

Project Title	Client	Start	End	Description
Comprehensive Review of Gaps and Weaknesses and Key Priority Areas for Improvement in the EU Waste Statistics.	European Commission, DG Environment	11/12/2015	16/12/2016	The aim of the study is to provide the Commission with a screening of the existing system of waste statistics reporting, an identification of the main sources of uncertainties, inconsistencies and gaps of the waste statistics and with proposals to improve the existing reporting system.
Technical Support for the revision of EU Ecolabel and EU Green Public Procurement Criteria;	European Commission JRC/IPTS	02/11/2015	30/06/2017	Eunomia was contracted to support the Joint Research Centre's Institute for Prospective Technological Studies (JRC IPTS) in analysing and revising the existing EU Ecolabel and EU GPP criteria for 'copying and graphic paper', 'newsprint paper' and 'tissue paper'.
Study on Assessing the Environmental Fiscal Reform (EFR) Potential for the EU28, commissioned by DG Environment	European Commission, DG Environment	12/06/2015	30/11/2015	The study continues the work of two previous environmental fiscal reform studies, both of which have been published by the European Commission. The study includes an analysis of the political feasibility of a tax shift away from labour taxes and towards increased environmental taxation. As part of this task, the contractors for this work, led by Eunomia Research & Consulting and supported by the Institute for European Environmental Policy (IEEP), will undertake a consultation with Member States to obtain information on the political barriers to EFR.
Municipal Waste Compliance Exercise 2014-2015	European Commission, DG Environment	01/12/2014	01/03/2016	This project sought to understand for eight member states the extent of compliance with the legal EU waste targets in respect of municipal waste. This included the development of factsheets regarding waste management policies and practices and the development of a series of "roadmaps" to address deficiencies in the compliance of the member states with the legislation. Countries covered: Malta, Cyprus, Croatia, Hungary, Slovenia, Portugal, Spain, and Ireland
Waste Assessment in the South East of Europe	European Commission, DG Environment	01/01/2015	01/01/2017	This project involves in producing national waste assessment exercises for the six Western Balkan countries: Albania, Bosnia & Herzegovina, The former Yugoslav Republic of Macedonia, Kosovo, Montenegro, and Serbia. The assessments include presenting the current situation of the waste sector in each of the countries and the respective roadmaps for improving future waste management. Compliance checks of selected national legislation against selected EU waste 'acquis' are also conducted.
Further work on EU waste model and Scenario Analysis for Targets Review	European Commission, DG Environment	14/05/2014	01/05/2015	The objective of this contract was to further develop and enhance the European Municipal Waste Model which was built by Eunomia as part of an earlier contract with DG Environment. This work included the modelling of a number of additional European policy scenarios, detailed sensitivity analysis of the input parameters, and dissemination of the model and its results through a number of workshops and training sessions. In addition, a model was also developed to better understand the management and treatment of C&D waste in each of the 28 Member States. This model, as with the Municipal Waste Model, can be

				used to quantify the impact of different scenarios in respect of impacts on the environment, access to raw materials, job creation, greenhouse gas emissions and costs and benefits.
Several Studies to Assess Restriction of Hazardous Substance (RoHS) Directive Exemptions	European Commission, DG Environment	05/07/2014	Present	<ul style="list-style-type: none"> • The objective of this set of studies was to provide the Commission with clear technical and scientific evidence and an assessment of any new request for granting, renewing or revoking an exemption under the Restriction on Hazardous Substances (RoHS) Directive, taking into consideration the differing validity periods and expiry dates for the various product categories in light of the parameters listed in Article 5(1)(a) of RoHS II. The work was to peer review the scientific and technical evidence and recommendations made for the granting or not granting of exemptions. The following projects were undertaken under this work: <ul style="list-style-type: none"> • Study to assess RoHS exemption; • Study for the review of the list of restricted substances under RoHS 2 - Analysis of impacts from a possible ban of several new substances under RoHS 2; • Additional input to the commission impact assessment for a review of the scope provisions of the RoHS 2 Directive pursuant Article 24(1); and • Study to assess a ROHS exemption for lead and hexavalent chromium in reused spare parts recovered from industrial monitoring and control instruments.
