



**ISWA REPORT
2015**

INTERNATIONAL SOLID WASTE ASSOCIATION
Promoting sustainable waste management worldwide

ISWA at a Glance

ISWA – the International Solid Waste Association – is a global, independent and nonprofit making association, working in the public interest to promote and develop sustainable and professional waste management. ISWA is open to individuals and organisations from the scientific community, public institutions and companies working in the field of and/or interested in waste management. As the world's leading waste management association with members in more than 100 countries, ISWA allows you to network with professionals, companies and institutional representatives on a global scale.

The International Solid Waste Association in figures over a six year period:

| Criteria/Year | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | Change 2010 to 2015 in % | Development 2010 to 2015 |
|--|-------|--------|--------|--------|--------|--------|--------------------------|--------------------------|
| Number of ISWA Members | 864 | 1,143 | 1,440 | 1,385 | 1,269 | 1,188 | +38% | |
| Number of ISWA National Members | 35 | 35 | 37 | 39 | 39 | 41 | +17% | |
| Number of Countries with ISWA Members | 75 | 78 | 88 | 102 | 96 | 101 | +35% | |
| Visitors to ISWA website www.iswa.org per Month | 3,500 | 10,000 | 16,000 | 24,000 | 31,000 | 25,000 | +614% | |
| Number of Followers on Social Media | 0 | 400 | 900 | 2,000 | 2,900 | 7,400 | +1,750% | |
| Number of ISWA Events and Meetings | 33 | 39 | 51 | 60 | 62 | 75 | +127% | |
| Participants at ISWA World Congress | 739 | 640 | 1,201 | 1,149 | 1,075 | 1,254 | +69% | |
| Number of ISWA Working Groups and Task Forces Publications | 5 | 9 | 16 | 14 | 9 | 12 | +140% | |
| Number of International Cooperation Projects | 1 | 2 | 4 | 6 | 9 | 13 | +1,200% | |
| Revenues from Projects in EUR'000s | 40 | 180 | 160 | 193 | 241 | 114 | +185% | |
| Total Revenues in EUR'000s | 855 | 1,125 | 1,169 | 1,302 | 1,293 | 1,431 | +67% | |
| Number of Employees | 5 | 6 | 6 | 7 | 8 | 9 | +80% | |

Cover photo

The cover photo has been taken at El Relleno dumpsite at Leon, Nicaragua, by Timothy Bouldry. This image stands for THE urgencies ISWA currently sees for global waste management: close open dumps and stop open burning. Timothy Bouldry has been photographing and reporting about unregulated waste sites from the informal recycler's perspective for 8 years. He has explored this topic in Haiti, Venezuela, India, Bangladesh, Colombia and most notably Nicaragua.

His work also acts to present a case about the health risks, environmental factors and economical injustices informal recyclers endure with their hard work and harsh living conditions. For the last two years Timothy has been living in Nicaragua where he developed close personal relations to the families living on Nueva Vida and La Chureca dumpsites and helps them however he can. ISWA has partnered up with Timothy for the administration and supervision of the ISWA Scholarship Programme #tradingtrashforeducation (see chapter 3.6. of this report).



See Timothy Bouldry's photographic work at: www.timothybouldry.com

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PRESIDENT'S MESSAGE



2015 was another year of growth for ISWA and consolidation of its finances. ISWA's development comes above all from the increasing number of projects the Association is involved in globally. These have grown as our international partnerships have matured within the UN organisations as well as with the EU and many government institutions.

Our attention politically has been focused on two essential questions for waste management globally: bringing financial resources to respond to the global waste emergency which has grown in all developing countries; and responding to the challenge that the Circular Economy model creates for our industry.

The report produced with UNEP (Global Waste Management Outlook) illustrated the situation faced by the less economically developed nations and traced a pathway to resolving the rising volumes of untreated (and uncollected) waste. Whilst the Task Force on Resource Management illustrated how the waste industry can face and overcome barriers to Circular Economy. The research undertaken for the report on opening dumping (The Tragic Case of Dumpsites) contributed to understanding how waste is a major health problem still today in almost all developing nations. Further work is underway as a result of that report and our Scholarship Programme in Nicaragua is a direct result. I hope you will all continue to support it.

But much more has been done by all the working groups and ISWA staff too;

particularly incisive were our contributions on mercury and on the Ebola epidemic, the promotion of bio-waste collection and the development of waste-to-energy models for developing countries. Work programmes have been laid down for 2016 which are now being undertaken by staff and volunteers in the working groups.

I think the 1,200 of us in Antwerp for the 2015 Congress will remember the event with a great deal of affection. The 2016 Congress will focus more on the technical issues facing our industry in countries where finances and legislation are still fighting to catch up to northern European levels. How we do this in a scenario of low energy and commodity prices which is harming recycling in a significant way, has yet to be resolved. Again, solutions cost and no-one wants to pay. During last year we awarded the 2019 Congress to the city of Bilbao, Spain, a wonderful setting, whilst Baltimore and Kuala Lumpur await us in the two years preceding.

Whilst we can be content with the growth of ISWA we still have much to do. The relationships with major US Foundations still need developing to bring funding to the sector; we need to influence more the Green Climate Fund where increasing financial resources are available for climate change mitigation and adaptation; our activities in Africa are still too sporadic for this fast growing continent; we require more economic and financial analyses to develop models for lower income countries; our media re-

lations are still weak, an old and unresolved question; and we must make sure that our members have a chance to contribute to the Circular Economy package being discussed in Europe, which will influence our industry for the next two decades. In these issues is a work programme for another two years.

I thank the Board and GS staff, the WM&R editorial group, the Working Groups and volunteers for all their contributions which helped make 2015 a memorable year. Special thanks go to our Vice President and STC Chair who have had to work hard in their own economically troubled nations to ensure their financial survival and yet have dedicated lot of time to ISWA. Thanks to Carlos and Antonis for all your help. Further gratitude goes to the City of Vienna for hosting and supporting ISWA since 2010.

This is my last annual report and I will pass over the Presidency in September in Serbia. I thank you all for your patience and support, and I hope the new President gets the same amount of personal satisfaction out of this task that I have. Thank you all.

David Newman

MANAGING DIRECTOR'S MESSAGE



The main goals in 2015 were to intensify projects with International Organisations, to strengthen the ISWA brand and to enhance the number of events and develop new formats. And we are quite happy with the outcomes of the various activities and projects in the past year.

In total we dealt with 13 projects with different major International Organisations. Most of these projects have been carried out in emerging and developing economies and ISWA has been recognised as professional and reliable partner. The city assessments in Africa and Latin America in cooperation with the Climate & Clean Air Coalition (CCAC) particularly turned out to be very successful and useful. Furthermore, we are very happy to have finalised the Global Waste Management Outlook (GWMO) project, which is a cooperation between United Nations Environmental Programme (UNEP) and ISWA, starting in 2012. The GWMO report was launched in September 2015 and is the first of its kind offering a worldwide overview and status report about waste management, and concludes with a call for action including political measures and financial contributions. On the basis of this report, regional reports will be developed including detailed implementation measures.

We enhanced ISWA's visibility through articles in international media and distributing our reports globally. Our increased effort in the area of communications led to positive results with significantly higher traffic numbers on our website, more

readers of our newsletters and more fans and followers on our social media pages. We found that ISWA is well known among the stakeholders in waste management on a global level, and we also successfully extended our presence amongst other related business sectors and the general public.

In the field of event management we were very successful and the number of events organised increased to a record of 75 meetings in 2015, and all the different formats of events we offer have been very well sought after. With the continuing demand for high quality events over the past few years, ISWA is recognised as the top event organiser in the field of waste management.

The different services and benefits we offer our members have been very well received and we do our best to optimise our offers. We are very happy to have three more National Members, in Moldova, Macedonia and Colombia. It is very important for ISWA to have more outreach in Southeast Europe and South America in order to further promote waste management in these regions.

Another milestone in 2015 was the successful takeover of the magazine Waste Management World. ISWA took over the brand and all assets and in cooperation with a new publisher we now distribute this magazine, which is one of the best magazines in the waste management sector with some 25,000 subscribers and 160,000 page views per month.

All the positive results and achievements mentioned above are based on the excellent cooperation between all ISWA stakeholders. Particularly the advice and support from the ISWA Board has to be highlighted, as well as the effort of the Scientific and Technical Committee and the Working Groups. It was a pleasure to work together with the very ambitious ISWA General Secretariat team and all staff members provided the best services and assistance to all stakeholders.

Finally I say thank you all for your great support and effort which led to these very pleasing results.

Hermann Koller

1. World Waste Status

This chapter provides an overview of the global status quo and current issues in the waste management sector. Outcomes of recent studies and investigations have been compiled to highlight developments, challenges and solutions. It also shows that resource and waste management is a complex field, which needs global attention and comprehensive approaches.

Waste Generation

The annual global waste generation accounts for 7-10 billion tonnes in total, out of which approximately 2 billion tonnes are categorised as municipal solid waste (MSW). The breakdown by waste types is displayed in the pie chart below.

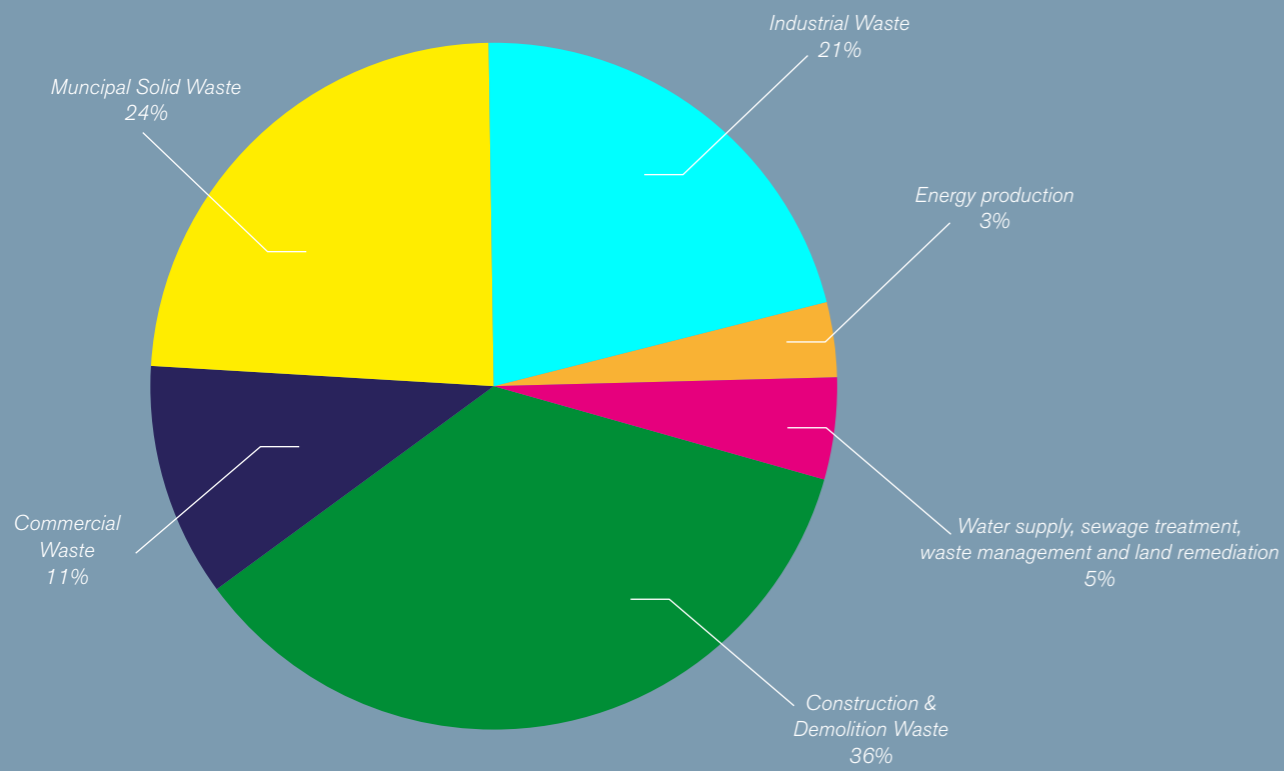


Figure 1: Annual global waste generation

Historically the amount of per capita municipal solid waste generation directly correlated with income levels in the country. However, over the past two decades municipal solid waste generation in the high-income countries has culminated and income levels seem to have decoupled from the waste generation. Driven by population increase, urban sprawl and economic growth, waste generation levels are expected to emerge significantly over the next decades in low- and lower-middle income countries first in Asia, but be overtaken by Africa within twenty years time.

Figure 2. shows waste generation levels per person in selected countries. According to the chart, it is still high-income countries who are responsible for the highest volume of waste produced per capita.

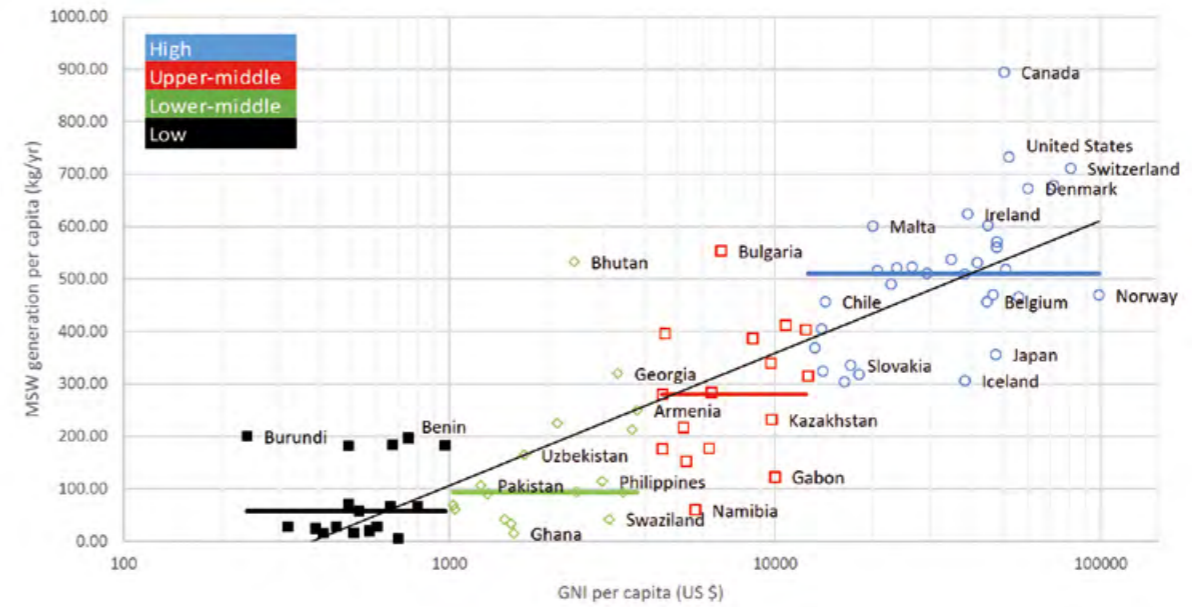


Figure 2. MSW generation per capita against Gross National Income (GNI) per capita levels

Collection coverage

Significant progress has been made over the past years in collection coverage, especially in middle-income countries. However, levels of waste collection services must be further improved as 2 billion people worldwide still lack access to proper collection and transportation alternatives. Figure 3. displays waste collection coverage from selected cities, which tends to be close to 100% in industrialised countries and can be as low as 40 % in certain low-income countries, such as Tanzania or Liberia.

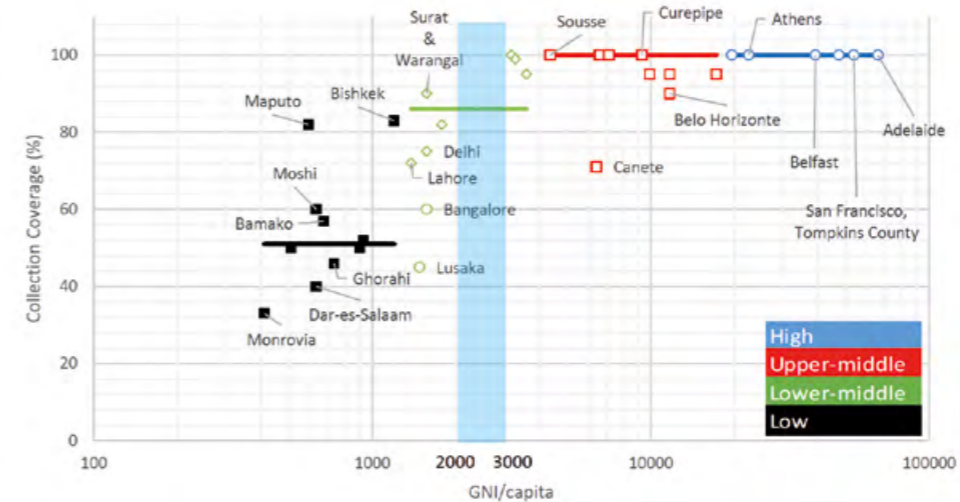


Figure 3: Collection coverage of MSW against Gross National Income (GNI) per capita levels

Appropriate collection solutions are a prerequisite for sustainable treatment and disposal and thus there is a pressing demand to develop this area and extend the collection coverage for municipal solid waste. The arising need for full collection coverage and proper waste management is also a result of urban population increase and the lack

of space and concentrated waste generation in cities. Municipal solid waste collection in low- and middle-income countries is a priority due to major public health implications as well, such as the potential of untreated waste triggering epidemics or floods.

New legislations on prevention

The year 2015 saw some ground-breaking policy and legislative frameworks on waste prevention. The European Commission finally adopted a Circular Economy Package containing an Action Plan, which entails new legislations and incentives to promote prevention, re-use and recycling and stimulate industrial symbiosis. In France the bill to prohibit supermarkets throwing away unsold food was intensively debated and will finally see its adoption in early 2016. This legislation might develop to be the blueprint for other EU member states. Meanwhile, plastic bag bans or compulsory charges gain more momentum: England introduced a five pence minimum charge for single use plastic bags and Hong Kong implemented a \$50 cents charge that reduced the use of plastic bags by 90%. Also several US municipalities implemented similar measures, for example Dallas, Sacramento, Honolulu, Chicago and Portland.

Recycling

Figure 4 shows recycling rates in 39 selected cities. According to the observed values, there seems to be no connection between recycling and income levels as some of the low- and lower-middle income cities achieve rates of recycling similar to the high-income cities (20-40%).

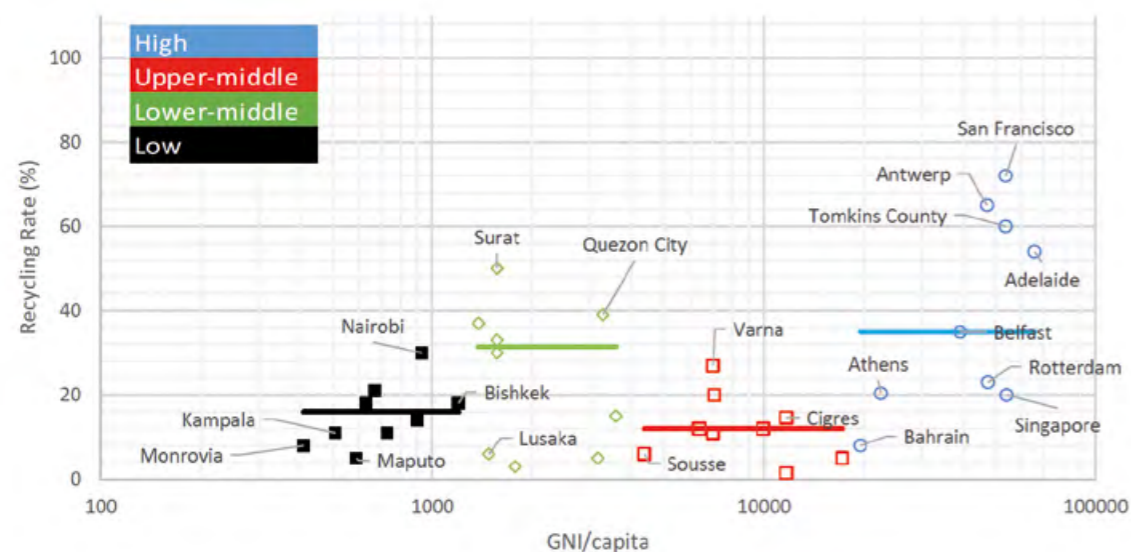


Figure 4. Recycling rate versus Gross National Income (GNI) per capita

These high rates are likely due to informal sector activities. The underlying reason of the rather lower rate of recycling in middle-income countries could be that those cities are already in a transitioning period to formalize their recycling systems – therefore recycling magnitudes fall back in the intermediate domain before they would be driven upwards by completing the setup of municipal structures.

