Smart truss

An intricate truss of curved steel tubes supports the glass roof structure of the metro station that BAM Infra Civiel is constructing at The Hague Central Station. The raised metro stop forms the start and the terminus of the Erasmus Line, a light-rail connection between The Hague and Rotterdam. The remarkable thing about the roof structure, which has been designed by the Zwarts en Jansma firm of architects, is that the connecting points have been kept out of sight by built-in lights, loudspeakers, etc. A special bridge scaffolding unit was designed in order to finish the structure. The project will be completed in mid-July.
BAM Infraconsult is involved in the design of the new pier. Completion of the project is expected in October 2017.

European countries and worldwide will also have email addresses with a ‘.com’ extension. However, the old email addresses will remain, so that business cards can still be used.

With the cutting of a cake, CEO Rob van Wingerden and ICT director Andrea Sundermeijer have given the symbolic starting signal for the changeover to bam.com. In addition to the Group’s new website address, the email addresses of every BAM employee will end in ‘.com’. ‘This will help strengthen the notion of one single BAM and opens the way to using new means of communication that will enhance our mutual co-operation’, explained Van Wingerden. ‘We will start with the changeover in the Netherlands this summer’, continued Sundermeijer. ‘In 2017, our colleagues in other

Second success at Ulster Hospital

South Eastern Health and Social Care Trust has appointed the GRAHAM-BAM Healthcare Partnership, a joint venture between GRAHAM Construction and BAM Contractors Ltd, to deliver the Irish Ulster Hospital’s new £95 million Acute Services Block – currently the largest live healthcare project in Ireland. The Acute Services Block will sit adjacent to a new ward facility presently being constructed by GRAHAM-BAM Healthcare Partnership on the same complex, scheduled to complete in autumn this year.

This second facility – an eight-storey, 31,000 m² Acute Services Block, will incorporate specialist wards, support services, assessment unit, inpatient imaging department, and a new emergency department which will have capacity for 110,000 attendances per year. The scheme has been designed to achieve BREEAM Excellent and will use flat slab construction to integrate the structure with its services and the clinical spaces.
BAM’s Strategic Agenda 2016-2020

‘Building the present, creating the future’ is our updated strategy that will guide us over the next four years. We will further improve the performance of our current project and business portfolios, and will position ourselves for future opportunities. Our new strategy is a tool to grow, share and contribute to, so that we share a single focus to win together, by doing things better, doing better things and doing new things. We see a major role for digitisation, innovation and new technologies, which will determine the future of our construction industry. Our target is to reach a double digit return on capital employed by 2020.

The Group’s Strategic Agenda 2016 - 2020 is being introduced at roadshows in each operating company for boards, area managers, and other colleagues. After each roadshow their task will be to spread inspiration and communicate the concepts and goals of ‘Building the present, creating the future’ to other colleagues.

Rob van Wingerden
CEO

Tender app

During the roadshow at the BAM International office in The Hague, Tendering & Engineering manager Cees van Oosterom presented an innovative Tender app. ‘This will enable us to present our tender proposals to our customers in an appealing way. CVs are brought to life with the help of a short video in which the most important team members introduce themselves. All documentation will be available online, shown in a clear overview. We can also present our 3D models, for example’, says Van Oosterom.

Project managers find connection

‘Let’s connect’ was the theme of a seminar recently organised by BAM and attended by eighty senior project managers at which ‘connection’ was the focal point, not only between the project managers themselves, but also with BAM’s strategy and the Tender Desk.

New initiatives for sharing knowledge were also a topic of discussion and thoughts were shared on career opportunities for BAM’s senior project managers. The seminar was part of Project Olympus, a Group-wide drive to recognise and promote project management as a career path. ‘BAM’s success is determined by our projects and our project managers therefore play a key role’, says CEO Rob van Wingerden.

He opened the seminar with a presentation of the strategy for 2016-2020: Building the present, creating the future. COO Erik Bax subsequently made the connection between the strategy and project management. It was then the turn of Sebald van Royen, Tender Desk director, who gave an explanation of the tender stage gate process. George Mazloumian, chairman of the Management Board of BAM International, made a passionate plea for sharing knowledge and Saskia van der Meij, head of Talent Management, encouraged the participants to provide input for ‘My project managers career’.

Van der Meij: ‘The first reactions of the senior project managers to this initiative are positive. Apart from the good ideas and the valuable information, these reactions provide a basis for future meetings.’

