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Government ignores manufacturing at its peril



David Frost,
 Director General of
 the British
 Chambers of
 Commerce,
 comments.

When the economy nose-dived in the early part of 2008 and it became clear that the UK was heading for recession, some pundits said that this time the recession was going to be different. This time, it would be a recession based around London, the City and the South East, and that it would be financial services that would bear the brunt of the pain.

However, this recession has been similar in its impact to every other one I have experienced. That is, it has been manufacturing and those regions heavily dependant upon manufacturers that have been hit hardest.

The recession has stemmed from a worldwide seizing-up of the financial system and a resultant collapse of global demand, but it has been concentrated on areas such as the West Midlands. The long-run decline in manufacturing employment has accelerated over the last year. Much of UK growth over the last decade has been driven by high, and clearly unsustainable, levels of public expenditure and personal debt.

Employment in the public sector grew by 873,000 in the decade to 2009. This masked a decline of 1.64 million in manufacturing. Personal consumption also rose rapidly.

This explosion in expenditure sucked in imports. In 1997 we had a positive trade

balance but, by 2008, we were running a trade deficit of £436bn, with a massive £93bn on goods.

Neither debt nor trade-deficit levels are sustainable and highlight an economy that needs to be re-balanced.

There is too much reliance on the public sector, too great an emphasis on financial services and not enough focus on paying our way in the world – we need to export more.

The importance of manufacturing

We should not underplay the importance of manufacturing to the UK economy. It makes up nearly 13% of GDP, provides half of our exports and we are one of the big six manufacturing nations.

We have many excellent manufacturing companies in this country. I would argue we simply do not have enough.

When I look at how we get out of this recession, I can only come up with one answer, and that is business.

The public sector will have to shrink, the consumer is too indebted and financial services will be reined in for some time to come. So, if we are to come out from this recession, it must be business and manufacturing that will have to play a more prominent role.

I believe the Government understands this. In April, the BIS (Department for Business Innovation & Skills) published "New Industry, New Jobs". This is a strategic plan to invest in Britain's economic and industrial future.

This policy statement, announced by Lord Mandelson, focuses on innovation, skills, finance infrastructure and trade.

There is an understanding that this country needs to position itself to take advantage

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Guido Plicht

Head of Metals
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in the high-tech low-carbon economy of the future, in an era when we will need ever more high-added-value jobs.

The issue is: are there policies in place to help drive forward an industrial renaissance? It is clear from reading *Hotline* 96 that those in contract heat treatment feel that you are under the cosh: ever-increasing costs; price-down pressures; more legislation and administration; and a market where many large manufacturers are no longer present. However, it is clear that many see a brighter future for contracting – particularly with the cost of investing and operating new technology working against in-house capacity.

These are issues that I would suggest face many other sectors and specialisms within manufacturing. I would also suggest that pressures on manufacturing are not going to get easier. As has always been the case in the last 25 years, there will just have to be a relentless focus on improving efficiency.

Five-point plan

However, the Government has a role in promoting a new focus on manufacturing and helping existing businesses. This is a

five-point plan to achieve this:

- Firstly, manufacturing is important to the UK. It creates wealth, high-value jobs, exports and is the bedrock of many communities across the UK. The Government needs to publicly make the case for manufacturing and continually stress its strategic importance.
- Secondly, we should have a low-tax regime that encourages businesses to locate in the UK and incentivises capital investment. The cost of regulation, which the British Chambers of Commerce calculates at £76.8bn, needs to be significantly reduced. There should be a moratorium on any proposed employment legislation. The proposed increase in National Insurance of 0.5% in 2011 should be scrapped.
- Thirdly, when public expenditure is cut, vital investment in infrastructure must be maintained. We need more investment in roads, rail, ports and airports. This will not only make it easier to get goods and people to market, but it will provide much-needed business for construction and manufacturing.
- Fourthly, we must do more to promote exports. We need to export more and

take advantage of growing international markets. UK trade and investment must put greater efforts into promoting British exports and organisations, like the British Chambers of Commerce, must do more to encourage companies to go overseas. The weak pound should assist with this over the coming period.

- Fifthly, the role of education has to be recognised. This means capitalising on the research work of universities, incentivising more young people to study engineering and ensuring we have a quality apprenticeship programme that is geared to the needs of smaller businesses. Without attracting the brightest into manufacturing, the sector will have no long-term future.

This is a five-point plan that, I believe, could be adopted by any incoming government. If we do not introduce some specific business-friendly measures, I believe the long-term future is bleak. If we do focus on stimulating our manufacturing base, I think that the natural imagination, flair and entrepreneurship of the British will come to the fore and we will see manufacturing having an invigorated role in this country.

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Project Discovery and future energy prices

Energy regulator Ofgem has highlighted the challenges to Britain's gas and electricity supplies, and their possible impact on costs to customers, in a recently-published consultation report*. We asked occasional Hotline contributors CMR Consultants Ltd (part of the ENER-G group) for their view; **Satish Pandey**, Head of Strategy & Risk Management, comments...

