Thermal Waste Treatment Plant in Greatmoor, Buckinghamshire, United Kingdom, with kind permission of Hitachi Zosen Inova

Industry Barometer Waste-to-Energy 2019

Content

Comment by CEWEP

As in the past years, CEWEP (Confederation of European Waste-to-Energy Plants) has also supported ecoprog's 2019 edition of the Waste-to-Energy industry barometer and encouraged its members to take part in the survey.

For many years in a row now, WtE plant operators have been rating the economic situation as good. The economic boom continues and the utilisation level of almost all European plants remains very high. 30% of the survey respondents even report an increased capacity utilisation in the past months. 80% refer to high utilisation while rating their economic situation as good.

Plant operators expect to also be needed in the future in order to realise the EU's circular economy goals, that is a 65% recycling rate and a maximum of 10% of landfilling of municipal waste.

More than 60% of the operators assume that in implementing the EU's circular economy in the future, more waste will be collected separately. 65% think that waste amounts going into thermal treatment will hardly decrease at all due to the large amounts of sorting residues.

In CEWEP's view, this is not surprising. Recycling that complies with certain high-quality demands consequently creates more residues. Materials which do not meet quality requirements for recycled products have to be safely channeled out of the circuit. This is best achieved by WtE plants in an environmentally friendly and reliable manner.

The assertion that higher recycling rates could be reached by reducing WtE capacities is thus invalid. CEWEP has observed that in practice, demand for thermal treatment actually keeps growing. This is of course also due to the EU target of decreasing landfilling of municipal waste to a maximum of 10% of the arising volume.

Half of the operators expect some EU member states to experience bottlenecks in waste treatment in the face of the partly still considerable dependency on landfilling while at the same time WtE capacities are extremely rare or nonexistent.

In order to accomplish both, the recycling and landfilling goals, it is of crucial importance to have the necessary waste treatment capacities for non-recycled wastes ready in place.

CEWEP has calculated that in 2035, which is when the EU's goals for municipal waste are to be implemented, and assuming targets of comparable ambition for commercial and industrial waste streams, still a total of about 142 million tonnes of residual waste requiring treatment will arise in Europe yearly. To this end, the current incineration (including co-incineration) capacities of 100 million tonnes would be insufficient.

From today's perspective, capacities for about 40 million tonnes would be lacking for an environmentally sound treatment of residual wastes (more information).

WtE industry barometer: industry defies economic outlook

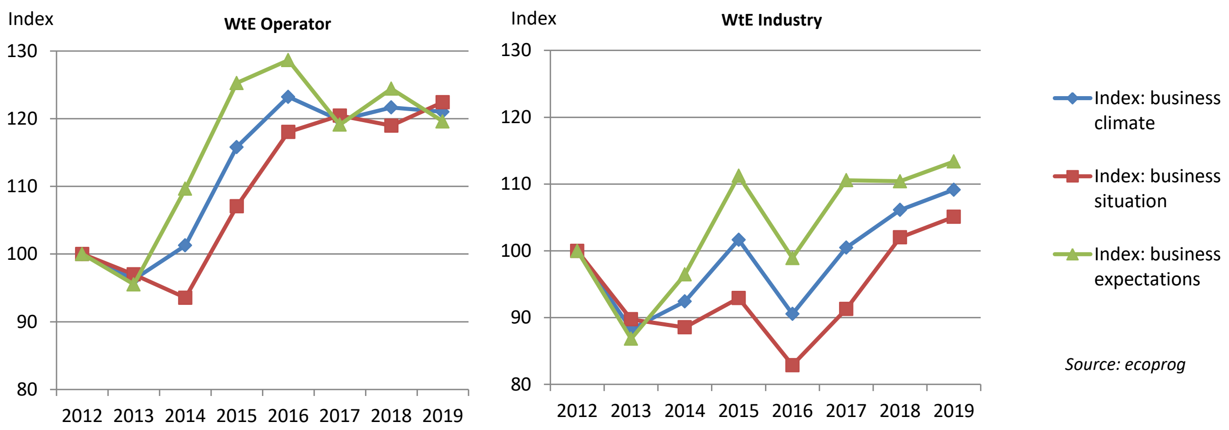
The mood in the Waste-to-Energy (WtE) industry is better than it has ever been since the first survey in 2012. Among the operators of thermal waste recovery plants, the mood remains positive. Their increasing investments into modernisations and new constructions are also encouraging the WtE industry.

Plant operators experience all-time high

For WtE plant operators, the business climate index attained a similarly high level as in the previous four years, reaching almost 49.1 points.

The current business situation has once again improved, rising up to almost 80 points. In the past years already, capacity utilisation of the WtE plants in Europe had significantly increased. In the eyes of ecoprog, the positive assessment of the current business situation goes to show that once more, against the backdrop of a utilisation level that high, the operators were able to achieve even better prices.[1] Almost 80 % of the WtE operators rated their business situation as 'good', not a single operator judged it to be poor. Regarding the last few months, 30 % of the plant operators again even reported that utilisation had increased, almost 80 % refer to high utilisation. The broad spectrum of answers underlines that this positive development has now embraced practically all national markets and does not concern solely single countries, as for example Germany, anymore. The utilisation level of almost all plants in Europe is very high.

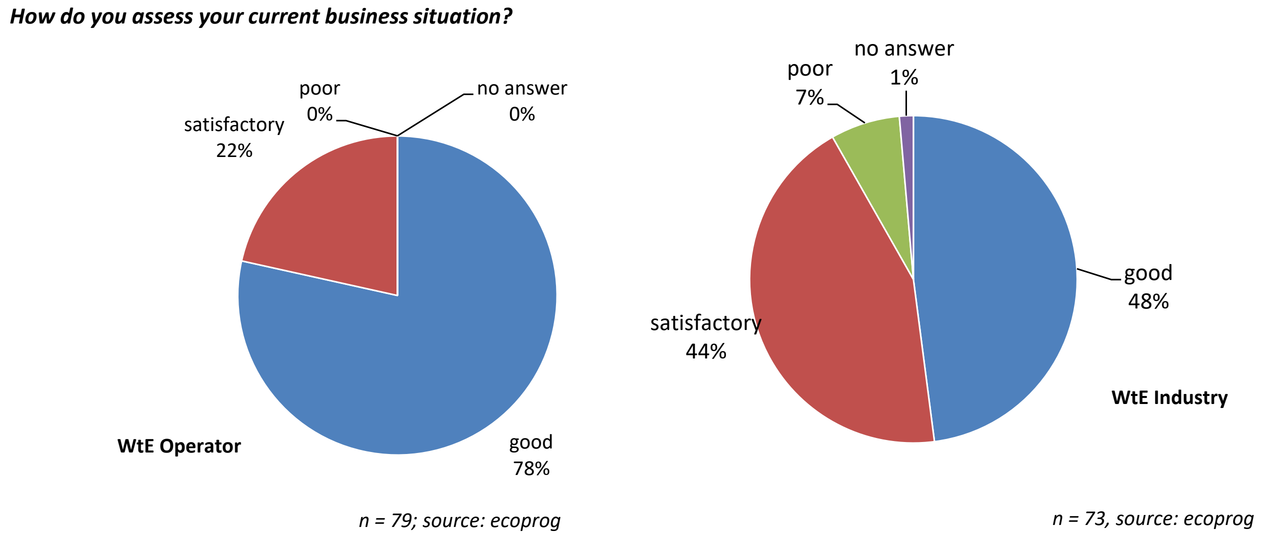
Figure 1: Development of business climate for WtE operators and industrial WtE companies



[1] These and all of the following interpretations are assessments made by ecoprog. Therefore, ecoprog is solely responsible for these statements.

