

GETTING SMARTER BY THE DAY

CORPORATE MAGAZINE ICT GROUP

JUNE 2019



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ICT GROUP

COLOFON

ICT Group Corporate Magazine

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CONNECTING PEOPLE, TECHNOLOGY AND IDEAS

We proudly present the June issue of our corporate magazine. The theme of this magazine is 'getting smarter by the day'. With our smarter solutions in the field of industry, cities and healthcare, we successfully took ICT Group to the next level as we have seen sustainable growth and feel ready for the future. When it comes to Big Data, the Internet of Things and Artificial Intelligence, we have established some amazing projects. As a result Microsoft Netherlands selected OrangeNXT as their Country Partner of the year 2019. A true honor. The knowledge we have gathered is embedded in our people and in the company. That is our value. ICT Group connects people, technology and ideas, that's how we build your and our future.

COME ON BOARD

In this magazine you will meet the ICT techies who make great things happen. The projects you will read about, make us proud as the clients we work for have given us their trust. At ICT, we always want to make a difference with our work, it's what we love to do and do best. Come on board and join ICT Group, either as a passionate engineer or as a client and build your future together with us.

Met gepaste trots presenteren wij de juni editie van ons corporate magazine. Het thema van dit magazine is 'getting smarter by the day'. Met onze slimme oplossingen voor de industrie, steden en de gezondheidszorg hebben we ICT Group naar een hoger plan gebracht met een evenwichtige groei; we zijn klaar voor de toekomst. Op het gebied van Big Data, het Internet of Things en Artificial Intelligence hebben we een aantal geweldige projecten gerealiseerd. Het resultaat hiervan is dat OrangeNXT door Microsoft Nederland is gekozen als "Country Partner van het jaar 2019". Een grote eer. De kennis die we hebben vergaard zit in onze

mensen en in ons bedrijf. Dat is onze waarde. ICT Group verbindt mensen, technologie en ideeën, zo bouwen we aan de toekomst.

KOM AAN BOORD

In dit magazine staan verhalen van de ICT techies die geweldige dingen voor elkaar krijgen. De projecten die wij doen, maken ons trots. De klanten voor wie wij werken, hebben ons hun vertrouwen gegund. Bij ICT Group willen we altijd het verschil maken met ons werk. We houden van ons werk en zijn goed in wat we doen. Kom aan boord bij ICT Group, hetzij als gepassioneerd techneut of als klant, en creëer de toekomst samen met ons.



“ICT Group connects people, technology and ideas, that's how we build your and our future.”

Jos Blejje, CEO at ICT Group



IT'S A MAN'S WORLD

BUT NOT AT ICT GROUP!

Meet Claudia van Batenburg, Business Development Manager at Raster, an industrial system integrator within the ICT Group. She received a cum laude degree in Energy Technology back in the days when there were very little female role models in technology. "Much has changed since then," Van Batenburg says, "I see more women having meaningful and rewarding careers in technology when I visit our clients, and also here at ICT Group."

SAFETY TRAINING

Raster is an industrial production and process integrator, specialised in safety. Many of the Raster projects are for offshore petrochemical platforms, installations for heavy lifting, or on ships. "Raster has engineers working on offshore projects on a regular basis. We tend to divide these projects among the team, some are more eager to get on that helicopter than others. In any case, engineers

have to be equipped to do offshore work, therefore a safety training, among others, is mandatory." When Van Batenburg did her safety training at the start of her career as an engineer, offshore work was not geared towards women at all. "The survival suits at the safety training were one-size-fits-all-men," she says laughing. "The seals around the neck and limbs did not fit me. At last, I found one suit that wasn't worn

out and could keep me dry, so I jumped off the tower. But still, the suit was so oversized that when I hit the water, the air went to my feet and they came up first. If I hadn't worn a lifejacket, I would've had to be rescued upside down from the water. Must have been extremely funny to watch from the side."