Introduction

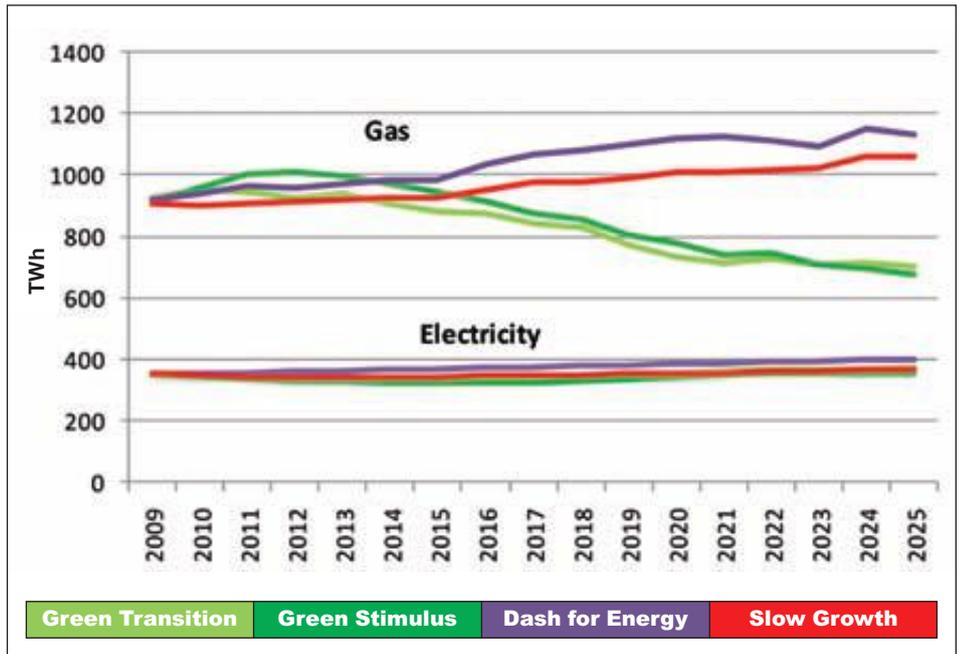
Since July 2008, energy prices have come under strong downward pressure due to a sharp reduction in demand caused by economic recession. In the short term, healthy supply/demand fundamentals are likely to keep prices depressed.

At the moment, supply-side confidence is very high. National Grid's Winter Outlook Report sounds confident on the energy security issue for the gas year 2009-10; capacity margins stand very high, by historical standards, and gas infrastructure is robust.

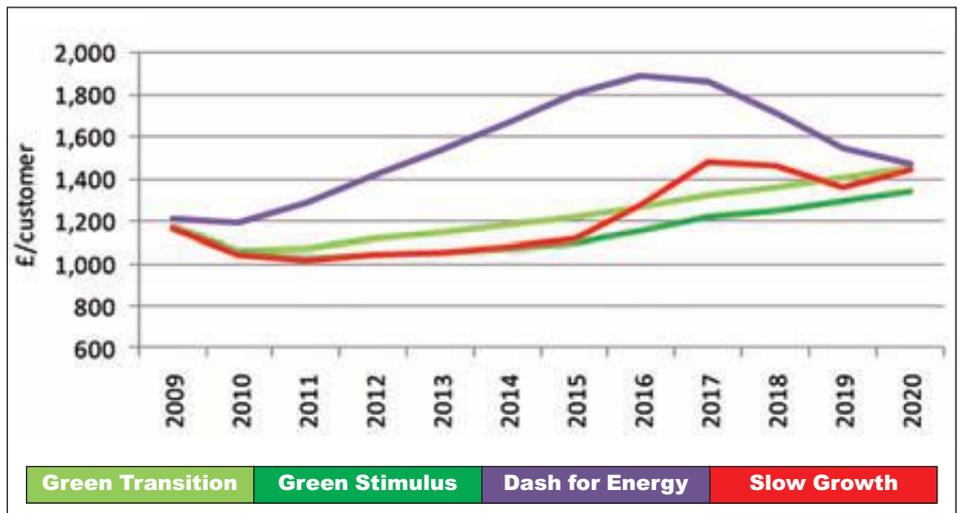
However, speculation is rife about what happens to prices when demand picks up, with economies coming out of recession. There are few forward-looking studies which take into view a wider matrix of supply/demand, variance in the recovery from recession and a cross-over between the environmental policies and energy security issues. Ofgem's **Project Discovery** takes a big step in this direction. Project Discovery was launched in early 2009 with the objective of examining the prospects of secure and sustainable supplies over the next 10-15 years. It intends to inform stakeholders, including different classes of energy customers, about the impact of different combinations of economic recovery, environmental action and ensuing supply infrastructure developments.

Global drivers and scenarios		Economic recovery	
		Rapid	Slow
Environmental action	Rapid	Green Transition	Green Stimulus
	Slow	Dash for Energy	Slow Growth

*Project Discovery: Energy Market Scenarios. Ofgem document reference 122/09 (downloadable at http://www.ofgem.gov.uk/markets/whl/mkts/discovery/documents1/discovery_scenarios_condoc_final.pdf)



Scenario analysis: annual UK energy demand (One TWh (terawatt hour) is equivalent to 1,000,000,000kWh). Source: Ofgem.



Scenario analysis: average domestic consumer bill (based on 3300kWh electricity and 700 therm gas, reducing with energy efficiency measures). Source: Ofgem.