The next phases of Project Olympus will involve establishing a network to share knowledge and encourage collaboration, and the creation of a Group-wide database of skills and expertise.
Merrion House scheme
BAM Construct UK has been appointed as the contractor to deliver the complex remodelling and refurbishment of the 1960s office building Merrion House in the north of Leeds which until recently was occupied by employees of Leeds City Council. BAM will also be responsible for fitting out the building. Merrion House is a ten floor structure situated within the Merrion shopping centre. The scheme is valued at around £41 million and is scheduled to be completed by the end of 2017.

Appointment
Alasdair Henderson, divisional director of BAM Ritchies, has been appointed as the new Chair at the Helm of The Federation of Piling Specialists (FPS). Henderson will focus on training, as well as developing a route for pilers / geotechnical specialists to become professionally recognised as EngTechs, ideally through vocational routes recognised by the major engineering institutions.

Henderson: ‘Training is my ‘thing’ which goes hand-in-hand with my mission to see geotechnics recognised widely as a highly skilled industry.’
BAM recognised for contribution to PPP

The hard work and dedication of our staff and partners involved in PPP projects has been acknowledged at the 2016 Partnerships Awards. These awards recognise and reward outstanding achievements in public-private partnerships. All eight BAM entries were shortlisted and at the awards ceremony in London on Thursday 12 May 2016 BAM won:

- Sponsor/Developer of the Year
  BAM PPP – Gold award winner
- SPV Management Company of the Year
  BAM PPP – Gold award winner
- Best Transit Project
  Zeetoegang IJmond, Netherlands – Gold award winner
- Best Completed Project
  Schools Bundle 3, Ireland – Silver award winner

Congratulations and well done to everyone who has helped to make this happen!

Clients see the benefits of BIM2FM

BAM FM in the UK are currently negotiating with global insurance company Hiscox to build a BIM2FM model of its new premises in York, North Yorkshire.

Following the successful implementation of BIM2FM at UCL Academy and Wharfedale Hospital in the UK, BAM FM collaborated with colleagues in the Services Engineering and Design divisions to develop a model that combines the architectural, structural and MEP drawings in BIM 360 Field, a program that is fully accessible by engineers via an iPad anytime, anywhere.

Hiscox’s new premises in York were built by BAM Construct UK last year and its 2,000 assets (including mixing valves, pumps, boilers, etc.) are all mapped in the model with full operational and maintenance data attached. ‘Hiscox is a client that embraces new technology’, explains Reid Cunningham, strategic development director – BAM FM. “We were able to demonstrate efficiency and performance improvements at Wharfedale Hospital, which really appealed to them.”

Frankfurt Höchst Hospital
BAM Deutschland has won a new contract in joint venture with Max Bögl Stiftung & Co. KG to build a hospital in Frankfurt Höchst. The contract value for BAM is more than €150 million. The six floor building has a total gross floor area of 79,000 m².
BAM expects to complete the project in early 2019. Frankfurt Höchst Hospital will be the first hospital, to be built according to the sustainable standards of the passive house concept.

Restoration Southbank Centre
BAM Construct UK is commencing a £28 million restoration of the Hayward Gallery, Queen Elizabeth Hall and Purcell Room at London’s prestigious Southbank Centre. The suite of improvements forms part of the Southbank Centre’s ongoing programme of improving its public areas. More than six million people visit every year. Feilden Clegg Bradley Studios is the architect.
BAM has formulated four core values as part of its strategy for 2016-2020. A series of four articles serves to explain how the Corporate Safety department puts these values into practice. This edition of BAM World looks at scalable learning.

Corporate safety officer Geert van der Linde explains, ‘Scalable learning is about making the best-possible use of the enormous potential of safety-related knowledge. It is about learning from each other and being inspired by sound solutions and examples. With help of the ‘Safety Exchange’, we want to make this knowledge accessible and ensure that it is exchanged among the operating companies. It has been deliberately decided to bring colleagues who are involved in operations together, but that this should include those in specific management positions in order to guarantee that agreements are actually

Major refurbishment

BAM Construct UK completes a major refurbishment of the Royal Shakespeare Company’s iconic studio theatre in time to celebrate the 400-year anniversary of the legendary playwright’s death. In William Shakespeare’s hometown of Stratford-upon-Avon, the team remodelled The Other Place to include a 200-seat theatre, rehearsal rooms, costume store and café.