BUSINESS DEVELOPMENT

When Van Batenburg came to Raster, she helped the company to enlarge the reputation in automation of operational safety for big industry. Raster supports and stands for operational safety through the integration of electronical

systems and automated procedures. "As a Business Development Manager, it is my role to identify new clients and new markets. Together with my colleagues, I work on subjects like modernisation and security. Ever since the Ukraine power grid hack, Raster has been expanding its service area to cyber security in addition to operational safety. The risks are gravely underestimated in the markets, it's quite a challenge to create awareness about cyber security. In the physical world, Ukraine is far away, but in the digital world there are no boundaries." Another focus for Claudia besides safety is

the transformation from DCS (Distributed Control System) to hybrid DCS, therewith rendering the client more freedom of choice with regard to PLCs, SCADA and service contracts. "Hybrid DCS can save our clients money and create more operational flexibility while we modernise their automated operations."

WOMEN IN TECHNOLOGY

It's becoming more and more common for women to work in technology. Raster is being led, for example, by Ethel van Groenestijn, and the key account manager is also a woman, Maaïke Nieuwenhuis. "I've seen things change overtime. At one

point, working as an engineer, I was denied access to an offshore platform because they couldn't spare me a separate bed during the 3-day shutdown. Later on, this was avoided by placing a TLQ on deck, a Temporary Living Quarter which is a refurbished sea container with a bed, a private bathroom and the most amazing ocean view. Everywhere I go, I slowly see more female operators, mechanics and engineers. And while IT and High Tech may seem very much a man's world from the outside, I can vouch for my male colleagues that they are the most pleasant co-workers anyone could ask for.

In general, people working in technology are highly educated and passionate about their work, they just want to get results and judge you on your merit. I hope one day the number of women working in High Tech will be more balanced, but I've always been accepted as 'one of the guys' and appreciated for my hard work and achievements. I'm really happy I decided not to go to Law school like my friends did at the time," Van Batenburg concludes. At ICT Group we are eager to welcome more female colleagues in our midst.

► VISIT RASTER AT WWW.RASTER.COM.

HET IS EEN MANNENWERELD Maar niet bij ICT Group!

Claudia van Batenburg is Business Development Manager bij Raster, de industriële system integrator binnen de ICT Group. Ze is cum laude afgestudeerd in Energie Technologie

in de tijd dat er nog maar weinig vrouwelijke rolmodellen waren in de technologie. "Er is veel veranderd sinds die tijd," zegt Van Batenburg, "ik zie steeds meer vrouwen carrière maken bij de opdrachtgevers waar ik kom, maar ook binnen

ICT Group." De tijd dat er helemaal geen voorzieningen waren voor vrouwen in bijvoorbeeld het offshore werk op productieplatformen is voorbij. Vrouwen worden in High Tech een steeds normaler verschijnsel. Daarnaast lijkt de

IT en de High Tech een echte mannenwereld van de buitenkant, maar heerst er juist een opvallend vriendelijke werksfeer bij ICT Group. Medewerkers zijn over het algemeen hoogopgeleid en bijzonder gepassioneerd voor hun werk, je

wordt beoordeeld op je bijdrage en niet op wat je bent. ICT Group verwelkomt graag meer vrouwelijke collega's in de organisatie.

MAKING AMSTERDAM A SMARTER CITY

SPAARNDAMMERTUNNEL REDIRECTS 22.000 VEHICLES A DAY

Two neighbourhoods in Amsterdam were divided by a busy road; children living in the new Houthaven waterfront area would have to cross this main road everyday to get to school in the old Spaarndammerbuurt. Therefore, the city of Amsterdam commissioned the construction of the Spaarndammertunnel. A tunnel that would not only reroute 22.000 vehicles underground per day, but also serves as a waterfront embankment, a heavy rainfall overflow facility, and as a recreational park all at the same time. ICT Group participated as a consultant in the project's testing phase.

ABOUT THE TUNNEL

The Spaarndammertunnel takes the faster through traffic by going underground and creates more space above ground for residential life with parks, bike paths and public transportation. Jens Dederichs, project leader at Max Bögl, the main contractor, explains how the tunnel would be a solution to overcome the barrier between the two neighbourhoods. The creation of the 800 metre tunnel, 470 metres of which are covered, made it possible to redirect the 22.000 daily vehicle movements underground. In addition, the southern tunnel wall serves as a flood defence to prevent Amsterdam from overflowing in

the unlikely event of the IJ river breaking its banks.