What is surprising is the fact that the WtE operators' business expectations are positive against the background of an economic slowdown, especially as a consequence of global trade conflicts. While macroeconomic forecasts in the past months were characterised by an increasing pessimism, the mood among WtE plant operators remains positive. Only 9 % expect the business situation to worsen, whereas 32 % even anticipate another upswing. In part, this optimism is comprehensible for ecoprog. Even if demand falls, many operators will first of all catch up on maintenance and modernisation works which had partly been suspended in the past months due to high utilisation. After a couple of good years, the situation of WtE plant operators is extremely solid. The fact that more than half of the operators expect prices to keep rising in the upcoming months will probably add to the positive mood.

Figure 2: Business situation for operators and industry



Industry continues to catch up

The mood in the WtE industry has improved even more evidently. Having increased for the third year in a row now, the business climate index on that score reaches an all-time high since the first survey in 2012, but still does not quite obtain the same level as observed for the operators.

More than half of the technology providers, engineers and suppliers state that demand has grown in recent months, more than 90 % currently consider their business situation to be good or satisfactory.

This clearly illustrates that the prolonged boom in thermal waste treatment has in the meantime also reached the industry. After many years of struggle, following the turnaround of the market starting in about 2014, the operators have been shying away from investments for a long time. Nowadays, a sense of better security has returned. In countries characterised by backlog, such as Great Britain or Poland, additional plants are being built, while the number of modernisation projects is growing on existing markets, such as Germany or France.

As a consequence, business expectations of the WtE industry are equally witnessing an all-time high. 60 % of the respondents expect the business development to improve in the next months, while only 7 % expect it to deteriorate.

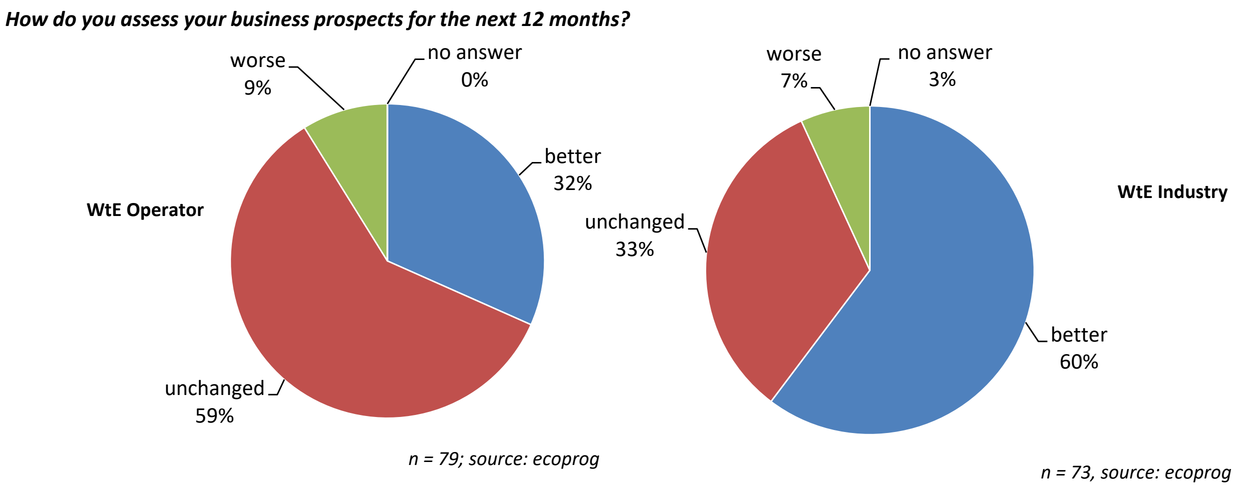
Recycling targets are not a threat

Operators of WtE plants are firmly convinced to be needed in the future as well – this becomes obvious when we take a look at their assessments concerning the implementation of the EU's Circular Economy Package into national legislation.

Against the backdrop of increasing recycling efforts, more than 60 % of the respondents assume that more waste will be collected separately in their respective countries. Only 19 % believe that the share of recycling could hardly be any higher in their country.

However, it is also worth noting that only 14 % of the respondents expect waste amounts going into thermal treatment to decrease significantly as a consequence. Whereas almost two thirds of the respondents think that an increasing amount of sorting residues, among other things, leads to the fact that no major declines in volumes are to be anticipated.

Figure 3: Business expectations of operators and industry



These results reveal the plant operators' experience of the last 20 years. During that time, it was usually claimed that recycling efforts would lead to less mixed waste and thus, less WtE capacities would be needed in the future. In practice, however, demand in thermal treatment kept rising.

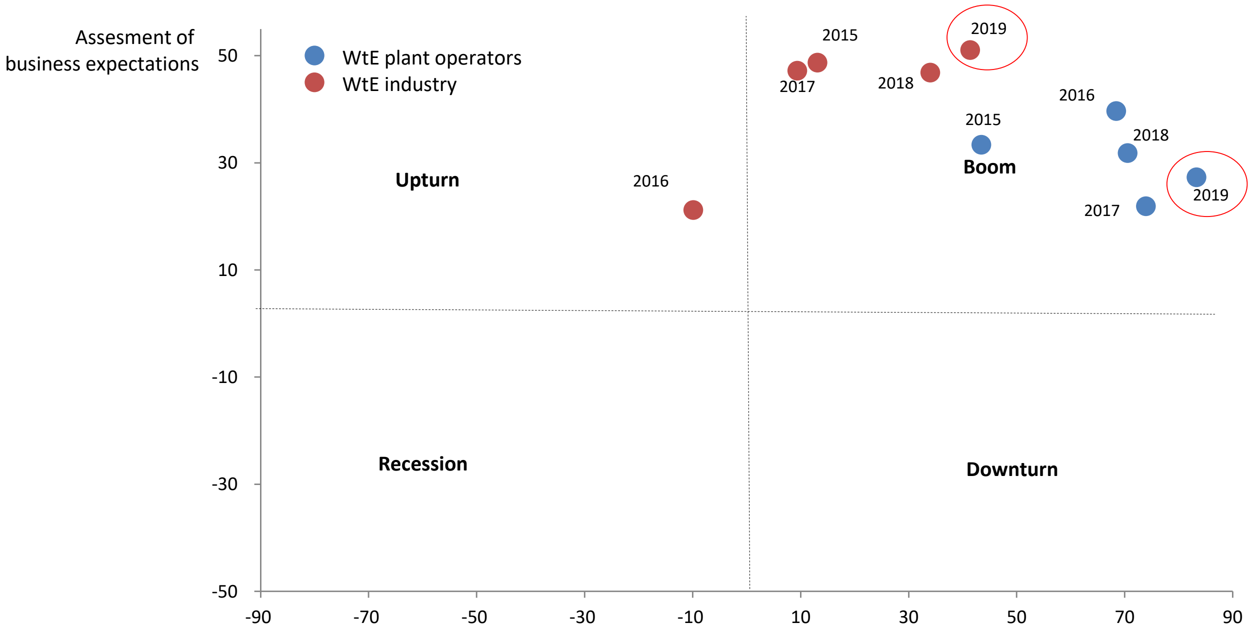
In ecoprog's estimation, also for years to come, population growth, increasing consumption, the reduction of landfilling in Europe and the decommissioning of coal-fired power plants will entail a stable or even increasing demand for capacities in waste incineration plants and RDF power plants. This does not only hold true for the EU as a whole, but also for individual established national economies, such as Germany.

