



**Scientific Technical  
Committee & Working  
Groups  
Work Programmes  
2010-2012**



**PROGRESS REPORT  
July 2012**

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## Foreword

The Scientific Technical Committee directed the ISWA Working Groups to develop Work Programmes for 2010-2012 with the aim to drive WG productivity and address the priorities highlighted by the STC. This report has been produced to reflect on the achievements made by the STC and WGs over the past 3 years.

More or less parallel to the establishment of the Work Programmes the ISWA Grant was made available with the funding of the first projects beginning in 2011. Seven of the ten WG's have been involved in projects funded under the ISWA grant scheme, representing more than half of all of the ISWA granted projects. Access to the grant has supported an increase in the productivity and visibility of the WGs. The ISWA Grant has also led to other ISWA entities (e.g. National, Organisational and Individual members) supporting the STC to reach its aims and objectives, such as delivering valuable content for the ISWA Knowledge Base, production of Working Papers, IWM activities and strengthening of ISWA's Scientific Profile.

Alongside the ISWA Grant programme the STC has been actively engaged in enhancing the ISWA Knowledge Base which has become a valuable resource for ISWA to disseminate state of the art information on waste management; attracting users from all across the globe. The STC has also been ensuring that all ISWA events are of the highest quality and cover the latest key issues in waste management developments. Another key focus of the STC has been the activities of the Task Force Science and the Task Force on Globalisation and Sustainable Waste Management. Chapters of this report have been dedicated to the activities of each of these Task Forces.

The main achievements of the individual WG's can also be observed by the sheer number of quality ISWA events that have been organised and/or supported; the development of several valuable publications (Papers, Guidelines and Reports) with many more in the pipeline; involvement in key projects and delivery of training events and resources.

The productivity of the WGs has increased remarkably over the past 3 years but there is still plenty of room for further growth. It is hoped that the WGs supported by a strengthened General Secretariat and with access to project funds will continue to deliver more and more substantial results in the coming 3 year period.

Last but not least it must be highlighted that the activities of the STC and WGs are based on voluntary contributions made by their respective members, who are all otherwise actively engaged in their own work activities. This voluntary contribution made by many individuals, in particular the Chair of the STC and the respective WG's is immensely appreciated by ISWA.

## 1. STC Work Program progress 2010 - 2012

OBJECTIVE	RESULTS	STATUS & COMMENTS
<i>Priority 1: SWM and GHGs</i>	Medium/ High	<p>Building on the original White Paper the WG have developed two key “<i>in the know</i>” documents (a project funded by the ISWA Grant) which clearly spell out the many ways waste management and recycling can lead to the reduction in GHG emissions and the needed swift action to follow. These documents were successfully disseminated by the ISWA delegation at Cop17, Durban, Dec 2011 and at all subsequent ISWA events. The ISWA/DAKOFA Beacon Conference held April 2012 was a good example of ISWA working horizontally and successfully to disseminate the positive messages from the waste sector with reference to SWM &amp; GHGs.</p> <p>ISWA needs to continue building up its technical profile on Climate Change and Waste Management, especially with regard to showing hard evidence of waste related benefits of minimising GHG emissions, and preparing support tools like advice on developing NAMAs. Additionally ISWA needs to continue to cast light on the importance of waste management in international discussions on Climate Change. Scientifically ISWA needs to speak about adaptation too.</p>
<i>Priority 2: ISWA's Knowledge base</i>	High	<p>The Knowledge Base has been available since mid-2010 and it has been accepted with enthusiasm by several institutions and many individuals, receiving approximately 5,000 hits per month. Currently more than 1200 documents are available covering an extensive source of scientific waste management related documents. The Knowledge Base is also attracting many non-members to ISWA (with more than 500 registered users), for example through its connection to the UNEP-IETC waste information platform and the DEFRA wasteret portal. Detailed user statistics are now being gathered which will help to optimise its use for the future.</p> <p>The Knowledge Base is a valuable product of ISWA, it must be continually fed with the latest leading and most</p>

		valuable information of the waste sector.
<i>Priority 3: Globalization and SWM</i>	Medium/ High	The TF-Globalisation and SWM has been very active throughout 2012, including such activities as a dedicated ISWA Beacon Conference, preparation of 2 scientific articles for the ISWA Journal WM&R and the preparation of three scientific studies (a more detailed progress report is provided below).
<i>Priority 4: Working Papers</i>	Medium/ High	Papers including: ISWA guidelines on Sustainable Landfilling; Waste Trafficking; Waste Minimisation and Recycling; Guidelines on how to design waste Fees; and Waste Management Planning Guidelines have been completed. ISWA Papers on Food waste and on Preparing a thermal treatment facility are close to being finalised. Several further papers and reports are being developed. The ISWA Grant has led to a marked increase in the amount of ISWA papers and reports being developed by and outside of the WGs. The production of ISWA documents must continue to grow - they are a key way for ISWA to strengthen its technical profile and core expertise.
<i>Priority 5: IWM activities</i>	Low/Medium	Slow but steady progress has been made with the IWM project. A project granted by the ISWA Grant is supporting the promotion of the program in Latin America. A cooperation with the University of Northampton and the allowance of academics to gain the "technical status" is also positive for the programme. Further strengthening and promotion of the programme is needed.
<i>Priority 6: ISWA Scientific profile</i>	High	In the beginning of 2012 the TFS finalised an action plan to promote ISWA to further utilize its strengths and opportunities within the scientific community. Many of the actions have already been implemented such as the first ever ISWA Summer Science School and a special issue of WM&R in connection with the World Congress (a more detailed report is provided separately in the STC report). ISWA needs to continually develop its network and cooperation with Universities, Research Institutes and Academics. ISWA is very well positioned to drive developments between science and the market and must seize this opportunity.

## 2. Results of the Task Force on Globalization and SWM

Recognising that Globalization creates substantial changes and puts new unprecedented challenges for Solid Waste Management, ISWA has been supporting a dedicated Task Force (TF) as of September 2010. This TF has been established to examine and make recommendations on a range of issues arising from the interaction between globalisation and waste management.

