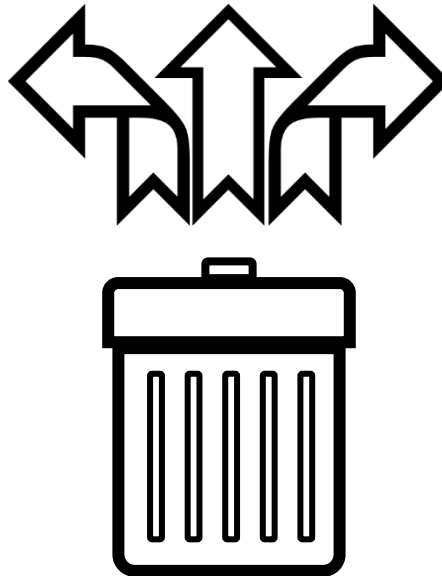




Member of M&P Group

Re-thinking waste management systems to generate new business value



Presented by:
Mr. Mohamed Gharbi
Dr. Ludwig Streff

ICP consists of **the following companies.**

- Karlsruhe
- Frankfurt
- Leipzig
- Rodenbach (at Kaiserslautern) + Bitburg
- Altusried (at Kempten)

The company's **headquarters are in Karlsruhe.**

One office is located in Tunis, Tunisia.

Nowadays, the company stands for **expertise in waste management and landfill design, geotechnical studies, rehabilitation of contaminated sites and environmental planning.**



The main beneficiaries of ICP's advisory services in Germany are **operators of waste management facilities and services, large industrial companies** that have their own landfills, **other civil engineering consultants**,



and **local governments** through the departments concerned with waste management services.

A world map showing the distribution of the world's population by country. The map uses a color scale where darker shades of blue and green represent higher population density. The most densely populated areas are in East Asia (China), South Asia (India), and Europe. Other significant population centers are visible in North America, South America (Brazil), and Australia. The map also shows the distribution of the world's population by country, with the most densely populated countries in East Asia, South Asia, and Europe.

The main advisory services in the field of waste management ICP offers to its international customers are:



Optimization of waste collection and transport



Design of material recovery and waste treatment systems (e.g. sorting, composting, biogas)



Landfill design, supervision and closure

The main beneficiaries of ICP's advisory services abroad are **international financial institutions, project donors, other waste management consultants, large industrial producers,**



national governments in charge of planning integrated waste management systems and **local governments** in charge of providing waste management services.



1990 – The company is founded by Prof. Dr. Dr. Kurt Czurda and the current managing directors: Gerd Burkhardt, MSc in Eng., and Dr. Thomas Egloffstein, PhD in Geology.



1991 – Involvement in its first large international project: “Zink Oxide Slag Disposal Site for the Metal Portuguesa company” in Lisbon, with a total value of 5 M USD. ICP was contracted to design and evaluate the investigation of the environmental effects of slag disposal.



1995/02 – First landfill designed for an international client: The zinc works “Empresa Metalúrgica Vinto” contracted ICP to design a hazardous waste landfill for arsenic residues generated by their facility in Vinto, Oruro, Bolivia.



1995/05 – First complete landfill development project outside Germany and first service contract with GIZ Germany: Design of cells 1 and 2, tender documentation, site supervision, advice concerning operation and design of the cell 1 closure for the new sanitary landfill Deir el Balah in the Gaza Strip, Palestine.



2004 – First service contract with the EU/EC: “Professional Training of Municipal Waste Management Experts” in Hungary



2007 – First service contract with the KfW Bank: “Waste Water and Solid Waste Management in Provincial Centers, Program North II, (Solid Waste Component)” in Vietnam



2009 – First service contract with the EBRD: “Bacau Solid Waste Project – Technical Assistance for Preparation of Concession and Regulatory Support ISPA” in Romania



2011/03 – First project for the EIB: “Framework Agreement for Technical Assistance to JASPERS' beneficiary Countries - LOT 2: Solid Waste” in Romania, Bulgaria, Lithuania, Montenegro, FYROM and Serbia