Sewage sludge market is not attractive to all

The assessment of the market for mono-incineration of sewage sludge turns out to be very inconsistent. Other than widely perceived most recently, more than 70 % of the WtE plant operators state that the sewage sludge business does not play an important role for them. In contrast, more than 50 % of the industry representatives do attach importance to this area, most of them having already taken action in that field.

Hence, what is of interest for the industry, is made up by those approximately 20 % of the operators who own or plan to construct a mono-incineration plant. Given the current development, the share of operators coming from Germany is disproportionately high among them.

Figure 4: Classification of results



Source: ecoprog

India and Australia are arousing growing interest

As every year, in 2019 the WtE industry was also asked which regional markets were most important for them.

As usual, the European market is predominant in this context. Certainly, for one thing, this is due to the fact that this survey primarily addresses European companies, although many of these are globally active. In addition, this evaluation of course reflects the positive market perception in Europe which can be observed, for instance, among the operators of WtE plants.

What has taken a positive turn in the past months, is in particular the evaluation of the markets in India and Australia. In Australia, increasing landfill taxes, inter alia, have resulted in a few WtE projects which however are relatively prominent while being implemented in line with European standards. In India, the sheer quantity of projects is impressing, of which about 120 are currently known to ecoprog alone – even though probably only a minority of these projects will be realised and the Indian market is rather complicated, especially in terms of prices.

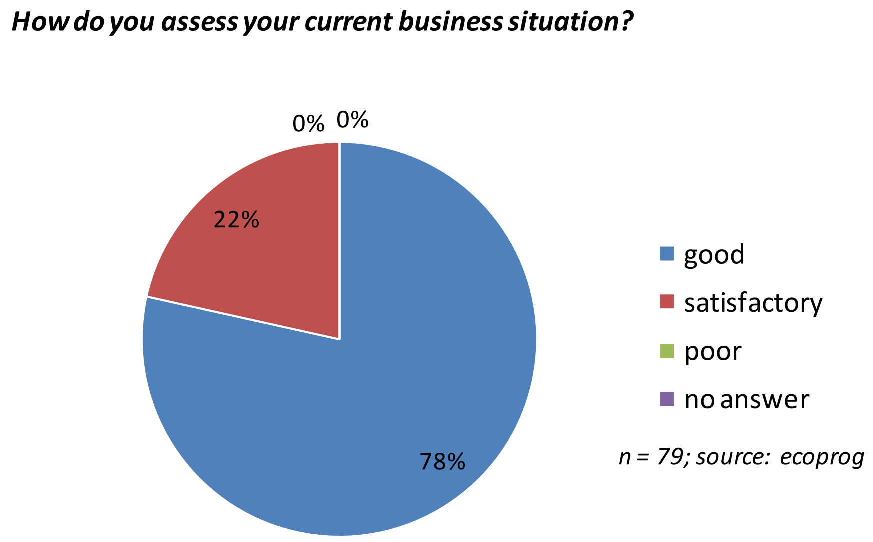
The WtE industry barometer was elaborated for the first time in 2012. For the survey in 2019, we have questioned about 500 operators of thermal waste recovery plants and more than 700 plant manufacturers and suppliers in the WtE industry worldwide. Participants could choose to either complete an online questionnaire or to answer via fax. The survey was carried out between mid-August and mid-September.

ecoprog GmbH carried out the survey and the evaluation. As a respected industry expert, ecoprog assists clients from Germany and abroad in dealing with implementation-oriented management issues with political, technical or economic backgrounds in the sectors of environmental and energy technology. We work in the fields of strategy consulting, market and competition analyses as well as multi-client studies.

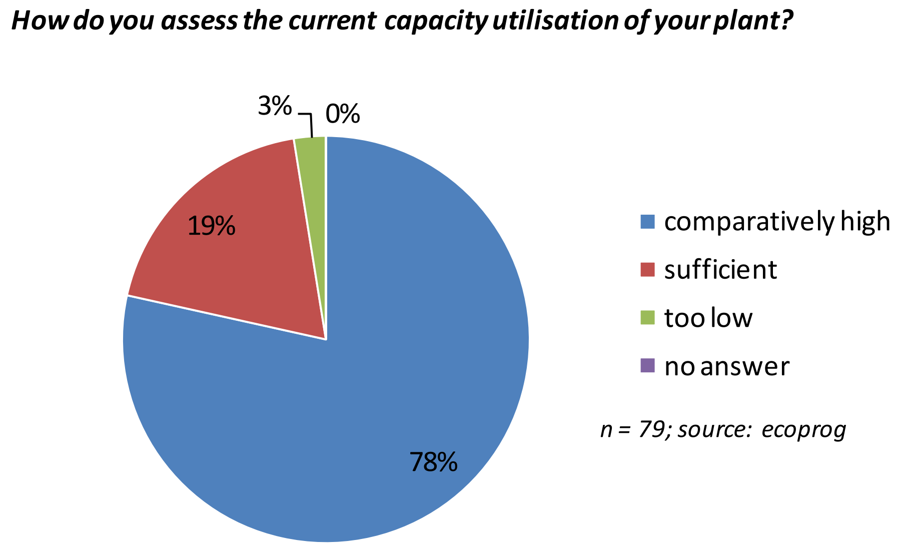
Annex: data

Survey of operators of Waste-to-Energy plants

Current business situation

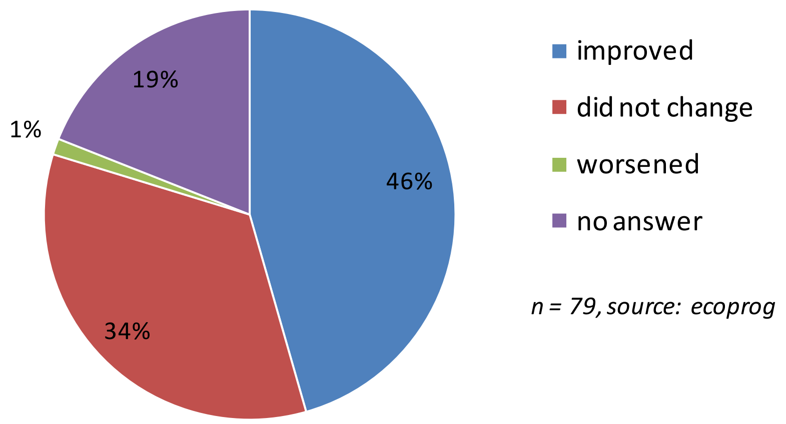


Current utilisation



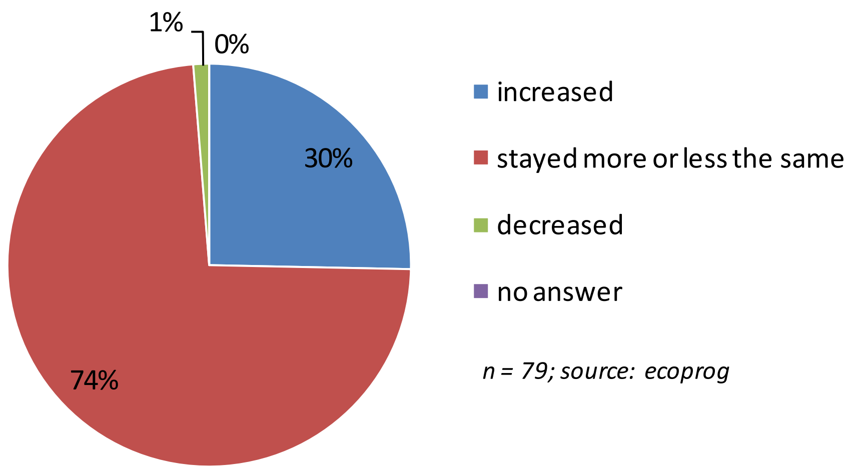
Demand in the past 12 months

In which way has the demand on the spot market for municipal waste developed in the past 12 months? The demand has …