The methodology used is a combination of scenario analysis and stress testing (susceptibility to infrastructure "shocks"). The four scenarios discussed, in the phase-one consultation report, are "Green Transition", "Green Stimulus", "Dash for Energy", and "Slow Growth". Below we provide a brief explanation of these different scenarios:

Green Transition

The *Green Transition* scenario assumes a rapid economic recovery and a significant expansion in investment in green measures. A global agreement on climate change is reached, 30% reduction in CO₂ emissions by 2020 is achieved, and renewable development in the electricity

and heat sectors reaches 30% and 12% respectively. New nuclear and CCS (Carbon Capture and Sequestration) demonstration projects are operational by 2020. Due to the rapid economic recovery, there is a significant investment in the gas and electricity infrastructure worldwide. This results in some pipeline gas coming through from the EU. The liquefied natural gas (LNG) supply for the UK is tight, as recovering economies worldwide compete for LNG tankers.

This scenario results in **high commodity and carbon prices**, with oil prices projected at levels lower than the *Dash for Energy* scenario. Carbon prices rise to €50/t by 2025. The effect on domestic consumer bills is an increase of 23% by 2020.

We believe this scenario is **unlikely** as considerable doubts remain about the sustainability and pace of economic recovery, and about a global agreement on climate change.

Green Stimulus

In the *Green Stimulus* scenario, recovery from the recession is slow, and there is a higher cost and restricted availability of credit. A global agreement on climate change is reached, and governments across the world implement 'green stimulus' packages in order to achieve environmental goals and support economic recovery. Government invests directly in large generation projects and the infrastructure projects required to decarbonise the energy sector. Such projects may include smart grids, bio-methane networks, electric vehicle charging infrastructure and CO₂ transportation/storage infrastructure. Additional subsidy may be provided to new nuclear projects. Electricity and gas demands fall due to the weak economy and also due to improved energy efficiency through incentives and grants.

This is a world of relatively **low commodity prices and high carbon prices**. Renewable targets are met and CO₂ emissions fall significantly. Oil prices trade below the current forward curve in the medium term and rise towards \$90/bbl in the long term. Carbon prices rise to €50/t by 2025. The effect on domestic consumer bills is an increase of 14% by 2020.

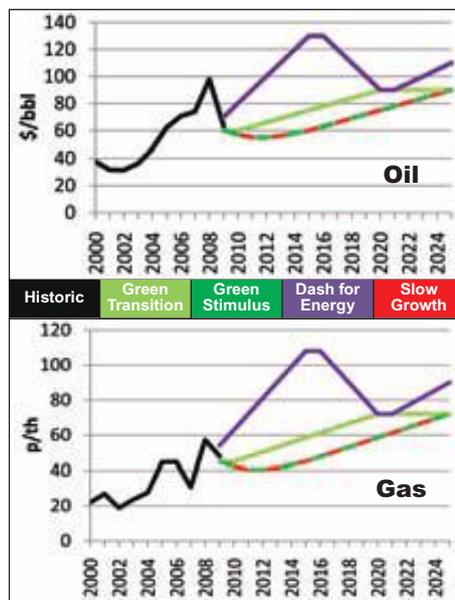
While ideal for energy consumers due to low commodity prices, this scenario seems **less probable** as global negotiations on climate change may only achieve a limited success, and large government deficits would prevent a significant government intervention for implementing climate change prevention projects.

Dash for Energy

In the *Dash for Energy* scenario, recovery from recession is V-shaped, demand increases over time, security-of-supply concerns prevail over environmental concerns in Europe, and global negotiations on tackling climate change achieve limited success. Targets on CO₂ emission reduction and renewable deployment are not met. While strong economic growth results in high gas demand, there is a significant expansion of gas-fired generation in the UK and across Europe, alongside an expansion of investments in the global gas and electricity infrastructure. However, external pipeline supplies and LNG deliveries remain tight due to international competition for these resources. New storage capacity is also slow to take off due to planning hold-ups.

Clearly, this is a world of **high commodity prices**, with oil prices peaking at around \$130/bbl and settling towards \$110/bbl long-term. Contractual linkage of oil prices with gas results in a gas price peak of >100p/therm. Carbon out-turns at €34/t by 2025. The effect on domestic consumer bills is an increase of more than 60% by 2016, before falling back.

Should the recession turn out to be short-lived, this scenario appears **quite probable**, as the gestation lag of investments may indeed create a scarcity of resources, despite the existing surplus in the current recessionary times.



Commodity price path assumptions under the four scenarios (real 2009 prices). Source: Ofgem.

Slow Growth

This scenario assumes that the recession and the credit bottlenecks continue to drag on for a long time. While demand remains suppressed, the financing constraints bring down investment in the infrastructure below the pre-crunch levels. Future pipeline gas supplies to the EU and indigenous gas production remain relatively low. The LNG market, initially being oversupplied, tightens due to lack of investment.

This scenario results in **low commodity and carbon prices**. Oil prices trade below the current forward curve in the medium term and rise towards \$90/bbl in the long term. Carbon out-turns at €30/t by 2025. The effect on domestic consumer bills is relatively low in early years, but an increase of 22% by 2020 is seen as conditions tighten.

