



**MINUTES
GENERAL ASSEMBLY OF MEMBERS
INTERNATIONAL CADMIUM ASSOCIATION
Tuesday, November 1, 2005 – 8:30 AM**

**De Vere Cavendish St. James Hotel – Stratus Room
81 Jermyn Street, London SW1Y 6JF, United Kingdom**

1. CALL TO ORDER

The General Assembly of Members of the International Cadmium Association was called to order at 8:35 AM by its Chairman, Graham White of Considar Metal Marketing, Inc. The following persons were in attendance or were represented by their Proxy:

REPRESENTATIVE

Graham White, Chairman
Claudine Lecomte
Murray E. Cook
Damian Thomas
Patrick de Metz
Nelson Rodrigues

MEMBER COMPANY

Considar Metal Marketing, Inc.
Floridienne Chimie, S.A.
International Zinc Association
Rockwood Pigments (UK) Limited
SAFT
SLMC

MEMBERS' PROXIES

Hugh Morrow for Michael Ball
Brian Cooke for Tim Pugh
Anthony Davis for Stephen Heddle
Graham White for Mitsuyoshi Iwasaka
Betsy Kraft-Liebermann
Jeffery Mammarella
Mitsunori (Mike) Takao

MEMBER COMPANY

Acme Electric Corporation
Black & Decker Corporation
INMETCO
Japan Mining Industry Association
Kraft Chemical Company
Millennium Specialty Chemicals
Sanyo Electric Co., Ltd.

STAFF AND GUESTS

Anne Dekker
Stephen Wilkinson
Andrew Green
Lidia Regoli
Hugh Morrow

ORGANIZATION

Zinifex Limited
International Zinc Association
ILZRO
International Cadmium Association
International Cadmium Association

An attendance roster was circulated for each attendee to sign. The Chairman asked Hugh Morrow to serve as the Secretary Pro-Tempore to record the Minutes of the General Assembly. With representatives from thirteen of the association's twenty-one members either being present in person or represented by Proxy, a quorum of members was established for the transaction of business.

2. APPROVAL OF THE MINUTES OF OCTOBER 14, 2004 GENERAL ASSEMBLY

Hugh Morrow noted that the Minutes of the previous ICdA General Assembly of Members, held in London on October 14, 2004, had previously been distributed to the membership for review and comment. Chairman Graham White asked if there were any additions or corrections to these Minutes as distributed. None being forthcoming, the Chairman asked for a Motion to approve the Minutes of the October 14, 2004 General Assembly on Members. **Upon motion made by Damian Thomas, seconded by Murray Cook, and carried unanimously, the Minutes of the October 14, 2004 ICdA General Assembly of Members were approved as submitted.**

3. ELECTION OF OFFICERS AND DIRECTORS

Ms. Lidia Regoli presented the Proposed Slate of Officers and Directors of the International Cadmium Association, which is attached to these Minutes as Annex I. She noted that Patrick de Metz of SAFT S.A. would replace Robert Eloy, who has retired, as Vice-Chairman to represent the interests of the nickel-cadmium battery industry along with Mike Takao of Sanyo. Damian Thomas of Rockwood Pigments (UK) Limited would be the other Vice-Chairman representing the interests of the cadmium pigment producers. Ms. Regoli also added that Murray Cook would be leaving the International Zinc Association at the end of 2005, and that his position as an ICdA Director would be filled by Stephen Wilkinson of IZA. In addition, Anne Dekker of Zinifex Limited and Graham White of Consider Metal Marketing, Inc. were proposed as directors to also represent the membership of the International Zinc Association and the zinc/cadmium producers. Thus, the present Slate of Directors contains four cadmium producers, four cadmium consumers, and two cadmium recyclers. Madame Lecomte noted that Jacques David was no longer at SNAM, and that a suitable alternate from SNAM would be determined to serve on the ICdA Board of Directors.

Chairman Graham White asked if there were any additional discussion or further proposals for Officers and Directors. None being forthcoming, he asked for a motion to approve the Proposed Slate of Officers and Directors. **Upon motion made by Patrick de Metz, seconded by Nelson Rodrigues, and approved by the meeting, the Proposed Slate of Officers and Directors, as shown in Annex I, were elected as Officers and Directors of the International Cadmium Association.**

4. FINANCIAL REPORT

Ms. Regoli presented the Financial Report for 2004 which is attached to these Minutes as Annex II. Total expenditures for the year 2004 were \$187,228 against budgeted expenses of \$275,300 or \$88,072 under budget. It was explained that these lower expenditures resulted from a number of areas such as part of the consulting costs for the North American office coming out of remaining funds in the North American bank account, much less use of outside consultants and scientific support than originally anticipated, absorption of some office costs in 2004 by the International Zinc Association, and lower than expected travel and meeting expenses.

On the other hand, total projected subscription income from members was also lower, \$243,392 vs. expected income of \$266,500, a shortfall of \$23,108. In addition, because of the strong Euro and the weak dollar in 2004, the association sustained exchange rate losses of \$29,599. Thus, the overall balance sheet at the end of 2004 showed a slight decrease in the surplus carried forward into 2005 compared to the amount carried forward into 2004.

It was pointed out that the association cannot continue to erode its surplus and that a minimum surplus of \$30,000 must be maintained in the bank account simply to sustain operations. Discussions also centered around the significant problem associated with currency exchange losses and that in fact these losses were a substantial portion of the association's operating budget. Proposals were made and discussed of methods by which the association's income could be better stabilized. Murray Cook proposed that all members should be invoiced in Euros rather than dollars to protect against the currency exchange losses. Lidia Regoli and Hugh Morrow pointed out that the association's dues structure had remained unchanged since 1999 and that perhaps an adjustment for inflation should be made in members' subscription fees.

5. PROPOSED OPERATING PLAN AND BUDGET FOR 2006

Lidia Regoli presented the Proposed 2006 Business Plan for approval by the Members of the International Cadmium Association which is attached to these Minutes as Annex III. While the basic objectives and operating procedures in 2006 will remain the same as they did in 2005, Ms. Regoli noted that a General Assembly of ICdA Members would be held only once a year, in the fall in London during London Metals Exchange Week. A second informational meeting would be held in North America during the spring in conjunction with related IZA or ILZRO meetings. The next meeting is tentatively scheduled for around April 2006, probably in Washington, DC.

The financial plan for 2005 was \$230,370 in total costs. At the present time, projected costs for 2005 are \$221,690 for a slight surplus of \$8,680. However, against this slight surplus, \$4,722 less in income is expected than originally projected, and since 2005 costs are expected to exceed 2005 income, the association's surplus carried forward will diminish further. The proposed budget for 2006 therefore presents reductions in operating costs where possible, allows a contingency to cover currency exchange losses, and does not rely on membership dues which cannot reasonably be expected. Even with this budgetary tightening, it is anticipated that expenses will exceed income slightly in 2006 and that the association's surplus at the end of 2006 will only be slightly above \$30,000. These budgetary realities again provoked a detailed and extended discussion of how the association could increase its revenues, reduce its expenditures and protect against continued erosion of its year-to-year surplus. **Upon motion made by Murray Cook, seconded by Tony Davis, and approved by the General Assembly, it was decided to recalculate the budget and subscription rates in Euros, to adjust the subscription rates for inflationary increases, and to resubmit the 2006 ICdA Business Plan to the membership for final approval.**

6. STATUS OF THE EUROPEAN UNION'S REVISION TO THE BATTERY DIRECTIVE

Patrick de Metz, Corporate Environmental Affairs Director for SAFT S.A., presented an overview of the EU's proposed revision to the Battery Directive which is attached to these Minutes as Annex IV. He emphasized the history and the politics of the proposed revision to 91/157/EEC which was first proposed in 1996 and now, almost ten years later, appears set for resolution into a final Directive in 2006. Considerable lobbying of the European Parliament has been undertaken by SAFT, Sanyo, Black & Decker and others within RECHARGE with apparently some success. The revision has just completed its second reading in the EU Parliament which has resulted in a retreat to the previous position, a partial ban on cadmium in batteries, but significant exemptions for industrial NiCds, portable NiCds for emergency and medical applications, and NiCds utilized in cordless power tools. This newly adopted position is much less severe than that proposed by the EU Parliament Rapporteur, Johannes Blokland, who had advocated a complete ban on all NiCd batteries. If the EU Council does not accept the Parliament's position, then the proposed revision must go through the Conciliation process before the final Directive is issued. It is now expected that the final Directive will be issued by the end of 2006 at the latest and that Member States will then have two years to transpose it into national law.