Senior planner, Philip Poole, said: ‘We were effectively building within a box, and at times our mobile crane was touching the ceiling of the existing theatre as it constructed the new steel frame. These are the challenges we love.’

‘So far, and no further!’

BAM Infra Rail has presented an innovative solution to create a safer environment when working on railways: Marker Light. The system, with blue flashing LED lamps, demarcates safe work zones. In marshalling yards at stations in particular, it is not always clear which tracks are safe. Maintenance engineer Michel Sitsen, of BAM Infra Rail, says, ‘Together with Dual Inventive, we have developed a system consisting of a set of ten lamps, one of which is controlled by a router. The lamps then pass on the signal wirelessly to each other. If a track is taken out of use, the LED lamps along the edge of the safe zone start to flash automatically. This makes it possible to see where work can be performed safely.’

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broughts **BAM values** to life

implemented after the exchange has taken place. In 2016, five companies will pay a visit to a different BAM company to gain greater knowledge of a particular aspect of safety. The first exchange has already taken place. BAM Nuttall colleagues Phil Cullen (director of Health and Safety) and Malcolm Corlett (head of Civil Engineering) visited BAM Construct UK colleagues Richard Bailey (executive director) and Phil Rowley (director of Health and Safety), during which the main theme was ‘leadership and intervention’. The dialogue on the subject between the two British companies was part of the BAM Construct UK Health and Safety conference. The participants at the conference witnessed some interactive ‘theatre’ workshops on leadership in which a major incident was re-enacted. There was an opportunity to celebrate some success stories, too, with various Health and Safety Awards being presented for outstanding projects and individual achievements. Cullen: “It was a thought provoking day which reinforced the value of leadership at all levels in an organisation.”

On the average BAM construction site you will find a large number of employees and subcontractors working together. Their hard work has a significant impact on the safety performance of the project concerned. That is why the BAM Worldwide Safety Day is about involving subcontractors in improving safety results. In other words, it is about ‘Making BAM a Safer Place Together’.

Against the backdrop of the Ultimate Match theme, we have, as one single BAM team, taken up the fight against our opponents, the Serious Hazards. These hazards are determined by the project team. There will be a ‘warm up session’ in the run-up to the BAM Worldwide Safety Day, 2016 – which will take place on Tuesday 11 October – when the theme will be explained in greater detail. Employees, of BAM and of subcontractors, men and women, can take part individually in the ‘Man of the Match’ competition, both online and offline. On the Safety Day itself, though, the focus will be on teams working together. After 11 October, there will be a permanent focus on sharing and learning. www.bamsafety.eu

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11 October BAM Worldwide Safety Day 2016: into battle, together with subcontractors

During the international Safety Officers’ Meeting in Dublin, CEO Rob van Wingerden presented the update of the strategy for 2016-2020. COO Erik Bax led an interactive conversation on a culture of performance and explained the BAM values. Corporate safety officer Geert van der Linde then looked at the safety strategy for the next four years. The main theme was the ‘focus on the positive side of safety, by sharing knowledge and learning from each other’. The participants were greeted by Theo Cullinane, chairman of the board of BAM Ireland.
Green and orange bird boxes accompany every phase of BAM Infra’s work on completely modernising a 1.2-kilometre stretch of Europe’s longest avenue, Laan van Meerdervoort in The Hague. BAM Infra is renovating the road across its entire width, including the sewerage and drainage system and the connections to local houses. They are also relining the drains in some places using trenchless technology. Part of the nine month long project involves narrowing the road to create separate cycle lanes, extra parking spaces, and to enable new lighting to be installed. The tramlines in the central reservation are being left as they are. Work is taking place on the southbound side towards the city centre this spring, followed by the northbound side towards the resort of Kijkduin after the summer holidays. The work will be completed in November. BAM Infra is keeping local residents up to date about the work and the schedule via a special BAM app.

Girls’ Day at BAM

BAM was among those who opened their doors during Girls’ Day, an event held every year in the Netherlands as a means of introducing girls to the world of exact sciences and technology. In The Hague, pupils from the Stanislascollege learnt about the latest developments in construction at the Rotterdamsebaan project, such as the application of 3D/BIM and virtual reality. The girls then paid a visit to the nearby BAM Infra asphalt production unit.