CO-CREATION

The contractor designed an innovative structure using a combined pile foundation which would cause less noise pollution and vibrations during construction thanks to the new method. This was one of the deciding factors to award the entire project to Max Bögl. For the technical installations, Max Bögl contracted another German company and ICT Group was assigned to consult on meeting the requirements set by the municipality of Amsterdam. According to Dederichs this was a strong team combining

demonstrable experience with tunnel technology and software testing in accordance with Dutch legal and safety requirements.

THE ICT METHOD

Testing tunnel systems is part of ICT's core business. ICT understands the Amsterdam tunnel standard requirements and knows how to demonstrably meet these. That makes ICT a suitable consultant. According to Dederichs the method ICT uses - the V-model - allowed the contractors to identify and address issues at an early stage. ICT Group determined which tests were critical and which weren't, thereby reducing the overall number of tests.

The fifteen-person ICT team added even more value to the process in the field of software design and programming. Within the established framework the team was given plenty of freedom to innovate as much as possible. As a result, the ICT team created predictive maintenance systems and other smart money saving options through simplifying and optimising basic processes. Dederichs concludes that because of the mutually beneficial relationship, the team achieved more with less effort. The result is an impressive product.



EEN SLIMME OPLOSSING VOOR AMSTERDAM

22.000 auto's rijden dagelijks door de Spaarndammertunnel

Met de herontwikkeling van de Houthaven tot woonwijk ontstond een gevaarlijke situatie in de aansluiting met de

Spaarndammerbuurt. De gemeente Amsterdam heeft daarom opdracht gegeven voor de aanleg van een tunnel. Aannemer Max Bögl heeft met een vernieuwend ontwerp voor de Spaarndammertunnel niet alleen 22.000 verkeersbewegingen omgeleid, maar ook een extra

damwand langs het IJ gecreëerd, voorzien van opslagcapaciteit voor overtollig regenwater, en een groene verbinding gemaakt tussen de twee woonwijken. ICT Group heeft met een team van vijftien professionals de testfase van de tunnel technologie voor zijn rekening

genomen. Daarnaast kreeg het ICT team volop ruimte om in overleg met de verschillende ontwerppartijen in de ontwerpfase al allerlei kostenbesparende applicaties toe te voegen, zoals een predictive maintenance applicatie.

Do you want to read more similar cases? Scan the QR-code.





ADDITUDE IS EVERYTHING

AND A PERFECT MATCH FOR ICT GROUP

For half a year now, Additude has been part of ICT Group. As one of Sweden's leading IT and industry consulting firms with a strong corporate identity under a well-known label, Additude will continue to operate from Malmö in the South of Sweden under its own name. It will even bring some Additude to the Netherlands soon. Enough reason to check in with Additude's CEO Sam Aston to discuss the plans for the future.

PERFECT MATCH

When ICT Group announced the merger with Additude in January of this year, Jos Blejje, ICT Group's CEO, referred to the good fit from a cultural point of view. Aston elaborates: "Dutch and Swedes are a perfect match actually, we're like peas in a pod. The first meetings and exchanges among our people have taken place over the past months and every encounter has been pleasant and productive. We see the same easy-going, informal and warm atmosphere, yet extremely driven, highly competent and passionate about technological innovation. And while change is not always easy, I would say this merger came at the right time and for the right reasons."

"Dutch and Swedes are a perfect match, we're like peas in a pod."

Sam Aston, CEO at Additude

NEW REGIONS

ICT Group is interested in expanding to the Northern European market. Additude offers market-leading services within industrial innovation processes, project engagements and consultancy to Sweden's largest and technology-intensive companies.

Aston: "Additude has also been looking to broaden its horizons. From our base in Malmö, and with a strong partner like ICT Group with its operational excellence, specific domain knowledge, and innovative propositions like OrangeNXT, we are now ready to expand to major industrial regions like Gothenburg and Stockholm, the wider Scandinavian area, and also Denmark."

