

Contents

1. Outlook of Demand for PS

- (1) Demand and Supply of PS ...02
- (2) Capacity of SM and PS in 2015 ...03,04
- (3) Trend of PS by Use ...05
- (4) Market of PS by Use(2015) ...06
- (5) Reference:
 - Comparison of the Market of PS by Use ...07-08

2. Japan's Plastics Flow Chart ...09-10

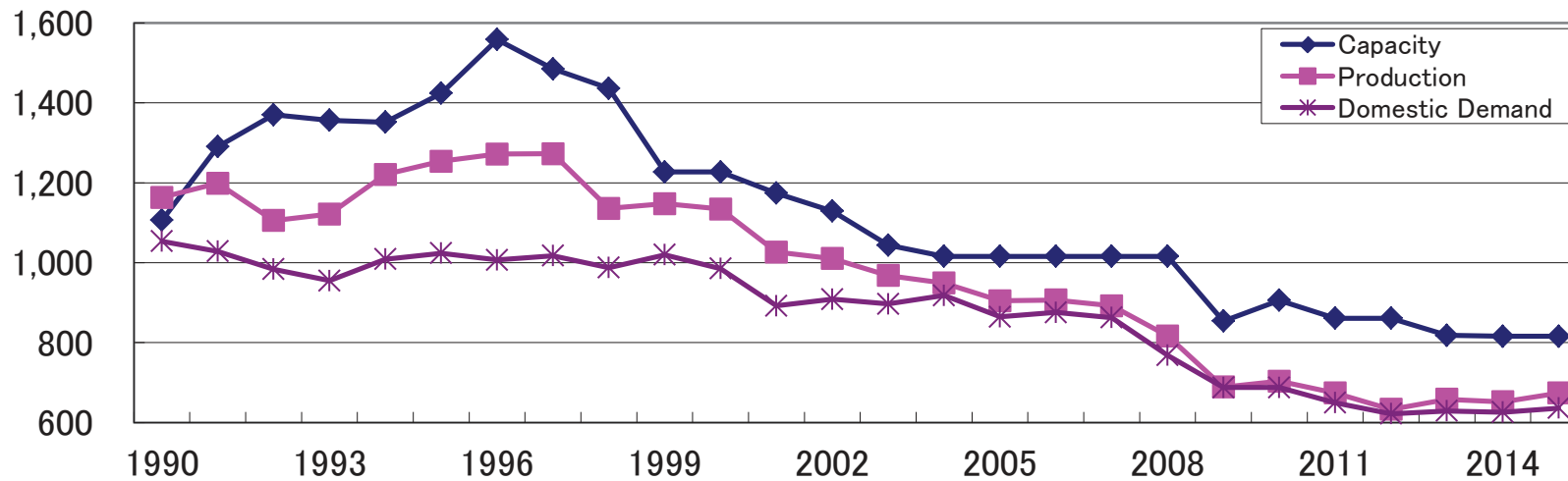
3. Conclusions ...11-13

4. Topic ...14

1. Outlook of Demand for PS

(1) Demand and Supply of PS

Unit: 1,000t



	1990	1996	1999	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Capacity	1,106	1,559	1,227	1,016	1,016	1,016	906	854	861	861	818	816	816
Production	1,163	1,272	1,148	906	892	817	689	703	674	633	658	652	674
Export	130	279	143	22	44	37	32	28	22	19	22	22	23
Import	26	19	36	31	18	25	30	50	64	87	58	55	41
Domestic Demand	1,054	1,007	1,020	876	863	768	687	688	649	622	629	626	636

*Domestic demand does not include imports.

1. Outlook of Demand for PS

(2) Capacity of PS in 2015

Unit: 1,000t

Company	Capacity
DIC Corporation	171
Toyo Styrene Co., Ltd.	330
PS Japan Corporation	315
Total	816

1. Outlook of Demand for PS

(3) Capacity of SM in 2015

Unit: 1,000t

Company	Capacity
ASAHI KASEI Corporation	678
Idemitsu Kosan Co., Ltd.	550
NS Styrene Monomer Co., Ltd.	422
TAIYO OIL Co., Ltd.	335
Denka Co., Ltd.	270
Total	2,255

