



绿色经济与经济动力

Green Economy and Economic Motivation

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I. 从层出不穷的“经济”新概念到实践中的战略与措施的整合

From the booming of new concepts of economy related to the environment to the integration of strategies and measures in practice



– 循环经济 (20世纪末)

circular economy (the end of 20 century)

– 低碳经济 (2003年, 英国)

low carbon economy (2003,UK)

– 绿色经济 (1989, **David Pearce**; 2009, 绿色新政)

Green economy (1989, David Pearce; 2009 Green New Deal, UNEP)

– ***经济??

*** economy??

概念混乱, 实践盲目!!

Confusion in the understandings and the practice !!



准确理解决定正确行动！！

Right understanding determines right action !!

- 问题的起点—资源环境问题

Starting point of thinking--resource shortage and environmental problems oriented

- 认识过程—环境与经济的关系

Understanding process—relationship of environment and economy



- 斯德哥尔摩—里约—约翰内斯堡
Stockholm—Rio—Johannesburg

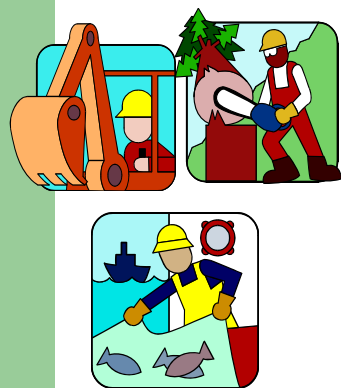
- 罗马俱乐部的世界问题复合体—金融危机下的多重危机
A complex of world issues (Rome Club)—Multiple crises in the context of financial crisis)



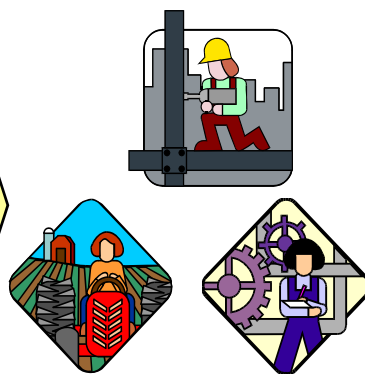
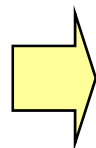


从资源、产品和服务的角度看经济

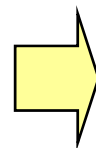
Perspectives of Material goods and services



Resources
资源



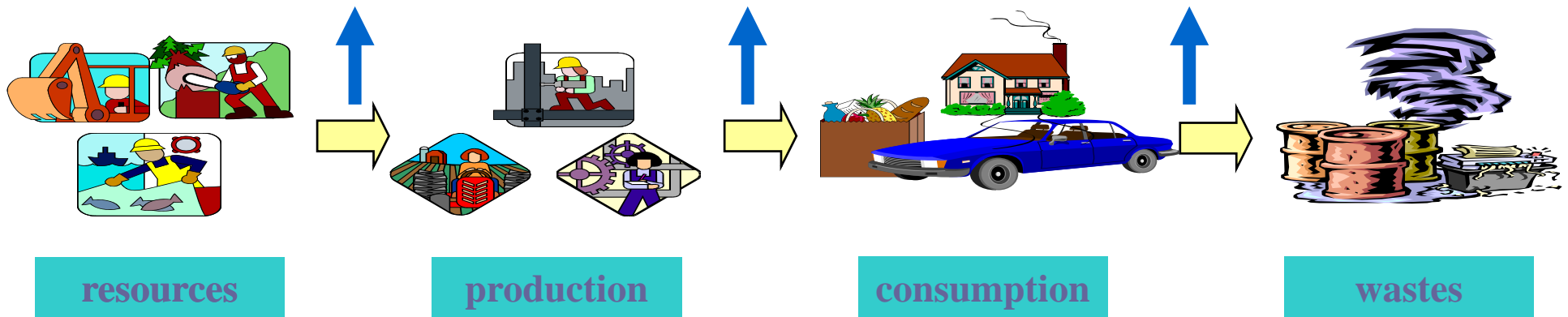
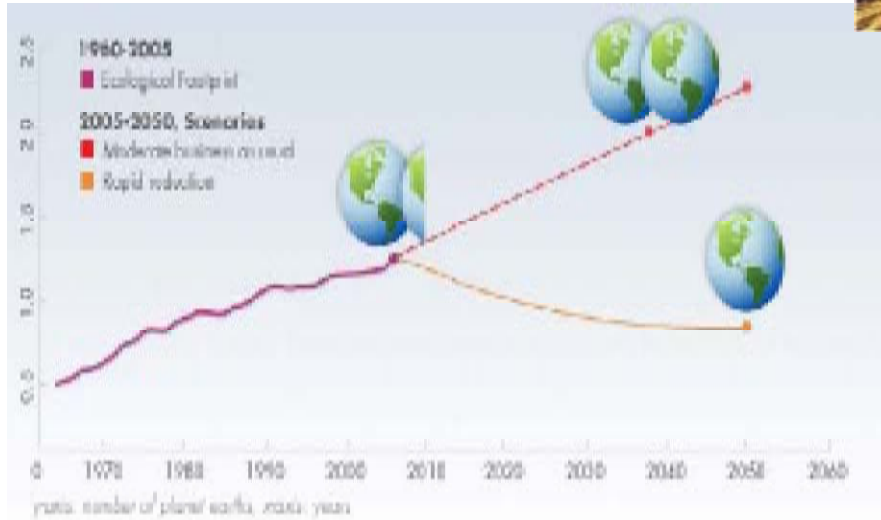
Production
生产



Consumption
消费

从资源环境结果看经济：黑色或棕色经济

Black or Brown economy?



绿化经济是一直以来的期望和实践 Greening our economy for sustainability

- 戴维皮尔斯，绿色经济蓝图，1989

David Pearce, *Blueprint of Green Economy*, 1989

- 莱斯特布朗，发动一场环境革命—深绿色的革命，1992

Lester Brown, *Launching a Environmental Revolution, 1992—Deep Green Revolution*

- 在可持续发展框架下一直在积极实践：污染防治、清洁生产、可持续生产与消费模式、循环经济（社会）、新能源开发、新型产业（环保产业）……

Relevant practices and initiatives have been going on.



应对金融危机和后金融危机的历史性机遇

**Responding to financial crisis and post-financial crisis:
*providing Historic opportunity to substantially and systematically
green our economy***

- 反映出一个共同的根源是大量资本的错误配置：财产、化石能源、结构化的金融资产及其衍生产品

the gross misallocation of capital: much capital has been poured into property, fossil fuels, and structured financial assets with embedded derivatives.

