

# Recycling the past, building the future

*Slag Recycling operates on the slag heap at the Kraków steelworks and transforms the industrial waste stockpiled there into full-value aggregates used in construction. The company is also engaged in brownfield reclamation. SP talks to CEO, **Anna Banaś** about investments, research and plans.*



Anna Banaś

*Coming in, I couldn't help notice how much traffic there is coming in and out of the plant. It looks like your business is in very good shape.*

■ Yes, it is. The last couple of years especially have seen high demand and right now there's a big interest in our products because construction of the Kraków-Szarów section of the A4 motorway has begun.

*What is the profile and size of your company?*

■ Essentially, we process waste into full-value products. Our mission is two-fold: post-industrial land reclamation and the supply of raw materials for road building, and the construction industry generally. Slag Recycling is the biggest producer of metallurgical aggregate and iron skull scrap in Poland. The company was established in February 1998 and over the intervening period it has become the largest pro-ecological investment in Poland. Slag Recycling exploits a metallurgical slag heap in Pleszew near Kraków. Currently, we employ 260 people.

*Your product, aggregate obtained from recycling the slag heap, is now welcomed by the construction industry. Was this always the case? What is the basic difference between the aggregate you produce and aggregate obtained in the traditional way?*

■ It is true that our products are now well known on the market, but it wasn't as simple as it may seem to introduce artificial aggregate to the market. Fifteen years ago, aggregate from slag was in use, but rather for simple works because the product didn't meet any specifications or have technical approvals. Over the last nine years the most difficult job for us has not been digging this material out, but developing the market for the product. It is our biggest success – we have managed to change a production waste into a full value product, which fulfils all EU norms, technical specifications and regularly receives awards for its quality. At the same time, we have persuaded our clients that this product has all the qualities of natural aggregate and almost no faults. For sure, it is one of the best products on the market. It has very good compacting qualities and gives a great skid resistance due

to high PSV (Polished Stone Value). I would say that there is no natural stone that could compete with our aggregate.

*And what about the price?*

■ Our prices are market prices. For sure we are not the cheapest – we compete on the basis of quality.

*What has been your greatest challenge in exploiting the site? What investments have you made?*

■ We are continually investing in new machinery and new processes. During the last 12 months we've invested 10 mln PLN and this, of course, is not the end. We continue to upgrade our machinery park to have it as modern and as effective as possible, though I have to say, expert opinion suggests that the way we use our machines is already exemplary.

*Slag Recycling supplied aggregate for Kraków's Market Square renovation in 2006*



In terms of challenge, this for sure has been about establishing and maintaining our product's quality. We are not using any special technology, but the important thing is quality control, to maintain the product's parameters every single time. We have implemented ISO and we are one of the few companies in our field that issues certificates of conformity to EU norms.

*How have you gone about developing the quality of the product?*

■ Our company, from the very beginning, insisted on scientific research into the properties of different aggregates and we cooperate closely with universities.

These are ongoing links. We run our laboratory and have a qualitative approach to our products as well as to training employees.

*What is the nature of your co-operation with universities?*

■ Scientific research – we work closely with several Kraków universities – AGH Academy of Mining and Metallurgy, the Agricultural Academy

and Kraków University of Technology – and also the Silesian University of Technology. You should remember that this region was the industrial heartland of Poland for many years and there is a great deal of expertise within the universities here. We also supply universities with our products for research and for masters' and doctoral theses – many people have become masters and doctors thanks to our aggregate!

#### *Are you happy with the level of co-operation?*

■ You know, there's always room for improvement, but in fact there is a great willingness on the part of universities to co-operate with us. We are

*The heap is still "living" – around half a million tonnes of slag are transported to the site each year*



not only an aggregate-oriented business, but also a pro-ecological business. It's not only about producing and selling 3 mln tonnes of aggregate, but also about saving 3 mln tonnes of natural stone which is not dug out elsewhere, and also about returning contaminated land to use. This environmental aspect of our business is very interesting to academia. We often do training and lectures, we even have our own lectures in the universities about ecology and industrial waste management. The co-operation is flowering.