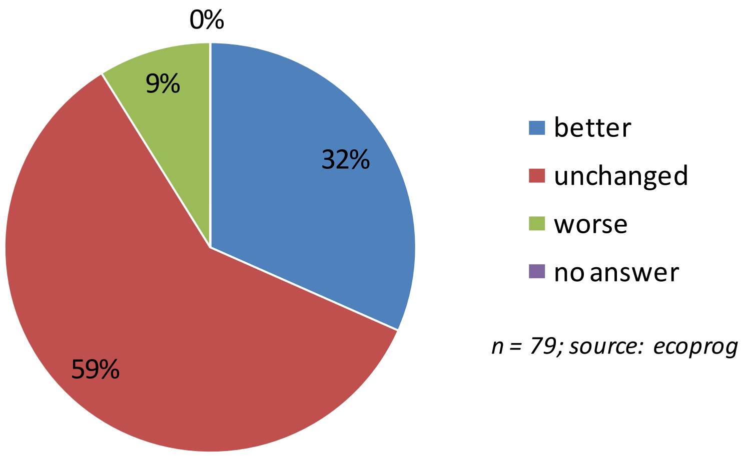
Development of utilisation in the past 12 months

In the past 12 months, the capacity utilisation of your plant has…



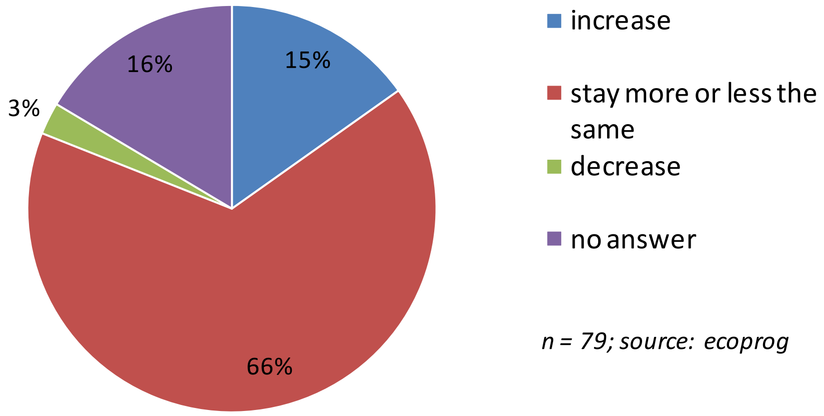
Business expectations

How do you assess your business prospects for the next 12 months?



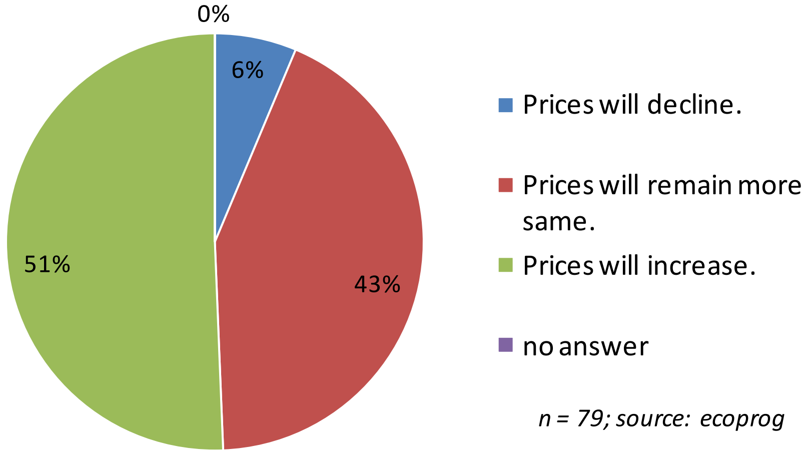
Employment

In the next 12 months, the number of employees working for your company will …



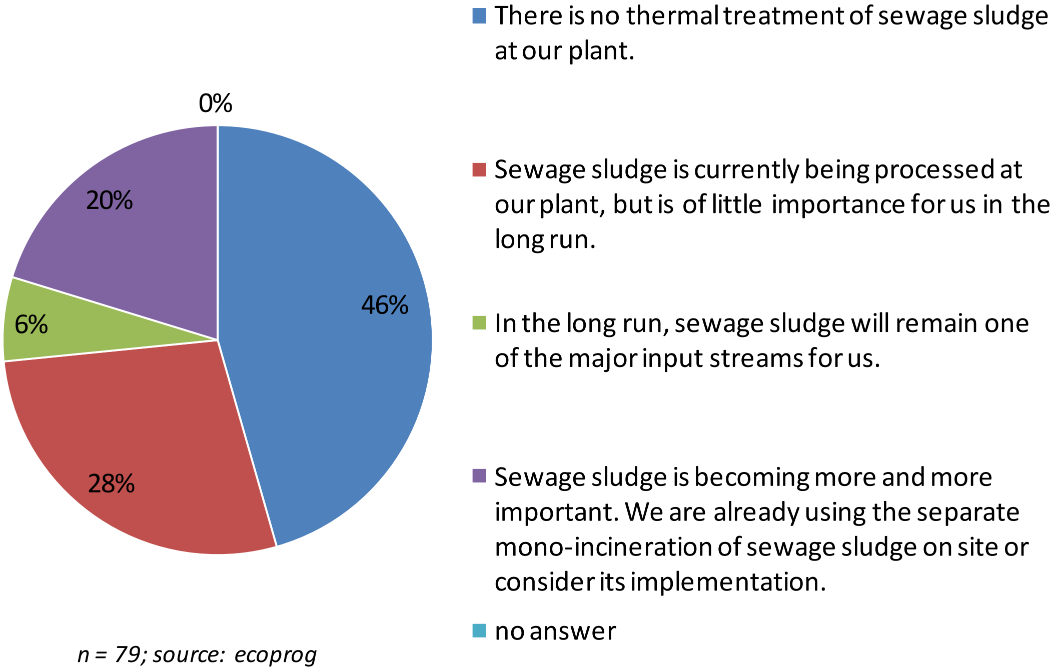
Gate fees

Which development do you expect for gate fees in the 12 months to come?



