

# QR Codes for Appliances and Equipment

## Enabling Access to Information and Facilitating Compliance

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Lin Haoxin

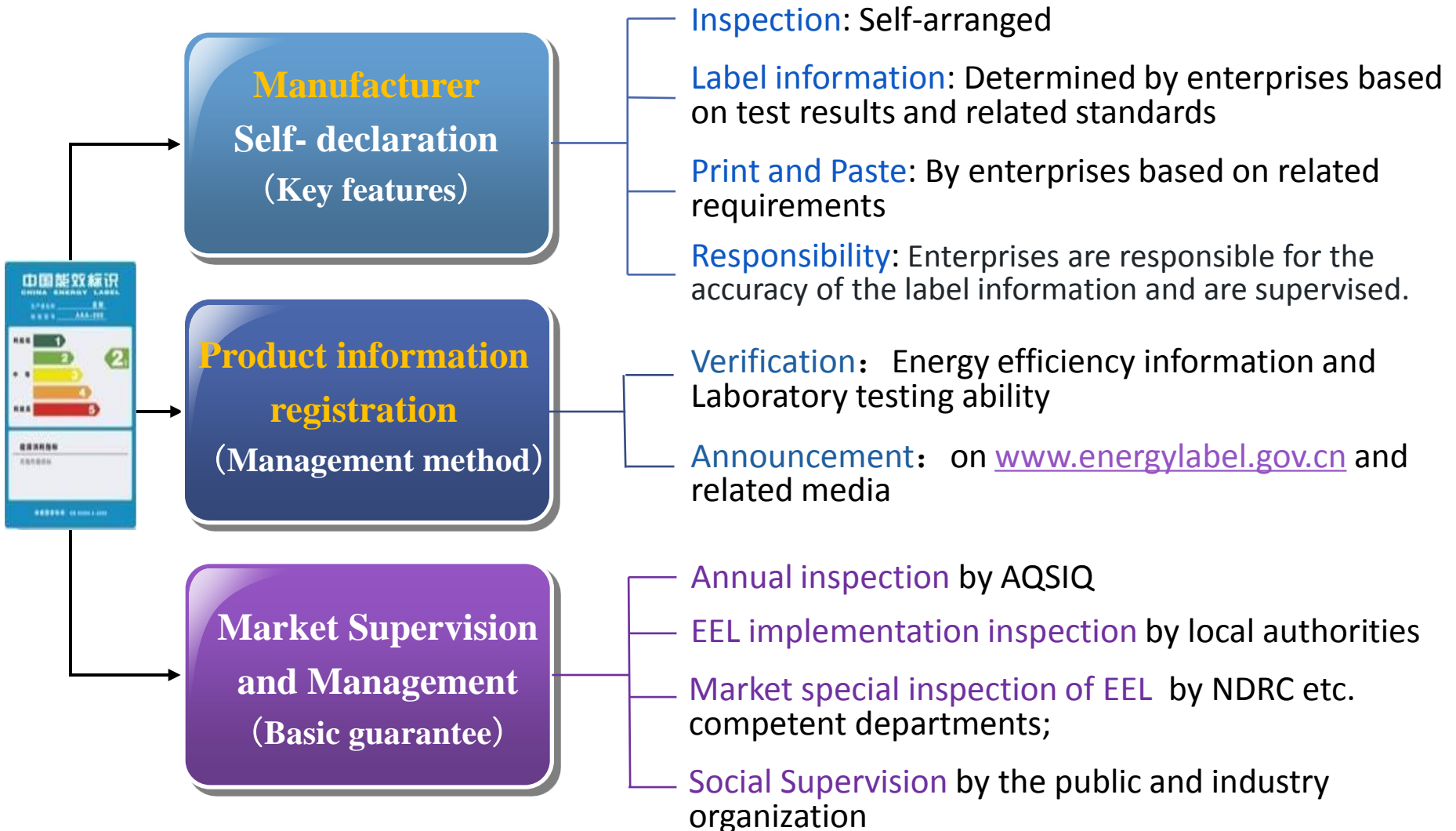
China Energy Label Center  
China National Institute of Standardization (CNIS)