Review of Targets under the Waste Framework Directive, Landfill Directive and Packaging Directive	European Commission, DG Environment	01/01/2013	28/10/2014	This strategic project aimed to identify issues with the existing targets in the Waste Framework Directive, the Landfill Directive and the Packaging Waste Directive, and proposing possible solutions to these issues and identifying how they can be brought in line with the aspirations set out in the Commission's Roadmap to a Resource Efficient Europe and the 7th Environmental Action Programme. This project consisted of a detailed European wide consultation, followed by an in depth cost/benefit analysis of a number of preferred policy options. The work informed the development of the Circular Economy package launched by the Commission in 2014, and made use of the reference model developed by Eunomia.
European Waste Model	European Commission, DG Environment	01/02/2013	15/09/2014	The objective of the contract is to develop a model of waste generation and management for all EU Member States. It will be used, firstly, to develop scenarios which inform the distance between likely achievement by Member States and the targets for recycling, recovery and landfill diversion under existing (and future) legislation. It will then quantify the impact of different scenarios in respect of impacts on the environment, access to raw materials, job creation, greenhouse gas emissions and costs and benefits.
Environment Data Centre, Natural resources	Eurostat	01/01/2013	01/05/2014	This project sought to redevelop the historic environmental data centre on natural resources managed by Eurostat. The project included an assessment of the available data and content on the existing website, analysis of data and metadata relating to the resource efficiency indicators 'scoreboard', the development of structure and content for the website, and creating management plans for organisation of data production and assimilation into the Eurostat system.

Competitiveness of the non-energy Extractive Industries and the Recycling Industry	European Commission, DG Enterprise	01/12/2013	01/02/2015	This study reviews the competitiveness of the EU's raw materials industry and takes place in the context of the EU's raw Materials Initiative. It reviews both the primary extractive industries, as well as the recycling industries, covering metals (ferrous and non-ferrous, including critical metals), minerals and materials used as aggregates.
Feasibility Study on a Legal Obligation for the Use of Reusable Containers for Food and Drink at Public Events in the Brussels Capital Region	Brussels Environment	01/2012	10/2012	This study involved understanding the key lessons from the implementation of such legal obligations in places such as Vienna and Munich, and advising on if, and how, a similar measure could be implemented in the Brussels Capital Region. The project involved reviewing the operation of existing approaches, considering the specific legal circumstances of the Brussels Capital Region, and taking account of any potential supporting measures that could assist implementation.
Assistance to the Commission on Socio-economic Cost-benefit Assessment of Options to Reduce the Use of Single-use Plastic Carrier Bags	European Commission, DG Environment	06/2012	08/2012	This study was requested by the European Commission to complete an impact assessment regarding measures to address the issue of plastic bags in the environment. The requirement was for analysis of four different policy options for dealing with single use plastic bags. The study included analysis of data regarding plastic bag production and consumption and the impacts on producers and consumers under the different policy options.
European Commission Beverage Can Deposits	European Commission, DG Environment	15/11/2010	15/11/2012	This project assessed the nature and scale of existing problems occurring from a lack of harmonisation of deposit refund systems. The project evaluated interoperability mechanisms to solve the problems, and seek to model options for implementing a deposit refund system across either part of, or the whole of, Europe in such a way that any problematic cross-border issues are minimised. The research needed to ensure that both environmental protection and harmonisation, the two priorities of EU policy-making, were considered. The project included a comprehensive literature review, four regional workshops to gather information from stakeholders, a cost-benefit analysis, consultation stage and final workshop held in Brussels.
Design of a deposit refund scheme in Scotland	Zero Waste Scotland	01/01/2014	31/03/2014	Investigate the feasibility of a deposit refund scheme in Scotland, and in particular, the design features which might have to be built into the system to enable it to function well, and in order to minimise the potential for perverse effect

Economic Instruments for Waste Prevention	Brussels Environment	06/2011	09/2011	This study, for Brussels Environment, established an inventory of the different types of economic instrument that have a direct, or indirect waste prevention impact. Through drawing upon evidence from existing sources we identified the relative effectiveness of the various approaches, such as taxes/fees/charges, tradable permit systems, deposit-refund systems and subsidies. The overall focus is to make recommendations as to: (a) the types of economic instruments which are likely to have the greatest waste prevention impact in a given context, (b) Factors that need to be taken into account when putting such instruments in place and (c) supporting actions that are likely to increase the chances of the economic instrument's success in waste prevention.