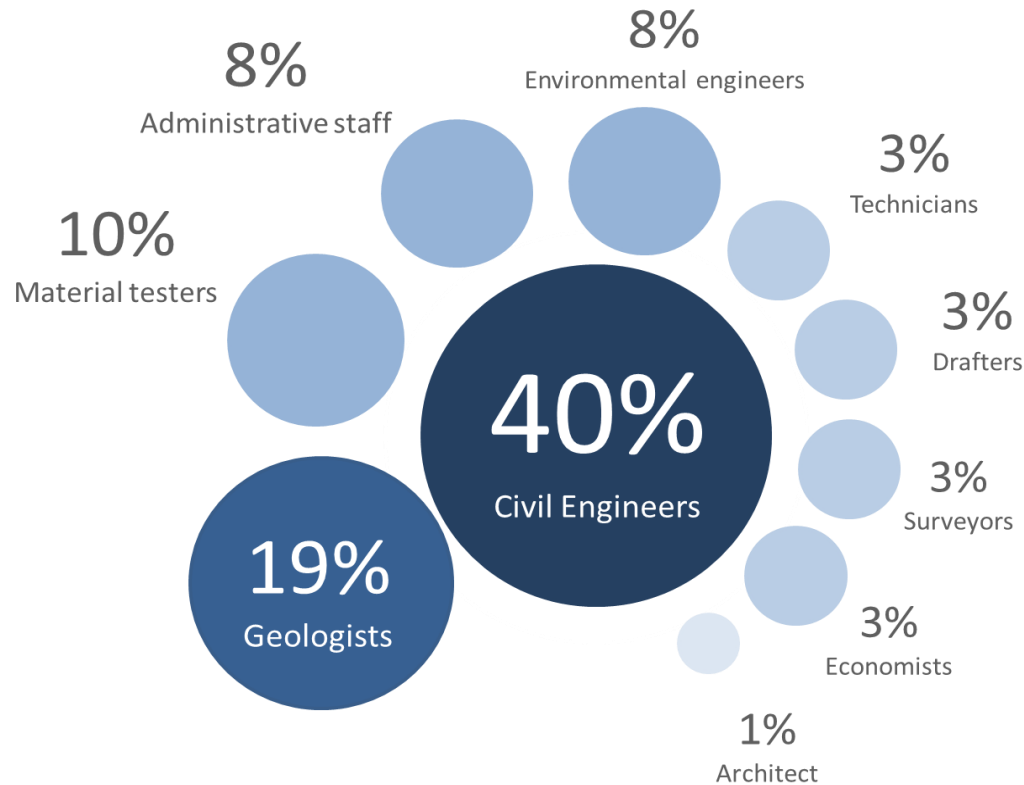


2011/11 – First service contract with the World Bank: “Technical Advisor for Solid Waste Strategy preparation in Greater Baku Region” in Azerbaijan



2014 – First project for the Japan International Cooperation Agency: “Potosi Regional Waste Management Plan”, in Bolivia

ICP has a team more than 50 employees, mainly civil engineers, geologists, and environmental engineers.



- ✓ Preparation of solid waste management concepts, plans, strategies, feasibility studies and economic analyses;
- ✓ Waste collection, transportation and treatment technology; Design and construction supervision of transfer stations and recycling centres
- ✓ Landfill technology (design and construction supervision of new landfills or landfill phased extensions, including hazardous landfills - landfill gas collection technology, leachate treatment, refurbishment of landfill drainage systems, site investigations and feasibility studies, monitoring, etc.);
- ✓ Landfill rehabilitation and/or closure;
- ✓ Design and construction supervision of recycling and waste treatment plants (mechanical-biological treatment - MBT, composting, biogas, sorting - MRF, etc.);
- ✓ Technical assistance during tender preparation, evaluation and award of works and equipment supply contracts;
- ✓ Further education (trainings, seminars etc.).

SWM investments for 4 cities and regencies, Indonesia

ICP was the consortium member in charge of preparing a policy/strategy document on biodegradable waste at national level.

The company was also involved in capacity building activities, such as training sessions and workshops on waste management planning and implementation. The beneficiaries of these activities are the national, regional and local institutions in charge of waste management.