NEW PRODUCTS

"ICT Group will help us transition from working mainly in secondment to selling more turn-key projects and plug-and-play cloud solutions," Aston continues, "a transition ICT Group executed quite successfully some years ago. We are also eager to learn from ICT's domain knowledge in Automotive and Mobility, Water and Infrastructure, High Tech, and Smarter Healthcare. In return, ICT can profit from our expertise in headhunting services with which we find highly qualified technical officers for our clients. We're actually establishing a headhunting service under the Additude label in the Dutch market. And ICT will benefit from our strength in early product development

and innovation. Our affiliation with ICT Group has already triggered the attention of the Swedish automotive industry as we are currently engaging in exploratory talks. The synergy is evident."

► VISIT ADDITUDE AT WWW.ADDITUDE.SE.

ADDITUDE IS ALLES En de perfecte match voor ICT Group

Een half jaar geleden heeft Additude zich bij de ICT Group gevoegd. Gezien hun sterke label in de Zweedse markt blijft het bedrijf onder zijn eigen naam opereren. Desondanks is de synergie tussen de beide bedrijven evident. Qua bedrijfscultuur zijn ze even

warm en informeel, terwijl ze ook zeer gedreven, competent en gepassioneerd zijn als het op technologische vernieuwing aankomt. Samen zetten ze in op uitbreiding van activiteiten in Scandinavië en Noord-Europa. Daarbij heeft Additude profijt van de brede kennis van ICT Group op het gebied van turn key projecten en plug-and-play cloud oplossingen. Ook domeinkennis op het gebied

van Automotive en Mobiliteit, Water en Infrastructuur, High Tech en Slimme Gezondheidszorg komt Additude ten goede. ICT Group heeft baat bij de expertise van Additude op het gebied van headhunting diensten en product development.



MEET THE PEOPLE WHO DELIVER ON OUR PROMISE

THE STORIES OF OUR BORN TECHIES

There is much work to do in the world of automation.

As our ambition is to build smarter cities, develop smarter industries and create smarter health, we better roll up our sleeves and get right to it. The ICT workforce can't think of anything more fun to do as our shared value is a passion for technology. We are proud of our employees and we would happily introduce you to all 1400 of them. Let's begin with two colleagues on this page and two on the next, who each excel in their division.

“We have designed an application that collects, saves and interprets all relevant data for the production process.”

Danny Marsman, Software Designer at Machine & Systems

DANNY MARSMAN, SOFTWARE DESIGNER AT MACHINE & SYSTEMS

Danny Marsman is currently working for an international manufacturer of industrial solutions for pharmaceutical and nuclear medicine. The assignment at hand is a software application for an incubator that makes bone and skin tissue. “It’s not hard to imagine how precisely the production of tissue must be executed, a minor deviation in temperature or humidity can influence the quality of the product. We have designed an application that collects, saves and interprets all relevant data for the production process. As a result, the manufacturer of these machines can secure and guarantee the quality of the production process in which tissue is made to cure patients.” Marsman is pleased with the autonomous working arrangement at ICT. “Our team is interdisciplinary and self-managing which makes us agile and flexible. We usually manage a complete project, from the initial conversation with the client to the design and implementation of the software applications, and finally the test phase and commissioning. Clients are often a bit sceptical when we arrive without a project manager. But soon enough we’ll exceed their expectations and they’re convinced. Our team runs like clockwork.”

ELKE KLAASSEN, TECHNICAL CONSULTANT AT ENERGY

Elke Klaassen joined ICT Group as a data scientist and expert in the energy domain. She completed a Master’s Degree in Sustainable Energy Technology at the Eindhoven University of Technology, followed by a PhD in Electrical Energy Systems. At ICT, Klaassen is researching the possibilities for a waste water treatment plant to reduce its energy cost and CO₂ emissions. “My assignment was to determine the value of flexibility in the supply and demand of energy,” Klaassen explains. With the introduction of EnergyNXT, ICT’s energy-specific IoT platform, insight is gained into an organisation’s energy regime. It offers a wealth of facilities for smart use of energy sources, aligning energy sources and consumption deriving from data analysis.