Controlled disposal

Controlled disposal rates are between 95% and 100% in high income countries where most of the waste is safely collected, pre-treated with the maximum of value taken out of it by separate collection, and then disposed of on a sanitary landfill unit.

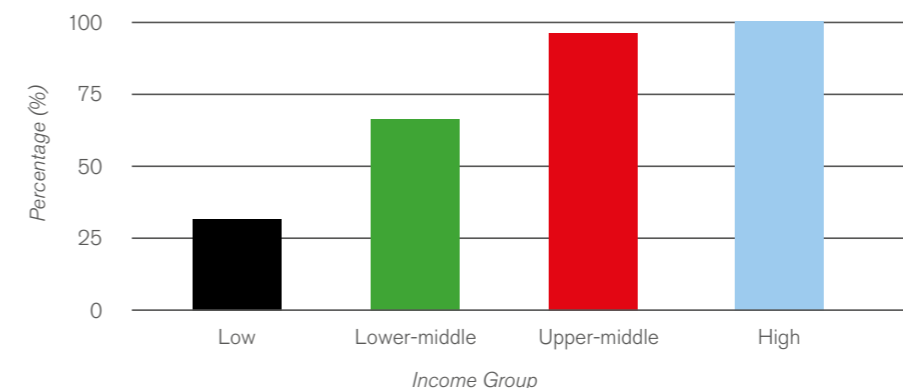


Figure 5. Percentage of controlled disposal in selected cities

Although upper-middle and lower-middle income countries have come a long way in raising the levels of controlled disposal, there is more space for improvement in low-income countries as shown in Figure 6. Eliminating uncontrolled disposal and open burning and constructing engineered and sanitary landfills is a pressing priority.

Special waste streams

E-Waste

In 2014 around 41,8 million tonnes of E-waste were generated worldwide. Of these around 6,5 million tonnes were reported as formally treated by national takeback systems. Figure 7 shows the composition and total estimates of the E-waste generated in 2014. Approximately 4 billion people are currently covered by national E-waste legislation. However, such legislation does not necessarily go along with enforcement¹.

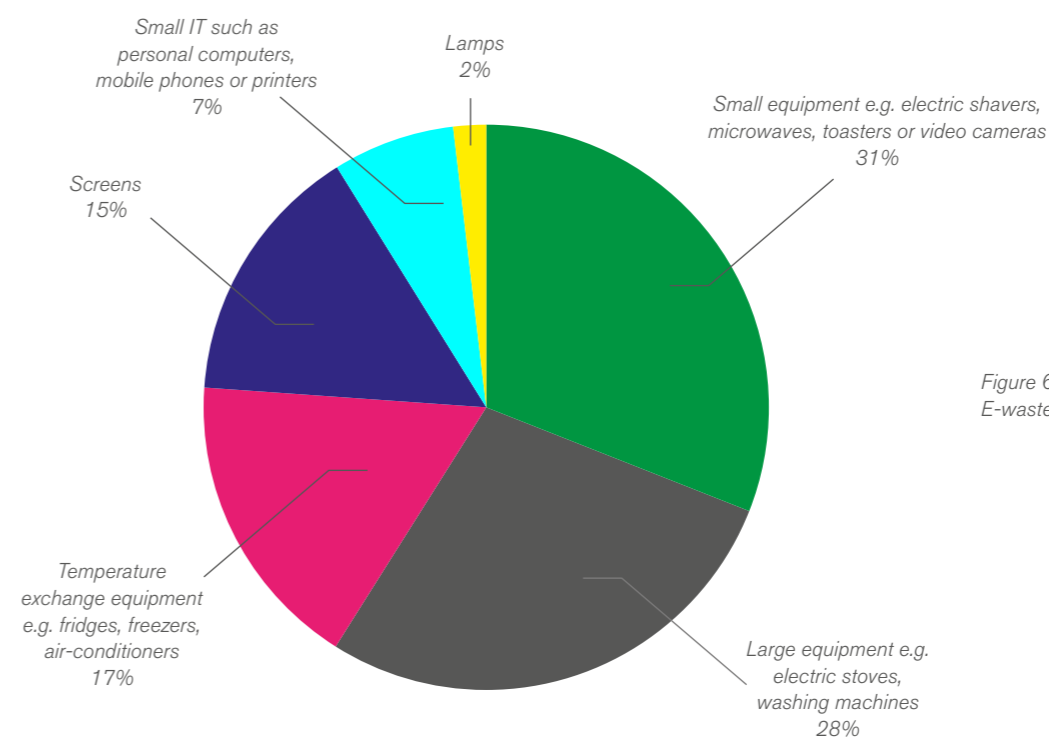


Figure 6. The composition and amount of E-waste generated in 2014

Collection rates outside of official collection schemes in developed countries as well as the amount of E-waste collected by the informal sector in developing countries are still unknown. In addition, specific figures for transboundary movements of E-waste – mainly from developed to developing countries – are not known.

¹ Baldé, C.P., Wang, F., Kuehr, R., Huisman, J. (2015), *The global e-waste monitor – 2014*, United Nations University, IAS – SCYCLE, Bonn, Germany.

Marine litter

Pollution in the sea has emerged rapidly and has been gaining ever more attention in the past years. The magnitude of the waste stream annually entering the sea is unknown, however it is estimated to be around 10% of the yearly global plastic production, which would account for approximately 18 million tonnes of plastic. Discarded plastics are not the only material polluting the oceans, but it is the most challenging material in marine litter due to its slow degradation, lightweight nature, abundance and infamous impact on various marine habitats. It is estimated that by 2050 the weight of plastic in the oceans is likely to outweigh that of fish. Figure 9 shows the current concentrations of plastic debris in surface waters of the global ocean.

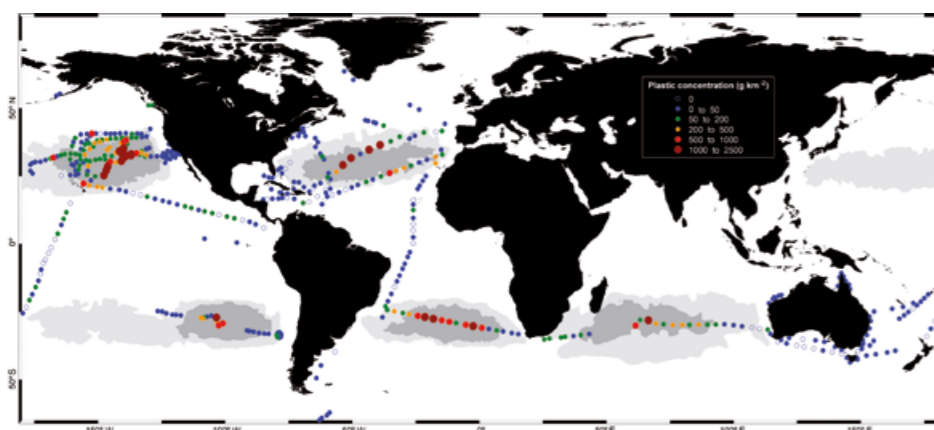


Figure 7. Plastic concentration in the world's oceans and seas

These alarming figures call for substantial action. To regulate and finally prevent marine litter needs a harmonised action due to its systemic complexity, however the most critical intervention is required from the waste and resources management sector. To take action and be part of the coordination of solutions is one of ISWA's highest priorities for the coming years.

Disaster waste

Considering major disasters in the past decades, such dramatic events leave behind an immense amount of debris and construction and demolition waste. Wastes are generated even after the initial disaster, including the response, rehabilitation and recovery phases. Figure 10 shows the locations of past disasters and the estimated amounts of disaster waste which arose after the tragedies.

It is difficult to assess quantities of waste, but approximately 1-30 billion tonnes of disaster waste has been generated after each of the various recent large earthquakes and one war zone respectively.

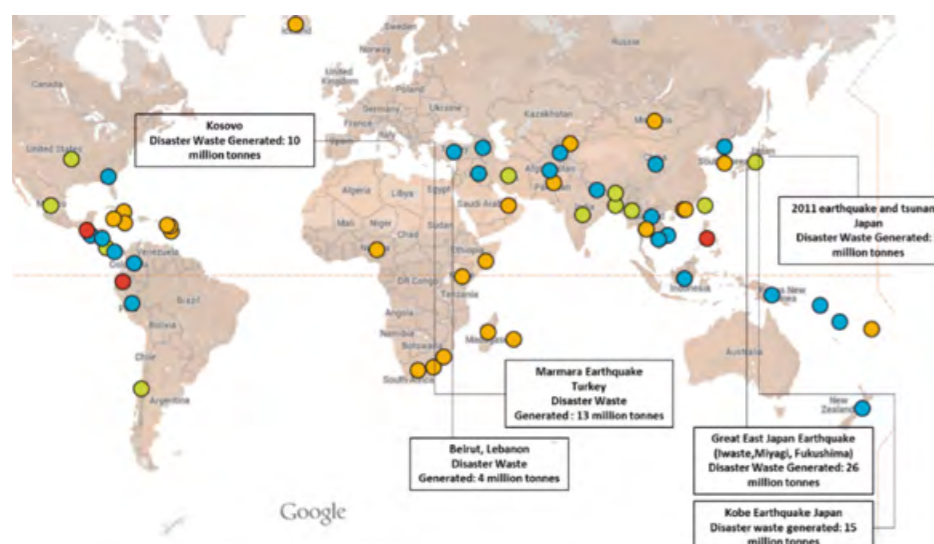


Figure 8: Disaster waste at different locations across the world

Food waste

One third of the food produced worldwide gets lost or wasted every year, accounting for approximately 1,3 billion tonnes of waste. Additionally, the value of the collective food losses and waste is estimated to be roughly US\$ 680 billion in industrialised countries and US\$ 310 billion in developing countries. Assuming that this food would be prevented from being discarded or turned into meals, it would be sufficient to feed over 2 billion people and thus eradicate hunger and significantly improve well-being globally. The consumers in Europe and North America throw away the most with 95 – 115 kg per capita and year, while consumers in sub-Saharan Africa, south and south-eastern Asia waste only 6 – 11 kg a year. (FAO²)

Waste governance and waste financing

The post-2015 Sustainable Development Goals adopted in September 2015 by the United Nations implicitly and explicitly refer to "waste" in nearly all of the seventeen goals, marking an increased attention to waste management compared to the last Millennium Development Goals. Meanwhile, the Global Waste Management Outlook provides a tool to help decision makers select a suitable set of actions to achieve good governance and waste financing which are crucial factors for establishing a successful waste management system.

There is an immense need to raise the levels of international development finance in waste management, which represents globally only 0.3% of the total financing. In order to achieve a higher rate and raise all types of investment in the waste sector, governments have to be creditworthy and ensure stable market and policy conditions. Finally, the Paris Agreement from COP21 is expected to trigger an increased level of investment into waste management as one third of the Nationally Determined Contributions include waste management related targets.

Sources:
 Global Waste Management Outlook (GWMO), 2015, UNEP, ISWA
 Wasted Health Report, 2015, ISWA
 United Nations Sustainable Development Goals
 UNFCCC COP21 results

² <http://www.fao.org/save-food/resources/keyfindings/en/>

2. ISWA's Vision



ISWA's vision is an Earth where no waste exists. Waste should be reused and reduced to a minimum, then collected, recycled and treated properly. Residual matter should be disposed of in a safely engineered way, ensuring a clean and healthy environment. All people on Earth should have the right to enjoy an environment with clean air, water, seas and soils. To be able to achieve this, we need to work together.

Our current situation is acute

The fast growth of population in urban areas all over the world, together with rising consumption in developing countries, creates a huge increase in the amount of waste worldwide. Every year more than four billion tonnes of waste is produced and in the year 2025 the amount of waste is predicted to increase by 72 percent (World Bank Group, 2012), mostly in the lower-middle-income countries.

Today half of the world's population has no organised collection of waste; 70 percent of the waste collected is not recycled or used as fuel. Seven million tonnes of plastic ends up in the seas. Plastic waste, along with electric and electronic waste, is the single most rapidly growing waste stream.

Every week two million people move from rural to urban areas. Cities must be able to provide basic hygiene services and infrastructure, otherwise the consequences are manifold: the spread of diseases and health problems, waste dumped in peri-urban areas increasing the emissions of methane gas which affect the climate negatively, the amount of ocean litter increases and waste that could be used as resource is being wasted.

Also developed countries with mature waste management systems and infrastructure are facing difficulties. For example, finding the balance between energy recovery and material recycling, decoupling of economic growth from waste production and finding solutions for new waste streams such as electronic waste and tackling, in some cases, falling waste production and population decline.

Political decisions and financing are necessary

These dilemmata are working their ways through the political process in many nations, and few can boast today to have the perfect waste management system for the next decades to come.

Technologies exist and new ones are under development, to compost, digest, convert, sort, select, destroy, and store waste in final sinks. Yet the spread of these is limited by public opposition in many countries, or by the lack of financial instruments to attract investors.

To develop and build up functional waste management infrastructure, financing, especially in developing countries must become an international priority. Just to cover collection of waste the World Bank estimates the gap to be 40 billion US dollar per year which will treble in the next 15 years. It is increasingly important that fast growing cities need to be proactive in long term planning with good expertise and enough capacity to build infrastructure, instead of simply trying to overcome short term emergencies such as epidemics.

ISWA's contribution to the world

A sound waste management system needs strategies for prevention, reuse, recycling and recovery, but also technical, financial, planning and communication capacities. ISWA's role is to:

- Provide a comprehensive and continually updated body of knowledge on waste management of value to members, practitioners, researchers, governments and other entities worldwide
- Interpret trends and provide insights to members
- Provide experience in capacity building activities aiming to improve planning and regulatory structures
- Offer opportunities for public and private waste sector operators, to network and share knowledge
- Encourage research from academia to improve scientific knowledge
- Communicate with stakeholders globally and spread knowledge about development, solutions, technologies and success stories about sustainability, about reducing greenhouse gases, and about improving economies and creating employment
- Encourage investments in waste infrastructure where it is lacking, especially creating financial models and assisting planning in developing nations
- Promote ethical standards in sustainable waste management

Working for a better world

ISWA is a non-political organisation providing services and activities to encourage innovation in waste management worldwide. We offer professional assistance to provide high quality intervention in an honest, transparent way. We work with partners to promote the need for investments and capacity building in the waste sector. Alliances with entities such as national and local governments, the World Bank, UNEP, UNIDO, CTCN, ADB, IDB, CCAC, LEDS, UN-Habitat, EU, GIZ, are essential. The task is so huge that we need to work together.

ISWA is the catalyst for positive change, to make the world a healthier, better place to live, for millions. Because the world needs this, now.

3. Promotion of Sustainable Waste Management

ISWA's mission is to promote, develop and facilitate sustainable and professional waste- and resource management worldwide. How does ISWA achieve its mission?

ISWA promotes and develops sustainable waste management through the organisation of meetings and events, particularly of congresses and conferences, and through the publication of a wide range of specialist literature.

Another important contribution is the effort of its ten Working Groups and the activities of its Scientific and Technical Committee. In order to achieve further progress on sustainable development, ISWA implements task forces, committees and projects. ISWA provides a multitude of platforms for the creation and the exchange of knowledge.

ISWA raises professional standards in the field of sustainable waste management through its certification programme "International Waste Manager", through its tailor made training course programmes, study tours and through its co-operations with other International Organisations on waste management projects.

Finally, ISWA funds projects in the field of sustainable waste management via the ISWA Project Grant and fosters good communication and publications on sustainable waste management with awards.

The following chapters provide an overview on ISWA's various activities in the promotion of sustainable waste management during the year 2015.



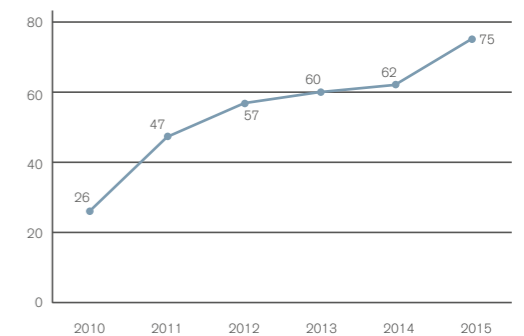
ISWA World Congress 2015, Antwerp, Belgium

3.1. EVENTS

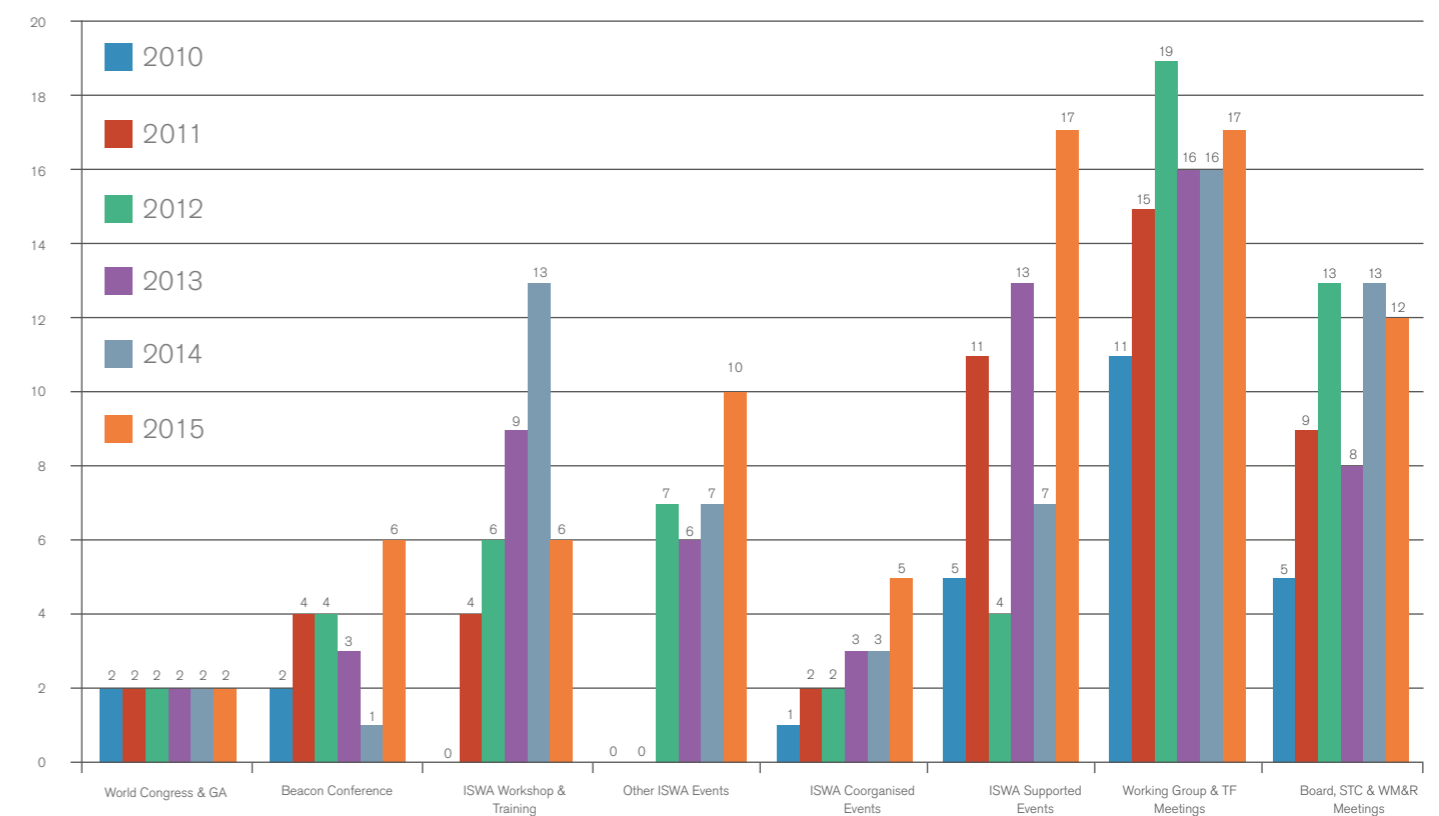
ISWA is the leading implementation partner for international waste management conferences. ISWA also offers support and promotion services for local and regional conferences and technical meetings to our members and partners to promote sustainable waste management worldwide.