7. ICdA OPERATIONAL MATTERS

Lidia Regoli and Hugh Morrow briefly reviewed three ongoing operational matters for the International Cadmium Association. These are amendments to the By-Laws of the association, the formal closure of The Cadmium Council, Inc. in the United States, and the status of the membership of the association.

Amendments to the ICdA By-Laws –Ms. Regoli reported that she had been in contact with the Umicore lawyers to assist us in complying with all necessary regulations to become officially registered in Belgium as a not-for-profit association and to thereby avoid a problem of non-recovered VAT tax which had arisen in the past two years. She will keep the membership advised of these developments as they occur.

Formal Closure of The Cadmium Council, Inc. – Hugh Morrow summarized the status of the activities undertaken to formalize the closure of The Cadmium Council, Inc. in the United States, which are summarized in Annex V to these Minutes. The Cadmium Council's bank account has been closed and

all funds from that account disbursed. The Virginia Employment Commission has been notified of the dissolution process and therefore ICdA / CCI is no longer required to file annual reports or pay an annual registration fee to conduct business in the Commonwealth of Virginia. In the Spring of 2004 an Action of the Board of Directors Taken by Written Consent in Lieu of a Meeting was completed as the first formal step to dissolve The Cadmium Council. A Unanimous Consent of the Members of The Cadmium Council, Inc. petition was then circulated for signature to all members of ICdA who were formerly members of The Cadmium Council, Inc. It required more than a year and many letters, e-mails and phone calls to obtain all the requisite signatures except one. Industrial Minera Mexico, S.A. de C.V., which had not formally resigned as a member but who had not paid their dues for the past three years, refused to sign the petition. Hugh Morrow pointed out that, under the By-Laws of The Cadmium Council, Inc., any member who does not pay his dues within a reasonable period is subject to expulsion, and that the General Assembly could simply vote IMMSA out of membership and its signature would therefore not be required on the Unanimous Consent petition. **Upon motion duly made, seconded and approved, it was voted to rescind the membership of IMMSA in the International Cadmium Association for non-payment of its dues. Hugh Morrow was instructed to then proceed with the formal closure of The Cadmium Council without IMMSA's signature.**

Membership Report – Hugh Morrow reported on membership resignations or changes in members' status since the last Membership Report. These items are noted in the attached Membership Report as Annex VI. Three consumers – Marathon, Mine Safety Appliances and Panasonic – have resigned because their product lines no longer utilize or have greatly de-emphasized cadmium containing products. Considar Metal Marketing has chosen to be represented by the single membership of the International Zinc Association. General Quimica S.A. was acquired by S.L.M.C. and Johnson Matthey sold its cadmium pigments interests to Rockwood Pigments.

8. UPDATE ON REGULATORY ISSUES

European Union – Ms. Regoli presented an overview of the European Union's Risk Assessment on cadmium and cadmium oxide, the proposed EU Risk Reduction Strategy for cadmium, and the current status of ICdA's request for exemptions from the ROHS Directive. Her presentation is attached to these Minutes as Annex VII.

Ms. Regoli also made a short presentation on a proposed study of the effects of cadmium on bone in workers occupationally exposed to cadmium. This presentation is attached to these Minutes as Annex VIII. She pointed out that direct effects of cadmium exposure on bone in workers was an issue raised in the EU cadmium risk assessment, but had not been considered in the previous 1996 risk management strategy for cadmium. Such a study might be required for the upcoming Risk Reduction Strategy for Cadmium in Europe. It was suggested that the funding of this project be divided among European companies from the three cadmium sectors (pigments, batteries and producers).

North America – Hugh Morrow briefly reviewed some of the major regulatory developments for cadmium in North America. His presentation is attached to these Minutes as Annex IX. These included development of the Metals Assessment Framework by the U.S. Environmental Protection Agency, the NAFTA Program on Children's Health, the State of Washington program on Persistent, Bioaccumulative and Toxic (PBT) chemicals, and the State of New York's Harbor Program.

International Cadmium Issues – Both Lidia Regoli and Hugh Morrow covered international cadmium issues of importance in their presentations (see Annexes VII and IX). These included the United Nations Economic Commission for Europe (UNECE) Long Range Transboundary Air Pollution (LRTAP) Heavy Metals Protocol, the United Nations Environment Programs's (UNEP) Heavy Metals Program, and the UNEP Strategic Approach for International Chemicals Management (SAICM).

9. UPDATE ON MARKET AND MARKET DEVELOPMENT ISSUES

Hugh Morrow made a brief presentation on the current of the worldwide cadmium market. His presentation is attached to these Minutes as Annex X. Since a fairly thorough market update was previously sent to all ICdA members in September 2005, this presentation was merely an update of any changes which had occurred since September. The most significant change is that cadmium price has increase dramatically during the fall of 2005 to about the \$2.50 per pound level according to *Metal Bulletin*. This price increase is believed to be due mainly to continued strong NiCd battery production in China coupled with decreased cadmium metal supply from the primary producers.

10. NEXT MEETING DATE

The next meeting date proposed for an informational meeting of ICdA was during the American Zinc Association's winter meeting in Florida in February 2006. Subsequent to the meeting, however, it was decided that a more appropriate time and place would be in May 2006 in Washington, DC which would correspond to the International Zinc Association's Environmental Committee meetings and allow a full six month interval after the November 2005 meeting. ICdA members will be advised as to the exact time and place of the meeting in the near future.

11. ADJOURNMENT

There being no further business before the General Assembly of Members and upon motion duly made Claudine Lecomte, seconded by Murray Cook, and approved by the meeting, the General Assembly of Members of the International Cadmium Association was adjourned by its Chairman, Graham White, at 12:25 PM.

Respectfully Submitted,

Hugh Morrow
Secretary, Pro-Tempore

Approved,

Graham White
Chairman



**PROPOSED OFFICERS AND DIRECTORS
INTERNATIONAL CADMIUM ASSOCIATION**

The following persons are proposed for election as Officers and Directors of the International Cadmium Association for a three-year term at its General Assembly of Members to be held on November 1st, 2005:

Chairman	Graham White	Considar Metal Marketing
Vice Chairman	Patrick DeMetz	SAFT S.A.
Vice Chairman	Damian Thomas	Rockwood Pigments (UK) Ltd;
Director	Anne Dekker	Zinifex Limited
Director	Yves Dubois	Umicore S.A.
Director	Mitsunori Takao	Sanyo Electric Co., Ltd.
Director	Timothy G. Pugh	Black & Decker Corporation
Director	Stephen Heddle	INMETCO
Director	Jacques David	S.N.A.M.