Deposit Refund System Study	Retorna	31/01/2011	31/07/2011	This study looks to undertake an analysis of the costs (and savings) of the potential introduction of a deposit refund system in the Canary Islands as part of a wider body of work including a review of the case for doing so across all Spain. The objective of the project is to establish the financial implications of the implementation of a DRS in Spain, looking in particular at the following key elements: firstly the cost to the consumer (via additional cost on producers passed through to the consumer in the purchase price of beverages) and secondly the effect on local authority budgets of removing their need to collect deposit-bearing packaging
Cost-benefit Analysis of Deposit Refunds	Campaign for the Protection of Rural England (CPRE)	01/12/2009	30/05/2010	The aim of this project was to analyse both the financial and environmental impacts of the introduction of a deposit-refund scheme across the United Kingdom. This work differed from previous work that has looked at deposit refunds in the United Kingdom, as it looked in detail not just at the costs associated with the deposit refund scheme itself, but also at the associated reduction in costs of the kerbside collections if there is either a reduction in beverage containers collected at the kerbside, or the removal altogether of the provision of kerbside collections for container materials.
Waste Management Plan for England SEA	DEFRA	01/02/2013	01/06/2014	This project is to undertake a full Strategic Environmental Assessment of the up and coming National Waste Management Plan. As project manager for this, the work involved liaising with statutory consultees, Defra legal and policy colleagues to take the SEA through screening and scoping before undertaking the Environmental Assessment which will assess the significant environmental effects of the NWMP.
Waste Prevention Policy for SMEs in Wales	Welsh Government	01/02/2012	01/06/2012	The first stage of this project involved gaining an understanding of the current levels of market delivery of waste prevention for small and medium sized enterprises, and how a business-as-usual scenario would project up to 2024/25, in relation to the waste prevention targets for I&C waste set in Towards Zero Waste. Having established that intervention is likely to be required, the second phase of the work was an extensive literature review which led to scoping options for Welsh Government intervention with the aim of delivering a reduction of waste from Welsh SMEs' premises. Recommendations highlighted the need for the WG to draw on available evidence where possible, to

				implement monitored trials as a means to generate an understanding of impact and to ensure both successes and failures are reported to support future policy decision-making.
National Waste Management Plan SEA	DEFRA	01/02/2012	01/11/2012	This project is to undertake a full Strategic Environmental Assessment of the up and coming National Waste Management Plan. As project manager for this, the work involved liaising with statutory consultees, Defra legal and policy colleagues to take the SEA through screening and scoping before undertaking the Environmental Assessment which will assess the significant environmental effects of the NWMP.
Recycling Systems Literature Review	WRAP	09/05/2011	31/05/2011	Work to undertake a literature review of the evidence base available to Belfast with the main aim of investigating issues surrounding box vs bins. Over the last six years Belfast City Council has commissioned research to compare kerbside collection methodologies, implemented pilot collection schemes and received WRAP support to review its kerbside collection configuration and performance. This report presents the findings of a critical review of this existing research.
LEDNET Waste Modelling	London Borough of Merton	18/05/2012	31/07/2012	This project, commissioned on behalf of the London Environment Directors Network (LEDNET) members by the London Borough of Merton, aimed to improve the understanding of historical and future waste arisings in the Capital. The objectives of the project were to analyse all waste stream trends over the past 5 -10 years and assess the key drivers behind all waste volumes particularly waste to landfill but including recycling, food and garden waste; to identify any initiatives that has had a positive impact on reducing waste volumes, and to produce a working model to allow better future forecasting at borough and London wide level.
Assessment of Trends in Household Waste Arising in Wales	Welsh Government	10/02/2012	30/03/2012	This desktop study seeks to understand the trends and factors affecting household waste arisings in Wales. Factors considered include (a) The extent that current policies may be impacting on the decrease in household waste arisings in Wales; (b) Whether population growth within an example local authority may impact arisings; and (c) Whether this trend is likely to continue in the medium to long term.
