves, in the buckets, and she adds some enzymes to the garbage. She can get high-concentration fertilizer after six to eight weeks. The fertilizer can be applied to the vegetables that

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Alibaba Group
Ant Forest program:
3 years, 500 million
participants contributed
to the planting of 100
million trees.





NEOBox is a green packaging solution supplier for logistics. In this APP, consumers can choose this green packaging solution.



Group Work:

Sustainable life stories – group exercise creating sustainable living timeline with a created persona from the future。



ENVISIONING SUSTAINABLE LIFESTYLES

WORKSHOP SUMMARY
KIYOSUMI GARDENS, TOKYO, 4 – 5 JULY 2018



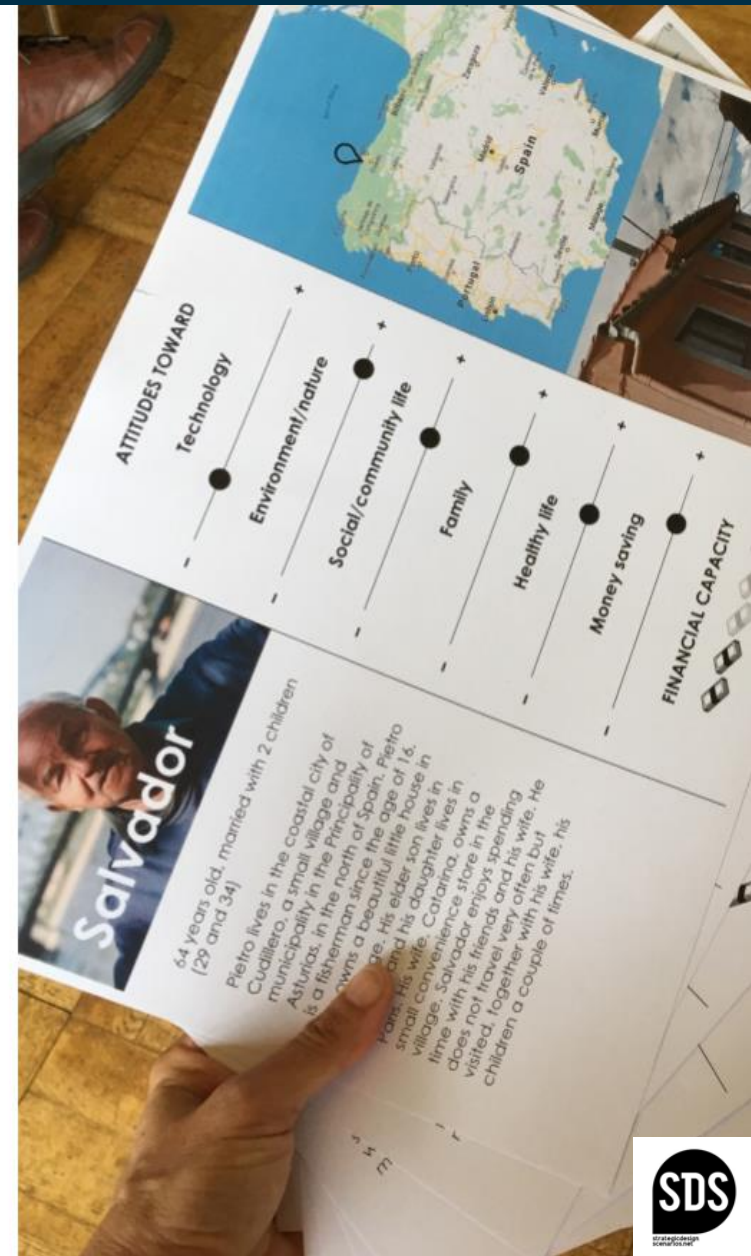
Co-developed by



Combining snapshots into sustainable life stories

Why building stories?