# About China Energy Label (CEL)

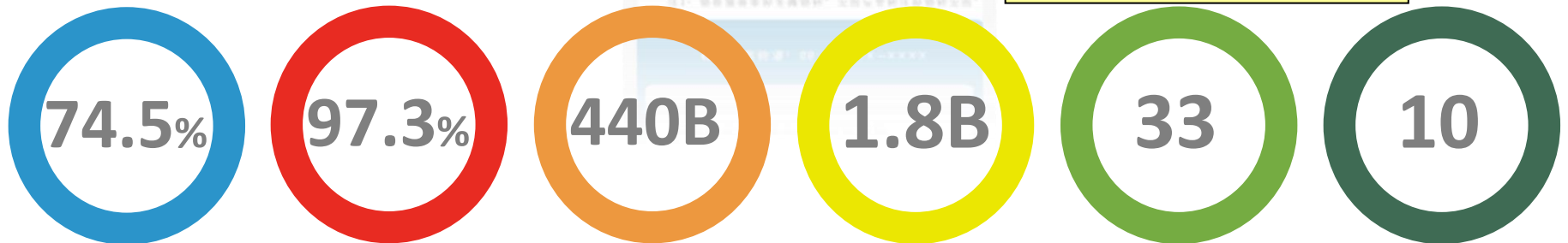
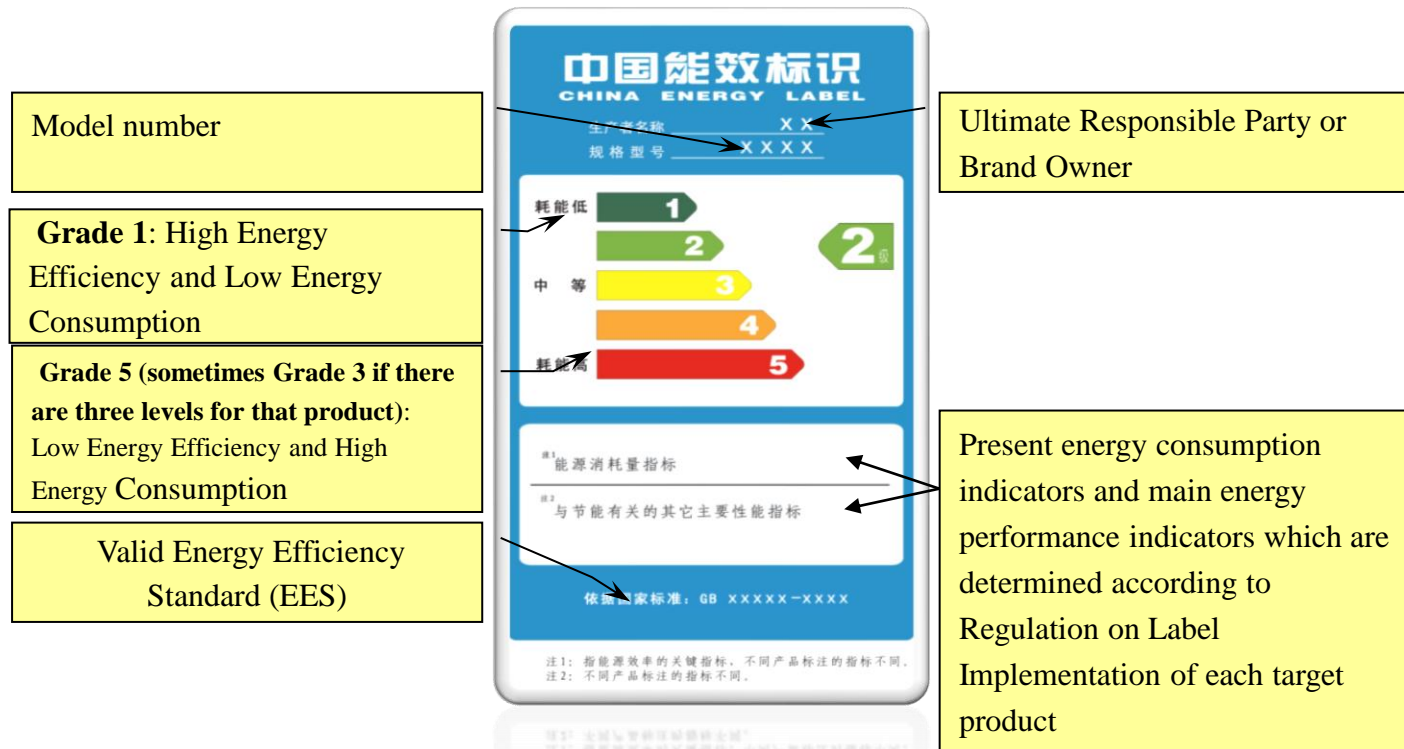
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- **Legislation basis:** " Energy conservation law ", "Product quality law", "Certification and accreditation regulation ", " Administration regulation of energy efficiency label "
- **Type of Program:** Mandatory labeling program
- **Authorities:** National Development and Reform Commission (NDRC), General Administration of Quality Supervision, Inspection and Quarantine of China (AQSIQ) and Certification and Accreditation Administration of China (CNCA)
- **Implementing agency:** China national institute of standardization (CNIS)
- **Implement pattern:** Stick China Energy Label on product or obvious places of product package if product itself is small. Introduce the information of energy efficiency grade on user's manual