- 旧的体系无法再持续，因此具备了全面创新的意愿

The old system no longer works and there is consequently a willingness to listen to new solutions

- 调整经济结构成为刺激计划的重要组成部分

Restructure economy in the stimulus package for economy

- 国际社会发出倡议并得到了各国的政治承诺

international initiatives and political commitments



GREEN is the new global BIG deal

GREEN ECONOMY INITIATIVE

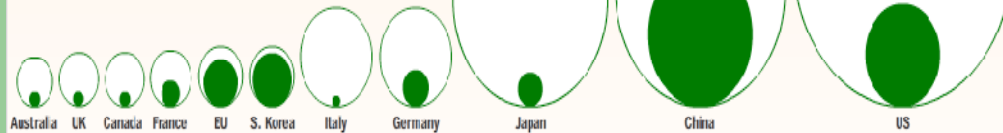
Which country has the greenest bail-out?

By volume

By percentage



Total fiscal stimulus
Green stimulus



Germany



Amount spent on fiscal stimulus: **\$104.8bn**

Amount spent on green measures: **\$13.8bn**

Germany is an established leader in the drive towards creating a low carbon economy. Its two fiscal stimulus packages, with a combined value of €80bn, give energy efficiency a particular boost.

The packages, announced in November 2008 and January 2009, provide €3bn in subsidies for household repairs to increase efficiency and €500m in loans to promote the development of low-carbon engines.

The stimulus deals are not strong on renewable energy, but this is partly because Germany's solar and wind installations are already well developed.

Like Italy and France, Germany will award consumers a "scrappage" bonus to encourage them to replace vehicles that are over nine years old and likely to be less fuel-efficient. €2bn will be invested in public transport.





- 在绿色新政中，政府的“绿色领导力”是基本要义，“绿色经济”是基本目标，“绿色投资”是基本方法，“绿色政策改革”是基本保障。

In Global Green New Deal, “green leadership of government” as a fundamental requirement, “greening economy” as a general goal, “green investment” as a substantial approach, and “green reform of policies” as a basic guarantee.



建议向7个部门进行绿色投资3万亿美元：高效建筑、可持续能源、可持续交通、淡水资源、生态基础设施、可持续农业、以及诸如废弃物循环利用等领域

- 潜力巨大：经济的、社会的、环境的

- 建筑领域普遍占总能源消耗、温室气体排放和废物产生量的30-40%，采用现有的好技术，可以降低80%的能耗。
- 全球建筑行业年营业额3万亿美元，转向高效建筑可以创造1.11亿就业

3 trillion US\$ green investment to 7 sectors: energy efficient building, sustainable energy, sustainable transportation, sustainable agriculture, fresh water resources, ecological infrastructure, waste recycling.

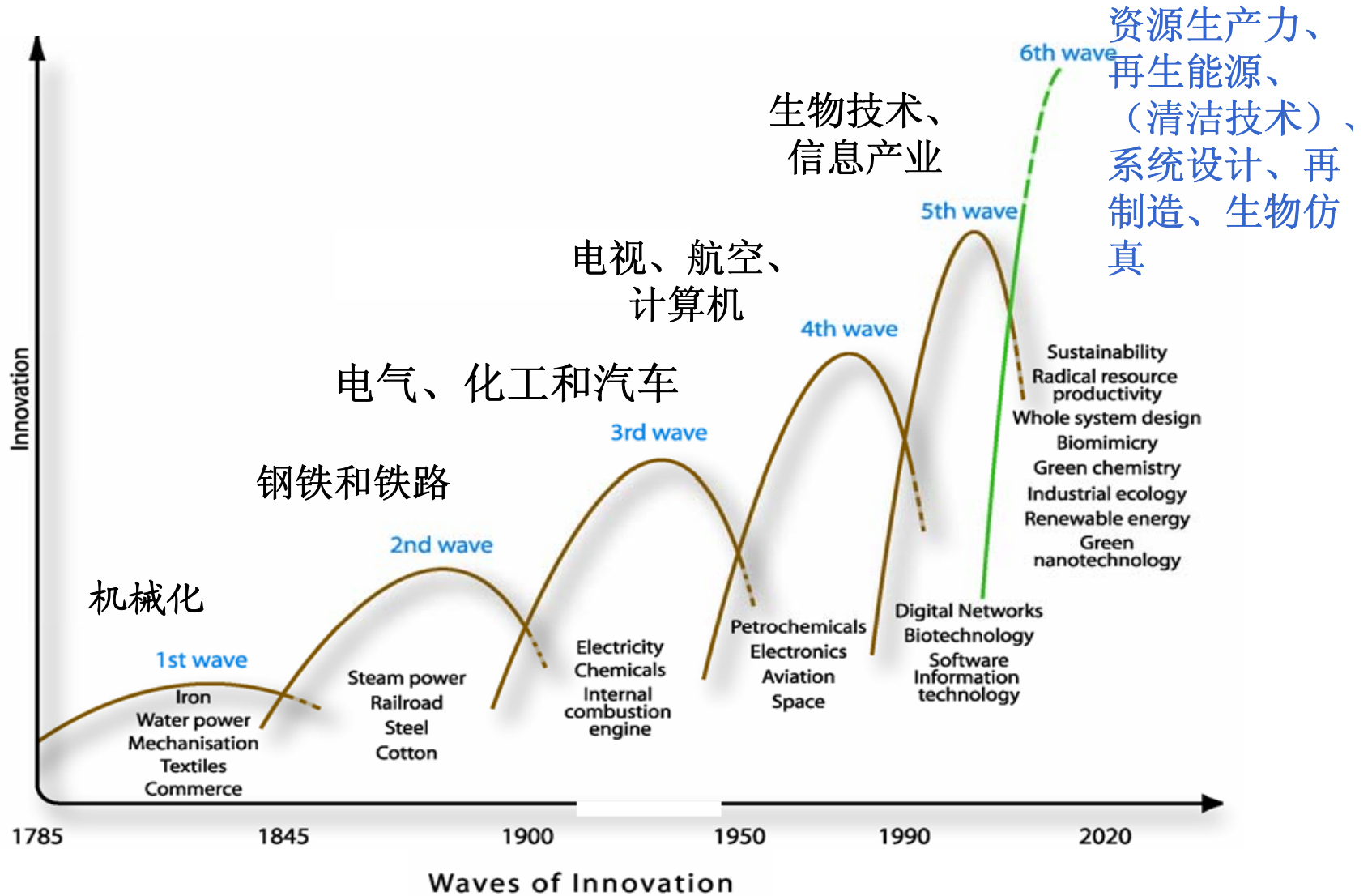
- Huge potential in dimensions of economic, social and environmental

