



Research Report (Initial Coverage)



**AHT benefits of global trend to „green energy“
and increasing energy demand**

-

High growth potential on European and Asian markets

Target Price: € 11.20

Rating: BUY

IMPORTANT NOTE:

Please take note of the disclaimer/risk warning, as well as the disclosure of potential conflicts of interest as required by section 34b of the Securities Trading Act (WpHG) on page 32

AHT Syngas Technology N.V. *5a,5b,11

Rating: BUY

Target Price: €11.20

Current Price: 7.30
17/05/2016 / HBG

Currency: EUR

Key Information:

ISIN: NL0010872388
WKN: A12AGY
Ticker Symbol: 3SQ1

Pre-Money / Post-Money

Number of Shares³: 1.50 / 2.50
Marketcap³: 10.95 / 18.25
Enterprise Value³:
10.88 / 18.18
³ in m / in mEUR

Free Float: 25.84 %

Transparency Level:
Freiverkehr

Market Segment:
High Risk Market (Hamburg)

Accounting Standard:
Dutch Accounting Standards
(Dutch GAAP)

Financial Year: 31/12

Analysts:

Felix Gode, CFA
gode@gbc-ag.de

Matthias Greiffenberger
greiffenberger@gbc-ag.de

* catalogue of potential conflicts of interests on page
Fehler! Textmarke nicht

Company Profile

Sector: Energy

Focus: decentral energy production

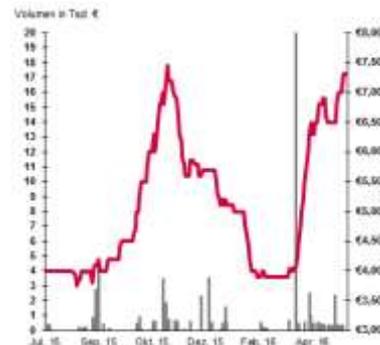
Employees: 23 (due date: 31/12/2015)

Founded: 2009

Registered Office: Maastricht / Netherlands

CEO: Gero Ferges

CFO: Robert Grassmann



AHT is a diversified company in terms of its global development and worldwide commercialisation of proprietary technology for fossil/biomass power plants and gasification technology. The company's purpose is the development, design, sale, implementation and maintenance of power plants which use raw fuels such as coal and biomass to produce energy at a lower cost and/or with improved efficiency. The company generates revenues from the sale and subsequent maintenance of power plants and gasification systems, which all produce energy. The AHT systems are environmentally friendly due to the clean and efficient conversion of fossil and renewable fuels into energy, heat, chemicals or synthesis gas (syngas). The combination of gasification technology and modern CHPs leads to ecological energy and heat production with a low level of pollutants. AHT gas technology solutions can also be used in combination with gas incinerators and fuel cells.

The following figures refer to AHT Services GmbH (post-money):

P&L in m€	2015	2016e	2017e	2018e	2019e	2020e	2021e
Total output	3.61	6.00	11.21	17.87	26.55	35.21	43.75
EBITDA	0.25	0.57	1.05	1.62	2.48	3.45	4.47
EBIT	0.23	0.50	0.95	1.52	2.38	3.35	4.37
Net profit	0.11	0.29	0.57	0.95	1.52	2.17	2.86

Key Figures**

EV/Sales	5.03	3.03	1.62	1.02	0.68	0.52	0.42
EV/EBITDA	72.41	31.89	17.31	11.20	7.33	5.27	4.06
EV/EBIT	80.78	36.06	19.13	11.93	7.64	5.43	4.16
P/E	165.91	62.97	31.79	19.27	12.02	8.42	6.39
P/B	27.04						

* The 2015 figures are preliminary and are unaudited at the time the report was prepared

** the key figures refer to the data and estimates of AHT Services GmbH on basis of a post-money-consideration, due to the fact that the holding company AHT Technology N.V. does not perform operating business

Financial Dates

09-30/05/16: subscription period of capital increase

06/06/16: planned inclusion to trading on the non-regulated market (Entry Standard) of the Frankfurt Stock Exchange

****last research published by GBC:**

Date: publication/price target in €/Rating

** the research reports can be found on our web-side www.gbc-ag.de or can be requested at GBC AG, Halderstr. 27, D-86150 Augsburg

EXECUTIVE SUMMARY

- AHT Syngas Technology N.V. and its wholly-owned subsidiary AHT Services GmbH (AHT) have been producing power plants with integrated gasification technology since 2010. The core business relates to gas-fired power plants with a capacity of between 200 kilowatts and 5 megawatts which produce and clean gases synthetically or thermochemically using fossil or renewable resources ("syngas") in order to significantly reduce the environmental impact of electricity and thermal energy production. In this area, AHT's special focus is on the development of small and medium-sized specialised solutions that are easy to operate.
- Syngas is produced through the combustion of the input material with the addition of highly reduced levels of oxygen. After cleaning, the gas can be converted into energy in commercial gas engines. AHT syngas solutions are particularly suitable for capacities up to a maximum of 10 MW in rural developing regions and small towns, as the AHT gas power plants in this area are significantly more efficient than conventional coal-fired plants.
- Global demand for energy is increasing, especially in the developing and emerging markets. Small and medium-sized power plants are required to supply remote areas with decentralised energy locally. This is particularly the case in China, although countries like India and Indonesia are also increasingly opting for syngas production. The background to this is the high efficiency of the medium-sized gas power plants and the inexpensive, locally available resources for the operation of these facilities.
- Since its foundation, AHT has successfully implemented numerous projects, thereby achieving a positive EBIT and net profit levels over the past four years. In some years, the EBIT margins were above the 10% mark. The company's lean organisation and low fixed cost structures are important criteria in achieving this.
- AHT has a strong pipeline of projects for 2016 and in subsequent years, some of which have already been commissioned and others are soon to be contractually agreed. This project pipeline and the growing global demand for clean energy have formed the basis for above-average growth prospects in coming years. The outlook is best in the medium term, particularly in Europe and Asia. In terms of earnings, economies of scale should become noticeable on the basis of rising revenues. Nevertheless, we have based our estimates on EBIT margins of no more than 10%. The increases in earnings will also be positively influenced by rising maintenance revenues. By 2021, these recurring revenues should increase to 20% of sales.
- **AHT Syngas Technology N.V. is active in highly dynamic markets where highly efficient and environmentally friendly solutions are required due an increasing demand for energy and increasingly stricter emissions standards. While the market in Europe is marked by strong demand for high-end solutions which generate clean energy from renewable resources, the need for a decentralised, affordable and sustainable supply of energy dominates in the developing and emerging markets, where the use of existing resources and the creation of jobs are also key factors. Based on the very promising market environment, solid business development and good outlook, we have determined a fair post-money valuation per share with a target price of €11.20. Against this background, the rating is BUY.**

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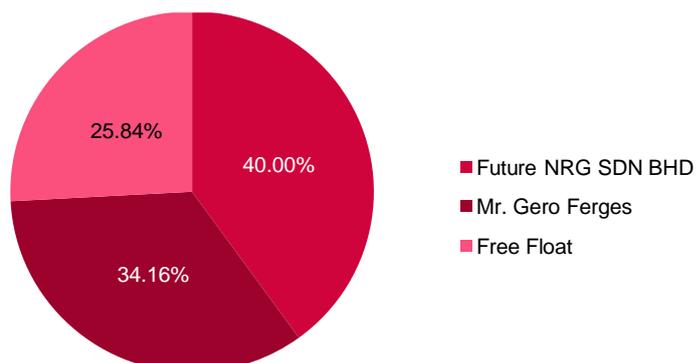
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COMPANY

Shareholder Structure

Shareholders in %	as of 30/12/2015
Future NRG SDN BHD	40.00 %
Mr. Gero Ferges	34.16 %
Free-Float	25.84 %

Source: AHT, GBC



The company is currently in the placement phase of a growth capital increase, in which up to 1 million new shares are to be issued at a subscription price of between €7.00 and €8.00. The subscription period will run from 9 May 2016 to 30 May 2016. The capital increase is expected to increase the number of issued shares from 1.50 million units to 2.50 million units.

34.16% of the shares are held by Gero Ferges, founder of AHT Services GmbH and CEO of AHT Syngas Technology N.V. Gero Ferges has worked in the fossil and renewable gasification technology sector since 2002 and contributes valuable technical expertise. With a stake of 40%, the largest shareholder in AHT Syngas Technology N.V. is Future NRG SDN BHD (Malaysia), a renewable energy specialist which is a subsidiary of Kuala Lumpur listed company Fitters Diversified Bhd. The CEO of the Fitters Group, Wong Swee Yee, is a member of the Supervisory Board of AHT Syngas Technology N.V. The remaining 25.84% of the shares are in free float.

Executive Board

Gero Ferges, CEO

As a graduate in Engineering, Gero Ferges has been involved in technological processes for the gasification of renewable and fossil fuels since 2002. Gero Ferges set up AHT Services GmbH in 2010 and it is currently the only subsidiary of AHT Syngas Technology N.V.. Gero Ferges has extensive expertise in the fields of gasification and power plant construction.

Robert Grassmann, CFO

Robert Grassmann has many years of experience in plant engineering as a senior executive at ThyssenKrupp Industrial Solutions AG. He has also held positions at KfW DEG and Lufthansa. As a graduate in Business Administration, Grassmann provides AHT with support through his network and expertise in the areas of finance and emerging markets.

Jürgen Bohn, MBA, CEO of AHT Services GmbH

Jürgen Bohn has over 15 years of experience in senior positions in the energy and power industries. He has mainly worked in the areas of project evaluation, project development, design, financing, management, business development and executive management.



