

Innovations for clean water



INDUSTRIAL
SOLUTIONS



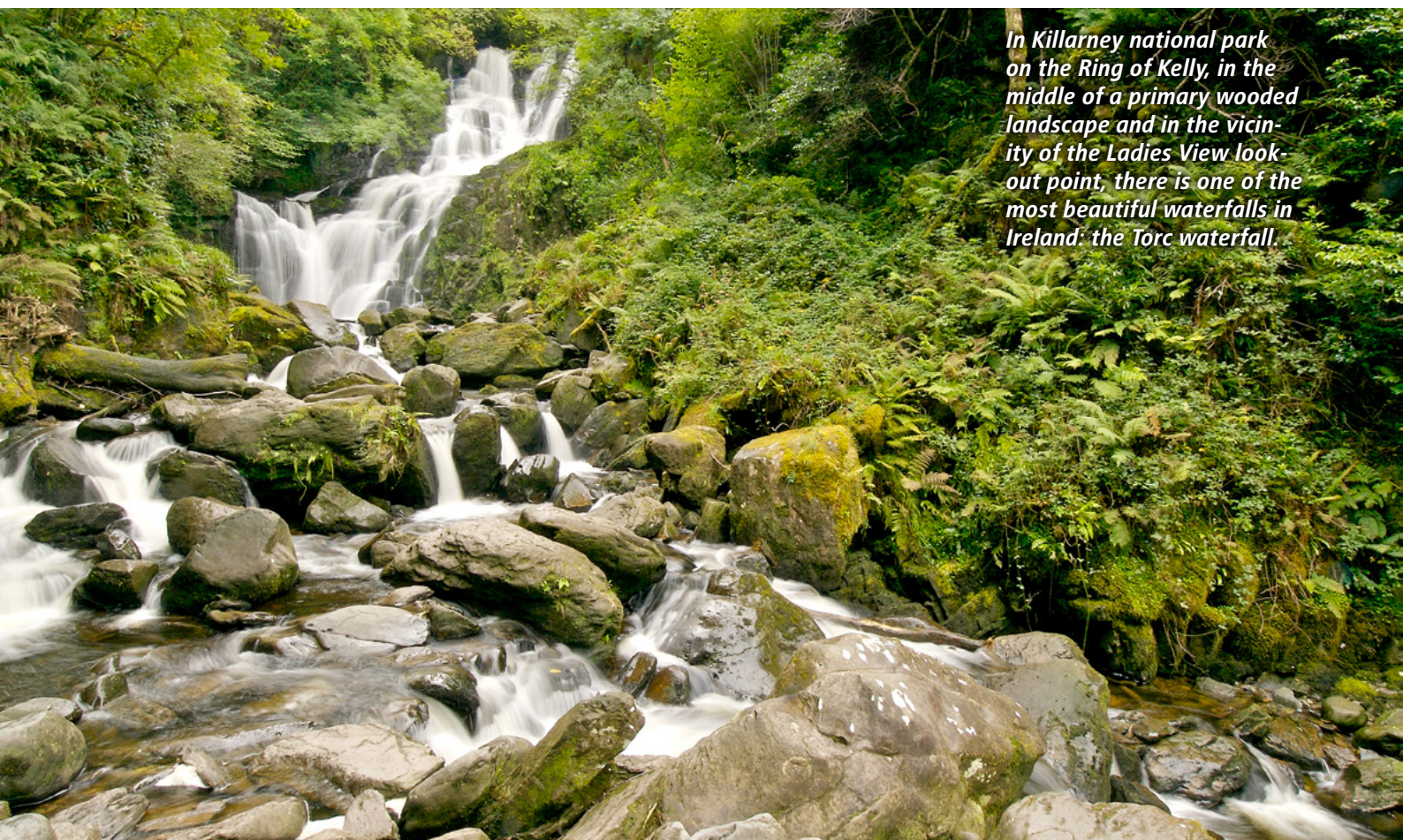
Practical Report Hotel

Ireland:

The claws of the celtic tiger

A few years ago, still "the poor house" of the EC, the Emerald Isle is today one of the richest countries in the world. Nevertheless, the rapid economic development takes its toll from the Irish - in matters of environmental care, nature conservancy and wastewater treatment.