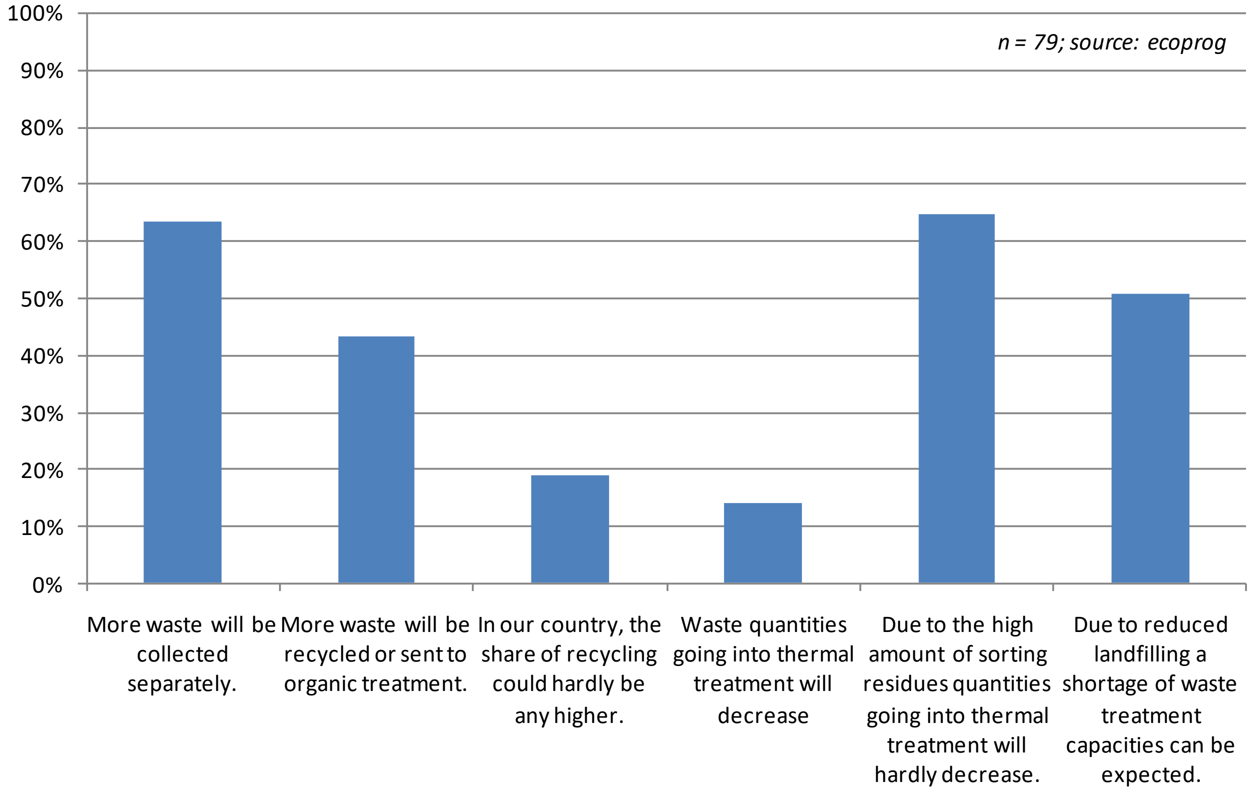
Thermal treatment of sewage sludge

At many plants, the use of sewage sludge is increasing as its soil-related recovery is becoming more complicated or is viewed critically.
Which of the following statements most closely describes your situation?

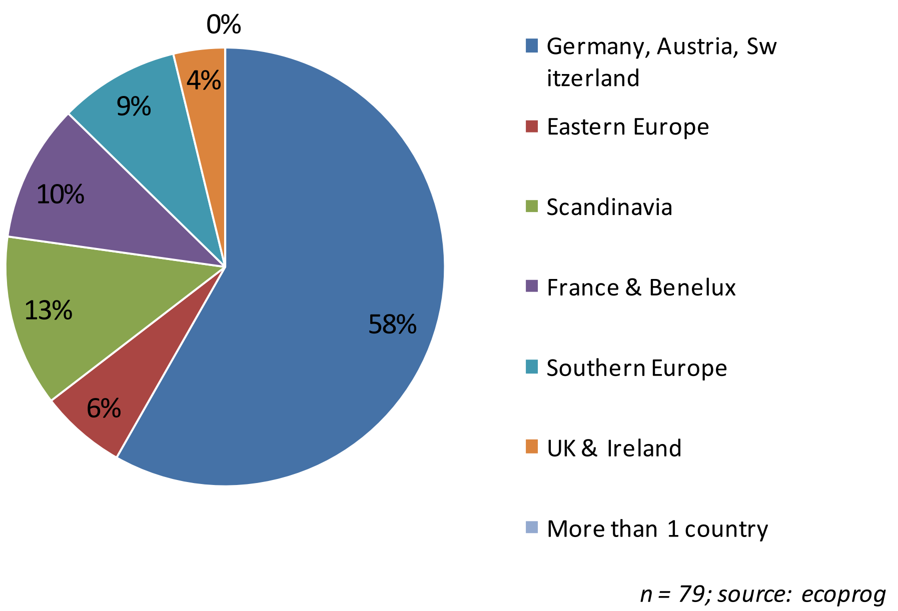


Circular Economy Package

The EU Member States are currently discussing the implementation of the Circular Economy Package into national legislation. Which of the following statements most closely reflects your opinion? (Multiple answers possible)