- Energy consumption, GHG emission and solid wastes in buildings sector take up 30-40% of the totals respectively.
- 80% of the total energy used for the buildings could be saved if fully application of available good technology
- Annual turnover in the buildings sector reaches to 3 trillion US\$, and 111 million jobs could be created if moving to the energy efficient buildings



技术和产业革命的路径

(after Charlie Hargroves, Brisbane, Australia)

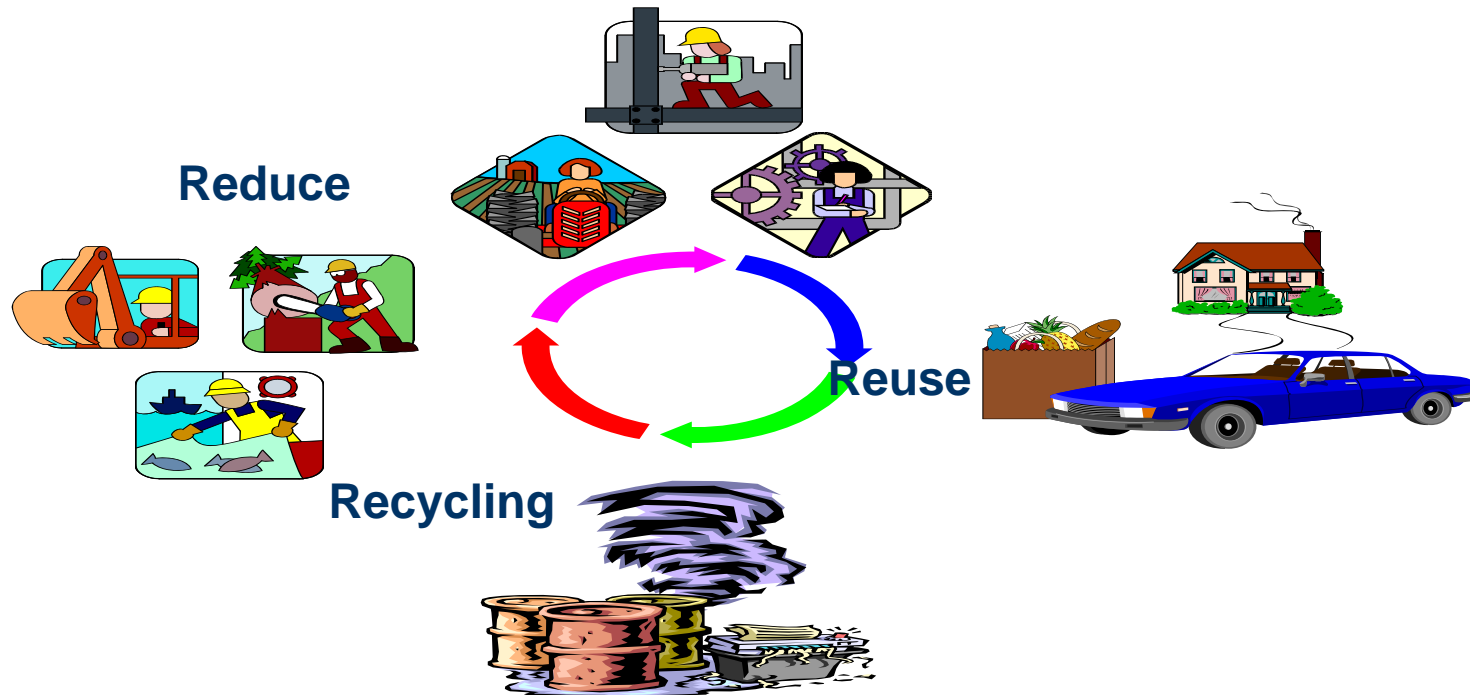
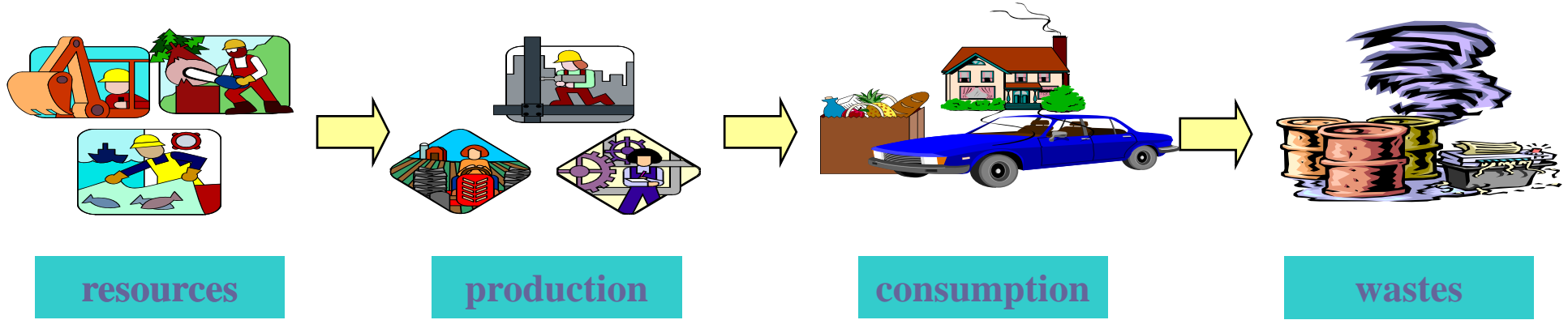