Business activities

Brief overview of the company's history

Year	Event
2010	Foundation of AHT Services GmbH by Gero Ferges
2014	Transfer of AHT Services GmbH to the shell corporation of AHT Syngas N.V. via a capital increase through contribution in kind. Gero Ferges becomes major shareholder in AHT Syngas N.V.
2015	Future NRG SDN BHD acquires a 40% stake in AHT Syngas N.V. via a capital increase
2015	Listing on the Hanseatic Stock Exchange in Hamburg in the 'High Risk Market' segment
2016	Expansion of internal structures and application for a segment change to the Entry Standard of the Frankfurt Stock Exchange

Source: AHT, GBC

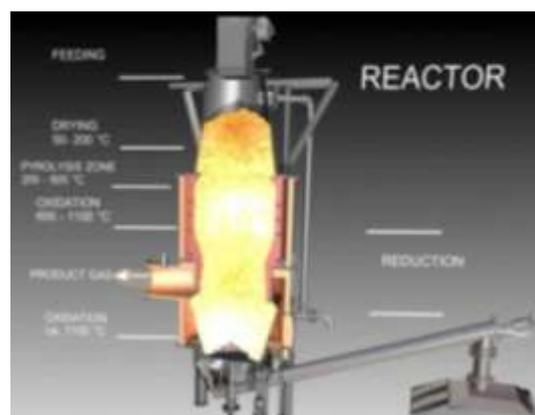
Business Model

AHT Syngas Technology N.V. (AHT) has been producing gas power plants with optional integrated gasification technology since 2010. Its core competence is in the technologically efficient generation of process gas or synthesis gas (syngas) from carbonaceous feedstock (fossil or renewable) while minimising energy consumption. In this field, AHT specialises in the niche of small to medium-sized compact systems. These are easy to operate and can be expanded if necessary to become multiple units (series installation). A biomass-fuelled AHT compact system is in the range of between 200 kW and 500 kW electrical energy, while a fossil fuel plant can generate between 250 kW and 1 MW of electricity. Series installations are available for biomass up to 5 MW and for fossil feedstocks up to 10 MW. Plants for the production of thermal energy range up to 30 MW.

The compact and highly efficient gas power plants are able to solve the energy problems in large parts of Asia without subsidies and in line with market conditions. The main factors in the region are population growth, a rapidly increasing demand for energy and growing pressure to produce energy cleanly, affordably and locally. AHT plants can also supply remote farming regions with no network connections with decentralised electrical power. These particularly include island locations and large plantations for palm oil production (Malaysia, Indonesia etc.). Industry intersections, such as in remote provinces of China and India, are also target markets for AHT plants. AHT intends to actively participate in the process of replacing old plants powered by diesel or coal with modern low-emission plants which can achieve CO₂ neutrality in biomass operation.

Syngas

In addition to the energy from direct combustion, AHT's main area of expertise is the production of synthesis gas (syngas), which can be derived from fossil fuels and renewable energy. Syngas is produced through the combustion of the input material with the addition of highly reduced levels of oxygen. This results in the production of the gas mixture syngas, consisting of carbon monoxide (CO) and hydrogen (H₂). After cleaning, the gas can be converted into energy in commercial gas engines. AHT syngas solutions with an output of up to 10 MW are particularly useful in rural regions and small towns, as the AHT gas power plants in this area are significantly more efficient than conventional coal-fired plants.



The technology used for the double-fire method was developed in the early 20th century by what was then the world's leading company in the field of coal and biomass gas generators – Klöckner-Humboldt-Deutz (KHD). AHT therefore draws on over 100 years of experience. Johannes Ferges, the father of the current CEO of Syngas N.V. Gero Ferges and also an engineer, launched the new technology in 1997 when he was working at KHD and the core technology developed by KHD is still used today, adapted to modern requirements. In total, over 10,000 units have been built worldwide on the basis of syngas technology.

A great advantage of today's syngas technology, which has been further developed by AHT, is that significantly less exhaust gas and toxic by-products are generated. This is particularly relevant given that syngas solutions can be used to comply with the world's increasing environmental protection requirements. Syngas can make a decisive contribution to the achievement of global emission targets by producing energy in an environmentally friendly way. Energy can also be obtained from syngas more cost effectively than by using traditional incinerators. In addition to cost efficiency, low-effort maintenance is also critical, as power plants can then be operated in regions with limited personnel.

Last but not least, the waste materials produced during the combustion process can be reused. Depending on the input material, the waste products produced can, for example, be used as a fertiliser (in the case of biological input material) or as an additive in road construction (in the case of coal as input material). AHT's syngas solutions are therefore a closed loop, emphasising their high efficiency and ecological expediency.

Product portfolio

AHT's capabilities include the creation of four different types of power plant. The main difference is the type of energy source used. Coal is used for fossil energy production, whereas biomass or wood can be used for renewable energy. Raw gas or clean gas is produced, depending on the intended subsequent use. Raw gas means that the energy source is burned directly and the gases are produced to directly generate, for example, heat for industrial processes. During clean gas production, on the other hand, the syngas produced is cleaned using AHT's high-end solutions and can consequently be converted to energy for diverse applications. AHT's gasification process actually processes the cleaned syngas so that it is suitable for use in commercial gas engines.

Product categories of AHT Syngas Technology N.V.



Source: AHT, GBC

AHT's modular solutions allow virtually all energy production requirements to be met. AHT's expertise lies in its stand-alone modules for gasification (gasifiers), gas cleaning and water treatment. Combined heat and power (CHP) solutions can be connected to these modular solutions and simultaneously generate mechanical energy which is usually directly converted into electricity and produces usable heat for heating purposes.

Modular structure of AHT-solutions



Source: AHT

Fossil energy production with raw gas solutions

The highest energy output is achieved from the direct combustion of fossil fuels, such as various types of coal. The resulting hot gas is mainly burned directly, e.g. in furnaces. Continuous gas generation with maximum effect is particularly important for this area of application. In this area, AHT provides a wide range of solutions with thermal output of between 3 MW and 50 MW.

A major project in Odisha, India is used as a reference project in this segment. The hot gas power plant will produce 40 MW of thermal power and is to be used for processing iron ore. AHT uses this high-performance power plant for the particularly efficient combustion of coal in order to achieve the very high temperatures required for iron ore processing. The start-up is scheduled for 2016.

AHT hotgas facility in India



Source: AHT

Fossil energy production with clean gas solutions

AHT also supplies highly efficient gas generators which convert fossil fuels and have a connected gasification system. This offers the advantage that the produced syngas can be converted into energy in all conventional gas engines. AHT provides two different systems in this segment. The high-performance solutions generate between 1 MW and 10 MW, while the standard solutions generate between 200, 400 and 800 kWel.

In this segment, for instance, AHT built a gas power plant for fossil fuels with gasification in Indonesia in 2011. A special quality feature of AHT's solutions is the particularly high energy efficiency and low maintenance costs. AHT's solutions can supply energy to a town with 100,000 inhabitants, with electrical capacity of 6 MW. Coal is used as the fuel,

but the plant is comparatively environmentally friendly due to the modern technology that AHT uses.

AHT-solutions in Indonesia



Source: AHT

Renewable energy production with raw gas solutions

In the field of renewable energy production with raw gas solutions, AHT provides combustion power generation solutions on a biomass basis. These systems can process a variety of fuels, including biomass, wood, empty seed heads from palm oil production and HTC coal. The direct combustion method generates the highest energy output in the field of renewable energies. AHT provides environmentally friendly systems that can be operated with biomass waste and can generate a thermal output of between 2.5 MW and 25 MW.

Renewable energy production with clean gas solutions

High-quality syngas can also be produced using biomass by connecting a gasification module. Wood, biomass or HTC coal can be used as fuel to produce energy in an environmentally friendly way with low emissions. Particularly in this area, AHT provides an extremely wide range of solutions, meeting both high-performance requirements from 0.5 MW to 5 MW as well as standard gas power plant solutions with 200, 400 or 800 kW of electrical capacity.

AHT-solution in Great Britain and Japan



Source: AHT

There is particularly high demand for this series of products and AHT has already provided a variety of solutions worldwide. For instance, AHT recently built a gas power plant with 600 kW_{el} for the University of Hertfordshire in the UK and has also installed clean gas solutions with 800 kW in Japan.

Value chain

AHT is represented simultaneously at several points in the value chain. AHT primarily operates in the design and development of gas generators and gas cleaning. The main

elements are manufactured in-house. AHT's high-tech solutions are an important USP with impressive above-average efficiency and low maintenance requirements. For this purpose, the main components need to be top quality and so they can reliably produce energy on a long-term basis. AHT therefore develops and builds, for instance, the lock, ceramic inner shell and electric filter in-house.

The low maintenance required is particularly beneficial due to the fact that these solutions can also be used in developing and emerging markets without a large number of engineers being required locally. In order to cover the incurred maintenance, AHT also trains staff on site who can perform the most essential maintenance and repair work. The company also plans to develop service hubs so that AHT's expertise is available locally and to provide a large number of plants with the entire range of services. This would allow the company to further expand its service provision and, thus, grow its service revenues.

AHT's value chain



Source: AHT, GBC

As AHT does not operate the installed plants itself, AHT can sell additional services where required. The service and maintenance of facilities is currently provided as a combination of local training and external expert support from Germany. Direct maintenance is provided directly on site through "first level support" and "second level support" from personnel trained by AHT. More complex problems are referred to the "third level support" experts in Germany. Looking ahead, the service revenues could constitute up to 20%, although a substantial proportion of sales are already generated by services. It is expected that this business area will expand gradually with the support of local service hubs.

With its core competence of technical expertise, AHT covers a large part of the value chain in energy production. This is clear when viewed from the perspective of their share of the production costs. Around 50% of electricity or heat production costs can be attributed to gas production and cleaning. The rest is attributable to CHP or gas engines and the system peripherals. AHT's core area of expertise is gas production and gas cleaning. AHT is also responsible for some peripheral elements, e.g. some key components of the plant. AHT therefore represents over 50% of production costs throughout the value chain.

Percental distribution of project cost / AHT share of revenue



Source: AHT, GBC

AHT works with established partners in the construction of the plants. In the past, the company has worked with partners such as Mitsubishi Heavy Industries, Navigat (Jenbacher GE) and Truck Indo (Caterpillar) for the supply of gas engines or CHPs during

the construction of large industrial facilities. Overall, AHT has built up a strong network of partners over the last few years and is well-placed to take on large power plant projects.