MEET HASSAN AND YNZE WHO DELIVER ON OUR PROMISE



HASSAN ABDOU,
SENIOR EMBEDDED SOFTWARE DESIGNER FOR AUTOMOTIVE

Hassan Abdou has a passion for cars. At ICT Group, he combines this passion with another one: embedded software design. The automotive industry uses embedded software on a large scale to make cars smarter. "The challenge for embedded software designers," says Abdou "is to create the best possible output with very little space, memory and processing power at your disposal. Everything needs to function in the best possible way and there are hundreds of plausible solutions. Only one is the best, and I really enjoy these kind of puzzles." The automotive industry will not tire him any time soon. "I see Formula 1 as the pinnacle in automotive design and one day, I hope to work with the ICT team that's involved with the development of F1 engines. It won't be for my ambition or determination!"



YNZE GOINGA,
CONSULTANT ASSET MANAGEMENT AT NEDMOBIEL

Ynze Goinga is off to a good start as his first job at the project Zuidasdok in Amsterdam. "And what a job! Straight away I'm part of the largest project in the domain of infra in the Netherlands. A project that everyone knows about. Right in the heart of an area where people come for work, travel and recreation. This makes the project so complex, but at the same time so interesting." It involves the development and maintenance of the A10 Amsterdam-Zuid ring road and railway station Amsterdam Zuid. According to Goinga, there's an abundance of challenges for software engineers. For instance, during the construction of the tunnel software, engineers ensure that the various technical installations of the tunnel and traffic can communicate. "They are interconnecting the installations by means of software to make them perform the functionalities for which they have been programmed. The safety in the tunnel must be guaranteed at all times and under all conditions."



ONTMOET DE MENSEN DIE ONZE BELOFTE WAARMAKEN ICT GROUP is een club van geboren technenuten

Er is een hoop werk te doen in de automatiseringswereld. Onze ambitie is het bouwen van slimmere steden, het ontwikkelen van slimmere industrie en het creëren van slimmere gezondheidszorg en daarom kunnen we maar beter onze mouwen oprollen en aan de slag gaan, ICT'ers vinden niets leuker dan dat. Want onze gedeelde waarde is een passie voor technologie. Wij zijn trots op onze mensen en we zouden graag alle 1400 medewerkers hier aan u voorstellen.

Do you want
to meet more
of our people?
Scan the
QR-code.



KEEPING THE NETHERLANDS ON TRACK

RE-ENGINEERING THE PROCESS OF TRAIN MODERNISATION

The Dutch National Railway company NS, takes more than one million passengers to their destination every day. The NS aims to constantly improve their customers' journey. One of the activities NS undertakes towards this goal, is train modernisation. While investing in new train sets is a lengthy process, NS Train Modernisation is the key subsidiary division in keeping enough train sets operational for the ever-growing demand of train travel. Marco Kerstens, Senior Operations Manager at ICT Group, explains the contribution ICT Group made to the automation of train modernisation.

THE RE-ENGINEERING PROCESS

Kerstens: "When NS moved to a new workshop in Haarlem in 2017, they not only installed new machines, but also decided to automate the re-engineering process of the wheel sets. NS selected us as a partner on the strength of our experience in configuring MES software applications." MES stands for Manufacturing Execution System and forms the link between customer demand from the ERP (Enterprise Resource Planning) and the machines supplying the product. "In simple terms," Marco continues, "MES controls the machines in the re-engineering process digitally, makes sure they start and stop in time, and collects all the required measurement and processing data." Train wheel sets are renovated every five years on average. Kerstens: "MES controls the production machines and registers every movement. Barcode labels are used to track every single part during the re-engineering

process, enabling MES to process, register and store the 100+ measurements performed on each wheel set."