2015 saw an upsurge in the number of ISWA events, with a total of 75 related activities and training workshops (2014: 62). The working group and technical meetings continue to be a frequent feature whilst the Summer School and study tours are popular ongoing training fixtures.

Number of ISWA events per year



ISWA Events 2010 – 2015



ISWA World Congress 2015, Antwerp, Belgium



3.1.1. World Congress

The biggest event that ISWA organises regularly is the ISWA World Congress. The World Congress is a three to five day event held once a year in autumn. In 2015 the mark of 1,000 participants was broken once again.

The ISWA World Congress 2015 was an outstanding success with very positive feedback from the 1,254 participants. This year, the national member representing Belgium (Interafval) and the city of Antwerp hosted the annual event, entitled 'Let's make the most of our resources and waste!'. Delegates from more than 90 countries, among them several ministers, vice-ministers, ambassadors and top-level representatives from the World Bank, Clinton Climate Initiative, EU, OECD, UNEP and UNEA gathered in Antwerp, Belgium from the 7-9 September 2015.

A truly spectacular opening ceremony by the Royal Ballet of Flanders set a positive tone for the three day meeting, followed by an extensive scientific programme containing 230 presentations in 47 different sessions and 14 technical visits. The diverse speakers offered a balance of internationally renowned frontrunners such as Dambisa Moyo and Pierre-Yves Cousteau or captains of the industry such as Thomas Leysen, as well as key policy shapers as the former President of the EU Council Herman Van Rompuy and representatives from the leading agencies such as Dr. Oyun Sanjaasuren, the first President of the United Nations Environment Assembly (UNEA).

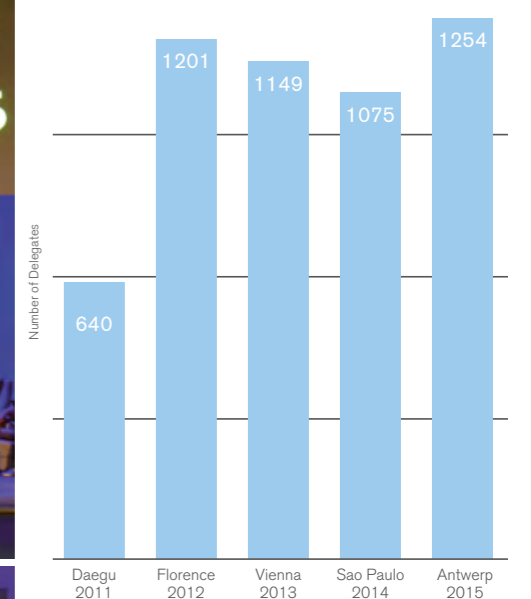
The event was important for ISWA with the launch of the Global Waste Management Outlook (GWMO), a joint project by UNEP and ISWA (please see also 3.3.1.). In addition, the brand new ISWA report 'Wasted Health – The tragic case of dumpsites' was presented as was a special session on entrepreneurship in waste management, organised by ISWA's Young Professionals Group (ISWA YPG) to mention a few.

Overall, the ISWA World Congress was resplendent with a welcome diamond cocktail and the gala dinner with a first class show at the Hilton Antwerp. The high-level event not only recognises the latest scientific and technological developments in the sector, but above all promotes networking and exchange of experience. The Congress was certainly an energising high-light in the ISWA calendar!

The next ISWA World Congresses will be held in Novi Sad, Serbia (2016), Baltimore, USA (2017) and Kuala Lumpur, Malaysia (2018).



Delegate Attendance to World Congresses 2011 – 2015



ISWA World Congress 2015, Antwerp, Belgium

ISWA Events and Meetings in 2015



3.1.2. Beacon Conferences

In 2015, ISWA organised six so-called ISWA Beacon Conferences on current regional waste management topics. These targeted events promote regional best practice and development and are designed for both scientists and practitioners in the sector.

For example, the 3rd ISWA Beacon International Conference on Final Sinks (ICFS) held in Taipei, Taiwan on 23-26 August, brought together European and Asian researchers. The event was jointly organised by ISWA, National Taiwan University, Vienna University of Tech-

nology, Chinese Academy of Sciences and Kyoto University and received overwhelming participation of over 240 people from 15 nations worldwide.

The Minister Wei from the Taiwan Environmental Protection Administration delivered the opening speech and highlighted the importance of innovation in re-designing the waste management practices to transition from the search for landfill alternative to safe circulation of resources and resource management through product design. The next International Conference on Final Sinks will be held in Kyoto/Japan in 2017.



Beacon Conferences
Vienna and Hamburg



BEACON CONFERENCES 2015

16 Apr 2015 – 17 Apr 2015,
Kuala Lumpur, Malaysia
Waste-to-Energy Facilities in Emerging and Developing Economies: Challenges and Options
190 participants from 22 countries

20 Apr 2015 – 22 Apr 2015,
Buenos Aires, Argentina
Resource Management towards a Circular Economy
145 participants

27 May 2015 – 29 May 2015,
Vienna, Austria
Waste Minimisation and Recycling
87 participants from 27 countries

23 Aug 2015 – 26 Aug 2015,
Taipei, Taiwan
3rd International Conference on Final Sinks
240 participants from 15 countries

14 Oct 2015 – 15 Oct 2015,
Hamburg, Germany
Secondary Resources from Waste: Sorting and Treatment Techniques together with Landesfachtagung Küstenländer des VKU e.V. Abfallwirtschaft und Stadtreinigung VKS
285 participants from 17 countries

18 Nov 2015 – 19 Nov 2015,
Malmö, Sweden
9th ISWA Beacon Conference on Waste-to-Energy
128 participants from 19 countries

3.1.3. Cooperation Conferences

Furthermore, ISWA co-organises regular international conferences with its National Members to support ongoing local waste management efforts between government, academia and businesses.

This year for example A.R.M.D. - Asociatia Romana de Salubritate (ISWA's National Member Romania) and the ISWA Regional Development Network for Southeast Europe, Middle East and Mediterranean organised a conference together in Mamaia, Romania, from 30 June to 3 July. The '5th A.R.M.D. - ISWA International Conference – sustainability and the

performance of the waste management systems' focused on the next development stages in Romania for waste management despite difficult legal requirements and bureaucracy. It was well attended with 90 participants and more than 30 joining the technical visit to a developing site for a new landfill in the Medgidia area.

These local events are powerful connectors bringing key decision makers and industry representatives together to brainstorm for local solutions and build long-term partnerships.

COOPERATION CONFERENCES 2015

18 Mar 2015,
New Orleans, United States
ISWA Sessions at SWANAPalooza: Landfill Session & Panel on Extended Producer Responsibility

19 Mar 2015 – 21 Mar 2015,
Zadar, Croatia
RDN Conference: The Role of Communication in Waste Management

30 Jun 2015 – 3 Jul 2015,
Mamaia, Romania
5th A.R.M.D. - ISWA International Conference - sustainability and the performance of the waste management systems implemented in Romania between 2007-2015.

11 Oct 2015 – 12 Oct 2015,
Suzhou, China PR
ISWA/CAUES International Solid Waste Conference - Resource Utilisation and Landfill Diversion

20 Oct 2015 – 22 Oct 2015,
Skopje, Macedonia FYR
MaSWA Annual Conference: Use waste as investment opportunity in Macedonia



Beacon Conferences
Malmö and Kuala Lumpur



3.1.4. Supported Events

ISWA provided support and facilitated 17 conferences and exhibitions organised by members and partners. Most notably, ISWA supported two new events providing new access and visibility for our members.

The 1st IFAT Environmental Technology Forum held on 15-18 Sep 2015 in Johannesburg, South Africa, is a new expansion of Messe München International, cleverly linking to the established BAUMA CONEXPO AFRICA-International Trade Fair for Construction Machinery, Building Material Machines, Mining Machines and Construction Vehicles. The event hosted 116 exhibitors from 13 countries and over 2,000 visitors from 42 countries on 4,500 square meters of exhibition space. In particular, one whole day of the scientific programme was dedicated to waste management. Taking advantage of the rare opportunity to reach African audiences in-person, the ISWA team were actively promoting the work and relevance of the association.

Also for the first time, ISWA had a booth at the ECOMONDO in Rimini, Italy. The ENVIROMANAGEMENT event is tailored for decision-makers involved in the

Central European waste industry – from both public and private sector. Italy is focusing on the green economy to boost its upswing. More than 103,000 professional visitors gathered in Rimini over the four days, with almost 11,000 industry/trade delegates and 500 buyers from all over the world. The fantastic event presented innovative proposals of the 1,200 companies, 200 seminars with over 1,000 speakers and showcased industrial and scientific systems up to the most advanced standards. In 2016, the green economy expo will be at Rimini Fiera from 8 - 11 November. ISWA will be present with an exhibition stand again.

Importantly, ISWA President David Newman and ISWA Board member Gary Crawford led a panel at the Climate Change Conference in Paris (UNFCCC COP 21) to mainstream the message that good waste management is critical to reducing carbon, methane and black soot emissions. There was promising feedback especially from donor countries, who recognised that waste was the critical issue to tackle, especially to reduce organics going to landfill. ISWA also hosted a well-attended press conference at COP 21.



Meeting with ISWA Silver Member REVET s.p.a at ECOMONDO



ECOMONDO opening ceremony



ISWA press conference at COP 21 in Paris

3.1.5. Study Tours

In 2015, ISWA organised two study tours where 20 - 25 international participants received theoretical training and went on technical visits to various sites and countries. These are popular events with a vigorous programme and participants leave with positive memories and strong professional friendships.

The London Study Tour, in May 2015, covered several London plants, which both sort residual waste to extract more recyclable materials and also process waste into fuel. Hot on the menu was a new bottle-to-bottle recycling plant and new bulky refuse extractor that can sort and process a wide variety of waste streams, including household, commercial, industrial, demolition and construction wastes. Participants could directly question plant managers of these cutting-edge facilities and it was an exciting and informative tour for all concerned.

The Study Tour on Waste-to-Energy took place in Austria, the Czech Republic and Hungary, offering a combination of presentations, site visits and seminars. The theme of the seminars was Waste-to-Energy based on the following issues: prevention, recycling, recovery treatment and intermediate storage. The tour incorporated a range of visits to contemporary waste treatment facilities across the three countries.

Overall, the comprehensive study tours offered individuals an insightful combination of practical and discussion-based learning provided by waste management experts.



Study Tour on Waste-to-Energy, Austria

STUDY TOURS

11 May 2015 – 13 May 2015, London, United Kingdom
ISWA Study Tour on Sorting Plants

21 Jun 2015 – 1 Jul 2015, Austria – Czech Republic – Hungary
ISWA Study Tour on Waste-to-Energy



Study Tour on Sorting Plants, United Kingdom

3.2. COOPERATION WITH OTHER INTERNATIONAL ORGANISATIONS

Intensifying cooperation with other leading international organisations involved in the promotion of sustainable waste management and resource efficiency is at the heart of ISWA's goals. In order to increase ISWA's international visibility and extend ISWA's assistance to places in need of good waste management, ISWA strives to strengthen cooperation with other influential international organisations and initiatives.

New Partnerships in 2015

German Biogas Association (GBA):

the German Biogas Association became an organisational member of ISWA in 2015, consequently adding a strong dimension to the ISWA's Working Group on Biological Treatment of Waste in terms of international development in middle and lower-income countries. Since then the GBA has been in close consultation with ISWA to ensure synergy in the two organisations' activities.

IEA Bioenergy – Task Group 36: Energy Recovery from Solid Waste:

IEA Bioenergy is an organisation set up in 1978 by the International Energy Agency (IEA) with the aim of improving cooperation and information exchange between countries that have national programmes in bioenergy research, development and deployment. With ISWA's Working Group on Energy Recovery, the IEA Bioenergy Task group 36 engaged in mutual consultation on the role of waste-to-energy and its opportunities in the circular economy package in Europe.



Meeting in Sao Paulo for CCAC City Assistance Project



Below are some of the key formal cooperation agreements that ISWA currently has with other International Organisations:

| Organisation | Cooperation |
|---|--|
| Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal | Co-organisation of training course on hazardous waste management; consultation and conference input |
| Climate & Clean Air Coalition (CCAC) | ISWA is a lead partner and project implementer for the CCAC MSW (Municipal Solid Waste) Initiative and is represented at the CCAC Working Group meetings and in the High Level Assembly |
| Climate Technology Centre & Network (CTCN) | ISWA is a network member and project implementer |
| German Biogas Association (GBA) | Became an organisational member of ISWA in 2015; ISWA input in GBA's up-coming publication on biogas production from waste |
| Green Climate Fund (GCF) | ISWA is an accredited observer organisation of the fund |
| IEA Bioenergy – Task Group 36: Energy Recovery from Solid Waste | Mutual consultation with ISWA's Working Group on Energy Recovery |
| International Finance Corporation (IFC) | Organisation member of ISWA; Knowledge exchange |
| International Partnership for Expanding Waste Management Services of Local Authorities (IPLA) | ISWA is an official partner of IPLA and member of the IPLA Advisory Board |
| United National Environment Programme (UNEP) – Chemicals Unit | Development and publication of "A Practical Sourcebook on Mercury Waste Storage and Disposal" |
| United Nations Environmental Programme – Division of Technology Industry & Economics (UNEP-DTIE), through the International Environmental Technology Centre (UNEP-IETC) | Global Partnership in Waste Management; Partnership in Hazardous Waste project of ISWA's Working Group on Hazardous Waste; Partner in developing the Global Waste Management Outlook, Consultation for the Task Force on Resource Management Reports |
| United Nations Educational Scientific and Cultural Organisation – Institute for Water Education (UNESCO – IHE) | Co-organisation of training courses on hazardous waste management |
| United Nations Framework Convention on Climate Change (UNFCCC) | ISWA is an official observer organisation of the UNFCCC; co-organised side event at COP21; ISWA wrote the waste management section of the publication "How to UNFCCC COP" (2015) |
| United Nations Industrial Development Organisation (UNIDO) | MoU in place for the promotion of sustainable waste management and recycling industries in developing countries. Partnership in hazardous waste projects of ISWA's Working Group on Hazardous Waste; Coorganisation of training course on hazardous waste management; ISWA provides experts and consultation to UNIDO projects |
| USA Environmental Protection Agency through its Global Methane Initiative (GMI) | Cooperation with ISWA's Working Group on Landfill; cooperation in the CCAC MSW Initiative in the Lead Partners' group |
| World Health Organization (WHO) | Formal agreement of Cooperation including a 3 year cooperation plan, cooperation with ISWA's Working Group on Healthcare Waste |



3.3. PROJECTS 2015

3.3.1. Global Waste Management Outlook (GWMO)

The Global Waste Management Outlook, the first world-wide assessment of the global waste situation, was released at the ISWA World Congress 2015 in Antwerp in September. The ground-breaking and ambitious report was jointly prepared by ISWA and UNEP IETC from 2013 to 2015. The GWMO is a comprehensive, integrated and scientifically credible publication, which provides an authoritative overview, analysis and recommendations of policy instruments and financing models and call for action to establish sustainable waste management around the world.

Wide consultations with a broad group of international stakeholders including decision makers, the world's leading institutions and experts in waste management were central to the development of the GWMO throughout the preparation period of the document.

2015 brought the GWMO project to its conclusion. Additionally to the finalisation of the document, a brief Summary for Decision Makers was prepared, together with a flyer so as to disseminate key messages to the broader public as well. During the official launch in September 2015 the main report was officially presented to a wide audience, including ministers, ambassadors and media representatives. The exclusive event was followed by a press conference where the panel members presented their views on the significance and the critical timing of the comprehensive report. According to ISWA President David Newman "the 'Global Waste Management Outlook' will help the waste management industry define its future over the next decade, and it also is an urgent call for action for investments to drive a global clean-up of the billions of tonnes of waste still dumped into our environment."

The publication of the GWMO was an important milestone for ISWA and for the waste industry as a whole. The report aims to be a valuable tool for decision makers offering a validated comparative analysis on the state of waste management around the globe, based on standardised policy indicators and benchmarks and thus helps to elaborate their plans while building a case for financing from private and public capital.



Official launch of the GWMO in Antwerp, Belgium



3.3.2. CCAC Cooperation Projects

Technical Assistance to Sao Paulo and Dar es Salaam

ISWA implemented further the City Assistance projects under the framework of the CCAC (Climate & Clean Air Coalition) with the aim to improve municipal solid waste management resulting in the reduction of short lived climate pollutants such as black carbon and methane from the waste sector. Both cities finished its assessment and formulated an Action Plan at the beginning of 2015 based on which, ISWA proposed and was funded by the CCAC to implement the 2nd phase assistance: the Work Plan phase, trying to help the two cities formulate their working strategies towards concrete actions. Alongside technical assistance, ISWA also built local capacities by providing training workshops to key MSW stakeholders as well as raising awareness on the importance of early education in schools.

In addition, ISWA brokered a twin-city relationship under the CCAC framework between the Municipality of Sao Paulo and the City of Copenhagen. Delegations of the two cities conducted mutual visits in October and November, through which both learnt from each other and hope to continue this conversely enriching bilateral relationship.

CCAC Knowledge Platform Upgrade

On behalf of the CCAC, ISWA has been implementing a series of activities related to the CCAC Knowledge Platform. The Platform is an online tool to promote, share and exchange information and provide outreach resources to support cities and governments to reduce short lived climate pollutants (SLCPs). The target audience is city representatives responsible for waste management, national governments, participants involved in the MSW Initiative and professionals from the waste and urban development fields.

The platform was developed by ISWA in collaboration with the Lead Partners of the CCAC Municipal Solid Waste Initiative (MSWI). In 2015 ISWA lead additional activities, such as a third party assessment of the Platform, which resulted in an upgrade of the content, design and functionality of the website and a final workshop to build technical capacity among CCAC representatives related to the website administration. The CCAC MSWI Knowledge Platform is available at: <http://waste.ccac-knowledge.net>

CCAC Finance Workshop

Recognising the urgent need for funding in the solid waste sector, representatives of the CCAC Municipal Solid Waste Initiative and the CCAC Finance Initiative joined forces to organise a workshop on municipal solid waste finance. The workshop was implemented with the leadership of ISWA, as part of its Lead Partner role in the CCAC, and hosted by Veolia in Paris from 10 to 11 September 2015.

The event targeted cities who are supported by the CCAC so as to help them to identify financing opportunities to improve local solid waste management and consequently reduce SLCP emissions. The participating cities, Buenos Aires, Cebu City, Addis Ababa, Amman and Battambang helped to frame discussions and expert advice by posing questions and providing insights into their financing situation.



CCAC City Exchange: Copenhagen delegates visiting Sao Paulo

The CCAC Knowledge Platform is a widely available tool to:

- Compile and disseminate MSW management best practices aimed at reducing SLCPs across the waste sector.
- Foster participation in the CCAC's MSW Initiative.
- Allow for MSW Initiative participants to interact and access specific technical, capacity building, and awareness-raising services offered by the CCAC.

Delegates of multilateral development banks, private sector experts and other international organisations, including the World Bank, the European Investment Bank (EIB), the United Nations Environment Programme (UNEP), the Nordic Environmental Finance Cooperation (NEFCO), United Cities and Local Governments (UCLG), Agence Française De Développement (AFD), C40 Cities and ISWA along with other high profile experts exchanged ideas on the best financial approaches for SLCP-related projects in the solid waste sector.