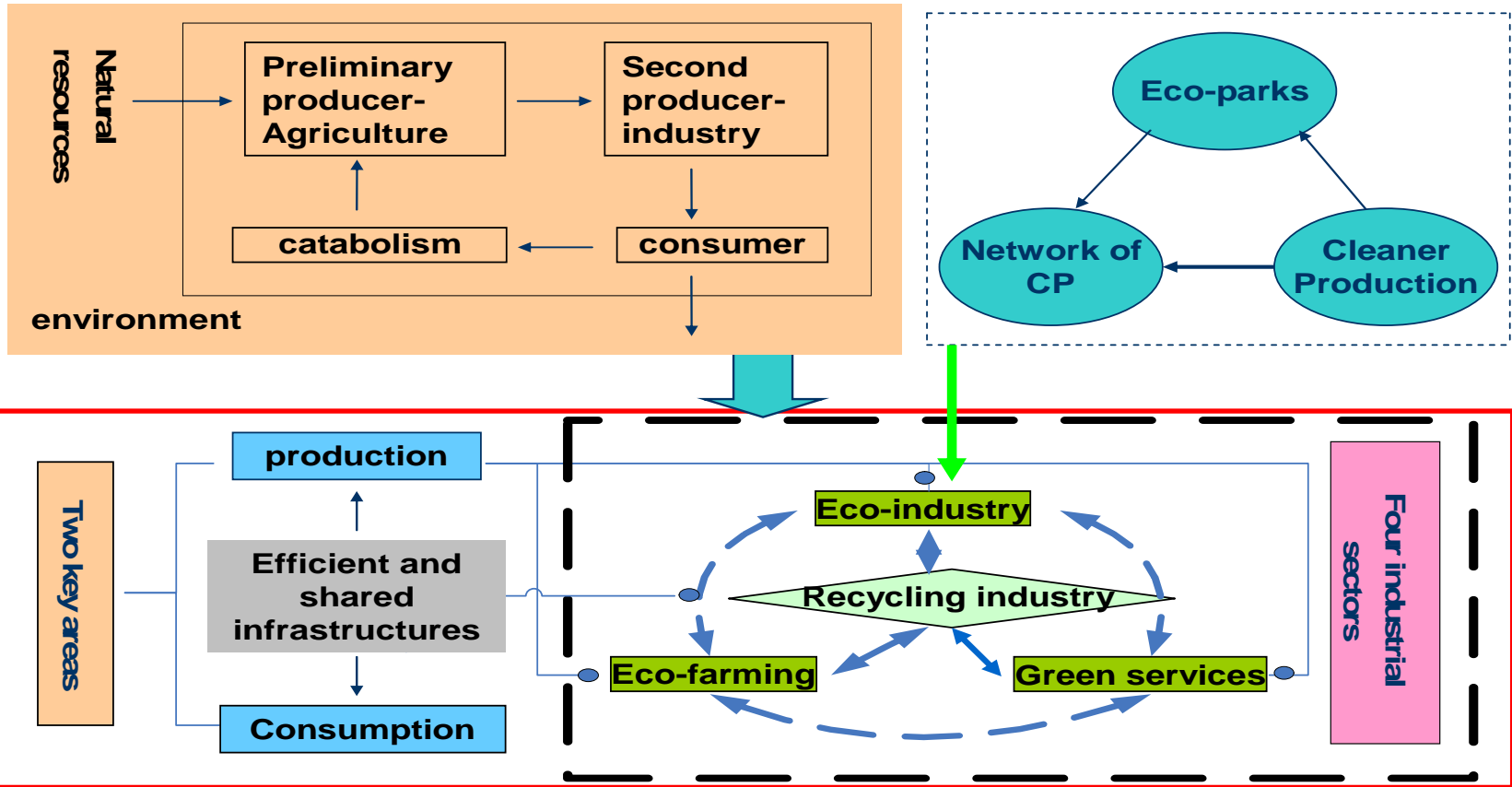


- 绿色投资不只是金融危机下的刺激经济和创造就业的问题，更重要的是后金融危机时期经济社会的可持续发展问题，国际竞争的制高点问题，不能重蹈覆辙！
- Green investment and spending is needed to restore growth and jobs in the crisis, and moreover, it is a critical issue determining the sustainability of post-crisis socio-economy and the issue of core power of world competition. Otherwise, the history would replay the same bad story.



