

# 2007年-2008年日本钨市场现状

## The Latest Situation of Japanese Tungsten Market in 2007/2008

国际钨业协会

中国厦门

2008年9月25日

ITIA

2008 on September 25

Xiamen, China

日本先进材料有限公司

Advanced Material Japan Corp.

Shigeo Nakamura

# Contents

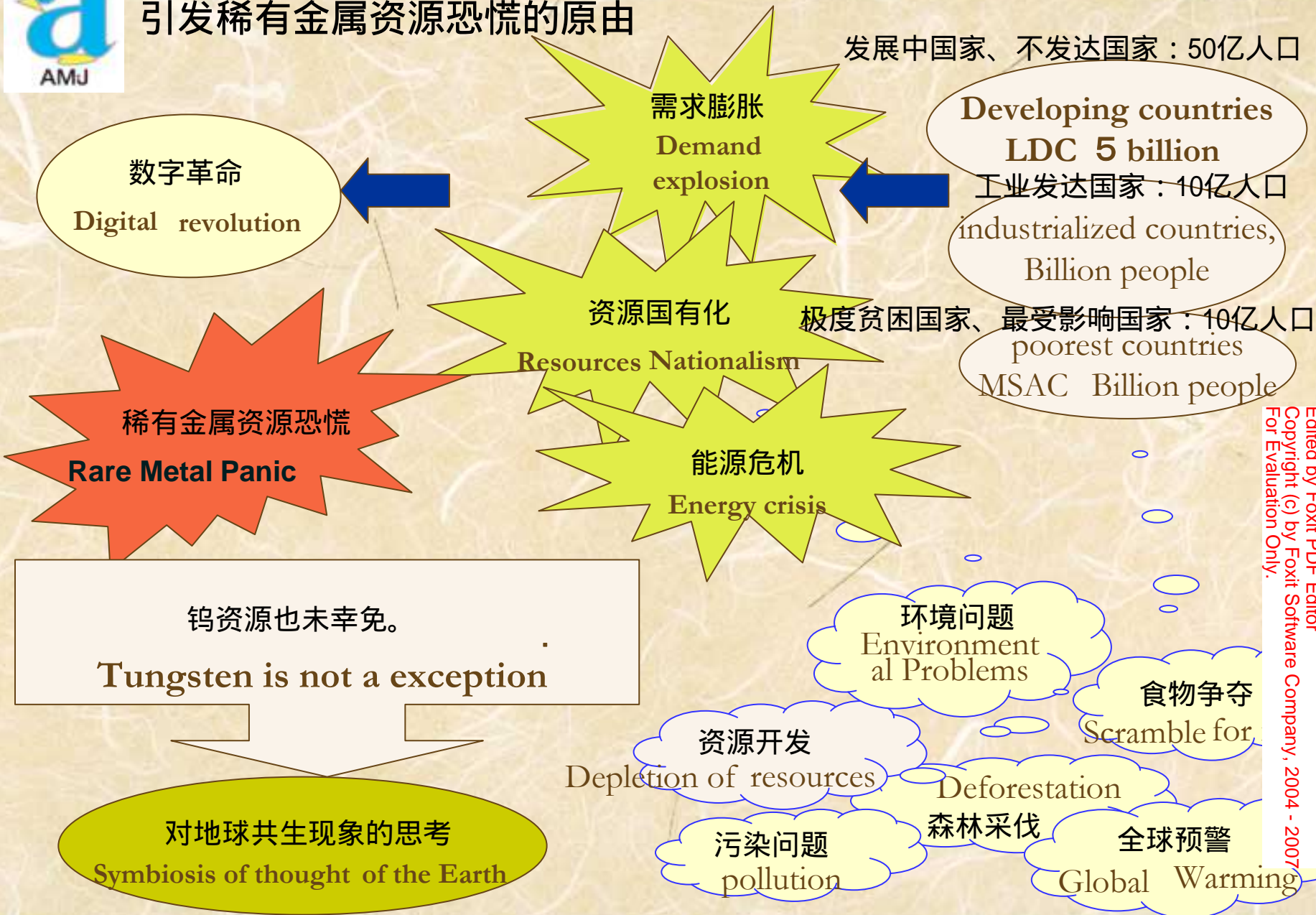
主要内容：

1. Tungsten import summary  
日本钨进口情况概述
2. Tungsten production summary  
钨产量情况概述
3. Recent topics in Japan  
日本近期重要事件综述
4. Conclusions  
结束语



# The cause of Rare Metal Panic

## 引发稀有金属资源恐慌的原由



# 1. Tungsten Import summary

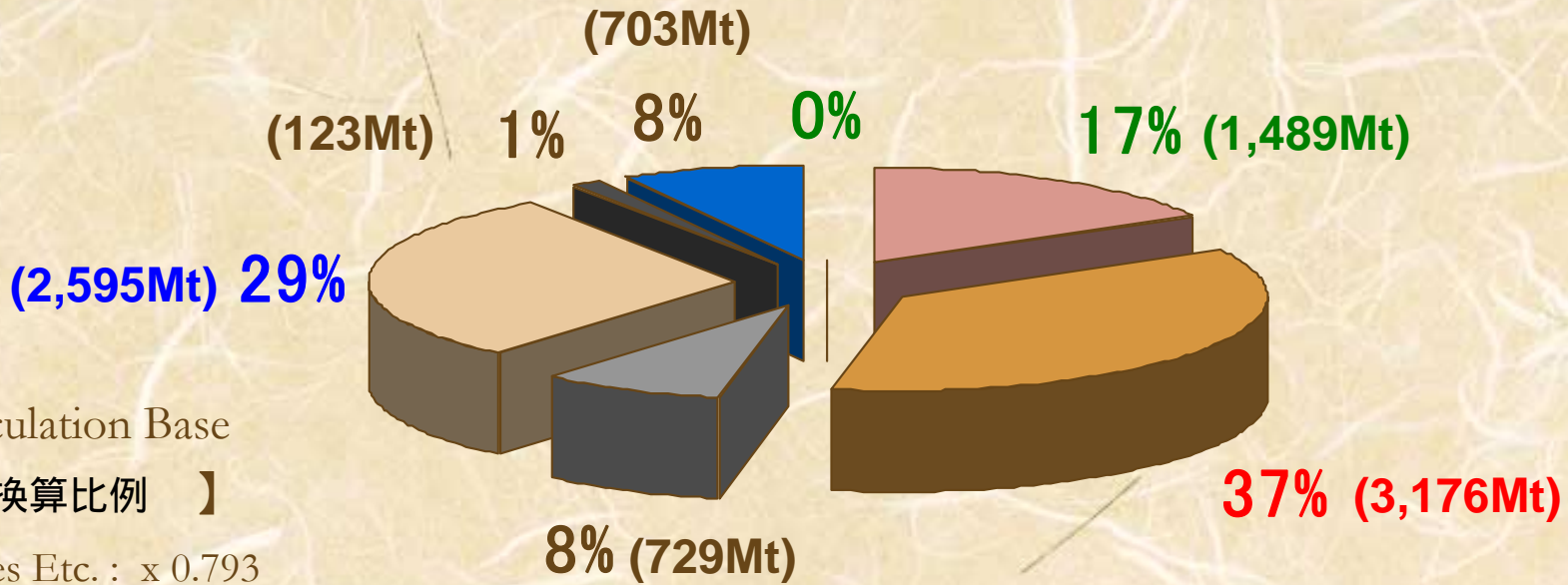
## 日本钨进口情况概述

- Import summary in 2007  
2007年进口情况概述
- Comparison between 1997 and 2007  
1997年与2007年进口情况比较
- Import summary by materials (~2007)  
按原料概述
- Import summary by countries (~2007)  
分国家概述
- Import of WC powder (~2007)  
碳化钨粉进口情况

# 1.1. Import summary in 2007

## 2007年进口情况概述

**Total 8,815Mt** As W content  
 总计：8815公吨（钨金属含量）



Calculation Base

【 换算比例 】

Oxides Etc. : x 0.793

Tungstate : x 0.7018

W powder : x 1.00

WC powder : x 0.752 (0.94 x 80%)