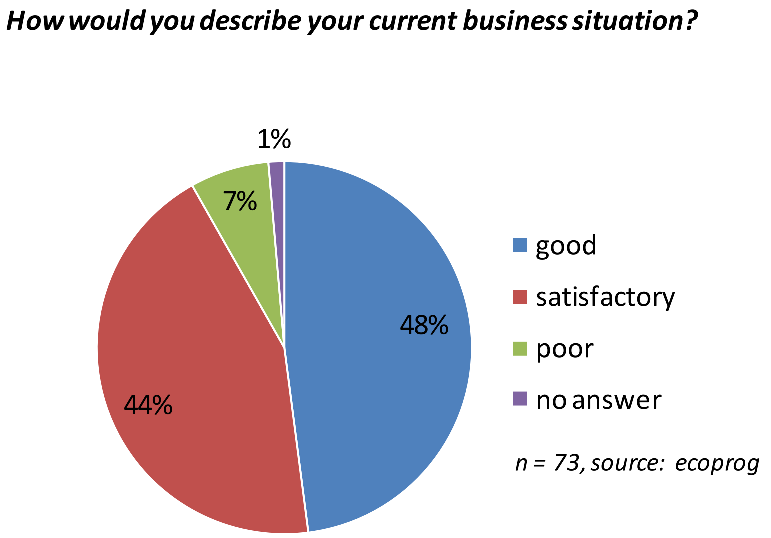


Location of plants of survey participants by region

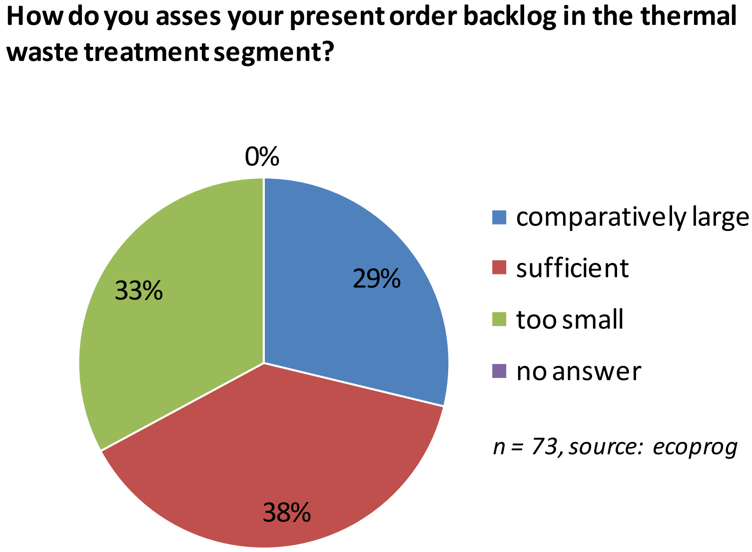


Survey of industrial companies and WtE plant manufacturers

Current business situation

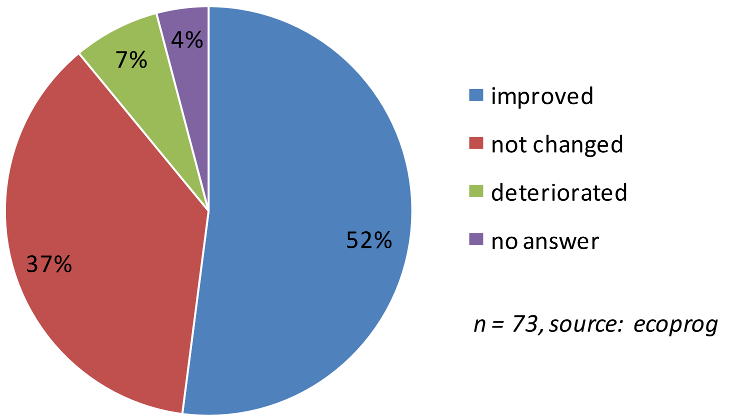


Current order backlog



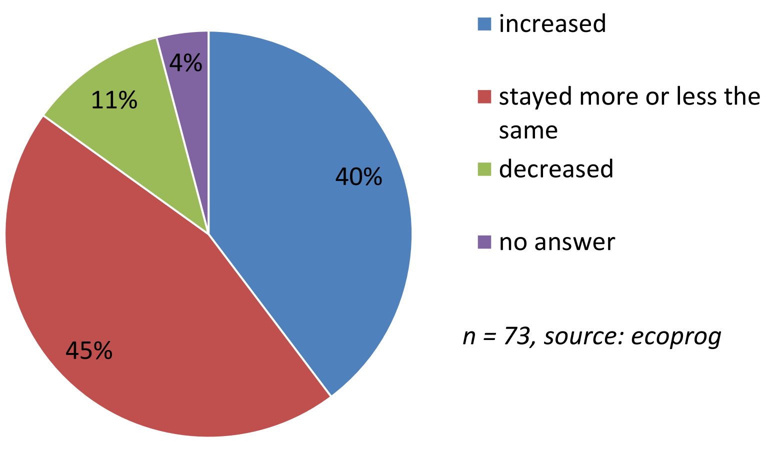
Demand in the past 12 months

In which way has the demand in the thermal waste treatment segment changed in the past 12 months? The demand has …

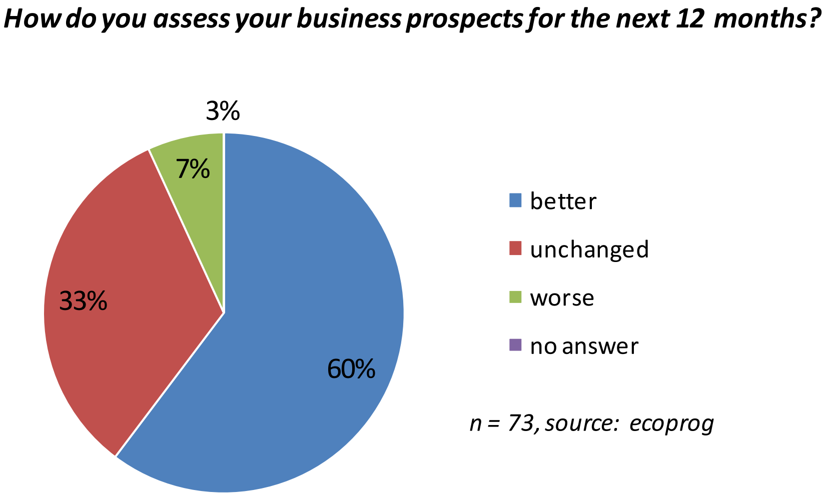


Order backlog in the past 12 months

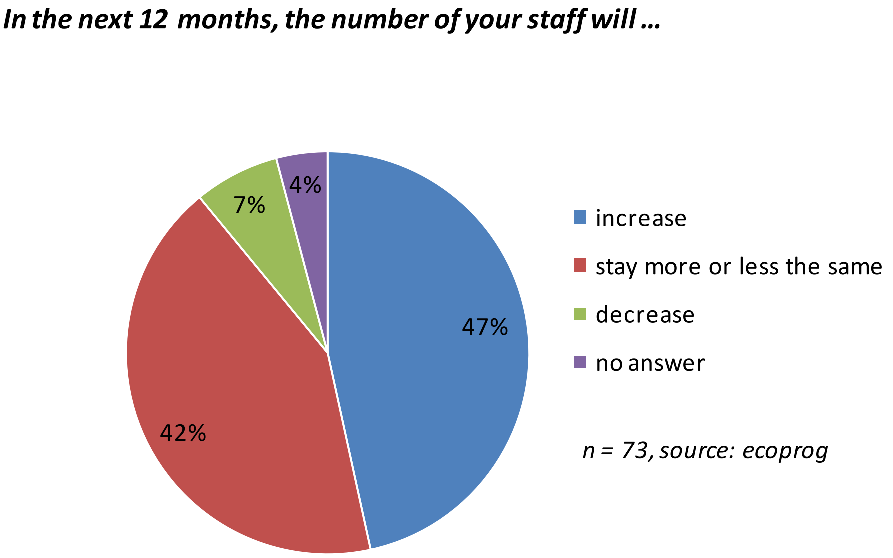
In the past 12 months, your order backlog in the thermal waste treatment segment has …



Business expectations

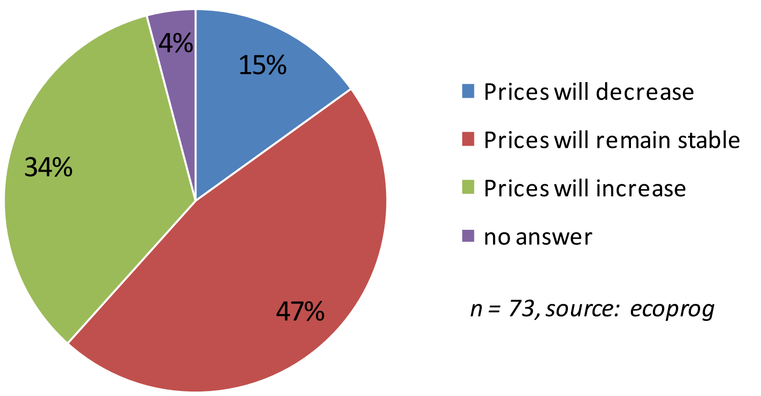


Employment



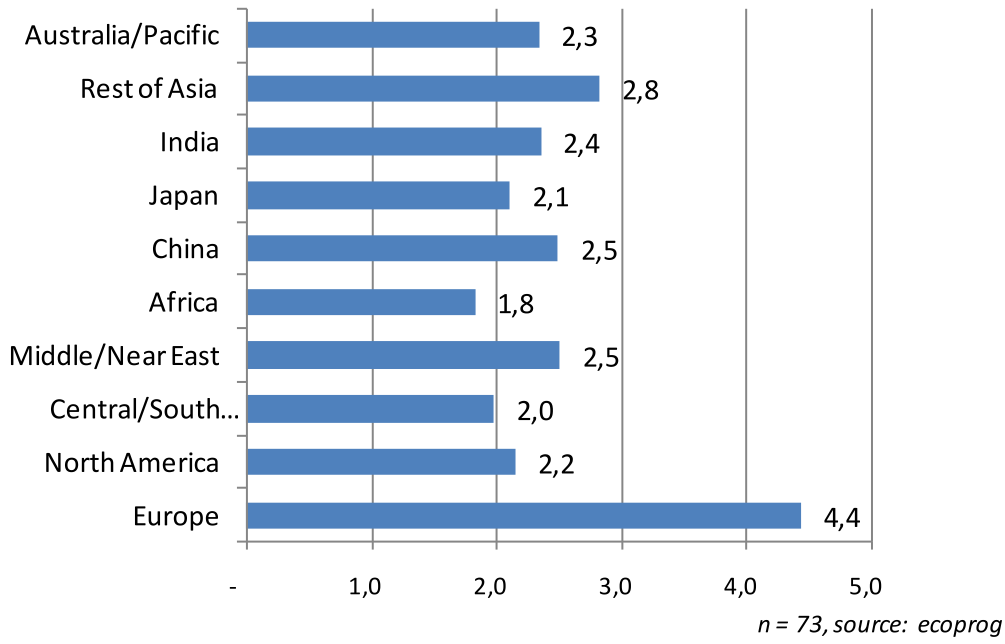
Future price development

In which way do you expect the prices for constructing, maintaining and modernising thermal waste treatment plants to develop in the next 12 months?