THE ADVANTAGES

During the re-engineering process, MES monitors the process parameters, issues an alert if intervention is required, keeps track of the parts used per wheel set (consumption traceability), and communicates with the ERP system to set aside or to order the required parts. Kerstens: "The workshop operators now have a mobile device they can use to communicate with MES. They use the mobile scanner to record measured values, scan and check objects, start and stop tasks, and confirm operations." The app installed on the mobile device was developed by OrangeNXT, an ICT Group company. ICT Group's technical specialists and consultants provided training on the new system to staff across several departments of NS Train Modernisation.

Another major advantage of MES is that the system collects the measurement and processing data in one central location, enabling smart data analyses for further optimisation of the re-engineering process. NS Train Modernisation can also use MES to improve compliance with the Railways Act which stipulates a 50-year retention period for wheel set maintenance data.



"The workshop operators now have a mobile device they can use to communicate with MES."

Marco Kerstens, Senior Operations Manager at ICT Group

Kerstens: "MES now ensures that the relevant data is automatically transferred to the Maximo maintenance system. All measurement and revision data are kept up to date and stored, as well as any actions performed by human operators, the implementation time, and outcome of these actions."

SATISFIED CUSTOMER

Alexander Spaans, the project leader at NS, is very pleased with the MES system. "NS had a few concerns at the start, because IT projects tend to overrun their schedules and underdeliver on their promise," says Alexander. "But ICT completed this project successfully, with the right quality and within the agreed timeframe."

NEDERLAND OP HET SPOOR HOUDEN

De herinrichting van het proces van treinmodernisering
Meer dan een miljoen reizigers worden door de NS iedere dag vervoerd en dat aantal blijft groeien. Om de klantbeleving te bevorderen is de NS op vele fronten actief, één daarvan is om altijd voldoende treinstellen operationeel te hebben met behulp van treinmodernisering.

Marco Kerstens, Senior Operations Manager bij ICT Group, legt uit welk aandeel ICT Group levert in de automatisering van dit proces, met name bij de vijfjaarlijkse revisie van treinwielen. Het gaat daarbij om de implementatie van MES (Manufacturing Execution System) wat zorgt voor de communicatie tussen ERP (Enterprise Resource Planning) en de machines die het werk uitvoeren.

Daarbij wordt data centraal verzameld om het moderniseringsproces van treinen nog verder te optimaliseren voor de toekomst.

Do you wish to read more about this article? Scan the QR-code.





WHAT'S NEXT FOR ORANGENXT?

CUTTING EDGE SOLUTIONS IN THE CLOUD

OrangeNXT gives its clients unlimited access to a plug-and-play cloud platform that connects people, devices and data. It allows businesses to simplify their processes and identify new business opportunities in only a few easy steps. There is no need for expensive customisation of software applications with ready-to-use solutions in the OrangeNXT Cloud, a formula that has proven itself in everyday practice time and again. What's next? Huub van der Linden, Managing Director of OrangeNXT, is looking forward to expand services in Mobility, Artificial Intelligence, Internet of Things and Cloud applications. The fact that Microsoft Netherlands selected OrangeNXT as their Country Partner of the year 2019 shows that they are well underway.

STAYING AHEAD

"The world is changing insanely fast," says Van der Linden, "companies must go digital to at least meet their customers' expectations. What will improve their experience? It's not only about being better, faster or cheaper. More than ever it's about standing out, creating the best customer experience and getting the best reviews. At OrangeNXT, we get that." The companies with the best service are the ones to stay.

SOME EXAMPLES

"One of our clients," Van der Linden continues, "is HelloFresh, a leading delivery service of fresh food boxes. They were at the forefront of disrupting the food industry as an early adopter of the digital transformation. Our client knows that improving the customer journey is their key to success, and therefore the OrangeNXT Cloud is turning the latest technological novelties into the smartest solutions for HelloFresh, predicting delivery times within a margin of minutes and optimising customer service protocols. Another client, Hytech, has