# About China Energy Label (CEL)



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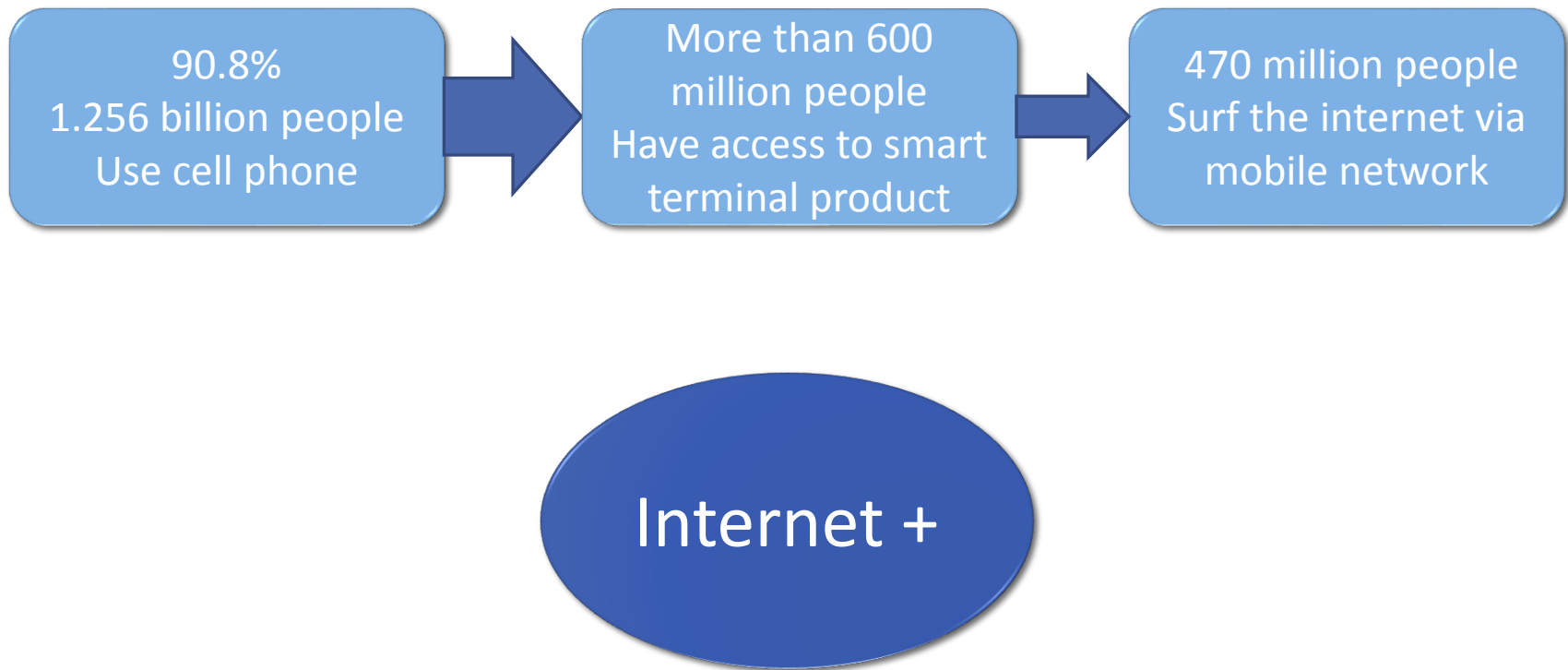