ANNEX II

International Cadmium Association		
2004 Financial Results		
(US\$)		
	<u>2004 Plan</u>	<u>2004</u>
STAFFING		
Headquarters (A)	40,000	42,826
Sr Cons.(North America)(B)	107,500	93,225
Other Consultants(C)	35,000	180
Scientific Support	15,000	2,475
Secretarial	5,000	0
Administration/Accounting	6,000	1,485
Total Staff Costs	208,500	140,191
OPERATIONS		
Rent/rates/office services	14,000	12,344
Documentation, IT support	9,000	8,363
Insurances/banking costs	1,500	4,708
Telecommunications	4,000	2,672
Postage	1,000	509
Meetings	10,000	2,891
Travel & subsistence	20,000	8,211
Recharge membership	2,300	2,200
Publications	0	0
Contingency (D)	5,000	5139
Total Operating Costs	66,800	47,036
TOTAL COSTS	275,300	187,228
TOTAL PROJECTED SUBSCRIPTION INCOME	266,500	243,392
EXCHANGE RATE DIFF	0	-29,599
SURPLUS/(LOSS) FOR YEAR	-8,800	26,565
SURPLUS/(LOSS) BROUGHT FORWARD	80,000	38,500
SURPLUS/(LOSS) CARRIED FORWARD	71,200	65,065
(**) of which unpaid invoices	\$2,500	



International Cadmium Association

2006 BUSINESS PLAN

Submitted to the approval of the Members
Of the International Cadmium Association

1 November 2005

1 Introduction

The International Cadmium Association has represented the interests of the producers and users of the metal since its formation in 1993, with the amalgamation of the UK-based Cadmium Association and the US-based Cadmium Council Inc. The organisation has strong practical and financial support from a broad range of cadmium-related industries.

Following a strategic review of the organization's structure by ICdA's Board of Directors, ICdA has now stabilized its financial structure through the support of IZA and benefits from synergies in operation of ICdA and IZA. Nevertheless, the organization operates on a reduced budget over previous years and activities are inevitably constrained by resources.

This Business Plan sets out the operational and financial plans for ICdA in 2006.

2 Mission and Objectives

ICdA's mission is:

- Monitor scientific and regulatory developments that impact members' cadmium-related activities
- Respond to regulatory proposals and advocate the interests of members
- Report on scientific and regulatory developments to members

ICdA's primary objectives are to ensure market access for cadmium products and to respect the principles of sustainable development, including the protection of human health and the environment.

3 ICdA Secretariat and Staff

As was done in 2005, IZA will provide secretariat services, including staffing, for ICdA. Activities will largely be executed by two part-time principal staff members. The use of outsourced technical and administrative support and synergies with IZA has significantly enhanced operating effectiveness in the core activity of regulatory affairs.

An overview chart of the staffing structure, sources of external support, and synergies are available on the intranet.

Principal ICdA officers are shown in Table 1.

Table 1: ICdA Staff 2006		
General Manager (Ms. Lidia Regoli)	<i>Location:</i> <i>Responsibilities:</i>	Brussels, Belgium Association management and control; EU regulatory affairs

	<i>Reports to:</i>	ICdA Chairman
	<i>Min Activity level:</i>	0.5 man-year
Senior Consultant (Mr Hugh Morrow)	<i>Location:</i>	Washington DC, USA
	<i>Responsibilities:</i>	North American regulatory affairs; specific international regulatory affairs
	<i>Reports to:</i>	General Manager
	<i>Min Activity level:</i>	0.5 man-year

These staffing arrangements are flexible and higher levels of staffing can be applied dependent on ICdA requirements and available funding.

3.1 Accounting and Administrative / secretarial support

ICdA does not employ any support staff. Administrative and secretarial support for ICdA's HQ will be drawn from IZA staff or otherwise outsourced. IZA will be reimbursed for costs incurred in providing this support. Accounting will be administered through IZA's internal systems, with ICdA retaining its separate bank accounts and audited annual accounts.

Office accommodation, office services, computing services and other support services will be provided by IZA.

3.2 Scientific Support

Expert support for regulatory affairs activities will be drawn, as required, from IZA's related organisations, in particular ILZRO. Support may also be drawn from other individuals/organisations as required. These organisations will be reimbursed for costs incurred in providing this support.

4 2006 Activities

Activities in 2006 will focus on:

- Regulatory developments with impact on members' activities
- Communications strategy and activities

4.1 Regulatory Developments

4.1.1 European Union

Priorities:

- Cadmium Risk Assessment conducted under Regulation 793/93 and subsequent risk management procedures.
- Revisions to the Directive 91/157/EEC (The Battery Directive) – supporting actions to the European portable rechargeable battery association (RECHARGE)

- Specific issues related to pigments have been identified such as
 - o exemptions to Directive 2002/95/EC (RoHS/WEEE),
 - o monitoring of Directive 91/338/EEC (Restrictions on marketing and use of cadmium pigments, stabilizers and coatings)
 - o strategy and activities related to risk management.
 - o Other identified product specific regulatory threats
- Monitoring the revisions of the Classification and Labeling of cadmium and cadmium compounds for the 30th ATP (Adaptation to Technical Progress).

Monitoring level:

- EU directives for Groundwater, Soil Protection, Water Framework Directive, Waste, SCALE program (through Eurométaux)
- End-of-life Directives on Vehicles and other end of life directives, affecting certain cadmium products.

4.1.2 North America

Priorities:

- Activities in support of North American Metals Coalition on the U.S. EPA's Metals Assessment Framework for Metals
- Activities in support of North American Metals Coalition on the NAFTA CEC Sound Management of Chemicals Program
- Activities in support of the collection and recycling of cadmium containing products, particularly nickel-cadmium batteries

Monitoring level:

- Proposed regulations on occupational exposures, emissions and waste disposal of cadmium containing products
- Introduction of proposed Federal or local regulations to ban or limit cadmium products in North America based on EU

Directives.

- Toxicological reviews on cadmium and cadmium compounds by the Agency for Toxic Substances & Disease Registry (ATSDR), the National Toxicology Program (NTP), the Integrated Risk Information System (IRIS) and other agencies.

4.1.3 International

Priorities:

- UNECE Long Range Transboundary Air Pollution (LRTAP) Heavy Metals Protocol including possible tighter emission limit values and restrictions on cadmium products
- UNEP Heavy Metals Program evaluation of the long range transboundary pollution of cadmium and the need for undergoing global actions for cadmium.

Monitoring level:

- The application of mandatory cadmium product recycling laws and EU-type restrictions on cadmium products in Asia, South America and Africa.
- WHO/FAO limits for dietary exposures to cadmium

4.2 Internal Communications and Association Meetings

Briefings on regulatory developments and consultations with members on association strategy/actions are an important element of ICdA activity. A regular series of member communications will be maintained through 'Progress Reports'. Use of the pass-worded Intranet to ensure members have up-to-date access to information and positions will be an important part of this activity and will create a valuable archive for members' use.

One general meeting of members (and Board meeting) will be held. It is envisaged to be held in October (London, England). Other meetings and conference calls will be held as required to address specific developments.