Budget: 1,387,000 Euro

Duration: 10/2017- 06/2024

Current status: 3 facilities successfully implemented, one still under construction

SWM investments for 4 cities and regencies, Indonesia

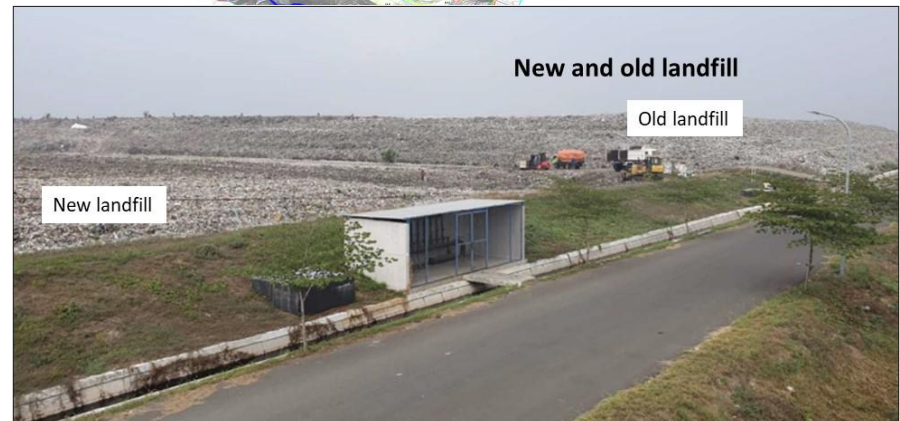
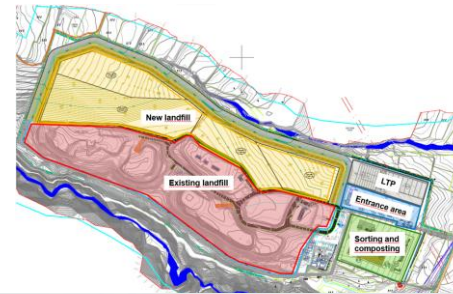
ICP provided the detailed engineering design (DED) and prepared the tender documentations for the construction of new landfills, new landfill cells, sorting plants, composting facilities and closure of existing landfills.

The tender documents are based on the FIDIC Conditions of Contract and the KfW procedure.

Budget: 420,000 Euro

Duration: 09/2015- 09/2019

Current status: 4 facilities successfully implemented



National Programme on Sanitary Landfills, Tunisia

ICP provides support to the National Agency for Waste Management (ANGEd) concerning the development and completion of the solid waste management system in Tunisia and to train its specialists on this topic.

This implies the preparation of a National Strategy for the implementation of MBT systems. Moreover, this includes the preparation of the Environmental Upgrade Plan (PMNE) for the major sanitary landfills in the country and the ancillary transfer stations.

Following the planning stage, ICP designs new landfills/ expansion cells and MBT facilities for 4 governorates (regions) in Tunisia.

Budget: 2,300,000 Euro

Duration: 08/2014- 08/2025

Current status: finished



Integrated Solution for the City of Sofia, Bulgaria

ICP performed the role, functions and duties of 'the Engineer' in checking the designs, administering the contracts and supervising the works for:

- ✓ A facility for composting of separately-collected green waste (20,000 t/y).
- ✓ An anaerobic treatment (biogas) and composting unit for separately-collected bio-waste (24,000 t/y).
- ✓ A mechanical-biological treatment plant to produce RDF (420,000 t/y).
- ✓ A sanitary landfill facility for non-hazardous waste.

Budget: 3,989,025 Euro

Duration: 11/2011- 02/2017

Current status: Successfully implemented



More here:
<https://www.youtube.com/watch?v=zEBuTrBKVmQ>

Technical Assistance to Manage and Operate Waste Treatment Facilities in Sofia, Bulgaria

ICP was the technical consultant for the optimization of the operation and management of the biggest mechanical-biological treatment (MBT) plant in Europe (420,000 t/y) and of the anaerobic digestion plant (biogas) in Sofia (24,000 t/y).

It also provided technical input to the analysis of the flows, quantities and composition of waste coming into the facilities.

A key ICP activity was to prepare a specific plan for the maintenance of all installations in the MBT and biogas facility.

Budget: 2,505,330 Euro

Duration: 07/2017- 03/2021

Current status: Successfully implemented



National Solid Waste Management Strategy of the Republic of Azerbaijan

ICP has prepared an assessment of the municipal waste collection systems at rayonal and city level.