We believe this is a **likely scenario** as credit bottlenecks may indeed impair the pace of investment in the electricity and gas infrastructure. **However, we are not entirely convinced about suppressed energy demand for such a long period.**

Conclusions

From an emissions point of view, the *Green Transition* scenario lowers CO₂ emissions by 33% from 2005 levels, and the *Green Stimulus* scenario reduces them by 43%. In the *Dash for Energy* scenario, reduction in emissions is only 12% and in the *Slow Growth* scenario, CO₂ emissions are down 18% from 2005 levels.

In order to meet the energy and environmental targets, Ofgem estimates an investment requirement of about £200billion in all cases, and assumes that the entire investment cost would be passed through to the customers. A lag in investments will result in supply shortage at some point of time, with a consequence of higher prices in the period. The Large Combustion Plant Directive (LCPD) and the Industrial Emissions Directive (IED) will place restrictions on the operation of coal and older gas plants; this will lead to major plant closures during the next decade, which are likely to coincide with closures of some nuclear plant.

Results, in terms of cost increases, are not for the faint-hearted. A *Slow Growth* scenario, which implies a slow rate of demand increase, can raise domestic energy bills by 22% by 2020. An active government investment in the green technologies and energy efficiency turns out to be the best case for customers, raising bills by only 14%. A higher emphasis on tackling climate change, part of the *Green Transition* scenario, raises bills by just 23%, and is almost equal to the *Slow Growth* scenario. However, *Dash for Energy* results in consumer bills shooting up by 60%.

The Project Discovery report does not attach any probability to the scenarios discussed. We have attempted to take a view of the world based on the pace of economic recovery and the agreement on climate change policies and, in his article, provided a more likely scenario.

In our view, the more likely scenario is a combination of *Slow Growth* and *Dash for Energy*. This essentially means that energy costs may go up by anything between 22% and 60% on a sustained basis. These results also indicate that a thorough emphasis on carbon reduction and energy efficiency is economically beneficial for customers in the long run.

The second phase of Project Discovery assesses if current market arrangements are appropriate to the twin challenges of achieving energy security and reduced emission targets. The third stage aims at identifying policy responses to achieve the environmental and energy objectives. While the consultation process for phase one of the project finished on 20th November 2009, we should monitor the progress of the ongoing latter phases.

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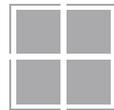


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Problems of communication?

In his Hotline 117 article with the same title, Editor Alan J. Hick asked CHTA members if customers now specify contract heat treatment more sensibly...

John Jervis (Bodycote Heat Treatments Ltd) comments:

As responsible heat treaters, we should expect to see some minimum information on orders received with work. This is to safeguard our customer, their customer and of course ourselves!

Rolls-Royce specification RPS900 well describes what should be quoted within, or supplied with, purchase orders:

- a component part number;
- the approval requirement and/or who is the final customer;
- the classification (i.e. the criticality) of the part to be processed;
- the material and the process specification as applicable;
- the condition the material is in as received;
- statement of heat treatment compliance: i.e. the full requirements, hardness, mechanicals, case depths, etc;
- reference to any approved applicable deviations to standards/specifications;
- a legible copy of correct-issue drawing or associated documents should accompany the order.

Whilst these requirements are aimed at the aerospace industry, they are not dissimilar in many ways to those we should expect from an automotive supplier or other industries.

A lot of this should be expected when we receive RFQ's, when we should be ensuring that:

- We have the approvals applicable to do the work; or it may be an opportunity to get the approval for the business.
- We have the capability to do the work; for example, a case depth on a drawing may subsequently refer to a specification for salt-bath or pack carburising?!
- There is no strange specification, lurking behind what appears a simple enquiry, which could add hours onto a process (for example heating/cooling rates especially in vacuum furnaces).
- We understand the potential batch sizes and the turnaround requirements which can have effect on capacity and cost and, hence, price.
- We find all hidden costs, as no-one likes it when we come back with additional costs. So we need to check thermocouples/certification/mechanical testing/witnessing by customer/ etc....

Part of internal and customer external auditing now includes analysis of how prices have been determined and if there is evidence that relevant information above was sought, provided and used when calculating prices (in addition to the normal investigation into quantities per load / weight / jiggling requirements and costs).

When full information is not supplied, the consequences can sometimes be dire, as Richard Burslem (Wallwork Heat Treatment Ltd) reports:

I accepted a very fine steel fabrication for stress relieving at 600°C. The shape was hemispherical and there were vanes arranged on the inside like a segmented orange. When the oven was opened after treatment, the vanes had all collapsed into a pile. The customer was distraught, but hadn't thought to tell us that the vanes were soldered in and not welded.

Richard also notes that the communication problem may not be solely the fault of the customer:

Some steel stockholders seem to have a lack of understanding of the importance of the carbon content of steel. When faced with a foreign steel specification for which they have to find a UK near-equivalent, they can struggle.

A good example is German spec 1.7242 16CrMo4 which is a 1%CrMo steel with nominal carbon of 0.15%. Looking at the alloying elements, 709M40 (En19) is suggested as a replacement, ignoring the nominal 0.4% carbon. The problem then comes when the customer, having made the parts, sends them in for case-hardening, only to be told he has used a through-hardening steel which will not develop the required properties if it's case-hardened.