Sanne Froukje de Haan

One day you’re attending lectures in civil engineering at TU Delft, the next day you’re in Tanzania, working on a Corporate Social Responsibility project for BAM International. It’s what happened to Sanne Froukje de Haan (24). Soon she’ll graduate in building engineering with a major in structural design, but first she’s on a five-month internship on the operating company’s Kilimanjaro Airport project. Her main duties are in work preparation for the Terminal Building, but she’s also been asked to find a suitable Girls’ Day project for BAM International to show its social engagement. ‘The best choice for BAM International proved to be a primary school in Ngurdoto. The school, which provides an education to between 800 and 900 children, is in a deplorable state. This is true for the sanitary facilities – only ten toilets and no connection to a sewer system – as well as for the eleven classrooms, which all have damaged ceilings, windows and/or doors.’ ‘I have drawn up a plan, including a cost estimate, for a thorough overhaul including an added veranda, an upgrade of the kitchen building and the construction of two to four new classrooms. The works will be executed under our supervision by a local contractor. Purchasing of building materials is done by our people, so that we know every cent is spent wisely.’ In July, when the renovations are due for completion, Sanne will already have returned to the Netherlands. ‘It was great to be able to do this. The support of the project team was a confidence boost. It feels a bit strange to have to leave before the finish, but perhaps another intern will take over.’

Selfie

The new classrooms under construction.
When the new Terminal 3 opens late 2017, the capacity of the airport of Dar es Salaam increases to six million per year. In one giant leap, BAM International is taking the airport deep into the 21st century. The operating company is responsible for both the design and construction of the new terminal, and for the design works together with BAM Advies & Engineering and NACO, Netherlands Airport Consultants.

‘Our initial scope comprised the construction of the terminal building and specific facilities such as five air bridges, security systems, baggage handling, the taxiway and platforms including lighting systems’, says Wolfgang Marschick, project manager at BAM International. ‘Last year we were also awarded the second phase, comprising further expansion of the existing departure hall, three additional aircraft stands and air bridges, including one for the double-decker Airbus A380. The total project value now amounts to €230 million.’

The colours of the national flag in the epoxy flooring, those of the Masai tribe in the sanitary blocks, and Tingatinga art adorning the walls of the baggage hall. In the new passenger terminal of Julius Nyerere International Airport the message couldn’t be clearer: ‘Welcome to Tanzania!’

Julius Nyerere International Airport: A terminal of international standing

Project modelers and planners of the Julius Nyerere Terminal 3 and Kilimanjaro project in Tanzania were trained in 4D planning on site in Dar Es Salaam. 4D planning is a visual planning and construction management method. It benefits the site team with a complete understanding of the schedule and enhanced co-ordination of workspaces and subcontractors. Paul Kramer (planning engineer) and Dirk van der Ploeg (BIM manager) developed the 4D method and delivered the training on site. Before Tanzania, the training was delivered in Dubai and Moin, Costa Rica.

Women make up a surprisingly large portion of the workers on site. ‘This is a conscious choice’, says MEP design & engineering manager Mat Wood. ‘Women in Tanzania have mouths to feed. So, as part of our commitment to the community we have hired a relatively large percentage of women site workers.’
Delightful homes in converted warehouse

Restored on the outside, but with brand new interiors. This is the plan for the Bitterzoutloods in Ede, in the central Netherlands. On behalf of AM and ASR Vastgoedontwikkeling, BAM’s restoration specialist, Schakel & Schrale, is creating fifteen homes in the magnificent warehouse. They will be ready in mid-November. The Bitterzoutloods was built in 1925 and was used for storing salt, which was needed for the production of artificial chamois leathers, among other things. The warehouse is now a listed building. ‘As a result, the restrictions on the restoration work are very tight. The appearance of the building may not be altered. Using the box-in-box principle, we are using a new suite of interior elements inside the historic shell that meet the prevailing requirements for new buildings’, explains Robert Snoeck, the Schakel & Schrale project manager.

The project team, from left: Intern Josias Siahaija, Robert Snoeck, foreman Vincent Moerenhout, and work organiser Dirk de Goede.

Sharing innovations using the BAMble app

Want to know what innovations BAM has carried out, anywhere in the world? Or perhaps you are developing an idea of your own? Check and share it using the BAMble app.