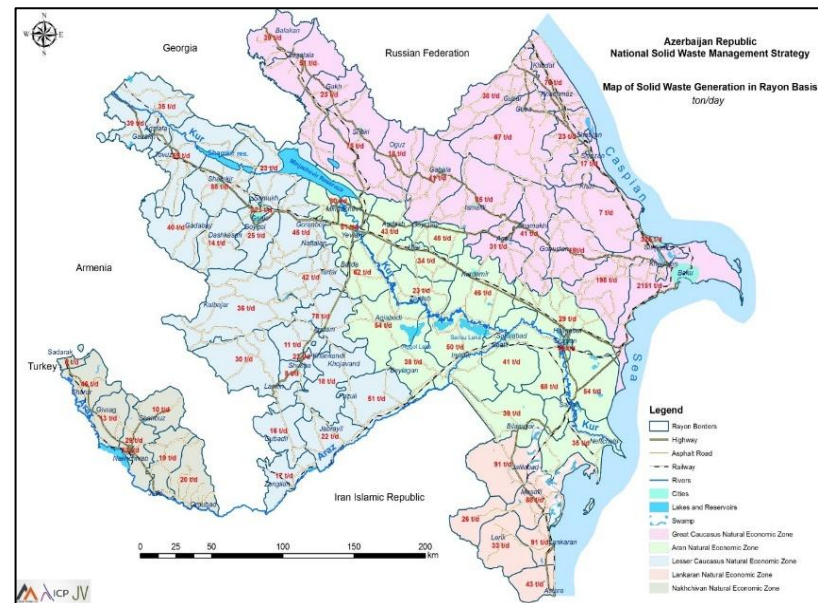
Following the findings of the assessments it has proposed technical options for dumpsite reclamation, collection / transfer / disposal / treatment of waste and site selection criteria for transfer stations and landfills.

Moreover, ICP provided technical input to the Feasibility Study concerning the SWM investments proposed in the Strategy.

Budget: 4,101,000 Euro

Duration: 12/2014- 06/2018

Current status: Successfully implemented



Projects in Kosovo and Serbia – ongoing since 01/2024

Objectives

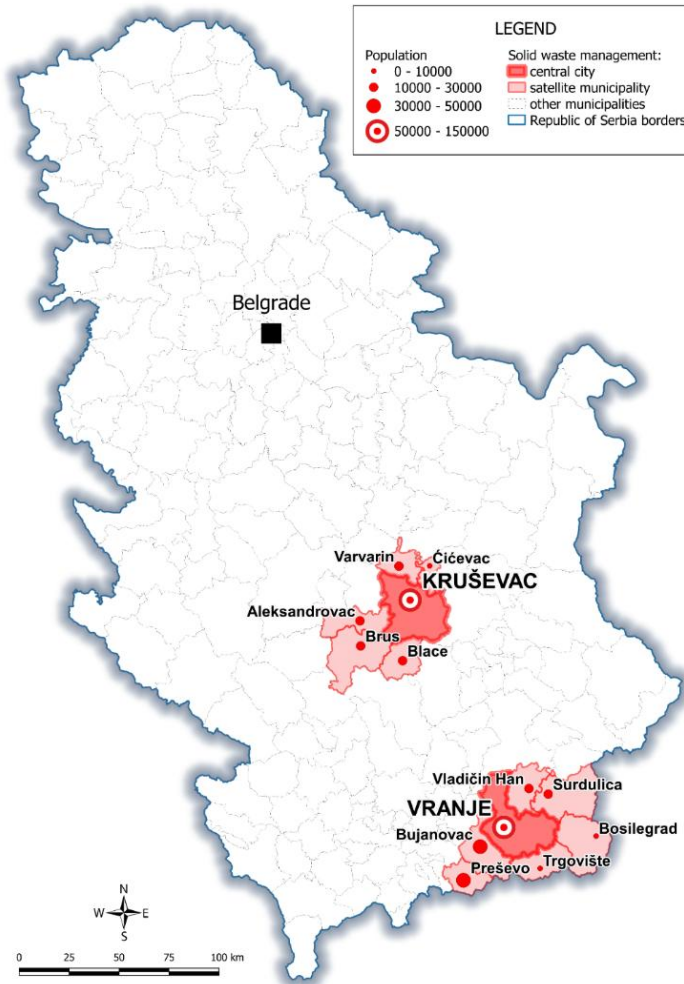
➤ Support in:

- planning,
- tendering and
- supervising

the provision of works, services and the supply of goods associated with the project investments.