4.3 Communications activities

It has become clear that there is a need to further integrate both general and sector-specific communications activities to support the regulatory affairs work and maintain confidence in markets. A general communication pamphlet "Cadmium, working towards a sustainable future" has been developed during the course of 2005, and has been made available electronically on the ICdA members only website. Activities related to sector specific communications will be explored at the General Assembly in October 2005.

Specific suggestions are to revise the existing sector specific communications information such as the 'Pigments are Green', and to update the public website (www.cadmium.org) with the more recent developments.

4.4 Statistics and Market Information

A limited activity will be maintained to collate relevant statistical information on world cadmium production and use and will focus on the information needs of regulatory and communications activities.

5 2006 Financial Plan

The 2006 financial plan is given in Table 2.

Table 2: International Cadmium Association 2006 Financial Plan (US\$)			
	<u>2005 Plan</u>	<u>2005 Forecast</u>	<u>2006 Plan</u>
STAFFING			
Headquarters (A)	60,000	60,000	50,000
Sr Cons.(North America)(B)	88,320	88,320	88,320
Other Consultants(C)	0	0	0
Scientific Support	10,000	6,000	8,000
Secretarial	3,500	3,000	3,000
Administration/Accounting	11,000	5,000	4,500
Total Staff Costs	172,820	162,320	153,820
OPERATIONS			
Rent/rates/office services	11,000	12,000	11,000
Documentation, IT support	6,000	8,000	7,000
Insurances/banking costs	1,500	5,000	2,500
Telecommunications	6,000	6,000	6,000
Postage	750	750	750
Meetings	5,000	5,000	5,000
Travel & subsistence	15,000	15,000	15,000
Recharge membership	2,300	2,620	2,620
Publications	5,000	0	2,500
Contingency (D)	5,000	5,000	5,000
Total Operation Costs	57,550	59,370	57,370
TOTAL COSTS	230,370	221,690	211,190
TOTAL PROJECTED SUBSCRIPTION INCOME	219,000	214,278	198,600
Unpaid subscriptions		10,000	
SURPLUS/(LOSS) FOR YEAR	-11,370	-17,412	-12,590
SURPLUS/(LOSS) BROUGHT FORWARD	61,565	61,565	44,153
SURPLUS/(LOSS) CARRIED FORWARD	50,195	44,153	31,563

(**) of which unpaid invoices \$63,333

*Provision for unpaid subscriptions

Notes to Table 2

Contingency includes provisional 15% VAT loss and for doubtful debts

Rates of subscription for 2006 are unchanged over 2005, and are given in Appendix I. Given the ongoing budget deficit by which ICdA has been running in the passed years, it is necessary to consider methods by which to address this deficit. It should be noted that the association has held the same subscription rates since 1999.



ASSESSMENT SCHEDULE 2006

The assessable period for 2006 Membership dues is based upon the pounds of cadmium, expressed on a contained metal basis, mined, produced, recycled or consumed during the period, January 1, 2005 through December 31, 2005. The Board of Directors has set the following assessment rates (US \$ per pound of cadmium contained) for 2006:

<u>CLASSIFICATION</u>	<u>DUES BASIS</u>	<u>2006 DUES</u>
Cadmium Producers	Total Pounds of Cadmium Production	US\$ 0.025
	Minimum Assessment	US\$ 5,000
	Maximum Assessment	US\$50,000
Cadmium Recyclers	Total Pounds of Cadmium Production (excluding toll treatment)	US\$0.0125
	Minimum Assessment	US\$ 2,500
	Maximum Assessment	US\$25,000
Cadmium Oxide Producers	Total Pounds of Cadmium Contained In Cadmium Oxide Production (excluding Primary Metal Production reported above)	US\$0.00125
	Minimum Assessment	US\$ 2,500
	Maximum Assessment	US\$25,000
Cadmium Consumers	Total Pounds of Cadmium Consumption	US\$0.0025
	Minimum Assessment	US\$ 2,500
	Maximum Assessment	US\$25,000
Mining Companies	Total Pounds of Cadmium Mined (excluding Primary Metal Production reported above)	US\$0.0125
	Minimum Assessment	US\$ 2,500
	Maximum Assessment	US\$25,000
Associations, Distributors and Others	Flat Fee or Special Fundraisings	US\$ 1,500

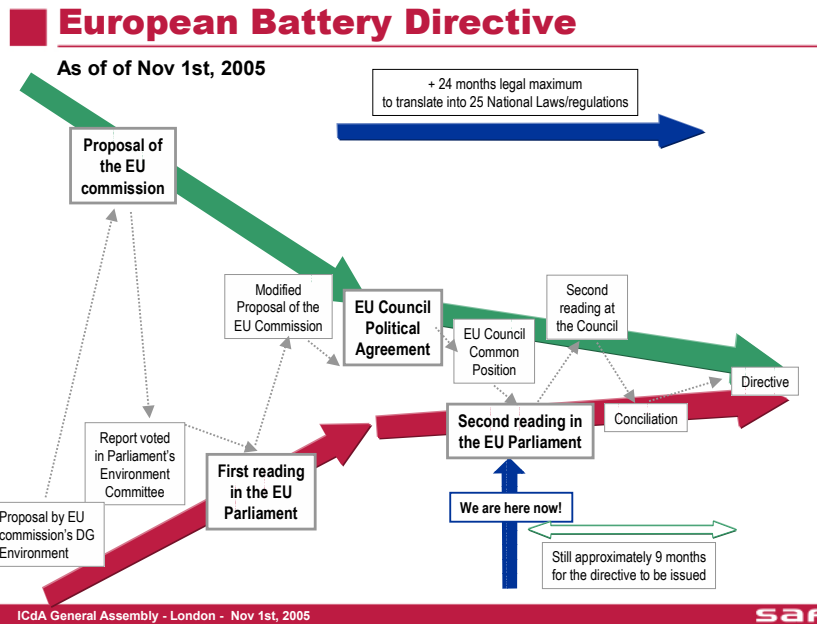


SAFT

Status of EU battery directive proposal

It is not because we are not paranoid that they are not out there to get us!

Photos D.R.



■ Commission Proposal of 11-2003

- **Purpose is waste management and legal base is 95 & 175**
- **Extended Producer Responsibility**
 - Definition of producers
 - Financing mechanism
- **All spent batteries must be collected**
- **Collection targets for portables**
 - All portables: 160g/inh
 - Portable Ni-Cd: specific target based on flow of spent batteries (80% of flow must be collected)
- **Specific recycling targets for each technology**

3

ICdA General Assembly - London - Nov 1st, 2005

SAFT

■ EP first reading amendments of 4-2004

- **Main purpose is prevention of heavy metals in batteries!**
- **All Ni-Cd and Lead/Acid batteries prohibited but for a set of exemptions which does not include:**
 - Households NiCd whether incorporated or not
 - NiCd for Cordless Power Tools
 - ...
- **Review clause (co-decision?) as alternatives are introduced on the market**
- **Collection targets expressed as % of sales**

4

ICdA General Assembly - London - Nov 1st, 2005

SAFT

■ Council first reading amendments of 12-2004

- Objective is back to « waste management »
- Definitions tinkered with
 - How should batteries for professional/commercial use be classified?
 - How should the tie-breaker clause work?
- Portable NiCds prohibited except
 - Emergency and alarm systems, including ELU
 - Medical equipment
 - CPT with review clause in 4 years
- No prohibition for Industrial NiCd nor Lead/Acid
- Lower collection targets