#### *Does it have any influence on the number of students willing to come here and work for you in research?*

■ It has a bigger influence on students' knowledge about aggregate. If a student learns about artificial aggregate at university, when they become a construction company employee, artificial aggregate is already something that they know about. They know that it exists and know its characteristics, we don't need to convince them any more.

#### *How was this area used before Slag Recycling began its activity? Was the slag heap exploited in any way?*

■ No, it was mainly stockpiling industrial waste. The slag heap itself was created in the 1960s and up to the point where we started operating, more than 20 mln tonnes of metallurgical slag were dumped here. Up to now we've exploited around 19 mln tonnes. These are huge numbers and, in fact, when Slag Recycling started its investment, nobody believed that we could achieve a situation where instead of a big mountain of waste, we have a large, empty area.

#### *What's next for this area?*

■ There are several ideas how to use this site. For some time we have been promoting the idea of not only slag management, but also waste management in the area, maybe an Ecology Park. But the final decision depends on ArcelorMittal, the owner of the site.

#### *What are the possibilities, what could be here?*

■ Almost anything, there are many options. They should be connected mainly with industrial investments, because the slag heap is still functioning, as we say, still "living" – around half a million tonnes of slag are transported to the site each year. But what is clear is that the steelworks no longer needs all 160 hectares for slag. For example, the city is planning to build a municipal waste incineration plant that it is having difficulties in identifying a location for, there are also discussions about asphalt production plants that could be here, which would complement our present activity.

#### *How much space does Krakow's steelworks need and how much, in your opinion, could be used for other purposes?*

■ It is mainly a matter of planning and dealing with the slag in a more organised way, but I think that half of the space used by the slag heap today might be easily freed and used for new purposes.

#### *What kinds of investments do you plan to do to prepare the road building programme related to "Euro 2012"?*

■ Everybody knows what should be done by 2012 and everybody is waiting for it, we also know the planned level of funding. Unfortunately, I have the impression that things are happening rather in the media than in reality. As I mentioned, the A4 motorway on the Kraków-Szarów section is being built, that's a fact, but all other investments are now at the planning stage.

#### *What is the reason for that?*

■ It's obvious what I'm going to say, but it's a question of the tendering procedures, the law and the lack of physical management plans. Before we reach the beginning of these spectacular constructions and before we start celebrating openings, we must keep in mind that there is a big legislative job to do.

*The slag heap in Kraków is around 160 hectares*



*When the legal process is finally completed, is your company ready to meet the rising demand for aggregates?*

- Yes, we are. During the first half of 2007 we've already produced 50% more aggregate than in the same period in 2006.

*Do you have problems with staffing similar to those seen in the construction sector?*

- I won't say that we don't, it's a big challenge to face, especially because we are a very demanding employer. We want to work only with the best people and our situation is no different from other companies whose specialists work on construction sites in the UK or in Ireland. We deal with this by offering an attractive training package. We employ young people with potential and we give them the opportunity to get new qualifications recognised in Poland and in the EU.

*Is training enough?*

- We would like to have more people, that's for sure, because the company and the demand for aggregate is still growing. There is always a place for good, reliable employees in our company.

*One of Slag Recycling shareholders is St. Paul's Developments, a UK company. Could you explain what kind of business this company is engaged in?*

- St. Paul's Developments had never exploited steelworks slag. It's mainly known for its experience in the regeneration of post-industrial sites, former steelworks and coal mines in the Midlands and the North of England. The company returned these sites to a condition where it was possible to invest on them, which has resulted in regional development in areas that seemed to be lost to investment. It is a big opportunity for South Poland too. In Małopolska alone, we have identified 2,000 places where the ground is contaminated and needs regenerating. There are even more of them in Silesia. I think it is short-sighted to focus on greenfield investments when there is such a supply of post-industrial land. Sooner or later South Poland will need to deal with this problem in a professional way that meets EU standards. I'm sure that our company will have a great opportunity to show its experience then.

