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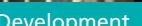
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Safety **Flexibility** 



Development





# Welcome to the autumn edition of Cascade.

I am very pleased to see that this edition has incorporated Urenco's Values as an essential part of the structure. You may remember at the launch of the Vision, Mission and Values in April that I wanted our values to become an integral part of our daily life, and the Cascade Magazine is an excellent example of how this can be put into practice. It also shows how the variety of activities across the Group all reflect our company values. I would encourage us all to continue to 'live' our corporate values in order to make them an inherent character of our company culture.

Since the Spring issue of Cascade magazine was published, there has been a huge amount of activity across the Group marked by a number of key projects. The two most significant of these are obviously the completion of the Joint Venture with Areva and the go ahead to start construction of Urenco's fourth enrichment site in Hobbs, New Mexico. There are articles on both these exciting initiatives included in this issue, but I personally wanted to take this opportunity to thank all those involved for their hard work, commitment and drive in their successful completion. Both are essential components of Urenco's strategy and I am sure we will all see the benefits of these in the future.

Such important developments in the company have necessitated a decision by the UEC Joint Board to make major changes to the organisation and structure of UEC. External consultants, ROI, were appointed to advise on how the 'ideal' enrichment plant should look and be organised. ROI's blueprint will certainly be used for the implementation of our new facility in New Mexico, and I am sure that some of the findings can also be introduced to our existing European sites to help ensure consistency and efficiency in our operations.

ROI have also proposed additional restructuring to improve efficiency and introduce best practice across the Group. Following these proposals the Joint Board have agreed to create a Central Technical Group (CTG) to oversee enrichment plant operations. This CTG will continue the ongoing alignment work started on sites in order to make Urenco's site operations similar to each other. The CTG will also support the sites in running technical projects and will become UEC's qualified customer

interface with ETC. These changes will help Urenco implement best practice across the Group and will be another way to strengthen our drive to become 'One Company'.

The Employee survey which took place in October last year was an opportunity for us all to comment on how we feel about Urenco – both the good and the bad. The findings outlined a number of key areas for improvement, and I wanted to take this opportunity to update you all. One of the key areas for improvement was communication and in particular, the need to communicate changes to employees as an integral part of the improvement process. Over the past few months, I have encouraged the Communication and PR team to share company news with you as and when appropriate. For instance, following the publication of our Annual Report & Accounts 2005 at the end of May, a short leaflet was issued to all staff to provide a handy reminder of the Report's high-level information and figures. Similarly following the launch of the Mission, Vision and Values, a credit-card sized leaflet was distributed to all employees as a reminder of the presentation's content.

Another example of sharing information with each other was the NEF Roadshow in May. This was an opportunity for all staff to find out more about the US project directly from the NEF team and was very well received. To all those that expressed an interest in job opportunities over in New Mexico I would like to say 'thank you'. I'm encouraged by the flexibility of our employees indicated by the high interest shown. We are currently working with individuals to fill different jobs according to priority; however, everybody that indicated interest can be assured that they will be contacted shortly.

The continual development of the Urenco website is also an example of our drive for improved communication. The website is constantly evolving with new areas being added and improved on a regular basis. The website is something I would encourage us all to use as it is becoming an increasingly important medium for our communication with external stakeholders.

The Sports event, which was altered slightly this year to improve the opportunity for cross-company interaction, is also another example of improving communication within the Group, and finally I am pleased at the success of the internal job swaps across the company. These job exchanges are happening evermore frequently at all levels and areas of the business. They give an excellent insight into the working environment and culture of the site, as well as giving an opportunity to experience working in another country or region. I hope that these will continue in the future.

Our half year results, which have been externally published for the very first time this year, are further proof of our company's growing success. I recognise that this success is due to the commitment, loyalty and hard work from all employees and I want to thank you all for your continued contribution. Together we are building a strong, efficient and secure business that will ensure our success for many years to come.

Kindest regards,

**Helmut Engelbrecht** 

# Safety

We will operate to the highest standards of safety, environmental and security requirements.

### RoSPA Gold

On the 18 and 19 of May 2006, due to the hard work and vigilance of Capenhurst employees, Urenco's Capenhurst site achieved Gold medal recognition from RoSPA.

The company's Peter Sillito, Steve Laycock, Richard Gard, Jim Hornby, Barry Jackson, Wyn Beavan, Andrew Booth, Carol Brown, Derek Bond and

Fleur Robinson attended the RoSPA Safety Awards ceremony and Health and Safety exhibition at the NEC Birmingham to collect this outstanding award. Only companies achieving five Gold awards in successive years receive Gold medal recognition.

The Health and Safety Expo, was a great opportunity for the group

to network with other successful companies and view the extensive range of health and safety equipment and services. Dr Paul Harding commented: "Achieving Gold medal recognition puts us in a select band of UK companies and is a tremendous achievement by everybody working at Capenhurst."

# Urenco Capenhurst Site celebrates over 600 days without a Lost Time Accident



The Capenhurst site continues to demonstrate its strong belief in safety, having now completed over 600 days without a Lost Time Accident (LTA).

In recognition of this achievement, the management team have donated over £3.500 to local charities. The most recent beneficiary was the Ellesmere Port and Neston Community Transport Association. Dr Paul Harding, pictured at the cheque handing over ceremony, commented:

"Over 600 LTA free days is a significant achievement and one which all Urenco employees should be proud of. This is the proof that safety will always have the highest priority on site."

# ETC Almelo achieves over 450 days without a Lost Time Accident

ETC's Almelo site also has an impressive safety record achieving over 450 days without a Lost Time Accident. This reflects the priority that is given to safety at ETC. A number of initiatives have been implemented to ensure that ETC provides a safe working environment for employees and contractors. In this respect ETC have been successfully using the 5S program for over 12 months.

## Good Housekeeping – the key to a safe workplace

Increasing external interest in Urenco means that more customers, governments and other important stakeholders will be visiting the company. Visitors cannot actually see our product, therefore their opinion of Urenco is based on their perception of quality and safety standards at Urenco.

A clearly organised and clean work area is a safe and productive place in which to work, communicating a positive attitude and real pride in our workplace. Clean and organised working conditions have several benefits for employees. More easily found items and less machine breakdowns mean that one can save on time, money and irritation levels. Not being distracted by safety issues also leads to improved performance, higher quality and less injuries. In addition, working together to create a better workplace can be extremely enjoyable and well worth the effort.

To this end, staff at the Almelo enrichment plant started a project on good housekeeping in September 2005. In October 2006, the Capenhurst site will launch a similar initiative following an initial pilot trial of 5S carried out by the Capenhurst Vacuum Pump Workshop. This was very well received, hence the decision to launch the initiative across the entire Capenhurst site.

An external company, Pol Consultancy, was asked to help 'structure the process' at the Almelo site and introduced '5S', an effective system with proven success. Everyone in every building was involved, from offices to the container handling facility and from desk-space to the engineering workplace. Teamwork was the key to success. Pol consultancy originally implemented this initiative at ETC in Almelo. On hearing of the success at ETC, Theo Botter introduced the initiative to UEC's Almelo site. When he moved to Capenhurst it seemed natural to introduce 5S to their existing programs. This is a prime example of how processes and initiatives can be aligned to improve working practices

across all sites. Commenting on the relevance of the 5S programme Theo Botter said "a clean and tidy site is the first thing customers notice; it is the first sign of quality".

5S, which has links to Japanese heritage, is a system based on 5 basic steps:

'Seiri' or 'Sort' – identify all unnecessary items and decide what to do with them.

'Seiton' or 'Set in order' - arrange easy and efficient access for necessary items.

'Seiso' or 'Shine' - clean and keep it

'Seiketsu' or 'Standardise' - confirm how Sort. Set in order and Shine should

'Shitsuke' or 'Sustain' - keep it that way, by discipline and teamwork.



To achieve this, first a vision and project structure was established to reach about 230 employees and subcontractors in Almelo. To gain everyone's attention a cleaning activity on one of the large transport vehicles for the Managing Director Paul de Jong, his Management Team and all the building supervisors was organised.

The team then set about communicating the vision and the 5S steps were



apenhurst workbench –



Capenhurst workbench -

explained and the sorting, setting in order and cleaning activities started. Everyone was involved resulting in a lot of red tags being placed on equipment and furniture that could be removed.

In some cases it led to lengthy discussion, with some frustration and irritation. However, the first steps of the 5S system achieved more than just clearing the workplace.

The next step was to translate the first 3 steps into a vision of what individual work spaces should look like in relation to the company vision. The aim is that everything is in its place and there is a place for everything. Every inch of the work area can be allocated to employees with a clear understanding of the new parameters.

Finally the most difficult part of the 5S system. Discipline and responsibility are needed to keep the area clean and organised – "You cannot manage what you do not measure." Regular audits will help to measure progress, ensuring that organising and cleaning is not a one-off event but a matter of continued improvement.