5

ICdA General Assembly - London - Nov 1st, 2005

SAFT

■ Next Step: Env CTEE vote on 22th Nov

- Little support from EPP and ALDE to help save household portable NiCds
- Some support from same to help portable NiCd for CPT
- Good support from EPP and ALDE to keep industrial NiCds out of scope of prohibition
- PSE, GUE, Greens to push for:
 - Increase of collection targets
 - Extension of prohibition
 - Reduction of exemptions
 - Shorter review dates
- UEN, Independants need to be secured

6

ICdA General Assembly - London - Nov 1st, 2005

SAFT

■ **A few surprises (for a rookie)**

- **Except for some old style Communists, Left not interested by industry**
- **Right supportive...up to a point**
- **Rationality plays little role, world of fantasy!**
- **MEP's have strong impact on detailed wording, but get little competent advice: very scary!**

Closure of The Cadmium Council

- **Bank Account Closed**
- **Notification to Virginia Employment Commission of Dissolution Process**
- **Action of the Board of Directors Taken by Written Consent in Lieu of a Meeting**
- **Unanimous Consent of the Members of The Cadmium Council, Inc.**
 - **IMMSA Has Not Signed Petition**



**MEMBERSHIP REPORT
INTERNATIONAL CADMIUM ASSOCIATION
November 1, 2005**

RESIGNATIONS

Considar Metal Marketing, Inc. - Considar Metal Marketing, Inc. submitted its letter of resignation from the International Cadmium Association in August 2004 on the basis of the restructuring of the association and choosing to be represented through IZA. Considar has honored its year 2005 dues commitment per the ICdA By-Laws.

MarathonNorco Aerospace Inc. – Marathon Power Technologies was acquired by Norco Aerospace in recent years and as a result its nickel-cadmium aircraft battery business has been de-emphasized. MarathonNorco submitted a letter of resignation from the International Cadmium Association on June 6, 2005 on the basis of its diminishing interest in industrial NiCd batteries.

Mine Safety Appliances Company – Mine Safety Appliances Company notified the International Cadmium Association on May 21, 2005 that they had not produced or used nickel-cadmium batteries in their products for the last few years, and therefore could no longer continue to justify their membership in ICdA.

Panasonic Industrial Company - Panasonic Industrial Company notified the International Cadmium Association on May 16, 2005 that, due to the phasing out of nickel-cadmium batteries from their product lines, they had decided to resign their membership in ICdA.

CHANGES IN MEMBERS STATUS

General Quimica, S.A. – The Spanish cadmium pigments producer, General Quimica S.A. was acquired by S.L.M.C., and accordingly they submitted a letter of resignation to ICdA in January 2004. Their cadmium pigments interests are now represented by S.L.M.C.'s membership in ICdA.

Johnson Matthey Colours Ltd. – In late 2004, the cadmium pigments business of Johnson Matthey Colours Ltd. in the United Kingdom was sold to Rockwood Pigments, Inc., headquartered in the United States. Rockwood Pigments Ltd. assumed Johnson Matthey's membership in ICdA and Dr. Damian Thomas was named as Rockwood's official representative to the International Cadmium Association.

EU RA on Cd/CdO and EU Directives

*ICdA General Assembly
London, November 1st 2005*

*Lidia Regoli
International Cadmium Association
168, Avenue de Tervueren, B-1150 Brussels, B*

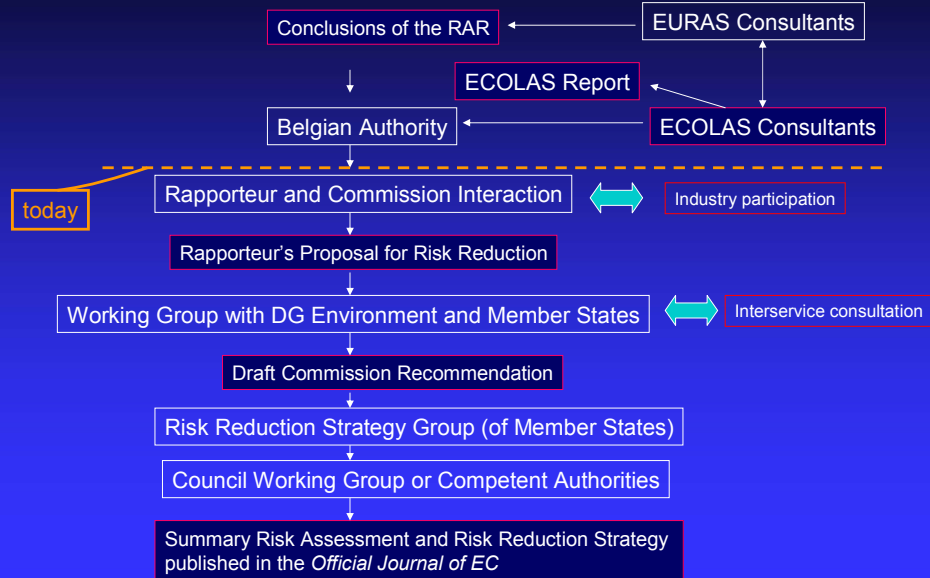


International Cadmium Association

EU Regulatory Affairs

- EU Risk Reduction Strategy
 - ◆ Process
 - ◆ Possible implications
- EU Directive on Batteries (Presented by P.De Metz)
- RoHS Directive
- UNECE – Long Range Trans-boundary Pollutants, Task Force on Heavy Metals

Detailed Process of the RRS

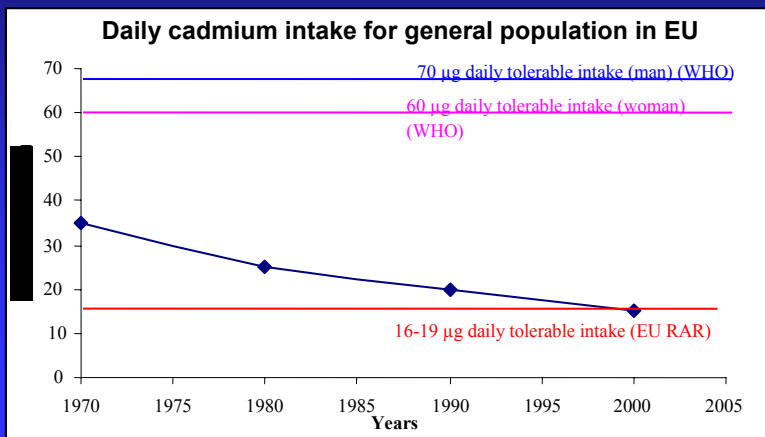


TGD for Risk Reduction

Stage	Purpose	Status
1	Update RAR data on emissions and use. Current control measures	Extensive industry data submitted. Stage 1 Report: June '05. Final deadline of 15 April for data updates.
2	Qualitative assessment of options for uses of concern. Further detailed industry consultation	Rapporteur-Industry meeting (Sept 19th)
3	Leads from Stage 2 findings. Quantified assessment of options, incl cost benefit analysis	Rapporteur – Industry meeting (November 22 nd)
4	Preparation of the Risk Reduction Strategy	December – January '06

Cadmium worldwide vs in Europe

- Scientific evidence brings us to the PTWI
- EU risk assessment decides on a lower level of protection
 - Reasons are political??