The TF members are: Antonis Mavropoulos (Project Coordinator), David Wilson (Scientific Coordinator), Jeff Cooper, Costas Velis, Bjorn Appelqvist

### Objectives

- a. to promote and raise awareness of the new challenges put by globalization to waste management practices and planning,
- b. to examine the necessity for, and if appropriate to develop, a "road - map" towards substantial improvements to waste management worldwide, as a mean to prevent environmental degradation from improper waste management activities,
- c. to propose measures and policies for reduction and prevention of waste trafficking, and
- d. to highlight successes as well as failures of international aid and cooperation and thus provide conclusions regarding its utilization

Overall, the project will demonstrate the opportunity as well as the threats that globalization poses to waste management and create a conceptual framework for a more successful adaptation of them in future plans and activities.

The outputs of the project will serve as a platform for interaction between (at least):

- Governments of developed and developing countries.
- Developing Countries Organizations and Associations.
- Major global stakeholders (UN, Basel Convention etc)

### Deliverables and Timetable

The project deliverables, the status and the timetable for each deliverable are presented below.

DELIVERABLE	DEADLINE	STATUS
1. Megacities, globalisation and waste management	8/2012	<p><b>Completed:</b> a dedicated BEACON conference in cooperation with the Association of Megacities and WMRAS was held 3-4 July 2012</p> <p><b>Completed:</b> WM&amp;R article</p> <p><b>In Progress:</b> Study on "Underground</p>

		solutions for urban waste management – status and perspectives“
2. Informal sector as a global stakeholder in SWM	12/2012	<p><b>Completed:</b> Informal Sector workshop, June 2011, Buenos Aires.</p> <p><b>Completed:</b> WM&amp;R article: “InteRa - a new analytical framework and tool for integrating the informal sector recycling in waste and resource management systems in developing countries”</p> <p><b>In Progress:</b> MSc study to be finished, December 2012.</p>
3. Global recycling markets and impacts to sustainable waste management - Addressing waste trafficking as a global challenge	2/2013	<b>In Progress:</b> A study is being conducted on “Global Plastic Recycling Markets, waste flows and resource management“
4. Lessons learnt from international cooperation on waste management	6/2013	<b>In Progress:</b> A study covering this theme is currently in preparation

## Budget issues

The Project has been allocated a total of €65,000 spanning the 3 year period, 2011-2013.

In 2011 around € 17,000 of the €20,000 allocated was spent.

For 2012, a budget of €30,000 was allocated however it is expected that closer to €35,000 will be spent in order to accelerate the project and prepare the deliverables and materials for the 2012 General Assembly/World Congress, Florence.

The remaining approximately 10.000 € will be utilised in 2013.

## Project Outputs/ Results achieved

### Generally

The project has delivered substantial results in terms of networking and raising the visibility of ISWA. The following cooperation's as a result of the project can be observed:

- MOU formalising ISWA's cooperation with GIZ
- with CWG which is very active in developing countries
- with Global Waste Pickers Association and WIEGO

- with the Japanese Institute for Global Environmental Strategies

### **1. Megacities, globalisation and waste management**

Preparation of a conceptual framework on globalization and waste

A dedicated BEACON conference in cooperation with the Association of Megacities and NEA was held 3-4 July 2012.

A study has been prepared by Professor Dimitris Kaliampakos on "Underground solutions for urban waste management – status and perspectives" .

WM&R article has been published in the special ISWA World Congress issue on "Globalisation and Waste Management"

### **2. Informal sector as a global stakeholder in SWM**

A very successful workshop was organized June 2011, Buenos Aires. It is important to notice that the BA workshop has changed ISWA's profile and attitude towards the informal sector as it has been recognized by most of the participants. It is the first time in our history where ISWA does not face the informal sector as a potential enemy but as one of the stakeholders involved, with its own pros and cons. A report of the Workshop has been prepared and is available on the dedicated page of the TF on the ISWA website.

Member of TF represented ISWA at a Clinton Foundation initiative regarding "Viable, Sustainable and Innovative Business Models for the Informal Waste Sector", and 'The Closing of Land Fills: Considerations for Sustainable Solutions', September 2011

A dedicated MSc study based on the workshop is in preparation and will be finished by December 2012.

WM&R article to be published in special ISWA World Congress issue "InteRa - a new analytical framework and tool for integrating the informal sector recycling in waste and resource management systems in developing countries"

### **3. Global recycling markets and impacts to sustainable waste management - Addressing waste trafficking as a global challenge**

A study on "Global Plastic Recycling Markets, waste flows and resource management" is currently under preparation

### **4. Lessons learnt from international cooperation on waste management**

A study covering this theme is currently in preparation

***A detailed report on the TF-Globalisation will be circulated at the General Assembly***



### 3. Final Report on the Task Force Science (TFS)

In ISWA's bid to recognize the importance of and strengthen academic participation in ISWA, a Task Force on Science (TFS) was created by the ISWA Board in autumn 2010.

The TFS Members involved: Johann Fellner, Technical University of Vienna (Chair); Jens Aage Hansen, WM&R Editor-in-Chief; Dimitris Dermatas, National Technical University of Athens; P. Agamuthu, University of Malaysia; and Goran Vujic, University of Novi Sad

#### TFS Objectives:

- to create a new and more attractive framework for academic participation in ISWA
- to exploit further the academic resources already available to ISWA, and
- to create better conditions for the required innovative symbiosis between market and science developments

#### Deliverables:

Activity	Status
To prepare a detailed action plan	Completed, available on dedicated Task Force page of ISWA website
To prepare ToR for the Chief Editor of WM&R	Completed
To prepare standard procedures for getting ISBN numbers to all annual conferences and support ISWA to obtain for 2012 ISWA World Congress	Completed
To prepare draft terms and conditions for ISWA's cooperation with academic institutes regarding IWM procedures and summer schools	Completed
To prepare draft terms and conditions for ISWA research activities and scholarships	Addressed in Action Plan
To organize a reviewers or hearing group to gain feedback on Action Plan	Feedback was obtained from the WM&R Publisher, STC and ISWA Board

## **Budget Issues:**

The budget was strictly limited to covering the travel costs of the TF members to attend the first meeting in December 2010.