Although some people were sceptical in the beginning, 5S opened their eyes and everyone now experiences the benefits of a clean and organised workplace: a place that is enjoyable to work in and worthy of pride. We even got a big compliment from our consultant. Eric Pol:

"I experienced a lot of progress, keep it that way and never stop improving!"

**URENCO** Cascade Autumn 2006 **URENCO** Cascade Autumn 2006

# Integrity

# WNA Annual Symposium 2006

# **Building the Nuclear Future:** Challenges and Opportunities

Urenco continues to support WNA which promotes an open dialogue between the nuclear industry and its key stakeholders, mirroring our own focus on integrity as one of the company's key corporate values.

This event is now the premier international forum for the nuclear industry. At a time when the nuclear industry is again at the forefront of the energy debate, this year's symposium looked at the prospects for the worldwide expansion of nuclear power.

Held at the QEII Centre, London, the event was attended by over 600 people from more than 25 countries. Key speakers were drawn from all areas of

Pictured below: Exhibition stand, QEII Centre.





the nuclear debate, ranging from international bodies such as the IAEA to individual companies. A wide spectrum of topics was covered, beginning with the future prospects for nuclear power. Delegates also addressed the challenges faced in changing public perceptions of the industry and knowledge preservation – both critical to the future of the nuclear industry. Other areas addressed by the conference were radiation safety, waste management and decommissioning.

For the second year Urenco was the sole sponsor of the Welcoming Reception. This was a great success, offering networking opportunities and the chance to enjoy the elegant surroundings of the Royal Opera House, Covent Garden. John Ritch, Director General of WNA, and Helmut Engelbrecht gave a short address welcoming everyone to the symposium and commenting on the continuing nuclear renaissance.

The symposium and the reception were an opportunity for Urenco's PR and Commercial teams to successfully work together to strengthen Urenco's standing within the nuclear sector.







Pictured right: Drinks reception, Royal Opera House.

# We will conduct all our relationships with honesty, fairness and respect.

## The Transport Team share the Urenco vision

Phil O'Keefe, Transport Manager based at Marlow, has been sharing Urenco's vision, mission and values with its transport partners. Guests from Uranium Asset Management Limited, Trans Nuclear International, RSB Logistics, Nuclear Cargo Service and Transport Logistics International were invited to Urenco Marlow's Conference Suite.

During the event attendees were shown the Vision, Mission and Values DVD and given a presentation on how these impacted the day to day running of Urenco. The aim was to make the visitors aware of the importance that Urenco placed on each of these values, and that in turn as transporters of Urenco's products, the public may not distinguish between the 2 companies, with respect to reputation and behaviour.

For this reason the Transport team were keen to encourage the suppliers to take on the same values. Suppliers were also updated on Urenco's expansion plans which should make them even keener to support Urenco's values.

Speaking after the event Phil O'Keefe said:

"We had very positive feedback from all the attendees, who felt that Urenco's values were also applicable to the industry as a whole."

In future the Transport team will be ensuring that suppliers continue to uphold the Urenco values through regular audits.

# High Quality and Environmental Standards

# **TÜV Rheinland renewed quality** and environmental certificates

The annual review of Urenco's Gronau site management system was carried out by external auditors, TÜV Rheinland, from March 29 to March 31. The auditor's two representatives checked the implementation of the management system against standards DIN EN ISO 9001:2000 and ISO 14001:2004. They were assisted by an environmental expert who controlled fulfilment of the European Eco-Management and Audit Scheme EMAS II.

The DIN EN ISO 9001 standard describes the requirements for a quality management system; standard ISO 14001 and EMAS contain requirements for environmental management systems. Within these regulations, the European eco-management and audit scheme contains the strictest demands for



environmental management systems, especially with respect to public involvement.

The auditors and the environmental experts were again impressed by the high level of efficiency, comprehensiveness and continuing progress of Urenco's management system. Developments in some areas

were described as exemplary. The new certificates, valid for another three years, are shown on the left.

The update of the Gronau site's environmental site declaration following the European eco-management and audit scheme is ongoing. When approved by the environmental expert, it will be published on the internet and intranet, thereby transparently documenting Urenco's responsible environmental policies for all interested parties. This update describes the changes against the environmental site declaration of 2005 which is also available on the internet and intranet.

The quality management team would like to thank all employees at Gronau and everybody involved in the audit for their support.

# Integrity

# 2006 Sustainability Report Launched

The 2006 Sustainability Report, which was published in early September, is the result of Urenco's continuous commitment to sustainability. Urenco has regularly communicated this commitment through site-based publications, but this is the first time that the company has commented as a Group.



2006

Sustainability is at the

Urenco does, not only as

a company, but also the

operates. Nuclear Energy

is now widely recognised

sustainable energy option,

and reliable energy in the

vast quantities required. In addition,

nuclear energy is one of the cleanest

energy options available. Nuclear energy

harmful CO<sub>2</sub> emissions which contribute

to global warming. Urenco is proud to

be a part of this sustainable energy

option, which is reflected in the

company's vision which states:

and most environmentally friendly

generation does not produce any

providing safe, secure,

heart of everything

industry in which it

as the world's key

power to meet the demand for sustainable energy."

'We believe the future needs nuclear

Urenco's success has been based on its world leading centrifuge technology, which is the most efficient and economic method of uranium enrichment. This further demonstrates how sustainability is an integral part of our company and is a key driver for everything we do.

As a company, Urenco is also committed to sustainability in all areas of its business. This Group report, the first published by Urenco, complements our 2005 Annual Report & Accounts and

presents this commitment to corporate sustainability in three key areas:

### **Eco** This

#### **Economic Performance**

This section includes Urenco's commitment to the economic dimension of sustainability and considers Urenco's impact on the economic circumstances of our stakeholders and on economic systems at the local, national and global level.

### **Environmental Performance**

Environmental issues remain a priority for Urenco and this is an area for continual development and improvement. The report considers Urenco's impact on the local environment, including ecosystems, land, air and water.

#### **Social Performance**

The social dimension of sustainability concerns Urenco's impact on the social systems within which we operate, considering both internal and external stakeholders.

If you would like to receive a copy of the 2006 Sustainability Report, please contact Alex Moore at: ajm@urenco.com

# UF<sub>6</sub> Seminar 2007

Urenco will be sponsoring the next UF $_6$  Seminar. It will be the first gathering of its kind in over 10 years. Much has changed in the field of UF $_6$  storing, handling and transportation since the conference in 1995 and the 2007 seminar will be a unique opportunity to network with others in the field with opportunities to discuss the latest regulations and processes, and the ability to develop best practice.

The event will run 13 – 16 May at the Theaterhotel Almelo, Netherlands. A select number of industry leaders have been invited to present papers with Urenco supporting the sharing of best practice across the industry. There will also be an opportunity to share Urenco's vision with a site visit to Almelo.

A number of potential speakers have already expressed an interest in attending. There has been a very positive response to the event from a diverse cross section of the nuclear community.

# New Plant Operator Certification

It is of vital importance for Urenco's employees to keep up the knowledge and skills relevant for their job. Although this holds for all positions within Urenco, it is especially true for operators as they are in charge of operating expensive and sophisticated equipment. In Almelo there is a Training Program for Plant Operations, which distinguishes between four levels of knowledge and skills:

**Level A:** the operator knows the functions of the plant systems

**Level B:** the operator can operate the various plant systems under supervision from a senior

**Level C:** the operator can operate the various plant systems without supervision

**Level D:** the operator has a thorough command of the entire control room and knows the functions and workings of all plant systems and possible interactions with other systems

The training program's objective is to school all operators to level B, from where they will develop their knowledge and skills further to reach level C. Every operator should of course aspire to reach level D at some stage.

So much for the theory behind operator training. In practice, it has become clear that not all operators reach level D. They remain at level C for a long period of time and have to maintain their knowledge to stay at this level. Since there have to be enough level C and D operators on site to operate the plants, it has been decided to introduce compulsory operator certification.

For this purpose, key tasks have been determined for senior operators, which have been linked to competencies.

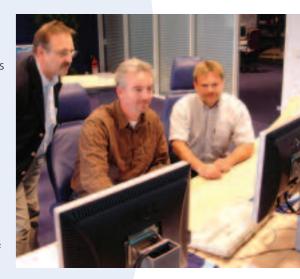
During this process, it has become apparent that attitude is an increasingly deciding factor. All these aspects have been brought together and various cases have been formulated to test the operators on each of these aspects.

The entire process and the assessments are developed and maintained under supervision of VAPRO, a Dutch institution that accredits colleges in the Netherlands.

Each operator is assessed by two colleagues (not his/her usual supervisor). VAPRO witnesses a large number of the assessments to assure the consistency of the assessments in general. Operators must complete two cases successfully and are informed of the results immediately thereafter. If a candidate fails a case, he or she must re-sit within six months.