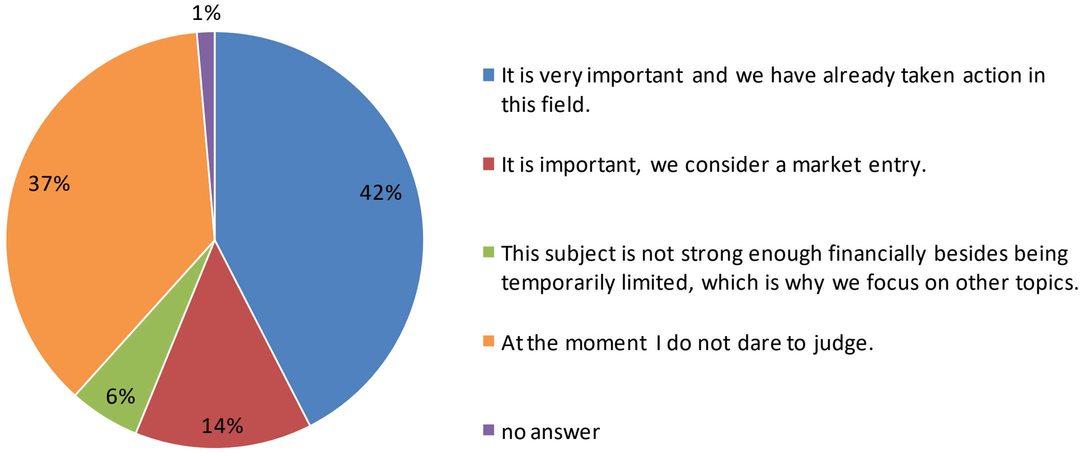
Current market regions

How important are the following markets for your company today? (1=unimportant, 5=very important)



Sewage sludge business

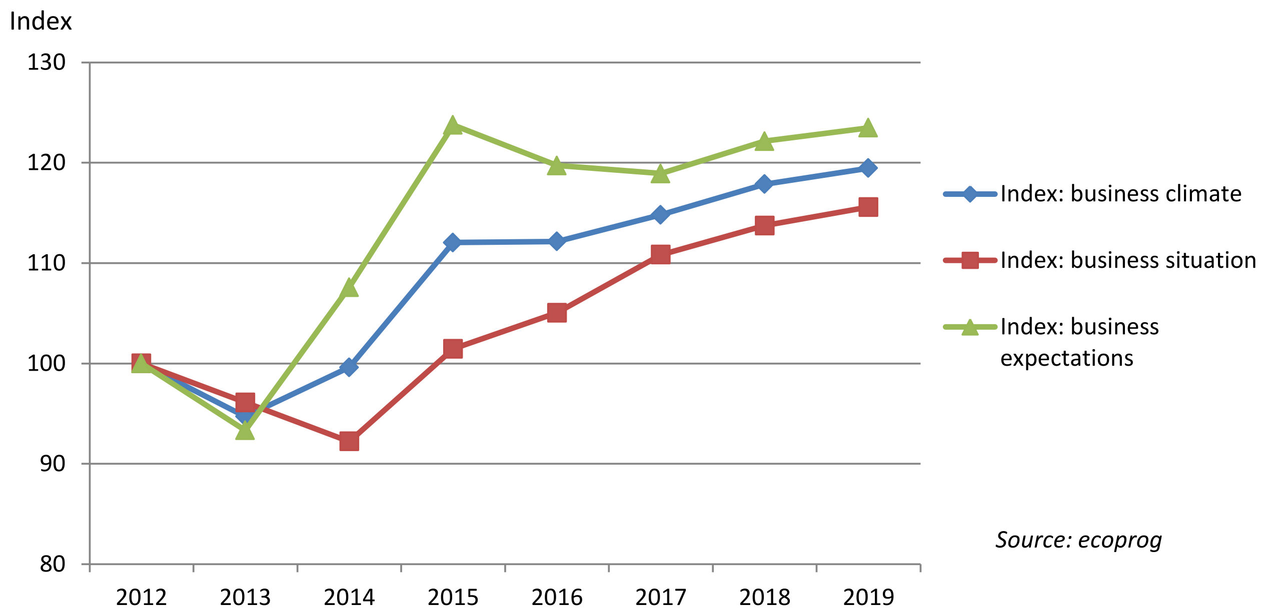
In the wake of the recycling of phosphorus, the demand for mono-incineration of sewage sludge is increasing. How would you assess this business area?