A Budget has not been allocated to follow through on the detailed action plan being developed by the TF.

## **Results:**

The following activities have been implemented as a result of the proposals made by the TFS.

- Establishment of the first ever ISWA Summer School, 3-14 September, 2012, Vienna. It is hoped that this will become a yearly event and take place in different locations. The objective of the ISWA-TU Vienna Summer School is to provide advanced knowledge in the field of waste management to an international audience of existing and emerging solid waste experts. In particular, the participants will learn how to establish and use an extensive knowledgebase to support cost effective waste management decisions. The focus is on sound methodology (waste treatment unit processes, innovative assessment tools such as Material Flow Analysis, case studies for design of waste management systems) with special emphasis on practical applications.
- Publication of an annual special issue of the ISWA Journal Waste Management & Research (WM&R) containing the best 10 papers of the ISWA World Congress
- ISBN for proceedings of 2012 World Congress proceedings and for 2012 ISWA Beacon Conference on Waste Prevention and Recycling
- Closer cooperation between ISWA STC & WGs with WM&R, such as encouragement of Working Groups to submit articles (including review articles) to WM&R. WG members to serve on WM&R Board. Leading to a better connection between industry and science.
- Promotion of WM&R Editorials by providing free access and a monthly article in the ISWA newsletter
- Modification to the ISWA Operational Guidelines, including updated terms of reference for the WM&R Editor in Chief
- Strengthening of networks with Universities, for example ISWA is involved in cooperation with such universities as University of Northampton; Technical University Vienna, University of Leeds, Imperial College, Aalto University.

The Task Force Science has successfully fulfilled its objectives and is no longer active.

## 4. ISWA Project Grant

The City of Vienna, pursuant to an agreement made with ISWA, grants a specified budget each year in order for ISWA to:

- strengthen its technical and scientific profile
- promote and upgrade its international recognition and acceptance
- develop a global and country - level presence
- increase its influence with decision-makers regarding Solid Waste Management issues.

The ISWA Board decided that the best utilization of this budget would be via the administration of an ISWA Project Grant, open to proposals from ISWA members (National, Individual or Organisation members) or ISWA entities (e.g. GS, WGs, STC, Board or RDNs).

The first call for proposals, for the period 2011-2013, attracted a total of 33 project applications. A total funding amount of €1,595,974 was requested from ISWA with an additional €1,374,752 offered through partner co-financing contributions. The requested amount of funding for projects was remarkably more than the allocated budget.

12 projects were subsequently selected. To handle the budget restrictions and to have the flexibility to manage projects better, the funding of half of the projects began in 2011 and the remaining in 2012. As individual projects can run for a maximum of 3 years the funding period spans from 2011 through to 2014. Below is a brief summary and a timetable/status of the projects. A more detailed summary is available on the ISWA website

[http://www.iswa.org/en/541/iswa\\_project\\_grant.html](http://www.iswa.org/en/541/iswa_project_grant.html)

Project Title	Applicant (all ISWA Members!)	Status
Establishing a Landfill Training and Research Centre to Promote better Operation of Landfills in Indonesia	Institute for Water Quality, Resources and Waste Management, Vienna, University of Technology, Austria	<b>In Progress:</b> guidelines have been drafted and a seminar held in Indonesia in July. Project will be finished by end of 2012
The Road to Durban: Promoting the waste sector's contribution to meeting climate change objectives	ISWA Working Group on Climate Change	<b>In Progress:</b> 2 communication documents have been prepared, more being developed
ISWA Guidelines – Preparing a thermal treatment facility	ISWA Working Group on Energy Recovery	<b>Completed:</b> Guidelines will be presented at World Congress and are available in <a href="#">ISWA KB</a>
Regional Biowaste Workshops - Implementation of Sustainable Biowaste Management and Latest EU Policies	ISWA Working Group on Biological Treatment of Waste	<b>In Progress:</b> a very successful workshop has taken place with the second one scheduled for 2012. The project will continue

		through 2013
Guidelines for the Implementation of Successful Sustainable Waste Management Plans	ABRELPE - Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais -Brazil	<b>Completed:</b> an excellent set of guidelines have been produced and are available in the <a href="#">ISWA Knowledge Base</a> . The guidelines were officially launched at an ISWA side event at Rio+20.
Customizing Waste Management Fees: Workshops in Eastern and South Eastern Europe	Technisches Büro HAUER Umweltwirtschaft GmbH (TBH)	<b>Completed,</b> results available in <a href="#">ISWA Knowledge Base</a>
Africa Sustainable Waste Management- Beacon Conference, Lobito, Angola	APESB – Sanitary and Environmental Engineering Portuguese Association	<b>Completed,</b> conference held in Lobito, Angola 23-25 July 2012 Presentations available in <a href="#">ISWA Knowledge Base</a> .
International Waste Manager Programme in Argentina, Chile, Colombia, Peru and Uruguay	ARS – Asociación para el Estudio de los Residuos Sólidos -Argentina	<b>In Progress,</b> experts have been certified; a number of workshops will be delivered through to 2014.
The Blue Book volume 2	ISWA Working Group on Healthcare waste	<b>Completed,</b> the Blue Book will be officially launched during the World Congress.
ISWA Product Chain Management	Working Group on Recycling & Waste Management/NVRD- Netherlands	<b>In Progress,</b> first phase of study is underway and a successful planning workshop has been held. The product chain being investigated is Jeans.
Hazardous Waste Training Resource Pack for developing countries	ISWA Working Group on Hazardous Waste	<b>In Progress,</b> aim to be finished end 2013. First results available at <a href="http://www.trp-training.info/">http://www.trp-training.info/</a>
Opportunities and barriers of Recycling in Balkan, Middle East and Mediterranean Countries"	HSWMA -Greece & SeSWA -Serbia	<b>In Progress,</b> study is being conducted and is due to finish in 2013.