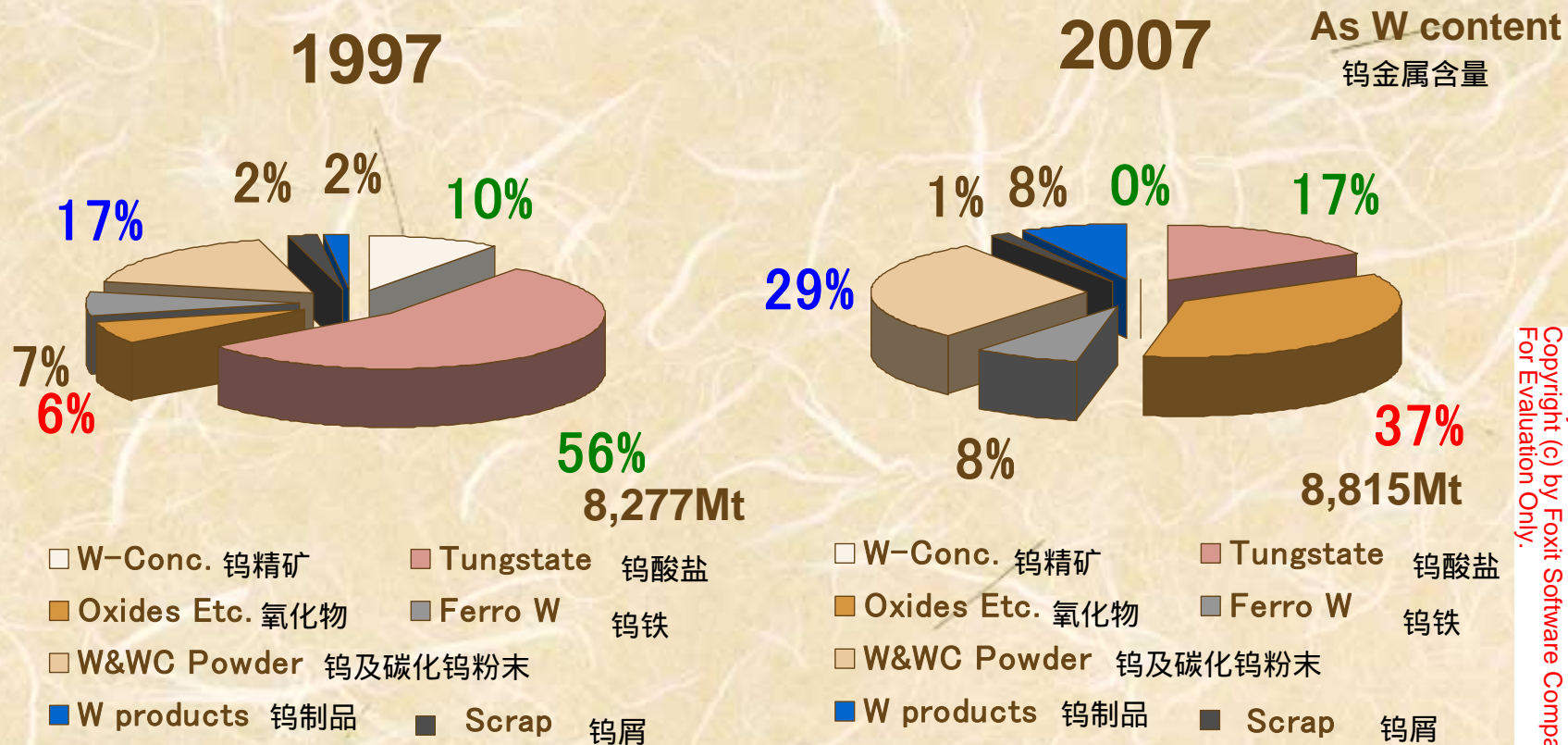
FeW : x 0.77

Scrap : x 0.9

- W-Conc. 钨精矿
- Tungstate 钨酸盐
- Oxides Etc. 氧化物
- Ferro W 钨铁
- W&WC Powder 钨及碳化钨粉末
- W products 钨制品
- Scrap 钨屑

Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

# 1.2. Comparison between 1997 and 2007



W-Conc.+ APT	66%	→	17%	YTO/BTO	6%	→	37%	黄色、蓝色氧化钨
钨精矿及仲钨酸铵				W&WC	17%	→	29%	钨粉及碳化钨粉

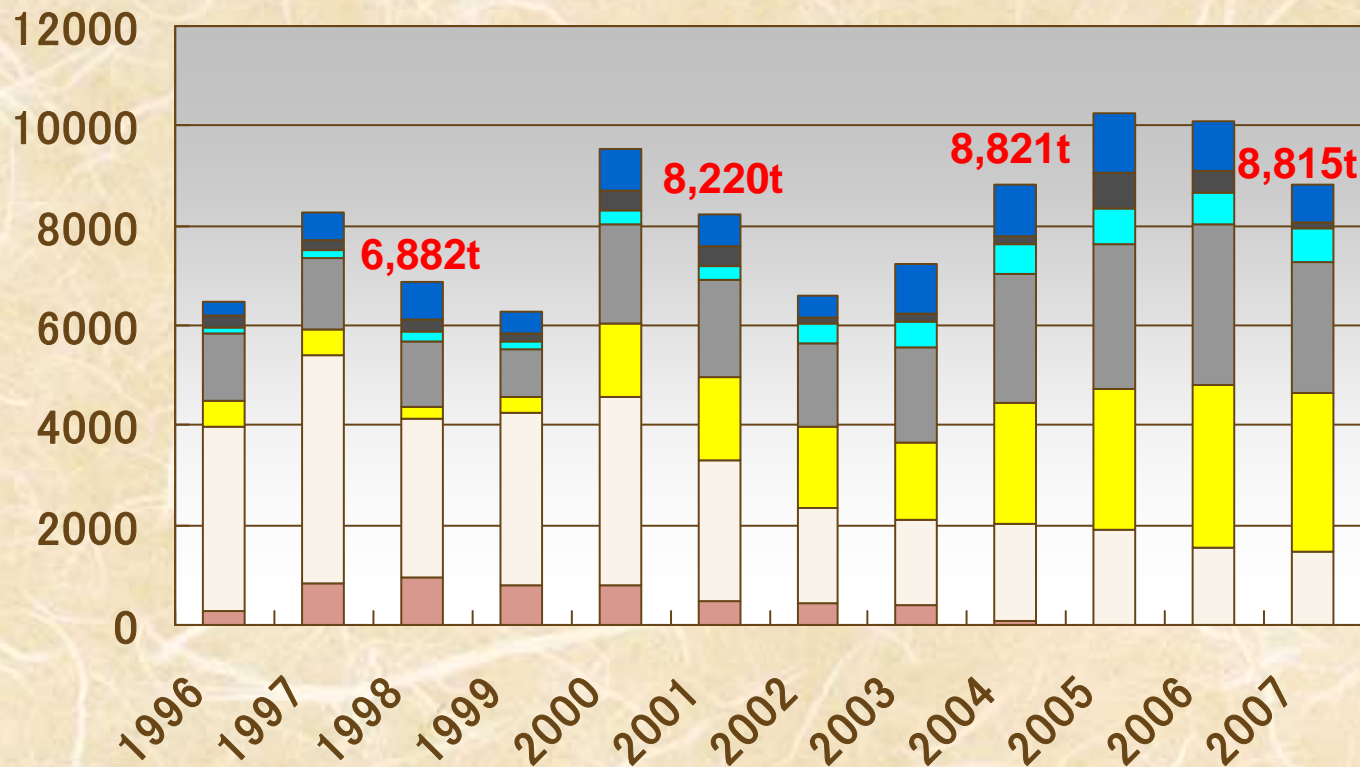
Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

# 1.3.Import Summary by materials

按进口原料分类：

As W content (Mt)

钨金属含量：（单位：公吨）



- FeW 钨铁
- Scrap 钨屑
- W products 钨制品
- W&WC 钨及碳化钨粉末
- YTO/BTO  
蓝色、黄色氧化钨
- APT 仲钨酸铵
- W-Con. 钨精矿

