

Recycling managers

Course Unit 1:	Energy Management
Sub-units	<p>Mode of operation</p> <p>Energy consumption</p> <p>Handle deviations</p> <p>Identification and implementation of cost effective decisions</p>
Course materials	<p>Understanding Cost-Effectiveness of Energy Efficiency Programs: http://www.epa.gov/cleanenergy/documents/suca/cost-effectiveness.pdf</p> <p>Energy management – a comprehensive guide to controlling energy use http://www.carbontrust.com/resources/guides/energy-efficiency/energy-management</p> <p>Decision Support System for Sustainable Energy Management: http://www.waterrf.org/ExecutiveSummaryLibrary/4090_ProjectSummary.pdf</p>
Course Unit 2:	Management of all operations across the site
Sub-units	<p>Monitor and control the recycling equipment (maintenance, servicing)</p> <p>Security principles of recycling facilities</p> <p>Health and Safety issues on site process regarding receipt, handling and forwarding of recycles;</p> <p>Collection of recyclables and other materials</p>
Course materials	<p>Guidance on Best Available Treatment Recovery and Recycling Techniques (BATRRT) and treatment of Waste Electrical and Electronic Equipment (WEEE) http://archive.defra.gov.uk/environment/waste/producer/electrical/documents/weee-batrrt-guidance.pdf</p> <p>Best Operational Practices Manual For Materials Recovery http://www.csu.edu/cerc/researchreports/documents/BestOperationalPracticesManualF</p>

	<p>orIllinoisRecyclers.pdf</p> <p>What Materials Can Be Recycled? - Benefits of Recycling</p> <p>http://www.obviously.com/recycle/guides/common.html</p> <p>Prevention of occupational and safety risks on recycling sorting facility</p> <p>https://www.irsst.qc.ca/media/documents/PubIRSST/R-443.pdf</p>
Course Unit 3:	Manage permission regimes
Sub-units	<p>Legislation procedures on wastes</p> <p>Manage inspections by the controlling bodies</p> <p>Data collection and reporting</p> <p>Control the implementation of the requirements of emissions, end products and generated waste; Manage the implementation and follow up the improvement of all processes on site;</p>
Course materials	<p>Waste management legislation:</p> <p>http://europa.eu/legislation_summaries/environment/waste_management/index_en.htm</p> <p>Training Package on EU Waste Legislation:</p> <p>http://ec.europa.eu/environment/legal/law/waste_law.htm</p> <p>DEVELOPING INTEGRATED SOLID WASTE MANAGEMENT PLAN:</p> <p>http://www.unep.org/ietc/Portals/136/Publications/Waste%20Management/ISWMPPlan_Vol2.pdf</p> <p><u>Waste and Emissions:</u></p> <p>http://www.responsiblejewellery.com/files/Waste-and-Emissions-RJC-Guidance-draftv1.pdf</p>
Course Unit 4:	Management and control the incoming and outgoing streams following the legislative requirements
Sub-units	Monitoring separation

	<p>Monitoring management & Manipulation</p> <p>End of waste</p> <p>Managing the streams of raw materials; Organization of public campaigns for recycled materials;</p>
Course materials	<p>Training Manuals on Integrated Solid Waste Management:</p> <p>http://sustainabledevelopment.un.org/content/dsd/csd/csd_pdfs/csd-19/learningcentre/presentations/May%20%20am/2%20-%20Memon%20-%20ISWM_TrainingManuals.pdf</p> <p>Waste Management Resources:</p> <p>http://www.epa.gov/tribalcompliance/wmanagement/wmwastedrill.html</p> <p>How to develop a waste management and disposal strategy:</p> <p>http://www.cips.org/Documents/About%20CIPS/Develop%20Waste%20v3%20-%2020.11.07.pdf</p> <p>End-of-waste status</p> <p>http://www.eebguide.eu/?p=1616</p> <p>Managing partially controllable raw material acquisition and outsourcing in production planning</p> <p>http://www.tandfonline.com/doi/abs/10.1080/07408170903232555?journalCode=uiie20#.VK6sCyusXco</p> <p>Raising Public awareness for recycling and reuse</p> <p>http://www2.wrap.org.uk/downloads/2.0_Raising_public_awareness_of_recycling_and_reuse_-_Online.f20a45e3.9261.pdf</p>
Course Unit 5:	Treatment and transportation of waste
Sub-units	<p>Organize transportation of waste, so that the right treatment will not be prevented</p> <p>Ensure the access of the controlling bodies to the technological lines, the facilities for waste treatment and the respective documentation</p> <p>Monitoring the temporary storage of waste</p>