### ISWA Project Grant Timetable/Overview

	2011				2012				2013				2014				€
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
1																	20.000
2																	35.000
3																	8.600
4																	20.000
5																	25.000
6																	21.000
7																	10.000
8																	23.000
9																	30.000
10																	30.000
11																	20.000
12																	35.000
TF Globalisation and Waste Management																	65.000
GS Projects																	45.000
<b>Funding</b>	131.600				158.000				90.000				8.000				<b>387.600</b>

## **Evaluation and Results:**

Around half of the projects will have been completed by the end of 2012. In early 2013 an evaluation of the Projects funded under the Grant will be conducted to assess how well the objectives of the Grant have been met and to ascertain the most effective way to allocate the funds in the future.

The ISWA reports, papers and documents resulting from the Project Grant are available in the ISWA Knowledge Base.

## **Brief overview of completed projects:**

### **1. Customizing Waste Management Fees**

The first project funded under the ISWA Project Grant was successfully completed in March 2012. The project "*Customising Waste Management Fees*" has resulted in the development of a comprehensive set of informative guidelines to support local authorities in the establishment of appropriate waste management fees. The guidelines are based on the results of two very well attended workshops in Vilnius, Lithuania; and Bijeljina, Bosnia & Herzegovina. Not only did the project result in the creation of valuable guidelines but the workshops ensured this knowledge as well as first hand experience was imparted on municipality representatives from Eastern and South Eastern Europe.

The guidelines are available in the ISWA Report section of the [ISWA Knowledge Base](#)

### **2. Guidelines for the implementation of Sustainable Waste Management Plans**

The New Brazilian Law, "Establishing a National Policy on Solid Waste..." has brought to a head much discussion and work on waste management in Brazil. For this reason ABRELPE (sponsored by the ISWA Grant) undertook the task to develop a set of guidelines to support Brazilian and Latin American administration, and municipalities to implement Waste Management plans, and to help prepare the required infrastructure and programs. The plans although developed for Brazil can be applied to waste management planning worldwide, particularly for countries in a transitional stage. The guidelines are a useful tool for everyone who wants to prepare, manage, implement, monitor and review Waste Management Plans.

The official release took place last week at the Rio+20 side event of ISWA: "Zero Waste Strategies and Actions towards Sustainable Cities" co-organised by IPLA, ISWA, ABRELPE, COMLURB, and UNCRD. Further workshops will be organised to support the implementation of sustainable waste management plans.

The guidelines are available in the [ISWA Knowledge Base](#)

### **3. Africa Sustainable Waste Management- ISWA Beacon Conference, Lobito, Angola**

This project resulted in the organisation of the first ever ISWA event in Africa.

Several specialists from all corners of the globe, plus many technicians, researchers, operators and decision makers of the waste sector participated in this conference to address the appropriate management of waste in Africa. Some of the key papers have been selected for peer review in ISWA's journal Waste Management & Research for publishing. This conference was a very important first step for ISWA to strengthen its links with Africa.

The presentations of the conference will be available in the ISWA Knowledge Base from August onwards.

### **4. The Blue Book -2<sup>nd</sup> Edition**

"Safe management of wastes from healthcare activities" more commonly referred to as the "Blue Book" is the worldwide key document for healthcare waste management. The project involved a close cooperation between the ISWA WG- Healthcare waste and the World Health Organisation to produce an updated edition of the original publication and funding support to cover the printing costs. The new edition will be officially released during the ISWA World Congress.

An electronic version of the Blue Book will be available very soon in the [ISWA Knowledge Base](#)

### **5. ISWA Guidelines – Preparing a thermal treatment facility**

Waste-to-Energy or waste incineration is an advanced treatment system to transform waste into valuable and renewable products such as heat and power. Compared to other treatment systems the incineration process is expensive and dependent on a controlled and organized energy distribution network and a well-established waste collection system. Therefore the planning for and implementation of a thermal treatment facility should not be taken lightly.

This set of valuable guidelines has been developed specifically for countries considering the implementation of incineration facilities to prevent unsuccessful investments in developing and transition countries that do not have sufficient economic stability and sufficient controlled waste management system.

The guidelines are available in the [ISWA Knowledge Base](#).

## 5. Overview of Working Group Activities 2010-2012

		WGBTW	WGCCWM	WGCTT	WGC	WGER	WGHW	WGHCW	WGL	WGLI	WGRWM	Total
<b>WORKING GROUP MEETINGS HELD</b>		4	2	4	4	5	3	4	2	3	5	<b>36</b>
<b>EVENTS</b>	Organisation of Beacon Conferences	1	-	-	-	1	-	-	1	-	3	<b>5</b>
	Organisation of Workshops	3	-	-	-	-	2	-	-	-	-	<b>5</b>
	Planning of World Congress Sessions (incl. 2012)	1	1	3	1	3	1	1	2	-	1	<b>14</b>
	Representation of WG at ISWA Events	-	2	3	2	1	-	-	-	1	1	<b>10</b>
	Representation of WG at non ISWA Events	1	-	-	-	-	-	1	1	-	-	<b>3</b>
<b>PROJECTS</b>	Funded by Project Grant	1	1	-	-	1	1	1	1	-	1	<b>7</b>
	Other, completed	-	-	-	-	-	-	-	-	-	-	<b>-</b>
	Other, in progress (not funded by Project Grant)	1	-	2	1	8	-	2	2	3	1	<b>20</b>
<b>ISWA TRAINING</b>	Completed	-	-	2	-	1	1	1	-	-	-	<b>5</b>
	Planned	-	-	-	-	1	-	-	1	1	-	<b>3</b>
<b>PUBLICATIONS</b>	Completed: ISWA Papers, Guidelines, Reports, etc.	-	2	-	-	-	-	1	3	-	3	<b>9</b>
	In progress: ISWA Papers, Guidelines, Reports, etc	2	1	-	-	7	-	2	2	2	1	<b>17</b>
	WM&R Articles	-	-	-	-	>10	-	2	-	-	-	<b>12</b>



## 6. Working Groups Work Programme Progress

The following sections provide an overview of the WGs progress on the 2010-2012 Work Programmes.