Competitive environment and cost comparison

The intensity of competition is low in the market for medium-sized plants with a power range of over 3 MW addressed by AHT. Competition is stronger in the field of small and large-scale plants. In the case of very small plants with a capacity of 40-50 kWel there are a number of vendors, but profitable processing in this segment is difficult because a large number of projects need to be implemented in order to achieve sufficient economies of scale. In addition, the output of small plants is usually not sufficient to supply multiple households with energy. In the case of large power stations with power ratings of over 100 MWel, significant financial resources are required to implement such projects. Major players like Siemens, Lurgi and ABB operate in this segment.

By focusing on medium-sized systems, AHT therefore occupies a niche where the competitive pressure is manageable. The medium-sized plants are also ideal for the markets addressed by AHT, e.g. in Asia's emerging markets, due to their affordability and the amount of electricity produced.

Where AHT solutions are used in emerging markets, especially in areas with no connection to the grid, they usually compete with diesel generators used to generate electricity. AHT's gas facilities prove to be significantly more environmentally friendly than diesel generators. Moreover, the biomass and coal-based AHT systems are also an economically wise investment.

It should first of all be noted that AHT solutions can guarantee base-loadable energy production using fossil fuels and renewable raw materials, i.e. coal or biomass. This means that energy can be generated as required. There are therefore no disadvantages compared to conventional diesel solutions. In this respect, AHT systems are superior to the use of solar or wind energy, which are dependent on the environment to generate energy.

The following table shows the economic benefits of syngas systems operated with biomass or coal compared to diesel generators for the Asian market:

		Diesel I	Diesel II	Biomass	Anthrazite	Brown Coal
FX	\$/€	1.140	1.140			
Fuel Costs \$/l	\$/l	0.500	1.000			
Fuel Costs €/t	€/t	548	1,096	25	90	40
Energy content	kWh/t	11,800	11,800	4,500	7,500	4,500
Fuel costs per kWh	€/kWh	0.0464	0.0929	0.0056	0.0120	0.0089
Overall plant efficiency	%	30%	30%	30%	30%	30%
Fuel cost per kWh_{el}	€/kWh	0.1548	0.3096	0.0185	0.0400	0.0296
Electrical output	kW	1,000	1,000	1,000	1,000	1,000
Operation hours	h/yr	7,500	7,500	7,500	7,500	7,500
Fuel costs per year	€/yr	1,161,017	2,322,034	138,889	300,000	222,222
Investment costs	€	500,000	500,000	4,000,000	3,000,000	3,000,000
Average interest rate	%	4%	4%	4%	4%	4%
Interest payments per year	€	20,000	20,000	160,000	120,000	120,000
Maintenance	%	10%	10%	10%	10%	10%
Maintenance costs per year	€/yr	50,000	50,000	400,000	300,000	300,000
Total costs per year	€/yr	1,231,017	2,392,034	698,889	720,000	642,222

Source: calculations AHT

Two diesel price scenarios were assumed for the calculation of the example above. Diesel prices of \$0.5 per litre and \$1.0 per litre were used as a basis to account for the current low level of diesel fuel prices. However, in both scenarios, account needs to be taken that the input costs for biomass and coal are significantly lower than for diesel. Although the energy density and therefore the fuel value of diesel are sometimes up to three times as high, biomass in particular is significantly cheaper to procure, e.g. as a waste product of palm oil production. Even taking transport and storage costs into account, the usage prices are clearly superior, even if diesel prices are low. It should be noted that this only applies to the Asian market. Biomass input materials may not be available at such low prices in Europe. Taking all circumstances into consideration, the energy costs in Asia for biomass are less than €0.02 per kWh, compared to at least €0.15 per kWh for diesel. Biomass is also more favourable in energy production compared to the use of coal as an input material.

The higher financing and maintenance costs are likely to be a major reason for the as yet limited use of syngas solutions in general compared to diesel solutions. Compared to a conventional diesel system, the total investment for biomass plants with an equivalent plant output is around €4 million, while diesel generators require an investment of only €0.5 million. Moreover, the maintenance of diesel systems is less extensive and therefore more cost-effective.

Nevertheless, biomass plants have proved to be more cost-efficient over the course of a year despite the higher acquisition and maintenance costs, with total costs of approximately €0.7 million compared to between €1.23 and €2.39 million for diesel systems. The relevant factor here is the markedly more favourable input costs, which can be achieved due to the use of waste products. However, even when using coal, the total costs are lower than for diesel-powered plants. Even with low diesel prices (Scenario I) the benefit is almost 50%, which is significant. If oil prices once again reach their historically high levels, the cost difference will grow even wider.

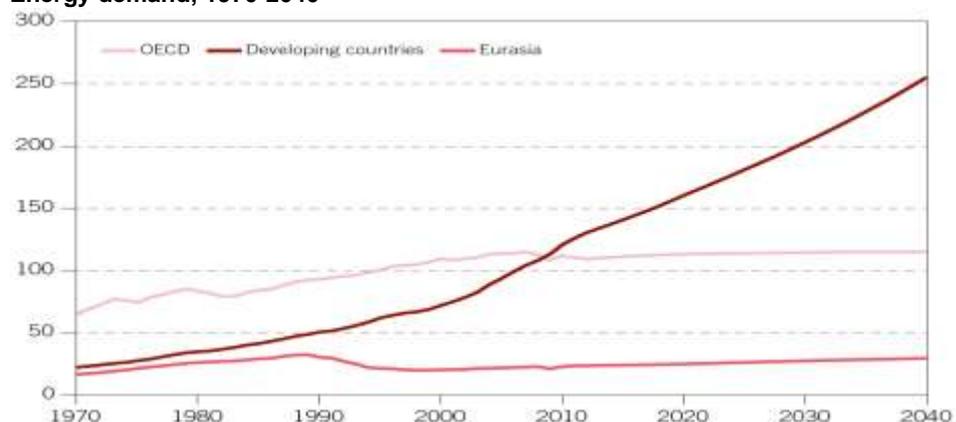
One of the major challenges faced today is therefore communicating the significantly lower total annual costs while also highlighting the superior environmental performance of AHT's solutions, regardless of whether they are operated using biomass or coal. We believe that work needs to be done to change opinions in this area, even at a regulatory level. If investment costs were publicly funded, the economic situation, along with the environmental benefits, would improve even further and lower some of the investment barriers. Regardless of this, AHT is already able to provide export financing, which is covered by Euler Hermes.

MARKET AND MARKET ENVIRONMENT

Energy is one of the key growth factors for the development of modern economies. The global consumption of energy increased by 157% between 1970 and 2013. During this period, the highest growth rates in terms of industrialisation, urbanisation, population growth and population income took place in developing countries. Energy demand in developing countries rose by almost 500% from 1970 to 2013. In comparison, energy demand only increased by around 69% in the OECD countries due to the transition to low-energy industry and limited population growth.

In the future, global energy demand is expected to grow by 49% by 2040. The main growth driver for this increase in demand will come from developing countries due to further industrialisation, population growth and an unprecedented expansion of the middle classes. It is estimated that developing countries will account for 63% of global energy consumption in 2040 and this will consequently have increased by 50% from 2015 onwards. In contrast, OECD nations are expected to grow by only 5% between 2013 and 2040 due to low-energy industries, increased energy efficiency and a slowdown in economic growth.

Energy demand, 1970-2040



Source: World Oil Outlook 2015

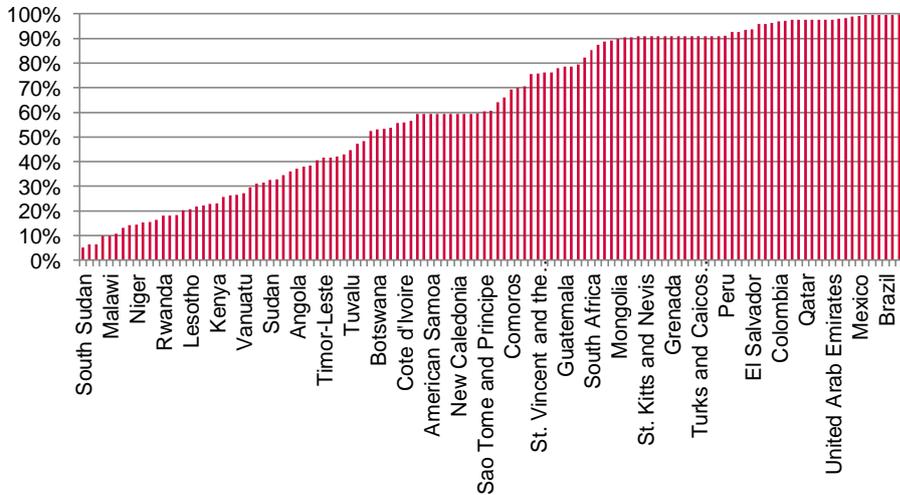
The demand for energy is driven by several factors including available technology, legislation and regulations, macroeconomic trends, development processes, prices, total population and the degree of urbanisation. These factors play a critical role when determining the future growth and development of demand.

AHT's products are relevant to both OECD countries and developing countries. Particularly in rural areas, which cannot guarantee economic utilisation of central power plants > 50 MW, AHT power plants have the decisive advantage that local materials can be converted to energy, making long fuel transport routes and expensive connections to supra-regional high-voltage grids largely unnecessary. AHT provides gasification solutions for renewable fuels and is therefore able to make use of local resources. Examples include empty fruit bunches from the production of palm oil in Malaysia and Indonesia, the largest palm oil producers in the world. These can be used directly and locally in the gasification process at regional plants without lengthy transportation.

AHT solutions also have particularly low maintenance costs. As developing countries generally only have a limited number of skilled workers able to provide comprehensive maintenance services, it is important that maintenance can be carried out by local staff who have only received brief training. AHT therefore offers appropriate solutions so it can participate in the dynamic growth of developing countries.

In addition to the future growth, current supply is also crucial. According to the World Bank, less than half the population in 43 countries has access to energy and less than 75% of people in 68 countries.