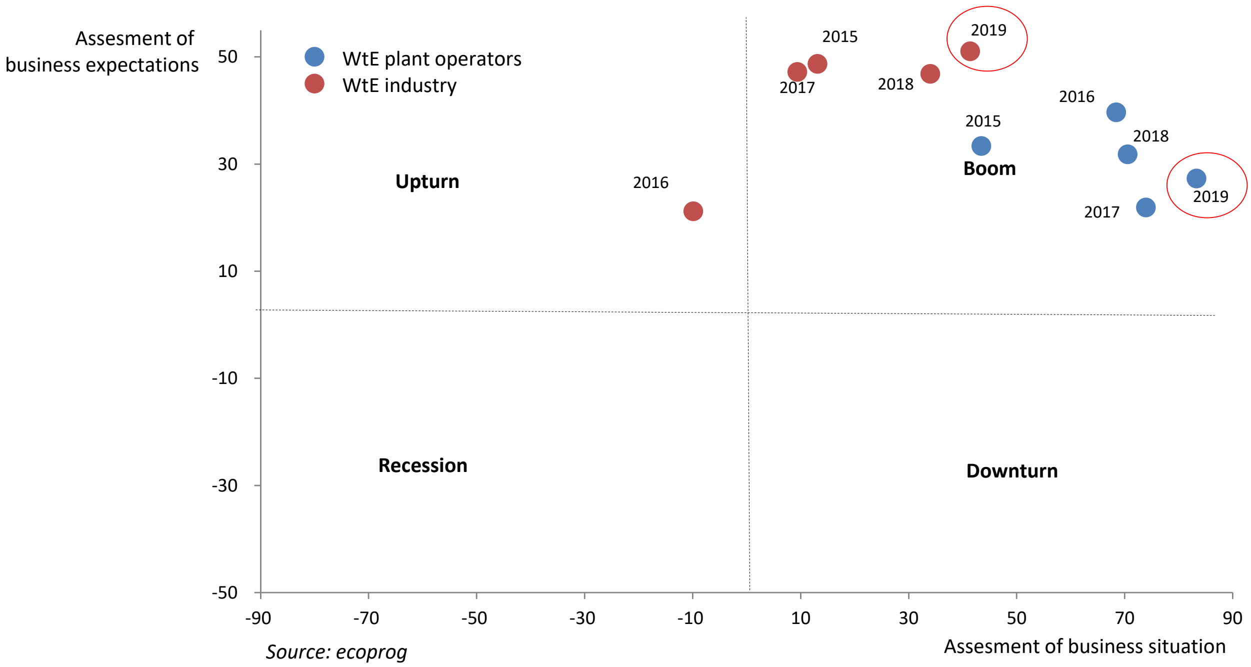
n = 73; source: ecoprog

Time series

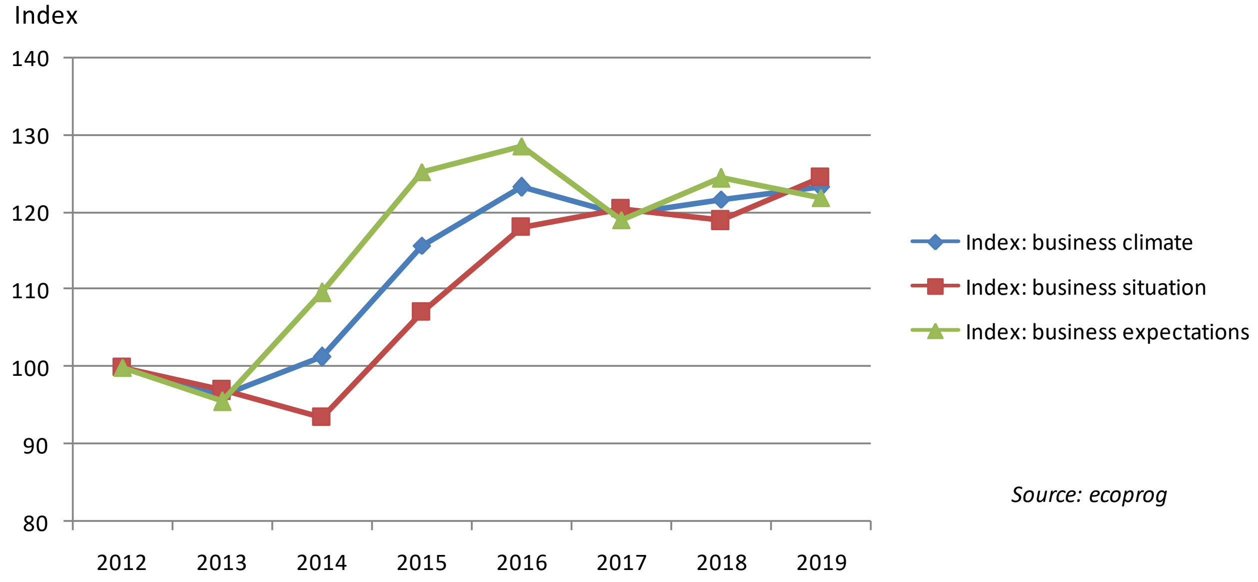
Industry barometer WtE plant operators & WtE industry



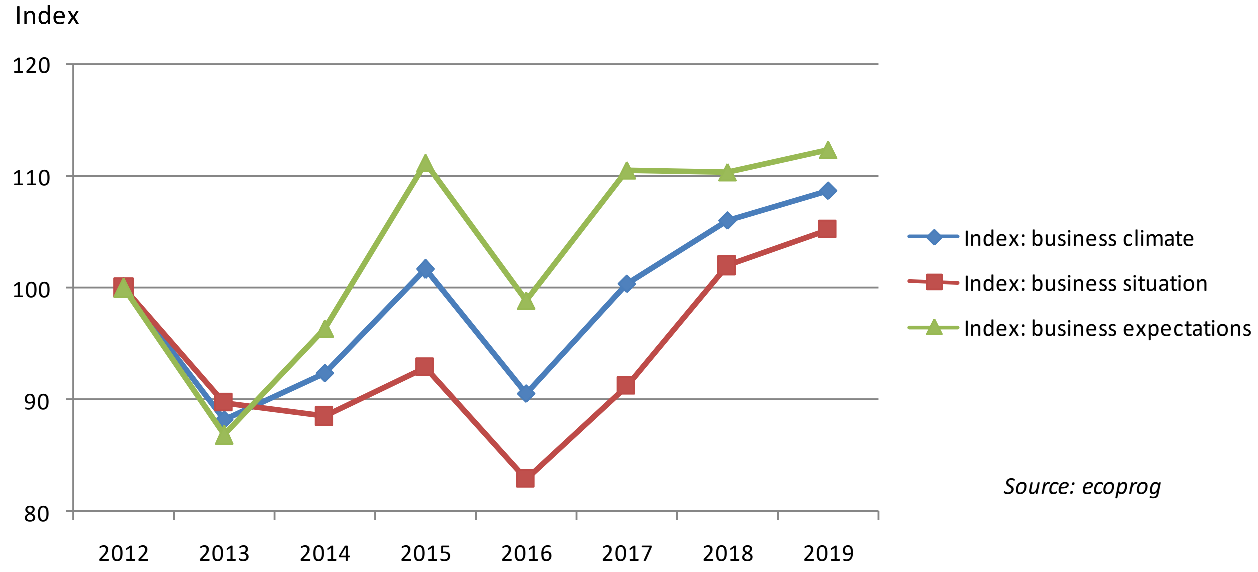
Classification of results



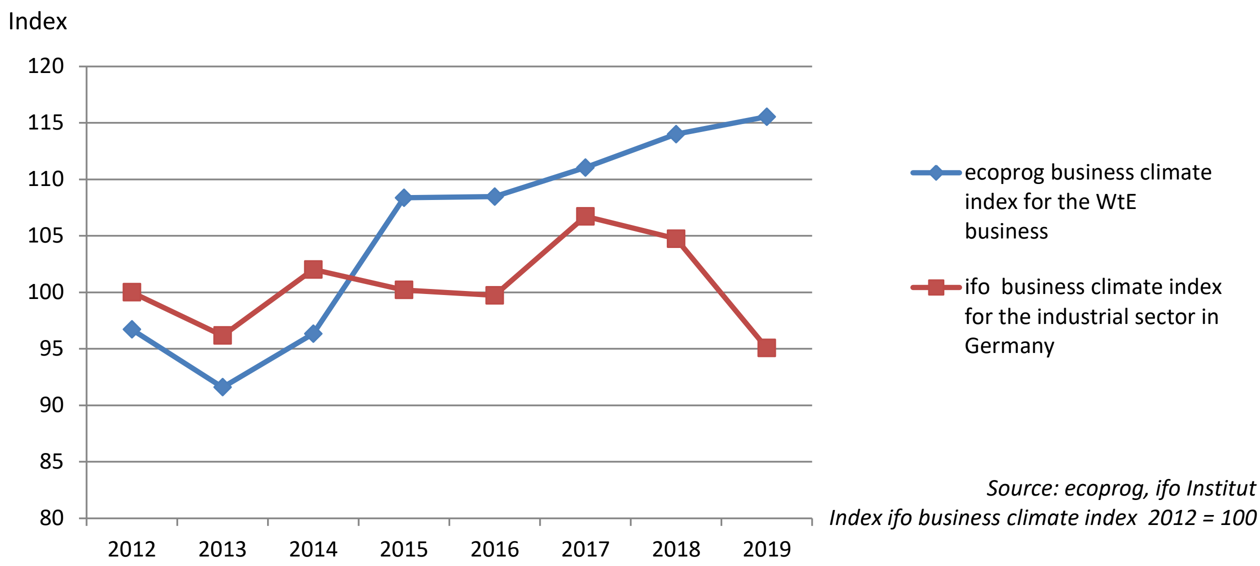
Industry barometer WtE plant operators



Industry barometer WtE industry



Comparison to ifo Business Climate Index



The calculation of the business climate index was carried out according to the method developed by the ifo Institute in the 1950s.

By courtesy of ifo Institute.

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