Risk Reduction implications –

Risk to General Population :

- Focus on implementation of existing legislation:
 - Reducing AIR emissions
 - Air Quality Directive, IPPC (BREFs)
 - Reducing Cd in SOILs
 - Fertilisers Directive, revision of Sewage Sludge Directive
 - Reducing Cd to WATER
 - Water Framework Directive

Risk to Workers :

- Propose more stringent community level occupational exposure limit values, apply carcinogens directive
- 'ICdA project team – developing guidance document on *'risk management of Cd exposure in workers'*

contribution from products is < 1% emissions

Directive 2002/95/EC: RoHS

Restrictions of Hazardous Substances in Electronic equipment

Aim: « prevent the production of hazardous waste from electrical and electronic waste by restricting the use of Pb, Hg, Cd, and hexavalent Cr »

- New Exemptions granted :
 - ◆ Cd in certain photocells (was already exempted)
 - ◆ Cd in coatings following Directive 91/338
 - ◆ Cd in electrical contacts
- Concentration limits
 - ◆ « a maximum value of 0,01% by weight in homogenous materials for cadmium shall be tolerated »
 - ◆ Refers only to impurities which are unintentionally introduced.

UNECE – Long Range Trans-boundary Pollution Task Force on Heavy Metals

- Countries present in 2005 :
 - ◆ Sw, NL, I, D, UK, N, CH, Canada, USA, eastern EU countries
- Focus : Hg programs and Pb and Cd monitoring
- Scope is under review :
 - ◆ reporting is extended to other metals
 - ◆ product restriction questionnaire on Hg, and Pb & Cd
- Need close monitoring and metal specific input
 - ◆ Uncertainty in use of data/models being used for decisions
 - ◆ Political agenda of certain members to include other products
- Positive elements
 - ◆ Canada / USA : allies
 - ◆ Cd emissions decreased 2 fold since 90'



International Cadmium Association

Members only website: www.icdamembers.org

Public website: www.cadmium.org

Proposed study on effects of Cd on bone in workers

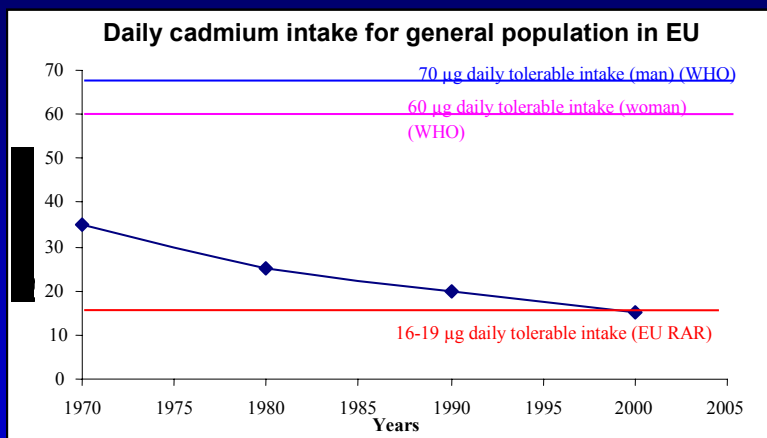
Lidia Regoli

*International Cadmium Association
168 Avenue Tervueren, 1150 Brussels, Belgium*



International Cadmium Association

EU RAR: conclusions of risk for workers



EU RAR: conclusions of risk for workers

- Kidney :
 - occupational exposure data : LOAEL 5 µg Cd/g creatinine
 - general population data : LOAEL 2 µg Cd/g creatinine
 - “it appears prudent to recommend that workers should be offered the same degree of health protection than individuals from the general population”
- Bone :
 - occupational exposure data : **no N(L)OAEL was derived**
 - general population data : LOAEL 3 µg Cd/g creatinine
- Conclusion :
 - LOAEL 2 µg Cd/g creat. is intended to protect against effects to kidney and bone for both general population and workers
 - Margin of safety of 3 : **0,67 µg/g creatinine as a safety level**

Industry input into Cd Risk Reduction Strategy - occupational exposure

- Industry has experience in risk management of chronic exposure to Cd (Zn/Cd producers/ pigments/ batteries)
 - A revision of the risk management of chronic occupational exposure to Cd was made in 1996 :
 - assumes kidney is the target organ
 - monitoring starts at 2 µg Cd/g creatinine in urine
 - action level starts at 5 µg Cd/ g creatinine in urine
 - objective : keep Cd levels in workers as low as possible
- Eurométaux 1996

Limitations:

Does not consider *direct* effects to bone, issue raised in EU RAR

Why study effects of Cd on bone in workers?

Industry will defend “healthy workers effect”

- Monitoring starts at 2µg Cd/g creatinine
- Action level starts at 5 µg Cd/g creatinine



This will protect workers against effects to the kidney.



Need to assess the effects of Cd in bone on workers ?

- Bone becomes the critical organ (LOAEL 3µg Cd/g creat)
- No N(L)OAEL was derived for effects to bone in workers
- Preliminary studies on Umicore workers show a *direct* effect of Cd on bone

Use of the results of the study on Cd effects on bone in workers

- Results will not be provided in time for input into the risk reduction strategy (2-year study)
- But launching the study will strengthen the ‘Industry case’ for the risk reduction strategy
- Will provide companies dealing with Cd a practical way to measure and protect workers against effects of Cd to bone

Regulatory Affairs Report North American and International Activities

**International Cadmium Association
General Assembly of Members**

**De Vere Cavendish St. James Hotel – Stratus Room
81 Jermyn Street, London SW1Y 6JF, UK
November 1, 2005**

Major North American Cadmium Issues

- **U.S. EPA Development of Metals Assessment Framework**
- **NAFTA CEC SMOC Program on Children's Health**
- **State of Washington PBT Program**
- **State of New York Harbor Project**

US EPA Framework for Inorganic Metals Risk Assessment

- **Draft Framework Issued in July 2004**
- **Science Advisory Board (SAB) Panel Established to Review Draft**
- **Draft SAB Report in March 2005**
- **Comments by NAMC in April 2005**
- **Final SAB Report Issued in Sept 2005**
- **EPA Review and Revise Framework**

NAFTA CEC Program on Children's Health

- **Final "Taking Stock" Report Issued in May**
- **NAFTA CEC Responded to NAMC Comments and Report Barely Mentions Metals, Only Mercury and Lead**
- **One Discussion on Cadmium on Cancer and Birth Defects Under CA Proposition 65**
- **No Cadmium Reporting Because of Different Threshold Levels in US, Canada, and Mexico**
- **Will USA Lower Cd Reporting Threshold?**

State of Washington Program on PBTs

- **NAMC Forced Washington in 2002 Not To Include Metals Pending SAB Framework**
- **New Democratic Governor Wants to List Lead and Cadmium as PBTs, Develop Action Plans and Eliminate These Metals**
- **After Additional Lobbying in 2005 by NAMC, Pb & Cd Not Listed But Footnoted**
- **WA Dept of Ecology Will Release Proposal for Comment But Defer Action Plans**

State of New York Harbor Project

- **Cadmium Report Completed in 2003 and Emphasizes Positive Role of Recycling**
- **Harbor Consortium Nearing Completion of Its Work on All Five Contaminants (Hg, Cd, PCBs, Dioxins and PAHs)**
- **Proposal Now Being Made To Study Mechanisms by Which Contaminants Move Into and Through Watersheds**
- **Cadmium is Specifically Mentioned and ICdA May Be Asked to Participate**

International Cadmium Issues

- **UNECE LRTAP Heavy Metals**
- **UNEP Heavy Metals Program**
- **Strategic Approach for International Chemicals Management (SAICM)**