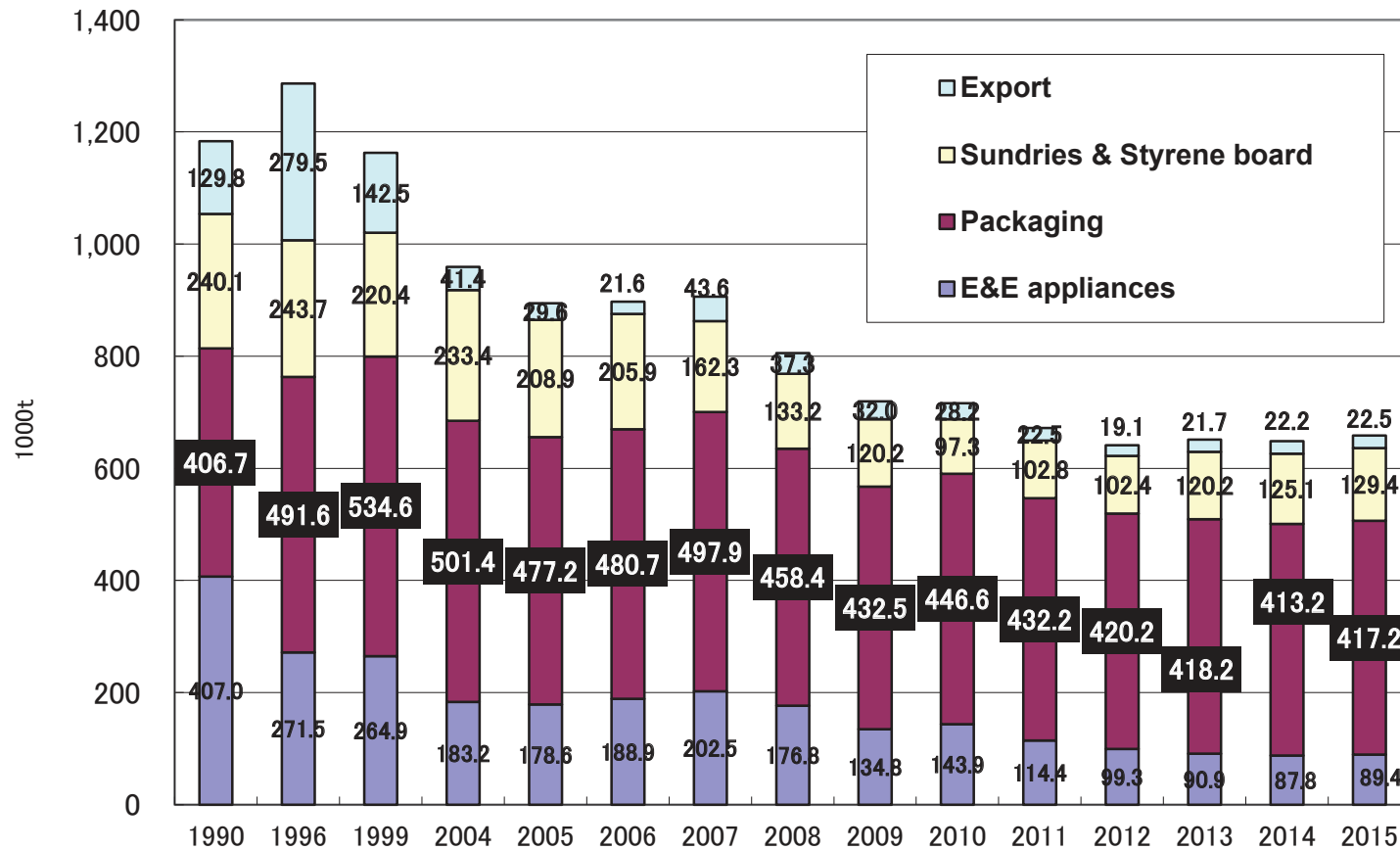
May/2015 Nihon Oxiran S/D (412)