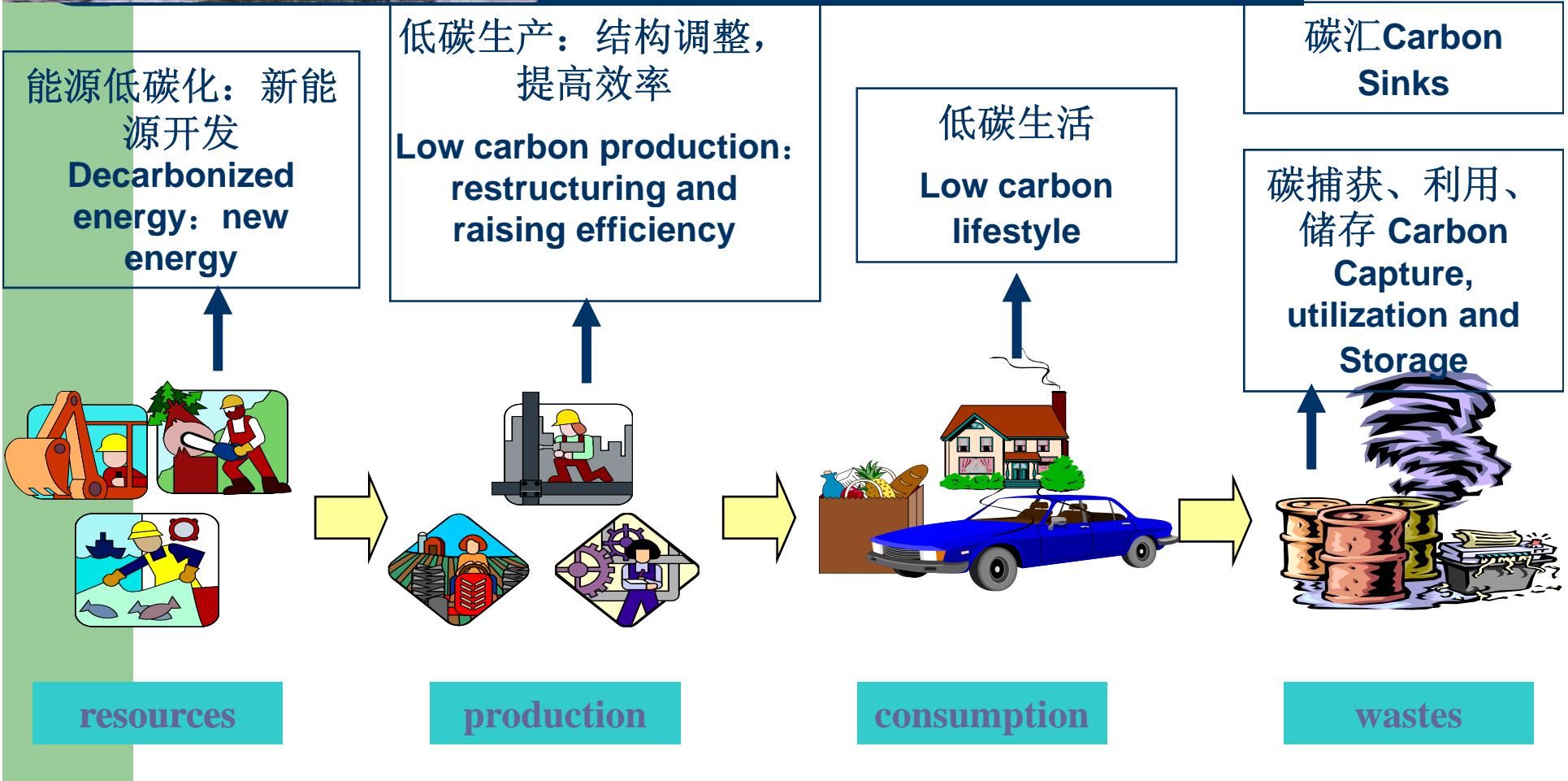
循环经济 Circular Economy



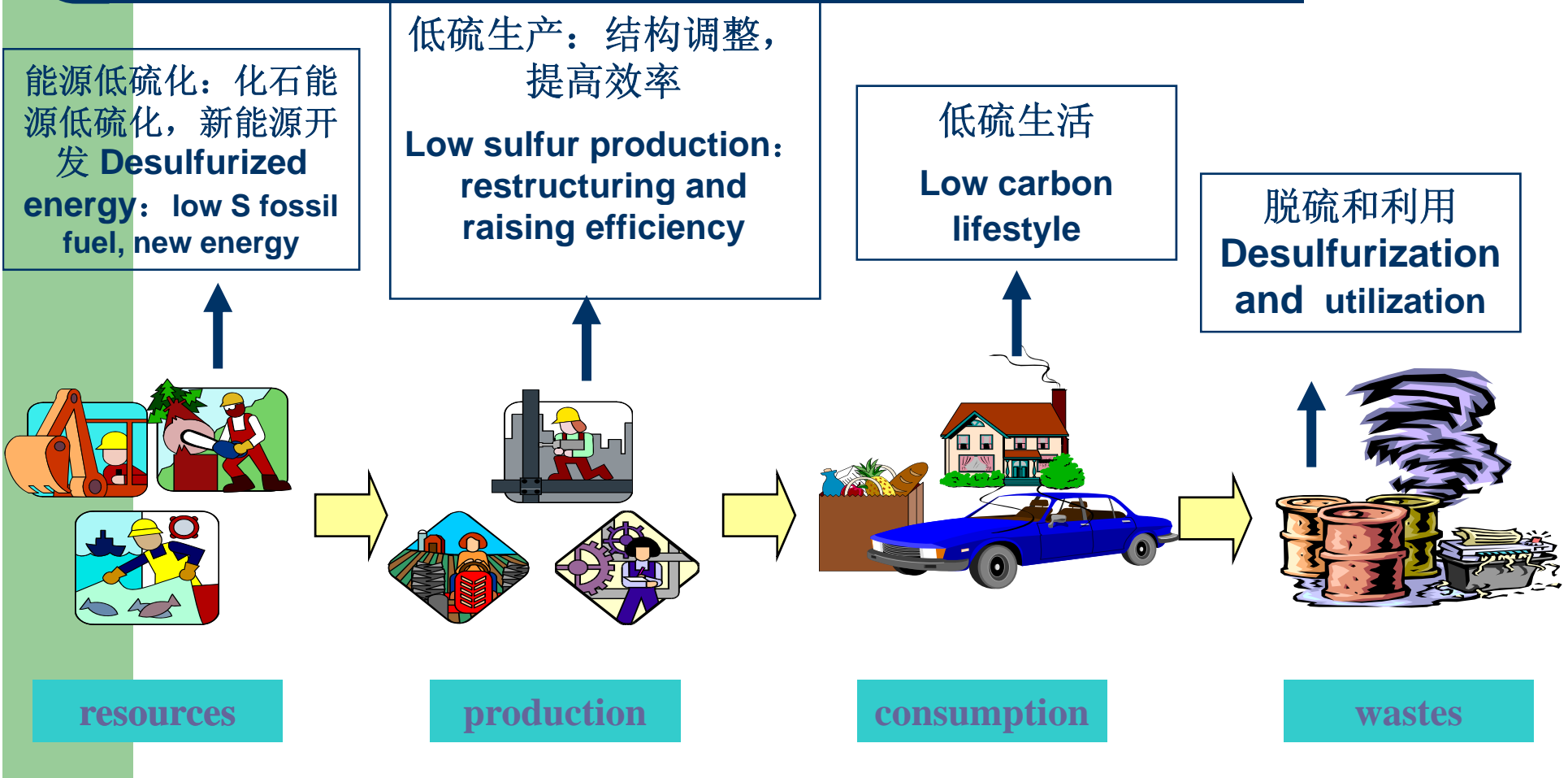




低碳经济 Low carbon economy



“低硫经济”？ “Low sulfur economy”？

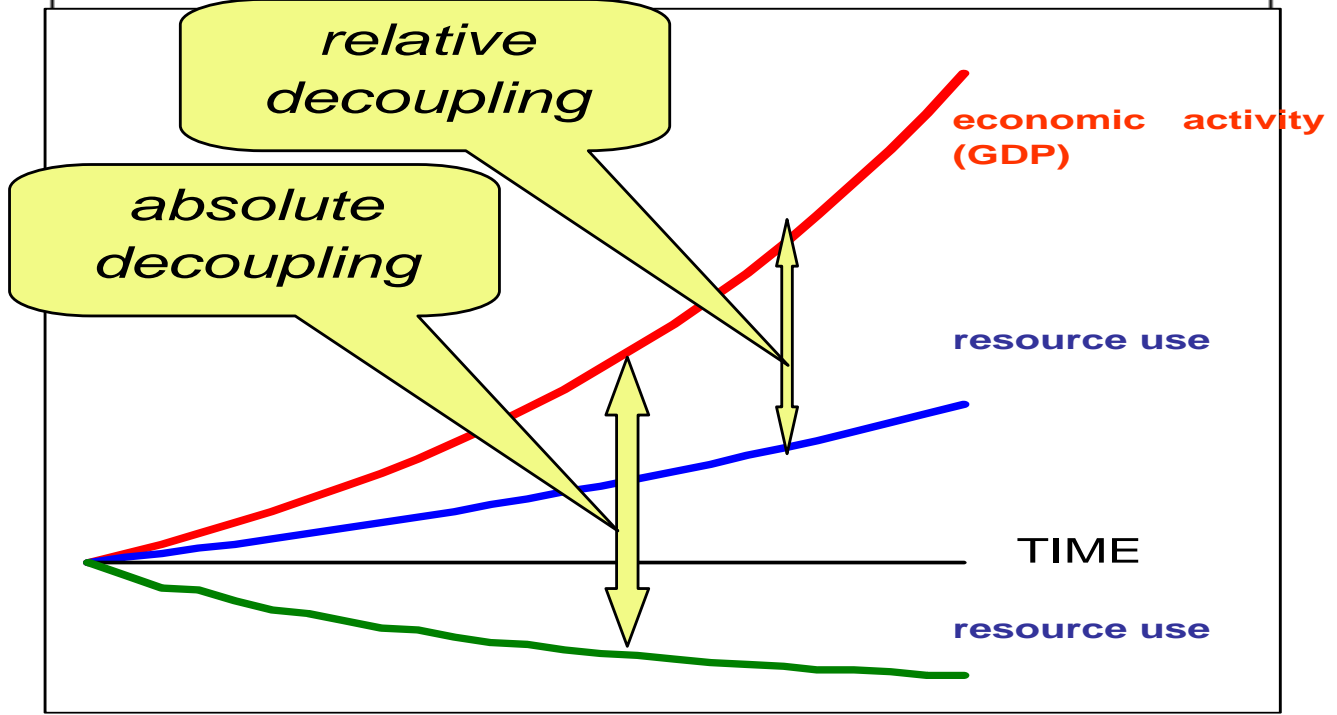
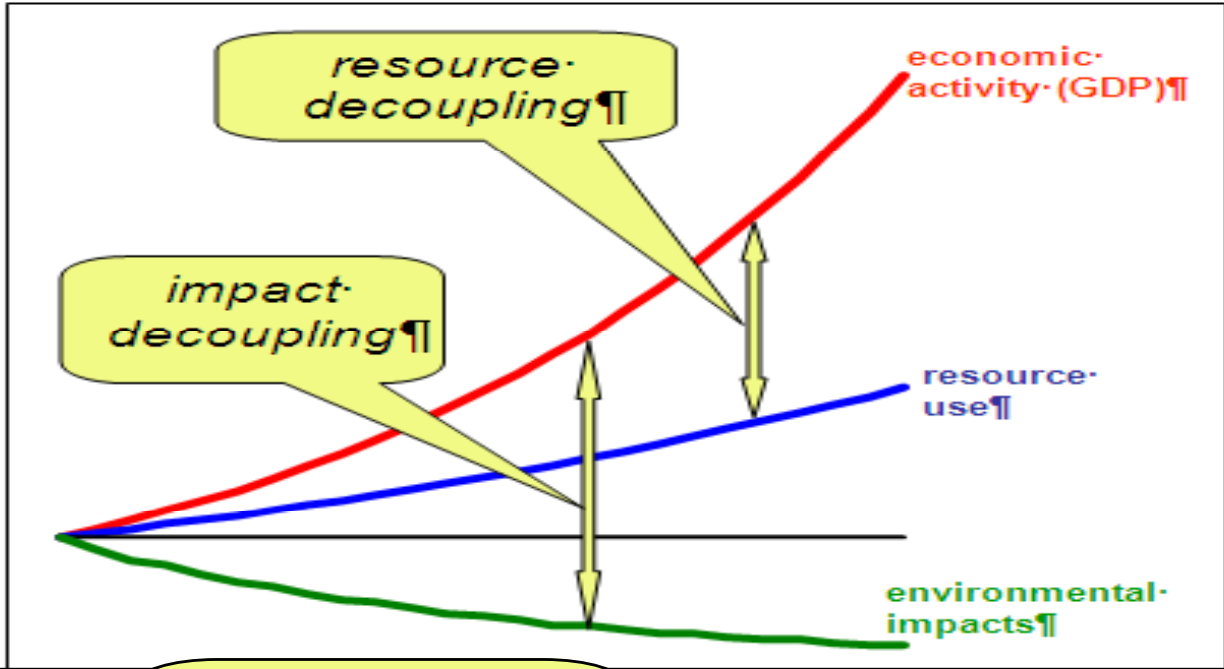


- 就实体经济而言，再生产的过程和形式没有变化，变化的是人们从可持续发展的角度对经济活动的资源环境特征不断提出新的要求

From material perspectives, the whole process of economic activities has never changed, however it has been changing in our requirements to resource-and-environmental features of economic activities.

- 资源节约、环境友好型是对改变传统经济发展方式的总体期望和目标

The general expectation and goal of the changing requirement are resource-saving and environmental-friendly



- 绿色投资是从应对金融危机下的经济复苏和创造就业、以及后金融危机的可持续性角度提出来的。

Green investment is proposed for restoring growth and employment in the financial crisis and for maintaining the economic sustainability of post-crisis

- 循环经济是从资源利用的方式对改变传统经济发展方式提出的新要求

Circular economy has its presence in responding to the linear way of resource utilization

- 低碳经济是以降低碳排放为初衷对改变传统经济模式提出的新要求

Low carbon economy is getting into fashion in responding to climate change

- **这些概念与实践不是无源之水、无本之本，其意义在于概念的发展和实践的集成**

Those concepts and practices are nothing totally new, but with consolidated basis, which necessarily guide us to integrating the ideas , strategies and actions