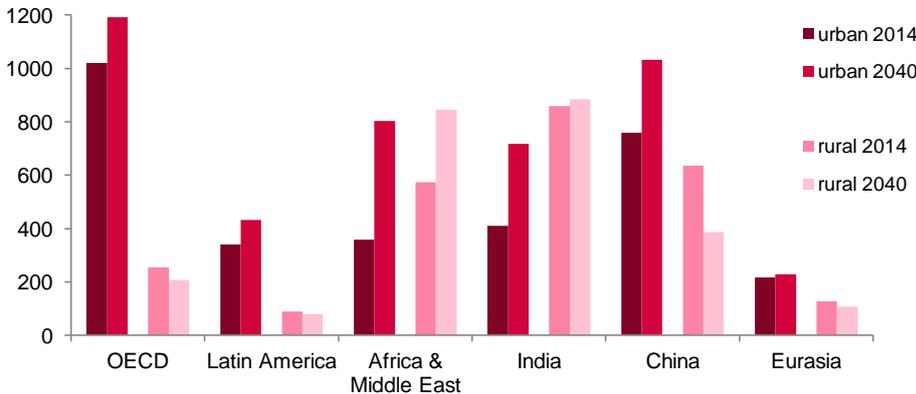
Global access to energy, 2015



Source: GBC, World Bank

The low supply is often due to the economically weak position of nations that are unable to bear the high costs of large infrastructure. AHT power plants also play an important role in solving the problem of global access to energy. AHT's small and medium-sized gas power plant solutions can be constructed and operated independently of an extensive infrastructure network. These cost-efficient and low-emission solutions will play a crucial role in the development progress of developing and emerging countries.

Global comparison between urban and rural population, 2014-2040



Source: GBC, World Oil Outlook 2015

The infrastructural challenges of population distribution are a particularly evident aspect. The OECD countries have a significantly higher degree of urbanisation and this trend will increase as we head towards 2040. In contrast to this, the greater part of the population in Africa, the Middle East and India live in rural areas and this will continue to be the case in the future. The situation is different in China where a similar trend to that of the OECD countries is developing. In that the population is showing a tendency to move from the countryside to the cities. Nevertheless, in China too, nearly a quarter of the population will still live in rural areas by 2040.

With such a high rural population, developing and emerging countries face a major infrastructure problem. The broad coverage of such remote villages and small towns is almost impossible. The only cost-effective way to supply the entire population with energy is via decentralised power plants with smaller independent infrastructures. The obvious solution is AHT gas-fired power plants or AHT gas-fired power plants with gas cleaning. A further major advantage of gas cleaning is that the final product, syngas, can be used as fuel for gas engines, e.g. remote generators. The local production of syngas would allow energy to be generated where it is needed most. The majority of emerging and developing countries currently operate decentralised generators with diesel fuel. The major disadvantage of diesel is that the fuel needs to be transported to the decentralised locations as pipelines or similar solutions are not usually laid. Local syngas produced using local products is therefore a sensible alternative to conventional solutions.

Forecast of world-wide energy consumption by energy source until 2040

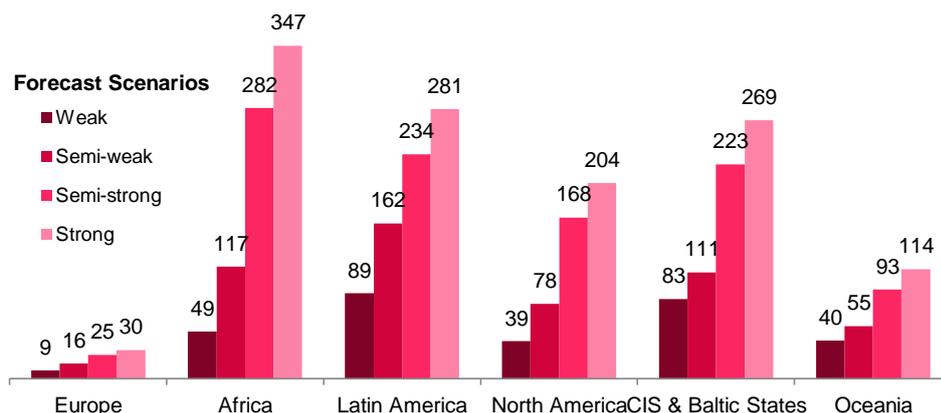


Source: GBC, World Oil Outlook 2015

The demand for energy needs to be met using different fuels. It is predicted that the use of renewable energy sources and natural gas will increase the most. AHT solutions also support this combination, as additional generators that can be operated with gas will need to be constructed due to the large increase in natural gas. In this context, AHT solutions can also produce syngas, which can be used in all conventional gas generators, in combination with AHT gas cleaning systems. There is therefore a strong potential for synergies with natural gas. It should also be noted that the use of coal continues to grow steadily and AHT solutions for fossil fuels can therefore also be used in the future.

In order to estimate the future demand for bio-energy, i.e. renewable energy for AHT solutions, a very comprehensive analysis of the future development was performed in the context of "A bottom-up assessment and review of global bio-energy potentials to 2050", a study carried out by the University of Utrecht. The estimates are based on four different scenarios which are influenced by many other factors. In the study, it became apparent that Africa and Latin America in particular will have access to bio-energy in the future. The background to this is that developing countries are dependent on cost-effective fuels which can be obtained from local production with little effort. Syngas solutions using renewable resources have many benefits for developing and emerging countries in the long term. Firstly, all remote regions can be supplied with power using the syngas solutions. Secondly, AHT's significantly more environmentally friendly solutions are also compatible in the long term with the global trend of environmental protection.

Global bio-energy potential for 2050, four szenarios, in exajoule (EJ)

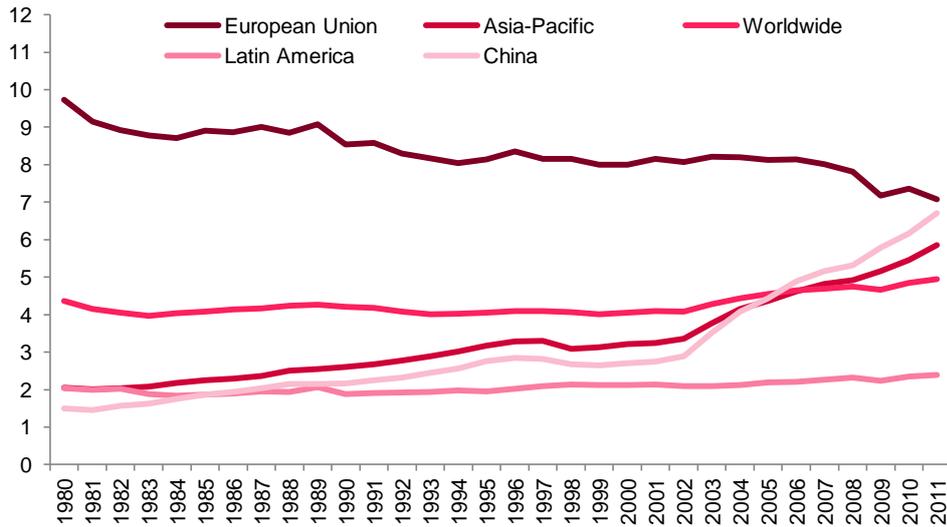


Source: GBC, A bottom-up assessment and review of global bio-energy potentials to 2050, Utrecht University

Market development clearly shows the long and medium-term potential of syngas solutions and AHT solutions in particular. In the short term, the OECD market will especially benefit from AHT's solutions, as these more environmentally friendly high-end solutions are significantly more efficient than conventional coal solutions. Therefore, we expect strong growth in the OECD countries in the short term, which will be replaced by growth in the Asian countries in the medium term. In the long term, the greatest demand will come from Africa and Latin America.

Global CO₂ emissions are primarily caused by the production energy using fossil fuels. Nevertheless, the decline in CO₂ emissions per capita over the last few years does not reflect a reduction in energy production but merely the fact that the increase in emissions is lower than the population growth. The four regions with the highest emissions, China (30%), the USA (15%), the EU (EU-28 10%) and India (6.5%), are responsible for 61% of global emissions. China, in particular, is facing environmental challenges as the biggest producer of emissions. The high level of emissions has resulted in smog in the conurbations and acid rain in the countryside which damages crops. It is therefore imperative for China to reduce emissions and find a greener way to produce energy. This development is particularly critical in light of the fact that energy demand continues to rise in all developing and emerging countries. After the UN World Climate Conference in Paris in 2015, China announced that it aims to reduce its emissions in the energy industry by 60% by 2020. This ambitious goal can only be achieved by making radical changes in energy production. A large-scale conversion to greener syngas plants could be a conceivable solution. Not only China, but also other developing and emerging countries face the challenge of rising energy demand and increasing environmental pollution. A global increase in demand for greener syngas solutions is therefore foreseeable.

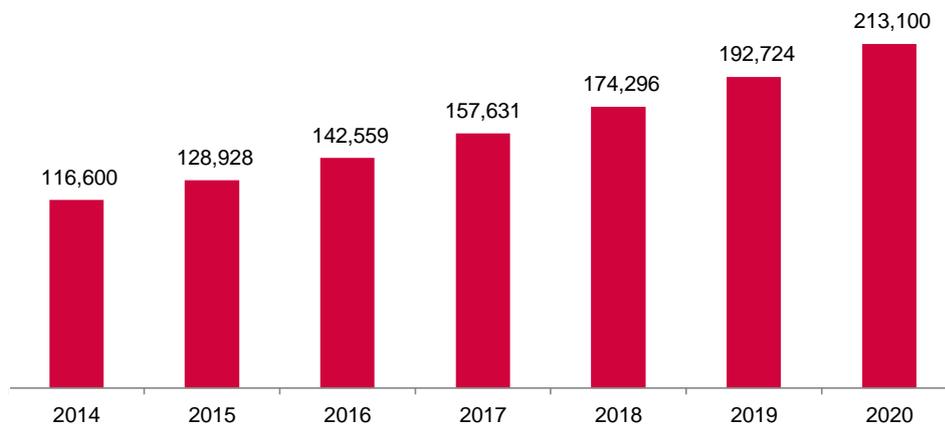
Annual carbon-emissions per capita: strong increase in China / Asia (metric tons)



Source: World Bank, GBC

Strong growth up to 2020 is confirmed in the global forecast for syngas. By 2020, the global syngas market is expected to grow to 213,100 MW_{th} and thereafter it will grow by 10.57% per year on average. From a regional perspective, APEC (the Asia-Pacific Economic Cooperation) is the largest market, followed by the Middle East & Africa and finally Europe. Broken down into specific countries, China is regarded as the largest syngas market due to its large coal reserves and high energy demand. This shows that the rising global demand for energy is also driving the syngas market, as the developing and emerging countries also want to develop a comprehensive energy supply. AHT is expected to participate in this rapidly growing market and offers a range of products which are attractive to both OECD countries and emerging and developing countries.