‘The purpose of the new app is to share knowledge with one another,’ says Floris van Dijk, Business Development specialist at BAM Infraconsult and the app’s initiator. ‘It’s about cross-pollination – hence the bee logo – the BAMble bee.’

Supply and demand

‘The app allows you to quickly sweep through the innovations with ease’, explains Van Dijk. ‘You can ‘like’ ideas that appeal to you or pass them on to colleagues if they could be useful to them. It is a meeting place for supply and demand and for linking the two together. You can also share your own ideas and it is easy to get in contact with the idea’s inventor.’

Van Dijk emphasises that it concerns not only large-scale innovations. ‘Smaller-scale ideas and practical improvements are also welcome. The advantage of sharing knowledge is that you do not have to reinvent the wheel when you are working on a project.’

Curious to learn more? Or do you have ideas to share? Download the free BAMble app from the App Store.
Concrete surgery in the Book Tower

In Ghent, Belgium, BAM Contractors nv are restoring the 64-metre high Book Tower (Boekentoren), which forms part of the university library. The concrete ‘skin’ of this modern monument is being treated with the greatest precision, in order to clear the concrete decay once and for all.

Project manager Bart Matthijs: ‘The area being restored covers 7,100 m², and we will be carrying out the work in two phases. We first tackled the low-level building, which included putting in a new entrance for wheelchair patients.’

The second phase started this spring, the Book Tower itself, and will run until October 2017. Foreman Henk D’Haeyer: ‘The work will start with the removal of the old concrete covering, using the hydro method. The concrete will be sprayed off by a robot, using water at 1,400 to 1,600 bars of pressure. The advantage is that it causes no harmful vibrations.’

The next step will be to apply a new layer of concrete, a precise process, given the thin pouring layer of five centimetres. Matthijs continues: ‘The composition of the self-compacting concrete compound has to lie within a very narrow bandwidth in order to comply with the technical and aesthetic requirements. Its liquidity is very important, because of the thinness of the pouring layer. On the other hand, the more liquid the compound, the greater the chance of it decomposing. We therefore have to tread a very fine line.’

BAM Nuttall delivers rare form of bridge

Medway Valley Crossing has been re-engineered from a balanced cantilever into something more unusual: a post-tensioned structure. The bridge’s design is elegant, with a curved deck, oval-shaped piers and sweeping soffits that chime with the rolling landscape and meandering river.

At the apex, the distance from the soffit to the water below is 6.9 metres minimum, though often it will be much greater because of a significant tidal range.

The light concrete echoes the chalk escarpments of its backdrop. It is 152.5 metres long, 13.7 metres wide and will carry a two-lane carriageway. The depth of the bridge superstructure ranges from 3.6 metres over the piers, to 1.4 metre at its shallowest, with the top slab adding another 550 millimeter.
BAM has won the contract for the reconstruction of intersection Dudelange-Burange on the A13 highway in Luxembourg. The client is the governmental agency Administration Ponts & Chaussées. The contract value is €20 million. The project will take three years to complete. The construction activities will be carried out by BAM Lux in joint venture with Galère, the Walloon civil engineering company of BAM.

Subway tunnel

Ways & Freytag Ingenieurbau has been awarded the contract for the construction of a subway tunnel in Frankfurt. The two-kilometre double-track tunnel will be constructed in the city centre, in the new Gateway Gardens district. The contract value is approximately €220 million. The Gateway Gardens Tunnel will be operational at the end of 2019.

Horse hotel ready for Rio

At Liege Airport in Belgium, Galère is building a hotel … for horses, that is. A complex of stables, with room for sixty horses, is being built directly next to the platform where the cargo planes are parked. ‘Liege Airport is one of the most important in Europe when it comes to transporting racing, show jumping, and dressage horses. They number around three to four thousand a year, and that is expected to rise to six thousand in the future’, says Jacques Wibin, sector director at Galère. The horses can rest and get settled in the stables complex before they board the aircraft in special boxes. The fact that the Olympic Games are being held this summer in Rio de Janeiro meant that the plans had to be carried out more quickly.

The area around the station in Hengelo (eastern Netherlands) has been enhanced by a neatly designed ‘bicycle residence’. The facility for parking 2,200 bicycles – which was designed by architect Paul van der Ree of Studio SK – has been built by BAM Bouw en Techniek and BAM Infra. Polystyrene blocks have been incorporated into the cantilevered concrete floors to prevent the construction from sagging.