The first certificates (20) will be granted to a group of operators in September. A certificate is valid for three years. It is expected that all operators will be certified by the end of next year.

The picture shows operator Dinant Bouwmeester during his assessment supervised by Joop Pieren and Bertus de Vries.



# Development

# NEF 'ground breaking' — a chance to celebrate

The 'ground breaking' for the National Enrichment Facility (NEF) took place amid much celebration in Lea County. A host of dignitaries and Urenco Group staff attended the ceremonies and events which ran from 28 to 30 August.



From left to right: **NEF** outgoing President & CEO Jim Ferland, Urenco CEO Helmut Engelbrecht, Congressman Steve Pearce, Governor Bill Richardson and Senator Pete Domenici help turn dirt during the NEF around breaking ceremony held 29 August.

Pictured below: The Mayor of Almelo with The Mayor of Eunice.

The event which was attended by nearly 800 people had the dual purpose of officially carrying out the 'ground breaking' and also to thank all those from the area who helped make the NEF a reality. The events began with a reception hosted by the EDC (Economic Development Corporation) at the Lea County Cowboy Hall of Fame, moving onto dinner at the Event Centre. On 29 August, at the NEF site, the press had the opportunity to meet with Senator Pete Domenici, Governor Bill Richardson, Lt. Governor Diane Denish, U.S. Department of Energy Under Secretary David Garman, state legislators, elected officials, NEF and Urenco officials. At 10am on 29 August the official 'ground breaking' ceremony took place.





Pictured above: Event photo call



Pictured above: Delegates at the event.



Helmut Engelbrecht interviewed.

We are committed to the sustainable growth of our business through the continuous development of our employees, services and products.

### **NEF Licence**

The NEF licence approval was received from the **United States Nuclear** Regulatory Commission on 23 June to construct and operate the National Enrichment Facility (NEF). The NEF plant is strategically important for Urenco as it will create a production platform in the United States, Urenco's largest single market. The US order book for the new facility already exceeds €2.5billion.

The Urenco Board gave approval for the plant on 5 July. Construction activities have begun, with the 'ground breaking' in August. The NEF will provide US utilities with diversity of supply, as Urenco will become the second domestic supplier with a significant market share. US utilities have continued to demonstrate their support for the NEF with firm contractual commitments in place.

The NEF project will provide more than 210 permanent jobs and over 1,000 multi-year construction positions in southeast New Mexico for the duration of the construction phase. First production from the NEF facility is expected in late 2008.

The news was welcomed by Helmut Engelbrecht, Urenco CEO who said:

"This licence plays a crucial role in Urenco's strategy to invest in long-term capacity to support our growing and diversified customer base. The NEF site in New Mexico will ensure security of supply to the US market and bring a \$1.5billion investment into the local area. This is of similar size to the investment made in Urenco's European sites over the last 5 years.

Jim Ferland, who was President of the NEF up until September 2006 and instrumental in the successful completion of the licence process said:

"The NEF became the first major commercial nuclear facility to be licensed in 30 years. This is an historic and remarkable achievement for our company, for the nuclear industry as a whole, and for the citizens of New Mexico, and Lea County specifically, who have supported the NEF during the licence process."



### **NEF gets New Chief Executive Officer**

On 27 September 2006 Reinhard Hinterreither took over as President and CEO of LES. Reinhard was previously Executive Director for Risk and Business Support for Urenco Group, with responsibilities including strategic development, risk-management and mid and long-term strategic planning.

Reinhard came to Urenco from Texas based Reliant Energy, where he held various positions in strategic planning and risk management, commercial analyses and corporate business development between 1998 and 2004. He received his MBA from Texas A&M. with a Masters in Technical Physics and a degree in Electrical Engineering from Austrian Universities.

With his business and engineering experience, training and skills Reinhard

will be well positioned to continue moving LES on its successful path, toward construction and operation of the NEF. Helmut Engelbrecht commented:

"He shares my commitment to ensure the success of the NEF, working closely with all of you to build on time and within budget. I am convinced he will ensure LES is an open and honest company, working closely with the community and the government to answer their questions and maintain their support."

Reinhard's experience of Urenco will also enable the NEF to become wellintegrated with Urenco, to the benefit of both entities. Reinhard and his family will be living in Hobbs.

### **NEF gets New Chief Financial Officer**

Following the confirmation of the NEF licence and the approval by the Board, it was announced that Tony King, currently Head Financial Strategy and Treasury, will be moving over to NEF as Chief Financial Officer (CFO).

With his in-depth knowledge of Urenco's financial operations he was seen as the ideal person to build the new NEF finance function. Tony commented:

'The role offers a fantastic opportunity to be involved in such a significant project for LES and Urenco from the outset. I expect the role to provide major challenges over the coming years, but to be a hugely rewarding experience."

Guus Waals, who previously held the role, will remain as part of the LES team focusing on the SAP roll-out and other special projects till the end of the year.

# Development

# **Enrichment Technology Company**

On Monday 3 July Areva officially acquired a 50% stake in ETC. Helmut Engelbrecht CEO of Urenco and Anne Lauvergeon CEO of Areva signed the agreement in front of an invited audience. The attendees from Urenco were Helmut Engelbrecht, Bart Le Blanc, Sheila Graves, Pat Upson, Michael Smith, Oliver Thoumyre, Volker Dannert, Tony King and Jayne Hallett. The agreement, which had been subject to competition clearance from the European Commission as well as intergovernmental agreements between the Netherlands, Germany, the UK and France, clears the way for Areva to begin work on the Georges Besse II project.

Speaking at the signing, Helmut Engelbrecht said:

"The purpose of the venture is to share knowledge of efficient, economic and environmentally friendly technology. The completion of this project allows Urenco to achieve one of its key strategic aims, to generate value to the Group by working with key partners to share Urenco's world leading technology."

### Anne Lauvergeon said:

"By acquiring 50% of ETC's shares, Areva secures access to support for and development of the ETC technology and related services required to build Georges Besse II. This will allow Areva to secure its long term commitments to its customers with a smooth transition between Georges Besse and Georges Besse II plants."





The final deal closing ceremony took place in Paris, following the official signing of the contracts in London last November. This interim period was needed to achieve competition clearance and political agreement. Once formalities had been completed, ETC held its first Board Meeting chaired by Bart Le Blanc who will hold the post of Chairman for 2 years. Pat Upson CEO, Michael Smith Company Secretary, Paul Harding, Gustav Meyer-Kretschmer, Joel Pijselman, Rene Aulagnon and Guillaume Dureau, who are all Non

Executive Directors, were present.





Helmut Engelbrecht and Anne Lauvergeon at the Joint Venture signing ceremony, Paris.

# MAH

ETC employees received a bottle of wine and glasses to commemorate the occasion; further celebrations are planned. The proceedings will commence with a simultaneous address from Bart Le Blanc and Pat Upson to emphasise the one team ethos of ETC. Thereafter each site will have its own employee function, with colleagues from the US and France attending either Capenhurst, Almelo or Gronau. This will be a double celebration as ETC will be celebrating the third anniversary of its formation on 1 October 2003.



# Corporate Identity Update

Following on from the successful launch of the new corporate identity over the past year Urenco continues to ensure that the new identity is used and promoted across the group.

### **Urenco Website**

As mentioned in the last issue of Cascade the first stage of the new Urenco website was launched in spring 2006. The new site not only reflects the new corporate identity but it has a more interactive, modern feel than the previous site. One area where this is noticeable is

the Investor Relations section which now contains an interactive version of the 2005 Annual Report. The new site has been a great success with over 373, 487 hits in July. The new site design ensures that the site will be able to grow and adapt with Urenco.



#### Interactive CD-Rom

The new Interactive CD Rom was launched at WNA in September; this new version has been updated to reflect the new branding and also the NEF site in New Mexico. The CD Rom gives the viewer the opportunity to navigate through a variety of areas including the enrichment process and Urenco's support for local communities. There will be more information about the CD-Rom in the next issue of Cascade.

# Urenco Group Sports Day

### Kate Durham gives her own view on the Sports Day at Almelo.

Skinned knees, tired muscles and a great deal of laughter – what could it all be about?

Yes, it was another Urenco Group Sports Event, hosted in fine style by our ETC colleagues from Almelo. They gave everyone a very enjoyable day, the opportunity to mix with colleagues from all the European sites and superb sunshine (although no one claimed responsibility for that). How is it possible to laugh so much while running, climbing, bouncing, avoiding sunburn and getting to know so many colleagues who perform the myriad of different roles within the company?

The venue was the Moetheve Sports Centre near Almelo, which provided very good catering (distant memories of the odd beer too). Team names were based on cartoon characters with the 'Wylie Coyotes' coming in first, the 'Sylvesters' achieving second place and the 'Tasmanian Devils' winning the booby prize. Each team comprised of representatives from across the Urenco Group.