- **建议，用绿色经济的概念统筹那些所有有利于节约资源、保护环境和可持续发展的新的经济模式和做法，包括：**

Therefore, “green economy” could be used as the term and integration of those new models and initiatives of economic activities good for resources-saving, environmental-friendly and sustainable development

- **循环经济 circular economy**
- **低碳经济 low carbon economy**
- **绿色产业/投资 green sectors/investment**
- **.....**

- 在这些模式之间，技术路线和区域层面的发展战略可能不同，但核心做法和衡量标准是相通的：

Among those models, technical methodologies and strategies at regional levels may be different, yet the fundamental measures and measuring indicators are generally same

- 资源能源节约、污染减排 resources/energy-saving, pollution abatement
- 结构调整：能源结构、经济结构 Restructuring energy and economy
- 技术进步：新能源技术、清洁煤技术；新产业技术、生产技术；废物处理处置与利用技术

Technology improvement: new energy tech., cleaning coal tech.; new industry tech., production tech.; treatment and utilization tech. for waste and emissions

- 绿色制度与政策创新

Green institutional arrangement and policies

- 资源环境效率和生产力 efficiency and productivity of resources and environment

- 某些环节也会有冲突，但不会影响总体效益最大化

Some conflicts may happen in certain areas, which could be balanced in the principle of maximization of system benefits



II. 经济动力与经济政策

Economic motivation/instruments



如何推动? How to promote?