KfW Integrated Solid Waste Management in Serbia – IC/AM



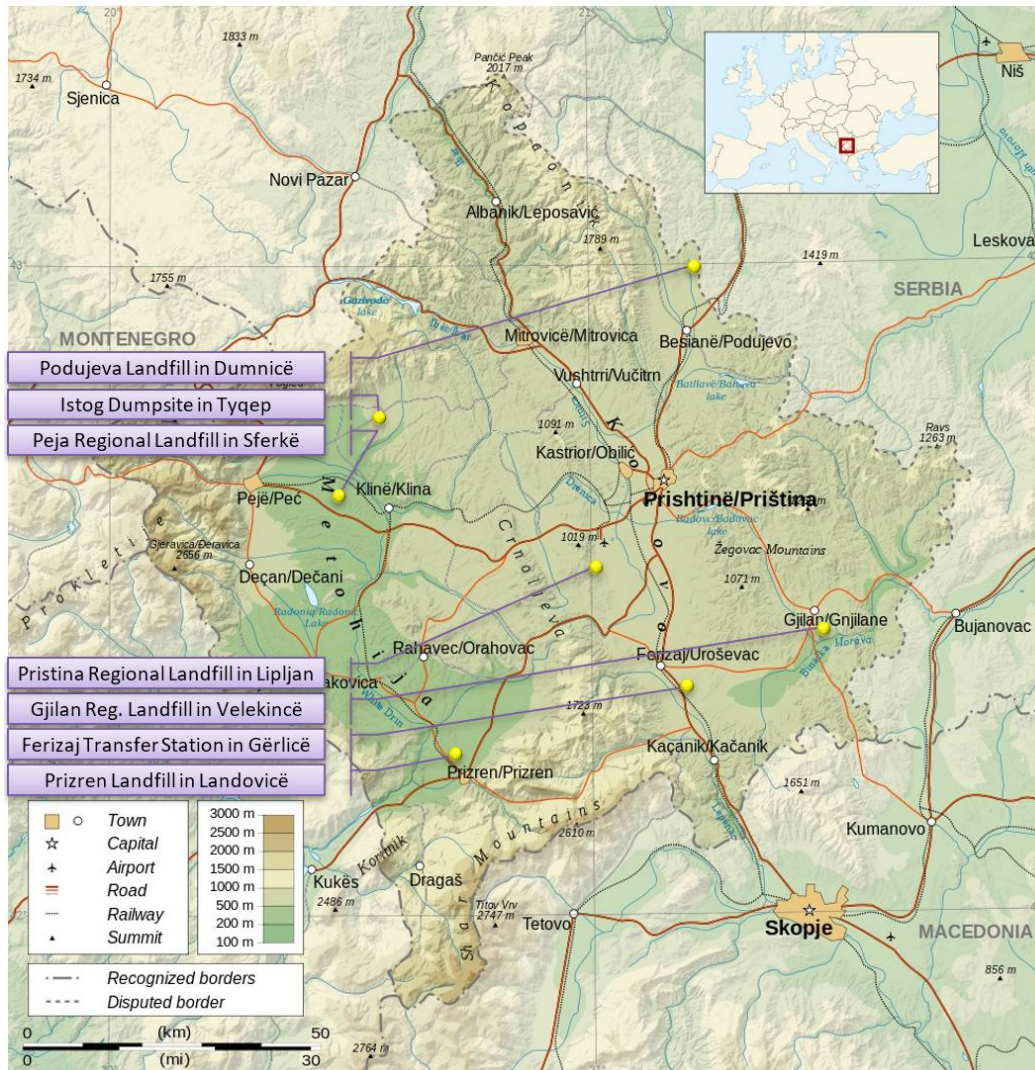
comprising 13 municipalities –
2 central and 11 satellite municipalities

(submitted in August 2022)

Implement investments of 50 Mio € in 2 regions

- Machinery and equipment for the collection and transportation of the recyclable and residual waste,
- Infrastructure and equipment for the sorting and temporary storage of recyclable waste,
- Infrastructure and equipment for the composting of biodegradable waste,
- Infrastructure and equipment for the biological stabilisation of residual waste,
- Two Regional Waste Management Centres (RWMCs), one in each region, consisting of a sanitary landfill (SLF), a material recovery facility (MRF), a central composting facility and the supporting operational infrastructure, and
- Closure of the main dumpsites and uncompliant landfill cells in the two regions.