Approach to Dublin: the machine of the Irish airways Aer Lingus starts its descent. Below us, grey in grey. Whether it's water, clouds or the ground: nothing is recognisable. Grey – without shades, without intermediate tones. The airplane drops lower. Wisps of cloud pass the window, what we are floating over emerges only tentatively: water. Grey water. Suddenly, contours appear: land in sight. Grey land in grey water, viewed through grey precipitation. Which means: today is one of the 320 days a year in which it rains in Ireland. Over the cabin loudspeaker the voice of the redheaded stewardess sounds distorted: "Welcome to Dublin Airport, welcome to the Emerald Isle".



In Killarney national park on the Ring of Kelly, in the middle of a primary wooded landscape and in the vicinity of the Ladies View lookout point, there is one of the most beautiful waterfalls in Ireland: the Torc waterfall.



Offensive admonition in the River Liffey in front of the Irish Ministry of the Environment in Dublin.

Actually, I am what the common man calls a sun worshipper. Although this is not exactly correct. OK, it doesn't have to rain, but I do not like grey at all. Or shades of grey. Which not only concerns my visual perception but also my attitude to life as such: either, or. Black or white. Good or bad. A little bit good or a little bit bad doesn't exist. At least not for me personally. Interestingly enough, the chemistry is right but with people who think the same way, almost always from the first moment. Wayne Paterson Mundell, managing partner of ATB Ireland, is such a person. No pretence, no play acting, straightforward. He knows what he wants And: he does it as well. His motto: Good attracts good, happiness happiness and fairness fairness – both in private life as well as in business life. For this reason my heart stirred as I saw him, the man I already knew from several meetings, in front of the arrivals area of the airport, already waiting for me. "Welcome to Ireland,

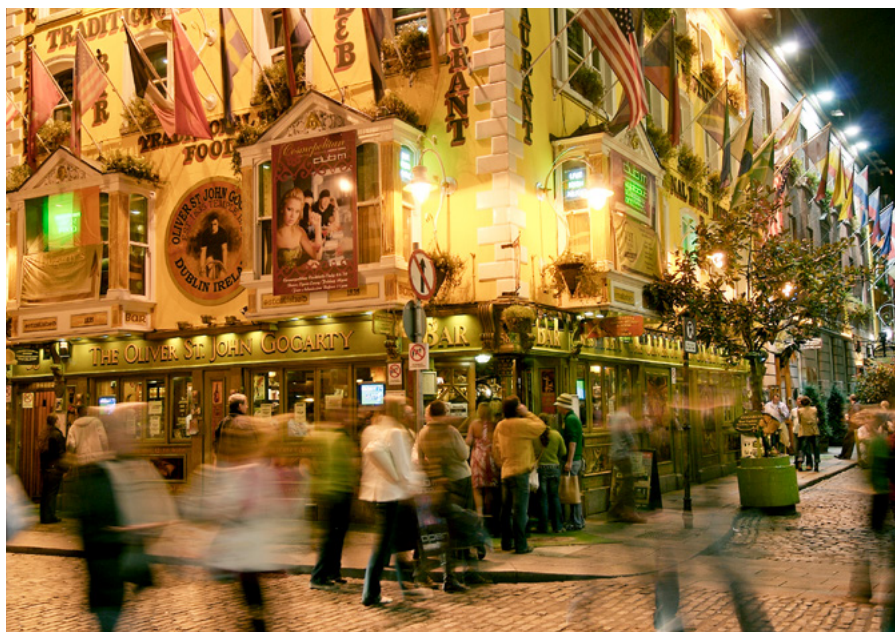
my friend" boomed the one metre ninety-odd loudly through the arrival hall and shook my hand firmly. I had arrived.