# Why using QR Code for CEL

	Expected Function of CEL	Limitation of Current CEL
For Consumers	Adequate information provided for guiding consumers to purchase energy-efficient products	<ul style="list-style-type: none"><li>• Hardly understand indicators on label (EEI, APF, etc.)</li><li>• Limited size and information, could not make well informed purchase decisions.</li></ul>
For Manufacturers	More product information provided for promoting the product	<ul style="list-style-type: none"><li>• Limited size, more products information could not be pushed to consumers</li><li>• No interaction with consumers</li></ul>
For Market Supervisors	Utilized as An important supervision tool of products quality for government	<ul style="list-style-type: none"><li>• Many assistant tools needed</li><li>• Reading-recording-inquiry by person, leading to many mistakes and reduces the work efficiency</li></ul>

# Why using QR Code for CEL

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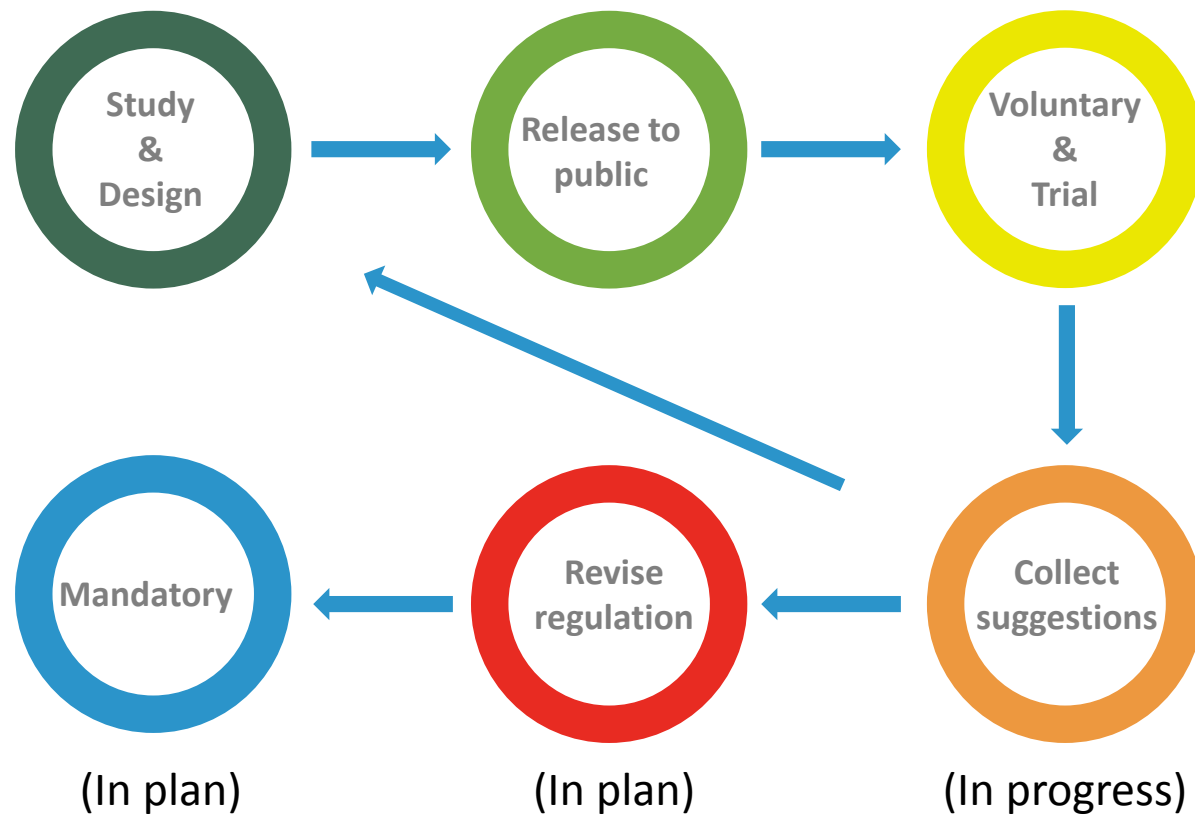
# Why using QR Code for CEL

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- Easy operation and quick response
- Simple scanning equipment required
- No technology patent
- Low cost
- Consumer-friendly

# QR CEL Implementation Road Map

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# QR CEL

## Current Coverage

AC, VS-AC, Refrigerator, Electric washer, Electric water heater, Induction cooker, Rice cooker, Fan, Flat-panel TV, Microwave oven, Heat Pump, Range hood, Photocopier/Printer/Fax Machine