In other response to the Hotline 117 article's request for examples of "howlers", Alan Whitehouse (Tamworth Heat Treatment Ltd) suggests a particularly sensitive area for the uninitiated:

It is more common these days for test pieces to be included in a heat treatment batch for subsequent testing. Even a hardness indentation sometimes cannot be tolerated on an expensive and intricate part.

Engineering companies do not always appreciate the importance of the test piece:

- **The test piece should be from the same batch of material used to manufacture the components.**

Telephone conversation with customer:

"Fred, you forgot to include the test piece with your order".

Reply: "I will get one sent over. What material would you prefer?" or "I will send one over in the morning; meanwhile, can you process the items so I can collect when I deliver the test piece".

- **The test piece should preferably be of similar section size to the component.**

It used to be common to receive a bar end as a test piece for an intricate machined part.

- **The test piece should be of suitable size for the subsequent test method.**

We have received a test piece the size of a 10p coin, with a request for hardness, tensile and impact properties, with certificate of course!

Please address any additional comments and/or examples of "howlers" to mail@chta.co.uk.

ENERGY

CCAs: latest news

SEA's Dave Elliott reports...

Final Milestone Period

The final milestone reporting period, under the current climate change agreement for heat treatment processes, began on 1st October 2009. Members of the scheme are reminded that they will need to keep records of all energy usage and production throughput figures so that they will be able to report their figures, once the milestone period has ended on 30th September 2010.

New Climate Change Agreements

Discussions are still on-going regarding the format of new climate change agreements that will replace existing agreements and continue through until 2017.

A further consultation document is expected from the Department of Energy & Climate Change (DECC) within the next few weeks, following feedback from industry, and this consultation will run for around eight weeks.

It is anticipated that discussions will continue through 2010 regarding: targets (should they be absolute or relative or both); emissions trading (should there be a separate scheme or just EU ETS); yearly targets (instead of the current biennial ones); and how often should there be a target review, etc.

The current heat treatment scheme is now closed, so no new entrants will be allowed to join until the new agreements are up and running in April 2011. There are currently 71 individual agreements within the heat treatment sector; the participants are able to pay a reduced rate of climate change levy on their energy bills, which saves around £2million each year.

How to fill the training gap?



Roger Haw, of Sheffield-based Flame Hardeners Ltd, is concerned about the lack of suitable metallurgical training courses for technicians in our industry.

Hoping to remain in business for some considerable time to come, Flame Hardeners undertook a routine analysis of our current and anticipated future markets. The skill levels that would be required were viewed, together with the age profile of all current employees. It was concluded that a number of key personnel would be retiring in the next five years and that we must consider engaging and training some new employees.

Apprentice

After consideration, it seemed that one approach would be to look at engaging an apprentice, initially to be trained as an operative, with the possible later development to train in the quality-control function and/or in production scheduling and process routing.

We did not need a high-flyer for this; our initial profile was for a young person (preferably a school leaver) who would be receptive to training in our techniques, could gain an appreciation in the application and use of the components that we process, and could also eventually appreciate what the requirements of our customers may be. Our experience of

many years has taught us that home-grown talent seems to work the best, and good old-fashioned "sleeves-up" multi-tasking gets things done.

We decided to use the services of the local training organisation which is mostly funded SEMTA and, being in our geographical area, specialises in metal processing. At an initial meeting we outlined our requirements and discussed how our objectives could be achieved. It was agreed that we should look for an apprentice and initially consider training the selected applicant to NVQ level 2. The fact that significant parts of the training could be specifically tailored to our requirements was attractive to us and also gave the apprentice a goal to aim for.

The training agency produced a short-list of six, three of whom we interviewed. We offered a position to an enthusiastic young man and, up to now, his training has been successful. He has gained an NVQ level 2 in flame and induction hardening (unique in itself) and we see him as a future asset. The progress was achieved by attending the training agency for a couple of days per month and the rest was on-the-job training to an agreed programme, with an assessor who paid visits monthly to monitor and approve progress.

Then we came up against the problems. Where did we go next?

Metallurgical training?

We had envisaged a day-release course, to give some knowledge of heat treatment and metal processing, combined with further in-house training to achieve NVQ level 3. The apprentice is not academically

brilliant and, from the start, we set out to train someone with a practical and flexible approach to meet our requirements. However, we were very surprised to find that there are no longer any basic metallurgical courses available to meet the needs of such a person.

There appears to be a total lack of technician-level courses in metallurgy or metallurgical processing. We were offered a technicians course on metal machining and production planning which had two basic lectures on heat treatment in a whole year! The Wolfson course is currently at a level greater than our particular needs.

If our industry is so specialised that there is insufficient demand for suitable technician-level courses, we should surely be obtaining better rewards for our services. Our dilemma now is how to motivate and encourage our apprentice to give him both pride and some useful skills.

We have found this experience wholly frustrating. Perhaps the CHTA may care to look at the situation for the industry as a whole and make suitable representations. If we lose the basic skill levels of the industry, we lose the ability to service our customers.

Our conclusion is that there are many people involved in training agencies who are working to funding targets, having little realisation of the actual requirements of the industry. Perhaps the message has not yet penetrated that they are service providers and we are consumers; the funding which we (as taxpayers) have provided has been of little benefit to us. Has anyone got an answer to this?

What do other CHTA members think?
Comments to mail@chta.co.uk please.