The weather cleared up – "when angels travel ...". Actually, we wanted to go directly to the wastewater treatment plant in Europe, which is the nearest to America – to Derrynane in County Kerry. But more than 400 kilometres in one go in Ireland means: foot down on the accelerator without looking left or right, no impressions, no photos ... at least, that's what Wayne thought!

First station on our journey was the small town of Mallow in County Cork, which lies more or less at the halfway point. And, because Wayne never does anything which does not have a good reason, we met up – surprise, surprise – with Patrick, a dyed-in-the-wool Irishman, good customer and – as it was to turn out – a true Guinness gourmet. But as also in Ireland there has to be a little work before pleasure, there

and then we first of all visited the latest project of Patrick and his company EPS: a brand new AQUAMAX® XL-100 plant for an enormous sports complex – with hurling and football stadium, indoor and outdoor floodlight sports fields, fitness centre, bowling alleys, conference rooms, shop, bar ... impressive! Patrick explains, that the wastewater from the various wastewater sources such as toilets, showers, gastronomy etc. is channelled to a central point under the car park. From here it negotiates a stretch of over 250 meters by natural gradient under the road and alongside the sports fields in order, finally, to reach the lower lying wastewater treatment plant outside the sports facility. The treated wastewater finally percolates into the surrounding meadows and fields.

Kenmare. "The first mouthful is always bitter, the second considerably better and, from the third onwards it begins to taste good", Patrick is in charge of our



For the Irish a traditional enjoyment at the end of work: the visit to the pub in Dublin with a freshly drawn Guinness.

DUE TO THE RAPID GROWTH IN RECENT YEARS IRELAND IS DESCRIBED BY OBSERVERS AS FONDLY THE “CELTIC TIGER”

evening round in the local pub of this charming place. This said, he thrusts a brimming glass of dark liquid into both Wayne’s and my hand and clinks glasses. Guinness. “You wanted to get to know Ireland, or did you ... ?” In front of me the black Irish national drink, in the background handmade Irish folk music, Patrick rhapsodises about his homeland: “Ireland has always been a beautiful country. And, naturally green. That we are now so well off economically is thanks to the realisation since 1992 of the domestic market

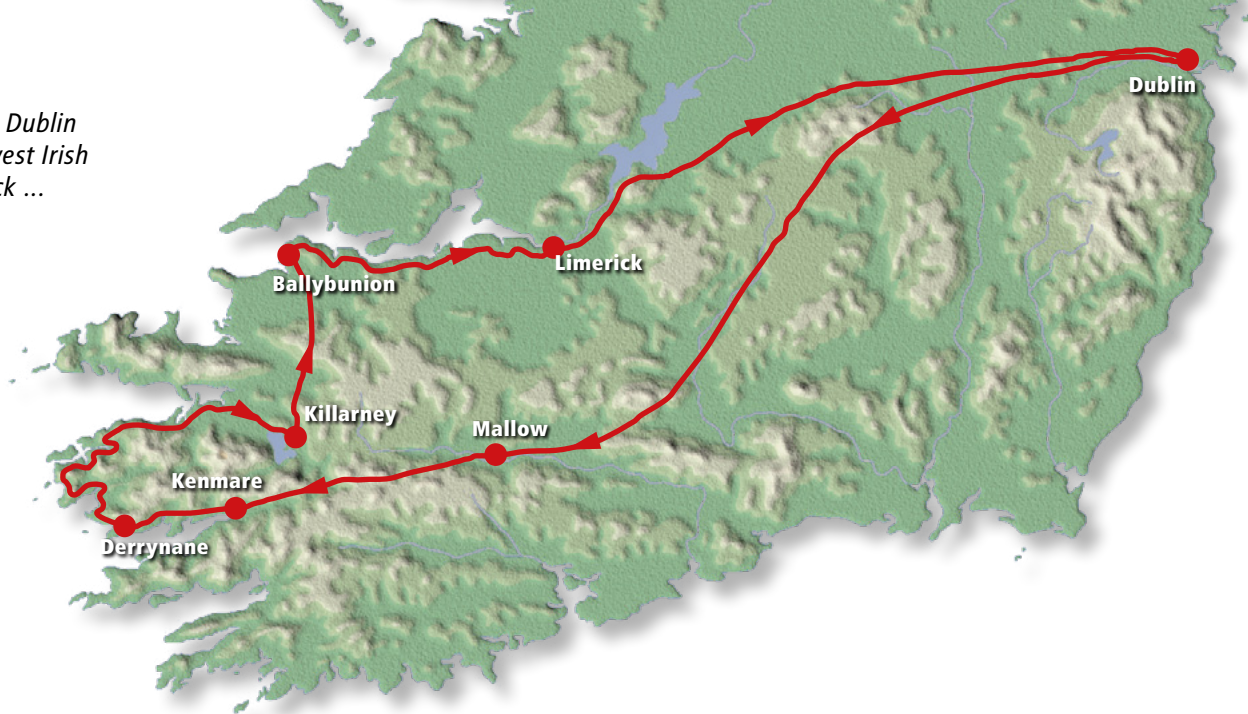
within the EU, which we already joined in 1973, as well as the growing independence from the United Kingdom. The low taxes resulting from this, open arms with regard to investors from overseas and our world language English have led to such a gigantic growth that we are known by observers as the “Celtic Tiger”. Already slightly tipsy I imagine the striped feline predator in front of an enormous barrel of Guinness! The next day, further towards the West – to Derrynane. A quotation from the