Global market for syngas 2014-2020, MW_{th}, CAGR: 10.57 %



Source: GBC, MarketsandMarkets

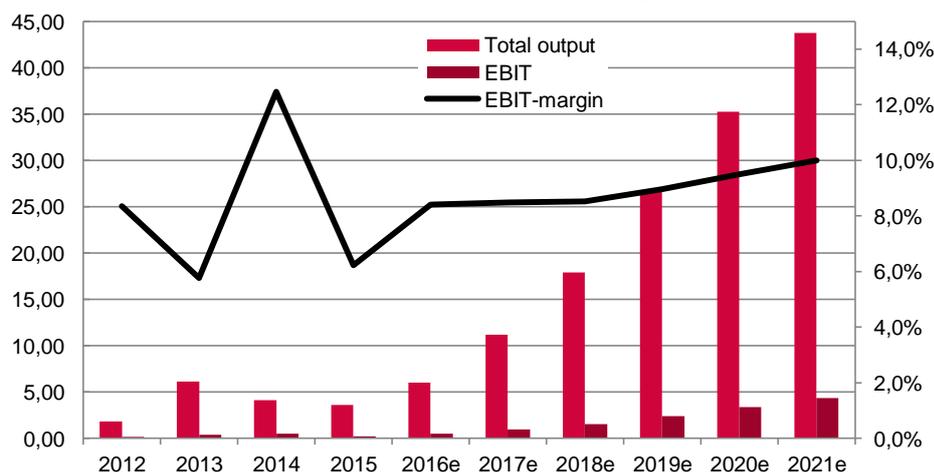
BUSINESS DEVELOPMENT AND ESTIMATES

Key Financial Figures

P&L in m€	2012	2013	2014	2015	2016e	2017e	2018e	2019e	2020e	2021e
Total output	1.80	6.14	4.14	3.61	6.00	11.20	17.87	26.55	35.21	43.75
Cost of materials	-0.61	-3.87	-1.50	-1.11	-2.10	-4.48	-7.15	-10.62	-14.08	-17.50
Gross profit	1.20	2.28	2.64	2.50	3.90	6.72	10.72	15.93	21.13	26.25
Personnel expenses	-0.77	-1.15	-1.38	-1.48	-1.60	-2.10	-2.60	-3.10	-3.60	-4.10
Other operating expenses	-0.20	-0.70	-0.77	-0.78	-1.73	-3.57	-6.50	-10.35	-14.08	-17.68
EBITDA	0.23	0.44	0.61	0.25	0.57	1.05	1.62	2.48	3.45	4.47
Depreciation	-0.08	-0.09	-0.09	-0.03	-0.07	-0.10	-0.10	-0.10	-0.10	-0.10
EBIT	0.15	0.35	0.52	0.23	0.50	0.95	1.52	2.38	3.35	4.37
Financial expenses	-0.11	-0.05	-0.04	-0.06	-0.09	-0.13	-0.17	-0.21	-0.25	-0.29
EBT	0.05	0.31	0.48	0.16	0.41	0.82	1.35	2.17	3.10	4.08
Income taxes	-0.02	-0.11	-0.17	-0.05	-0.12	-0.25	-0.41	-0.65	-0.93	-1.22
Net profit	0.03	0.20	0.31	0.11	0.29	0.57	0.95	1.52	2.17	2.86

in %	2012	2013	2014	2015	2016e	2017e	2018e	2019e	2020e	2021e
Total output	100.0%									
Cost of materials	-33.6%	-62.9%	-36.3%	-30.8%	-35.0%	-40.0%	-40.0%	-40.0%	-40.0%	-40.0%
Gross profit	66.4%	37.1%	63.7%	69.2%	65.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Personnel expenses	-42.9%	-18.7%	-33.2%	-41.0%	-26.7%	-18.8%	-14.5%	-11.7%	-10.2%	-9.4%
Other operating expenses	-11.2%	-11.4%	-18.6%	-21.7%	-28.8%	-31.9%	-36.4%	-39.0%	-40.0%	-40.4%
EBITDA	12.6%	7.2%	14.7%	7.0%	9.5%	9.4%	9.1%	9.3%	9.8%	10.2%
Depreciation	-4.3%	-1.5%	-2.2%	-0.7%	-1.1%	-0.9%	-0.6%	-0.4%	-0.3%	-0.2%
EBIT	8.4%	5.8%	12.5%	6.2%	8.4%	8.5%	8.5%	9.0%	9.5%	10.0%
Financial expenses	-5.8%	-0.8%	-0.9%	-1.7%	-1.5%	-1.2%	-1.0%	-0.8%	-0.7%	-0.7%
EBT	2.5%	5.0%	11.6%	4.5%	6.9%	7.3%	7.6%	8.2%	8.8%	9.3%
Income taxes	-41.6%	-34.2%	-36.3%	-32.5%	-30.0%	-30.0%	-30.0%	-30.0%	-30.0%	-30.0%
Net profit	1.5%	3.3%	7.4%	3.0%	4.8%	5.1%	5.3%	5.7%	6.2%	6.5%

Development of Total Output, EBIT (in m€) and EBIT-margin (in %)



Source: AHT, GBC

Past business development

P&L (in m€)	FY2012	FY2013	FY2014	FY2015
Sales	0.75	6.43	6.07	2.71
Total Output	1.80	6.14	4.14	3.61
EBITDA (<i>margin</i>)	0.23 (12.6 %)	0.44 (7.2 %)	0.61 (14.7 %)	0.25 (7.0 %)
EBIT (<i>margin</i>)	0.15 (8.4 %)	0.35 (5.8 %)	0.52 (12.5 %)	0.23 (6.2 %)
Net profit	0.03	0.20	0.31	0.11

Source: AHT, GBC

Note: The following review of historic business development refers to AHT Services GmbH, the sole subsidiary of AHT Syngas Technology N.V., which also handles all operational business. AHT Syngas Technology N.V. only functions as a holding company and is not an operational unit, and no consolidated financial statements are prepared. The information relating to the FY2015 is based on information provided by the company and had not been audited at the time the study was prepared. The company has published its preliminary results on its website.

Development of sales/total output

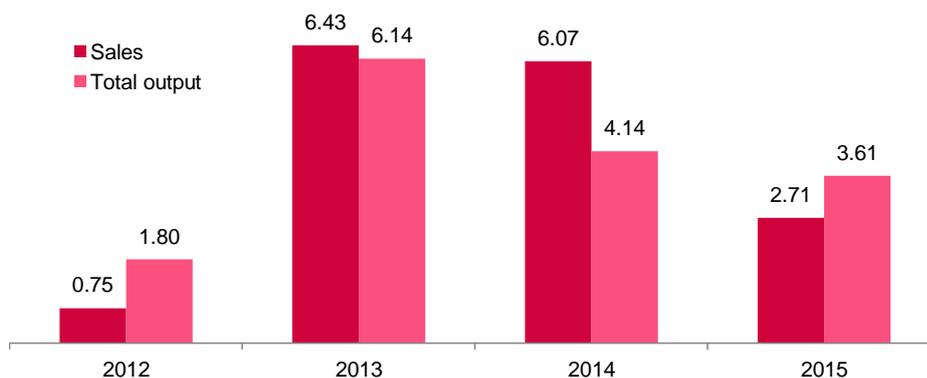
During the past FY 2015, AHT Services GmbH (AHT) generated sales of €2.71 million. Essentially, the following two projects with a capacity of around 1.4 MW were implemented:

University of Hertfordshire, UK		Kesenuma, Miyagi, Japan	
Input material:	Wood	Input material:	Wood
Electrical output:	600 kW _{el}	Electrical output:	800 kW _{el}

With sales of €2.71 million, AHT was unable to repeat the good results of the previous two years, during which sales of €6.07 million and €6.43 million respectively were generated. In this regard, it should be noted that major projects were implemented in 2013 and 2014, e.g. the projects in Indonesia and Japan.

However, it should also be noted that long project durations need to be reckoned with in some cases, particularly in the case of major projects with several MW of electric power, with corresponding preparatory effort by AHT. Therefore AHT produces several critical parts in-house in order to keep the technological expertise within the company.

Development of Sales and Total Output (in m€)



Source: AHT, GBC

In this respect, taking total output into account is more meaningful than considering the sales alone, as the inclusion of inventory changes also takes preliminary expenses for projects after the balance sheet date into account. Viewed at the level of total output, volatility has been significantly lower in the past four years and the decline was only 12.8% in 2015 compared to the previous year, even though the project nature of the business model still a key characteristic.

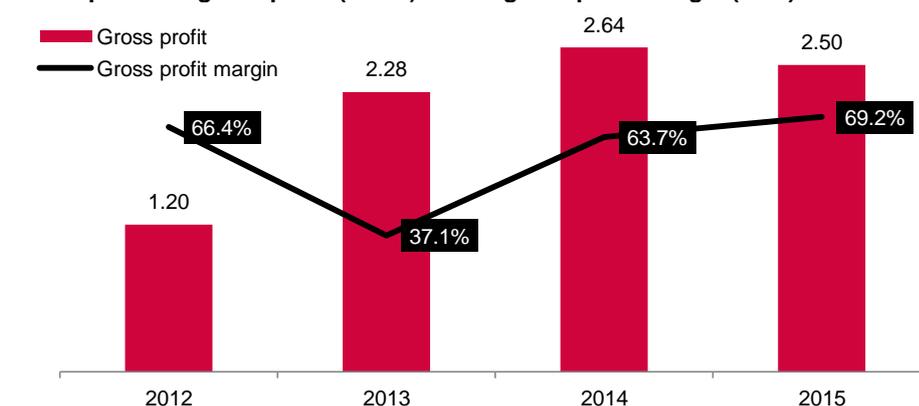
In 2015, the growth in inventories amounted to €0.90 million and reflects the preparatory efforts made for projects already commissioned for 2016 which are in the process of implementation (see estimates and model assumptions).