调整结构、创新技术、节能减排.....

restructuring, tech. innovation, energy/resource-saving and
pollution abatement

- 政府、企业、公众
government, business, public
- 市场机制—比较利益机制
Market mechanism —mechanism for comparative benefits



市场机制—比较利益机制

Market mechanism --mechanism for comparative benefits

- 加大发展传统经济模式的成本

Increase the costs for traditional economic models

- 将环境成本和资源耗竭成本纳入经济活动的核算体系之中，变成产品和服务价格或成本的组成部分

Internalize environmental costs and resource-exhausted costs into accounting system of economic activities

- 降低发展绿色经济的成本

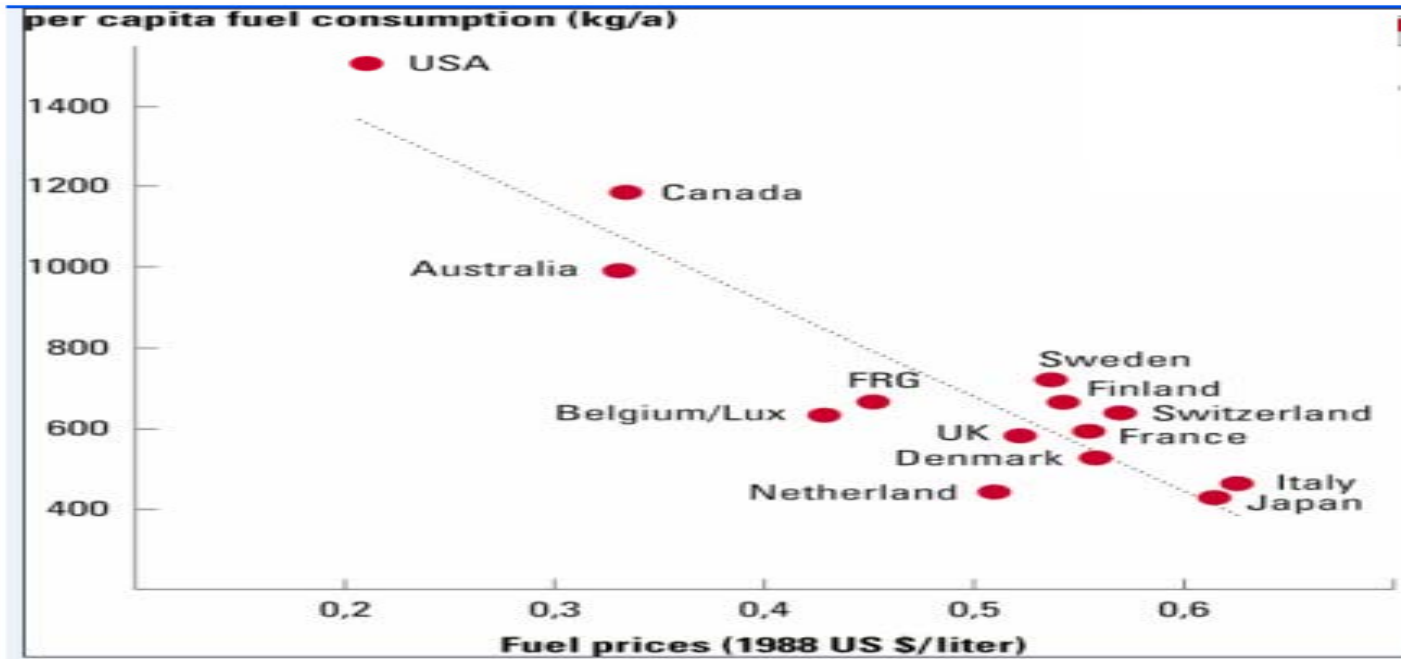
reduce the costs for green economy

- 补贴、扶持

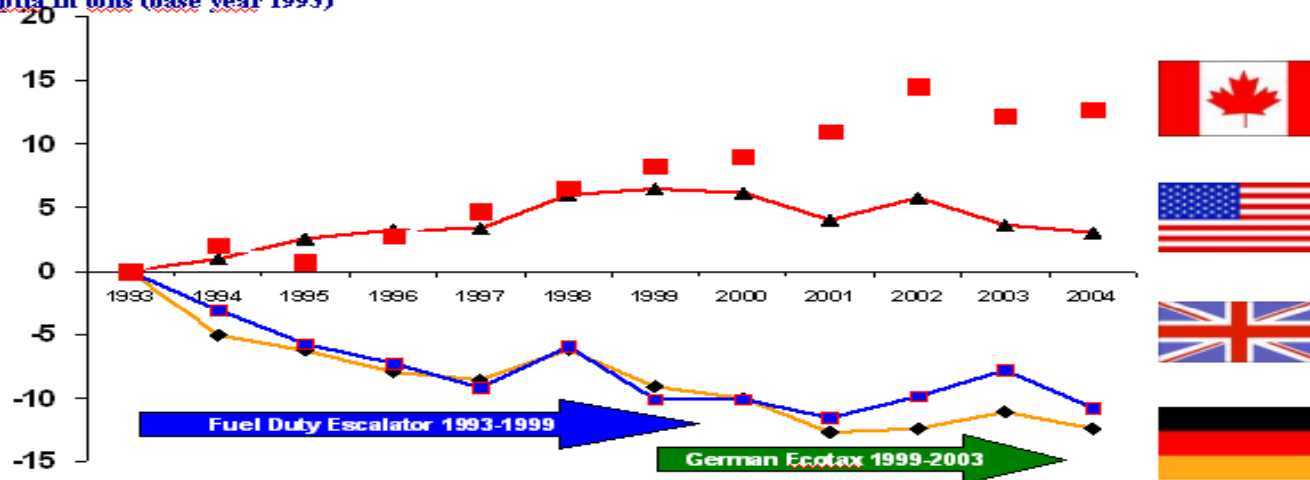
Costs preferential , technology support

变成经济模式转型的市场自觉行为

Self-actions for transferring from the black to the green

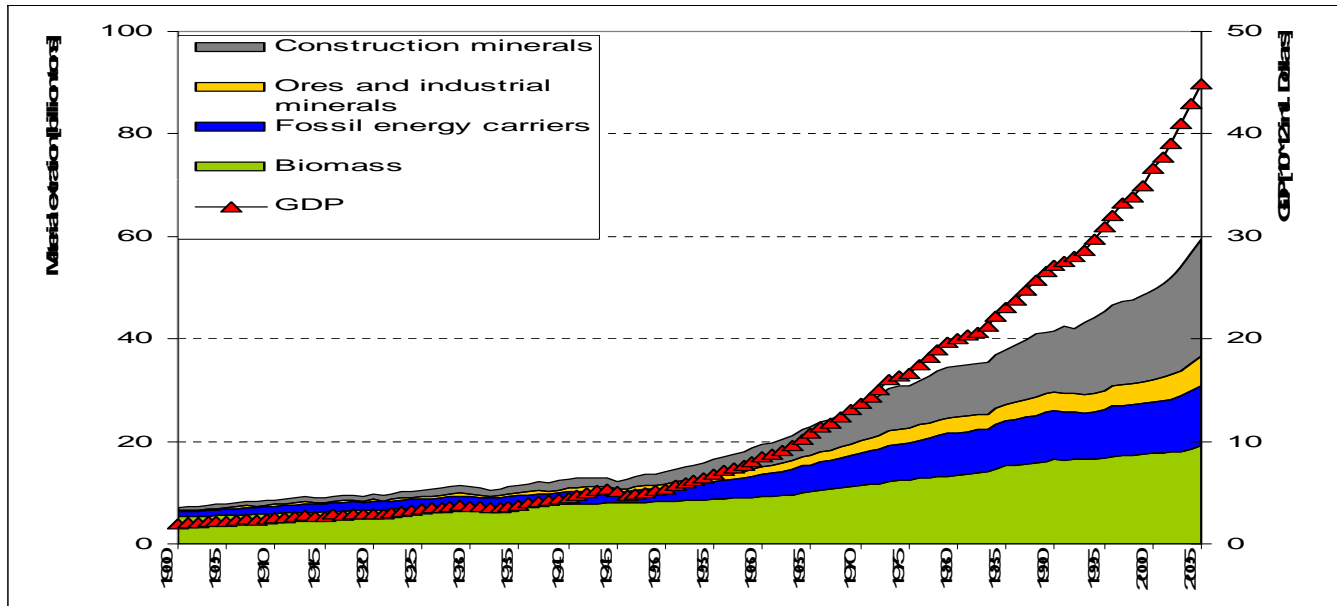


Changes in CO₂-emissions per capita in tons (base year 1993)

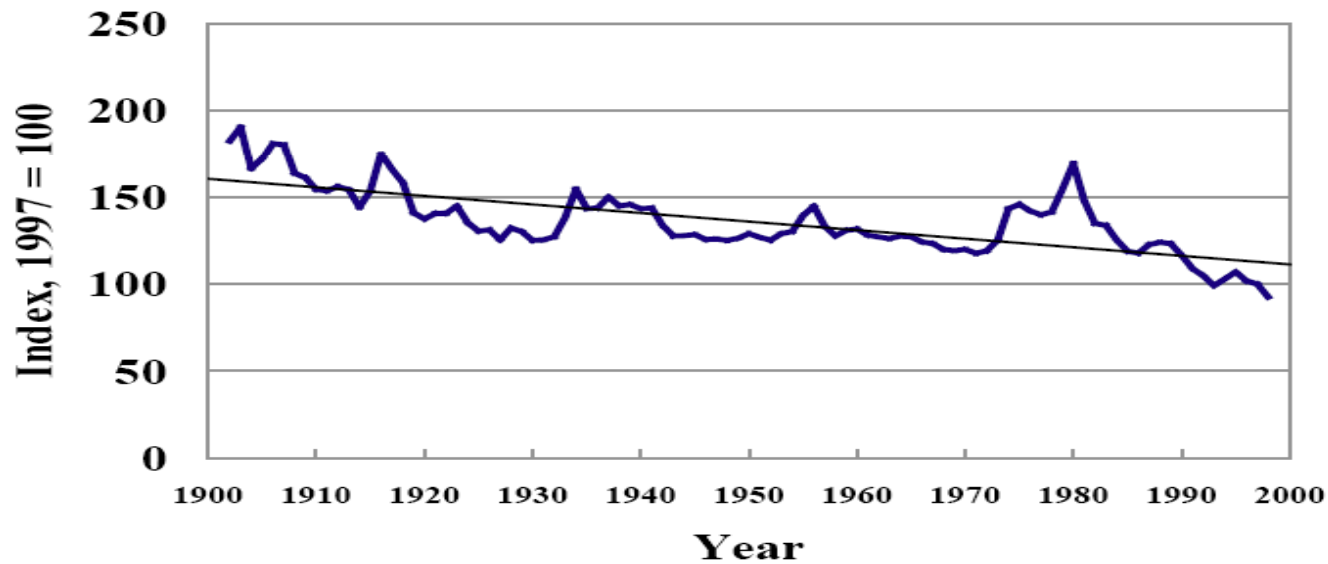