This unique workshop was a novel action trying to close the gaps while seeking to arrange the missing financing and helping the cities to create bankable projects focused exclusively on municipal solid waste. The event and the expert advice were received with great enthusiasm and appreciation by the developing city counterparts. The workshop report is available in the ISWA Knowledge Base and on the CCAC MSW Knowledge Platform (<http://waste.ccac-knowledge.net/>).



CCAC Finance Workshop in Paris

3.3.3. CTCN Technical Assistance to Cali, Colombia

ISWA responded to the request from Colombia through the CTCN (Climate Technology Centre & Network) for assessing the feasibility of the “Development of a Mechanical Biological treatment Pilot Project for the Waste Nationally Appropriate Mitigation Action (NAMA) in Colombia”. The objective of this technical assistance by ISWA is to assist the city of Cali, Colombia, to decide upon the deployment of an alternative MSW treatment plant that will contribute to reducing GHG emissions (mainly CH₄ from landfills) to a net-zero level in the waste sector. The main in-country partners are the Ministry of Environment and Sustainable Development – Climate Change Division and DAGMA, the Administrative Department of Environmental Management in Cali.

ISWA conducted an in-depth evaluation of existing technical studies for an MBT plant, as well as studies related to its operationalisation and the integration of the waste pickers working in the informal sector. Based on the initial assessment, further studies are being undertaken to refine the technology to be applied, as well as the business model to be deployed. In this way, it is expected that the CTCN will be able to help prove the technical and financial feasibility of an alternative MSW treatment plant, and put forward a practical business plan for the implementation of such a plant.



Meeting in Cali for CTCN Colombia Assistance

3.3.4. CVORR (Complex Value Optimisation for Resource Recovery)

ISWA is cooperating with the University of Leeds within the Complex Value Optimisation for Resource Recovery (CVORR) research project, which is funded by the National Environment Research Council (NERC) and the Economic and Social Research Council (ESRC).

The project aims to produce a methodology for the systems analysis of waste-producing processes that combines micro and macro approaches to measure flows with methods to assess the value of these flows. Values will be redefined as a complex variable with impacts and benefits in multiple dimensions including the environmental, social and economic domains that cannot be ‘collapsed’ on to a single parameter and for which time-dependence and variability must be considered. This methodology will allow more objective design and evaluation of interventions intended to recover resource from waste, moving away from an ‘end-of-pipe’ paradigm where impacts on the wider system are poorly understood, towards a whole-systems approach that aims to prevent dissipation of value into waste and optimise the complex value of the whole system. The methodology draws on expertise in environmental, economic, engineering and social sciences; it is a radical interdisciplinary departure from established notions of waste management, developed with a large group of industrial, commercial and policymaking stakeholders during the Catalyst stage.

In May 2015 ISWA organised the first CVORR project workshop in Camden Town Hall, London. The event aimed to initiate an active dialogue and provide an interface between project partners, key stakeholders and international experts on the systemic evaluation of resource recovery from waste, to inform evidence-based policy interventions and genuinely sustainable circular economy business opportunities.

CVORR project workshop in Camden Town Hall, London.



3.3.5. EU - Healthcare Waste Management project

The EU-Healthcare Waste Management project aims to provide a unified approach to the development of National Occupational Standards and Vocational Educational Training Programmes for Healthcare Waste Management across EU Member States, through the development of a new healthcare waste management qualification framework, and e-learning platform. The project received funding from the European Commission under the Leonardo da Vinci Life Long Learning Programme for 3 years, from January 2014 until December 2016.

The key outputs from the project activities will be (1) an assessment of the current VET availability across the EU countries, represented by the partner countries, (2) the development of a standardised EU vocational training programme for healthcare workers (3) the development of associated training materials for the training programme (4) the development of an e-learning platform to deliver the training programme and (5) an EU wide network of waste and healthcare professionals.

ISWA is one of the 12 project partners and is engaged in the dissemination of information on project progress to relevant professionals and the industry. Furthermore, ISWA contributes by providing technical expertise via its Healthcare Waste Working Group.

The EU-HCWM project reached a number of milestones in 2015, such as the completion of the framework for Vocational Qualification in HCW Management, the internal evaluation on the Framework prepared by the project partners, the external evaluation with other key stakeholders in parallel with the development of supporting training materials.

The new qualification framework developed throughout the project will enable the EU labour force in the healthcare sector to gain a standardised set of skills regardless of the member state in which they undertook the vocational training programme. This will ensure that future healthcare waste managers will have genuine EU educational currency and therefore enable greater mobility within the EU for this specific labour force.

3.3.6. EWIT (E-waste Implementation Toolkit)

The EWIT project, having been granted funding by the European Horizon 2020 Programme, started its implementation in 2015. Being one of the five Lead Partners of the project, ISWA led the design and implementation of the first round Twin City Workshops in the four African cities: Abidjan (Ivory Coast), Choma (Zambia), Kisii (Kenya) and Johannesburg (South Africa). The key result of the four workshops was the formulated and endorsed master plan on E-waste management of each of the four African cities as well as the establishment of the bilateral relationship between the African cities and their respective European cities: Abidjan-Antwerp, Choma-Vienna, Kisii-Porto, and Johannesburg-Florence.



EU-Healthcare Waste Coordination Meeting, Vienna



Visit to the dumpsite in Choma

The second half of 2015 saw another set of workshops taking place with the result of technical guidelines on collection, processing and technologies, financing and legislation and closing the loop. The project will continue into 2016, aiming to help African cities manage their E-waste by providing a toolkit that is to be developed based on case studies, modelling of waste flows and quantitative and qualitative data from four African cities and four European cities.



EWIT workshop in Zambia

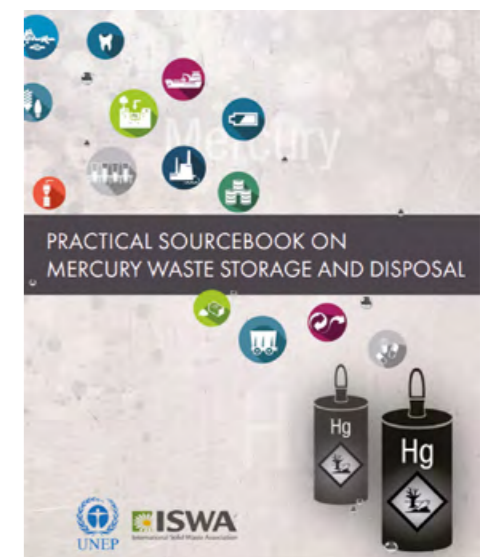
3.3.7. TRP+ Training Course on Hazardous Waste

ISWA co-organised the first training course on hazardous waste management with UNESCO-IHE and UNIDO using the TRP+ materials in August and September in the Netherlands and Belgium. The course was a collaboration of several leading institutions and covered a wide range of topics on hazardous waste management, from the fundamentals, to prevention, legislation and the technical practices of treating hazardous waste in a safe and sustainable manner.

The course then took the students to the ISWA World Congress in Antwerp, providing them a platform to show their cases brought from their countries in a Congress special session. The 26 participants from 14 countries from Africa, Asia and Latin America praised the concept and quality of the course, feedback that will allow ISWA to further tailor the course concept and co-organise it with the same partners in 2016.

3.3.8. A Practical Sourcebook on Mercury Storage and Disposal

2015 saw the completion and the official launch of the publication: "A Practical Sourcebook on Mercury Storage and Disposal", a project of UNEP Chemicals Unit in cooperation with ISWA since the end of 2013. The Sourcebook is an informative tool that aims to enhance the capacity of Governments and other relevant stakeholders to ensure the environmentally sound storage and disposal of the major types of mercury wastes. The content of the 'Sourcebook' is based on the 'updated technical guidelines for the environmentally sound management of wastes consisting of, containing, or contaminated with mercury or mercury compounds', recently adopted by the Conference of the Parties of the Basel Convention. The 'Sourcebook' is available for download on the ISWA Knowledge Base at www.iswa.org.



3.3.9. ISWA Project Grant Projects

The ISWA Project Grant fund was competitively allocated to ISWA entities through a call for project proposals. The first round of funding was allocated to 12 projects to be completed between 2011 and 2013. The last call for proposals was held in late 2013 for projects to be funded in 2014 and 2015. The strategy for the funding of the 2014 round was to fund two large scale signature projects that will enhance ISWA's profile; a few additional smaller projects to support the technical stature of the ISWA's Internal Groups.

The following projects were being implemented in 2015:

| Project | Organisation | Deliverables | Timeline |
|-------------------------------------|---|--|--|
| WGRWM - Sorting Plants Project | NVRD Netherlands, ISWA Working Group on Recycling and Waste Minimization | A customised training pack for waste sorting plants for Eastern and Southern plants | Most work is scheduled in and projected to be completed by 2016 |
| WGHW - Hazardous Waste TRP+ | UNIDO, UNEP and ISWA Working Group on Hazardous Waste | An online training resources pack for hazardous waste management, which can be taken part by part by trainers in order to formulate their training programme | Expert Workshop to take place in 1st half of 2016, assist in organising the first hazardous waste training course with UNESCO-IHE, final compilation of materials in 2016 |
| WGBTW – Biowaste Regional Workshops | CAUES - China Association of Urban Environmental Sanitation (ISWA National Member) ABREPLE – Brazilian Association of Public Cleaning and Special Waste Companies (ISWA National Member) | Workshop reports and proceedings | Completed in November 2015: the first workshop took place in Chengdu, Sichuan Province, China, 26 to 27 November 2014; the second workshop took place in Sao Paulo in cooperation with the ISWA RDN Latin America. |



Regional Biowaste Workshop in Sao Paulo, Brazil

3.4. INTERNAL GROUPS ACTIVITIES

3.4.1. The Scientific and Technical Committee

Chair: Antonis Mavropoulos, Greece / Vice-Chair: Bettina Kamuk, Denmark
Secretary: Jiao Tang, China

The Scientific and Technical Committee (STC) represents ISWA's technical expertise, it is governed by its Chair and the current Chairs and Vice Chairs of the 10 ISWA Working Groups (WGs). The STC Members meet 4 times a year, typically preceding the Board meetings. The Chair of the STC is also a member of the ISWA Board.

The STC is the technical and scientific think-tank of ISWA. The actions of the STC are based on its own objectives and annual work programme, as well as the work programmes of the different Working Groups and Task Forces. More recently the focus of the STC has been to improve the deliverability of, and cooperation among, the ISWA WGs; which as you will discover below continues to be evident in 2015.

The different activities that the STC are directly or indirectly involved in include:

Projects – as project managers or as members of the project team

- ISWA Project Grant
- Working Group projects
- Task Force projects
- Joint projects with International Organisations

Publications – in the preparation, contributions or review of

- ISWA Papers
- Reports & Guidelines
- WM&R (ISWA's scientific journal, see 3.7. below)
- WMW (ISWA's magazine, see 3.7. below)

Capacity Building & Professional Development – as trainers or in programme development of

- Study tours
- Summer/Winter schools
- Workshops and Training events
- International Waste Manager Programme

Events - as speakers, moderators or serving on programme committees of

- World Congress
- Beacon Conferences
- Workshops
- Joint events with other organisations

STC work programme

| Emblematic themes 2013 to 2015 | Emblematic themes 2016 to 2018 |
|--|--|
| <ul style="list-style-type: none"> ▪ Waste and Health ▪ Material Flows and Global Recycling Markets ▪ Climate Change and Waste Management | <ul style="list-style-type: none"> ▪ The challenge of governance in a globalised world ▪ Market volatility, business models and circular economy ▪ Climate change – global coordination |

ISWA Publications 2015

ISWA is one of the most important producers and disseminators of current, high-quality information on sustainable and professional waste management. ISWA publishes a wide range of waste management specialist literature. In 2015 ISWA developed several groundbreaking publications. Some of them are presented below:

Global Waste Management Outlook

The Global Waste Management Outlook was jointly prepared by ISWA and UNEP's International Environmental Technology Centre (IETC) and was launched during ISWA's 2015 World Congress in Antwerp. The report offers an integrated global solution to the waste problem, including calling for immediate improvement of waste collection and disposal, preventing waste and maximising reuse and recycling of resources. It also calls for a major shift away from the linear "take-make-use-waste" economy and towards the circular "reduce-reuse-recycle" approach to the lifecycle of materials.

Practical Sourcebook for Mercury Waste Storage and Disposal

The Sourcebook, a project of UNEP Chemicals Unit in cooperation with ISWA, is an informative tool that aims to enhance the capacity of governments and other relevant stakeholders to ensure the environmentally sound storage and disposal of the major types of mercury wastes.

Wasted Health: The Tragic Case of Dumpsites

This report was presented at the 2015 ISWA World Congress in Antwerp, Belgium. This excellent research conducted by ISWA's STC Chair and Board Member Antonis Mavropoulos for the first time lays out how untreated waste is today leading to premature deaths, ill-health and stunted growth among millions of people. It is a condemning report because so far no international aid or focus is being placed on this issue. And dumpsites are growing in size and number as cities grow in developing countries. They represent the most polluted sites on earth.

Circular Economy: The Task Force Resource Management Reports

New patterns of global trade have emerged for recovered paper, plastics, textiles and waste derived fuels despite strongly fluctuating commodity prices. As the risks to raw material supply have become evident government and business interests have sunk growing research funding into how to change current operating business models and to secure investment in new treatment technologies. In recognition of these challenges, the ISWA Board established the ISWA Task Force on Resource Management, whose members prepared a series of 6 reports to help the waste industry to respond to these unprecedented pressures.

For more details on the Task Force Resource Management please see 3.4.3. below.

A video titled 'The Golden Resource' which also has been produced by the Task Force and short video interviews with the report authors can be watched on the ISWA website or by scanning this QR-code.



The ISWA Knowledge Base

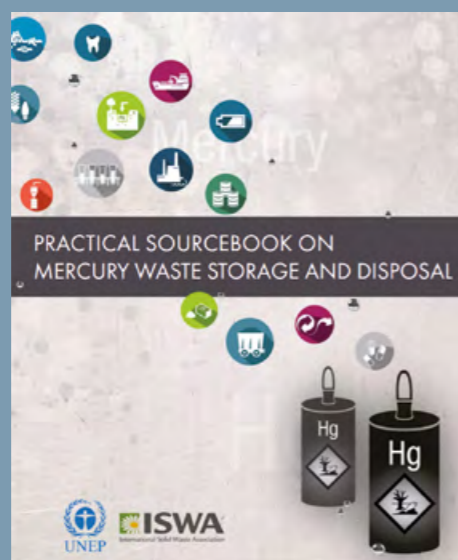
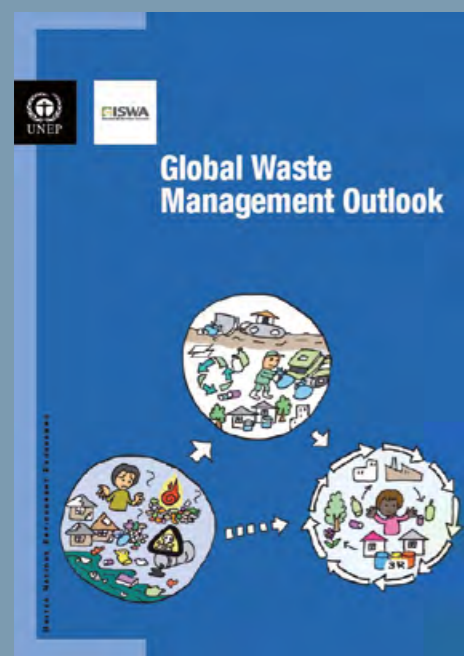
All these publications presented on the left and many more papers and reports that have been prepared by ISWA and other organisations are available in the ISWA Knowledge Base which can be accessed via www.iswa.org or by scanning the QR-code above.

The ISWA Knowledge Base has been developed and implemented successfully over the last years to upgrade ISWA's technical profile. It has been up and running online since April 2011. The Knowledge Base provides ISWA members with convenient and easy online access to an extensive source of scientific waste management related documents - currently more than 3,200.

These documents include both ISWA and non-ISWA material such as Conference and Workshop Proceedings, Reports, Training Resources, Papers, Case Studies and Online Resources.

The Knowledge Base strives to cover all relevant topics of solid waste management from all over the world and is regularly updated. So far the Knowledge Base has proven to be quite popular receiving approximately 4,000 visitors per month.

Since 2012 registration for non-ISWA members to use the Knowledge Base has been established. In addition user statistics are being gathered providing an informative insight into patterns of use allowing for optimisation of content.



3.4.2. WORKING GROUPS



The purpose of the ISWA Working Groups is to serve as the principal means for ISWA to deliver its technical and scientific programmes. As such, the Board and the ISWA membership look to the Working Groups for technical information and assistance, basic and applied research, professional meetings, and the development and dissemination of information about solid waste management.

The Working Groups each function differently and this difference is respected as far as possible. The input from the Working Groups is based on voluntary work from its members and ISWA recognises the efforts made by its large number of Working Group members. Working Group meetings are usually held twice a year.

Currently there are 10 Working Groups with a total of around 250 members coming from more than 30 different nations:

Working Group on Governance and Legal Issues

The purpose of the Working Group is to serve as a platform for knowledge exchange and as the principal resource to ISWA on governance and legal issues related to waste and resource management. The overall task for the Working Group is the exchange of information, experience, knowledge and views related to governance and legal aspects. Currently there is much focus on EU-waste legislation, environmental responsibility and the legal aspects of different kinds of public private partnership.

Main discussions and activities in 2015 were:

- Finalisation of a Position Paper on Public Private Partnership (PPP)
- Finalisation of a Key Issue Paper on how legislation for Extended Producer Responsibility (EPR) should be structured
- Development of a case study on the financing of the municipal waste management via fees, taxes, EPR and other income sources

Future activities will cover the elaboration of papers on basic principles for code of conducts, waste export rules, definition of 'Zero Waste' and the organisation of a workshop on the topic 'Informal Sector'.

Working Group on Recycling and Waste Minimisation

The Working Group addresses both minimisation of solid waste generation and the recovery, processing and marketing of materials stemming from solid waste streams. Its main objectives are to promote sustainable methods and practices for recycling and waste minimisation and to share information on institutional, technological, economic and environmental matters concerning recycling and waste minimisation currently in practice.

Main discussions and activities in 2015 were:

- Development of a Position Paper on the Definition of Recycling
- Development of Guidelines for Sorting Plants
- Organisation of the ISWA Beacon Conference on Waste Minimisation and Recycling in Vienna, Austria
- Organisation of the ISWA Beacon Conference: Secondary Resources from Waste: Sorting and Treatment Techniques in Hamburg, Germany
- Organisation of a Study Tour on Sorting Plants in London, UK
- Preparation of sessions for the ISWA World Congress 2015

Looking forward, the Working Group will be busy organising two ISWA Beacon Conferences in Oslo and Buenos Aires in 2016, finalising the Position Paper on the Definition of Recycling and finalising the Sorting Plants project.

Working Group Healthcare Waste

The Working Group's main objective is to promote the integrated provision of the infrastructure for the safe management of healthcare waste worldwide.

The main activities in 2015 were:

- Technical advice and on-site consulting to WHO related to Ebola
- Technical advice to WHO regarding the safe discarding of Oral Poliomyelitis Vaccine (OPV)
- Further work on the Treatment of Pathological Waste Paper
- On-going support to the EU LDV funded project "Developing an EU Standardised Approach to Vocational Educational Training Awards in Healthcare Waste Management"
- Special Session on healthcare waste management at the ISWA World Congress 2015 in Antwerp

The Working Group has experienced a dynamic growth in the year of 2015 and is planning on exploiting its full professional capacity in 2016, through a close co-operation with the WHO and an active work on technical outputs. Additionally, some of the Working Group Members will stay actively engaged in the EU funded project aiming at providing a unified approach to develop National Occupational Standards and Vocational Educational Training (VET) Programmes for Healthcare Waste Management across the EU Member States.