This year the teams were treated to an agenda including bungee running, skirt football, an inflated assault course and Sumo wrestling. A good time was had by all, new acquaintances were made and a good 'one company' feeling achieved. A site tour the following day was arranged to visit the Almelo enrichment facility, Enrich Tec site and Aeronamic (formerly Urenco Aerospace).

Thanks to the ETC organising committee for a very enjoyable event.











# Development

# New Process Alignment Initiative

Cascade spoke to Geoff Dickinson about how the Process Alignment Working Group is leading the drive to implement best practice across all the Urenco sites. Geoff shared with Cascade some successes to date and also the origins of the programme.

The Process Alignment Working Group was formed in 2005 to ensure operations and procedures were consistent across all enrichment sites and improved working practices would be initiated providing best practice standards.

The Joint Board commissioned a working group to align processes across the three sites in April 2005. The Group was sponsored by Paul de Jong and comprised the Works Managers from each site; Theo Botter for Capenhurst, Jan Koop for Almelo and Stefan Busch for Gronau. The team was supported by Geoff Dickinson in his capacity as UEC Manager responsible for Quality and the Business Improvement Process.

It is important that customers and regulators view Urenco as one company. The initial objective was therefore focused on interfaces with the customer and consistently satisfying international regulations.

Some of the areas worked on were: Inspections of transport vehicles Inspecting the cylinder Regulatory contamination checks Vacuum standards Sampling and sub sampling

Review of documentation we sent to our customers including: Advice Note Proforma Invoice

Certificates of Uranium Quality

In order to achieve this, three audit teams carried out an analysis of processes at each site.

The process was broken into 3 sections:

(i) receipt and dispatch of material

- (ii) primary enrichment in cascades
- (iii) final customisation to meet customer requirements i.e. blending, sampling and chemical analysis

Having fully documented the process on their home sites each team then visited the other sites to carry out a comparison. This resulted in comprehensive reports that detailed the processes across all three sites and included both the similarities and the differences. These reports were then presented to the working group and 47 actions identified to align processes that were either customer facing or had a regulatory impact. Good progress has been made with 85% of high priority actions now completed.



Container Transport Inspection at Gronau.



Swabbing at Capenhurst.

### Cylinder reference in SAP

Previously each site had a unique reference system, hence each cylinder may have up to 3 references. Having a single reference in the SAP system for each cylinder allows for more accurate tracking of the cylinders and therefore making it easier to ensure any regulations relating to the cylinder are adhered to. For example international transport regulations require cylinders to be re-certified every 5 years; this includes witnessed pressure tests and detailed inspections.

This is a significant achievement considering that the groups where challenged to agree and implement key changes in procedures in addition to their routine workload.

The ongoing challenge is to complete this phase of alignment by the end of 2006 and ensure that robust systems are in place to ensure that we maintain alignment whilst continuing to seek further improvements.

### Urenco setting the standards for its industry

The 'Chemistry Forum' has been working on how Urenco complies with the ASTM specifications. Each site had complied with the specification in a slightly different way. For example some analysis methods are different, the way in which plant samples are sub-sampled into P10 tubes for customers varied slightly. Having identified the way Urenco should proceed in future, the Chemistry Forum is now working proactively within ASTM in developing improved standards for the industry as a whole.

### **Summary**

In 1993, 3 different companies existed, each site having autonomy.

The 2003 re-organisation aimed to bring a new 'unity' to the company with an increased openness between the sites with direction from the centre.

Process Alignment will develop consistency in the way Urenco meets customer requirements within the context of operating within different national regulatory frameworks and deploying technology of differing age.

The alignment process has allowed for documentation to be produced on how Urenco complies with international standards. These will be formally incorporated into a series of Urenco Standards Documents.

Having a single reference allows for all sites to be measured against the same standards.

As far as practically possible all customer and supplier documentation will be harmonised.

Standard owners will ensure that standards are updated and adapted to meet developing best practice.

In summing up Geoff Dickinson commented:

"We need to be pragmatic when looking at the standards. They need to able to accommodate local site requirements and focus on the outcomes of what we do. Following this approach we will in time develop more common methods and deploy more common equipment across the Group in achieving our outcomes."

Where does the Process Alignment group go next? We expect that as the plant in New Mexico is built these standards should ensure that the operation runs smoothly and that customers continue to receive the excellent levels of services they have come to expect from Urenco. However, we must not rest on our laurels.

- There is still plenty to learn from each other and the world outside Urenco.
   Perhaps the next step will be to revisit our processes again to identify a better set of performance indicators which will underpin further benchmarking and challenge further improvement.
- We can also challenge ourselves to ask whether everything that we currently do is adding value or is essential to meeting regulatory requirements. Have we built in too many comfort steps into our processes?
- There are also many supporting processes to look at!



Cylinder Inspection at Gronau.



Cylinder Inspection at Almelo.



P10 Sampling at Capenhurst.

# Profitability

We are committed to making profits to secure our future and reward our shareholders and employees.

### Urenco Publishes Half Year Results

On 24 August Urenco Group published its Half Year results. This is the first time that Urenco has made public this information. The strong results reflect Urenco's excellent performance over the first 6 months of the year. There has been significant growth in operating performance and market share, in addition to major progress on strategic projects.

### **Financial Results:**

- Continuing profit growth with EBITDA up 21% to €215m compared to €177m for the same period last year
- Net profit reached €74m up from €51m on last year
- Strong operational cashflow of €198m up from €126m last year
- Significantly increased order book now stands at €11bn up by 40% since the beginning of the year

# Uranium demand sees nuclear group's profits rise by a third

### **Strategic Developments:**

- New US Plant the licence for the NEF was granted in late June and the ground breaking took place at the end of August. New enrichment capacity is expected to be online within two years
- Enrichment Technology Joint Venture became effective on 3 July 2006, securing the long term future for the continued development of ETC's world leading centrifuge technology

# Power for the World

#### Outlook

The increases in revenues and profits seen in the first half are partly due to a shift in seasonal delivery patterns compared with 2005, and are therefore not expected to be sustained on the same scale in the second half.

Nevertheless, the outlook for the remainder of the year and beyond looks very encouraging.

Helmut Engelbrecht, CEO of Urenco Group commented that:

"Urenco has already achieved some significant milestones in the first half of the year. The results for the first six months confirm the success of our long term strategy of 'growth through investment', and our forward order book now stands in excess of €11 billion. This provides us with an immensely strong position both to underwrite our investment plans in Europe and the United States and to secure our continued growth, thus ensuring a healthy return for all of our stakeholders."

# Surge in orders at Urenco

Following an interview with Bart Le Blanc both The Times and FT published extremely positive articles on the Urenco Group. The Daily Telegraph also published a short piece on Urenco's half year results. If you would like more information on these articles please contact Alex Moore at: ajm@urenco.com

# Urenco orders jump as nuclear demand grows

# Credit Rating for Urenco: Single A

Following Moody's credit assessment in September 2005, Urenco is very pleased to announce that Standard & Poor's Ratings Services has assigned Urenco an A-credit rating assigned on a stand-alone credit quality basis.

This rating is in line with Moody's baseline credit assessment issued in September 2005.

Urenco's Chief Financial Officer Bart Le Blanc said:

"We are happy with S&P's credit assessment of Urenco on a stand-alone basis as a single A credit which fully reflects Urenco's strong and visible cash flows and excellent performance record. With the two ratings we are now well placed for our future funding operations to finance our significant expansion in Europe and the NEF plant in the US."

As part of the ongoing credit rating process, Urenco expects to receive revised credit ratings from both Moody's and Standard & Poor's. Unfortunately these were only available after we went to press but you can now access the latest ratings on the Investor Relations area of the website and Cascade will report on these new ratings in the next edition.

#### What is a credit rating?

A credit rating assesses the credit worthiness of an individual, corporation, or even a country. Credit ratings are calculated from financial history and current assets and liabilities and tell a lender or investor the ability of the subject to pay back a loan.

A high credit rating indicates a low risk of defaulting on a loan, and thus leads to lower interest rates.

Source: Wikipedia

# Profitability

# Annual Report 2005

### 'Our people are our success'

The annual report for 2005 was published at the end of May. Helmut Engelbrecht the CEO commented that Urenco was "driven by the skills, expertise and commitment of its employees". This is reflected in the theme of this year's report, 'Our people are our success', which builds upon the recent launch of our Vision, Mission and Values.



The front cover is designed to embody the sentiment of individuals working together to achieve a common vision, with the front cover containing a montage of portrait shots of the Urenco team. The theme is continued throughout the document with focuses on employee commitment and expertise across the

The annual report is not only a legal document. It is an opportunity to share with all key stakeholders our successes and plans for the future. Critically, as Urenco looks to expand its financing options, the annual report gives prospective investors a window not only on the company's financial credentials but also its people and plans for the future.