<p>Course materials</p>	<p>Transportation of Hazardous Materials and Waste Checklist</p> <p>http://www.nws.noaa.gov/directives/050/05051016d/pd05051016d_3.pdf</p> <p>Waste of Transportation</p> <p>http://www.lean-manufacturing-junction.com/waste-of-transportation.html</p> <p>Waste transportation guidance</p> <p>http://www.epa.vic.gov.au/business-and-industry/guidelines/waste-guidance/waste-transportation</p> <p>Transportation of waste</p> <p>http://urbanindia.nic.in/publicinfo/swm/chap13.pdf</p>
<p>Course description</p>	<p>The Recycling and Waste Management is a good general course on the concepts of recycling and better waste management. This is a training program designed to give a better sense of how to recycle and handle waste better. This course is pragmatic and interesting. The course will open your eyes to many areas of concern that will strengthen the understanding of a business seeking better solution.</p> <p>The main concept of the course is to prepare recycling managers to be able to run the recycling plant and to control the processes. The training will also upgrade the knowledge on the basic principles of management. The training course is based on the main qualifications included in the Competence Framework. The course will target at people already engaged in the recycling industry and willing to take a management position or willing to acquire new knowledge in terms of job changing. The training is suitable for people with stable background and already acquainted with the recycling industry at least on a basic level. The training course will include mandatory units and optional ones. In order to qualify for a certificate the participant will have to cover at least the compulsory units.</p> <p>The structure of the program include practical and theoretical training. The practical training should be at least 40% of the training hours. The program envisages one additional optional module/ unit for those participants who want to receive more knowledge on the innovative practices applied in the recycling sector.</p> <p>Each participant will graduate the training with final exam. The final exam will have 3 components: test with 30 questions, development of case study and marks/ recommendations issued by the employer where the participant had his practical training. The program is structured for a daily training. It has potential for a distance learning or on-line training as well.</p>

Qualificati on profile	<p>After the course each participant should:</p> <p>Know how to:</p> <ul style="list-style-type: none"> ➤ Describe in detail the energy performance indicators of the equipment; ➤ Demonstrate a critical understanding of the principles relating to the function of the measurement equipment; ➤ Describe in detail the factors for potential deviations with regard to energy consumption; ➤ Demonstrate an advanced knowledge of respective standards; ➤ Demonstrate an advanced knowledge of running the machinery in the recycling facility; ➤ List and explain in detail possible emergency situations; ➤ Identify and propose improvements to recycling activities; ➤ Describe in detail how to plan and how to maintain storage operations for recycling facilities; ➤ Demonstrate an advanced knowledge of the directives of waste; ➤ Identify the rules of a documentation system; ➤ Demonstrate advanced knowledge on periodic reviews, revise as necessary and approve documentation; ➤ Demonstrate an in-depth knowledge of data collection systems; ➤ Describe in detail the main principles of separate collection of recyclables and other materials; ➤ Demonstrate an advanced knowledge of the technical specification of the equipment; ➤ Demonstrate an advanced knowledge to describe the reception, storage and dispatch of goods; ➤ Determine in detail how to manage the safe operation of work vehicles during recycling; ➤ Demonstrate an advanced knowledge of the legislative frame in terms of treatment and preparation concerning operational procedures; ➤ Demonstrate an advanced knowledge to determine the difference between recyclables and other materials and the proper equipment for them. ➤ Demonstrated advanced knowledge of health and safety issues on site process regarding receipt, handling and forwarding of recycles; ➤ Demonstrate knowledge regarding the requirements of emissions, end products and waste streams; <p>Be able to:</p> <ul style="list-style-type: none"> ➤ Develop, analyses and implement energy performance indicators; ➤ Determine how the measurement tools function and the methods of utilisation; ➤ Show advanced skills to implement the right measures to reduce deviations; ➤ Control the measurement equipment; ➤ Organise and maintain an energy management system;