Earnings development

Although the fluctuation of sales and of total output in the past four years has been quite high, AHT has been able to increase its gross profit. This is evidence that the strategic extension of value creation in the implementation of projects has been successfully implemented. To an increasing extent, the company has been able to acquire project initiatives in addition to the pure sale of technological expertise and ultimately also take over the operation of plants.

This was in the long run reflected by gross profit of €2.50 million despite declining sales, which was therefore only slightly under the previous year's level. The gross margin also reached a 69.2%, showing AHT's high proportion of added value. AHT currently only produces selected key elements of the plants which play a crucial role in efficient operation. As there will be no changes to this strategy in the future, it can be assumed that the gross margins of a similar order of magnitude will also be generated in the future.

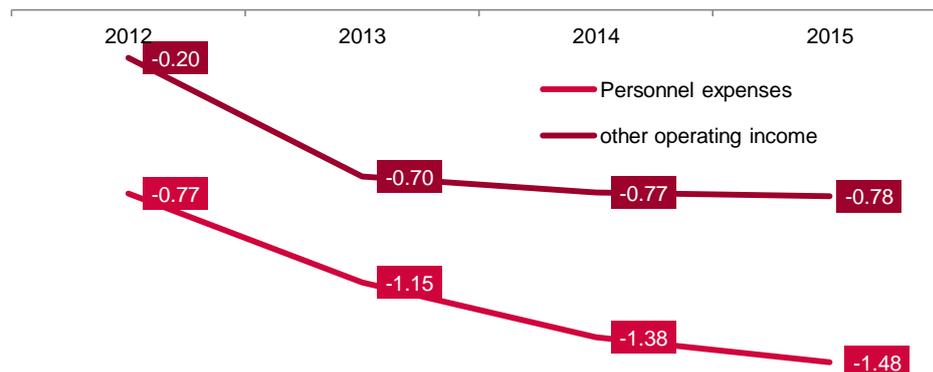
Development of gross profit (in m€) and of gross profit margin (in %)



Source: AHT, GBC

In the case of the other cost items, a continuous increase was recorded in previous years, mainly in relation to personnel expenses. Against the background of the increasing internationalisation of the business and the increasing number of projects, the workforce was increased from 20 to 30 between 2012 and 2015. The personnel expense ratio (in % of total output) was 33.2% in 2014 and 41.0% in 2015, due to the slightly lower overall performance and further growth of the workforce. In the next few years, we expect significant economies of scale in human resources, as it can be assumed that the increase in staff will increase more slowly in proportion to the processed project volumes. In contrast, the development of the other operating expenses was significantly flatter, rising only slightly from €0.70 million to €0.78 million between 2013 and 2015. The main components of other operating expenses include rent, travel expenses and maintenance costs for existing plants.

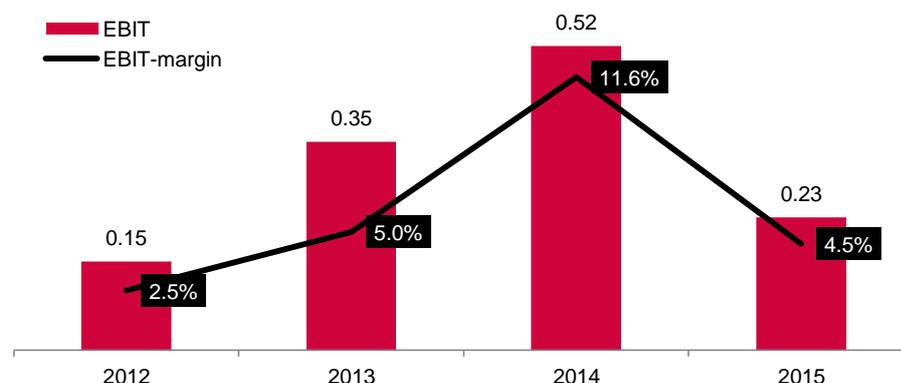
Development of personnel expenses and other operating expenses (in m€)



Source: AHT, GBC

Overall, AHT achieved EBIT of €0.23 million in 2015, which is about half as much as in the strong previous year, when €0.52 million was generated. It is noteworthy, however, that the company consistently generated positive EBIT in the previous four years despite the comparatively volatile development of sales, with an average EBIT margin of around 6%. Given the short history of the company and the fact that the company has used the previous years to develop its capacity and structures and to launch the technology onto the market, we consider the achieved figures to be good.

Development of EBIT (in m€) and EBIT-margin (in %)



Source: AHT, GBC

The net interest income is of secondary importance for AHT, as the company has had no long-term external debt since 2014. In this respect, a positive value was also generated at the level of net income over the last four years. In 2015, this amounted to €0.11 million, compared to €0.31 million in the previous year.

Balance sheet and financial situation

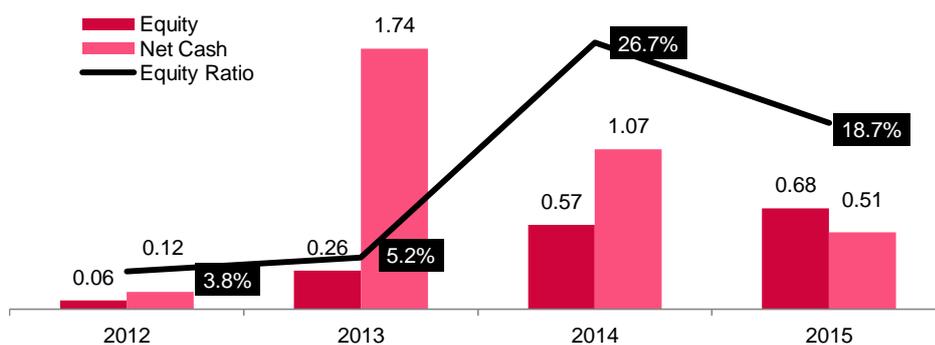
in m€	31/12/2012	31/12/2013	31/12/2014	31/12/2015
Equity	0.06	0.26	0.57	0.68
Equity Ratio (in %)	3.8 %	5.2 %	26.7 %	18.7 %
Cash	0.48	2.07	1.07	1.33
Interest Bearing Debt	0.36	0.32	0.00	0.82
Net Debt	0.12	1.75	1.07	0.51
Working Capital	-0.24	-1.66	-0.61	0.08

Source: AHT, GBC

The two dominant positions on the asset side of AHT at the end of the FY2015 were inventories and cash and cash equivalents. The relatively high level of inventories represents advance payments for the production of syngas plants. AHT produces specific core components, such as the ceramic inner shell and the electric filter itself, which are vital for the correct functioning of the plants. Prepayments are usually agreed for projects, so that the increased level of inventories is financed through payments of around 20% of the order volume. There are therefore only very minor delivery risks or inventory risks for the company. This is also indicated by the almost constant negative working capital over the past four years.

In addition to the prepayments, which amounted to €0.60 million at the end of 2015, the company uses working capital financing on a case-by-case basis. For instance, the company took out bank loans of €0.82 million at the end of 2015 after using no financing at all as at the reporting date of the previous year. As at 31 December 2015, the Company recorded a net cash position of €0.51 million.

Development of basic balance sheet items (in m€)



Source: AHT, GBC

Due to the consistently positive results over the past four years, AHT has also been able to gradually strengthen its equity position. While the company reported equity of €0.06 million at the end of 2012, this had increased to €0.68 million by the end of 2015. The equity ratio improved during the same period and is currently at 18.7%. The equity ratio is likely to improve further in the next few years. Accordingly, the plan is to include only small proportions of external financing in order to support the company's international expansion.

Assets, on the other hand, play only a very minor role in AHT's balance sheet. The company has leased all its business and production premises. In addition, barely any intangible assets are shown in the balance sheet. Overall, AHT's balance sheet does not indicate any above-average risks and is instead dominated by equity and cash and cash equivalents.

SWOT-Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • High technological capability • Balance sheet free of net debt and intangible assets • Wide range of products with a power range between 200 kW and 10 MW • Covers the entire value chain in plant production • Already has strong partnerships in Asia 	<ul style="list-style-type: none"> • Company still small in size • Low fungibility of the shares • Investment still required for the development of international structures • Project management requires high level of supervision of the project partners
Opportunities	Threats
<ul style="list-style-type: none"> • Very high demand for decentralised energy solutions, especially in emerging markets, as no comprehensive energy networks available • High demand for emission reduction in Asian countries, especially China, favours use of syngas technology • Markets such as South America and Africa not yet being addressed, but offer enormous future potential • By further extending its value creation, AHT can further increase its share of the project volume • State subsidies for clean energy production may provide an additional boost for the use of syngas plants 	<ul style="list-style-type: none"> • Low prices for oil and coal prevent a decision in favour of renewable energy production • Alternative forms of energy production may inhibit the use of syngas production • Political instability may make market access to some emerging economies difficult or hinder business operations there • The attractiveness of syngas use may increasingly encourage competitors to enter the market • The attitude of the state towards syngas subsidies in some countries may hamper market penetration

Estimates and model assumptions

P&L (in m€)	FY2016e	FY2017e	FY2018e	FY2019e	FY2020e	FY2021e
Sales	6.00	11.20	17.87	26.55	35.21	43.75
EBIT	0.50	0.95	1.52	2.38	3.35	4.37
EBIT-margin	8.4 %	8.5 %	8.5 %	9.0 %	9.5 %	10.0 %
Net Profit	0.29	0.57	0.95	1.52	2.17	2.86

Source: AHT, GBC

Note: The following forecasts relate to AHT Services GmbH and are based on the assumption of a full placement of the planned capital increase of the non-operating parent company AHT Syngas Technology N.V. of €1 million in shares (post-money) at a price of €7.00 per share, which is in the lower price range (€7.00 - €8.00). Without the funds from the placement, the development of the company would be likely to follow a flatter growth curve.

Strategic outlook

On the basis of the market developments and reported strategic planning, we expect dynamic growth for AHT. This growth is based on the gradual expansion of the target regions and a deepening of the value chain.