WHAT'S NEXT FOR ORANGENXT? Geavanceerde oplossingen in de cloud

OrangeNXT, onlangs verkozen tot Country Partner van het jaar 2019 door Microsoft Nederland, biedt klanten ongelimiteerde toegang tot een plug-and-play cloud platform dat mensen, apparaten en data met elkaar verbindt. Klanten van OrangeNXT kunnen daarmee hun bedrijfsvoering versimpelen en met een paar eenvoudige stappen nieuwe kansen creëren. Naast snelle en betaalbare oplossingen voor spelers in de consumentenmarkt en de industrie, ziet Huub van

der Linden, Managing Director van OrangeNXT, ook veel kansen voor de gezondheidszorg om processen te vereenvoudigen en de werkdruk te verlichten. Binnen de farmaceutische distributie wordt MobileNXT, een van de OrangeNXT oplossingen, al gebruikt als een digitale verkeerstoren voor de distributie van medicijnen. Daarnaast wordt gesproken met verschillende ziekenhuizen en thuiszorgorganisaties om hun werkprocessen slimmer in te richten met de toepassing van de laatste technologieën.

"Companies must go digital to meet their customers' expectations."

Huub van der Linden,
Managing Director at OrangeNXT

MobileNXT offers pocket-sized-office software applications to create synergy between every user in the chain. Hospitals and homecare organisations are showing an interest in the level of control at Sofa BV, created by OrangeNXT solutions. These healthcare institutions have their own logistical and work flow challenges such as blood transport and blood testing services, supporting care workers and nurses in the field, automation of standardised protocol and so on. "We apply the latest technologies in the smartest ways possible," Van der Linden emphasizes.

"Not very long ago, the administrative work flow transformed from paper to digital. Soon, any industry, including healthcare, will be working with artificial intelligence and augmented reality devices to reduce the work load, increase production, spark innovations, cut costs, and for healthcare workers: have more time to spend caring for patients."

► VISIT ORANGENXT AT
WWW.ORANGENXT.COM



FROM HUMANS WRITING CODE TO CODE WRITING CODE

ICT GROUP IS YOUR CONSULTANCY PARTNER IN MODEL DRIVEN ENGINEERING

Fuelled by the advancement of modern technology, Model Driven Engineering (MDE) is not only becoming the next standard in software development, it is also the answer to the shortage of software developers. Being a technological marvel in itself, MDE is making software programming less dependent on humans as code is derived from generic models. Moreover, MDE allows the industries to save time and money while optimising error-free automation with a decreased time-to-market. ICT Group is an early adopter of this innovation and currently one of the leading consultancies supporting the successful implementation of MDE.

BRAINPORT INDUSTRIES CAMPUS

As a member of the High Tech Software Cluster, ICT Group has recently taken up residence at Brainport Industries Campus, the home of state-of-the-art technological innovations. With 28 highly renowned members, the HTSC serves as an advocate for MDE as the driving force behind the Smart Digital Revolution. Ad van Dongen, High Tech Business Unit Manager at ICT Group: "We all remember the Kodaks and Nokia's of the past, the ones that were a little too hesitant to face the challenges of the digital revolution. At ICT Group, we serve our clients by guiding them through yet another transformation. By adopting MDE with their doors open for business, these companies ensure they keep their edge over the competition."

MDE DEMONSTRATORS

At Brainport Industries Campus, ICT Group is developing two demonstrators to give clients insight into the endless possibilities of MDE for mechatronics and factory automation. "That's only one part of the story," Julien Schmaltz emphasises. Schmaltz is the Principal Consultant for the High Tech Business Unit. "Look at what is happening with code embedding from MATLAB algorithms and Simulink models. We're happy to explain the possibilities for all DCA domains - Data, Control and Algorithms. The demonstrators not only show the possibilities, they also clarify how we can help decrease the time-to-market, write error-free code, and save you some serious time and money."

"At ICT Group, we serve our clients by guiding them through transformation."