Another successful "Understanding Heat Treatment" course

Delegates from CHTA member companies were again well to the fore amongst the 20 at Wolfson Heat Treatment Centre's 74th *Understanding Heat Treatment* course on October 20-22.

This time, overseas commercial heat treaters were represented by Chuck Hartwig of Wisconsin-based Therm-Tech of Waukesha Inc, members of CHTA's Stateside counterpart organisation, the Metal Treating Institute. The company's Executive Vice-President / General Manager Mary Wiberg Springer, Chuck's mother, is a former President of MTI.

An annual event that makes an important contribution to our industry's wellbeing, *Understanding Heat Treatment* will next take place on 12-14 October 2010, again at SEA's Birmingham headquarters.



(L. to r.): Course chairman Derek Close (Wolfson Heat Treatment Centre) with delegates Kenneth Brown, Robert Keyes and Andrew Gairn, all from Induction Heat Treatment Services Ltd.



Course speaker Alan J. Hick (Contract Heat Treatment Association) and delegates Mick Darby (TTI Group Ltd), Paul Thomas (Bodycote Heat Treatments Ltd) and Chuck Hartwig (Therm-Tech of Waukesha Inc).

For full details of course content and registration, contact Derek Close, Wolfson Heat Treatment Centre, Federation House, 10

Vyse Street, Birmingham B18 6LT (tel: 0121 237 1122; e-mail: derek.close@sea.org.uk; fax: 0121 237 1124; www.sea.org.uk/whtc).

Member news

NEW GROUP MANAGER AT TTI

During September, **Andy Borg** was appointed Group Manager (Director Designate) of TTI Group Ltd.

Andy has been with the company since the mid 1980s, starting on a trainee



scheme with the then Wild Barfield Heat Treatment in Watford, Hertfordshire, shortly before their acquisition by Senior Engineering and the creation of the existing heat treatment group.

Within his 25 years service, Andy has worked in all aspects of the heat treatment group. He took on his first management position at the time of the group's acquisition by Aalberts Industries in 1999, when they rebranded as TTI Group Ltd.

Since then, Andy has managed one of TTI's aerospace sites, in Letchworth, Hertfordshire, and the group's motorsport base in Luton, Bedfordshire. During this time, he also studied at the University of Hertfordshire, graduating with honours in a Masters in Business Administration (MBA). Speaking from his group base in Luton, Andy remarked on some of the challenges ahead: "Being fully aware of the complexities of running heat treatment facilities in the UK, coupled with a practical working knowledge in many of the processes that we offer within TTI, I am very much looking forward to being able to add significant practical and strategic value to the organisation. As we begin to emerge from a period of heavy recession, where an unprecedented number of businesses have suffered irreparable damage, it is important that TTI remain customer-focused, ensuring that we continue to offer the best service and processes that our customers, and the market, require".

He added: "Coupled with this focus, some carefully-considered investment through next year will assist with the future growth of our organisation and ensure that we align ourselves with future market demands, while continuing to serve our more traditional base. Combining this strategy

with the strengths of our employees will continue to stand TTI in good stead for a strong and successful future. I am relishing the opportunity to lead the organisation into the next chapter."

BETA INTRODUCE VACUUM HEAT TREATMENT SERVICE

Beta Heat Treatment Ltd, based in Oldbury, West Midlands, have invested £250,000 in a vacuum furnace department in order to increase their scope of supply to include the treatment of high-speed steels.

The most successful and largest fluid-bed heat treatment operator in Europe, and suppliers to Rolls-Royce, MOD and Formula 1, Beta see this as a natural step forward. The furnace is the first in a planned expansion programme within the Clayton Holdings Group.



Vacuum furnace at Beta Heat Treatment.

Managing Director Deryk Law said: "The vacuum department is part of a staged investment to open up markets we have not been able to service previously, including high-speed tool hardening. As the furnace is designed to meet Nadcap requirements, Beta can augment our service across the aerospace engineering sector".

NEW TOP-HAT FURNACE FOR INDUCTION HEAT TREATMENT SERVICES

CHTA member Induction Heat Treatment Services Ltd, based in Airdrie, Scotland, has just completed installation of a top-hat furnace.

Manufactured by Excel Heat Ltd, the furnace is sealed to allow introduction of a nitrogen atmosphere and can take a maximum load size of 1.9m x 1.3m x 1.2m high. Maximum temperature is 1000°C;

CHTA MEMBERSHIP FEES

Annual CHTA membership fees for 2010, invoiced via BJGFF, remain at the same level as in 2009.

AIR PRODUCTS SPONSORSHIP

CHTA is delighted to announce that Air Products plc will again be kindly sponsoring both the Association's website and *Hotline* in 2010.

HOTLINE 119 DEADLINE

Please send your news items for March's *Hotline* 119, by no later than 26 February, to mail@chta.co.uk.

an internal circulation fan ensures uniformity of temperature throughout the furnace. An indirect cooling system allows the cooling rate of the furnace to be regulated from the Eurotherm programmable controller. The Eurotherm 5100V multi-channel recorder is connected to the furnace network via an Ethernet connection enabling regular remote process monitoring. The furnace has been surveyed and conforms to API 6A.

This furnace enhances the existing heat treatment facilities offered by Induction Heat Treatment Services. Further details can be found on their new website at www.inductionheatreatmentservices.co.uk.