AHT Syngas GmbH – global activities



Source: AHT, GBC

In the first step, the company's target region is the OECD countries, especially Croatia, the UK and Japan. The background for this is the regulatory environment and the demand for high-end solutions. Financial support measures are increasingly being taken in the OECD countries to support environmentally friendly technologies. For example, the "Renewable Heat Incentive (RHI)" was adopted in the UK in 2011, which allows subsidies to be granted for energy generation using renewable energy sources. Gasification technologies in particular are supported by the law. The situation is similar in Croatia and other OECD countries. The government subsidies make the construction and operation of AHT solutions even more attractive.

In a second step, the company plans to expand in the APEC market. The upcoming cooperation in Malaysia can be regarded as the initial starting point, after which the company will successively penetrate further into the APEC market. Particularly China, but also other countries in the region, such as India and Indonesia, is increasingly opting for syngas production. The background to this is the high efficiency of the medium-sized gas power plants and the existing local resources for the operation of these facilities.

China has large coal reserves and also has biomass waste from the production of many goods, which can also be used. A specific example of this is the biomass waste from palm oil production in Malaysia, which can be processed directly into syngas. In addition to existing resources, there is still a large rural population in the APEC countries. This rural population still has insufficient energy supplies, primarily due to the lack of infrastructure. This problem can be overcome by supplying energy locally. AHT's small and medium-sized solutions are ideal in these circumstances and also represent an environmentally friendly alternative to diesel generators. Due to increasing smog and severe pollution, developing and emerging countries are now planning to implement stricter environmental protection policies. For example, China intends to cut in emissions by 60% by 2020. This energy will need to be produced with lower emissions. AHT offers particularly environmentally friendly and efficient gas power plants and these types of solution will be needed.

In a third step, we expect AHT to penetrate the African and Latin American markets. These markets present some challenges due to their legal and economic conditions, but will also show the strongest growth in the future. As in the APEC countries, AHT's products can solve the classic challenges of the developing countries. AHT's solutions can use local products and resources for environmentally friendly energy production. Furthermore, these solutions are particularly attractive for remote regions due to their modular design and low maintenance requirement. The low-effort maintenance and the few specialists required for AHT solutions means that they can also be effectively operated in developing countries.

AHT is currently already at the second stage and has started to expand within the APEC market. In addition to the regional strategy, we also consider there to be two other important future value drivers. Firstly, the expansion of services and, secondly, the vertical integration of the value chain. AHT provides training for local service staff who can provide both "first level support" and "second level support" in order to guarantee the best level of service for the installed plants. Expert "third-level support" is mainly provided from within Germany. This is primarily provided in the form of remote maintenance via the internet. Only in exceptional cases will a technician from Germany be sent to the installation site.

In order to ensure better support and an even more extensive service, AHT is planning to build service hubs in the target countries. These service hubs could serve as a central support centre and also support distribution at the local level. We consider this approach to be extremely promising, although we have not yet taken the consequences into consideration in the forecasts. Furthermore, joint ventures (JV), some in combination with the service hubs and some independently, are also planned for the target regions. These can be operated cost-effectively and facilitate entry into the local market due to the expertise and network of the JV partners. JVs may make particularly difficult markets more easily accessible. For example, the political environment in China still involves certain challenges which can be more easily overcome with the expertise of local partners.

AHT is also strategically planning further growth in the future through the broader integration of the value chain and in its role as an EPC contractor (EPC = Engineering, Procurement, Construction). In this role, the company takes over the project management as a general contractor and controls the smooth progress of the plant construction. The company has already carried out several smaller investment projects as an EPC contractor. Larger projects with higher volumes require a corresponding financial margin. The funds from the planned capital increase are, among other things, to be used to build this capacity. A further model to be considered is that it may also be possible to obtain funding partners for major projects who will then provide the corresponding pre-financing and use AHT as the EPC contractor for project implementation.

This approach could reduce a variety of third-party costs and result in significant long-term margin improvements. Our conservative valuation approach does not yet take this strategic development into account, but we consider there to be a great deal of potential and expect the implementation of value chain integration to take place in the long term. AHT is already involved at several points in the value chain. The development designs and plans are currently prepared by AHT itself. The most important components are also either produced in-house or manufactured by commissioned external partners. The next step in expanding the value chain involves the integration of raw material processing and extraction technology. Furthermore, less complex components could be manufactured closer to the plant construction site. In the final step, the entire value chain would be covered, together with the electricity distribution. The decisive factor in expanding to cover the entire value chain is the JV partnerships, which could cover key areas of the value chain in which AHT currently has no expertise.

Sales forecasts

AHT can look back on an impressive history since it was founded in 2009, with a variety of successfully implemented projects. Although the FY2015 was marked by a slightly weaker sales performance, the company expects its sales to reach the levels of 2013 and 2014 in FY2016, which equates to a revenue target of around €6 million. Particularly in the following years, AHT should then be in a position to achieve significant growth rates in revenues.

The background to this dynamic growth expectation is the international expansion of business operations for which the foundations were set in recent years. The company now has a string of international partners with whom it can work to implement syngas projects.

These sales expectations should not be regarded as too ambitious given the company's current order book and well-stocked pipeline. This is evident from the following tables. The volume of all contractually fixed contracts already amounts to €4.5 million, so that a majority of the planned sales is already covered for 2016. It should also be stressed that €0.7 million from service contracts are of a recurring nature and will therefore also contribute to revenues in the next few years, albeit not to the same extent as in 2016.

Current projects under contract

Plant Type	Plant Size (kW)	Task	Location	Projekt Volume	Input
Biomass Power Plant	200	New Installation	Malaysia	m1.1	Biomass
Clean Gas	1,000	New Installation	China	m2.2	Coal
Clean Gas	1,000	Modernisation	Croatia	m0.5	Wood Chips
Biomass Power Plant	600	Service Contract	England	m0.5	Wood Chips
Biomass Power Plant	800	Service Contract	Japan	m0.2	Wood Chips

Current project pipeline

Plant Type	Plant Size (kW)	Task	Location	Project Volume	Input
Biomass Power Plant	1,000	New Installation	Serbia	m2.0	Wood Chips
Biomass Power Plant	1,000	New Installation	Croatia	m2.0	Wood Chips
Biomass Power Plant	250	New Installation	Germany	m0.5	Wood
Clean Gas	5,000	New Installation	England	m10.0	Wood
Biomass Power Plant	200	New Installation	Singapore	m1.0	Wood Chips
Biomass Power Plant	200	New Installation	Indonesia	m1.0	Biomass

Source: AHT, GBC

Moreover, the company has numerous projects in the pipeline with a total volume of €16.5 million. The potential project volume has been conservatively estimated at sales per kW capacity of €2,000 to a maximum of €5,000, so the revenue figures should be safely achieved if the commissioning goes ahead as planned.

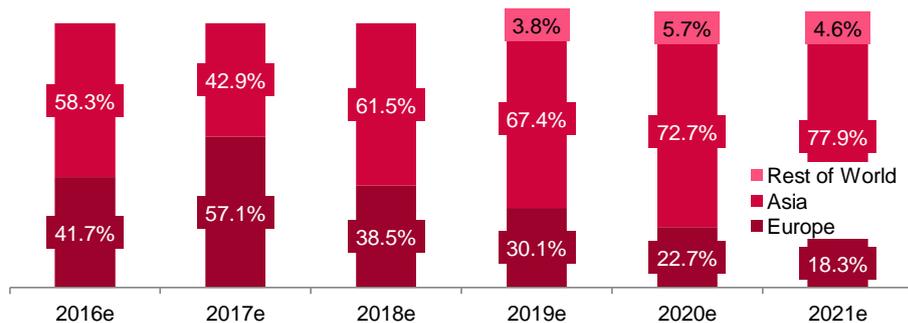
The overview provided above also demonstrates that a large number of the projects are currently being implemented in Europe, especially in the UK, Croatia and Serbia. The background to this is the favourable statutory support for sustainable energy production in these countries. After successfully implementing a biomass project in the UK last year, AHT anticipates significant repeat business in this country in the near future.

In the next few years, the distribution of sales will be weighted away from Europe in favour of Asian countries. As already described in the preceding sections, there is huge demand for syngas facilities in Asia. AHT has also developed excellent partnerships in Asia which should allow a significant expansion of the business over the coming years.

An example of this is the 1 MW clean gas plant in China to be completed in 2016. This plant is just one of 24 of the same type in total which could be implemented if this initial project proves to be successful. In this respect, the company anticipates follow-up orders with a value of €50 million.

Over the next few years, AHT also plans to enter more markets, with a special focus on Africa and South America. These regions carry a very high potential for decentralised energy systems. Nevertheless, we have only included a very small contribution to revenues for these regions in our forecasts.

Expected sales split by region (in %)

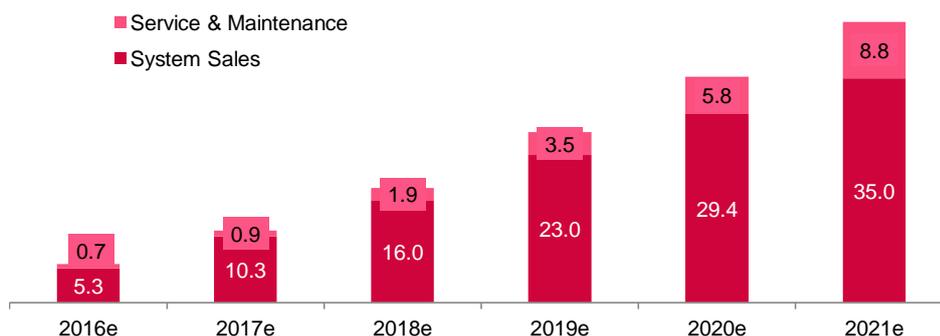


Source: GBC

Maintenance and service revenues will be a major factor in the next few years. AHT also aims to conclude a maintenance and service contract for every newly installed system to cover the following years. This has generated service revenues of €0.70 million in the plants built in the UK and Japan in 2015 and is also expected to contribute to revenues in the next few years.

In this respect, an increasing proportion of recurring revenues can be expected over the next few years on the basis of this strategic extension of the value chain. We expect €8.8 million of maintenance and service revenues to be generated annually by 2021 on the basis of the planned project volume over the next few years.

