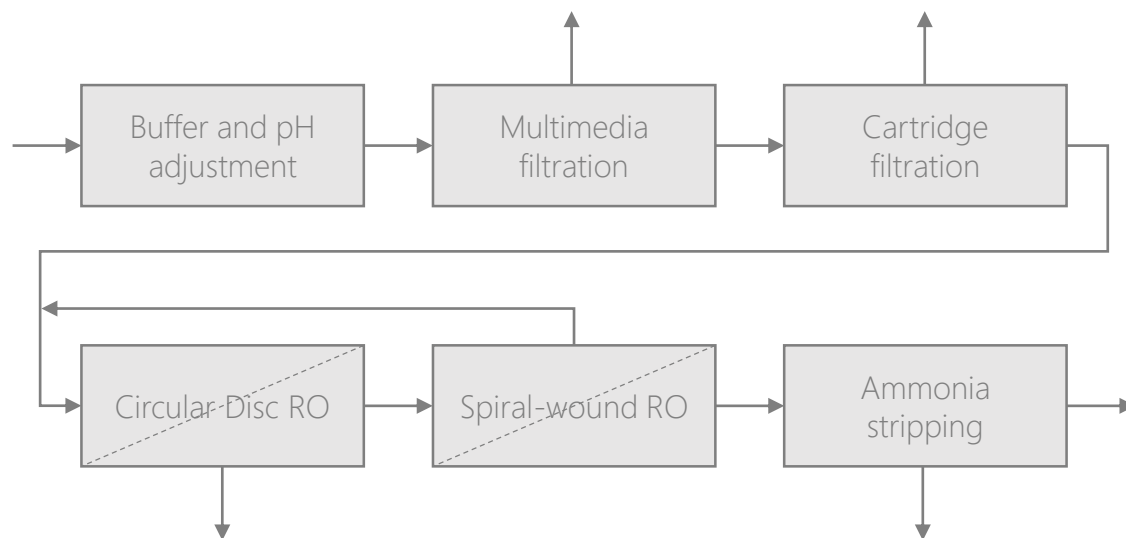


Location Spain  
Capacity 400 m<sup>3</sup>/d  
Start-up Q1 2011

**Problem** Landfill leachate is characterized by high contents of organics, ammonia (which may inhibit biological processes), TDS and heavy metals

**Solution** To treat the leachate from a municipal solid waste landfill, the following treatment layout has been installed at the Client's site:



The resulting concentrate is either disposed of as special waste or recirculated back to the landfill

**Key point** Landfill leachate treatment plants may be equipped with our CD-RO modules to be able to cope with the high organics contents



Thanks to the **innovative design** of our CD-RO modules (ca. 30% less pumping power is required when compared to other plate-and-frame RO solutions), OpEx is minimized.

Within the following table, the main operating data of the plant are briefly summarized:



Parameter	Unit	Inlet	Outlet
Feed flow	m <sup>3</sup> /d	448 to 491	218 to 286
COD	mg O <sub>2</sub> /L	Ca. 22,000	< 150
Conductivity	mS/cm	29 to 44	< 0.6
Flux at operating temperature	LMH	11 to 14	
Recovery rate	%	46 to 62	
Salts rejection rate	%	95.9 to 99.7	
Module pressure loss	bar	1.7 to 3.5	