Business Plan Template Development	Welsh Local Government Association	04/04/2011	16/06/2011	Work commissioned by WLGA, and funded by WG, to produce business planning templates and guidance (a toolkit) to enable local authorities to plan to sustainably meet the 70% recycling target. Work to develop this toolkit was undertaken using a consultative approach with the Welsh local authorities - including telephone interviews and several workshops. The toolkit, covering all aspects of the waste hierarchy, is very operationally focused as it is identified as being the implementation phase sitting under the national strategy and Municipal Sector Plan. The toolkit guides the authority through a series of stages including: a Strategic self-assessment whereby current service provision is compared to the service specification outlined in the Municipal Sector Plan (Collections Blueprint), a process of reviewing the current service, followed by prioritising and developing options. Having developed a baseline, options for future change, and associated parameters, guiding principles for options appraisals are outlined in the guidance. The outputs from these modelling processes feed-in to the toolkit which in-turn links to a cost-benefit analysis output. All options are assessed on their ability to meet the targets, and upon financial

				and environmental impacts. Finally, the selected options are transferred into a business plan, for which there are two templates, one Excel based Gantt chart and one Word based business planning document. The development of the project was followed by a testing phase with five authorities.
Romania – Identification of future waste management projects (2014 – 2020)	Enviroplan (consortium lead) under Jaspers framework	17/08/2011	17/12/2011	The objective is to identify a pipeline of waste management projects in Romania that could be co-funded by the EU in the next Operational Programme Environment period (2014-2020) that helps work towards the Waste Framework Directive requirements to recycle or prepare for reuse at least 50% of waste from households and comply with Romania’s waste management strategy. To achieve this objective, this study estimates the waste management situation in Romania’s 42 counties at the end of 2013 and assesses and prioritises potential new waste infrastructure projects
The Impact Of Rejects On Local Authority Recycling Rates	Welsh Government	22/02/2011	31/03/2011	In the 2011 Kerbside Collections Options: Wales study (Kerbside Collections Study), undertaken by Eunomia on behalf of WRAP (Waste & Resources Action Programme) and the Welsh Government, detailed analysis of six local authority case study examples showed that the total amount of rejected material during sorting and reprocessing of dry recycling was higher than that being reported by local authorities in WasteDataFlow (WDF). This report was subsequently commissioned by the Welsh Government to determine the impacts that these higher reject rates would have on the recycling rates for Wales as a whole and for individual authorities across Wales.
Collation of existing data sources into a consolidated body of information (economic operators)				
Market due diligence on Closed Loop recycling	Foresight	01/02/2012	01/03/2012	Eunomia was appointed to support a potential investment by Foresight in an extension to an existing plastics recycling facility (PRF) and associated reprocessing lines. Eunomia undertook modelling of feedstock availability for the plant to determine the likelihood of sufficient feedstock being accessed. In addition, we reviewed and provided advice on the financial model for the plant, including assumptions relating to feedstock costs and the prices for onward sales of outputs from the facility. We also undertook reviews of existing contracts for input material and onward sales to provide recommendations to Foresight on the likely viability of the proposed new infrastructure.
Maidstone and Kent Commercial Waste and Recycling Options Appraisal	WRAP	24/01/2012	30/04/2012	This project analysed the commercial waste market in Maidstone and in Kent more broadly, and proposed a range of options that Maidstone Borough Council and Kent Waste Partnership could implement in order to improve recycling amongst SMEs. It entailed modelling a number of commercial waste collection options within Maidstone, building on Eunomia's past experience of modelling commercial waste, and exploring ways in which the Partnership could make improvements across the county. Outputs included a workshop and presentation to the client, as well as a final report.
AD Due Diligence	Kier (confidential)	28/11/2011		Due diligence to guide Board Investment Decision (Kier Services Ltd) Eunomia was appointed to develop a business case to potentially support investment in a company developing anaerobic digestion facilities. The scope of work included quantification of food waste availability and assessment of competing infrastructure across the UK to derive relevant treatment capacity gaps. The study also included analysis of the cost and performance of competing AD technologies along with a review of the interface with

				approaches to residual waste treatment and relevant potential contracting structures for current and future AD facilities.
Assessment of strategic documents / relevant legislation to waste management				
Fiscal Instruments For Climate Friendly Industrial Development In West Bengal and Orissa	UK Foreign and Commonwealth Office	01/08/2011	30/10/2012	By 2013, to adopt appropriate fiscal instruments by Indian States (West Bengal and Orissa) to mobilise low carbon investment and facilitate low carbon industrial development. This project was led by the Confederation of Indian Industries and partnered with Jadavpur University. The Indian partners set up steering groups with relevant organisations and undertook a literature review of existing carbon friendly policies. Eunomia undertook an international literature review of Fiscal Instruments for low carbon industries, which will be followed by a committee meeting to develop a short-list of policy options. A CBA was then undertaken to assess each option and implementation plans recommended to the relevant State Governments.