### 6.1 Working Group on Biological Treatment of Waste

**Chair:** Enzo Favoino, term: 2009-2013

**Vice Chair:** Boris Efremenko

The WG on Biological Treatment has 40 regular members and 10 corresponding members. Of these members approximately 7 members are actively engaged in the activities of the Working Group.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	<p><b>4 Working Group meetings</b> were held over the course of 2012-2012, with an average participation of 7 members per meeting. Meetings were held in Perugia, Italy; Northampton, UK; Brussels, Belgium; Pinerolo, Italy.</p> <p>The next meeting is planned for during the World Congress in Florence in September 2012.</p>
<b>EVENTS</b>	<p>ISWA Beacon Conference on Biological Treatment 2010. <b>Completed:</b> Perugia, 15-16 April 2010</p> <p>ISWA Workshop on Global Issues pertaining to BioWaste <b>Completed:</b> Workshop was held on 15 March 2012, Turin, Italy,</p> <p>To fill 2, two hour sessions on BTW at the ISWA World Congress with high quality speakers <b>In Progress:</b> 2012 ISWA World Congress, Florence, 18<sup>th</sup> September</p> <p>ISWA Beacon Conference, on Biological Treatment <b>In Progress:</b> was originally planned for Perugia in Spring 2012, but due to the ISWA World Congress taking place in Florence has been postponed til 2013</p>
<b>PROJECTS</b>	<p>Follow, discuss and influence the EU initiative on biowaste. Contribute to position papers by the Biowaste Alliance of stakeholders/NGOs <b>In Progress:</b> A WG representative has been active in the European technical committee investigating End of Waste criteria.</p> <p>Seek ISWA Project grant for "Regional Biowaste Conferences" <b>In Progress:</b> One regional event has been held in Lithuania. Second event is planned for Portugal. PROJECT FUNDED UNDER ISWA GRANT</p> <p>Seek grants for "life cycle inventory of climate-related benefits of biological treatment" <b>Cancelled:</b> were unsuccessful in obtaining project funding</p>
<b>PUBLICATIONS</b>	<p>Contribute to a compared/structured assessment of management of particular types of biodegradable waste in different Countries <b>In Progress</b></p> <p>Preparation of an ISWA Issue Paper on "Food Waste (Organic waste, biowaste) as a Global Issue" <b>In Progress:</b> A draft has been prepared, it is hoped the paper will be finished by Florence</p>
<b>OTHER</b>	<p>Cooperate with WG on "waste and climate change" <b>Ongoing:</b> Attendance at WG-CC meeting in April 2012.</p>

## 6.2 Working Group on Climate Change and Waste Management

**Chair:** Gary Crawford, term: 2010-2014

**Vice Chair:** vacant position

The WG on Climate Change has 18 regular members and 6 corresponding members. Of these members approximately 10 members are actively engaged in the activities of the Working Group.

### ADDITIONAL COMMENTS

The Working Group set out with a very ambitious 2010-2012 Work Programme. Subsequently the work programme has been condensed to make it more manageable.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	<b>3 Working Group Meetings</b> were held during the course of the Work Program. Two Webex meetings and a face to face meeting in Copenhagen on 18 <sup>th</sup> April. The meetings averaged around 7 participants.
<b>EVENTS</b> <i>Participating actively in global events and negotiations regarding Waste and Climate Change before 2012 and beyond.</i>	Presentation at ISWA / EESC Workshop: "The Future of Waste Management and Climate Change in Europe" <b>Completed:</b> Event was held 6 June 2010
	Involvement in Scientific Committee of ISWA Beacon Conference on Waste & Climate. <b>Completed:</b> the Beacon Conference was held 19-20 April 2012 in Copenhagen
	To fill 2, two hour sessions on Climate Change at the ISWA World Congress with high quality speakers <b>In Progress:</b> 2012 ISWA World Congress, Florence, 19 <sup>th</sup> September
<b>PROJECTS</b> <i>Participating actively in global events and negotiations regarding Waste and Climate Change before 2012 and beyond</i>	Development of Communication tools on Waste & Climate Change particularly for dissemination at COP17, Durban South Africa in December 2011(see also publications below) <b>In Progress:</b> Two communication documents have been produced (see publications below), Further activities are being planned PROJECT FUNDED UNDER ISWA GRANT
	Provide input to the UNFCCC on the Clean Development Mechanism, NAMAs, Sector Mechanisms etc <b>Not Yet Started</b>
<b>PUBLICATIONS</b>	Development of "In the Know" briefing note and brochure on waste management & climate change <b>Completed:</b> the two documents were completed in time to be distributed at UNFCCC Cop17 in Durban, December 2011
	Establish Waste & Climate information exchange platform as part of ISWA's website and/or digital library <b>On-going</b>
<b>OTHER</b>	Networking for capacity building, disseminating knowledge and experience at country, institution or individual levels. Establish contacts with relevant organisations, institutions, and associations on general topics / key messages <b>On-going:</b> The WG has established global contacts to be involved in their activities