Expected sales split by Systems/Service & Maintenance (in m€)

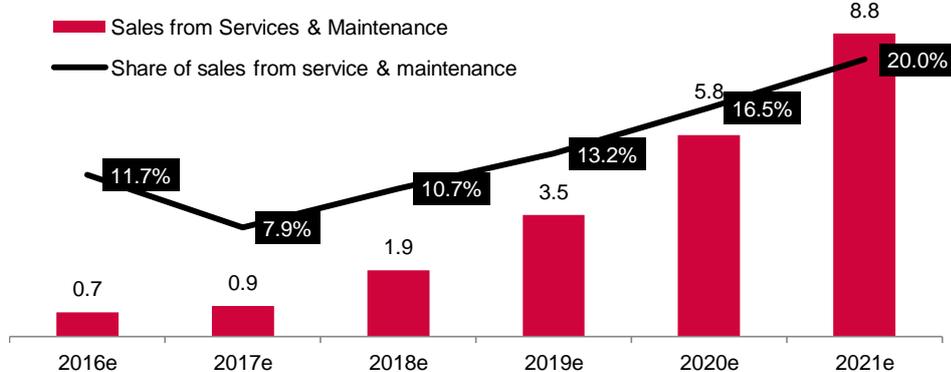


Source: GBC

For 2016 alone, AHT has forecast maintenance revenues of €0.7 million, which accounts for a 12% share of total revenues. Over the next few years we expect the service and maintenance proportion to gradually rise to 20% of total revenues.

This development should be a key driver to counteract revenue volatility. The same is also true for the results. The aim to achieve EBIT margins of 10% or above will be clearly supported by the high-margin recurring revenue.

Expected revenue share of service & maintenance (in m€)



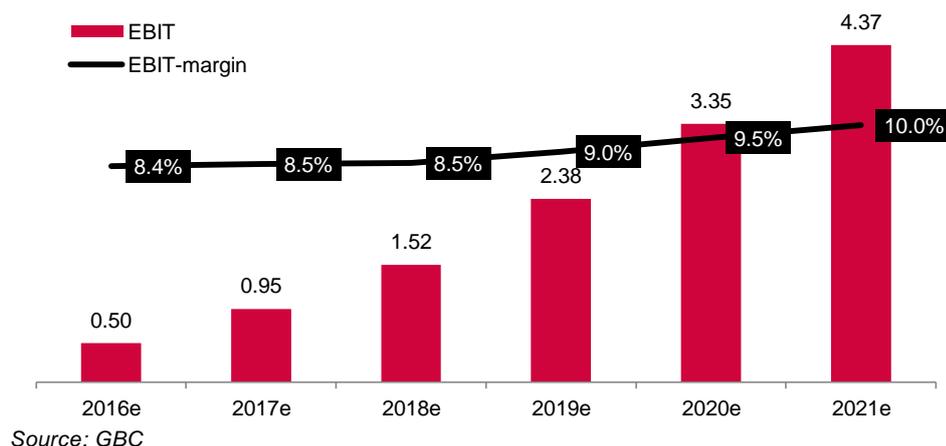
Source: GBC

Overall, we believe in AHT's business model and expect the company to achieve significant sales growth against the background of broad technological expertise and international relationships. International pressure to invest in clean energy is growing steadily and AHT should be able to perform particularly well in emerging markets compared to alternative forms of energy production with clear advantages.

Earnings forecasts

In accordance with the dynamic trend in sales, we expect earnings to increase noticeably too. AHT has already posted positive results in recent years, despite some significant sales volatility. It is to be expected that these will rise disproportionately to sales, especially with regard to personnel costs. AHT's core area of expertise is its technology and engineering expertise in syngas plants. It should therefore be possible to achieve economies of scale with the effect of increasing EBIT margins.

Expected development of EBIT (in m€) and EBIT-margin



Nevertheless, we have been conservative in our results planning, with only slightly higher EBIT margins. We expect the EBIT margin to increase to 10.0% by 2021. While it should be easy to plan ahead for material and personnel costs, we have in particular taken the risk items in other operating expenses into account, especially within the context of international expansion.

With regard to depreciation and amortisation, no significant increases are expected in the next few years. The company is not asset-intensive and does not require any investment in property, plant and equipment, technologies, etc. to expand its business. A flat trend in depreciation and amortisation and very moderate investment activity are therefore to be expected.

On the other hand, we expect there to be a slight increase in interest expenses, although this will be at a comparatively low level in absolute terms. We have assumed a gradual increase in the use of debt in view of the increased volume of business and internationalisation over the next few years. The company does not currently make use of bank loans.

Due to the flat depreciation and interest rates, sales growth will have a positive effect at the net level. Although the company has always generated a profit in recent years, it should be possible to pass the €1.0 million threshold as early as 2018, with other significant increases in subsequent years.

VALUATION

Model assumptions

The AHT Services GmbH has been valued using a two-phase DCF model. Starting from the specific estimates for the financial year 2016 to 2021 in phase 1, in the second phase beyond the specific forecast horizon, a residual value was calculated using a perpetual annuity formula. For the final value we conservatively assume a growth rate of 0.0%.

Calculation of the Cost of Capital

The weighted average cost of capital (WACC) for AHT Services GmbH is calculated on the basis of cost of equity and cost of debt. In order to determine the cost of equity, the fair market premium, the company beta and the risk-free interest rate need to be established.

The riskless interest rate is calculated based on the recommendations of the "Fachausschuss für Unternehmensbewertungen und Betriebswirtschaft (FAUB) of the IDW, and is derived from the yield curve of riskless bonds. The interest rates for zero bonds are based on the Svensson-method, published by the "Deutsche Bundesbank", and provide the basis for the calculation. Due to market fluctuations, we use smoothed average returns on a three-month basis, rounded to 0.25 basis points. The current riskless interest rate in use amounts to 1.50%.

We used the historic market premium of 5.50% as a suitable expectation of market premium. This is supported by historical analyses of stock market yields. The market premium reflects the percentage of the expected excess return of the stock market over the low-risk government bonds.

Using the GBC estimation method there currently a beta of 1.50 is applied.

Applying these assumptions we can calculate a cost of equity of 9.8% (beta multiplied by the risk premium, plus risk-free interest rate). Due to the small size of the company as well as the short history we assess a risk premium of 5.0 %. Therefore we calculate cost of equity of 14.8 %. As cost of debt 4.0 % are applied.

As we plan with a target weight of equity of 60.1 % on basis of our specific balance sheet estimates, we calculate weighted average cost of capital (WACC) of 10.0 %.

Key figures for WACC estimation	
Riskless interest rate	1.50 %
Market risk premium	5.50 %
Beta	1.5
Total Invested Capital - TIC (equity + interest bearing debt 2021)	15.03
Target weight of equity	60.1 %
Target weight of debt	39.9 %
Equity risk premium	5.0 %
Cost of Equity	14.8 %
Cost of Debt	4.0 %
WACC	10.0 %

DCF Model AHT Services GmbH

in m€	2016e	2017e	2018e	2019e	2020e	2021e
EBIT	0.50	0.95	1.52	2.38	3.35	4.37
Tax rate	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Depreciation	0.07	0.10	0.10	0.10	0.10	0.10
CAPEX	0.10	0.10	0.10	0.10	0.10	0.10
Delta Working Capital	-0.08	0.21	0.28	0.38	0.38	0.38
Free Cashflow to the Firm (FCFF)	0.39	0.46	0.78	1.28	1.96	2.68

in m€	2016e	2017e	2018e	2019e	2020e	2021e	TV
Discounted FCFF	0.37	0.39	0.61	0.91	1.26	1.57	15.74
Sum of discounted cashflows	20.85						
Netcash as of 31/12/2015	0.51						
Value of Equity	21.36						

On basis of our specific estimates for the years 2016 to 2021 we have assessed a fair value for 100 % of the shares of AHT Service GmbH of m€ 21.36.

Valuation of AHT Syngas Technology N.V.

AHT Syngas Technology N.V. holds 100 % of the shares of AHT Services GmbH. besides that the parent company does not deploy own business activities. Because no consolidated financial statements are compiled the share on the GmbH is shown as a financial asset in the N.V.'s balance sheet. By the end of the FY2015 the carried on value was 0.68 m€.

The following key data are available for AHT Syngas Technology N.V. as of 31/12/2015:

Goodwill	m€ 3.06
Financial assets (carried value AHT Syngas GmbH)	m€ 0.68
Equity	m€ 4.75

Under consideration of the capital increase of m€ 7 (lower placement range) as well as the fair value assessment of AHT Services GmbH we have determined the following fair value for AHT Syngas Technology N.V.:

Post-money fair value assessment of AHT Syngas Technology N.V.	
Equity as of 31/12/2015	m€ 4.75
Capital increase of €m 7.00 (1 million shares a €7.00, less €m 0.20 of placement cost)	m€ +6.80
Assessment of the fair value of the A.H.T. Syngas Services GmbH (€m 21.36 fair value – €m 0.68 carried value as of 31/12/15)	m€ +20.69
Less goodwill of AHT Syngas Technology N.V.	m€ -3.06
Less cumulated holding costs in specific planning period (m€ 0.20 per year, without amortisation)	m€ -1.20
Fair value of equity	m€ 27.99
Shares outstanding after capital increase	2.50 million
Fair value per share (post-money)	€11.20

In total we have assessed a fair post-money value per share of AHT Technology N.V. of €11.20. On basis of the current share price there is a clear upside potential for the shares. The rating therefore is BUY.

ANNEX

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The analysts responsible for this analysis are:

Felix Gode, CFA, Dipl. Wirtschaftsjurist (FH), Vice Chief Financial Analyst
Matthias Greiffenberger, M.Sc. M.A., Financial Analyst

Other person involved:

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GBC AG
Halderstraße 27
D 86150 Augsburg
Tel.: 0821/24 11 33-0
Fax.: 0821/24 11 33-30
Internet: <http://www.gbc-ag.de>

E-Mail: compliance@gbc-ag.de



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- RESEARCH & INVESTMENT ANALYSEN -

GBC AG
Halderstraße 27
86150 Augsburg
Internet: <http://www.gbc-ag.de>
Fax: ++49 (0)821/241133-30
Tel.: ++49 (0)821/241133-0
Email: office@gbc-ag.de