literary giant, John Millington Synge, sums up an ideal description of this wonderful region in two sentences: “One asks oneself at this place why people still stay in London, Dublin or Paris. One would really think that it would be so much better to live here in a tent or a hut, to breath air by this superb sea under this heaven, which sparkles like wine on the tongue”. Really you arrive at this place and at once realise what it is all about: original nature, wild sea, pure air and endless peace and quiet. The only Hotel in

The enormous Mallow GAA Sports Complex treats its entire wastewater since recently outside the sports facility using an AQUAMAX® XL-1 100 wastewater treatment plant.



The tour from Dublin to the southwest Irish coast and back ...



this area is the Derrynane Hotel – not particularly beautiful, nevertheless pleasant in a uniquely original way. Which certainly has more than a little to do with the warm-hearted welcome by the owner, Mary O'Connor, who immediately takes my hand and leads me over to the panoramic window with a view over the Kenmare River on to the coast of the Cod's Head as well as on to the Atlantic. "With each cloud here not only the light changes but also the complete landscape as if it was always being recreated. That is the magic which keeps me here all year round despite the loneliness." I sit down at a table in front of the window with my companions. As a welcome we receive coffee, tea, and sweet biscuits and I can barely drag my eyes from the view of this magical outlook with its constantly changing face.

"And precisely for this reason", murmurs Wayne in the peaceful atmosphere, "the Celtic Tiger would have bitten itself in its own tail, if it hadn't taken care and hadn't observed the errors, which can never be put right, of other economic wonder countries. Rapid growth ultimately also demands rapid rethinking. Already, very early, the Irish government had, however, started campaigns for strengthened environmental protection and both the population as well as industry were successfully made sensitive to climate, environment and water problems".

The wastewater treatment plant, also installed by Patrick's EPS diagonally below the Derrynane Hotel – directly

on the water – is an excellent example of the respect of the local population with regard to their nature. All hotel wastewater flows with a natural gradient over a ca. 150 metre route into the plant, an AQUAMAX® PROFESSIONAL XL-2 250 SBR wastewater treatment plant: after successful treatment, the thoroughly treated wastewater is subsequently fed successively into the sea. "Naturally", says Mary, "we could save - exactly as x-thousand other hotels in all parts of the world do – a little money by discharging our wastewater into the sea without or with insufficient clarification. In the first place, despite EU legislation, no one would notice. Ultimately, however, we would have to pay for it, as a foul smelling sea and the bit-by-bit destruction of nature would, in the long-term, keep the guests away. And what would be even worse: according to the motto «after me the flood» we would consciously take the earth, already on the edge of collapse, further into a catastrophe and would take away the future prospects of both our children and of the investments which we have made. For this reason we have consciously decided on the AQUAMAX® solution as, along with the reliability and the outstanding treatment performance, we have with it the possibility of expanding the plant and matching it to the requirements without always having to invest again in new plant technology." This philosophy and this corner of the earth please me. I persuade Wayne – Patrick in the meantime has set off for

home – to throw planning to the wind and to remain one night longer.