UNECE LRTAP Heavy Metals Protocol

- **Entered into Force 29 December 2003**
- **Applies to Long-Range Transboundary Air Emissions of Pb, Cd & Hg**
- **Applies BAT to Reduce HM Emissions of Selected Industries from 1990 Base**
- **Product Restrictions**
 - **Pb in Gasoline; Hg in Batteries; None Cd**
- **Task Group on Heavy Metals to Revise**

UNECE LRTAP Task Force on Heavy Metals

- **Attempts Being Made to Add New Metals (Cu, Zn, Ni, As, Cr and Se)**
- **Attempts Being Made to “Target” Certain Cd Products for Elimination**
- **ICdA Active in Five Meetings in 2005**
- **ICdA and NAMC Have Obtained Strong Participation from USA and Canada**

UNECE LRTAP Review of Sufficiency & Effectiveness

- **Best Available Scientific Information – Canada, United States and Germany**
- **Best Available Technology - Germany and the United States**
- **Restrictions on Products – Sweden and the United States**
- **Overview of Emissions – MSC East, Canada, USA, Netherlands**

UNECE Questionnaire on Product Management Measures

- **Information Requested on Specific Mercury-Containing Products**
- **USA/NAMC/ICdA Prevented Similar Table “Targeting” Cadmium Products**
- **Questionnaire Request: “Parties are invited to provide information on substitution and other management measure for products containing cadmium “**

UNEP Programs on Metals

- **Heavy Metals Program (Hg, Pb, Cd)**
- **Decision 23/9 III on Lead & Cadmium Calls for Information Gathering**
- **It is Clear That Certain Countries Wish to Ban Cadmium Products**
- **Linkage Between UNECE LRTAP and UNEP HM Program Unclear**
- **ICdA To Submit Information and Participate in UNEP Working Group**

SAICM

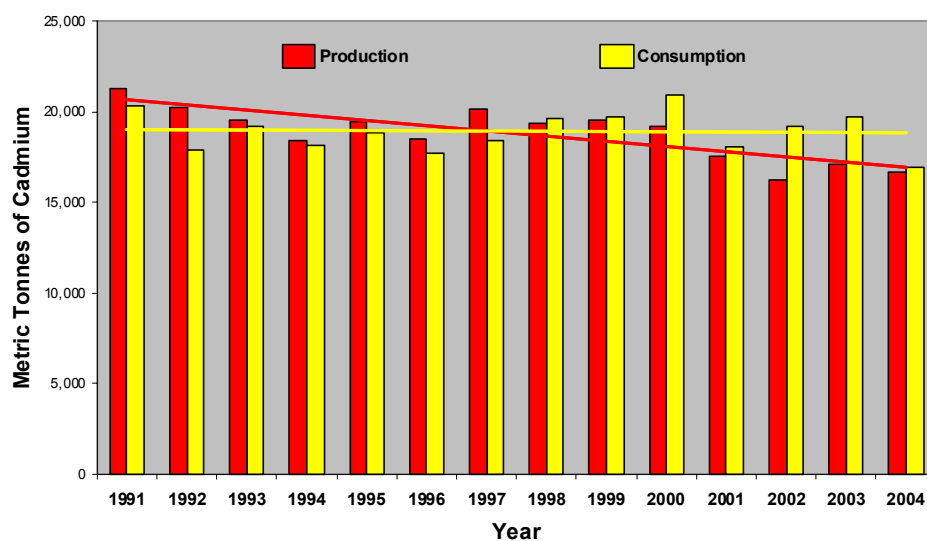
- **Strategic Approach for International Chemicals Management**
- **Started With UNEP GC in Feb 2002**
- **Endorsed by World Summit on Sustainable Development (WSSD) in September 2002 in Johannesburg**
- **EU Attempting to Extend REACH**
- **US Argued to Remove Term “Heavy Metals” & Use Risk Instead of Hazard**

Cadmium Market Report

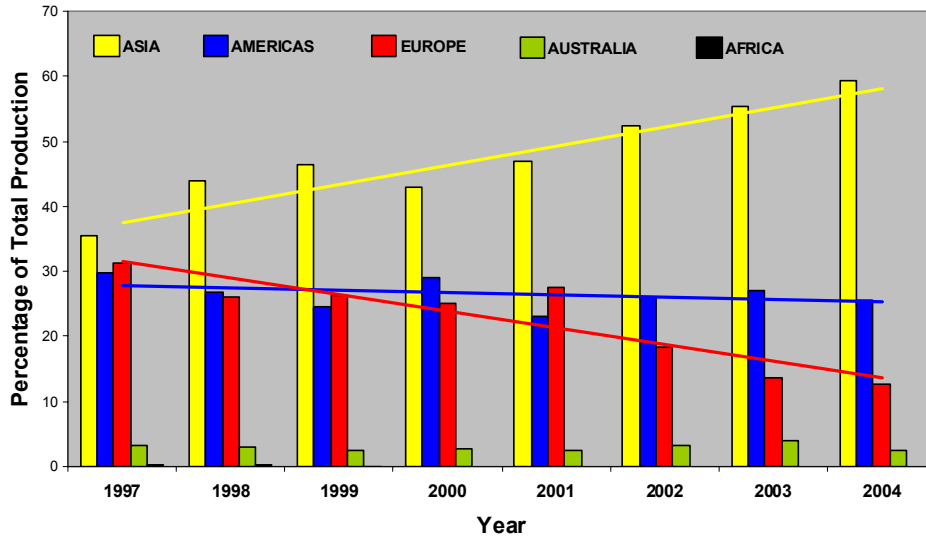
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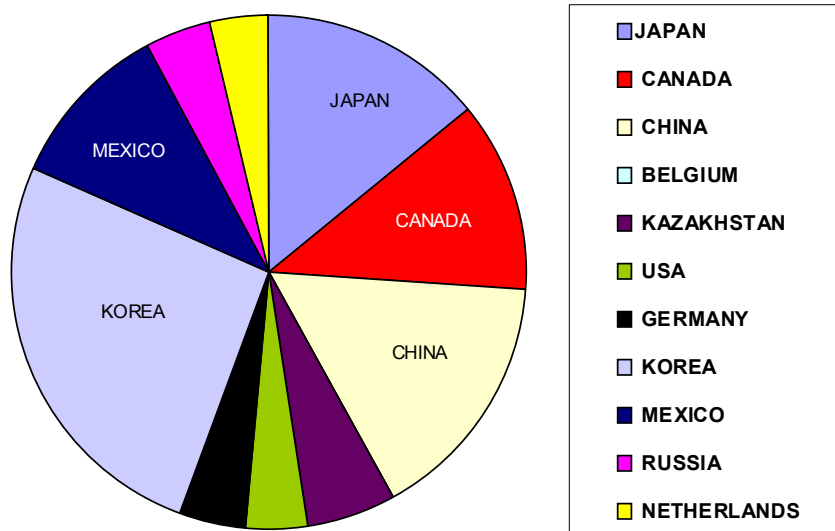
Cadmium Production and Consumption, 1991-2004