In order to understand what living sustainably really means and implies on a daily life basis, we need to incorporate sustainable practices into actual life stories. What does it mean to move sustainably, eat sustainably, enjoy life sustainably? If we have that conversation at a generic level, it does not make much sense. We know that biking is more sustainable than driving your own car, or taking the public transportation than driving your own vehicle but what does it mean to move sustainably when you need to go shopping, when you need to rush in the morning to take your kids to school then go to work. What does it mean moving sustainably when you go holiday with your family? Sustainability topics should always, to be meaningful, be incorporated into people's actual life. To go beyond what it means to eat sustainably at an abstract level, you need to take in account people's lifestyles and life context. If we want to talk about eating practices, we need to get into Selam's life, then Jorge's life, then Abdul's life... to describe what it means to shift to sustainable eating habits for them, in their life, within their context, sets of values, with the eating options and choices they have, etc.



A top-down view of a wooden table covered with various items: numerous small photographs, several bright yellow sticky notes, and several pens. Several pairs of hands are visible, actively moving and organizing the items. One hand is pointing at a sticky note, another is holding a pen over a sticky note. The background is a dark blue gradient. On the left side, there is a vertical blue and red wavy graphic element.

BUILDING SUSTAINABLE SNAPSHOTS



**COMBINING SNAPSHOTS
INTO SUSTAINABLE
LIFE STORIES**

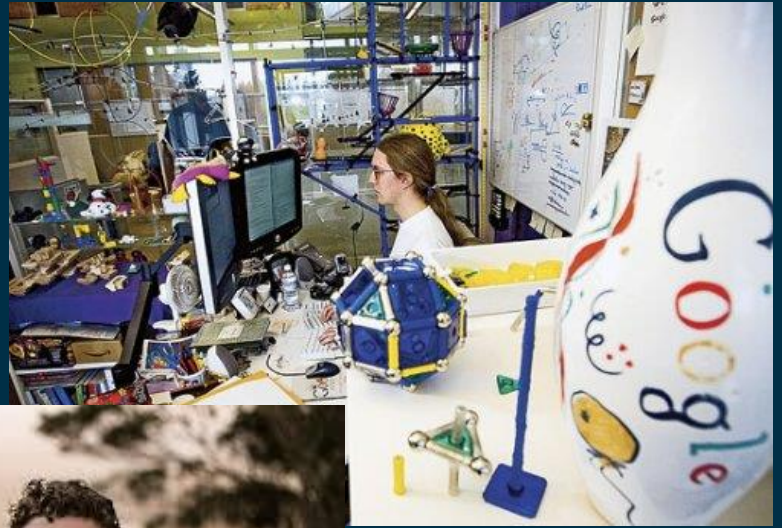
A GLIMPSE INTO ANNE'S LIFE



"Anne lives in Shanghai, China, as a neuro-surgeon, she's 32. And she used to be a man named Antonio. Her parents lives in the countryside. She has a busy lifestyle, loves shopping, also enjoys fitness and is in love with nature. Finally, she is quite keen on the idea of traveling. Anne works both from home (reducing her commuting) and at the hospital. She only goes to the hospital when she actually needs to operate. Anne does most of her shopping online to avoid taking transport and wasting

time. At the age of 38, and with the money and time she saved, she started to become interested in sustainable food. She buys sustainable ingredients and invests time cooking healthy meals. When she turned 40, **she joined an online community to share knowledge and practices on sustainable food** as well as on planting seeds, etc. Professionally, **she also uses online platforms to connect and train peer surgeons through online learning classes**. A couple of years later she

became **active at the local level by getting involved in the city sustainable food festival**. When she turned 47, she lost her dad. He was incinerated and buried in **a sustainable cemetery which basically looks like a flower field, with land art pieces and sculptures** made by people themselves for commemoration of their losses. The cemetery also hosts a veggie garden which brings life and activity into that special place."





This presentation is mainly based on our cooperations, discussions and exchanges online and offline within the network of SCORAI/SCORAI China.