The next day again on the move. On the Ring of Kerry we drive to Killarney and leave the in all ca. 170 kilometre long road which runs around the Iveragh peninsular and for ca. 120 kilometres runs along the Atlantic coast – with breathtaking landscapes, picturesque panoramas and tranquil localities. We make our way in a northerly direction towards the small village of Ballybunion on the Atlantic Delta of the Shannon River. Here also the same impression as in Derrynane: the almost 1,400 inhabitants lovingly look after the environment and are intent on leaving behind a healthy homeland, a green County Kerry, also for future generations. Their particular pride: the healthy, highly active dolphin populations before the steep coast of Baile an Bhuinneánaighs, the Irish name for Ballybunion, as well as the ostensibly best surf waves in the whole of Ireland.

Time for the return journey to Dublin. After nearly five hours we dive into the turmoil of the Republic's capital. The weather is still atypically good, but there is no longer any trace of the peace of Derrynane, the wild landscapes of Kerry, the dolphins of Ballybunion. All the more surprising as I discovered the banner directly in front of the Custom House, erected in the centre of Dublin in 1791, which today houses the Ministry of the Environment: "Water is precious. Let's conserve it".

IRELAND AND WATER

The EPA (Environmental Protection Agency), the official Irish Environmental Agency, in annual cycles publishes reports on the status of the national water resources. The report which appeared in 2007 comes to some interesting conclusions:

Of the more than 13,000 km of flowing waters over 2/3 are as clean as spring water. Nevertheless, there are one of two rivers in which the nitrogen content has risen considerably over recent years. The lakes also, to over 90 %, are so clean that influences through pollutants cannot be identified. In nearly all surface waters in Ireland, 97 % comply with the EU Bathing Waters Directive.

The quality of the Irish groundwater, in general, is also very good – in recent years it has even improved continuously. Only in a few regions is the quality unsatisfactory, as the groundwater is so loaded with hazardous pathogens (e.g. Escherichia Coli), that it cannot be used as drinking water. An increasing loading through nitrate is also to be observed in a few areas.

Ireland's water resources are in a comparatively good condition. Nevertheless, the increasing loading in critical areas emphasises the urgent necessity of a continuously high quality wastewater treatment.

The Derrynane Hotel lies directly on the mouth of the Kenmare River which opens into the Atlantic.

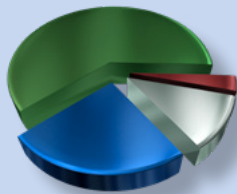
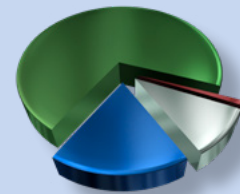


From the Derrynane Hotel, view of the Beara Peninsula and the Slieva Mishkish Mountains across the Kenmare River



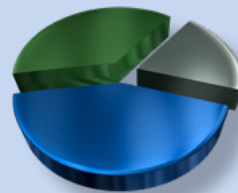
The facts

- Of the 13,200 kilometres of **rivers and canals** 71 % show none, 18 % light, 10 % heavier and 1 % serious pollution due to nitrates and phosphates.

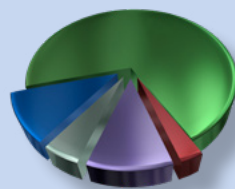


- Of 449 **lakes** the water quality with 275 is indicated as not or very slightly loaded, with 108 as slightly, with 51 as moderately to heavily and with 15 as very seriously loaded.