APT	45.8%('98)	→	34.2%('01)	→	22.3%('04)	→	16.9%('07)
YTO/BTO	3.5%('98)	→	20.1%('01)	→	27.6%('04)	→	36.0%('07)
W&WC	17.4%('98)	→	23.7%('01)	→	28.9%('04)	→	29.4%('07)

Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

# 1.4.Import Summary by countries

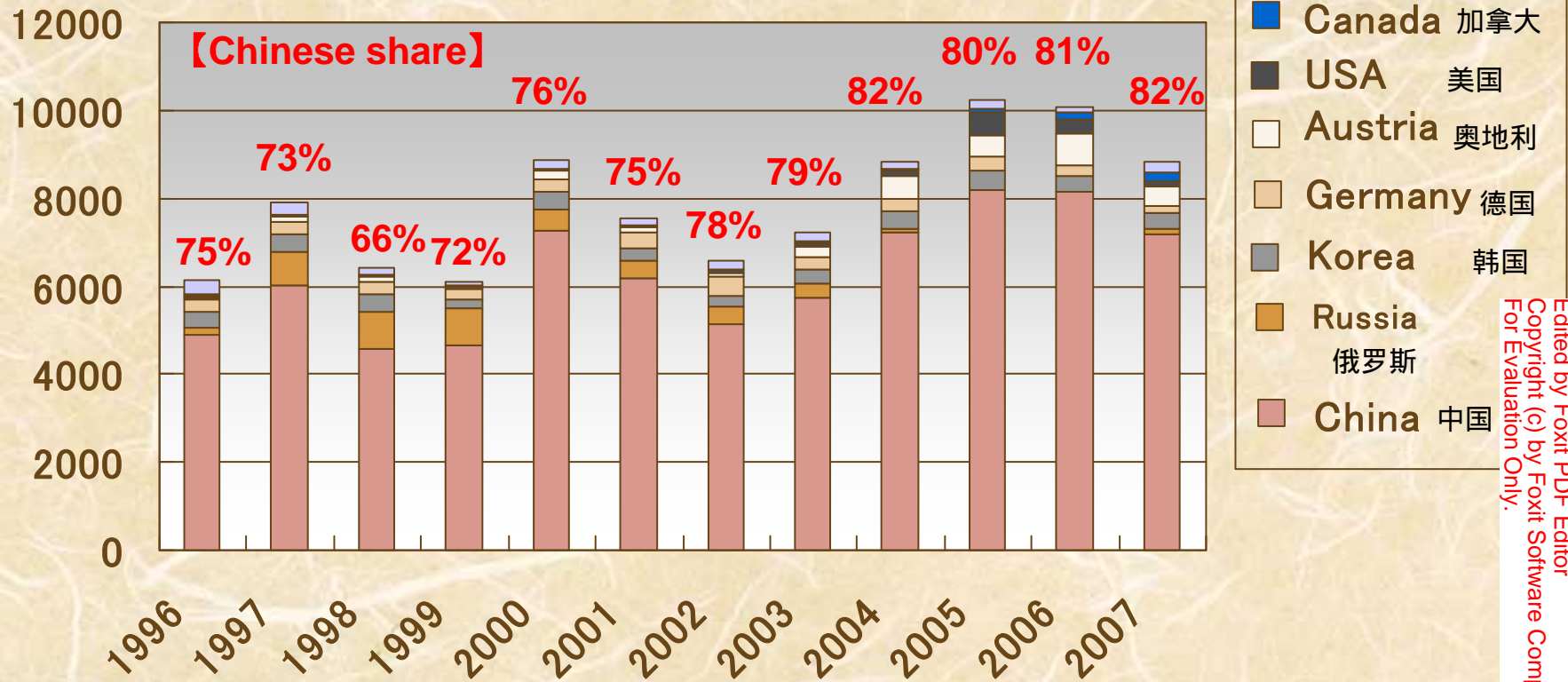
As W content (Mt)

分国家进口情况概述

钨金属含量：（单位：公吨）

(not including scraps and fabricates till 2001)

(不包括2001年以前进口的钨屑及加工制品)



Edited by Foxit PDF Editor  
Copyright (c) by Foxit Software Company, 2004 - 2007  
For Evaluation Only.

No W-conc. Import. / Increase of Chinese share in WC import after 2001 (30% → 50%) made Chinese share in total import higher than 80%.

2001年以后在碳化钨方面从中国进口的份额由30%增加至50%，使得从中国进口的钨品份额升至80%。  
无钨精矿进口。

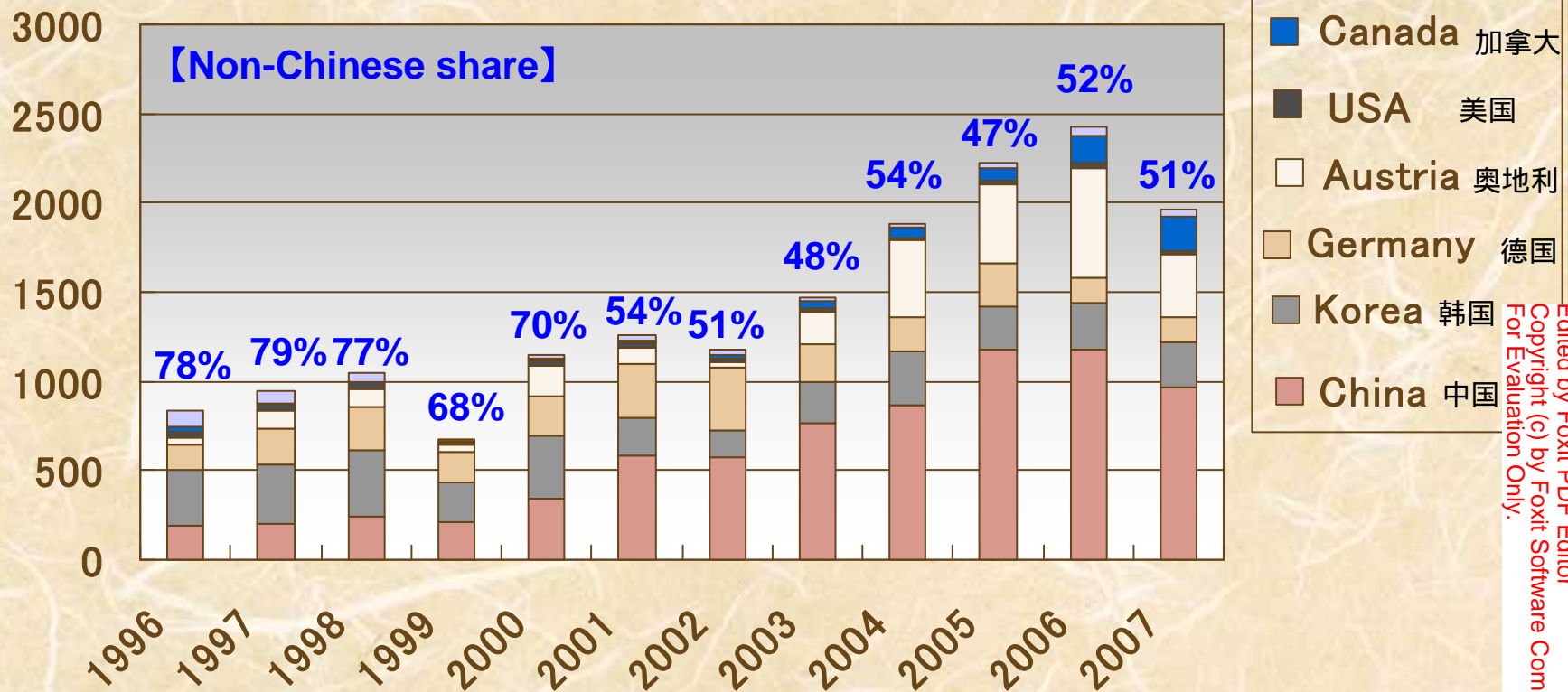


# 1.5.Import of WC powder

碳化钨粉进口情况

As W content (Mt)

钨金属含量：(单位：公吨)



Edited by Foxit PDF Editor  
Copyright (c) by Foxit Software Company, 2004 - 2007  
For Evaluation Only.