Source: DIW 2005

FÖS, 2006, Database: DIW, 2005)



. Global material extraction in billion tons, 1900-2005, (Source: Krausmann *et al* 2009)



USGS composite resource price index (at constant prices, 1900 – 2000), (Source: Sullivan *et al* n.d.)

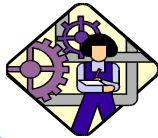
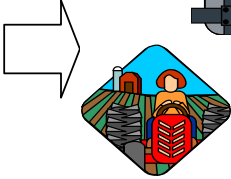
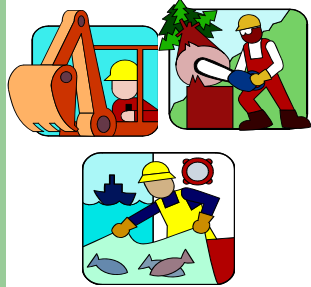


环境税费：独立税和融入型

Environmental fee and taxation: independent taxes and incorporated into other taxes related

资源税费改革

Natural resources price and taxation reform



Payment for ecologic services

Environmental liability insurance

•Green trade policies such as tariff reform
•Public green procurement

•绿色贸易政策 (如关税)
•政府绿色采购

生态补偿

Greening credit : equator principles

绿色信贷

Greening securities: benchmark for enterprises entrance in stock market

绿色证券

Tax-break for recycling

资源综合利用
税费优惠

Emission trading

排污/碳交易



谢谢!

thank you for your attention!