WGGL meeting in Hamburg, Germany

Chair:
Björn Appelqvist, *Denmark*

Vice Chair:
Andreas Bartl, *Austria*

Secretary:
Julia Schönherr, *Austria*



WGRWM meeting in London, United Kingdom

Chair:
Anne Woolridge, *United Kingdom*

Vice Chair:
Beatrice Giordani, *San Marino*

Secretary:
Aditi Ramola, *India*



WGHCW meeting in Istanbul, Turkey

Working Group on Landfill

The Working Group addresses the planning, siting, design, construction, operation, closure and end-use of landfills. Its overall interests are in the proper closure of open dumps worldwide and the move towards the construction and operation of modern engineered, sustainable landfills. These interests have led to providing technical support on the design, construction and operation of modern engineered, sustainable landfills. They have also led to the group providing technical support on the design, construction, regulation and management of landfills, for both industrialised and developing nations. Further aspects include operations, closure, and end-use concepts, along with standard practices for ground water monitoring and testing, leachate management, gas management and storm water management.

The main activities in 2015 were:

- Special Session on International Landfill Practices at the SWANA Symposium in New Orleans, March 2015
- Training Session and Special Session on Landfilling at the ISWA World Congress 2015 in Antwerp
- Further work on the Landfill Aftercare paper and the Operational Guidelines
- Cooperation on organising the ISWA-SWIS Winter School on landfill operation in January 2016

The Working Group will continue supporting the closure of open dumpsites and promoting sustainable landfilling worldwide. Organising further capacity building events, including training courses, master classes, Summer/Winter Schools and study tours are part of the agenda for 2016, together with cooperations with key international partners, such as the Global Methane Initiative or the US EPA.

Working Group on Climate Change and Waste Management

The Working Group, recognising that climate change is one of the most important global environmental issues facing our planet, advocates that the waste sector has a very important role to play. The waste sector has the option to be a net GHG reducer and many actions on how to achieve this have already been identified. The Working Group is focused inter alia on conveying the message that sustainable waste management should be included in future international agreements and declarations, including National Appropriate Mitigation Actions (NAMAs), National Determined Contributions (NDCs), projects of the Green Climate Fund (GCF), extension of current Kyoto project mechanisms, new market mechanisms, sector approaches, access to finance for solid waste management, etc.

The main pursuits in 2015 were:

- Activities in connection with the Climate and Clean Air Coalition Municipal Solid Waste Initiative (CCAC MSWI)
- Activities in connection with the Global Partnership on Waste Management
- Preparation of ISWA Declaration on Climate Change 2015
- Cooperation with international partners such as the Veolia Institute and the French Development Agency

Chair:
Luis Marinheiro, *Portugal*

Vice Chair:
James Law, *USA*

Secretary:
Kata Tisza, *Hungary*



WGL special session in New Orleans, USA

Chair:
Gary Crawford, *France*

Secretary:
Kata Tisza, *Hungary*



WGCCWM Chair Gary Crawford speaks at COP 21 side event

- Special Session on climate change and waste management at the ISWA World Congress 2015 in Antwerp
- Cooperation with UNFCCC and the Green Climate Fund
- Joint ISWA event at UNFCCC COP 21 with the Veolia Institute and the US Department of State

The Working Group will stay engaged beyond the COP21 and take its share to work on solutions in areas related to climate change and waste management. In 2016 the group is planning to continue active discussions about the most up to date subjects of the field, such as carbon markets financing, NDCs and various aspects of carbon price and carbon taxing systems.

Working Group on Communication and Social Issues

The Working Group serves as the principal resource to ISWA in the field of communication and social issues and relations. It addresses public concerns, comprising public support of and public opposition to waste management policies, public consultation and participation, and communication and social issues with focus on basic human attitudes towards waste. The Working Group's main objectives are to foster the good reputation of professional waste management among the public by developing, coordinating, and disseminating strategies and tools aimed at increasing public support of and reducing public opposition to waste management strategies, projects and plants.

Main discussions and activities in 2015 were:

- Organisation of a Media & Waste Management Workshop
- Development of a special session on behavioural change for the ISWA World Congress
- The ISWA Communication Award
- The ISWA Video Award

Future activities of the Working Group include the elaboration of a handbook on social media for beginners, the implementation of regular joint meetings with the communication working group of CEWEP and the preparation of a session for the ISWA World Congress 2016.

Chair:
Gunilla Carlsson, *Sweden*

Vice Chair:
Jos Artois, *Belgium*

Secretary:
Gerfried Habenicht, *Austria*



WGCS meeting in Malta

Working Group on Biological Treatment of Waste

This Working Group addresses biological treatment of waste, including topics on composting, anaerobic digestion, mechanical biological treatment, separate collection and related policy and economic issues. In 2015, this working group organised a workshop in cooperation with ISWA's National Member in Brazil, ABRELPE, the Brazilian Association of Public Cleaning and Special Waste Companies. The workshop provided fruitful knowledge and experience exchange between the ISWA experts and the stakeholders at the national and local level of

Chair:
Marco Ricci, *Italy*

Vice Chair:
Jane Gilbert, *United Kingdom*

Secretary:
Paul Stegmann, *Germany*

Brazil. It also consolidated and heightened ISWA's presence in Sao Paulo in connection to the CCAC City Assistance Project implemented by ISWA. Provided sufficient sponsorship, this working group is ready to conduct similar workshops in Latin America in the next years.

Another deliverable of this working group was the ISWA Key Issue Paper on Biodegradable Plastics, which provides an overview of different types of bioplastics, the compostability of biodegradable plastics and its implications for the collection and treatment of organic waste. As increasing amount of "bioplastics" emerge in consumer products' packaging and of "compostable plastic bags" for food waste collection, this paper aims to provide some guidance on how to differentiate different type of bioplastics and their implications for the waste management sector.

Working Group on Collection and Transportation Technology

The purpose of this working group is to serve as the principle resource to ISWA in the field of collection and transportation technology of solid waste. The working group addresses the storage, transfer and transportation of solid waste.

The main discussions and activities in 2015 included:

- Cooperation with IFAT India organised in Mumbai
- Presentation at the 13th International Conference and Exhibition on "Sustainable Habitat and Smart Cities" in Jaipur, India
- Cooperation with the Waste to Energy Research & Technology Council (WTER) India and Surat Municipal Corporation (SMC) in preparation of the International Conference on "Sustainable Municipal Solid Waste Processing Technology for Developing Nations"

The Working Group is planning to organise more online and also a few in person meetings in the course of 2016 and will continue to work with key partners on strategic events such as the IFAT India or the Special Session of the ISWA World Congress 2016.

Working Group on Energy Recovery

This very active Working Group regularly attracts upwards 45 participants to its meetings. The group addresses issues on energy recovery from waste, mainly in the field of thermal treatment. Topics such as technical requirements of boilers and air pollution controls, the economic aspects of plant investment as well as bottom ash and fly ash treatment are frequently discussed.

The purpose of this Working Group is to provide knowledge and data on suitability of waste for thermal treatment and the sound management of thermal treatment plants. It also aims to promote thermal treatment practices and its role in an integrated waste management system and a circular economy. The group also organised the bi-annual Waste-to-Energy Beacon Conference in November 2015 in Malmö, Sweden, along-side a number of technical seminars across the world.



WGBTW meeting in Barcelona, Spain

Chair:
Vivek Agrawal, *India*

Secretary:
Paul Stegmann, *Germany*



Chair:
Bettina Kamuk, *Denmark*

Vice Chair:
Jørgen Haukohl, *Denmark*

Secretary:
Daniel Purchase, *United Kingdom*

The main discussions and activities in 2015 were:

- Bottom ash treatment methods around the world
- Waste-to-Energy in the circular economy
- The implications of reviewing the EU law on "Best References" for the WtE sector
- New criteria for measuring the quality of recycling
- WtE situation in different countries
- WtE application in lower-income countries

The group will continue in a similar form going into 2016 with a number of meetings, events and technical tours currently being organised including participation in the annual North American Waste-to-Energy Conference (NAWTEC) in May 2016.

Working Group on Hazardous Waste

This Working Group's interests include the sound management of hazardous waste from both industrial and household sources, and the remediation of hazardous waste sites resulting from unsustainable practices. In carrying out its programmes, the working group members strive to serve the interests of hazardous waste management professionals in their respective countries and worldwide.

This working group fosters a close relationship with international organisations involved in hazardous waste management, such as the Basel Convention on Transboundary Movements of Hazardous Wastes and Their Disposal and lately the Stockholm Convention on Persistent Organic Pollutants. It promotes the effective and safe management of hazardous waste through the provision of training materials and training courses, especially in economically developing regions.

The working group's main activities are surrounding the Training Resource Pack (TRP+) on hazardous waste management, a versatile online resource for hazardous waste management trainers. In cooperation with the Basel Convention, partnering with United Nations Environmental Programme (UNEP) and United Nations Industrial Development Organisation (UNIDO), the working group is leading this long-term project.

Meanwhile, the year 2015 saw the use of some of the prepared materials of the TRP+ in the first Short Course on Hazardous Waste Management offered at the UNESCO-IHE institute in the Netherlands. Three partners contributed to the conceptualisation and realisation of this course, UNIDO, TU-Berlin, UNESCO-IHE and ISWA. 25 participants coming from over 15 countries took the course for a week in the Netherlands and then presented their case studies at the ISWA World Congress 2015 in Antwerp as a special session, which achieved high participation. With the success of the course in 2015, it is expected to continue with the partners to make this course recurrent each year.



WGER meeting in Vienna, Austria

Chair:
Jean-Paul Leglise, *France*

Vice Chair:
Paul De Bruycker, *Belgium*

Secretary:
Aditi Ramola, *India*



WGHW special session at the ISWA World Congress in Antwerp

3.4.3. TASK FORCES

Task Forces are established to handle special new challenges identified by the Board, which require experts and concentrated attention, which cannot be provided by a Working Group. The Task Forces provide a means for ISWA to obtain specialised information to assist ISWA in policy and programme determination. Task Forces are established for a specific purpose and assignment, exist for a limited time, are administered by the STC, and are disbanded when their objective is completed.

In 2015 there was one Task Forces active:

Task Force on Resource Management

ISWA established the Task Force on Resource Management (TFRM) in 2014 with the aim to investigate the contribution that the Waste Management Sector can offer to the Circular Economy and to identify the barriers and challenges that need to be overcome to support the transition from waste management to resource management.

The Task Force worked hard for over a year to prepare a scoping study providing insights into current trends and a series of six reports (see page 33) to help the waste industry to analyse and respond to the unprecedented pressures of the Circular Economy on the waste management industry. The core Task Force team received significant support from an external reference group, the ISWA Scientific and Technical Committee and the ISWA Board.

The outputs of the Task Force were presented and discussed over multiple public and closed events throughout the project period, such as the ISWA World Congress 2014 Special Session in Sao Paulo (September 2014), the TFRM Expert Workshop in Paris (June 2015), the ISWA World Congress in Antwerp (September 2015) and the conference titled the “Circular Economy: Resources and Opportunities – The Challenge of Circular Economy for the Waste Management Industry” organised at the European Economic and Social Committee premises in Brussels (November 2015).



TFRM workshop in Paris, France

Chair:
Björn Appelqvist,
Rambøll, Denmark

Members:
Ana Loureiro, *EGF, Portugal*
Andreas Bartl, *Vienna University of Technology, Austria*
Bettina Kamuk, *Rambøll, Denmark*
Costas Velis, *University of Leeds, UK*
Gary Crawford, *Veolia, France*
Jane Gilbert, *Carbon Clarity, UK*
Martin Brocklehurst, *The Chartered Institution of Wastes Management, UK*
Kata Tisza, *ISWA General Secretariat, Hungary*

The six reports prepared by the Task Force on Resource Management, key messages, brief interviews with the authors and a summary video are available on www.iswa.org. Please also see page 33 and the outline of the Task Force deliverables below:

| Title of Report | Author of Report | Brief summary |
|---|--|---|
| Circular Economy 1: Trends and Emerging Ideas | Martin Brocklehurst, The Chartered Institution of Wastes Management (CIWM) | Explores the key drivers responsible for the upsurge in changes by business and governments to re-think our current linear economy and the impact this is having on the waste industry. |
| Circular Economy 2: Cycles, Loops and Cascades | Andreas Bartl, Vienna University of Technology | Examines the benefits and limitations of recycling, its role in the circular economy and cascade utilisation. |
| Circular Economy 3: Closing the Loops | Costas Velis, University of Leeds | Deals with the problems of closing material loops through an in depth consideration of the recycling of two key materials polypropylene and paper & board. |
| Circular Economy 4: Carbon, Nutrients and Soil | Jane Gilbert, Carbon Clarity | A description of the ways in which carbon and plant nutrients in organic waste can be recycled to conserve resources, reduce environmental effects and displace fossil fuels. |
| Circular Economy 5: Energy and Fuels | Tore Hulgaard, Rambøll | Investigates the potential for the recovery of energy and fuels from waste and the contribution that such energy recovery can have in a circular economy. |
| Circular Economy 6: Resources and Opportunities | Editor: Rachael Williams-Gaul, Former Technical Manager at ISWA | Pulls together the main findings of the five investigative reports prepared by the Task Force and describes the contributions of the waste management sector to resource management and the circular economy. |



TFRM final conference in Brussels, Belgium

3.4.4. EUROPEAN GROUP

The ISWA European Group serves as the principal ISWA resource and voice for the waste management sector within the EU and for the accession countries in Europe and consists of a core group of members of ISWA's Scientific and Technical Committee, appointed Working Group members and an auditor group respectively.

The aim of the European Group is to establish a closer and better working relationship with the EU Institutions and to offer technical, economical and scientific expertise where it is needed. It also identifies the need for policy and technical papers, and arranges for their production within ISWA as a means of creating a communication interface between ISWA and other European groups.

In 2015 the European Group was restructured and conducted on-line and in person meetings and co-organised a one-day workshop on Circular Economy: "Resources and Opportunities: The Challenge Of Circular Economy For The Waste Management Industry". The event was set up jointly with the ISWA Task Force on Resource Management and aimed to provide a platform for open dialogue in the presence of representatives from various EU institutions, as well as from the public and private sectors.

In 2016 the European Group will continue to fulfill its mission and be the primary voice of the waste industry in the European arena and at the same time working on solid waste related on projects pertinent to the Group's agenda.



ISWA YPG 2015 Annual Meeting in Antwerp

3.4.5. ISWA YOUNG PROFESSIONALS GROUP

The ISWA Young Professionals Group (YPG) was founded by young enthusiastic professionals from around the world in the field of waste management in 2013 at the ISWA World Congress in Vienna. Its aim is to bring about new ideas and initiatives that address the challenges in waste management through engagement with wider society. The YPG strives to make global connection to people, ideas and knowledge more accessible. The YPG does this through:

1. Raising awareness of ISWA
2. Promoting responsible production and consumption
3. Raising awareness of local and global waste management issues
4. Engaging people of different interests into constructive dialogue and cultivating common goals for waste and resource management
5. Encouraging to think further, think differently, to question traditional approaches and explore new approaches
6. Being the voice of those who cannot speak for themselves on waste management issues

The year 2015 saw the YPG taking off, setting up programmes and establishing core working members that formed a foundation of the Group. These include:

- The Mentorship Programme
- The Online Thematic Discussions
- The Communication Strategy and Social Media Channels
- The YPG Special Sessions at ISWA World Congresses
- The Image Video of ISWA YPG

One of the activity highlights was the YPG special session at the ISWA 2015 World Congress with the topic "Entrepreneurship in Waste Management" arranged in the format of an interactive workshop followed by a high level panel discussion where business ideas from the workshop were presented and discussed. One of the business ideas is actually being implemented in India right now!



YPG special session at the 2015 ISWA World Congress in Antwerp, Belgium

Chair:
Antonis Mavropoulos, *Greece*

Vice Chair:
Costas Velis, *Greece*

Chair:
Jiao Tang, *China*

Vice Chair:
Gijs Langeveld, *The Netherlands*

YPG members at the gala dinner of the ISWA World Congress 2015



3.5. INTERNATIONAL WASTE MANAGER CERTIFICATION PROGRAMME

The ISWA International Waste Manager (IWM) certification programme is designed to provide an internationally recognised certification for individual professional waste managers based on both academic achievements and practical work experience. The certification is awarded at four different levels: technical, intermediate, advanced and international, depending on how applicants meet the ISWA criteria. The criteria are based on a set of identified attributes that become more rigorous the higher the level awarded.

Since the programme began in 2006, 183 waste managers from 33 different countries around the world have been certified within the ISWA IWM programme.

A local IWM programme launched in 2012 by ISWA's national member of Argentina is promoting the IWM programme in the Latin American region. Up until 2015, 25 applicants have been awarded IWM certificates at various levels. There are plans to further expand the IWM certification programme to other regions. Furthermore, an IWM Academic Status, in cooperation with the University of Northampton, UK, is currently in the final stages of development and will offer academics and recent graduates recognition for their academic studies in the solid waste field.

Other activities in 2015 included an IWM training week in Amman, Jordan. Additionally, a provisional agreement has been put in place to establish an IWM regional network in the Southeast Europe, Middle East and Mediterranean region.



IWM training week in Amman, Jordan

| NUMBER OF INTERNATIONAL WASTE MANAGERS BY YEAR | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|-------|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | TOTAL |
| Technical status | - | - | - | - | 1 | 58 | 3 | 1 | 0 | 4 | 63 |
| Intermediate status | - | - | - | 7 | 5 | - | 5 | 3 | 0 | 3 | 20 |
| Advanced status | 3 | 1 | - | 4 | 4 | 1 | 9 | 4 | 3 | 13 | 29 |
| International status | 11 | 1 | 1 | 6 | 5 | 4 | 3 | 5 | 3 | 12 | 39 |
| Total | 14 | 2 | 1 | 17 | 15 | 63 | 20 | 13 | 6 | 32 | 183 |

Note to the above table: the striking increase of IWMs in 2011 was due to the ISWA UN-Habitat Training Programme, which was attended by 58 Iraqi trainees, who on completion of the training course were awarded Technical Status in the IWM programme.

3.6. ISWA SCHOLARSHIP PROGRAMME



We all know that children working and playing inside an active, filthy dumpsite is dangerous, unhealthy and unethical. But yet, it still happens all over the world in developing countries.

ISWA would like to do something about this by preparing and educating next generation youths who would otherwise follow their parent's footsteps into the trash. The ISWA Scholarship Programme currently targets 25 children who are sorting garbage in dumpsites called Nueva Vida and La Chureca in Nicaragua.

For the organisation and implementation of this project ISWA has partnered up with Timothy Bouldry, who will be administrating and supervising the ISWA Scholarship Programme on the ground. Timothy is originally a photographer from New York. He also provided the cover photo for this report and most of the photos related to this chapter. For the last two years he has been living in Nicaragua, close to the above mentioned dumpsites. He has been photographing and reporting about unregulated waste sites from the informal recycler's perspective for 8 years. His work also acts to present a case about the health risks, environmental factors and economical injustices informal recyclers endure with their hard work and harsh living conditions.

In Nicaragua Timothy developed close personal relations to the families living on 'his' dumpsites and helps them wherever he can. When we met Timothy at last year's ISWA World Congress in Antwerp the idea of the ISWA Scholarship Programme was born.

For more detailed information please go to www.iswa.org or scan the QR-code above.



Some of these kids aren't working at La Chureca anymore. Help to bring more children from the dumpsite to the school desk!

Donations and Support

With the 20,000 USD donated by ISWA, the Scholarship Programme can be financed for 25 children for two years, including book, uniforms, transportation, family allowances (in some cases, the child is the person working to provide for the family and they are not able to go to school for this reason), administration and psychological counselling. If you would like to support the ISWA Scholarship Programme and help to bring more children from the dumpsite to the school desk then we invite you to make a donation. Your support, no matter what amount, is very much valued.

Unicredit Bank Austria AG,
ISWA – International Solid Waste Association,
Bank code: 12000,
IBAN: AT83 1200 0515 7400 2593,
BIC/SWIFT: BKAUATWW

As a reference please enter ISWA Scholarship Programme. Thank you!