NEW CHTA MANAGEMENT COMMITTEE MEMBER

Debbie Mellor, Managing Director of Keighley Laboratories Ltd, has been co-opted onto CHTA's Management Committee. In our picture, taken at the November 12th meeting where she was welcomed aboard, Debbie is flanked by CHTA Vice-Chairman Chris Kenward of Ajax Tocco International Ltd (left) and Chairman Richard Burslem (Wallwork Heat Treatment Ltd).



VOLUNTEERS SOUGHT

Hotline is one of the responsibilities of CHTA's Publicity Subcommittee which is seeking new blood to help promote the case for contract heat treatment. Members willing to volunteer a representative for the Subcommittee, which meets quarterly at SEA's Birmingham headquarters, should contact the Secretariat.

For the best in subcontract heat treatment services, go to . . .

www.chta.co.uk

. . . your guide to sourcing from over 60 UK-wide heat treatment specialists



The Contract Heat Treatment Association

Coming soon to a screen near you...

The homepage design for CHTA's new website at www.chta.co.uk, to be launched in the early part of 2010.

DIARY

January 25-26 2010
INTRODUCTION TO NADCAP HEAT TREATING
Birmingham, England www.equalearn.com

January 27-28 2010
INTRODUCTION TO PYROMETRY
Birmingham, England www.equalearn.com

January 28 2010
CHTA PUBLICITY SUBCOMMITTEE*
Birmingham, England

February 11 2010
CHTA MANAGEMENT COMMITTEE*
Birmingham, England

April 29 2010:
CHTA PUBLICITY SUBCOMMITTEE*
Birmingham, England

April 29-30 2010
NITRIDING AND NITROCARBURISING
Aachen, Germany
www.awt-online.org/dates/european-conference-on-heat-treatment-2010.html?L=2

May 13 2010:
CHTA MANAGEMENT COMMITTEE / AGM*
Birmingham, England

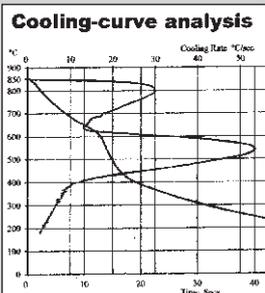
May 24-26 2010
INTERNATIONAL SYMPOSIUM ON SURFACE
HARDENING OF CORROSION-RESISTANT
ALLOYS, Cleveland, Ohio, USA
<http://asmcommunity.asminternational.org/content/Events/surfacehardening/>

*Members wishing issues to be raised at CHTA meetings should notify CHTA's Secretary.

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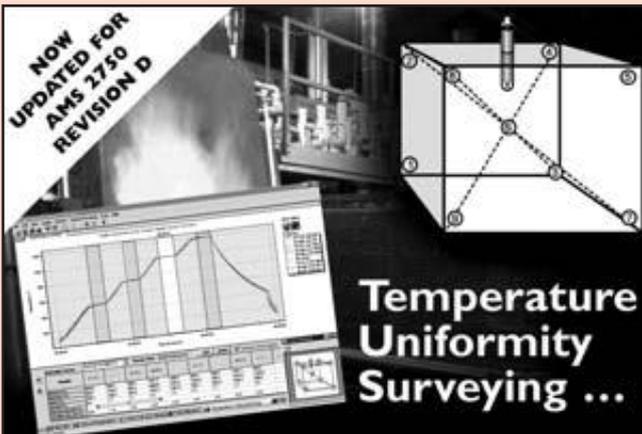
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Fifty years of Wallwork Heat Treatment

Director **Peter Carpenter** marks an important anniversary for one of CHTA's larger members.

Wallwork Heat Treatment was first registered as a limited company by Robert Wallwork on 23rd October 1959. The first factory was set up in Stockport in an old building/stable at the back of Mersey Square. It moved to Knowl Street, Stalybridge, to an old stable/local builder's yard with a floor of earth and sawdust, circa 1963/4.

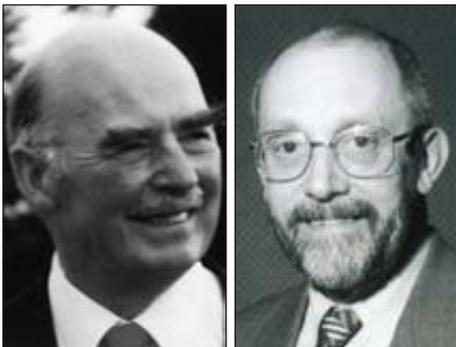
The company used cyanide salt baths and gas-fired open furnaces with oil and water quenching. The majority of the work in those days was for the mining and fastener industries.

In 1968, the company purchased its first new sealed-quench furnace from British Furnaces; this was later augmented with three more Efcu sealed-quench furnaces as the company took on more gas carburising.

In 1970, Robert Wallwork placed an advert that simply read "**Young man required, must have boundless energy to become Metallurgist at Wallwork Heat Treatment.**" A young man called Ian Brown applied and later became Managing Director.

The first green Wallwork trucks appeared in the mid '70s (long before Asda started to use the colour), the works were extended and a house purchased as offices. The employee numbers were now well into double figures and the company was working 24 hours, five days per week (5 x 12½ hour shifts!) and later started working through the weekends.