- 36 % of the **coastal waters** are not or are barely loaded, 42 % slightly, 3 % moderately and 19 % are considerably more loaded.



- In a few critical regions there are pollutants in the Irish **groundwater**, e.g. through Escherichia Coli, to be found (number of bacteria per 100 ml):



- 70% contain no bacteria
- 11% contain 1 to 5 bacteria
- 5% contain 6 to 10 bacteria
- 11% contain 11 to 100 bacteria
- 3% contain over 100 bacteria



Directly on the water: The Derrynane Hotel wastewater treatment plant lies only a few steps away from the Atlantic. An AQUAMAX® PROFESSIONAL XL-2 250 here ensures optimum treatment of the complete wastewater from the hotel operation. Also on the photo: Wayne Paterson Mundell (left) and Patrick Buckley.

Without doubt, Ireland manages to do the splits every day: continuous economic growth and adequate environmental protection – without having to make concessions in either direction. What luck that the Celt-

ic Tiger learned well in time from its Asiatic colleagues South Korea, Taiwan, Hongkong and Singapore and has invested a large part of its forceful energy and power to leap into the non-economic future of its

population. Thank goodness for forward-looking policies! Return flight to Germany. Above the clouds the afternoon sun shines into my face, and I let the days on the Celtic island pass through my mind..



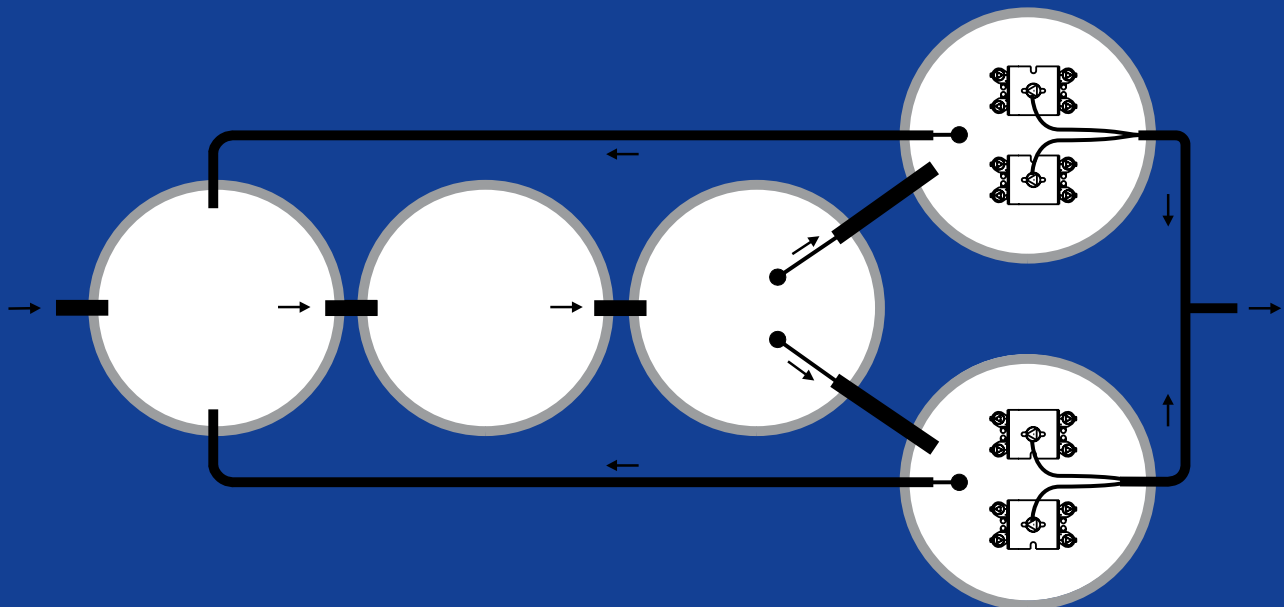
Deep in thought about the magic of the light of Derrynane, I nod off. A jolt tears me from my dreams. Landing approach to Düsseldorf. Below us grey in grey, nothing to recognise. Grey – without shadows, without intermediate tones. The Machine sinks lower, one recognises what lies below us: Düsseldorf, grey Düsseldorf. And the Rhine, which seeks its staid way through the grey concrete blocks. Grey Rhine, surrounded by grey concrete. Which means: today is a day like any day – a day in which it rains in Germany. A hard landing. "Welcome to Düsseldorf airport" the voice of the small stewardess with the many freckles echoes through the loudspeaker. I hate grey.