#tradingtrashforeducation

3.7. PRINT AND ONLINE PUBLISHING

ISWA is one of the most important producers and disseminators of current, high-quality information on sustainable and professional waste management. ISWA publishes a wide range of waste management specialist literature: Books, Key Issue Papers, Technical Policy Papers, Position Papers, Reports (see also table “ISWA Publications” under 3.4.1. above), and two professional periodicals, which are available in print and online versions:

Waste Management & Research (WM&R)

One of the leading journals for waste management is published under the auspices of ISWA. WM&R publishes peer-reviewed articles relating to both the theory and practice of waste management and research that foster innovation. The journal provides a bridge between academic research, practical and operational challenges. The WM&R Editorial Group, consisting of Editor-in-Chief P. Agamuthu and Associate Editors Mario Grosso, Sunil Herat, Jinhui Li, Rodrigo Navia, Arne Ragossnig, David Ross and Costas Velis, thrives for highest publication standards. In 2015 WM&R received 843 manuscript submissions from 79 countries out of which 113 manuscripts were accepted for publication. The WM&R Impact Factor has constantly increased over the past years and reached its highest score recently with 1,297.

The focus of WM&R for 2016 is to sharpen the vision and profile of the journal, to maintain and improve its excellent quality and continue delivering added value to current discussions within the waste management field.



Waste Management World (WMW)

WMW, ISWA's official magazine, is published bimonthly and has a circulation of more than 18,000, thereof 7,000 print subscriptions. WMW includes the latest international waste industry news and analysis, covering waste technology and trends, plus contributions from leading global experts on waste recycling and minimisation, landfill, bio-waste, waste-to-energy conversion and thermal treatment, transport, collection and waste policy. One issue per year incorporates the International Directory of Solid Waste Management, which lists the ISWA members, and a classified listing of waste management companies. The WMW website gets around 160,000 page views per month from 70-100 thousand visitors.

In September 2015 WMW was taken over by ISWA. When the previous owner and publisher, PennWell, decided to relinquish some titles, ISWA saw the opportunity of taking on and relaunching WMW as the voice of the global waste community. The relaunch will be implemented together with our new partner and publisher, Industriemagazin Verlag GmbH. You will see the new WMW from 2016 when graphics, style and content will be significantly improved on the previous version.



Design of new WMW cover launched January 2016

Newsletters

ISWA provides its membership and stakeholders with up-to-date information via 4 different kinds of newsletters. All in all ISWA issued 24 newsletters in 2015.

ISWA Global E-Newsletter

The ISWA Global E-Newsletter which has been further improved with more content and a new layout, now goes out to more than 19,000 subscribers six times a year and receives a lot of positive feedback from the readers.

The ISWA Insight Bulletin

In addition to our Global E-Newsletter, the scope of this reporting format is to provide our members with exclusive, up-to-date information on what ISWA officials are performing on behalf of the association. The Insight Bulletin is published on an irregular basis, without a fixed schedule.

Waste Business Monitor

In 2014, a new complementary information service for ISWA members, produced in association with AcuComm Waste Business Finder, a database of waste projects around the world, was introduced. The Waste Business Monitor is a monthly look at the current state of play in the world's market for waste technology. The newsletter provides an ongoing and comprehensive analysis of current projects in the global waste industry and puts them in the context of the year-to-date, covering not just municipal waste but other fast-growing areas such as agricultural biomass or specialist sectors such as healthcare- or hazardous waste.

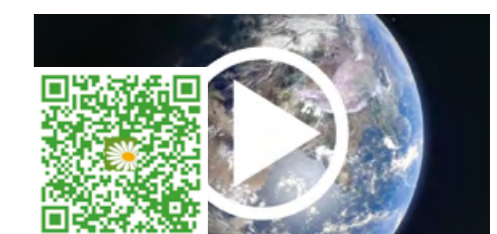
World Congress Newsletter

Since the end of 2014 ISWA has published a special World Congress Newsletter in cooperation with the respective host or organising committee of the upcoming ISWA World Congress, providing updates and detailed information on THE ISWA event of the year on a regular basis.



Image Video

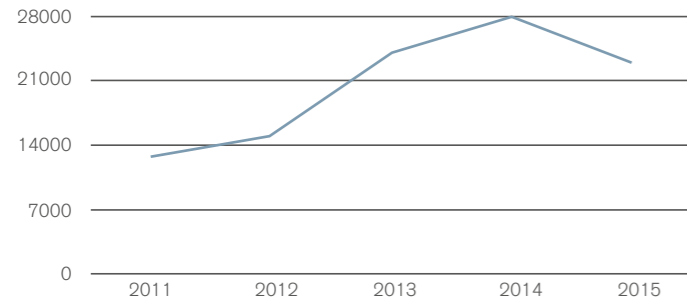
What is ISWA? What are the benefits of being a member of ISWA? What is the mission, what are the core activities of ISWA? We tried to answer these and more questions about ISWA in a short image movie. The video can be viewed on www.iswa.org or by scanning this QR-code.



Website

The ISWA website was completely redesigned and upgraded with more content in 2013. The main goals of the revision were a clearer and more modern layout and a user-friendly structure. As a consequence of these improvements and due to the development of new contents, the connection with our social media platforms and various promotion measures in 2014 the number of visits to www.iswa.org increased significantly over the last years and – maybe due to an emphasis on PR activities on our social media platforms – slightly decreased in 2015:

Average Number of website visitors per month

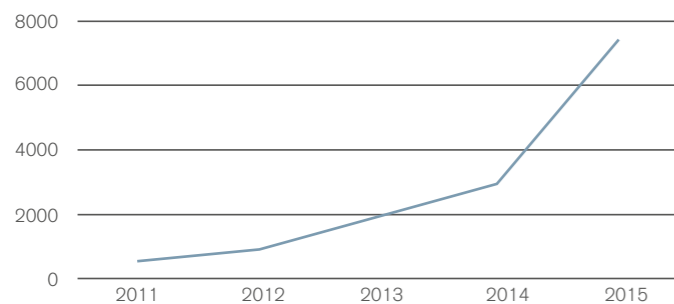


During the last year the ISWA website had between 20,000 and 25,000 visits per month, in comparison to 25,000 and 31,000 visits per month in 2014 (2013: 20,000 and 28,000; 2012: 12,000 to 20,000 monthly visits; 2011: 10,000 to 15,000 visits per month).

Social Media

Since 2011 ISWA has had company profiles installed on the social networks Facebook and LinkedIn. In 2014 ISWA had already more than 2,900 fans/followers on these social media platforms, many of them not ISWA members (2013: 2,000; 2012: 900; 2011: 400). In 2015 we succeeded to raise the total number of our followers on social media from 2,900 to 7,400(!), due to the following measures:

Number of followers on Facebook, LinkedIn and Twitter



In the second half of 2015 we pushed our activities on Facebook with a campaign titled #roadtocop21 (part of the new media strategy, see also below) which led to a tripling of likes and followers within 4 months from 2,200 to 6,400. Also our LinkedIn community grew significantly and had 2,500 followers by the end of 2015. Furthermore, ISWA is on Twitter since October 2015. After the good experiences with the ISWA2015 Twitter account, which was created for the World Congress in Antwerp, this account has been made the official ISWA account ISWA_org. Within the last 3 months of 2015 the number of followers grew from 500 to 600.



ISWA website www.iswa.org



ISWA on Facebook



ISWA on LinkedIn



ISWA on Twitter

Media Strategy

To support ISWA's activities, coordinated communication and PR measures are required to raise awareness of ISWA among its target audiences. In 2015 ISWA developed a media strategy with the following goals:

- Improve media relations; getting (international) press coverage
- Expand social media presence (contents and numbers)
- Establish reference documents
- Raise the profile of ISWA, its mission and its activities

In the second half of 2015 the implementation of the media strategy began to bear fruit:

Using the ground-breaking ISWA Reports on Circular Economy by the Task Force Resource Management, the GWMO, the Wasted Health Report and the ISWA Declaration on Climate Change as news hooks (see also pages 32, 33 and 53), the implementation of the Media Strategy with various press conferences, press releases, interviews, presentations, direct mailings and postings on our social media platforms resulted in more than 60 articles in print media, 25 million views and accesses to the links of the published articles and to a duplication of likes and followers on ISWA's social media pages (see above).



ISWA President David Newmann giving interviews after the GWMO launch during the ISWA World Congress in Antwerp

3.8. AWARDS

Each year ISWA honours excellent efforts and creative ideas that increase public awareness and promote sustainable waste management. It is already a tradition that each year ISWA gives two prizes to award the best communication campaigns and the best publications in waste management. In 2013 a third award was added for the most original short video exploring the theme 'Waste' as one of the major global problems of our society.

The ISWA Awards 2015 were presented at the gala dinner of the ISWA World Congress in Antwerp, Belgium.

ISWA Communication Award

With this award ISWA honours excellent Waste Communication Campaigns that increase public awareness and promote sustainable waste management. The award is open for participation for both ISWA members and non-ISWA members.

2015 Communication Award Winners

2015 again saw a very good participation with 17 candidates from 11 different countries submitted their – mostly very interesting – nominations.

The judging panel had an excellent selection of waste management communication promotions to assess and found it difficult to determine an overall winner from those put forward. Only a few points separated the first three.

Finally, the jury found that overall the communications campaign „100-100-100, Dutch social experiment in waste management“, run by NV ROVA Holding from the Netherlands was the best of the 17 nominations put forward for the ISWA Communication Award in 2015.

The jury deemed this campaign the best project because of its strengths on all fundamental elements that make communication and social marketing plans effective. The judging panel was particularly impressed by the quality of planning, in which a clear strategy with detailed and measurable goals was outlined.

“Thank you for sorting your waste” by Helsinki Region Environmental Services Authority HSY, Finland, made the second place, and Canada provided our third winner with Canadian Beverage Container Recycling Association's ambitious initiative “Recycle Everywhere Transformation Campaign”, nominated by Reclay Holding GmbH, Germany.

ISWA Publication Award

The ISWA Publication Award has been created with the intention of honouring the author(s) of a publication, article or book, which is deemed to be exceptional in its contribution to the field of solid waste management.



ISWA Communication Award Winners 2015

2015 ISWA Publication Award Winners

There were 8 nominations for the ISWA Publication Award 2015 and the judges found great difficulty in determining an overall winner due to the top-class level and wide variety of subject matters covered by these submissions. However, one clear winner emerged. The following publication was considered the most interesting and important in the field of waste management:

“‘Wasteaware’ benchmark indicators for integrated sustainable waste management in cities, plus User Manual”, co-authored by:

- Prof David C Wilson (Imperial College London);
- Dr Ljiljana Rodic (Wageningen University);
- Dr Costas Velis (University of Leeds);
- Dr Anne Scheinberg (Waste);
- Andy Whiteman (Wasteaware);
- Joachim Stretz and Barbara Ölz (both GIZ).

This text, as the panel indicates, is very much in line with ISWA's mission and goals in promoting sustainable waste management in developing countries. This publication contributes to one of the major issues in integrated solid waste management (ISWM) in developed and developing countries. This paper has the potential to assist many countries in the world developing sustainable ISWM strategies.

ISWA Video Award

This year for the third time ISWA conducted an online short video competition called the “ISWA Video Award”. The theme of the contest was ‘Waste’. Entries should explore the theme ‘Waste’ as one of the major global problems of our society in an original, witty way. Whether documentary, fiction, animation or a combination thereof - the decision about the film genre as well as the technical realisation has been left up to the contestant.

2015 Video Award Winners

The jury had an extensive selection of videos to assess. 29 videos were put forward from 10 different countries and the jury found it difficult to determine an overall winner from those put forward. But finally the jury found that the following entries were the best of the submissions for the ISWA Video Award in 2015:

First place and winner of the ISWA Video Award 2015:
“ISWA waste video”, by Maggie Steptoe, UK

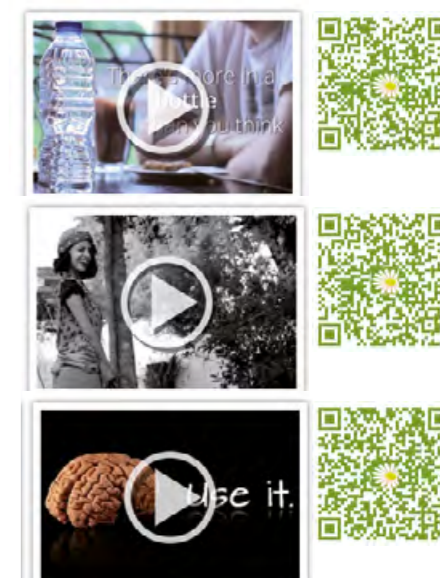
Second place:
“The future starts now – Don't waste your time”,
by Bardo Eicher, Switzerland

Third place:
“Nature & You”, by Ermanno Alagna, Italy

The award winning submissions can be watched on www.iswa.org or by scanning the QR-codes.

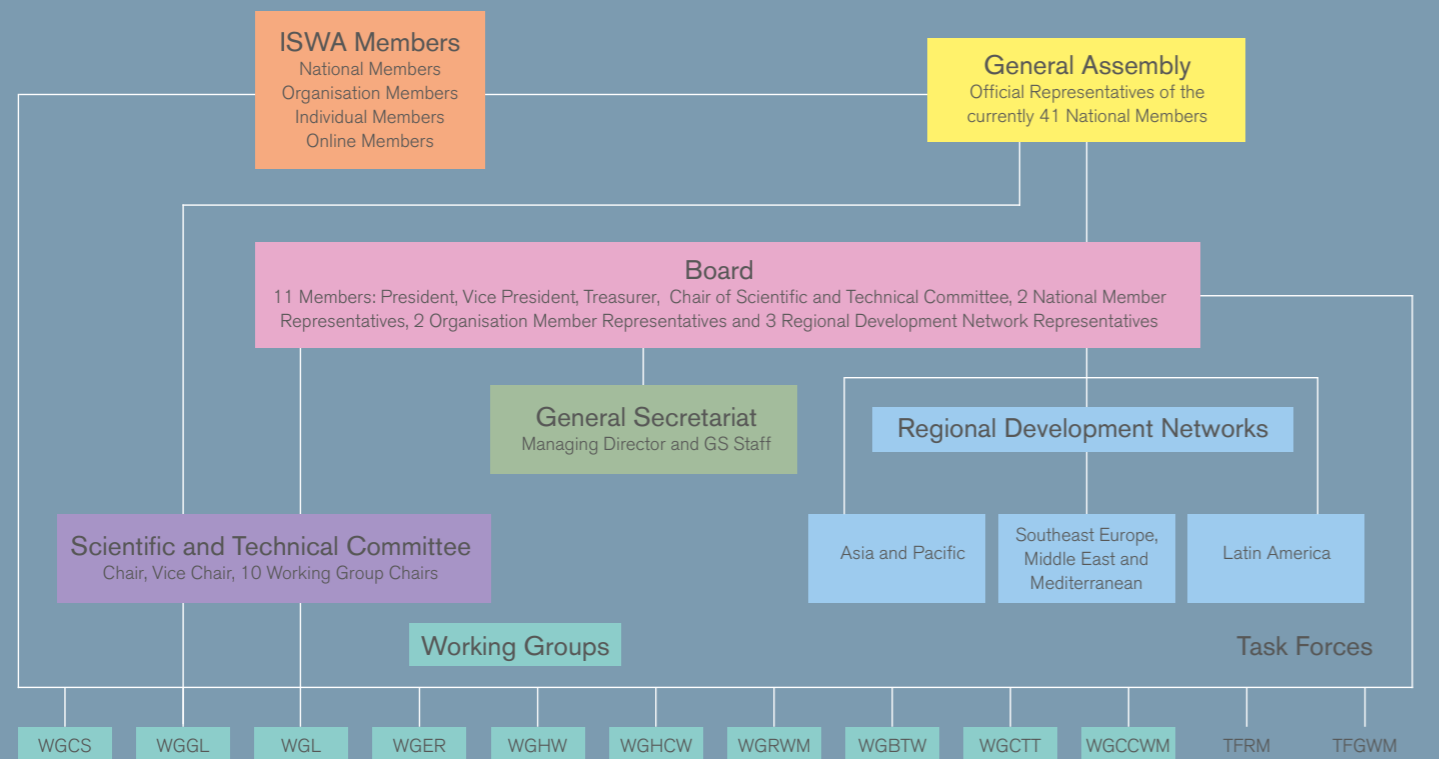


ISWA Publication Award Winners 2015



4. Organisational Structure and Membership

ISWA functions through an organisational structure illustrated below. The relations between the different bodies of the association and their establishment, competences and responsibilities are laid down in a set of rules known – in short – as “STIR”: the Statutes and the Internal Regulations.



WGCS = Working Group on Communication and Social Issues
 WGGL = Working Group on Governance and Legal Issues
 WGL = Working Group on Landfill
 WGER = Working Group on Energy Recovery
 WGRWM = Working Group on Recycling and Waste Minimisation
 WGBTW = Working Group on Biological Treatment of Waste
 WGHW = Working Group on Hazardous Waste
 WGHCW = Working Group on Healthcare Waste
 WGCTT = Working Group on Collection and Transportation Technology
 WGCCWM = Working Group on Climate Change and Waste Management
 TFRM = Task Force on Resource Management
 TFGWM = Task Force on Globalisation and Waste Management

The President

The President represents ISWA in all of its activities and chairs the General Assembly. He serves a two-year term, can be reelected once and also chairs the Board.

President David Newman, UK, has been reelected and is currently serving his second term. At the 2016 ISWA World Congress in Novi Sad, Serbia, the General Assembly will elect a new President.



President David Newman at the ISWA World Congress 2015

The General Assembly

The General Assembly is the ruling body of ISWA and consists of the official representatives of the – currently 41 – National Members. Its specific duties include establishment of membership requirements, dues, and policy. The General Assembly empowers the Board with responsibilities for managing, through the General Secretariat, the affairs of ISWA. The General Assembly meets annually at the ISWA World Congress (See chapter 3.1.).

At the 2015 General Assembly in Antwerp, Belgium, all National Members present signed the ISWA Declaration on Climate Change and Waste and Resource Management which points out in detail that the waste management sector can offer immediate, cost effective and fast-acting opportunities to achieve remarkable cuts in GHG emissions.



Signature of the ISWA Declaration on Climate Change and Waste and Resource Management at the General Assembly 2015



The General Assembly 2015 in Antwerp, Belgium

The Board

The Board is elected by the General Assembly and is responsible for all strategic and policy issues of ISWA. Within the authorities assigned to it by the General Assembly, the Statutes and the Internal Regulations, the Board assures that the mission of ISWA is met.

In 2015 the ISWA Board convened four times: in New Orleans, London, Antwerp and Vienna. In Vienna it was decided that future Board meetings will be scheduled not just for one day but for one and a half days in order to dedicate sufficient time to all issues of the agenda, to make decisions in a thoughtful way and to find comprehensive and sustainable solutions. The main outcomes and decisions of the Board meetings held in 2015 are laid down and explained below.

The newly elected Board after the General Assembly 2015, from left to right:

*Alexei Atudorei (Romania)
Atilio Savino (Argentina)
David Newman (UK)
Hakan Rylander (Sweden)
Rüdiger Siechau (Germany)
Antonis Mavropoulos (Greece)
Bettina Kamuk (Denmark)
Ho De Leong (Malaysia)
Carlos Silva Filho (Brazil)
Gary Crawford (France)
John Skinner (USA)*



ISWA World Congresses 2018 and 2019

The Board decided on the locations for the next ISWA World Congresses on the basis of a careful analysis and in depth discussions of the existing applications, for 2018 Kuala Lumpur, Malaysia, was chosen and for 2019 Bilbao, Spain.

ISWA takes over WMW

The publisher of the Magazine Waste Management World (WMW) wanted to sell the magazine and the ISWA Board decided to take over following in-depth plausibility checks of the existing data, thorough analysis and a cost-benefit calculation. ISWA purchased all the rights of the magazine and outsourced all operational matters to a publisher based in Vienna. In close cooperation between the publisher and ISWA a redesign both in terms of style and content of WMW will be undertaken in the beginning of 2016 (see also 3.7.).