Landfill Bans Cost Benefit Analysis CBA Policy	WRAP	01/04/2009	01/03/2010	The study concerned the economic, social and practical aspects of landfill bans. The research has been used in support of government consultations on the use of landfill bans. One of the key drivers is to help the waste sector contribute to greenhouse gas reduction targets, set out in the form of carbon budgets set by the Committee on Climate Change (CCC), and increase recycling. Organising and running stakeholder workshops were a key part to this project, as was the development of a cost benefit model to consider the likely outcome of a range of chosen 'landfill ban policies'. A literature review of current international landfill bans was also undertaken. Economic process and environmental modelling were completed and a full report written.
Irish Waste Policy Assessment	Irish Government	01/02/2009	12/05/2010	Eunomia was commissioned by the Irish Government's Department of Environment, Heritage and Local Government, to prepare an Environmental Report as part of a Strategic Environmental Assessment for a proposed Section 60 Policy Direction. Matters covered by the proposed policy direction included a cap on incineration capacity (either nationally or by region), the use of permits by local authorities to direct waste to specific treatment facilities, vehicle emission standards, and the control and monitoring of emissions to air from incinerators. The impacts of each element of the Policy Direction, and potential alternative approaches, were assessed applying monetised damage costs within the framework of cost-benefit analysis where appropriate. A more extensive discursive section considered how Ireland might ensure that input to incineration is controlled to prevent or reduce the potential for emissions of persistent organic pollutants, heavy metals or other pollutants, in order to reduce air, soil and water pollution and to comply with the Stockholm Convention. The findings and recommendations have now been adopted in full by the Irish Government, with legislation pending.

Slovenia Waste Policy Review	OECD	01/02/2011	01/06/2011	Slovenia recently became a member of the OECD. The OECD conducts environmental performance reviews of its members on a periodic basis. The Slovenian government asked for a more in depth review of its performance on waste management,, which has proved to be politically problematic. Eunomia was asked by the OECD to conduct the review of waste policy and to write the Waste chapter of the environmental performance review. This involved undertaking a mission to Slovenia and consulting with a range of actors in the waste management area, including senior civil servants, regulators, waste management companies, NGOs and local authorities. The work will be published later in the year following discussion across OECD members.
Review of the activities of public sanitation services in urban and rural areas				
LWARB Efficiency Reviews	WRAP	16/03/2012	31/03/2013	Working to support the London Waste and Recycling Board (LWARB) to define the operation of a revolving grant funding mechanism to support London Boroughs to carry out efficiency reviews of waste and recycling services. Having established the funding mechanism Eunomia are providing consultancy advice to Boroughs to undertake efficiency reviews of their services via a three phase process:1) Desk-based review to identify efficiency opportunities, 2) Full review of operations and business processes to identify and quantify savings, and 3) Implementation of efficiency savings. Eunomia is also supporting LWARB to monitor the operation of the grant scheme.
Collection Options Appraisal for Anglesey County Council	WRAP	20/06/2012		Eunomia is helping Anglesey County Council understand how well the current service is performing through a detailed benchmarking exercise against the performance and cost of similar services in similar authority areas. We then assess and advise how costs and recycling performance can be improved both by changing collection containers and by making changes to the collection fleet allowing for the separate collection of food waste alongside other materials.
Collection Options Appraisal for Belfast CC	Belfast CC - subcontracted to Deloitte	15/03/2012	28/05/2012	Belfast City Council was seeking to conduct an economic appraisal into the preferred collection scheme for dry recyclables and food waste, specifically in relation to the inner city area of Belfast. Working as a sub-contractor to Deloitte, Eunomia's role was to provide waste-specific technical expertise throughout the economic appraisal process and to manage and deliver the resource and performance modelling of a number of possible waste collection options that the Council would like to consider.