KfW Integrated Solid Waste Management in Kosovo - IC



Implement investments of 40 million EUR

Kosovo ISWM

Foreseen project investments according to ToR



Construction of first cell of the new regional sanitary landfill for Pristina District, and the **procurement of the mobile equipment** required for operation.



Closure of the operational cells of the landfills in Gjilan and Prizren, the **construction of a new cell** for each landfill, and the **procurement of the mobile equipment** required for operation.



Closure of the operational cell of the landfill in Peja, the **construction of a new cell** at the same location, and the **closure of the nearby dumpsite** in Istog.



Closure of the operational Podujevo landfill.



Rehabilitation of the operational Transfer Station in Ferizaj, the **construction of a new transfer station** at the location of the Podujeva Landfill. **Procurement of the mobile equipment** for operation and long-distance transport.

Pre-Feasibility Study for Regionalized Waste Management in the Southern Region of Azerbaijan

ICP has prepared a Pre-Feasibility Study including an Environmental and Social Impact Assessment, a Geotechnical Report, a Phased Rollout Plan and a detailed Regional Investment Plan.

The study recommended a medium system upgrade and provided preliminary/ conceptual designs for 1 regional sanitary landfill, 1 composting facility and 4 transfer stations.

The Client has used the technical findings of the project as input for the National Solid Waste Management Strategy.

Budget: 608,125 Euro

Duration: 02/2015- 06/2016

Current status: Successfully implemented



Waste Management Procedures for Shell, Iraq

ICP developed a waste management program for the gas compression stations, gas plants and the LPG/condensate terminals of the Client in Iraq.

The purpose was to develop waste management procedures for the Client's facilities located in the West Qurna, North Rumaila, Zubair and South Ramaila oil fields.

Budget: 196,600 Euro

Duration: 06/2013 - 11/2014

Current status: Successfully implemented



Remediation of a 45,000 sq.m. Site in Germany

ICP provided technical assistance to the City of Ludwigshafen during the remediation of the former “Metro area”.

The services provided were as follows:

Detailed planning of the remediation works.

Preparation of the tender documentation.

Assistance during contract awarding.

On-site supervision of the remediation works.

Preparation of the project documentation for the Client.

Budget: 205,000 Euro

Duration: 05/2013 - 09/2014

Current status: Successfully implemented



Study to Turn Waste into RDF for Lafarge, Iraq

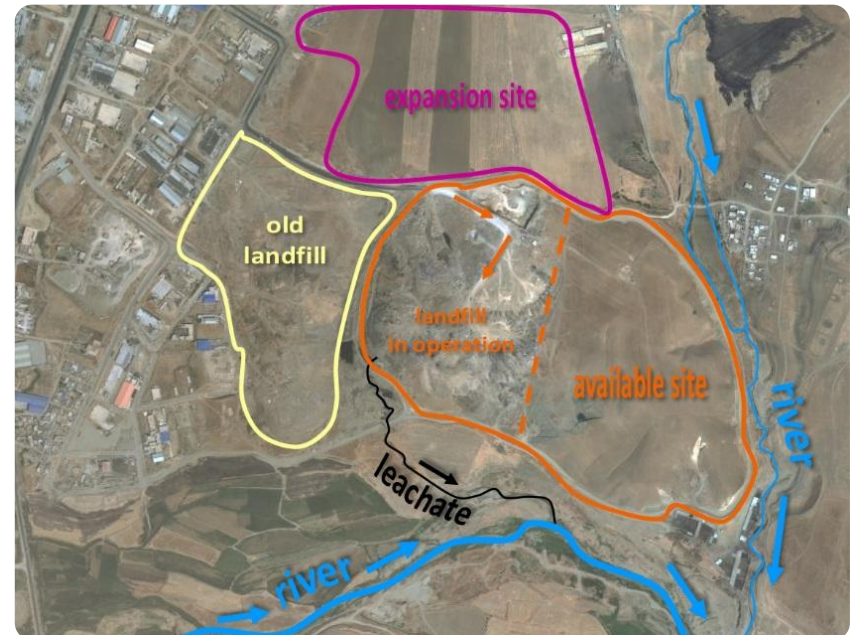
ICP carried out a feasibility study for a concept that included mechanical treatment facilities combined with a bio-drying unit and a low impact landfill in order to provide a complete waste management solution for Sulaimaniyah Municipality.