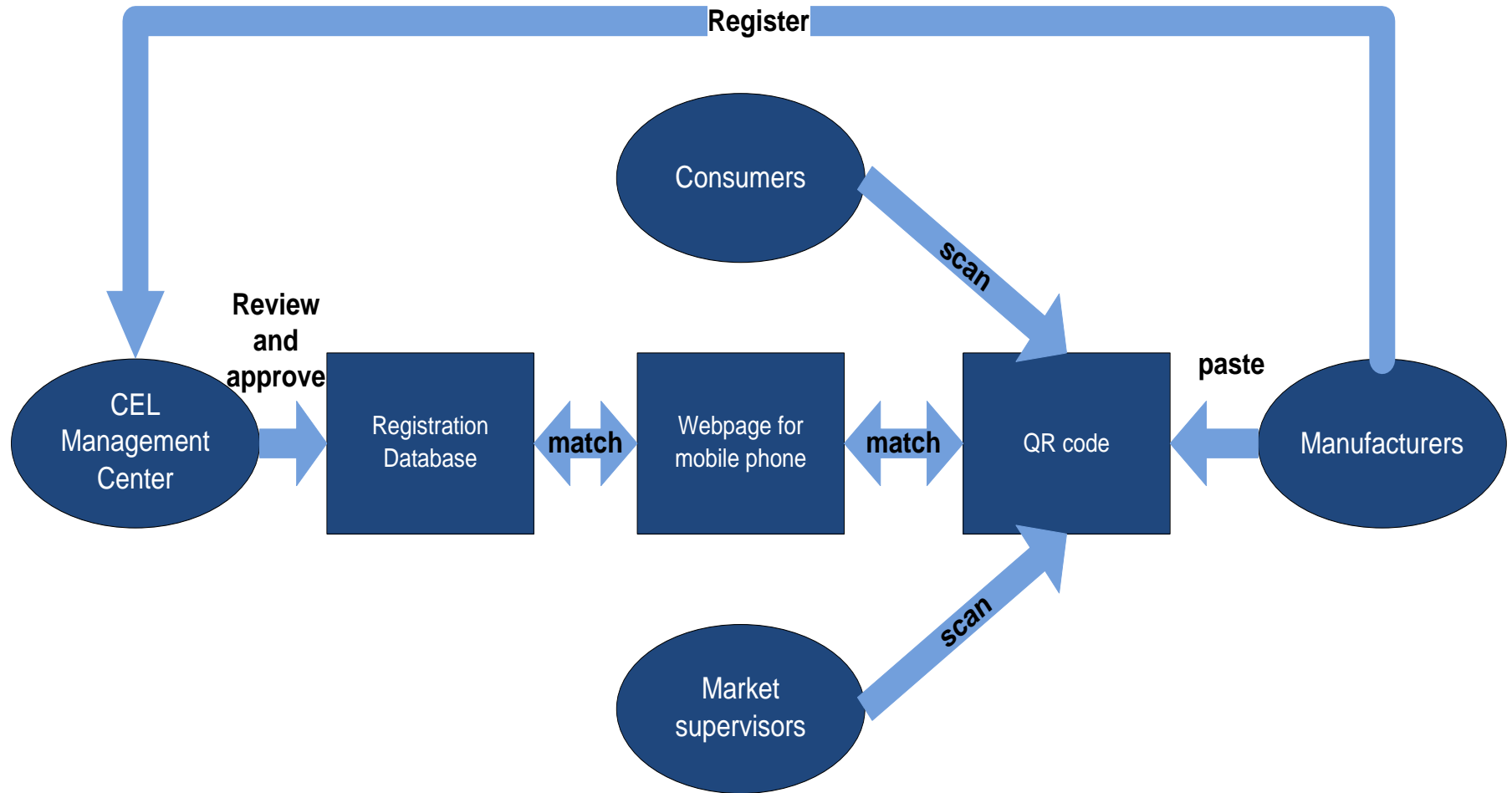
- Sales volume
- Social effect

## QR CEL style



web link → registration number → sole model

# QR CEL Data Flow



# QR CEL Scanned result

The screenshot shows the 'China Energy Label' (中国能效标识) app interface. The top header includes the logo and the text 'CHINA ENERGY LABEL' and '北京市'. The main content area displays the energy grade '1级' (Level 1) and the product model 'BCD-450ZP9CJ' by '合肥美菱股份有限公司'. A button labeled '帮您看懂能效标识' (Help you understand the energy label) is visible. The bottom navigation bar includes icons for '我的' (My), a share icon with '(5)', and a star icon with '(0)'. Below the main content, there are sections for '蓝天问答' (Blue Sky Q&A), '电费估算' (Electricity fee estimation), '产品人气' (Product popularity) with '日均扫码 21' and '累计扫码 4812', and '原厂售后' (Original factory after-sales) with the phone number '4008111666'. At the bottom, there is a section for '旧品回收' (Old product recycling) with a recycling symbol and the text '携手名录企业·环保拆解旧品·循环利用资源·共建绿色生活' and '\*服务由回收企业提供'.