本报告内容主要基于“全球可持续消费研究和行动倡议”/SCORAI网络以及SCORAI CHINA 中的合作研究、线上线下讨论交流的总结。

可持续消费研究和行动倡议

<http://www.scorai.org>

— S C  R A I —

Sustainable Consumption Research and Action Initiative

Mission statement: *The Sustainable Consumption Research and Action Initiative (SCORAI) is an international knowledge network of professionals working at the interface of material consumption, human well-being, and technological and cultural change.*

SCORAI CHINA Working Group :

@ Dr Ning Wang, Professor,

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@ Dr. Dunfu Zhang, Professor, School of Sociology and Political Science, Shanghai University, Shanghai

@ Dr. Lei Zhang, Associate professor, School of Environment and Natural Resources, Renmin University of China, Beijing

@ Dr. Wenling Liu, Associate professor, School of Management and Economics, Beijing Institute of Technology, Beijing



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KNOWLEDGE-ACTION NETWORKS 

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TRANSLATE

Publications

[go back to SSCP KAN's homepage](#)

Publications

Transforming systems of consumption and production for achieving the sustainable development goals: moving beyond efficiency (*Sustainability Science*)

Why achieving the Paris Agreement requires reduced overall consumption and production (*Sustainability: Science, Practice and Policy*)

Circular economy and power relations in global value chains: Tensions and trade-offs for lower income countries (*Resources, Conservation and Recycling*)

Coordinating Group

Working Groups

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Journal Alliance

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Events



Knowledge-Action Networks

Future Earth's Knowledge-Action Networks, alongside our projects, are the prime mechanism for delivering our research strategy. They are the essential links to our [key focal challenges](#).

Knowledge-Action Networks are collaborative frameworks that facilitate highly integrative sustainability research. Their aim is to generate the multifaceted knowledge needed to inform solutions for complex societal issues.

How to get involved in Knowledge-Action Networks

Knowledge-Action Networks build on the broad range and diversity of specialist expertise represented in the large community of researchers and practitioners associated with Future Earth, e.g. in [Research Projects](#), [Fast-Tack Initiatives and Clusters](#), and endorsed and associated organisations, projects, and individuals that are part of the Future Earth Open Network.

The objectives of the Knowledge-Action Networks are to:

- **identify and respond to society's needs** for scientific knowledge to successfully undertake the transformation to sustainability
- **generate integrated knowledge** that is relevant to decision-makers

[Global Research Projects](#)[Knowledge-Action Networks](#)[Water-Energy-Food Nexus](#)[Transformations](#)[Natural Assets](#)[Sustainable Development Goals](#)[Urban](#)[Health](#)[Finance & Economics](#)[Ocean](#)[Systems of Sustainable Consumption and Production](#)[Research Initiatives](#)[Early Career Professionals](#)

未来地球, 知识行动网络 – 可持续消费和生产系统



SSCP

Systems of Sustainable Consumption & Production

Future Earth
Knowledge
Action
Network 

Regional Center for Future Earth in Asia
sscp_kan@futureearth.org

Future Earth was announced in June 2012 at the UN Conference on Sustainable Development (Rio+20). In 2014, a consortium based in five countries successfully bid to create Future Earth. In April 2015, the interim secretariat completed the handover to the permanent secretariat. Future Earth became fully operational at the end of 2015. Future Earth builds on more than three decades of global environmental change research through the World Climate Research Programme (WCRP), the International Geosphere-Biosphere Programme (IGBP), DIVERSITAS and the International Human Dimensions Programme on Global Environmental Change (IHDP).

We are sponsored by the Science and Technology Alliance for Global Sustainability, comprising the International Council for Science (ICSU), the International Social Science Council (ISSC), the Belmont Forum of funding agencies, the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the United Nations Environment Programme (UNEP), the United Nations University (UNU) and the World Meteorological Organization (WMO). See Governing Council for more information.

The background features a complex, abstract pattern of wavy, concentric lines. The colors transition from a deep, dark blue on the left to a bright, fiery red and orange on the right, creating a sense of depth and movement. The lines are dense and layered, resembling a topographical map or a cross-section of a celestial body.

Thanks !