The target of this plant is to treat 365,000 t/y of municipal waste (household waste, C&D and industrial waste) obtaining a minimum of 115,000 t/y of RDF. The RDF fraction will be supplied to the Tasluja and Bazian cement plants based in Iraq as alternative fuel.

Budget: 99,142 Euro

Duration: 06/2013 - 12/2013

Current status: Successfully implemented



Integrated Solution for Medjerda Valley, Tunisia

ICP carried out a study to develop and implement a waste management concept for municipal waste for the Medjerda Valley (area of 16,000 km², approx. 647,000 inhabitants and an annual waste production of 150,000 t/y) for a time horizon of 20 years (collection, transport, transfer, treatment, and landfilling).

The project had the following 3 stages:

Current situation analysis (SWM system, evaluation of waste data and waste analysis)

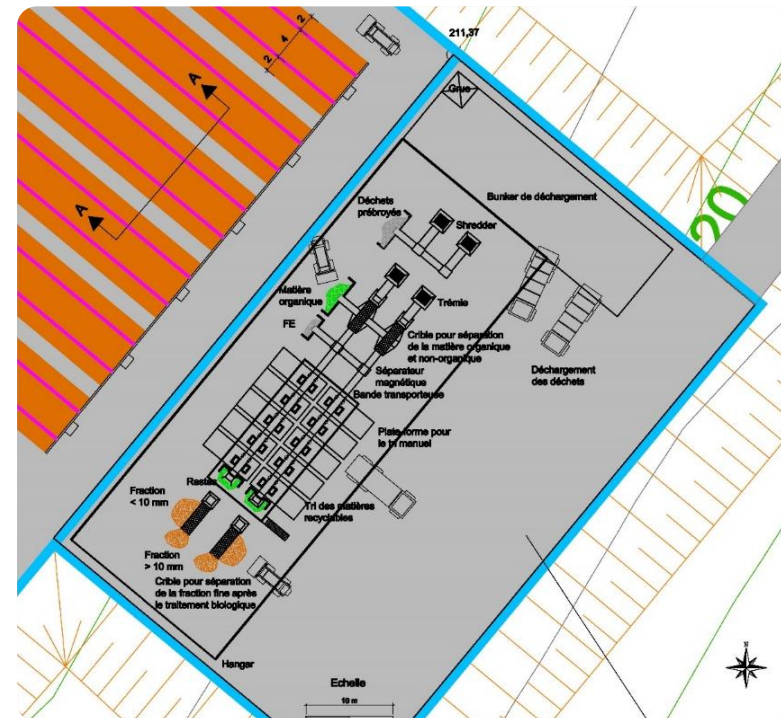
Concept study and design

Feasibility study and design for approval for two scenarios (only landfilling and waste treatment with landfilling)

Budget: 670,200 Euro

Duration: 03/2009 - 12/2012

Current status: Successfully implemented



Project Stages Where ICP May Help



1. ANALYSIS

Analysis of current situation, assessment of current constraints, detailed technical due diligence report, review of available studies, environmental and social assessment.



2. PLANNING

Detailed design of the infrastructure, feasibility assessment, determination of construction methods, operating principles, technical specifications and bills of quantities.



3. BIDDING

Preparation of all tender documents, support during tendering, contracts for the civil works and the supply of goods, as well as support for drafting new legislation on public procurement.



4. SUPERVISION

Coordination of works and delivery of goods, permanent supervision of works, trials and tests, quality control, acceptance of all performances and approval of invoices.



5. TRAINING

Support during the phase of commissioning the facilities, training concerning facility and equipment operation and staff training concerning any of the previous measures.

Contacts

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