### 6.3 Working Group on Collection and Transportation Technology

**Chair:** Frans Willemse, term 2012 - 2016

**Vice Chair:** Vivek Agrawal

The WG on Collection and Transportation Technology has 33 regular members and 2 corresponding members. Of these members approximately 10 members are actively engaged in the activities of the Working Group.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	<p>4 Working Group Meetings were held during 2010-2012 in Nijmegen; Netherlands; Copenhagen, Denmark; Munich, Germany and Stockholm, Sweden An average of 7 participants attended each meeting.</p> <p>A further meeting is planned for Sept 2012 during World Congress</p>
<b>EVENTS</b>	<p>Provide presenters and high quality papers pertaining to Collection and Transportation Technology for ISWA World Congress 2010 in Hamburg, Germany <b>Completed</b></p> <p>Provide presenters and high quality papers pertaining to Collection and Transportation Technology for ISWA World Congress, October 2011 in Daegu, South Korea. <b>Completed</b></p> <p>Provide presenters and high quality papers pertaining to Collection and Transportation Technology for ISWA's Special Session at IFAT ENTSORGA, 8 May 2012 <b>Completed</b></p> <p>Provide presenters and high quality papers pertaining to Collection and Transportation Technology for ISWA World Congress 2012 in Florence, Italy <b>In Progress:</b> for 17 to 19 September 2012 in Florence, Italy</p>
<b>PROJECTS</b>	<p>"Wastipedia" Waste Catalogue that gives a structured "table of contents" of the information that is available and where it can be found.</p> <p>This waste catalogue will give a short description of each item. Doing so the cohesion in waste management issues will be shown in the catalogue. Per item links will be made to the specialized information that is available in the ISWA knowledge base. <b>In Progress:</b> Start of project has been decided at the last WGCTT Meeting on 9 May 2012 in Munich</p> <p>Documentation of collection and transportation technologies applied in developing countries <b>In Progress:</b> Ongoing discussions and practical reports at WG meetings</p>
<b>TRAINING</b>	<p>ISWA Study Tour Separate <b>Completed:</b> 18 to 20 June 2012 in Austria, involved 13 participants</p>
<b>PUBLICATIONS</b>	<p>Publication of various Methods of Collection in European Countries <b>In Progress/Shifted:</b> Will be part of the "Wastipedia" Project</p> <p>Publications of Trends and Challenges in Waste Collections in Europe <b>In Progress/Shifted:</b> Will be part of the "Wastipedia" Project</p>

## 6.4 Working Group on Communication

**Chair:** Gunilla Carlsson, term 2010-2014

**Vice Chair:** Suzanne Arup Veltzé

The WG on Communication has 19 regular members and 2 corresponding members.

	ACTIVITIES & STATUS
<b>WG MEETINGS</b>	4 WG Meetings were held during this period. The meetings were held in Hamburg, Germany; Vienna, Austria; Portugal and Munich, Germany.
<b>EVENTS</b>	Plan a Session at 2012 World Congress in Firenze <b>Completed</b> , speakers for two sessions on Communication have been finalised.
	Speakers at Beacon conferences. <b>Completed:</b> Members of the WG have delivered presentations at 2 ISWA Beacon Conferences
<b>PROJECTS</b>	To raise the knowledge of the importance of using strategic communication in waste management <b>In Progress</b>
<b>TRAINING</b>	Training courses in communication management <b>Not yet started</b>
<b>PUBLICATIONS</b>	-
<b>OTHER</b>	Specify the groups role and responsibility <b>Completed 2010</b>
	To be a facilitator of important subjects/issues to the GS <b>In Progress</b>

## 6.5 Working Group on Energy Recovery

**Chair:** Bettina Kamuk, term: 2010 - 2014

**Vice Chair:** Jørgen Haukohl

The WG on Energy Recovery has 84 regular members and 4 corresponding members. Of these members approximately 25 members are actively engaged in the activities of the Working Group.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	<p>5 Meetings were held during 2010-2012. The meetings took place in Naples, Italy; Lyon, France; Oslo, Norway; Dublin, Ireland; Barcelona, Spain. An average of 29 participants attended each of the meetings.</p> <p>A meeting is scheduled for Oct 2012 in Bern, Switzerland</p>
<b>EVENTS</b>	<p>Sessions on WtE at the ISWA World Congress 2010 in Hamburg, Germany <b>Completed</b> 15 to 18 November</p> <p>Sessions on WtE at the ISWA World Congress 2011 in Daegu, South Korea <b>Completed</b> 17 to 20 October</p> <p>7<sup>th</sup> ISWA Beacon Conference on WtE in Malmö, Sweden <b>Completed</b> 3 to 4 November 2011</p> <p>Provide presenters and high quality papers pertaining to WtE for ISWA's Special Session at IFAT ENTSORGA 2012 <b>Completed</b> 8 May 2012</p> <p>Sessions on WtE at ISWA World Congress 2012 in Florence, Italy <b>In Progress:</b> 17 to 19 September</p>
<b>PROJECTS</b>	<p>Communicating good practice and good experiences from Waste-to-Energy and the interaction with other methods – recycling, biological treatment etc <b>In Progress:</b> Not much effort has been given to this project due to other work loads</p> <p>Optimization potential of Energy Recovery as electricity and/or heat from Waste to Energy plants <b>In Progress:</b> Ongoing discussions and practical reports at WG meetings</p> <p>Minimising the amount of bottom ash and with increased and sustainable use of it <b>In Progress:</b> Ongoing discussions and practical reports at WG meetings</p> <p>Safe and sustainable handling of flue gas cleaning residues <b>In Progress:</b> Ongoing discussions and practical reports at WG meetings</p> <p>Report/Guidelines "Preparing a Waste to Energy facility in transitional Countries" <b>In Progress:</b> Will be presented at the ISWA World Congress 2012 in Florence, Italy PROJECT FUNDED UNDER ISWA GRANT</p> <p>Position Paper "Comparison of different Waste-to-Energy techniques in the legal and political European framework" <b>In Progress:</b> First draft is expected to be available by end of 2012</p>
<b>PROJECTS, continued</b>	<p>Review Paper "Emerging Technology" <b>In Progress:</b> Review version will be submitted to the WGER members mid 2012</p> <p>Update on "State of the Art Report"</p>

ACTIVITY & STATUS	
	<p><b>In Progress:</b> The 6<sup>th</sup> Edition of the State-of-The-Art Report will be available in July 2012</p>
	<p>Experience on Energy Recovery from Waste and how Energy Recovery contribute to a sustainable urbanisation  <b>In Progress:</b> Not much effort has been given to this project due to other work loads</p>
<b>TRAINING</b>	<p>ISWA Study Tour Waste to Energy 2011  <b>Completed:</b> 12 to 16 September 2011 in Austria                      20 participants</p>
	<p>ISWA Study Tour Waste to Energy 24 to 28 September 2012 in Austria  <b>In Progress</b></p>
<b>PUBLICATIONS</b>	<p>Articles have been published regularly in both WMW and WM&amp;R publications. <b>Completed/In Progress:</b> e.g. Articles in WM&amp;R and a special issue for the ISWA World Congress 2011 in Daegu, South Korea (involving some 10 articles on WtE), ongoing submission of articles</p>