ISWA Media Strategy

The Board decided on a very ambitious media strategy for 2015 and 2016. The goals are to improve media relations, expand social media presence, establish reference documents and raise the profile of ISWA. The implementation will be carried out with assistance from external specialists, in cooperation with other international organisations and with the involvement of the ISWA Working Group on Communication and the National Members (see also 3.7.).

New format for Conferences

In order to gain global outreach ISWA should intensify its event organisation in developing and emerging economies. The board discussed several approaches and decided to enhance the links with various international trade fairs and cooperate with them in different regions, which is seen as an effective way to reach new audiences and members in existing events.

ISWA Scholarship Programme

The ISWA Scholarship Programme will fund the re-education of a group of children and take them away from open-dumps in Nicaragua. This programme will run from 2016-2017 and is the first of its kind financed by ISWA (see also 3.6.).

The General Secretariat

The General Secretariat (GS) is the core of ISWA's administration and operations. Internally the GS develops and implements strategic issues in cooperation with the Board, supports the Scientific and Technical Committee and the Working Groups and deals with all kinds of membership services and requirements.

On an external level the main tasks are cooperating with International Organisations, organising events around the globe, implementing capacity building activities and carrying out appropriate communications measures for the different target groups including all stakeholders in waste management.

In cooperation and consultation with the Board the GS updated the strategy and developed an ambitious work plan for the upcoming years. The GS is responsible for implementing the strategy and work plan and the Managing Director regularly reports the outcomes and achievement of the goals at Board meetings.

The ISWA mission dictates that ISWA should facilitate and drive sustainable resource and waste management globally. With that ISWA should take a more leading role and should act as the central point in waste management globally. For the main activities and goals the following pillars have been identified:

The team at the ISWA General Secretariat in Vienna, from left to right:

*Kata Tisza (Technical Manager)
Ankur Ahluwalia (Office Manager)
Georgina Nitzsche (Event Coordinator)
Hermann Koller (Managing Director)
Julia Schönherr (Project Coordinator),
Daniel Purchase (Communications and Marketing Manager)
Gerfried Habenicht (Head of Communications and Marketing)
Aditi Ramola (Technical Project Manager)
Alfred Holzschuster (Head of Member Service and Event Management)
Kim Winternitz (Event and Project Manager)
Paul Stegmann (Project Coordinator)
Jiao Tang (Head of Technical Cooperation).*



Membership

High member numbers across the world ensures a solid basis for ISWA and underlines the international outlook. Thus by 2018, the number of National Members should increase by 10%, and the number of Company/Organisation Members should increase by 20%. To achieve this goal support is needed from all influential stakeholders within the ISWA community.

ISWA Brand

ISWA is already well known among all stakeholders in waste management around the world. The target is to increase ISWA's visibility globally, through articles and features in international media and interesting stories. The key message is: Waste needs action! This target should be reached through intensified internal and external support, activities and projects. Therefore ISWA should achieve extended presence in other business sectors and the general public.

International Cooperation

ISWA was very successful over recent years in carrying out projects with major International Organisations, e.g. the United Nations Environment Programme (UNEP), the Climate & Clean Air Coalition (CCAC) and the EU Commission. We are

currently working on 13 different projects dealing with various tasks mainly in emerging and developing economies. ISWA has achieved recognition as a reliable and professional partner with longstanding expertise in all fields of the waste management sector. As these projects are a fast growing area and ISWA's know-how is well sought after we developed a road map to cope with the growing demand and challenges involved. The road map foresees work focusing on two issues: outreach and capacity. For the outreach - closer cooperation with influential organisations and an increase of visibility of our knowledge base is the target. For the capacity – internal and external resources have to be built up and extended in order to enhance reputation and profile.

Event management

The number of events over recent years increased significantly, from around 30 events a year to a record of 75 events in 2015. This positive development shows that there is a strong demand for high quality events. Therefore we developed a plan for new formats for events in order to modernise the existing very well-received events and to cope with the future demands for first class meetings. This plan will be implemented to position ISWA as the top event organiser for all kinds of meetings in the field of waste and resource management.

In order to reach the ambitious goals and achieve good results for the main areas described above, sufficient internal and external capacities are needed. External experts should offer particular support in the field of capacity building, whilst within the General Secretariat a new staff structure will be implemented in order to cope with all the tasks and responsibilities ahead.

The Scientific and Technical Committee

The Scientific and Technical Committee (STC) is established by the General Assembly and governed by its Chair and the current Chairs of the ISWA Working Groups. The STC represents ISWA's technical expertise and coordinates the activities of the Working Groups. Members meet 3-4 times a year, often in connection with the Board meetings. The Chair of the STC is also a member of the ISWA Board.

For more detailed information on the 2015 activities of the STC see chapter 3.4.1 above.

The Working Groups

ISWA Working Groups are established by the Board upon recommendations by the STC. The purpose of the Working Groups is to serve as the principal means for ISWA to deliver its technical and scientific programmes. As such, the Board and the ISWA membership look to the Working Groups for technical information and assistance, basic and applied research, professional meetings, and the development and dissemination of information regarding solid waste management. Currently there are 10 Working Groups.

For more detailed information on the Working Groups and on their activities in 2015 see chapter 3.4.2 above.

The Task Forces

Task Forces are established to handle special new challenges identified by the Board which require expert and concentrated attention which cannot be provided by a Working Group. The Task Forces provide a means for ISWA to obtain specialised information to assist ISWA in policy and programme determination. Task Forces are established for a specific purpose and assignment, have a stated length for existence, are administered by the STC, and are disbanded when their effort is completed. Currently there is one Task Force active.

For more detailed information on the ISWA Task Forces and on their activities in 2015 see chapter 3.4.3. above.

The Regional Development Networks

ISWA has established different Regional Development Networks (RDNs) to more effectively reach regions outside of its traditionally strong areas (i.e. Western Europe and North America). The RDNs aim is to promote sustainable waste management by carrying out activities and developing programmes that focus on their region's special needs and challenges.

ISWA's three current RDNs were established for the purpose of enhancing the interaction and cooperation among the members within the same developing region, namely: Asia Pacific, Latin America and Southeast Europe, Middle East and Mediterranean. At the same time, the activities of the RDNs promote ISWA and its values in these regions, extending ISWA's outreach to places that need technical knowledge and assistance on sustainable waste management.

2015 has again seen a growth of members in the RDNs: Macedonia and Moldova to the RDN Southeast Europe, Middle East and Mediterranean, and Colombia to the RDN Latin America. The amount of RDN activities has also increased, especially in the Southeastern European region. These activities include regional and national conferences (such as the International Workshop on „Sustainable Development in the Field of Waste Management“ in Bosnia and Herzegovina, the International Conference on Waste Diversion in China), workshops (such as the Bio-waste Management Workshop in Brazil) and numerous outreach meetings.



CAUES/ISWA International Conference: Utilize Resources, Reduce Waste Going to Landfills, October 2015 in Suzhou, China PR



Asia and Pacific Regional Development Network

- Australia WMAA – Waste Management Association of Australia
- China CAUES – China Association of Urban Environmental Sanitation
- India ICWM – Institute of Chartered Waste Managers
- Indonesia InSWA – Indonesia Solid Waste Association
- Japan JWMA – Japan Waste Management Association
- Korea, Rep. KSWM – Korea Society of Waste Management
- Malaysia WMAM – Waste Management Association of Malaysia
- New Zealand WasteMINZ – Waste Management Institute of New Zealand
- Singapore WMRAS – Waste Management & Recycling Association of Singapore

Main activities in 2015:

- Re-design of the RDN newsletter
- CAUES/ISWA International Conference: Utilize Resources, Reduce Waste Going to Landfills, October 2015

The Southeast Europe, Middle East and Mediterranean Regional Development Network

Bosnia and Herzegovina BASWA – Bosnian Solid Waste Association

Croatia CROWMA – Croatian Waste Management Association

Greece HSWMA – Hellenic Solid Waste Management Association

Hungary FKF – FKF Nonprofit Zrt.

Israel DRAT – The Dan Region of Association of Towns - Sanitation and Waste Disposal

Macedonia MaSWA – Macedonian Association for Solid Waste Management

Moldova MOLDSWA – National Association of Republic of Moldova for Solid Waste

Romania A.R.M.D. – Romanian Association of Solid Waste Management

Serbia SeSWA – Serbian Solid Waste Association

Turkey – Turkish National Committee on Solid Wastes

Main activities in 2015:

- RDN website (www.rdnEurope.ro) is updated periodically and RDN newsletter has been published quarterly.
- International Symposium on the „The Role of Communication in Waste Management“, Zadar, Croatia, March 2015
- International Conference on „Moving Away from Landfill and Incineration; Circular Economy in Practice“, Budapest, Hungary May 2015
- ISWA/BASWA Study Tour to Waste Management Center in Szeged, Hungary, May 2015
- International Conference on „The Environment and Climate Change - Vision to Action“, Chisinau, Republic of Moldova, June 2015
- International Conference on „Waste and Resources Synergies towards a Circular Economy in Greece and Mediterranean Countries“, Athens, Greece, June 2015
- International Conference on „The sustainability and the performance of the waste management systems implemented in Romania in the period 2007-2015, as foundation for the next schedule; development prospects to 2020“, Mamaia, Romania, June 2015
- ISWA Congress 2015 Special Session, Antwerp, Belgium, September 2015
- International Workshop on „Sustainable Development in the Field of Waste Management“, Banja Luka, Bosnia and Herzegovina, September 2015
- Study tour and training programme for a delegation from Azerbaijan in Bucharest, Romania, October 2015
- International Conference on “Use of Waste as an Opportunity for Investments in Macedonia”, Skopje, Macedonia, October 2015
- National workshop on „Implementation of Integrated Waste Management Systems with EU Grants at Regional Level“, Deva, Romania, November 2015

Latin America Regional Development Network

Argentina ARS – Association for Solid Waste Studies

Brazil ABRELPE – Brazilian Association of Public Cleaning and Special Waste Companies

Chile AEPA – Association of Companies and Professionals for the Environment

Colombia AAR – Asociación Andina de Residuos

Main activities in 2015:

- Biowaste Management Workshop in Brazil, November 2015

Membership

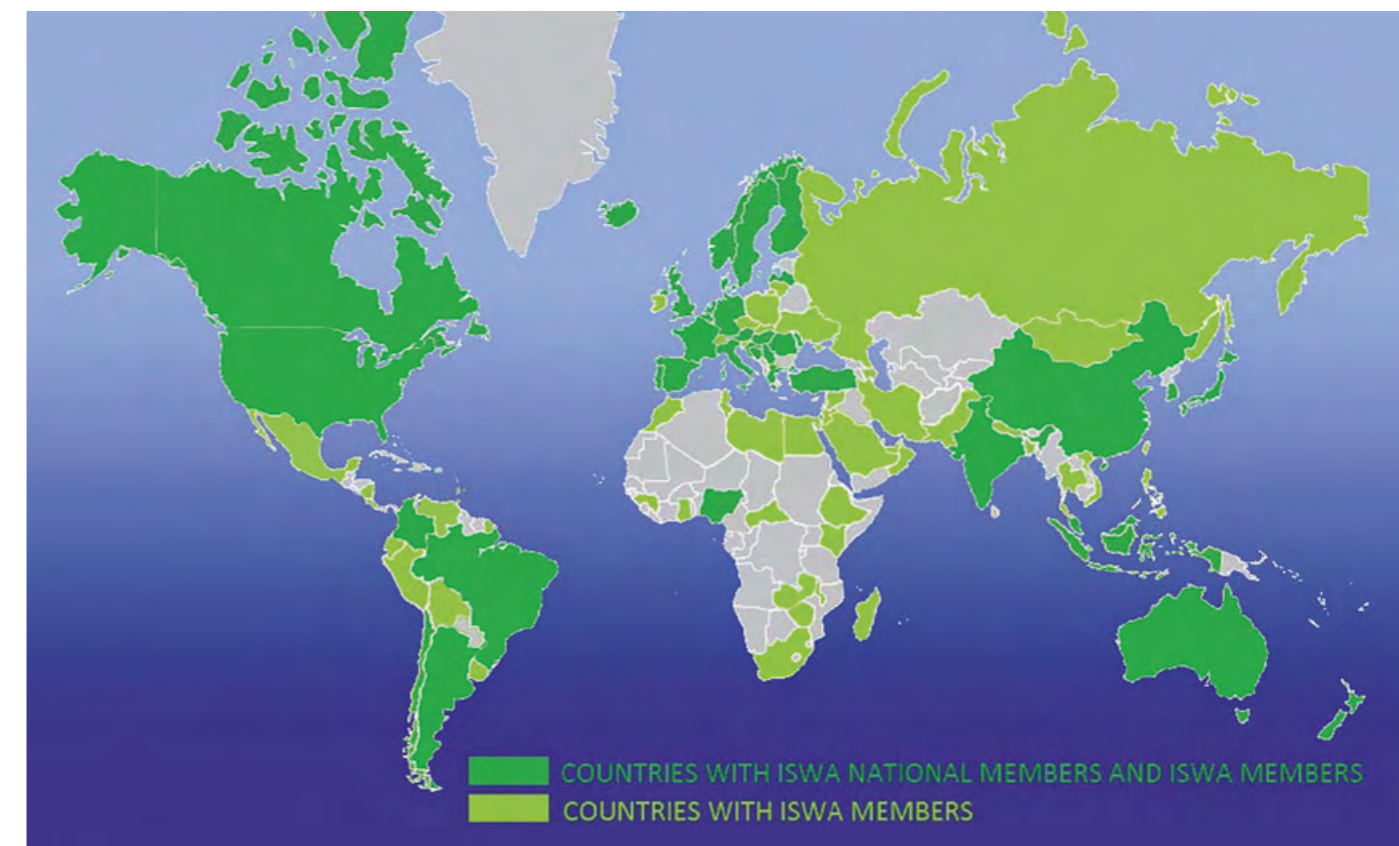
ISWA currently offers the following membership categories: National Members, Company/Organisation Members, Individual Members and Online Members.

The National Members (see chapter 6.) are non-profit waste management associations representing the waste management sector in a particular country. Generally, these associations have members from both private and public entities. Through the National Members, ISWA's network reaches out to more than 100,000 global professionals interested in the waste management field.

Company/Organisation Members are public or private organisations and companies working in or associated with the field of waste management which, depending on the annual dues paid, enjoy a different range of member benefits (see chapter 7. and www.iswa.org).

In total ISWA has more than 1,300 Members domiciled in close to 100 countries.

ISWA World Map 2015



Membership Development

Due to comprehensive efforts in membership service and acquisition measures ISWA successfully maintained a strong membership base in 2015. The drop in the total number of memberships compared to 2014 is mainly due to a changed member administration policy by the Italian National Member as well as economic reasons, reorganisations of companies and individual responsibilities within companies, retirements and a continued weak acceptance of the Trial Membership offer.

ISWA's constantly growing reputation as the world's leading waste management network has encouraged the majority of existing ISWA members to renew their membership. Moreover, ISWA continues to attract new members, especially Company/Organisation Members (Platinum, Gold and Silver Members). The total number of memberships remains at a consistently high level.

National Members

In 2015 a total of 41 National Members (see also chapter 6.) represented ISWA in their respective countries. Due to lack of support on a national level, our longstanding National Member Switzerland decided to leave ISWA. We are pleased that as of January 2016 a new National Member from South America has joined our global network: Colombia. Therefore ISWA has currently 41 National Members.

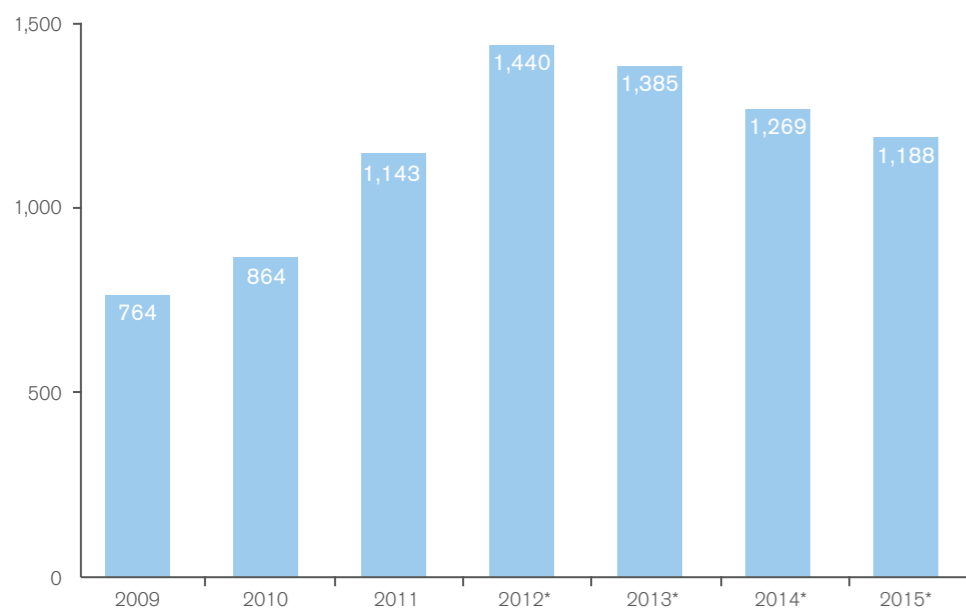
Organisation Members

One new company signed up for an ISWA Platinum Membership, ISWA's most prestigious premium membership category with its exclusive member benefits. A decrease of Gold Members in 2015 was mainly due to reasons mentioned above, but also due to an upgrade to the Platinum category as well as downgrades to lower membership categories. In order to facilitate the participation for companies/organisations from developing countries, ISWA continues to offer a reduction of 50% to the regular Silver Membership fee for companies from Low Income Economies and Lower Middle Income Economies. This offer convinced three companies to join ISWA as Silver Members. Together with 21 new regular Silver Members, ISWA has already more than 100 Silver Members from all over the world.

Individual/Student/Online Members

Despite a drop in 2015, due to reasons mentioned above, the number of regular Individual Members remains on a high level. Student Memberships did not change from 2014 to 2015. The number of Individual Members from developing countries (50% reduction on the regular fee) and Online Members slightly decreased.

Membership Development 2009 to 2015



* since 2012 incl. Trial Memberships

Member Service

At the beginning of 2015, 39 National Members were provided with a questionnaire concerning their activities in 2014. In total, 22 National Members submitted their 2014 Activity Reports. In total 22 National Members submitted reports which were evaluated and analysed. The very encouraging and useful results help ISWA to constantly improve the communication and co-operation with the National Members.

As a request resulting from these reports, and to further enhance the relationship between the association and its National Members and Company/Organisation Members, the ISWA General Secretariat continued to arrange business meetings with National Members and existing and potential Company/Organisation Members. On one hand these business meetings offer an extensive exchange of information regarding the work and activities between ISWA and its National Members, and on the other hand aim to discuss options for joint activities and projects.

Exclusively in co-operation with its National Members, ISWA continues to promote a 6-Month-Trial Membership. This ISWA Trial Membership offers six months for free and grants Trial Members access to some ISWA benefits and gives interested companies, organisations and individuals an insight into ISWA's work and activities.

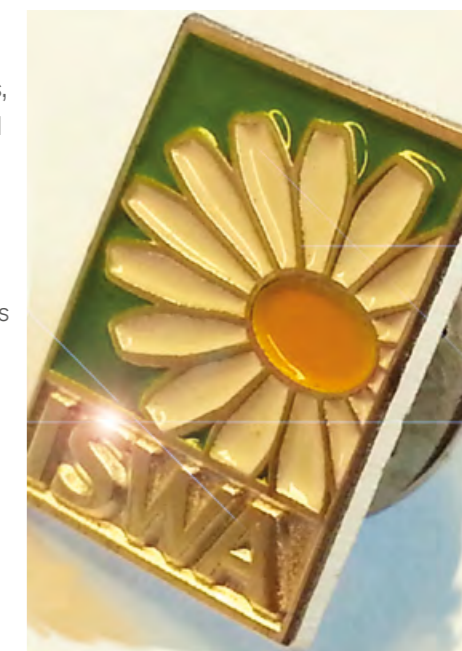
As of January 2016 we introduced new benefits for Platinum Members. Since ISWA now owns the Waste Management World Magazine, we are pleased to be able to offer some very exciting and exclusive PR packages to our premium members. Please have a look at your ISWA Member Area or the ISWA website regarding the options to present your company to a huge international target audience.