Ad van Dongen, Business Unit Manager at ICT Group

VAN PROGRAMMEREN NAAR MODELLEREN

ICT Group is de consultant voor Model Driven Engineering

De High Tech Business Unit van ICT Group zet in op Model Driven Engineering (MDE) als de nieuwe standaard voor softwareontwikkeling. Dat wordt enerzijds gedreven door de eindeloze mogelijkheden van MDE om de volgende technologische revolutie vorm te geven. Anderzijds is MDE het antwoord op het nijpende tekort aan softwareontwikkelaars die de digitale transformatie in code kunnen verwerken. Met MDE wordt software gegenereerd uit modellen waardoor de bug- en foutenmarge verwaarloosbaar klein wordt, de time-to-market vele malen sneller is, en uiteindelijk veel minder menskracht nodig is om maatwerk te leveren. Als lid van het High Tech Software Cluster is ICT Group vertegenwoordigd op de Brainport Industries Campus, een ruimte voor ketensamenwerking waar wetenschap en bedrijfsleven samen de implementatie van MDE bevorderen.

Do you want to know more about MDE? Scan the QR-code.



CONTAINER TERMINALS

GO DIGITAL

ICT GROUP AUTOMATES HEAVY DUTY LABOUR IN SEA PORTS

No two container terminals are the same.

ICT techies Pieter van der Spek, Systems Architect, and Pascal Muller, Software Engineer, can attest to this as they have been working in the ports of Antwerp and Rotterdam for quite some time now.

As clear-cut as the work in a container terminal may seem, it is in fact quite complex and demanding.

That is the kind of challenge Van der Spek and Muller enjoy most. Muller: "We actually get to see our software design put into practice right here on site." Van der Spek adds: "Anyone would enjoy the sheer scale and excitement of this process."



CONTAINER TERMINAL AUTOMATION

Pieter van der Spek works at the container terminal in the Port of Antwerp. "All the vehicles here are manned by drivers, including the cranes, and the office is staffed by people who handle freight customs clearance. We are currently in the process of automating some of the work," Van der Spek explains. Pascal Muller, who works at Hutchison Ports ECT Rotterdam at the Maasvlakte industrial area, explains that ECT was the first container terminal operator in the world to operate an automated terminal, in fact ECT invented it. But even on this terminal new developments never stop, especially in the field of ICT. Muller: "This involves everything from implementing exception-handling software designed to replace frequently repeated administrative tasks to optimising the maritime planning processes."

FAST PACED INNOVATION

Most software applications developed by ICT Group for the various container terminals are web applications, apps or automated elements running in the background. Muller: "My focus over the past three years has been on optimising maritime planning processes. Whenever a ship arrives, we

know how many containers and what type of containers need to be unloaded from and loaded onto the vessel. Stability is a factor you need to consider when loading and unloading containers. All these factors are incorporated in the software applications we develop, while the planners also still have some measure of control over the process." The pace of innovation in this industry is very high. Van der Spek: "You're dealing with different technologies and communication protocols: simple TCP, web sockets, web services, PLC, communication, and so on. And you need to be able to understand all these different worlds." Muller: "But understanding them alone does not cut it: you need to use them as a starting point. This includes all existing applications, designed by ICT Group and other providers. New bits of software are added all the time, and our job is to make these updates interact in the background with older parts of the software, or with applications from other providers. That does add some complications to the mix, because it means you're running a hybrid landscape." Automation is steadily moving forward making container terminals smarter, safer and more efficient work places.

"My focus over the past three years has been on optimising maritime planning processes."

Pascal Muller, Software Engineer at ICT Group

CONTAINER TERMINALS GAAN DIGITAAL

ICT Group automatiseert het zware werk in zeehavens

De container terminals in Antwerpen en Rotterdam zijn in meer of mindere mate geautomatiseerd. Pieter van der Spek, Systems Architect bij ICT, helpt de haven van Antwerpen om de basisprocessen in de terminal te automatiseren. Pascal Muller, Software Engineer bij ICT, vertelt dat ECT de eerste terminal met AGV's (Automated Guided Vehicles) was. Maar ook hier wordt continu gestreefd naar optimalisering van de processen, waarbij automatisering en mensen, de 'human touch', hand in hand gaan. De uitdaging zit vooral in het begrijpen van de balans en het werkend maken van allerlei applicaties van oude en nieuwe leveranciers in een hybride landschap.

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