## 6.6 Working Group on Hazardous Waste

**Chair:** Jean-Paul Leglise, term: 2009-2013

**Vice Chair:** Paul de Bruycker

The WG on Hazardous Waste has 28 regular members and 8 corresponding members. Of these members approximately 5 members are actively engaged in the activities of the Working Group.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	<p>3 WG meetings were held during this time, in Hamburg, Germany; Mechelen, Belgium; Munich, Germany.</p> <p>Another meeting is scheduled for later in 2012</p>
<b>EVENTS</b>	<p>Workshop in Brussels <b>Completed:</b> Workshop was held in Mechelen on 7 October 2011. Event attracted 22 participants from 11 countries.</p> <p>Seminar &amp; Workshop in Singapore in connection with TRP project <b>Completed:</b> Seminar &amp; Workshop was held 24-26 April.</p> <p>To fill a two hour session on HW at the ISWA World Congress with high quality speakers <b>In Progress:</b> 2012 ISWA World Congress, Florence, 18<sup>th</sup> September</p> <p>Workshop in Argentina in connection with TRP project <b>In Progress:</b> planned for Autumn 2012</p>
<b>PROJECTS</b>	<p>Development and revision of Training Resource Pack for hazardous waste management in developing countries (TRP) <b>In Progress:</b> A <a href="#">website</a> has been developed to host the content and associated links and a workshop held in Singapore (outlined above) Project is ongoing but should be completed by end of 2013</p> <p>PROJECT FUNDED UNDER ISWA GRANT</p>
<b>TRAINING</b>	<p>Training of Iraqi engineers as part of ISWA/ UNHABITAT project <b>Completed:</b> Training of 60 Iraqi engineers in Hazardous waste management was carried out in Vienna, 2011</p>
<b>PUBLICATIONS</b>	<p>Input to the ISWA Waste Trafficking Paper <b>In progress:</b> WG to provide input to the paper</p>

## 6.7 Working Group on Healthcare Waste

**Chair:** Jan-Gerd Kuehling, term: 2010-2014

**Vice Chair:** Edward Krisiunas

The WG on Healthcare Waste has 22 regular members and 7 corresponding members. Of these members approximately 17 members are actively engaged in the activities of the Working Group.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	<p><b>4 WG meetings were held during this period.</b> In Hamburg, Germany; Leoben, Austria; Marburg, Germany; Barcelona, Spain. An average of 12 participants attended the meetings</p> <p>A further meeting is planned for September 2012 during World Congress</p>
<b>EVENTS</b>	<p>Support for the Indian Society of Health care waste management Conference  <b>Completed:</b> A representative of the WG gave a presentation in New Delhi, India during the conference 30th and 31st October 2010</p> <p>Presentation at the European Medical Waste Conference  <b>Completed:</b> The WG Chair gave a presentation at the Conference, February 2011</p> <p>To fill a two hour session on HCW at the ISWA World Congress with high quality speakers  <b>In Progress:</b> 2012 ISWA World Congress, Florence, 18<sup>th</sup> September</p>
<b>PROJECTS</b>	<p>Subcommittee setup to develop tender guidelines  <b>In Progress:</b> Subcommittee has been established and a draft has been prepared</p> <p>Subcommittee setup to develop guidelines/testing for alternative healthcare waste technologies  <b>In Progress:</b> Subcommittee has been established and a draft has been prepared</p>
<b>TRAINING</b>	<p>Training of Iraqi engineers as part of ISWA/ UNHABITAT project  <b>Completed:</b> Training of 60 Iraqi engineers in Healthcare waste management was carried out in Vienna, 2011</p> <p>Subcommittee on Training has been set up  <b>In progress:</b> Subcommittee has been established and first ideas developed</p>
<b>PUBLICATIONS</b>	<p>Gain funds to support the publication of the WHO Blue Book <b>Completed:</b> The WG was successful in obtaining funding from the ISWA project grant to be allocated in 2012</p> <p>PROJECT FUNDED UNDER ISWA GRANT</p> <p>Promulgation of Blue Book ISWA World Congress, Florence  <b>In Progress:</b> Official release of Blue Book is planned for the ISWA World Congress September 2011</p> <p>WM&amp;R article "Management of Healthcare Waste – Developments in South-East Asia in the 21st century"  <b>Completed:</b> Published in the ISWA World Congress special edition of WM&amp;R          WM&amp;R Article" Impact on carbon footprint: a life cycle assessment of disposable versus reusable sharps containers in a large US hospital "  <b>Completed:</b> Published in <i>WM&amp;R, June 2012 30: 639-642</i></p>
<b>OTHER</b>	<p>Formal Cooperation with European Medical Waste Conference <b>Completed:</b> An agreement</p>



ACTIVITY & STATUS	
	has been signed between ISWA and the EMWC for the WG to cooperate with the EMWC to be held in 2013 in Amsterdam

## 6.8 Working Group on Landfill

**Chair:** Derek Greedy, 2011 - 2015

**Vice Chair:** Jan Thrane

The WG on Landfill has 40 regular members and 34 corresponding members. Of these members approximately 15 members are actively engaged in the activities of the Working Group.

### ADDITIONAL COMMENTS

The working group suffers from the apparent euro centricity of ISWA in that landfill is very much a dead duck within Europe and it is only outside of Europe where Landfill dominates. The active members in the working group continue to be from Europe despite this and clearly something needs to be done to engage with the rest of the world. A suggestion might be that the working group as we know it acts as an umbrella group for a number of satellite landfill working groups from around the world perhaps centering on each of the Regional Developing Networks and North America.