In 1979, the company moved to much larger premises in Bury. Vacuum heat treatment was introduced in 1984 and a Ni/Cr foundry in 1987. Two years later, Wallwork Heat Treatment (Birmingham) opened, offering the same treatments



Wallwork founder Robert Wallwork (left) and the inimitable Ian Brown, a former CHTA Chairman.

Market Movements

ANALYSIS OF QUESTIONNAIRE REPLIES RELATING TO 32 CHTA MEMBER SITES

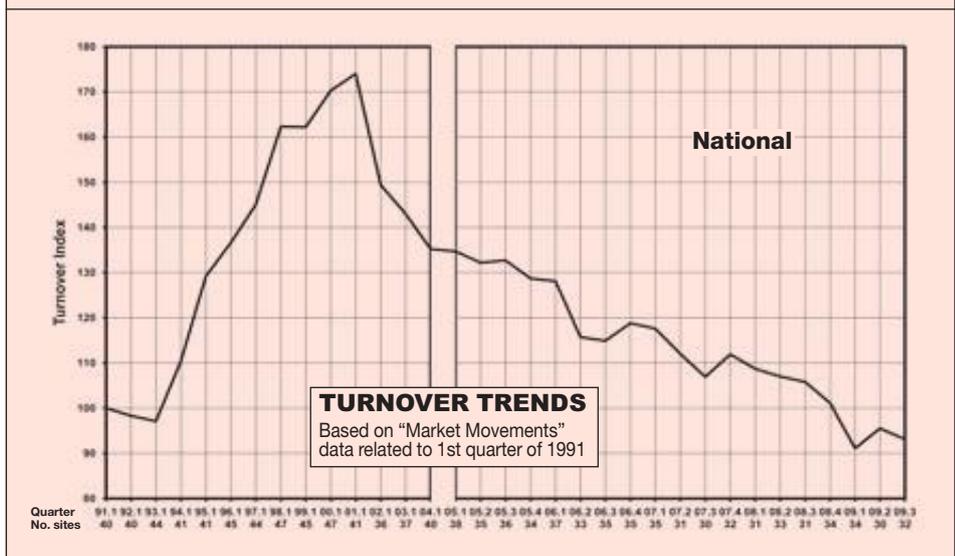
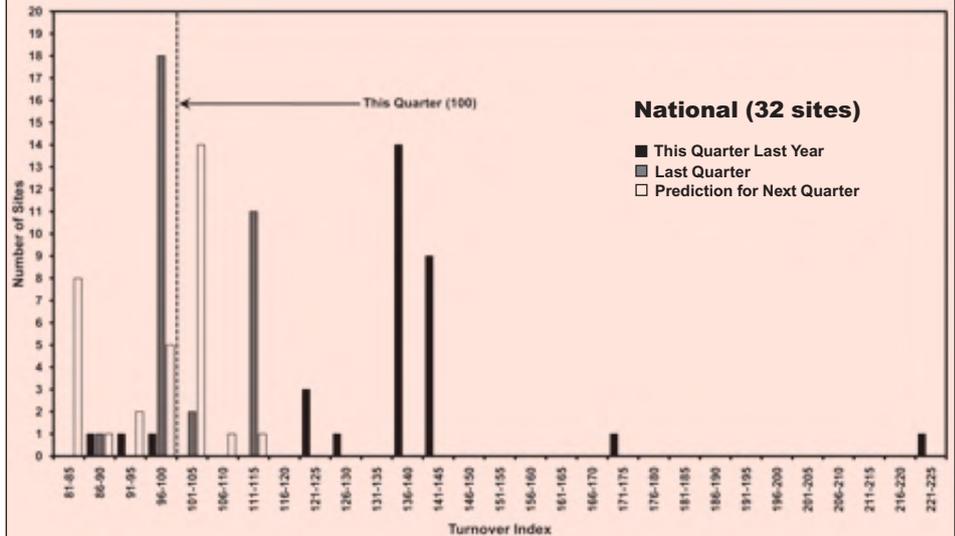
"THIS QUARTER" =

**1 JULY –
30 SEPTEMBER 2009**

= **TURNOVER INDEX 100**

OVERALL ANALYSIS
(32 SITES)

	Mean index
This quarter last year	137.4
Last quarter	102.6
Predicted next quarter	96.5



as the Bury site but with much larger salt baths.

Both sites expanded significantly during the 1990's and, in 1997, the Wallwork Group acquired Tecvac, a PVD-coating company in Cambridge. A new factory was built to accommodate the coating processing as well as another heat treatment centre.

The group has continued to expand, both geographically and in terms of services offered. Today the head office and three production sites are still in Bury and, together with the Birmingham and Cambridge divisions, over 200 people are employed by the company, which has a turnover in excess of £10million.

STATESIDE STATS

NORTH-AMERICAN SALES DOWN 29.7% IN FIRST NINE MONTHS

CHTA counterparts participating in the Metal Treating Institute's Monthly Sales Statistics Program reported heat-treating sales of \$466.8million for January-September 2009. This is in contrast to 2008 when sales for the same nine-month period amounted to \$664million. September billings reached \$53.1million, a reduction of 26.9% compared with September 2008 when sales were \$72.6million. The latest report indicates that October sales totalled \$55.3million, down 27.8% on October 2008's \$76.6million.