Still non-Chinese suppliers' share keeps 50%. Additionally to traditional suppliers like Korea and Germany, Austrian share is increasing rapidly.

非中国供应商的份额仍然保持50%。

此外，韩国、德国、奥地利等国的供应商份额增长迅速。

## 2. Tungsten production summary 钨品产量概述

Tungsten powder production

钨粉产量

Tungsten carbide production

碳化钨粉产量

Tungsten production summary

钨品产量概述

Production and Tungsten import

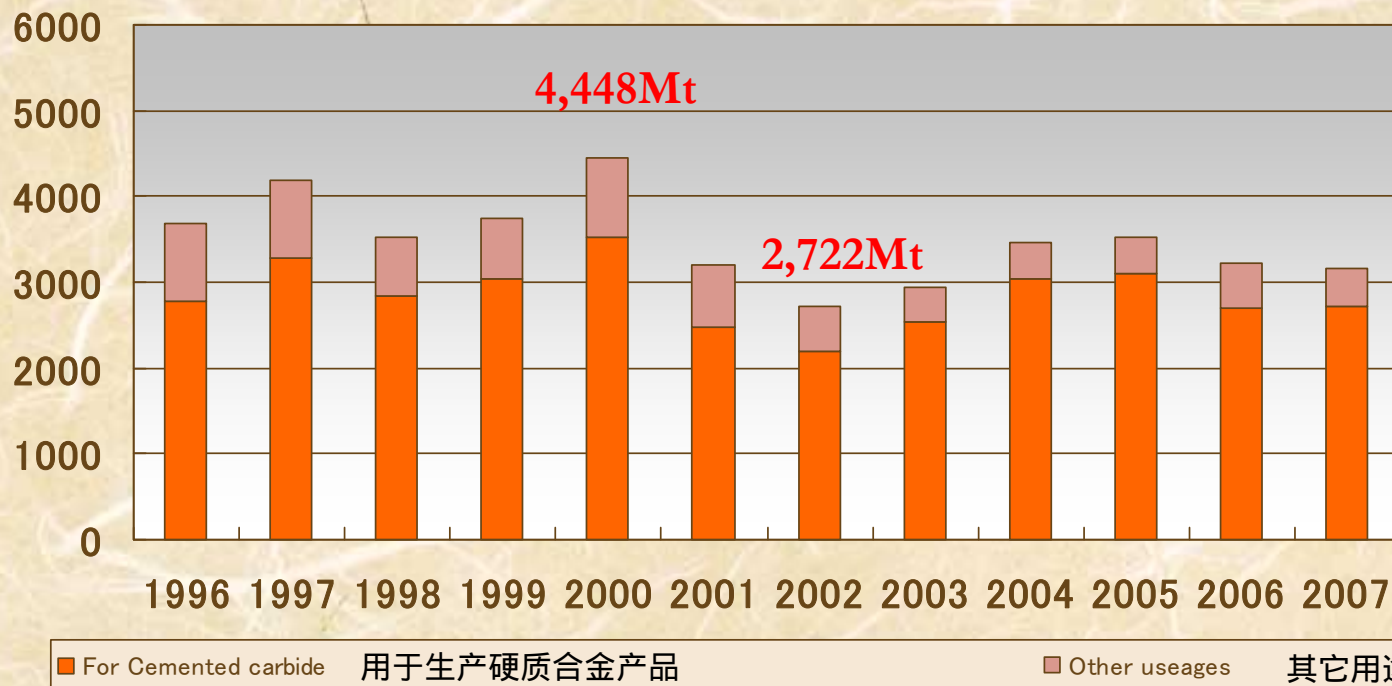
产量与钨品进口分析

## 2.1. Tungsten powder production

### 钨粉产量

As W content (Mt)

钨金属含量：（单位：公吨）



The record of Tungsten powder production is 4,448mt in 2000. After that total production is around 3,000 ~ 3,500mt.

钨粉产量在2000年达到4448公吨的最高纪录。

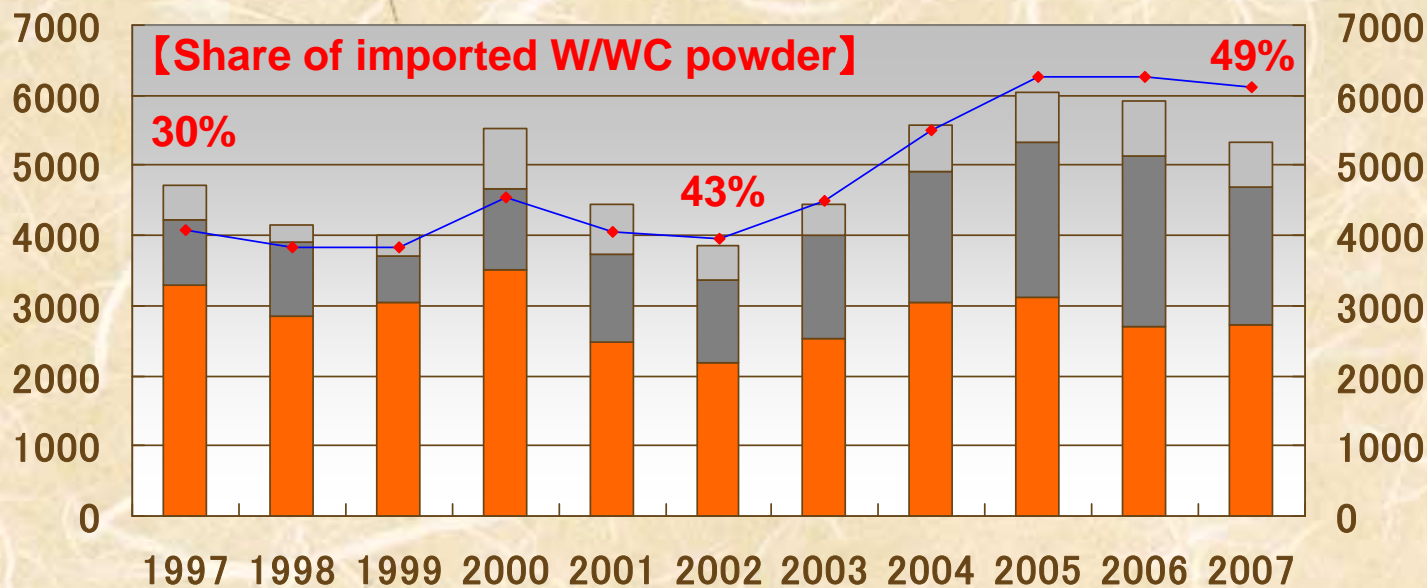
此后，其产量保持在3000吨-3500吨之间。

## 2.2. Cemented carbide production

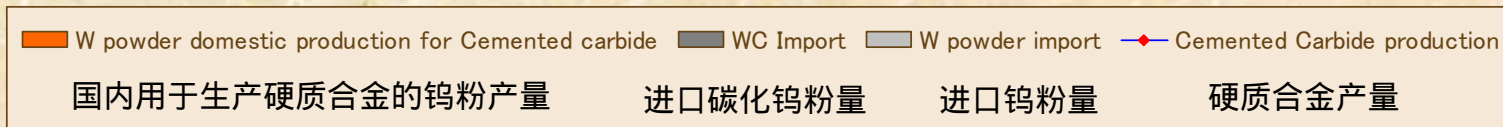
### 硬质合金产量

As W content (Mt)

钨金属含量：（单位：公吨）



Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.