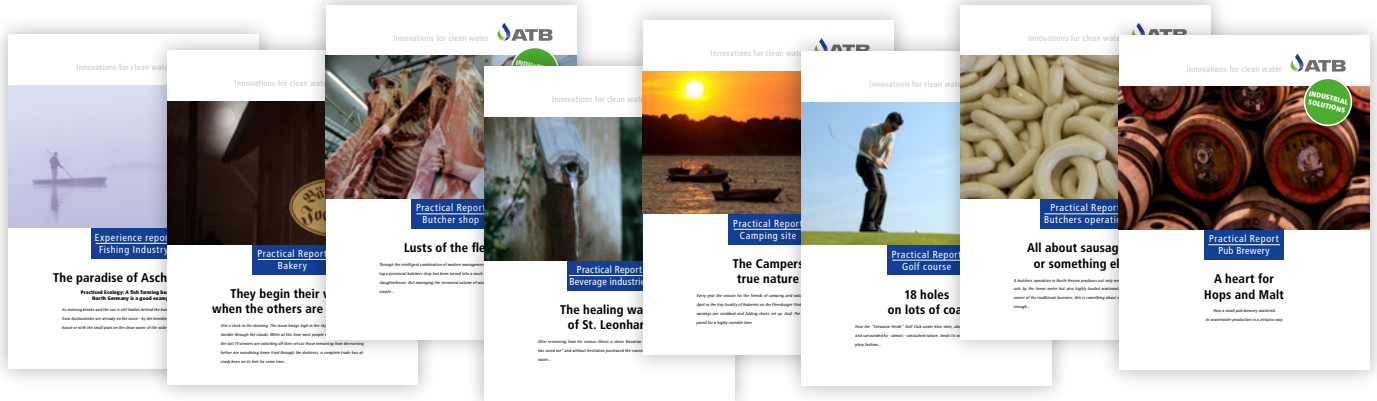
Well-arranged: the control system of the AQUAMAX® PROFESSIONAL XL-2 250.

The Derrynane hotel project at a glance:

Owner	Derrynane-Hotel, County Kerry/Ireland		
Projektleitung & Ausführung	EPS Pumping & Treatment Systems, Mallow, County Cork, Ireland		
Anlagentechnik	ATB Umwelttechnologien GmbH		
Anlagengröße	AQUAMAX® PROFESSIONAL XL-2 250 PT		
Inbetriebnahme	2006		
Ablaufwerte	BOD ₅	<	20 mg/l
	AFS	<	30 mg/l
	NH4-N	=	4 mg/l



And a lot more examples of industrial solutions ...



A lot more examples of our industrial solutions with detailed facts, data and information are available for free in the download section of our website.

Load now directly from here the experience reports and industrial solutions you need:


Quick, directly & straightforward: Write your price offer easily on your own!

With the AQUAcalculatorPRO you are able to calculate your individual, decentralized wastewater treatment plant for up to 100 m² per day - quickly and easily. Whether for the food or beverage industry, for tourism and gastronomy, municipalities or other applications: The AQUAcalculatorPRO is fast and reliable with individual SBR wastewater treatment plant calculations.

Begin now:



ATB WATER GmbH
Südstraße 2
D-32457 Porta Westfalica
Telefon: +49 5731 30230-100
Telefax: +49 5731 30230-30
E-Mail:
Website:

 ATB Water GmbH

 [linkedin.com/company/atbwater](https://www.linkedin.com/company/atbwater)