ACTIVITY & STATUS	
<b>WORKING GROUP MEETINGS</b>	<p>2 WG Meetings were held during this period. Two meetings were scheduled but needed to be cancelled. The meetings were held in Hamburg, Germany and Munich, Germany. An average of 13 participants attended the meetings.</p> <p>A further meeting is scheduled for later in 2012</p>
<b>EVENTS</b>	<p>Gain Project Grant funding to support Beacon Conference in Angola  <b>Completed:</b> Event to be held on 23-25 July, Lobito, Angola                      PROJECT FUNDED UNDER ISWA GRANT</p> <p>To provide 3 presenters and 8 high quality papers pertaining to Landfill for 2011 ISWA World Congress in Daegu  <b>Completed</b></p> <p>To fill two sessions with high quality speakers at the 2012 ISWA World Congress in Florence  <b>In Progress,</b> scheduled for 17<sup>th</sup> September</p> <p>ISWA Beacon Conference, Buenos Aires, Argentina  <b>Cancelled:</b> Originally planned for Spring 2012, but was not held</p>
<b>PROJECTS</b>	<p>State of the Nation Report  <b>In progress:</b> 4 reports have been drafted and a few more are currently being elaborated</p> <p>Produce technical guideline on active rehabilitation and forced aeration. Form and extent to be discussed in the Working Group  <b>Cancelled:</b> Unable to find the expertise within the group to draft the guideline. Unlikely to progress this further</p> <p>Seek grants for developing further work in Africa  <b>Cancelled:</b> Was planned for mid 2012, however as no project grant funding is available until 2014 project has been cancelled</p>

<b>TRAINING</b>	<p>WGL Master Classes on Advanced Landfill Leachate Treatment and on Advanced Landfill Gas Recovery and Utilization, Lisbon, Portugal  <b>In progress:</b>The advanced classes on Landfill Leachate are scheduled for Lisbon in November. The advanced classes in Landfill Gas Recovery are scheduled for October and will be organized together with <i>AVERA</i></p>
<b>PUBLICATIONS</b>	<p>Finish updating the international guidelines for sustainable landfill evaluation  <b>Completed:</b>The guidelines were completed in 2011</p>
	<p>Translate the Operational Guidelines into Portuguese Mandarin and Spanish  <b>In Progress:</b> The Operational guidelines were translated into Spanish in 2011, the Portuguese and Mandarin versions are still in progress</p>
	<p>ISWA Paper on Landfill mining  <b>In Progress:</b> paper has been drafted and is in the review process</p>
<b>OTHER</b>	<p>Build a stronger collaboration with US EPA/ GMI (Global Methane Initiative)  <b>Completed:</b> A Memorandum of Understanding was elaborated and signed in May 2011 to formalize cooperation</p>

## 6.9 Working Group on Legal Issues

**Chair:** Olaf Wendler

**Vice Chair:** Helmut Stadler

The WG on Healthcare Waste has 18 regular members and no corresponding members. Of these members approximately 5 members are actively engaged in the activities of the Working Group.

	ACTIVITY & STATUS
<b>WORKING GROUP MEETINGS</b>	3 WG Meetings were held during this period 2 in Vienna and 1 in Bucharest. An average of 6 people attended the meetings. An additional meeting is planned for October 2012
<b>EVENTS</b>	Presentation on "Implementation at the National Level" at the ISWA European Group Meeting <b>Completed:</b> The acting WG Chair gave a presentation at the Meeting, 12 June 2012
<b>PROJECTS</b>	Platform for concrete legal cases & topics for legal experts <b>In Progress</b>
	Contribution to the Database – Identifying important legal "wastetopics" especially for three groups: policy makers, research institutes and for ISWA <b>In Progress</b>
	Overview to the implementation of the Waste Framework Directive <b>In Progress</b>
<b>TRAINING</b>	Training- and presentation kit on principles of efficient environmental legislation <b>In Progress</b>
<b>PUBLICATIONS</b>	"Key Issue paper on principles of efficient environmental legislation" <b>In Progress</b>
	Position Paper Public Private Partnership <b>In Progress</b>
	EPR key issue paper on how legislation for producer responsibility should be structured Proposal, to be decided by the WG at next meeting

## 6.10 Working Group on Recycling and Waste Minimisation

**Chair:** Maarten Goorhuis, current term: 2010-2014

**Vice Chair:** Bjorn Appelqvist

The WG on Recycling & Waste Minimisation has 43 regular members and 5 corresponding members.

	ACTIVITIES
<b>WORKING GROUP MEETINGS</b>	5 WG meetings were held during this period in Leuwarden, Netherlands; Rome, Italy; Vienna, Austria; Thessaloniki, Greece and Munich, Germany. Another meeting is planned for Nov 2012
<b>EVENTS</b>	Beacon Conference Prevention & Recycling, 2011 <b>Completed:</b> Beacon took place In Vienna on May 23-24. Conference was sold out.
	Beacon Conference Prevention & Recycling, 2012 <b>Completed:</b> Beacon took place In Vienna on 30 May – 1 June
	Presentation for ISWA Special Session during IFAT <b>Completed</b>
	Preparation of WG sessions at 2012 World Congress Florence <b>In progress</b> Two sessions have been prepared
<b>PROJECTS</b>	Action plan Waste Trafficking <b>Completed</b> , was presented to STC in September 2011
	Product chain management for jeans PROJECT FUNDED UNDER ISWA GRANT
<b>TRAINING</b>	-
<b>PUBLICATIONS</b>	ISWA Position paper Waste Trafficking <b>Completed</b> December 2010, available in ISWA KB
	Key issue paper Waste prevention, waste minimization & resource management <b>Completed</b> early 2011, available in ISWA KB
	Internal guidelines for waste prevention & recycling at ISWA events <b>Completed</b> , approved by the Board July 2012, available in ISWA KB
	Contribution to ISWA paper on Prevention of Food Waste <b>In progress</b> , First outline drafted by WGBT.
<b>OTHER</b>	Contribution to Task Force Globalization Vice Chair attended the TF workshop I Buenos Aires, June 22 <sup>nd</sup> -23 <sup>rd</sup> , 2011