Cemented carbide production keeps 6,000mt level on the basis of high increase of imported W/WC powder. (2,014mt in 2000 → 3,207mt in 2006)

钨粉和碳化钨粉的进口量从2000年的2014公吨上升至2006年的3207公吨。

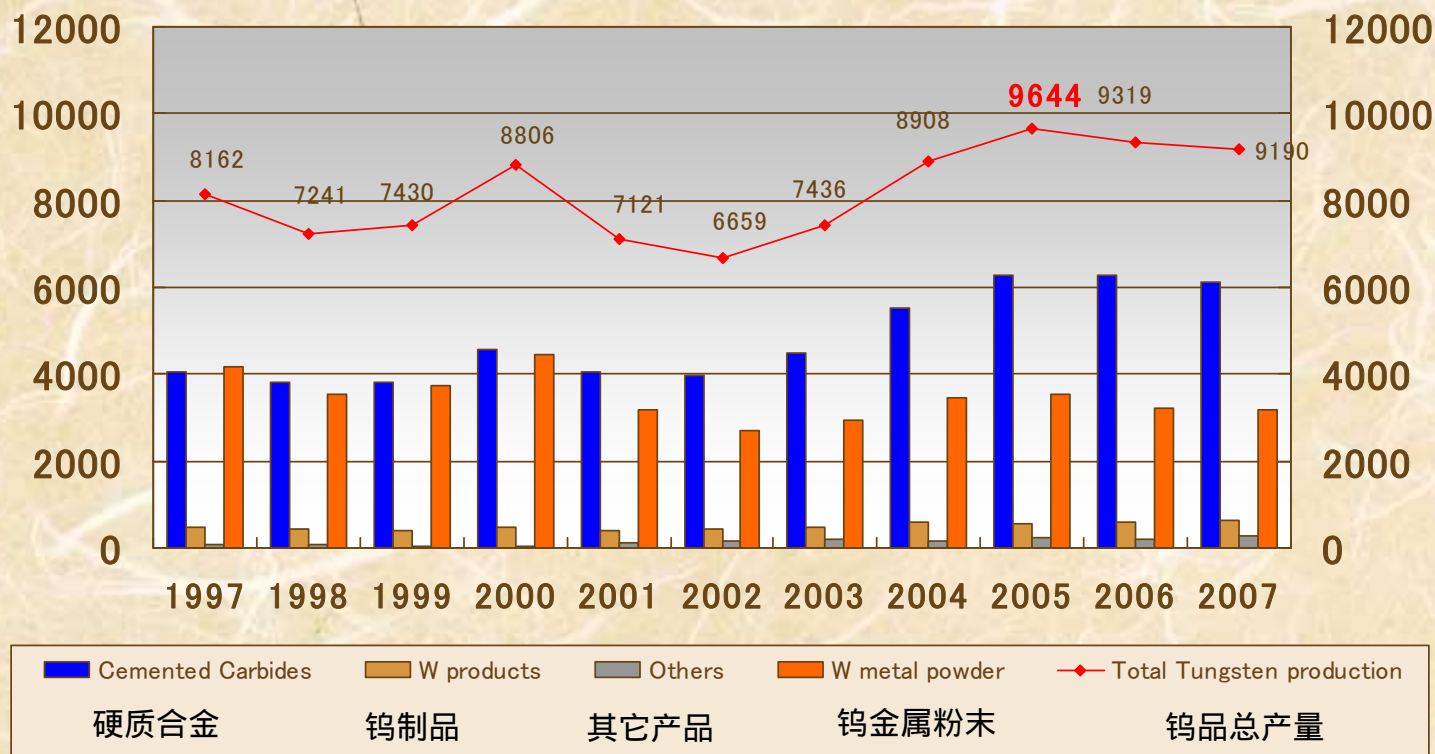
在进口量迅速增长的基础上，硬质合金产量保持在每年6000公吨的水平。

## 2.3. Tungsten production summary

### 钨品产量概述

As W content (Mt)

钨金属含量：（单位：公吨）



Total W consumption is still 9,000t/year level from 2004.  
Cemented Carbides production is 6,000t/year level from 2004.

自2004年后，钨的年消费量仍然在9000吨左右，

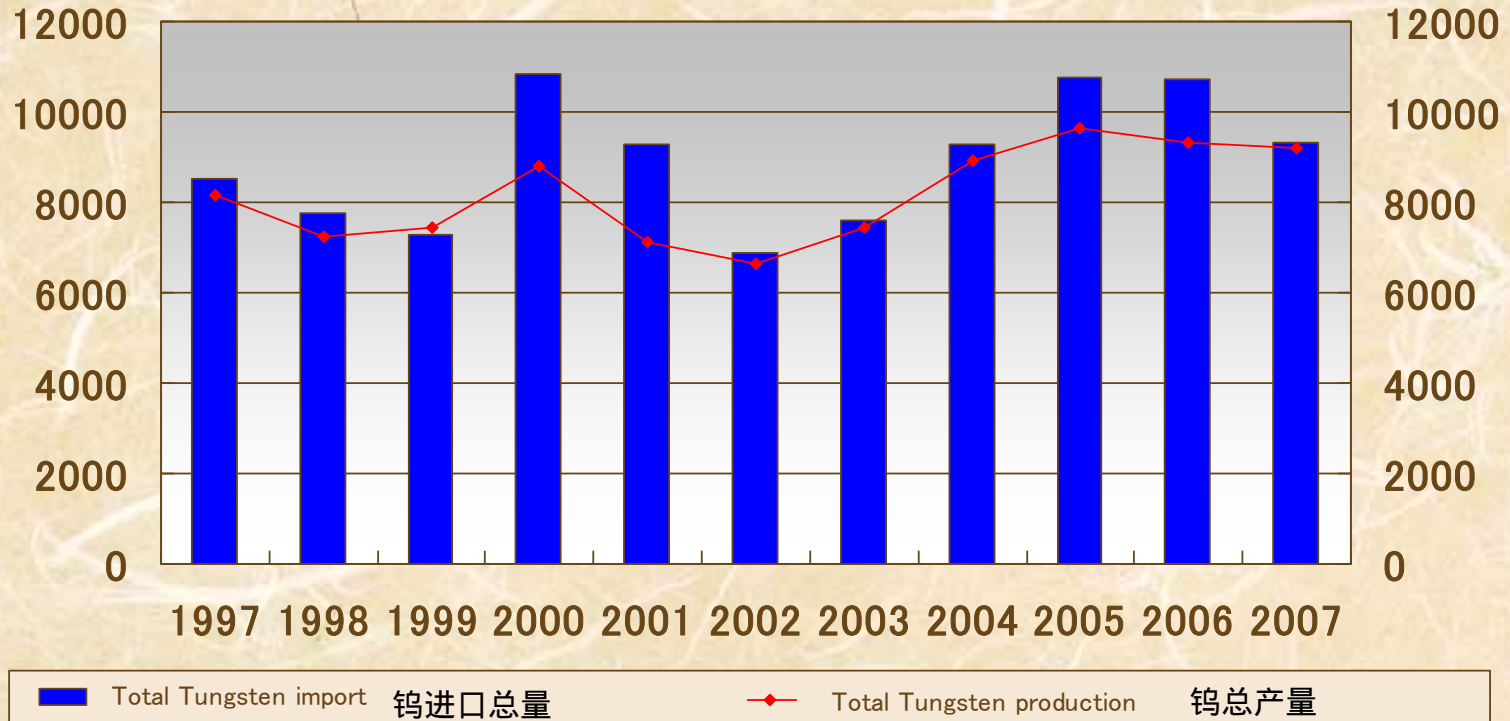
硬质合金的年产量在6000吨。

## 2.4. Production and Tungsten import

### 钨产量及进口情况

As W content (Mt)

钨金属含量：（单位：公吨）



Sudden price jump up from 2005 made speculative import more than actual consumption. Adjustment of stocks was made in 2007 and it made import amount less in 2007.