In his first report as Chairman, Chris Clark commented on the exciting changes in the nuclear industry. These included the opportunities in the enrichment market

left by the continuing decline of gas diffusion. In addition, the changing business and political environment has led to a reappraisal of the role of nuclear. This is in the main due to renewed

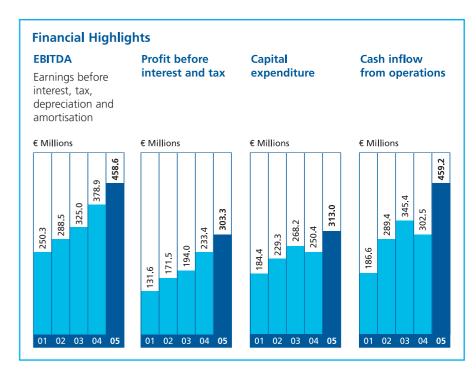
concerns over the economic and environmental costs of electricity generation.

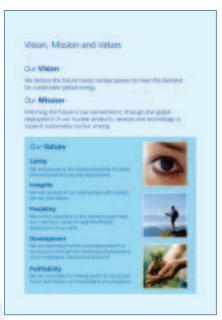
Helmut Engelbrecht reflected that the key milestones detailed in the report have already been achieved, namely, NEF and the Areva Joint Venture. You can read more about them in this issue of Cascade on pages 10 and 12 respectively.

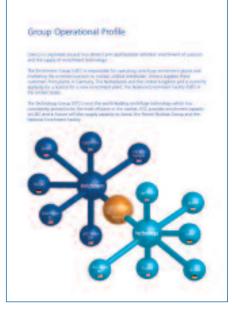
He also paid credit to the successful commissions of all planned cascades at UEC sites that were brought online during 2005, at above agreed performance levels. Improved efficiency ensured manufacturing costs were below targets set. The safety record continues to be excellent. The newest generation of centrifuge, TC21, entered series production. Efforts are ongoing to further enhance the design for improved performance. In 2005, two new ETC subsidiaries have been established; **Enrichment Technology France SAS** and Enrichment Technology US Inc. These companies will provide assembly expertise for the Areva and NEF projects.

In addition to Urenco's financial and business success, the annual report illustrates Urenco's investment in the local community. The Urenco Group has adopted a formal donation policy that focuses on Education, Healthy Living and the Environment thereby allowing consistency across all of the sites. These range from sponsorship of major cultural events to school science workshops for local primary schools. More than 20 schools took part in Urenco workshops, reaching over 700 children. In 2005, Urenco sponsored classical concert performances in The Netherlands, and the annual Gronau jazz festival, which it has supported for the last 16 years.

An interactive version of the Annual Report can be found on the website, where it has been well received with over 16,000 visitors downloading the document.







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# Flexibility

Temporary Job Rotations between the Urenco sites

Efficient and safe operations and a flexible attitude are of great importance as Urenco accelerates its efforts to acquire a growing share of the worldwide market for enriched uranium.

To this end, it is vital that employees share experiences from their own and other sites. This is why management stimulates various departments to exchange information with their counterparts within the Urenco Group. One way that this has been achieved is through group-wide meetings to discuss particular subjects and to exchange information. However, there is no better way to experience how certain processes work, than to actually go and witness them for oneself. Add this to the fact that one of Urenco's key values is flexibility, and the concept of temporary job rotations was an obvious next step.

A 'job rotations programme' was introduced across the group at the beginning of 2006. Under this programme, colleagues from all levels in the organisation temporarily switch jobs with one of their international 'shadows'. Louise Quirke, secretary to CEO Helmut Engelbrecht, has exchanged jobs with each of the secretaries to the Heads of Sites (Jolanda Lamain, Karen Lee and Alwine Schneider) to improve understanding of how things work on the sites and at 'Head Office'. MD Paul de Jong, who spent two weeks in Capenhurst in June and Gronau in August, commented that:

"Although I have visited the Capenhurst site over 200 times in the last 22 years, and knew a lot about the plant, it is really different to see an organisation from the inside. I found an open organisation with people with humour who are prepared to say what they think. I found committed employees who take ownership for their plant and site. I am convinced that the team

at Urenco Capenhurst will be successful in meeting all future challenges. I would like to thank all the Capenhurst employees for their involvement and time."

His British and German counterparts have been on similar exchanges. Joachim Ohnemus said of his time at Capenhurst:

"I have gained a better understanding of the working practices at Capenhurst which has endorsed my positive image of the site. I certainly found my time very interesting and learnt a great deal, I feel that the advice I have offered has been well received. I will be taking a number of the ideas from Capenhurst with me to Gronau."



Louise Quirke takes over Jolanda Lamain's desk at Almelo while Jolanda goes to Marlow.

Two operators from each of the three enrichment sites have also participated in the job rotations programme. Almelobased Seeger ter Laak and Dinant Bouwmeester spent a week in Capenhurst and Gronau, and successfully presented their experiences in the "Works Managers' meeting", attended by Stephan Busch (Gronau). Theo Botter (Capenhurst) and Jan Koop (Almelo), and by Paul Harding on behalf of the site MDs. Each of the three 'pairs' of participants came up with virtually the same findings and the six operators were asked to jointly turn them into a set of recommendations. The purpose is to define a list of 'best practices' within the

Works Managers' meeting. This means that several key processes in the enrichment plants will be discussed to determine at which site it is carried out in the most efficient way. Where possible, the most efficient method will be introduced at all enrichment sites. Paul Harding commented that:

"The findings presented by the operators have allowed me to gain detailed insights into how the different sites operate and I am sure that this will influence how we meet future challenges at Capenhurst. The operators who participated in this program found it a worthwhile exercise and allowed for a wider understanding of the challenges their colleagues face. This has ensured that new standards and best practices are relevant for all the sites. I immensely enjoyed my own week at Almelo in July and found working with the technicians on the Thursday afternoon shift particularly informative. I look forward to spending a second week at Almelo and a week at Gronau in the autumn."



Paul Harding joins senior operator Dinant Bouwmeester and operator Marius Reuvekamp for the Thursday afternoon shift at Almelo.

We will be responsive to the market to best meet our customers' needs through the flexible deployment of our skills.

### **Business Plan**

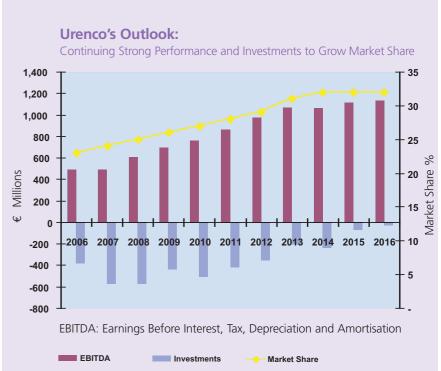
"The new business plan builds on Urenco's excellent performance over the past years. In the coming period profits are expected to grow significantly. This allows us to continue to invest in new capacity to serve our growing customer base worldwide."

Bart Le Blanc, CFO Urenco Group.

### Key Messages from the Business Plan include:

- Urenco's order book has doubled over the last year and new capacity expansion is under way in Europe and the United States to serve customers requirements in all markets.
- Investments in additional enrichment capacity will push up manufacturing volumes at ETC to previously unforeseen levels stretching the organisation, manufacturing and cascade assembly to five sites.
- In order to finance these high investment levels, Urenco's debt capacity will be fully utilised and the management of credit ratings and treasury will become a key focus.
- Short term financial results will feel the impact of start up costs in the US, while the prescribed accounting treatment of ETC after closure will delay profit.
- Long term profitability will be strengthened as a result of higher sales from own capacity generating significant cash flows for future investment plans taking Urenco's share of the global market to new highs.

The overall outlook in the Plan is very positive, with growth in market share and profits continuing into the next decade. The chart below indicates Urenco's expected increase in market share along with growth in profits (EBITDA) and capital investments over the life of the plan.



### Conclusion

With the changes in the enrichment market, Urenco's position is strengthening. Our competitors that operate Gas Diffusion plants are facing severe difficulties due to steeply increasing electricity costs, which have severely impacted their competitive position. The result is an increasing order book, leading to the need for more capacity and therefore continued capital investments. In order to bring this new capacity online within cost and on time, continued effort will be needed from us all.

# Group News

## Almelo

## Stable Isotopes help develop solution to reduce nuclear waste

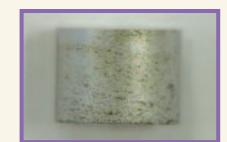
In July 2006, the Business Unit Stable Isotopes in Almelo produced its first batch of molybdenum depleted in the isotope <sup>95</sup>Mo (DepMo). This material has been developed to act as an inert matrix in a ceramic-metal fuel (called CerMet fuel) for the transmutation of the actinides neptunium, americium and plutonium in Light Water Reactors (LWRs).