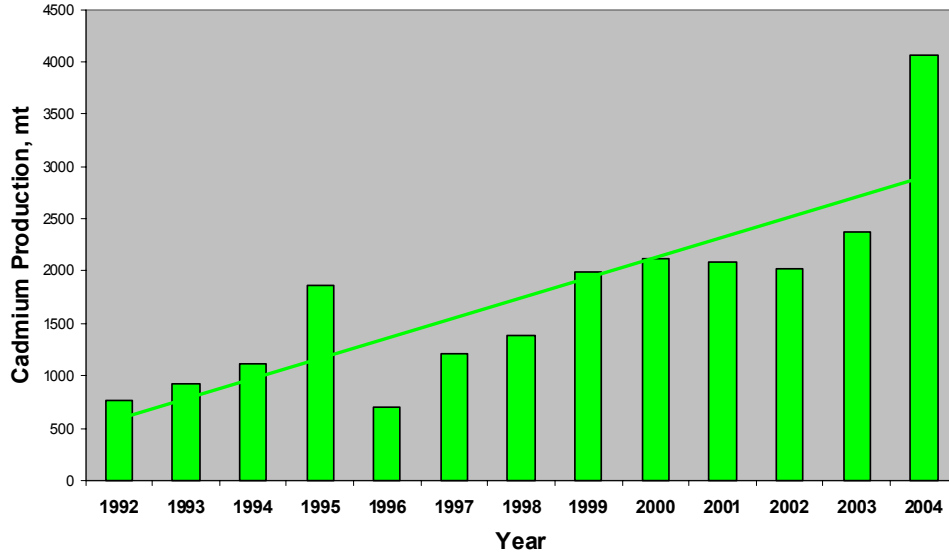
Cadmium Production by Geographic Region



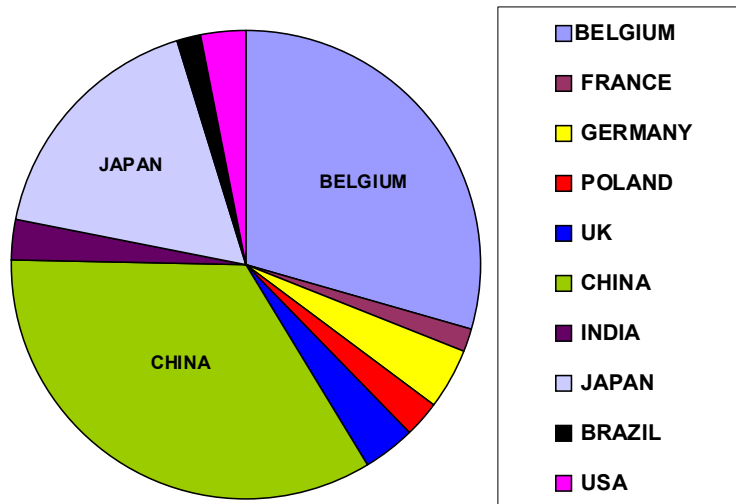
2004 Cadmium Production by Country



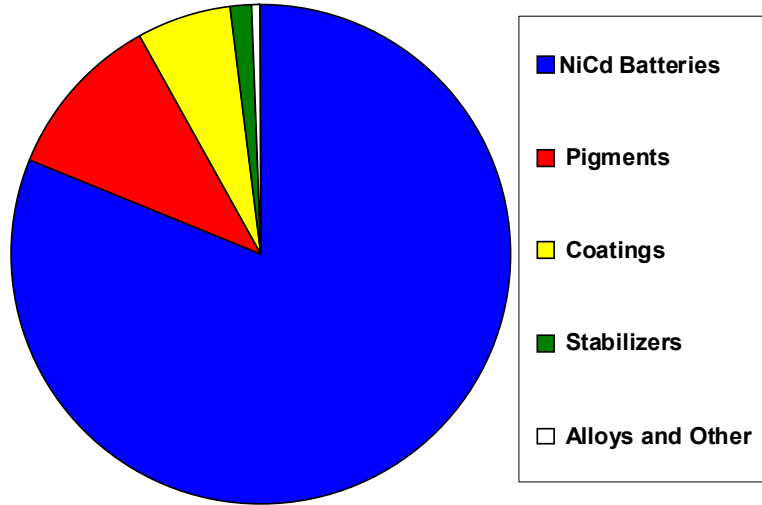
Korean Cadmium Production, 1992 - 2004



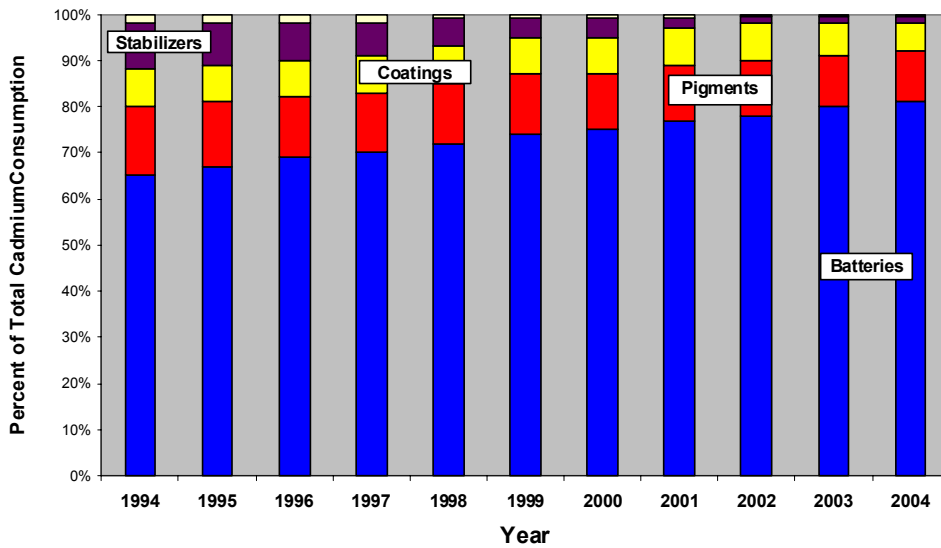
2004 Cadmium Consumption by Country



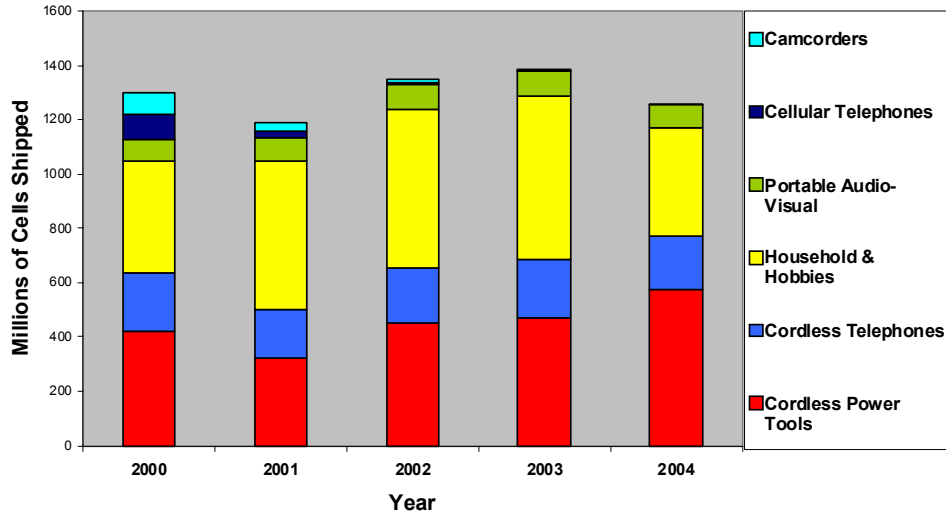
2004 Cadmium Consumption Patterns



Cadmium Application Patterns, 1994 - 2004



Worldwide Consumer NiCd Shipments (Takeshita, 2003, 2004, 2005)



Metal Bulletin 99.99 Cadmium Price, 1993-2005