Collection Options Analysis for Sheffield City Council	WRAP	08/03/2012	29/09/2012	Provided support to Sheffield City Council in determining the costs and performance for its preferred option of introducing fortnightly refuse collection and charged garden waste collection across the City. Provided an independently developed evidence base to facilitate rapid negotiation and agreement of price and other contract variations with the contractor. Also explored a number of longer-term options for the dry recycling service provided across the City.
Operational Review of Collection	Walsall Council	22/02/2011	13/06/2011	In this project we provided support to Walsall Council in trying to identify potential efficiency and savings options across Waste Services. We undertook an operational review of current waste collection activities to identify where savings might be made, and delivered a high-level, followed by a more detailed options appraisal to identify a number of savings options for Walsall Council. The options investigated included

				changes to way in which vehicles are procured for the service, changes in the crews' working hours, ways of increasing recycling services for flats, as well as a detailed collection options modelling of possible changes to the kerbside collection services delivered by the Council.
Assessment of the medium to long-term financial viability of the New Earth Solutions treatment facility at Avonmouth	Nord LB, Co-op	29/06/2011	22/07/2011	An independent assessment of the market potential and medium to long-term financial viability of the New Earth Solutions residual waste treatment facility at Avonmouth. This market due diligence work assessed the likely future arisings and potential likelihood of availability to NES of residual waste from local authority and commercial collections within the surrounding catchment area, factored against current and potentially forthcoming competitor threats. Economics were assessed through balancing potential gate fee income against the costs and revenues of the mechanical and biological treatment plant's material output streams.
LEDNET Waste Modelling	London Borough of Merton	18/05/2012	31/07/2012	This project, commissioned on behalf of the London Environment Directors Network (LEDNET) members by the London Borough of Merton, aimed to improve the understanding of historical and future waste arisings in the Capital. The objectives of the project were to analyse all waste stream trends over the past 5 -10 years and assess the key drivers behind all waste volumes particularly waste to landfill but including recycling, food and garden waste; to identify any initiatives that has had a positive impact on reducing waste volumes, and to produce a working model to allow better future forecasting at borough and London wide level.
Survey of Waste Stream End Destinations	Welsh Government	22/02/2011	31/03/2011	This project included two key stages of work. The first involved undertaking a survey of all 22 local authorities in Wales. The survey investigated current practice across the local authorities with regards to reporting on the end destinations of the dry recyclables which they collect, both under Q100 of WasteDataFlow (WDF) and to the public at large. In the second stage, a discussion paper was produced which explored and provided examples of how reporting on end destinations in Question 100 may be improved upon, and the likely challenges faced in improving reporting against this WDF question.
The Impact Of Rejects On Local Authority Recycling Rates	Welsh Government	22/02/2011	31/03/2011	In the 2011 Kerbside Collections Options: Wales study (Kerbside Collections Study), undertaken by Eunomia on behalf of WRAP (Waste & Resources Action Programme) and the Welsh Government, detailed analysis of six local authority case study examples showed that the total amount of rejected material during sorting and reprocessing of dry recycling was higher than that being reported by local authorities in WasteDataFlow (WDF). This report was subsequently commissioned by the Welsh Government to determine the impacts that these higher reject rates would have on the recycling rates for Wales as a whole and for individual authorities across Wales.
Analysis of Community and national legislative provisions relevant to waste management				

Economic Analysis of the Scottish Zero Waste Plan	Scottish Government	25/01/2011	31/03/2011	An economic cost benefit analysis to assess the net costs of implementing the Scottish Government's Zero Waste Plan and the accompanying draft regulations against a 'business as usual' scenario. This work considers and identifies all economic costs and benefits including monetised environmental impacts and, where possible, estimates these for both the public and private sectors. The work included an innovative approach to modelling the effects of landfill tax on commercial and industrial waste recycling, making use of cost curves to estimate this impact.
Slovenia Waste Policy Review	OECD	01/02/2011	01/06/2011	Slovenia recently became a member of the OECD. The OECD conducts environmental performance reviews of its members on a periodic basis. The Slovenian government asked for a more in depth review of its performance on waste management,, which has proved to be politically problematic. Eunomia was asked by the OECD to conduct the review of waste policy and to write the Waste chapter of the environmental performance review. This involved undertaking a mission to Slovenia and consulting with a range of actors in the waste management area, including senior civil servants, regulators, waste management companies, NGOs and local authorities. The work will be published later in the year following discussion across OECD members.