Actinides are the chemical elements heavier then actinium. Naturally occurring actinides are thorium, protactinium and uranium. Heavier actinides, like plutonium, americium and neptunium (transuranics) are formed in nuclear fuel by neutron absorption of <sup>238</sup>Uranium. They are radioactive (alpha emitter) and have half-lives of many thousands of years. Therefore they represent a radiological risk for a long period of time. By separating these actinides from spent nuclear fuel and irradiating these with neutrons in a reactor, these isotopes can be made to undergo nuclear fission. Thereby the original actinide isotope is destroyed and a spectrum of radioactive and non-radioactive fission products is produced. Since the radioactive fission products are much shorter-lived (most with half-lives of 30 years or less), this process which is called transmutation, eliminates a very long-term radioactive hazard and moreover contributes to the generation of electricity.

At present, the transmutation of plutonium in LWRs, using a so-called mixed oxide fuel (MOX) has a widespread use. A MOX fuel consists of a mixture of plutonium and uranium oxide. The presence of uranium in the MOX fuel and the fact that in most LWRs only about one-third of the core contains MOX, while two-thirds

contains regular UO<sub>2</sub> fuel imply that new heavy actinides are formed during the use of MOX fuel. Although this selfproduction is less then the amount of transuranics used, the implementation of transmutation by using MOX fuel does not significantly decrease the plutonium (Pu) stocks existing in the world of today.

In order to increase the consumption of plutonium and other actinides, the uranium in the fuel has to be replaced. Present research is focused on the development of so-called Inert Matrix Fuels (IMF) in which the highly reactive transuranics are diluted by a nonreactive ceramic or metallic matrix. In this latter case the resulting fuel is generally denoted as a CerMet fuel. The term CerMet means that the fuel consists of pellets made from **cer**amic reactive material (i.e. plutonium oxide), diluted in an inert metal matrix material (i.e. molybdenum). Analogously in a CerCer fuel the inert matrix phase consists of a **cer**amic material like zirconium oxide (ZrO<sub>2</sub>) or magnesium oxide (MgO).



CerMet fuel pellet, consisting of ceramic particles (10 mass per cent) in a molybdenum metallic matrix. Photo: Nuclear Research & Consultancy Group.

Several candidate inert materials have been reviewed and from extensive

became clear that a serious drawback

theoretical and practical studies it

of the CerCer inert matrix materials is the low thermal conductivity of ceramic materials. In other words, the heat of the fuel cannot be transported efficiently, which results in high fuel operating temperatures and a low margin to the melting temperature.

From all the metals considered as potential candidates for future CerMet fuel, molybdenum possesses the best material properties to fulfil the present day technical and safety requirements. However, molybdenum also has the undesirable property that it absorbs neutrons very well. Every neutron absorbed will make the reactor less



Depleted molybdenum powder.

Molybdenum consists of seven different isotopes. 95Mo is the isotope with the highest ability to absorb neutrons. About 16% of natural molybdenum consists of 95Mo. If we reduce this percentage to <1%, in other words if we create molybdenum depleted in the isotope 95Mo, we create a material that does have all the advantages of a molybdenum, without the major disadvantage.

After extensive research, the business unit Stable Isotopes in Almelo has now managed to produce the first batch of depleted molybdenum. This has been sent to the NRG reactor in Petten (NL) where it will be tested. If the tests are successful, there is a large potential demand for this isotope. It is expected that time and effort will be needed to convince potential customers of the advantages of DepMo, but if we are successful in doing so, Urenco will be able to play an important role in reducing nuclear waste worldwide.

# Open house for UNL employees and their families

On June 17, all Urenco's Almelo site employees and their families were invited to visit the site. There were various activities, such as going on a tour of SP5 enrichment plant, viewing the new corporate DVD, target practice with bow and arrow, a bird of prey show, or just sitting outside and enjoying the sunshine! The day ended with a barbecue.



The open house was also an opportunity

to take a look at the newly decorated

decorations have been replaced by LCD

Almelo visitors' centre. The old wall







## Royal Honour for Bert Sies

On 28 April Urenco's Plant Security Officer at Almelo Bert Sies was decorated by the Mayor of Almelo for his many years of volunteer work for Urenco's staff association, the Almelo Men's Choir, and the municipal cultural fund of Almelo.

In 1973, Bert was the co-founder of Urenco's staff association and he was its chairman until 2003. For thirty years he helped organise social gatherings for Urenco staff, and he is still proud of his role:

"I have thoroughly enjoyed working together with my fellow officers to create an opportunity for Almelo colleagues to meet in an informal way. Especially during the tense times in the '70s and '80s it was very important to find some diversion. Fortunately, we could always count on the moral and financial support of the Urenco management."

The decoration caught him rather off guard as he was summoned by the Mayor under the pretence of attending someone else's decoration. Bert is very proud of his royal honour.

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# Capenhurst



# industry to the factor of the



### Main Gate Opening

Chief Executive of Chester City Council, Paul Durham, officially opened the prestigious new gateway to Capenhurst. The formal opening was hosted by Paul Harding, Managing Director of Capenhurst and Helmut Engelbrecht, Chief Executive of the Urenco Group.

Chester's Town Crier had the honour of opening the proceedings and Paul Durham, Paul Harding and Helmut Engelbrecht cut the ribbon for the official opening of the gatehouse.

With the proceedings in full swing, Paul Durham addressed the invited audience and said how important Urenco was for employment in the area, how valued they are in the local community and what a generous sponsor they were of organisations and events.

He also added: "With the investment of half a billion euros into Capenhurst, it shows the commitment to the long-term prosperity of the plant."

In reply Helmut Engelbrecht said: "What an outstanding building the new gatehouse is, built on time and to budget, we now have something that reflects the right image for a company which is set to be the largest enricher of uranium in the world". Summing up, Paul Harding thanked Paul Durham for his kind words about the company and said: "I would like to thank everybody who has been involved in the project for delivering such a prestigious gatehouse. He added: "The new gatehouse addresses three key objectives - safety, security, and the establishment of the brand of Urenco."

## 'Bike 2 Work' Week

National 'Bike 2 Work' week took place from June 17 to 25 this year. The initiative got off to a great start at Capenhurst, with employees making a great effort to bike into work. The 'Bike 2 Work' initiative supports a national charity. In support of the event, all the Capenhurst staff that took part in 'Bike 2 Work' week also received a t-shirt and a water bottle for their efforts.



Urenco employee Geoff Owens, the main organiser of the event, commented:

"It turned out to be a great week. Forty employees pedalled to work over the week propelled by the thought of free bacon butties when they arrived at work! Overall, employees cycled a staggering 774 miles which is only just 65 miles short of Lands End to John O Groats. We are looking forward to taking part next year so that we can help to make Bike 2 Work week 2007 an even more successful event."



# Streets Ahead for Community Awards

Paul Street is the winner of the third 'active in the community' award for devotion above and beyond the call of duty with the 6th Bebbington Sea Scouts.

For the last 32 years Paul has been a member of the group, joining initially as a cub at the age of seven, progressing onto Sea Scouts and then the Venture Scouts. He became a Venture Scout leader for three years and then joined the Executive Committee as a treasurer in 1989.

Since then Paul has been involved in organising key events and fund raising for the group.

## **New Refectory**

The new refectory on the Capenhurst site was up and running ahead of schedule on the 13 April. The Refectory, as it is presently known, was opened by Paul Harding and should provide a pleasant social environment for the team at Capenhurst to enjoy a varied lunchtime menu.



## Young Engineer Award 2006

In line with Urenco's aim of promoting education it presented two Year Eleven students from Whitby High School and Sutton High School with the 'Young Engineer Award' at a recent ceremony. The award, which is presented annually, comprises two categories: the first, for a student who demonstrates exceptional effort; and the second, for achievement in the academic year.

The award has been designed to complement existing curriculum based work, with individual prizes awarded to the pupils and money going to the school for the purchase of a piece of engineering equipment. The successful students are also supported and mentored by nominated Urenco employees, who help to guide the students in their academic studies.





### Gronau

# Uranium – limiting factor for the use of nuclear power?

Dr Joachim Ohnemus presented a successful argument against the German Federal Environment Ministry comment that there was only sufficient uranium left for a few decades.

The question posed was: Is uranium the limiting factor for nuclear energy?

In order to address this, a distinction needs to be made between stocks, resources, and reserves. Availability ranges depend on the assumed parameters of consumption rate, stocks and respectively estimated reserves.

In this context the expected development of commodity prices is also critical.