Feb./2016 ASAHI KASEI S/D (320) ⇒ 2016 Cap. 1,935

1. Outlook of Demand for PS

(4) Trend of PS by Use

Unit: 1,000t



1. Outlook of Demand for PS

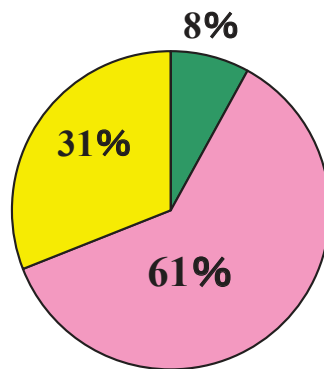
(5) Market of PS by Use in 2015

- **Packaging(+1%)**
 - Food packaging**
 - : slightly increase**
- **E&E Appliances(+2%)**
 - Application of Home Electronics**
 - : slightly increase but a low level**
- **Sundries & Foamed Styrene Boards (+3%)**
 - Sundries: comparatively well**
 - Boards: comparatively well**
- **Export(+1%)**
 - A low level and on the decline**
 - : the slump of digital electric appliances**

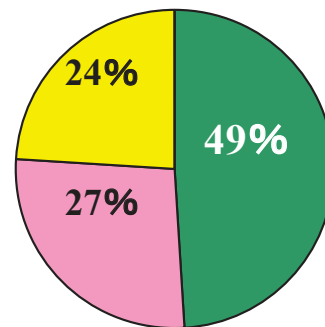
1. Outlook of Demand for PS

(6) Reference:
Comparison of the Market (China/Japan/US/Europe) / 1999

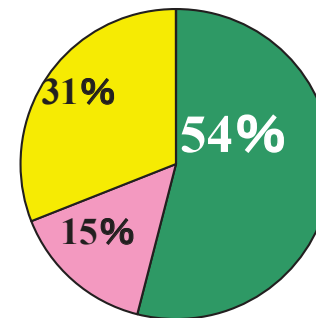
China



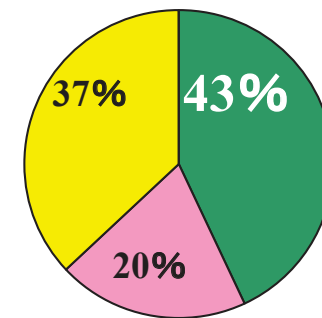
Japan



North America



Western Europe



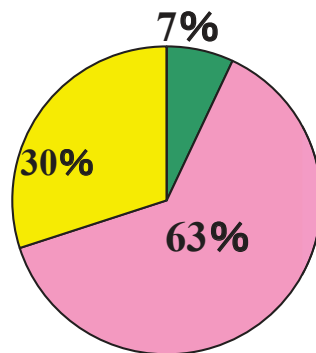
■ Packaging ■ E&E ■ Others

1. Outlook of Demand for PS

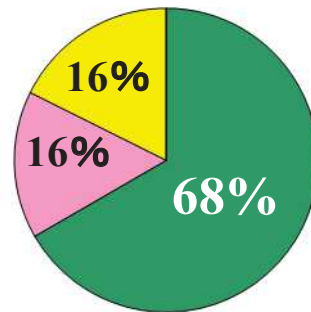
(7) Reference:

Comparison of the Market (China/Japan/US/Europe) / 2012

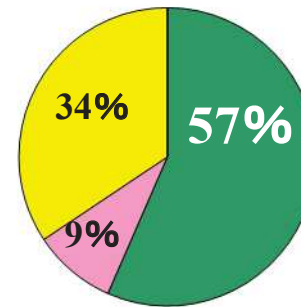
China



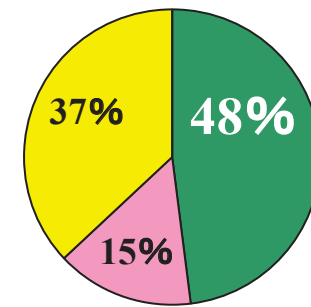
Japan



North America



Western Europe



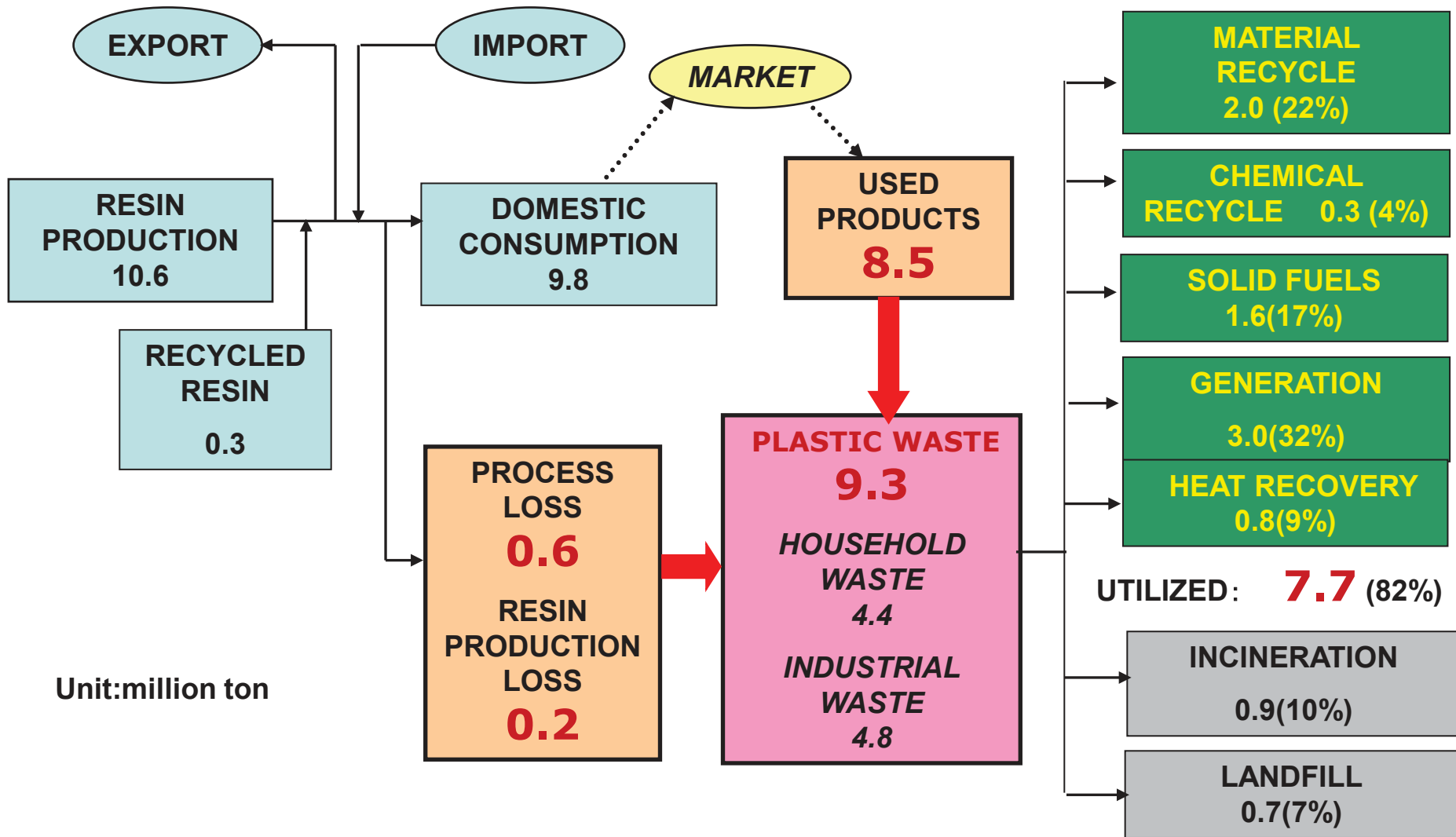
■ Packaging

■ E&E

■ Others

DATA SOURCE: THE CHEMICAL DAILY

2. Japan's Plastics Flow Chart (2014)

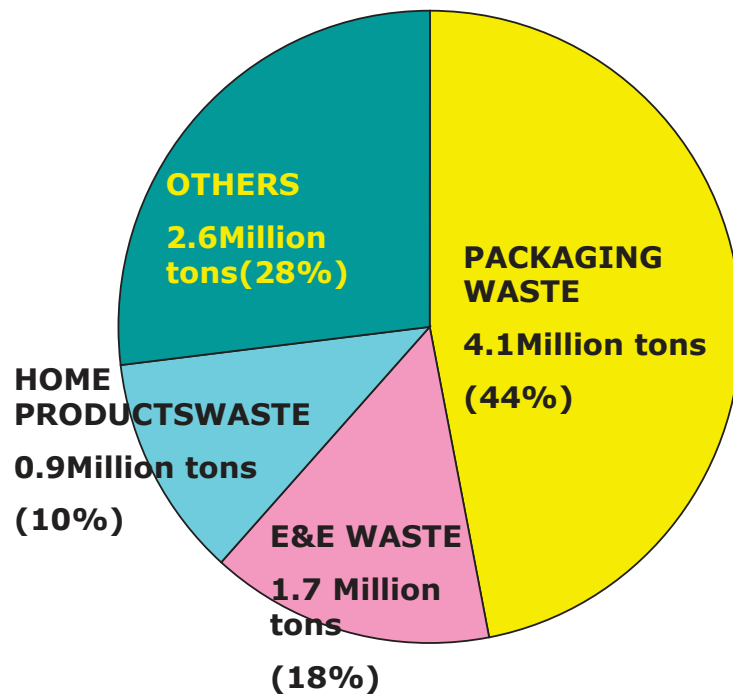


2. Japan's Plastics Flow Chart-2

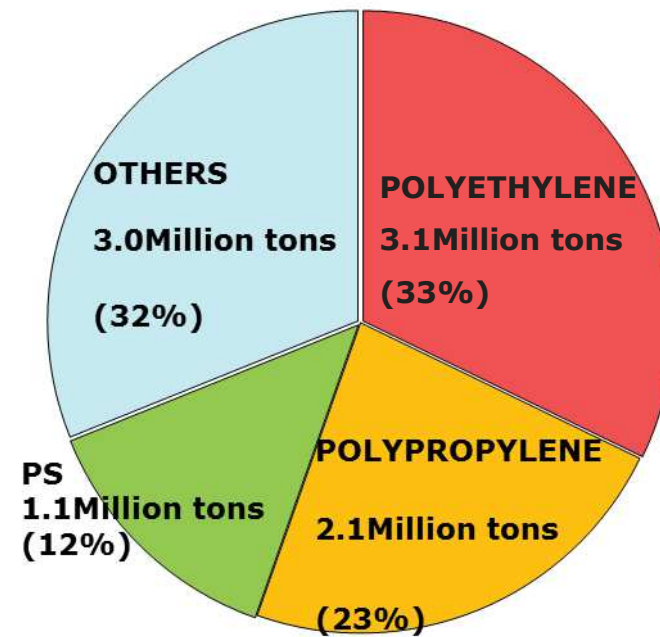
TOTAL PLASTICS WASTE **9.3** million tons

2014

DETAILS OF PLASTICS WASTE



TYPE OF PLASTICS WASTE



DATA SOURCE: PWMI

3. Conclusions Outlook of the market

- 1. Capacity in 2015 was 816KT.
1 plant(capacity 45KT) stopped in 2013.**
- 2. Domestic demand(not include imports) in 2015 was a little bit higher than previous year but has been down for several years.**
- 3. Imports decreased in 2013 & 2014 & 2015 due to the weakened yen.**

3. Conclusions Outlook of the market

4. **Decline for E&E was significant and remained at low level of 22% of 1991 the peak.**
5. **PS for Packaging was comparatively stable.
2015 was 78% of 1999 the peak.
(2012: 79%, 2013:79%, 2014:78%)**
6. **Sundries have been maintained relatively strong growth for several years.**

3. Conclusions

- 1. The aggregate demand including imports was showing a slight decline.**
- 2. Packaging is the main usage of PS.
(66% of total domestic shipment)**
- 3. A certain amount of imports is anticipated , but not a lot of growth can be expected in domestic demand.**
- 4. The swift development of new usages, etc., is a critical issue.**

4. Topic

Banning EPS in USA

1. The movement for EPS Container Prohibition shows an expanse in each American Local Government
 2. The beginning was the issue of garbage(environment), but mentions the issue of Safe Hygiene now
 - * Concern for the Carcinogenicity
 - * Marine Pollution(micro-plastics)
 3. The Opposite Opinion for Regulation of Banning EPS
 - * Effectiveness of Recycling
 - * Safety, Low Cost, Energy Saving etc.
 - * Overturn EPS container prohibition regulation(N/Y)
- “We should appeal for EPS Safety, Effectiveness.”**