2005年钨价上涨使得投机性进口量大增，远远超过实际消费量。

2007年钨库存量进行了调整，进口量下降。

# 3. Recent topics

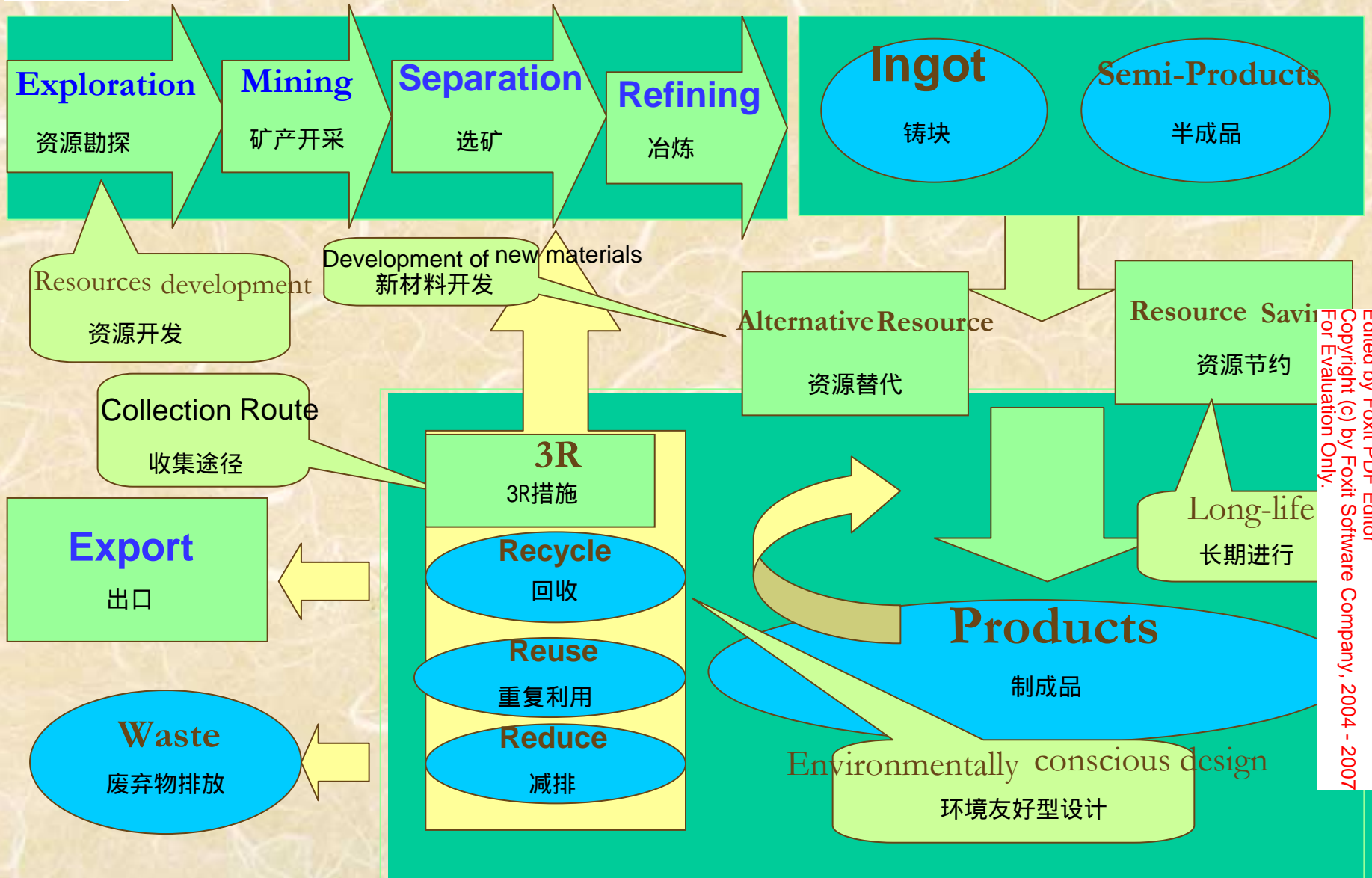
## 近期重大事件

- Recycle situation 钨回收现状
- Cemented carbide export 硬质合金产品出口



# Sustainable Cycle of Rare Metal

## 稀有金属的可持续循环

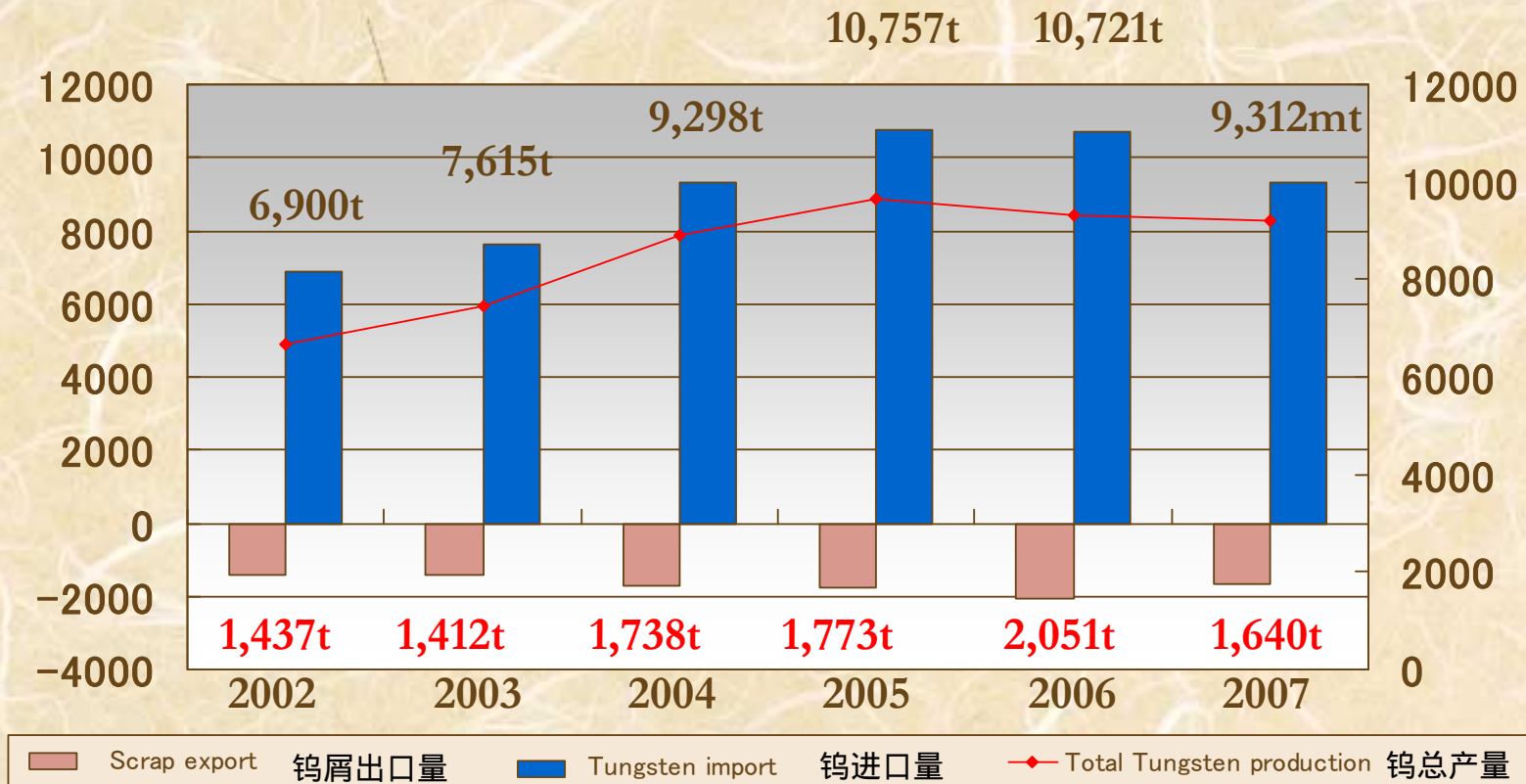




### 3.1. Export of Tungsten scraps 钨屑出口情况

As W content (Mt)

钨金属含量：(单位：公吨)



Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

In 2007 export amount was 1,640mt, 20% less than previous year.