In the early phase of civil nuclear power, the uranium price was around 18 US\$ per kg U. When nuclear power plants were established worldwide it increased to 113 US\$ (1978). This high price led to many new uranium mines being opened, and new ore bodies were established. During the early nineties the price decreased again to the original 18 US\$, resulting in a stagnating uranium production. Since the mid eighties less uranium has been produced than consumed due to the existence of accumulated stocks.

The next turnaround came in 2003 when it became apparent just how strongly availability depended on the production rate. The stocks dwindled, the demand was unchanged, and production interruptions caused delivery bottlenecks. Today, prices are around 110 US\$ per kg U again.

This has made uranium mining highly attractive. Previously closed mines have been reopened and new ones constructed, like Cigar Lake in Canada with uranium contents up to 19%! New deposits have also been explored.

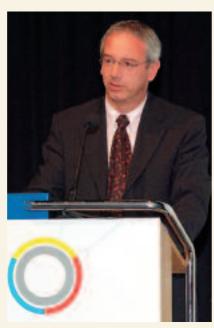
Ranges of raw materials can be calculated on the basis of production cost. If higher production costs are covered, the available quantities increase and – assuming constant consumption – the availability ranges also expand. At today's uranium price the secured uranium reserves are 4.6 million tons, corresponding to almost 70 years at current consumption. Including those reserves which are estimated under established scientific methods, the range increases to 200 years. At this price, uranium as a by-product of phosphate production also becomes economical, adding another 300 years. Technically there are other opportunities which almost make a range discussion obsolete (uranium in sea water, thorium reactors, fast breeders).

From an enricher's perspective another option to extend the availability range exists: today only slightly more than 50% of the <sup>235</sup>U fuel is extracted from natural uranium. Some of the remaining fuel can be obtained by continued depletion.

An important economic aspect is that the enormous uranium price fluctuations hardly affected the electricity prices (in contrast to gas and oil prices). Uranium production costs contribute only 5% to the total electricity generation costs. Also taking into account that uranium is mainly produced in politically stable countries, this means that electricity

from nuclear power plants is highly reliable. And due to its compactness (1.5 t of uranium generates as much electricity as 200,000 t of coal) a supply for many years' consumption of this energy source can be locally stored (making uranium potentially a quasi-local energy source).

In summary: Uranium resources are not at all a limiting factor for nuclear energy. It can even be demonstrated that – in spite of large fluctuations of uranium prices – electricity prices (for nuclear energy) remain relatively stable. Also, the significant contribution to environmental protection (almost free of CO<sub>2</sub>) is very relevant.



Dr Joachim Ohnemus at the winter conference of the German Nuclear Forum in February 2006.



# Construction Update

While the construction of the new separation plant UTA-2 (above right) is progressing smoothly, the extension of the blending and storage facility TI has just begun (centre). The original separation plant UTA-1 and the administrative buildings can be seen on the left.

### IAFA

An informational visit at Urenco's Gronau site is a regular part of the training programme for future IAEA safeguards inspectors. This year trainees from Turkey, Malaysia, Madagascar, Yemen, Mongolia, and Zimbabwe (left to right) attended, led by Dipl.-Ing. Dieter Schrammel (4th from right) from the Karlsruhe Research Centre.



## Where Employees are Proud of their Employer

### 'Top Job' is about company spirit, loyalty, and striving to be a top address among medium-sized companies.

plant submitted an application for the 'Top Job' award which acknowledges the top 100 German employers. The survey not only reflects the views of HR but also those of the employees, giving a fair and complete representation of the company.

Last year Urenco Deutschland was successful in the 'Ethics in Business' competition which resulted in the 'Top Job' seal being displayed on their letterhead. Uwe Sommerfeld is confident they will again succeed and commented: "Next year we shall be among the 'Top Job' employers in Germany."

Is this a question of corporate enthusiasm? Does it relate to the competitive spirit of participating again in a countrywide contest? Is this benchmarking only for those who are looking for flashy public relations effects? Is there an ethical motivation? Whatever the answers are, one thing is clear: benchmarking projects like this one create a new consciousness for topics that have been neglected in the past. Only a few years ago nobody cared much about discussing ethical topics or even obligatory values. This was left to

Uwe Sommerfeld at Urenco's Gronau plant submitted an application for the 'Top Job' award which value-promoting institutions, or families, but not companies doing business. This has definitely changed.

The basic idea behind 'Top Job' – under the protectorate of former economics minister Wolfgang Clement – also inspired Friedhelm Hilgenberg and the other members of the Urenco Gronau works council. 86% of Urenco's Gronau employees completed the online survey meaning that they have passed the first stage of the competition. Everyone is now awaiting the final list which will be published January 2007.

To become a top address for specialists and managers and to strengthen employee loyalty – these are two of the objectives of the "Top Job" benchmarking project.



### "Top Job" in Brief

Looking for the best 100 employers in a medium-sized business. There are multiple profits for those who participate:

"You shall become attractive for specialists and managers, you present yourself as a top address to your employees and to the general public", as stated by the ranking agency in Southern Germany organising the competition. The company which becomes "Employer of the Year" will receive media attention when visited by former economics minister Wolfgang Clement.

He will also visit those companies which rank first in one of six categories (leadership and vision – motivation and dynamic progress – culture and communication – employee advancement and perspectives – attention to family and social issues – enterprise spirit).

### Marlow

### When the wind blows

The wind doesn't always blow in Marlow, but when it does John and Jenny Renouf, who both work at Urenco's Marlow office, are among the first to take advantage of it. For the past ten years they have been involved with the management and organisation of the nearby Marlow Sailing Club (www.marlowsailingclub.co.uk).

John and Jenny moved to Marlow twenty years ago, and quickly decided to take advantage of the leisure possibilities offered by the River Thames. For a while they operated a small motor boat. Then their daughter, Yvette, wanted to take up sailing, so she and John enrolled on a course. They enjoyed sailing small dinghies on the river so much that they bought their own. This re-kindled Jenny's childhood interest. When they needed a place to store and launch the dinghy, Marlow Sailing Club provided the ideal location. John spent several years as Treasurer and then Commodore. He now holds the position of Bosun.

The Club promotes sailing as a leisure activity to all. These efforts include the

organisation of open days and weekend youth training during the summer. The Club provides all the necessary support services, which is hard work but great fun. Jenny is the Membership Secretary and knows that these activities are successful in boosting Club membership. Every two weeks or so, there is an organised Club event where an informal race takes place, the most successful crews competing for an annually-awarded trophy.

But what about the Renouf's own sailing activities? John's current boat, a class type called the 'Wanderer', was built to John's own specification, so that he can sail it single-handed or carry one or two crew. John and Jenny have recently had a couple of good holidays sailing the boat on open water, a different experience to sailing on a long, narrow strip of river that is often quite busy with cruisers and rowing boats.

The thing that John likes most about sailing as a hobby is that it requires total concentration and is a great way to switch-off from the daily routine. It can be challenging, stimulating and relaxing,



depending on the conditions, and is a great way to spend time outdoors when the weather is good. One of his ambitions is to adapt the boat for overnight camping – it is big enough to sleep on at a squeeze – and then have an occasional overnight stay at some quiet riverside spot. Though Jenny is not so sure that she will be joining him on these occasions!

For the Renouf family, sailing is a great hobby and at the same time, through the activities of the Club, it is a way of contributing to the local community. The accompanying photo (above) is courtesy of Julia Eyles.



It seems that the boating bug is catching.
The picture shows Kate Durham, also from
the Marlow office, kayaking in The Ardèche
Valley this summer.

## The UEC Commercial Department customers our commitment to providing the highest level of service across all of expanded at

ISO 9001:2000 certification at Marlow

commented:

The UEC Commercial Department at Marlow is on track to gain a certificate of compliance with the ISO 9001:2000 quality management standard for its customer-interfacing and delivery administration processes and their supporting functions.

Achieving this certification will bring Marlow into line with the three enrichment plants whose management systems have been certified to the ISO standard for several years. The scope of the Marlow management system includes the commercial activities carried out on its behalf by Urenco, Inc in Washington, DC. Certification across the entire group will demonstrate to our

the highest level of service across all of our operations.

New employees at Marlow are now

treated to the Vision, Mission and Values

DVD as part of their induction process.

Alex Moore, who presents the PR and

Comms section of the induction,

Vision, Mission & Values

For the past nine years the Commercial Department has operated a quality management system for its customer-related activities from initial sales enquiries and contracting through order processing and delivery administration to invoicing a customer for services provided, together with the associated logistical tasks. Although not certified to the ISO standard, this system has proved to be satisfactory to regular audits on behalf of Urenco's German customers, confirming Urenco's status as an 'approved supplier' to German utilities.

The system has been considerably expanded and enhanced in the past two years or so to take account of the re-organisation of responsibility for some of the key commercial functions, and the move to SAP and electronic document storage.

"It's great to be able to include the

as part of the induction, as it is

keep our values alive."