*How do you feel about the general climate for this kind of investment in Poland?*

- This climate is developing. The best example is that of Zabrze and their fast-developing co-operation with Rotherham in South Yorkshire. Zabrze will learn from Rotherham how to use post-industrial grounds.

*Maybe EU funding will speed up this process?*

- As far as I know, in the previous funding period, many funding opportunities were not used because of a lack of good ideas and projects. Now it's time to search for partners; I think Zabrze can be the first pilot project of this type in Poland.

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**Do you think that all the roads planned to be in place by Euro 2012 will be built on time?**

■ I must say that I'm moderately pessimistic. As someone who lives here I'm interested in the development of Poland's transport infrastructure. We must remember that it's the key to our further development, because only 4% of Polish roads meet EU standards! From that perspective, we have a huge job to do. This is not just a question of the big motorways, connecting North with South and East with West, that we usually talk about, but also all other local roads. What's the point of having all that potential which Poland has – well-educated young people, a market of 38 mln consumers etc. – if you simply can't drive comfortably to the place you want to go? One day it will become a big problem. If we look at the plans – they look very good. I only hope that in 2012 everything has been done according to plan, but, as I say I'm pessimistic. I think that we won't be able to do everything and much will be done at the last possible moment. If we look at the project timelines, we see that mild growth is predicted in 2007–2008, and after that, in 2010–2012, an unbelievable growth in road construction. It's very ambitious, and I'm afraid that it's too ambitious, especially when we see the lack of a workforce and a demand for aggregate which exceeds supply. There was a suggestion that Ukrainian workers might come and work in Poland, but they are not very interested because the Ukraine has its own big projects to realise. The Ukraine itself is thinking about employing workers from China and Vietnam to meet these challenges.

**But what about the costs?**

■ I don't really know where we will find these workers. For sure, by 2012, wages in Poland will start reaching those in western Europe, so people will be less likely to migrate.

**Now when the "baby boom" generation of the early 1980s is entering the job market, there should be a sufficient supply of people to fill jobs!**

■ Yes, the demographic explosion is seen on the job market, but not in the sector of heavy machinery operators. Everybody is talking about

higher education, public and private universities, but there is a lack of basic technical training and education for skilled and semi-skilled workers – locksmiths, welders, digger operators etc. We considered employing Ukrainians, but their qualifications are not recognised by the EU. If we wanted to employ a Ukrainian operator, we would have to train him again from the very beginning and he would have to pass all the exams once more to confirm his qualifications. We already have our own training programme and we train more than 50 people a year.

**If you compare the standard of roads in South Poland to the rest of the country, does the region have a good transport infrastructure?**

■ Małopolskie and Dolnośląskie voivodships are not significantly better, but the Silesian agglomeration around Katowice certainly is.

*“Nobody believed that we could achieve a situation where instead of a big mountain of waste, we have a large, empty area.”*

**What is the best thing about doing business in Poland?**

■ The environment for doing business in Poland does not differ any more from the environment for doing business in other countries. But for foreigners,

Poland is still a country that has some practices that are difficult to understand and to explain, e.g. stamping invoices and signing them. I think that our bureaucracy and the paperwork it generates is bigger in Poland than in other EU countries. But when I look back I see that during the last 12–15 years Poland has changed amazingly and the business climate right now is excellent.

**What will Slag Recycling be doing in ten years?**

■ I hope that we will still be doing the same as now. We have made our mark on the Kraków business map and I hope that we will be here for a long time. We are not only doing business, we are also connected to the local community. We run several corporate responsibility programmes in the area, we sponsor local events and sometimes help to organise them. We support the "sapere auro" scholarship programme, orphanages and youth clubs and, of course, we are a Patron of the South Poland Presidents' Club. Slag Recycling is an organism that grew inside the community and I hope that in ten years we will be doing what we do now. □

*Cllr. Roger Stone, Leader of Rotherham Metropolitan Borough Council and Anna Banaś during a visit to the site in July 2007*



*Corton Wood area, revitalised by St. Paul's Developments, one of Slag Recycling shareholders*