Energy grade

Product model  
Manufacturer

User center, consumer can login by their cell phone number, can share the current model to social networks, or save to their favorites.

A button, click to show a energy indicators page. (next slide)

Utility fee calculation

Customer service phone number from manufacturer

An entrance of public service survey

Current model's popularity. (scanned amount, collected amount)

An entrance of old appliances recycling. User submit related information of old appliance, waiting for the recycling company, door-to-door service.

# QR CEL Scanned result

Official web site

能效标识管理中心  
www.energylabel.org.cn

节能减排  
倡导绿色生活

备案号 : 2015-20-127-45416  
公告时间 : 2015-05-03

Registration number  
Announcement date  
*These information does not appear on the paper energy label.*

BCD-450ZP9CJ  
合肥美菱股份有限公司

Model  
Manufacturer

Energy Grade Indicator

2级  
能效等级

1 2 3 4 5

耗电量 0.59  
(kW·h/24h)(度/天)

约等于一枚25W的节能灯  
点亮24个小时

冷藏室容积 300  
(升)

约等于600个普通500ml  
盒装奶

冷冻室容积 75  
(升)

约等于150个普通500ml  
盒装奶

变温室容积 75  
(升)

约等于150个普通500ml  
盒装奶

Energy efficiency information  
*Different from the paper energy label, for consumers, these information use easier understood words to replace the technical parameters.*

依据国家标准GB 12021.2-2008

Reference standard number

# Scanning QR CEL



- Consumer can use any QR code scanning APP to access QR CEL.
- CNIS developed specialized APP to help consumer get more knowledge of energy efficient by scanning QR CEL. This APP is supported by CLASP.

# QR CEL Implementation Milestones

**8 JUL, 2013** - Initial QR CEL project.

**15 JUN, 2014** - Reported QR CEL implementation solution to NDRC, AQSIQ and CNCA.

**11 OCT, 2014** - Published QR CEL.



**16 OCT, 2014** - Encouraging manufacturers to voluntarily use QR code on CEL.

- NDRC/AQSIQ/CNCA Announcement [2014] No.30.

# QR CEL Implementation Milestones

**17 OCT, 2014** – Trial QR CEL with MeiLing (a manufacturer), started collecting advices from manufactories. Later, a total of 45 manufactories joined to trialing.

**25 DEC, 2014** – Carried out one-month-long consumers communication activity with Suning (a famous household appliances dealer in China). Meanwhile, began collecting consumer opinions.





# QR CEL Implementation Milestones

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**20 MAR, 2015** – Added QR CEL to revising version of Administration regulation of energy efficiency label.

**20 MAY, 2015** – Began collecting advices from supervision agency.

**8 AUG, 2015** – Updated QR CEL scanned result to current version, after studied then accepted advices from stakeholders. Communicated to consumers in Sustainable Consumption Week (an activity held by UNEP).





# Implementation of QR CEL (1 JAN – 31 JUL)

Models	4, 092	Scanned	340, 000+	Appearing cities	372
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## TOP5 Scanned

The logo for MELING (美的) features the brand name in blue capital letters and Chinese characters.

Models	312	Scanned	48113
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The logo for GREE (格力) features a stylized blue and red circular icon followed by the brand name in blue capital letters and Chinese characters.

Models	83	Scanned	21221
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The logo for TCL features the brand name in white capital letters inside a red rounded rectangle.

Models	155	Scanned	17149
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The logo for ROBAM (老板) features the brand name in blue capital letters and Chinese characters, with the tagline "精湛科技 轻松烹饪" (Exquisite technology, easy cooking) below it.

Models	88	Scanned	6902
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The logo for Joyoung (九阳) features the brand name in white capital letters and Chinese characters inside an orange rounded rectangle.

Models	76	Scanned	8291
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# Thanks for your attention.



Lin Haoxin

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