Vision, Mission and Values presentation

important that new recruits understand

our values from day one. The feedback

so far has been excellent and is another example of how we can ensure we

Lloyds Register Quality Assurance Ltd has been appointed as the certifying body, and the certification is a two-stage process. The first stage took place during June 2006 and involved a detailed review of the system documentation. The second stage, a detailed process review, took place on two days during September 2006.

## All change for Marlow Finance Team

The Marlow Finance Team has been restructured.

The changes have been driven by the need to meet changes in both the internal and external environment and include:

- Developments in reporting requirements have led to significant increases in workload
- The Joint Venture with Areva has demanded a clearer distinction between the reporting routes of UEC and ETC
- The need to build a strong finance team in New Mexico to service the NEF
- Investments in Europe and the US have led to an increased focus on management of funding; cash flow and risk management

At the same time with Tony King's departure to New Mexico new appointments had to be made.

To meet these present and future demands of the finance function, the new structure will be as follows:

**Robert Parkes** Accounting & Reporting

Reporting
Statutory reporting
Management
reporting
Budget
Controlling
Financial analysis
Tax compliance

Andy Marrison
Corporate Finance
Business planning

Business planning Financial policy Funding strategy Investor relations Cash flow planning Risk management Secretariat Audit Committee Tax Strategy John Napper Treasury

Cash management Funding operations Banking relations Pension investment management Currency and Hedging Debt servicing

Commenting on the new organisational structure Bart Le Blanc said: "I am confident that the finance team are well placed to support the future challenges Urenco faces from the increased investments in Europe and the US and their financing and the Areva Joint Venture."

# Washington, DC

# New Washington, DC Offices

At the end of July the Urenco Inc team moved offices, from the old site at Virginia Avenue near the Watergate Building to new offices based in Arlington. The new offices provide more functional office space and greater flexibility. They have been refurbished to fit in with the Urenco branding, down to the paintings which were commissioned from the same artist who created the artwork for the Marlow offices.









### ETC



ETC have launched a new corporate identity which reflects the company's new Joint Venture status, its values and technological standing.

Locations are beginning to roll out the identity comprising a redesigned logo, new colours and the branding, 'enrichment technology', with the description 'a joint venture between Urenco and Areva'.

The logo retains the cascade icon, which was originally introduced at the time of ETC's formation

The colours, mid-green and silver, were chosen jointly by Urenco and Areva. They convey, respectively, the environmentallyfriendly nature of ETC's technologies and a modern, forward-thinking organisation with science and innovation at the heart of its husiness

Typefaces from the Helvetica range of fonts have been selected to partner the colours and logo, to give a clean, contemporary look to communications, ranging from stationery to signage and business cards.

The identity has been developed by ETC with the agreement of their shareholders Urenco and Areva working in conjunction with the UK-based design agency, View.

ETC Group Manager Communications Piet van der Heide said: "We now have a new corporate image which captures the dynamic partnership that has been created between Urenco and Areva. This will become a cornerstone of our commitment to communicate ETC's values and speak boldly and clearly about what we do and how we do it. It will provide us with a flexible, consistent platform from which we can communicate effectively with our internal and external stakeholders."



Tricastin riders: Johan Krake, Gerard Koning, Bert Olbach, Hermann Roeseler, Remco van Ham, Herman Hodes, Piet Elfering, Benjamin Pol, Koen Dreves. Accompanied by Freddy Aman and Bert Leurink.

### Saddling up for 1,300 km 'Tour de France'

A team of ETC cyclists will be flying the company flag on a mega-tour of Europe link-up with our Cogema project site at Tricastin in France.

The event, hopefully including a cross-section of riders from ETC locations, will follow a 1,300 kilometre route over 11 days, arranged to mark the formal go-ahead for the Georges Besse II enrichment plant.

To date about 10 riders from ETC Almelo and Gronau have lined up for the tour, the idea for which sprang from last year's highly successful ride between Almelo and Jülich.

Organising committee member Koen Dreves, an ETC Almelo engineer, said the cyclists this summer to achieve a timely symbolic would follow the scenic tourist trail, known as the Green Route, along the Franco-German border, to mostly avoid main roads and mountain climbs.

> Following their arrival at the ETC subsidiary in Tricastin, Enrichment Technology France, the riders will take part in a local celebration

Managing Director Jean Pierre Durand

including the customer, Areva; HR

Manager Nicolas Utzschneider and

Cascade Supply Manager Paul Glaubitz

focused on employee recruitment and

support; and Annik Martishang of ETC

Admin provided an insight into living and

Some 200 employees attended the events,

asking questions and taking part in

covered the project aims and background,

### Rendez-Vous for a taste of France

ETC's two international projects in France – Georges Besse II – and the US – the National Enrichment Facility – are both at crucial stages. One of the current priorities is to recruit teams for each location's manufacturing and centrifuge assembly operations.

A series of special meetings have been held to explain the opportunities and support available to employees.

From the name - GB II Rendez-Vous down to the coffee and confectionery, the briefings had a French theme.

The taste of Tricastin given to employees found approval on a par with the croissants and the specially-imported local nougat and sweets which were passed around at each meeting.

In just a week, four ETC venues - Almelo, Capenhurst, Gronau and Jülich – were turned into poster backdrops for the Drôme département in the Rhône-Alpes region. Up front, a team from Enrichment Technology France explained different aspects of the project in an informal

discussions. One of the key messages was the importance of ETC as a whole backing At ETC Capenhurst Admin Manager Linda Rogers said: "A great deal of interesting detail was available.

working in France.

Communications Officer Priscilla Harder added: "The four events were very successful. Employees are enthusiastic and there were a range of questions about GB II in general and specific ones from people interested in working there."



## ETC moving up

ETC has moved into new offices occupying the second floor of West Street in Marlow. These new offices carry the ETC branding and provide improved meeting facilities.

# Nuclear World

# **UK Energy Review**

In the last issue of Cascade we covered the launch of the UK Energy Review. After much consultation the final review titled 'The Energy Challenge' was published on 11 July 2006. The two main challenges faced by the UK as outlined by the reports are energy security and climate change.

As widely expected the report came out in favour of nuclear power as a source of electricity.

The report focused on:

### The Carbon Challenge

The UK will work with the EU under the Emission Trading Scheme (ETS) to reduce its emissions and to develop this into a long term credible international framework for pricing carbon. The UK is on course to exceed its targets under the first commitment period of the Kyoto Protocol, which called for a cut in greenhouse gas emissions by 12.5% on 1990 levels throughout the 2008 -2012 period.

### Saving Energy

Energy conservation is seen as one of the cornerstones to meeting the fall in emissions, from governments, companies and individuals. The report accepts that these changes need to begin with the government who will change the way they procure buildings, goods and services to reduce energy use across the government estate. With respect to companies they will receive a fiscal benefit from saving energy as the government implements the EU Emission Trading Scheme and the Climate Change Levy. There will be government support to raise the energy efficiency of everyday objects and also to make consumers more aware when purchasing electrical equipment.

### Cleaner Energy

There is a move towards cleaner forms of energy and the way towards this is seen to be a combination of renewables and nuclear power. The report aims to achieve 20% of electricity from renewable sources by 2020. With respect to nuclear the report states:

"We have concluded that new nuclear power stations would make a significant contribution to meeting our energy policy goals. For illustrative purposes, if existing capacity were replaced, then by 2030 our carbon emissions would be around 8 MtC lower – equivalent to total emissions from twenty two 500MW (Mega Watt) gas fired power stations – than otherwise and our gas consumption some 13% lower."

The report suggests that these extra nuclear powered stations will be financed by the private sector. With the government making changes to Health & Safety and planning procedures to simplify the process.

### Cleaning up fossil fuels It is believed that coal will still be a key part of the energy mix, at present

during winter over 50% of the UK's electricity comes from coal fired stations. However, to maintain its long term future, coal will need to reduce its emissions. It is believed that an emerging technology Carbon Capture Storage could help reduce emissions by 80 to 90%.

It is believed that all the above in addition to developing alternative fuels for transport will support the UK's need to maintain its security of supply.

The full report can be downloaded from the DTI website at: www.dti.gov.uk/energy/review

### **Committee on Radioactive Waste Management**

The Committee on Radioactive Waste Management (CoRWM) published its final recommendations in July 2006. CoRWM was formed in 2003 to make recommendations on the safe long term management of UK nuclear waste. The UK presently has 470,000 cubic meters of waste in surface tanks - this amount is growing daily. They consulted with a wide range of stakeholders and also looked at examples from other countries.

The final report recommends that:

- Deep geological disposal is the best available approach for the long term management of all the materials categorised as waste.
- A robust programme of interim storage must play an integral part in the long term management strategy.
- Local Communities and Stakeholders should be consulted on the location of disposal sites.

The full report can be downloaded from: www.corwm.org.uk