In 2016 we will start the initiative "Get to know ISWA". There will be short presentations about ISWA at various events to highlight the valuable work of our dedicated global community and why it is important and beneficial to be part of this global movement. This initiative will be accompanied by "Meet ISWA in ..." workshops in cooperation with National Members. The aim of these measures is to inform members, and everyone who is interested in becoming one, about the countless activities and projects ISWA accomplishes. And, of course, about the benefits of being an active part of our association.

Due to a strong demand from all our ISWA Members, we designed a new ISWA Member pin which will be distributed to our members at events, meetings, conferences and exhibitions. We think this is a very nice way to show your affiliation to the number 1 waste management network. Please approach the GS staff to secure your new personal ISWA member pin!

We recommend all ISWA Members to regularly check your ISWA Member Area and our website www.iswa.org to not miss any important news.

With these latest improvements and initiatives along with a wide variety of valuable member benefits, ISWA is confident that all membership categories will witness further expansion.



Ask for the new ISWA member pin!

5. Financial Overview

Annual Account 2015

The result from operating activities for the year of 2015 shows a minor surplus of € 1,065.02.-. This profit also represents the final financial result for the fiscal year of 2015 after final release and creation of accruals. No surplus from operating activities was allocated to liquidity reserves.

The overall income from membership fees and sponsorships in 2015 has increased by 1% compared to the actual income in the previous year. This growth can be attributed to the strong ISWA membership base in general, two new ISWA National Members, the exceptionally well-received premium membership category (Platinum) and the acquisition of one new ISWA Main Sponsor.

The income from sources other than membership fees and sponsorships increased in total by 20%; this is mainly due to higher revenues from event management activities, capacity building projects, projects with international organisations and ISWA's two publications Waste Management & Research (WM&R) and Waste Management and World (WMW). The final result for 2015 shows a total income of 8% greater than budgeted, whereas the actual total income increased by 11% compared to the previous year. ISWA succeeded in increasing its income from all different sources and the actual expenses have been in line with the budget or proportionate to the increased income. Therefore, despite global economic tensions, ISWA's financial situation has improved again over the last year.

The external audit report on the financial statements of the year 2015 did not give rise to any objections and according to the auditor the financial statements comply with legal requirements and give a true and fair view of the assets and liabilities of ISWA and its income and expenses. The external audit will be followed by an internal audit. The reports of the two audits and the financial result for 2015 will be submitted for approval to the ISWA Board and ISWA General Assembly.

Budget 2016

The budget for 2016 has been developed on the basis of the budget and actual numbers from the previous year and taking into account the developments in the current year. We estimate a higher income than budgeted for 2015 from membership fees, capacity building, events and cooperation projects. The income from other sources is budgeted as more or less stable. The expenses are higher compared to the budget of 2015 mainly due to increased costs for promotion, office operation, and costs in order to carry out the additional projects including human resources. The budgeted overall financial result for the year shows a small surplus of € 1,000.-. The ISWA Budget 2016 was approved by the General Assembly on 6 September 2015 in Antwerp, Belgium.

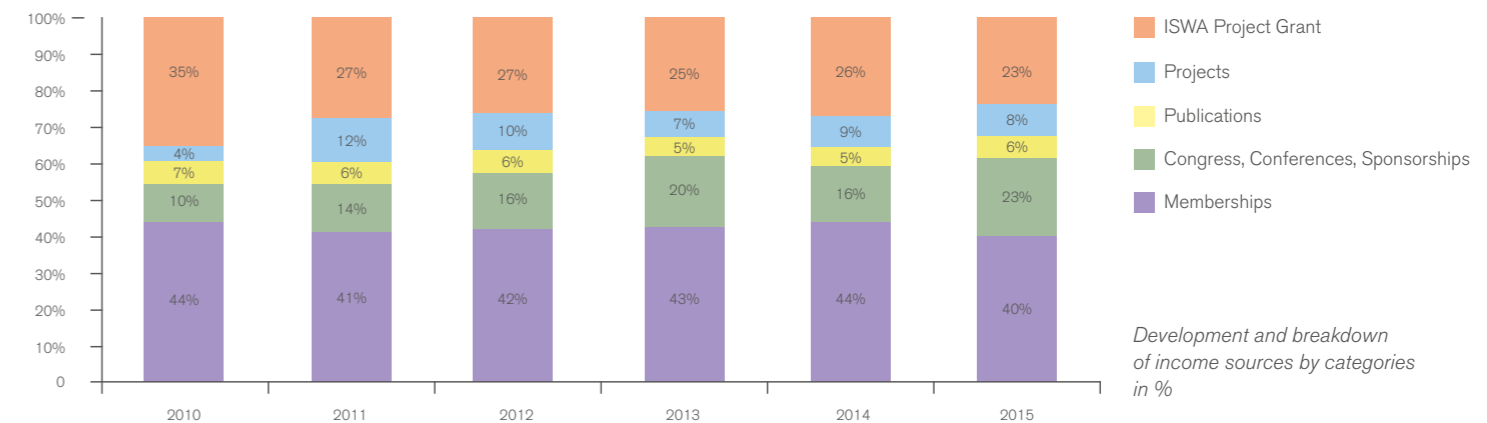
Projection 2016 and Budget Outlook 2017

Based on the membership payments received up until now and the promising development concerning events and project cooperation a balanced result for the year 2016 can be expected.

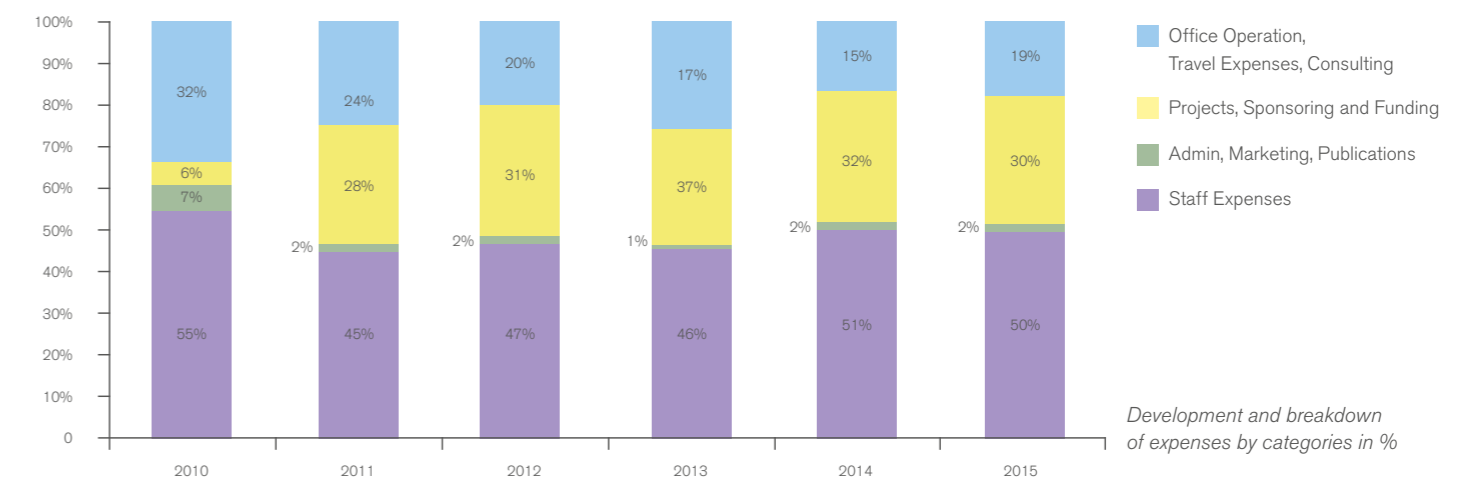
The association's budget for 2017 will be based on the budget and actual numbers from the previous year and taking into account the developments in the current year. A separate budget for 2017 will be developed for ISWA's newly founded subsidiary "ISWA GmbH". After approval by the ISWA Board it will be presented to the General Assembly for approval on 18 September 2016 in Novi Sad, Serbia. The Board also develops a budget outlook for the upcoming years, which is adapted continuously and presented as an updated version at the Board meetings.

Financial Development over the last years

The graph below shows the main income sources of ISWA and the development from 2010 to 2015. While the income shares from memberships and publications is more or less stable, the income shares from projects and events is increasing steadily and significantly. And the income share from the Project Grant from the city of Vienna is decreasing. This is an excellent and desired development as the long term objective is to get less dependent on funding.



The graph below shows how ISWA spends the money, divided by major categories. The share for staff expenses is stable over the years though the number of staff is increasing. The money spent on admin and marketing is stable over the last years. A lot more budget is dedicated to projects over the timeline shown, and many of these projects are carried out by ISWA Working Groups and other ISWA members. The share for office operation, travel expenses and consulting is decreasing over the last years. This shows that ISWA is very carefully spending the revenues and grants.



6. National Members

The ISWA National Members are non-profit waste management associations representing the waste management sector in a particular country. Generally, these associations have memberships from both private and public entities of employment. Based on ISWA regulations, the National Members are the only members allowed to vote at the General Assembly and thus, they constitute the governing body of ISWA.

Due to lack of support on a national level, the longstanding National Member Switzerland decided to leave the association. ISWA would like to thank the National Member Representative, Mr Conrad Bader, for his efforts and his support over the past years.

As per January 2016, ISWA has 41 National Members, thereof one new National Member from Colombia. Welcome!

-  ARS – Asociación para el Estudio de Residuos Sólidos, Argentina www.ars.org.ar
-  WMAA – Waste Management Association of Australia, Australia www.wmaa.asn.au
-  ISWA Austria, Austria www.iswa.at
-  INTERAFVAL, Belgium www.vvsg.be
-  BASWA – Bosnian Solid Waste Association, Bosnia and Herzegovina
-  ABRELPE – Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais, Brazil www.abrelpe.org.br
-  SWANA (CAN) – Solid Waste Association of North America, Canada www.swana.org
-  AEPA – Asociación de Empresas y Profesionales para el Medio Ambiente, Chile www.aepa.cl
-  CAUES – China Association of Urban Environmental Sanitation, China www.caues.org
-  AAR – Asociación Andina de Residuos, Colombia www.asoresiduos.com
-  CROWMA – Croatian Waste Management Association, Croatia www.hugo.com.hr
-  DAKOFA, Denmark www.dakofa.dk
-  JHY – JÄTEHUOLTOYHDISTYS RY, Finland www.jatehuoltoyhdistys.fi
-  ASTEE – Association Scientifique et Technique pour l'Eau et l'Environnement, France www.astee.org
-  Förderverein VKU Abfallwirtschaft und Stadtreinigung VKS e.V., Germany www.foever-vku.de
-  HSWMA – Hellenic Solid Waste Management Association, Greece www.eedsa.gr

-  ISWA Hungary – FKF Nonprofit, Hungary www.fkf.hu
-  FENUR – Fagráð um endurnýtingu og úrgang, Iceland www.fenur.is
-  ICWM – Institute of Chartered Waste Managers, India www.icwm.ac.in
-  InSWA – Indonesia Solid Waste Association, Indonesia www.inswa.or.id
-  DRAT – Dan Region Association of Towns - Sanitation & Waste Disposal, Israel www.hiriya.co.il
-  ATIA-ISWA Italia, Italy www.atiaiswa.it
-  JWMA – Japan Waste Management Association, Japan www.jwma-tokyo.or.jp
-  KSWM – Korea Society of Waste Management, Korea, Rep. www.kswm.or.kr
-  LASA – Waste Management Association of Latvia, Latvia www.lasa.lv
-  MaSWA – Macedonian Solid Waste Association, Macedonia www.maswa.org
-  WMAM – Waste Management Association of Malaysia, Malaysia www.wmam.org
-  MOLDSWA – National Association of Republic of Moldova for Solid Waste, Moldova www.moldswa.md
-  N.V.R.D., Netherlands www.nvrd.nl
-  WasteMINZ, New Zealand www.wasteminz.org.nz
-  WAMASON – Waste Management Society of Nigeria, Nigeria www.wamason.org
-  Avfall Norge, Norway www.avfallnorge.no
-  APESB – Associação Portuguesa de Engenharia Sanitária e Ambiental, Portugal www.apesb.org
-  A.R.M.D. – Romanian Association of Waste Management, Romania www.armd.ro
-  SeSWA – Serbian Solid Waste Association, Serbia www.seswa-srbija.com
-  WMRAS – Waste Management and Recycling Association of Singapore, Singapore www.wmras.org.sg
-  ATEGRUS, Spain www.ategrus.org
-  Avfall Sverige, Sweden www.avfall Sverige.se
-  Turkish National Committee on Solid Wastes, Turkey www.boun.edu.tr
-  CIWM – The Chartered Institution of Waste Management, United Kingdom www.ciwm.co.uk
-  SWANA (USA) – Solid Waste Association of North America, United States of America www.swana.org

7. Company/ Organisation Members

ISWA Platinum Members, Gold Members and ISWA Silver Members are public or private organisations and companies working in or associated with the field of waste management. ISWA appreciates the support of all its Platinum, Gold and Silver Members and is pleased that, to date, a total of 10 companies/organisations opted for a Platinum Membership, ISWA's premium membership category. 1 new Platinum Member, 3 new Gold Members and 24 new Silver Members joined our Association in 2015, thereof 3 companies from developing countries, receiving a discount according to ISWA's new member fee structure.

As of January 2016 ISWA introduced a new benefit for their ISWA Platinum Members: A Company Feature on the Waste Management World website (www.waste-management-world.com). There Platinum Members may publish up to 15 PR-articles per year. This benefit is available exclusively for ISWA Platinum Members on request and according to availability. Please contact the ISWA General Secretariat for details.

Below you will find the full listing of all current ISWA Platinum and Gold Members. To learn more about the multitude of benefits which come with an ISWA Platinum, Gold or Silver Membership please visit our website www.iswa.org.

ISWA Platinum Members



ARA AG, Austria www.ara.at



be'ah – Oman Environmental Services Holding Company, Oman www.beah.om



City of Vienna, MA48, Austria www.wien.gv.at/umwelt/ma48



EXPRA – Extended Producer Responsibility Alliance aisbl, Belgium www.exptra.eu



Messe München GmbH, IFAT, Germany www.ifat.de



Reclay Holding GmbH, Germany www.reclay-group.com



REMONDIS Electrorecycling GmbH, Germany www.remondiselectrorecycling.de



Rimini Fiera SpA, ECOMONDO, Italy www.riminifiera.it



SURECA - Sustainable Reusable Carriers, Belgium, www.sureca.be



Veolia Environnement, France www.veolia.com

ISWA GOLD MEMBERS

ABENGOA

Abengoa,
Spain, www.abengoa.com



ERA – Eco-Rom Ambalaje, Romania,
www.ecoromambalaje.ro



MARTIN GmbH, Germany,
www.martingmbh.de



SUPERCOM - Societatea comerciala
SUPERCOM - S.A., Romania,
www.supercom.ro



AEB Amsterdam, Netherlands,
www.aebamsterdam.com



Fost Plus asbl, Belgium,
www.fostplus.be



MATACHANA S.A., Spain,
www.matachana.com/english



SYSAB AB, Sweden, www.sysav.se



AKARMAK -
AKAR MAKINA SAN.VE TIC.A.S.,
Turkey, www.akarmak.com.tr



Grupo Urbaser Danner – KDM Empresas,
Chile, www.kdm.cl



NWMA - National Waste Management
Agency, Hungary, www.ohuft.hu



Tamiz Shahr JSC, Azerbaijan,
www.tamizshahr.az



Ancitel Energia e Ambiente SPA,
Italy, www.ea.ancitel.it



Hitachi Zosen Inova AG, Switzerland,
www.hz-inova.com



Österreichischer Städtebund, Austria,
www.staedtebund.gv.at



Turboden, Italy,
www.turboden.eu



BRa – Benito Roggio ambiental,
Argentina, www.bra.com.ar



IFC - International Finance Corporation,
United States, www.ifc.org



OU - The Open University,
United Kingdom, www.open.ac.uk



Vestforbrænding I/S, Denmark,
www.vestfor.dk



CEAMSE – Coordinación Ecologica
Area Metropolitana Sociedad del Estado,
Argentina, www.ceamse.gov.ar



INECO, Spain, www.ineco.com



OWMC - Odense Waste Management
Company LTD, Denmark,
www.odensewaste.com



VINCI Environnement
France, www.vinci-environnement.com



CNIM – Constructions Industrielles
de la Méditerranée, France,
www.cnim.com/en/index.aspx



ISVAG - Intercommunale voor Slib en
Vuilverwijdering Antwerpse Gemeenten,
Belgium, www.isvag.be



RAMBØLL, Denmark, www.ramboll.com



WKU - Wiener Kommunal- Umwelt-
schutzprojektgesmbH, Austria,
[wku.at](http://www.wku.at)



DHL Envirosolutions, United Kingdom,
www.dhl.co.uk/en/logistics/supply_chain_solutions/what_we_do/environmental_compliance_envirosolutions.html



Keppel Seghers, Belgium,
www.keppelseghers.com



SENER Ingeniería y Sistemas, S.A.,
Spain, www.sener.es



Work of the Public Sanitation Association,
Hungary, www.koztegy.hu



Doosan Lentjes GmbH, Germany,
www.doosanlentjes.com



KHS - COMMUNAL HYGIENE PUBLIC
ENTERPRISE – Skopje,
Macedonia, www.khigiena.com.mk



Stadtreinigung Hamburg, Germany,
www.srhh.de



DOWA ECO-SYSTEM CO.,LTD.,
Japan, www.dowa-eco.co.jp



KLARWIN, Germany, www.klarwin.com



KSZGYSZ – Association of Environmental
Enterprises, Hungary, www.kszgysz.hu



Steinmüller Babcock Environment GmbH,
Germany, www.steinmueller-babcock.com



EGF, SA – Empresa Geral do
Fomento S.A., Portugal, www.egf.pt



Ladurner Ambiente SpA, Italy,
www.ladurnerambiente.it



SUEZ ENVIRONNEMENT, France,
www.suez-environnement.fr

8. Sponsors

As an ISWA sponsor, your company or organisation will receive excellent exposure to global waste managers and decision-makers: business contacts, introductions to suppliers and buyers, conference presentation slots, exhibition halls, sharing of the latest research and applied technologies, legislative developments, to name but a few benefits.

ISWA is where you need to be as the waste industry undergoes some of the most significant changes ever seen in terms of populations requiring service, and the quantity of solid wastes and recyclable materials to be managed.

Your company or organisation, as an ISWA sponsor, will have the opportunity to improve its international network, compare business development results, and gain market share in targeted areas and global regions.

Sponsorship categories include Main Sponsor, Annual Report Sponsor and Web Site Sponsor. For more information on ISWA's different sponsorship possibilities and benefits, please contact the ISWA General Secretariat.

ISWA Main Sponsors 2015

The contributions of the Main Sponsors are crucial to ISWA. With them ISWA is able to reach its objectives with more impact and more sustainability. Often the assistance of ISWA's Main Sponsors goes beyond financial help and evolves into mutual partnerships to the benefit of the work towards ISWA's mission – to promote and develop sustainable waste management worldwide. ISWA would therefore like to offer its special thanks to the current Main Sponsors:



ISWA Report Sponsor 2015

ISWA would also like to offer its special thanks to the sponsor of this Report:



About this Report

ISWA's mission is to promote sustainable waste management. The ISWA Report 2015 provides a comprehensive summary of the organisation's activities made towards fulfilling its mission during the year 2015.

Many of the indicators given in this report cover a time span of at least five years in order to allow the interpretation of trends. Furthermore the report gives an overview on the organisational structure and on financial aspects. Thus the present report considers various elements of sustainability reporting.

ISWA publishes such a report each year. The report is spread among the delegates of the ISWA World Congresses and Beacon Conferences, ISWA members, possible future members and further interested persons.

For questions concerning the report please contact:

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For more information on ISWA, see www.iswa.org

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