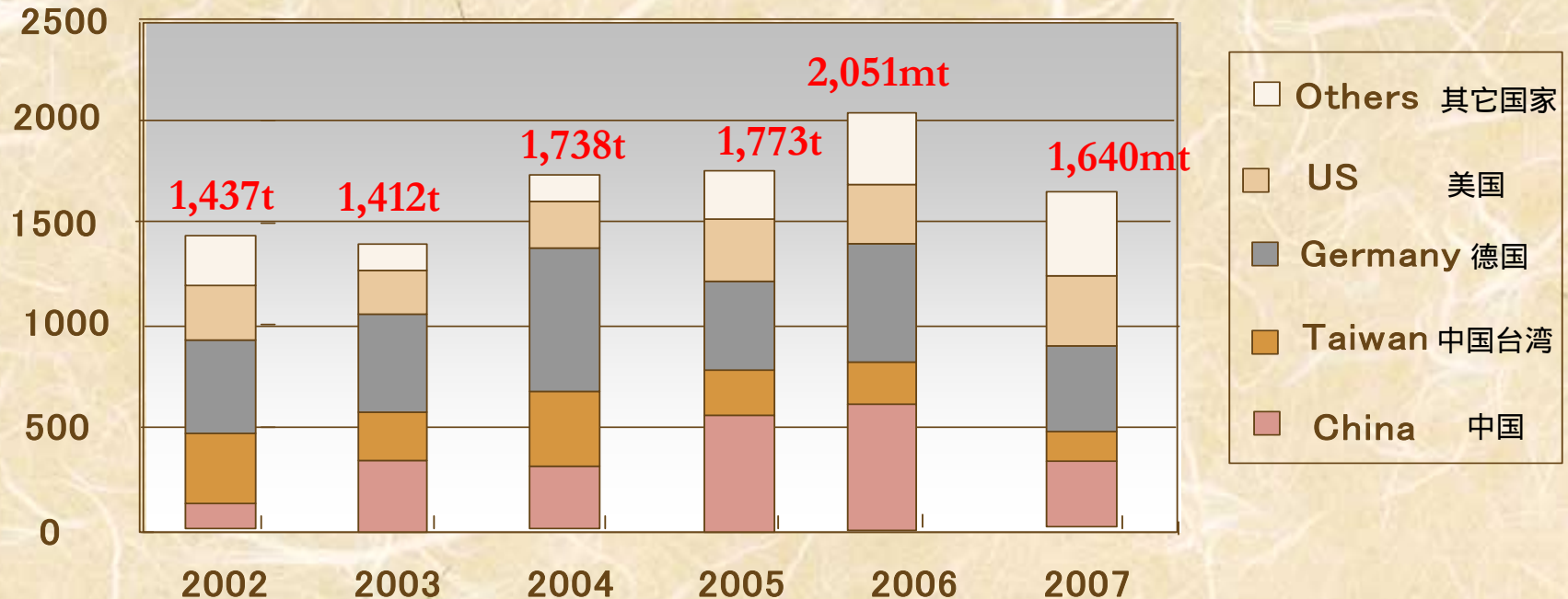
2007年钨出口量为1640公吨，较上年减少20%。

## 3.2. Scraps export per countries

### 分国别统计钨屑出口量

As W content (Mt)

钨金属含量：（单位：公吨）



In 2007 export amount was 1,640mt, 20% less than previous year.

2007年钨出口量为1640公吨，较上年减少20%。

### 3.3. Support for recycle technology

#### 钨回收系统的技术支持

Around 2,000~2,500mt of Cemented carbide scrap per year in Japan. Almost of them are exported due to high recycle cost and lack of recycle facility.

日本每年约有2000吨-2500吨的硬质合金废屑，  
由于回收成本高，缺乏回收设备等原因，其中大部分出口到国外。

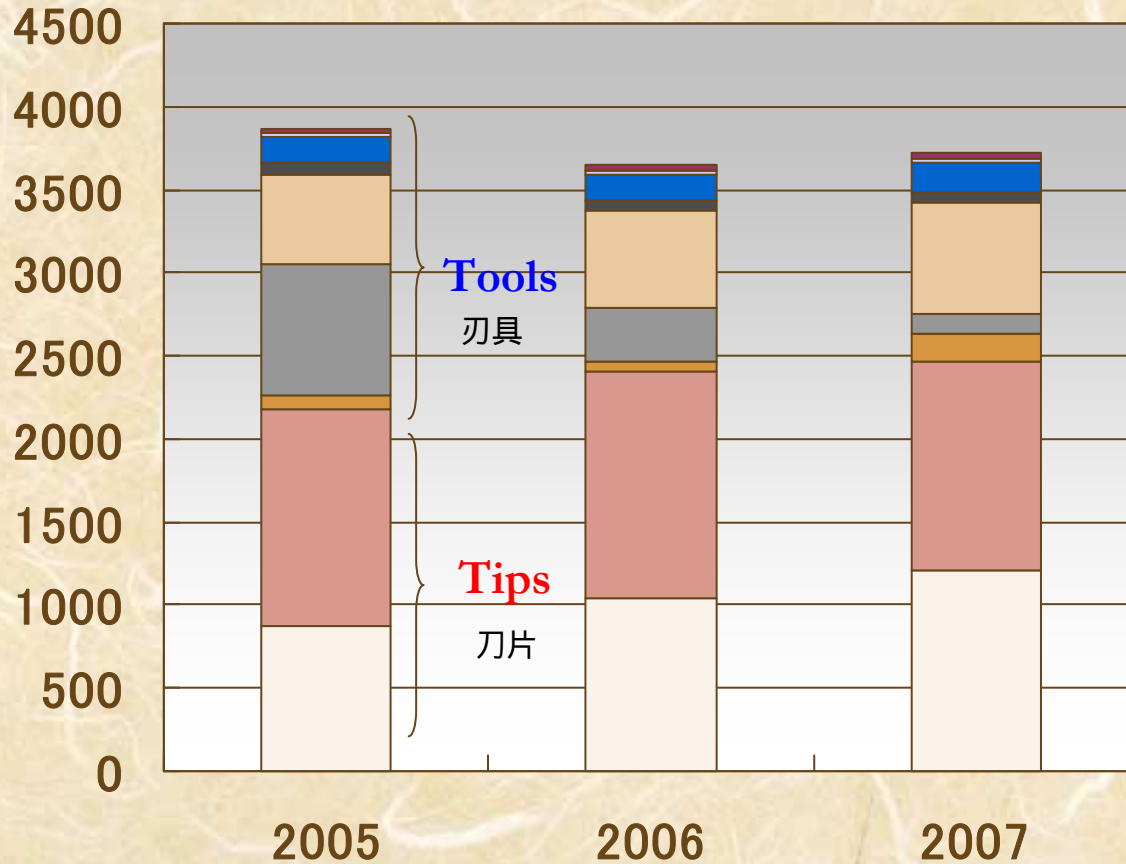
Japanese government supports to develop new technology for recycle of cemented carbide scraps from 2007~2010.(Lower cost, less energy technology.)

自2007年-2010年，日本政府支持硬质合金废屑回收新技术的开发，  
以低成本、低能耗的新技术为扶持对象。

### 3.4. Tips and Tools exports

#### 刀片和刀具出口情况

Unit: Mt  
单位: 公吨



- Other interchangeable tools  
其它可转换刀具
- Tools for turning  
旋转刀具
- Tools for milling  
铣削刀具
- Tools for boring or broaching  
金属切削或拉削刀具
- Tools for drilling, other than for rock drilling  
钻探刀具, 尤其是岩层钻探专用工具
- Tools for pressing, stamping or punching  
压制、模压或冲压刀具
- Rock drilling, earth boring tools  
岩层钻探及地表切削刀具
- Other tips  
其它刀片
- Throw away tips  
废弃刀片

Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

# 3.5. Automobile production and Tips export

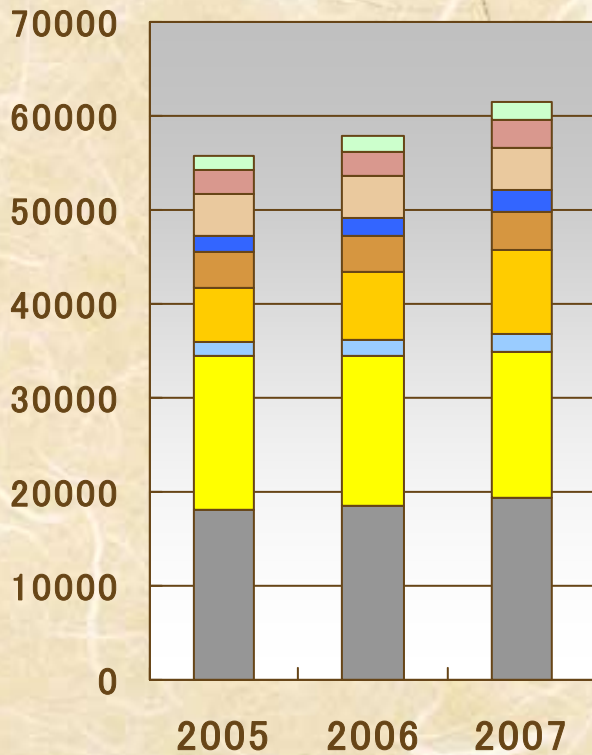
## 汽车产量及刀片出口情况

### Automobile production

汽车产量

Unit: 1000pcs

单位：1000辆

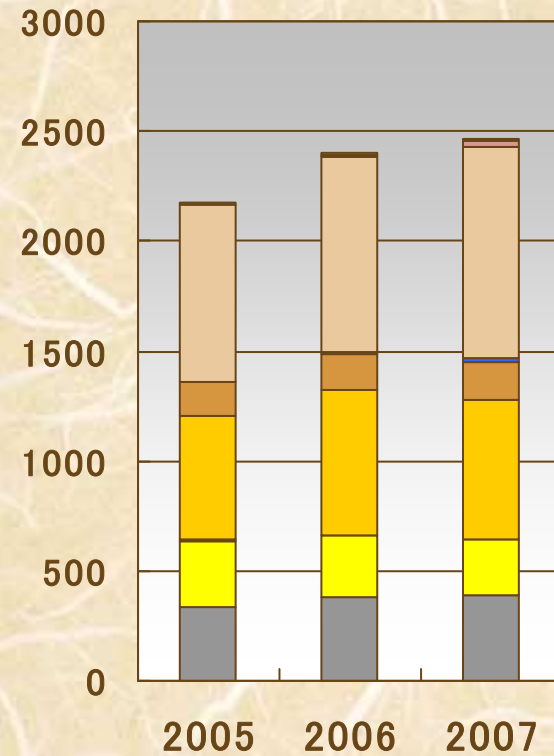


### Export of Tips

刀片出口

Unit: Mt

单位：公吨



- Others 其它国家
- Brazil 巴西
- Other Asia 其它亚洲国家
- India 印度
- Korea 韩国
- China 中国
- CIS 独联体国家
- North America 北美国家
- EU 欧盟

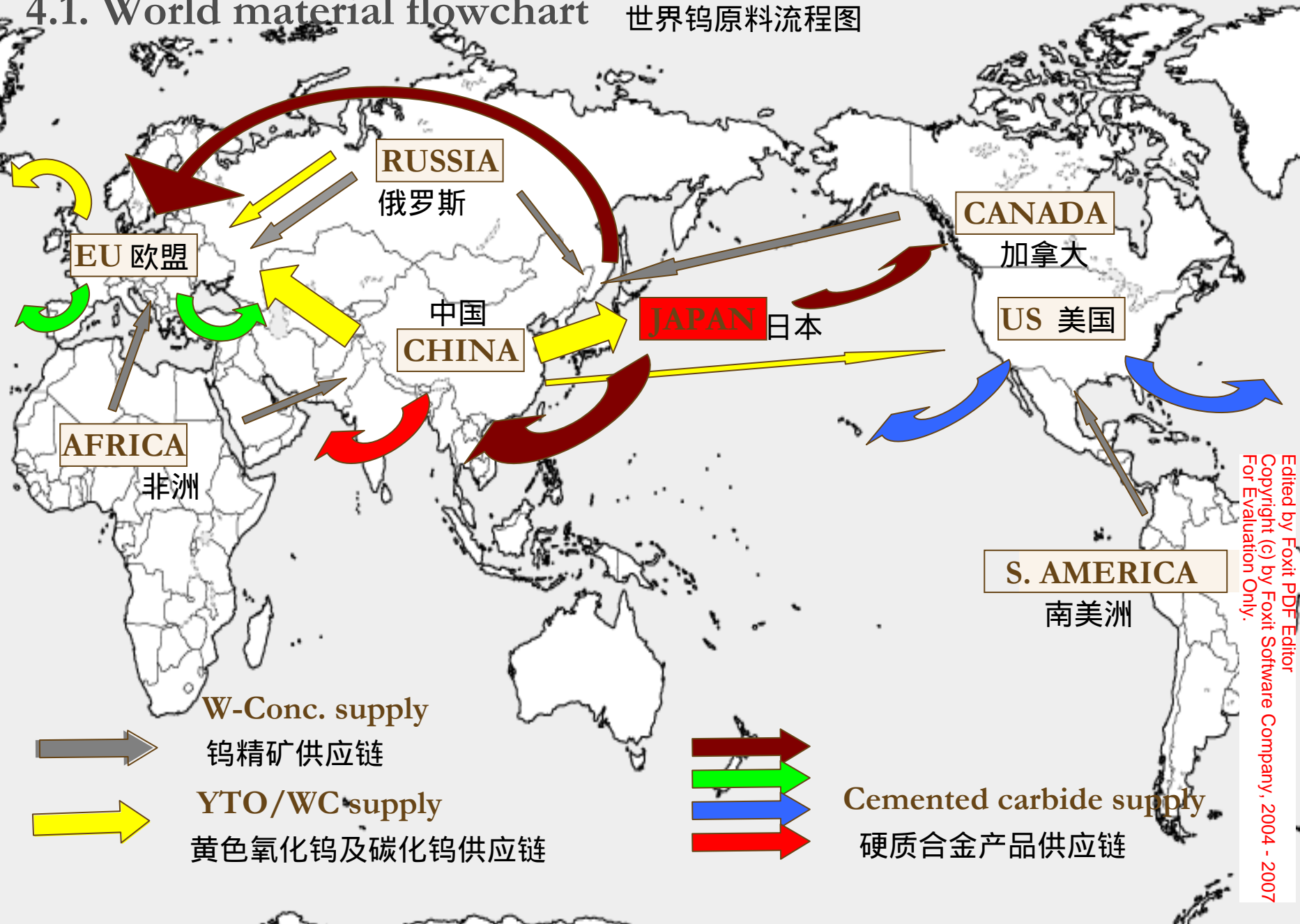
Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

# 4. Conclusions

## 结束语

- World material flowchart  
世界钨原料流程图
- Conclusions ~Japanese market~  
日本钨市场总结
- Conclusions ~World market~  
世界钨市场总结

# 4.1. World material flowchart 世界钨原料流程图



**W-Conc. supply**  
 钨精矿供应链  
**YTO/WC supply**  
 黄色氧化钨及碳化钨供应链

**Cemented carbide supply**  
 硬质合金产品供应链

Edited by Foxit PDF Editor  
 Copyright (c) by Foxit Software Company, 2004 - 2007  
 For Evaluation Only.

## 4.2. Conclusions ~Japanese market~ 日本钨市场总结

Japanese tungsten industry has 10~15% of world demand and the function as processing base on the basis of high technology production.

日本作为高技术钨产品加工基地，满足世界钨产业需求量的10-15%。

To keep this function Japanese tungsten industry needs not only for **continuous development of new technology**, but for stable raw material supply.

日本钨产业为保持这一基地优势，必须要不断发展新技术，而且要保证原料的稳定供应。

- **To strengthen relation with suppliers**  
加强与供应商的联系。
- **To make efficient recycle system**  
形成有效的回收系统。



### 4.3. Conclusions ~World market~

#### 世界钨市场总结

After price jump up in 2005, world tungsten price moved by suppliers' situation on the conditions of good demand.

自2005年钨价飞涨之后，由于需求旺盛，世界钨价调控权掌握在供应商手中。

But now we have to watch world tungsten demand movement due to recession of automobile industry.

由于汽车产业的衰退，必须关注世界钨需求的变化。

# Thank you for your attention !!!

谢谢！



日本先进材料有限公司

Shigeo Nakamura

Advanced Material Japan Corp.

Tel +81-3-3560-5181/Fax +81-3-3560-5182

E-mail : [mo-nishino@amjc.co.jp](mailto:mo-nishino@amjc.co.jp)

URL : <http://www.amjc.co.jp>