- Ensure the control and maintenance of the facility machinery;
- Ensure the control and maintenance with regard to process optimization and the measurement equipment;
- Use methods for early warnings;
- Maintain equipment for the processing of recyclable and other materials by analyzing the preconditions for maintenance, such as staff qualification, spare parts and by deficiency analysis;
- Arrange obligatory controls and ensuring the implementation of maintenance plans;
- Calculate the costs of maintenance;
- Ensure the proper control of the reception of recyclables and other materials;
- Prepare technical and other documents required by the organization/ data collection agencies/ regulatory bodies;
- Develop the required documentation;
- Demonstrate mastery by enabling a proper storage of the documentation in accordance to the legislative requirements;
- Conduct data processing;
- Control the reception of recyclables and other materials;
- Organize the separation of the waste streams/flows;
- Control the end product;
- Demonstrate mastery by applying quality control of the manipulation process;
- Organize the promotion of additional services or products to customers;
- Maintain the availability of goods for sale to customers;
- Control the movement of recyclables and other materials;
- Control the handover of recyclables and other materials;
- Arrange the development of safety transportation schemes on the site;
- Control the vehicle movements on the recycling site;
- Assure the implementation of the requirements for sorting and preparing recyclables and other materials for processing;
- Define the operational procedures and rules for the treatment derived from legislative requirements;
- Operate the equipment for processing of recyclables and other materials.
- Manage and control the incoming and outgoing streams following the legislative requirements;
- Organize public campaigns on recycling materials.

Possess the following characteristics:

- Responsibility, accuracy and diligence;
- Resourcefulness;
- Prompt and accurate assessment and reaction to different situations;
- Communication abilities and ability to work in a team;
- Respectful for the working and technical discipline;
- Ability to analyze, assess and take decisions;
- Loyal and respectful for the employer;
- Possess working habits.

Requirements for the	<ul style="list-style-type: none"> ➤ Master degree or higher in the respective field; ➤ 5 year experience in training on recycling or/ and ➤ 5 years of consulting experience in waste management and recycling;
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trainers	<ul style="list-style-type: none"> ➤ At least 3 recommendations; ➤ It is recommended that each 3 years the trainers should pass a refreshment course in order to update and expand their knowledge and competences in the field.
Requirements for the participants	<ul style="list-style-type: none"> ➤ EQF 4 or secondary education or higher; ➤ Lack of certified qualification (will be tested) + 5 year experience; ➤ The participant should have knowledge for the recycling industry; ➤ Former average level management experience would be an asset.
Requirements for the training facilities and infrastructure	<ul style="list-style-type: none"> ➤ The facilities should be in line with the requirements of the acting legislation; ➤ The theory training should be carried out in class rooms, furnished with all the necessary equipment, such as: desks, blackboard, computers, technical and audiovisual equipment, other training appliances needed; ➤ The practical training if not in the plant, should be carried out in specially equipped workshops.

The trainees will also be able to choose a training on the optional units. The optional units will be sector specific. Their choice will depend on the initial preparation of the trainee.

Optional course unit:	Innovations
Sub-units	Technological innovations EU standards
Course materials	<p>European standards: http://ec.europa.eu/enterprise/policies/european-standards/index_en.htm</p> <p>INNOVATIONS IN WASTE</p> <p>http://www.waste-management-world.com/articles/print/volume-11/issue-2/features/innovations-in-waste.html</p> <p>Waste Technology and Innovation Study</p> <p>http://www.environment.gov.au/system/files/resources/4e70769b-1802-42c3-96d7-5ee3874c821f/files/waste-technology.pdf</p>