1859
years of
experience

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Welcome to **Innovation labs**

Today we announce our new entity. Once known as part of Philips Innovation Services, we will continue our journey as Philips Innovation labs, part of Philips Lighting.
A new name for our hub of competences. Some things may change. What will stay is our enthusiasm, our know-how, experience and craftsmanship. We will continue providing excellent services, supporting product & process development with analyzing & testing, technical problem solving and consultancy. Together we comprise 1,859 years of experience in numerous fields. So we dare to say: challenge us!

See you soon,
the 90 Innovation labs experts.


We bring
to light!

We are Philips Innovation labs. We are here to help you to improve your products and systems. Needless to say that we love challenges. We start with unraveling your request. What is the essence of the problem? Consequently, we choose the methods to thoroughly examine your proto, product or process. Does it meet its requirements and your expectations? From accurate measurement and testing we come to proper analysis. Placing your system in its context. Does it perform? And over time? Next is consultancy: our seasoned advice on how to improve. Getting you to win is what drives us.

Working with us you are sure you will never miss out on expertise, multiple-angle views and in-depth application knowledge. Ready to use to your advantage. Our 90 experts can support you either with single requests or with broad and complex problems. In everything we do, we add value by speeding up your innovation, minimizing time-to-market and supporting you in preventing problems.

We offer an exceptional range of facilities, experience and know-how in 5 distinctive labs:

- Material Analysis lab
- Electronic Design Services lab
- Electromagnetic Compatibility & Wireless Connectivity lab
- Reliability lab
- Prototyping lab

Experiencing challenges?
Philips Innovation labs brings to light.

It’s all about **people**

As always, people make the company.
That's why we bring you the stories of 20 Innovation lab colleagues on the next pages. Personal motivations, views and experiences extracted from years of work in the world of high-tech.

Of course Philips Innovation labs comprises more than our quoted specialists. No doubt you will encounter the same level of commitment, craftsmanship and enthusiasm throughout our team. Enjoy!

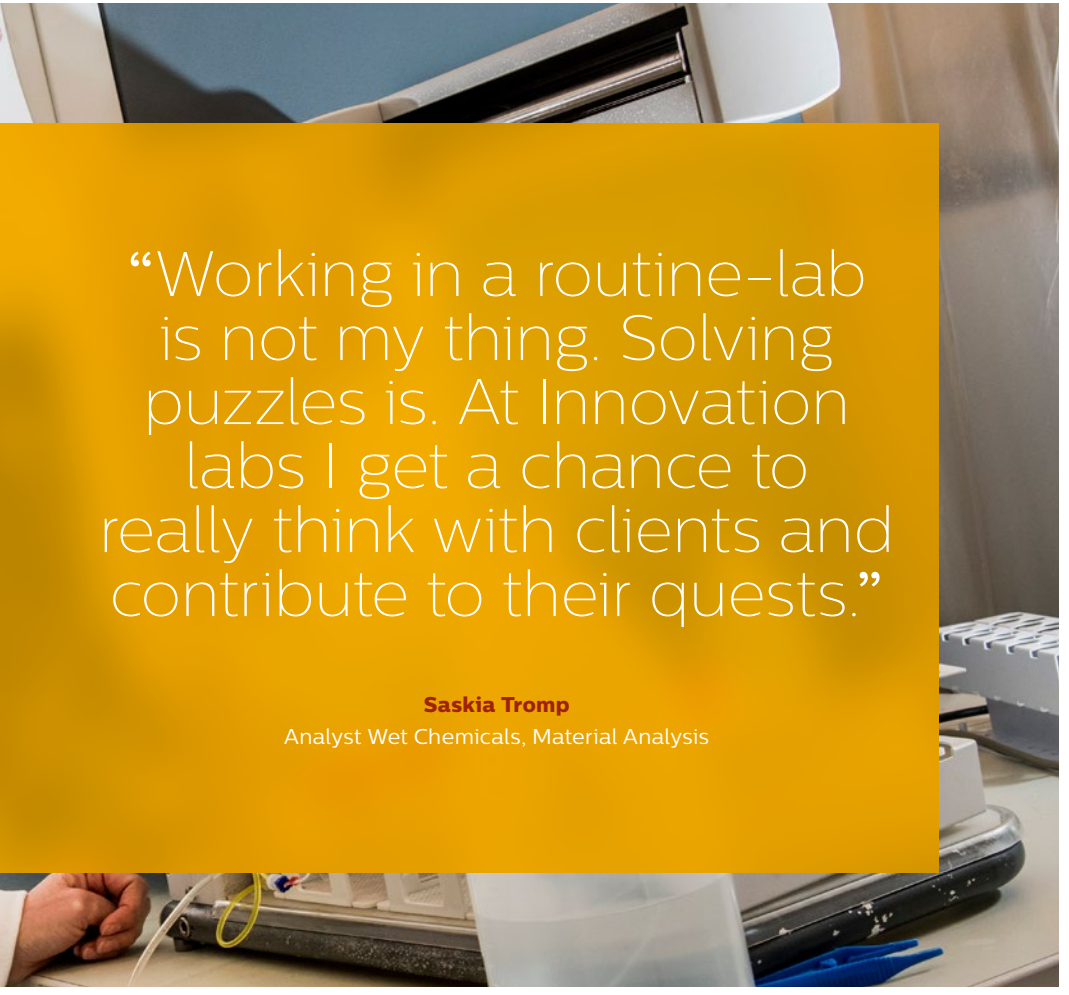

X-Max Productivi

“We pinpoint root causes and advise on measures”

“With our expertise, instrumentation and tools we can do a variety of chemical and physical materials characterization. However, we are much more than just a standard lab. What really inspires us is solving complex problems. We love to dive in your process development issues and your products to reveal hick-ups, fail mechanisms and support you with possible improvement suggestions. We put in over 40 years of experience in application and process development knowledge. We prove our value by walking the extra mile.”

Ingrid Snijkers
Group Leader, Material Analysis


VISTA-PRO
35
analytical
techniques



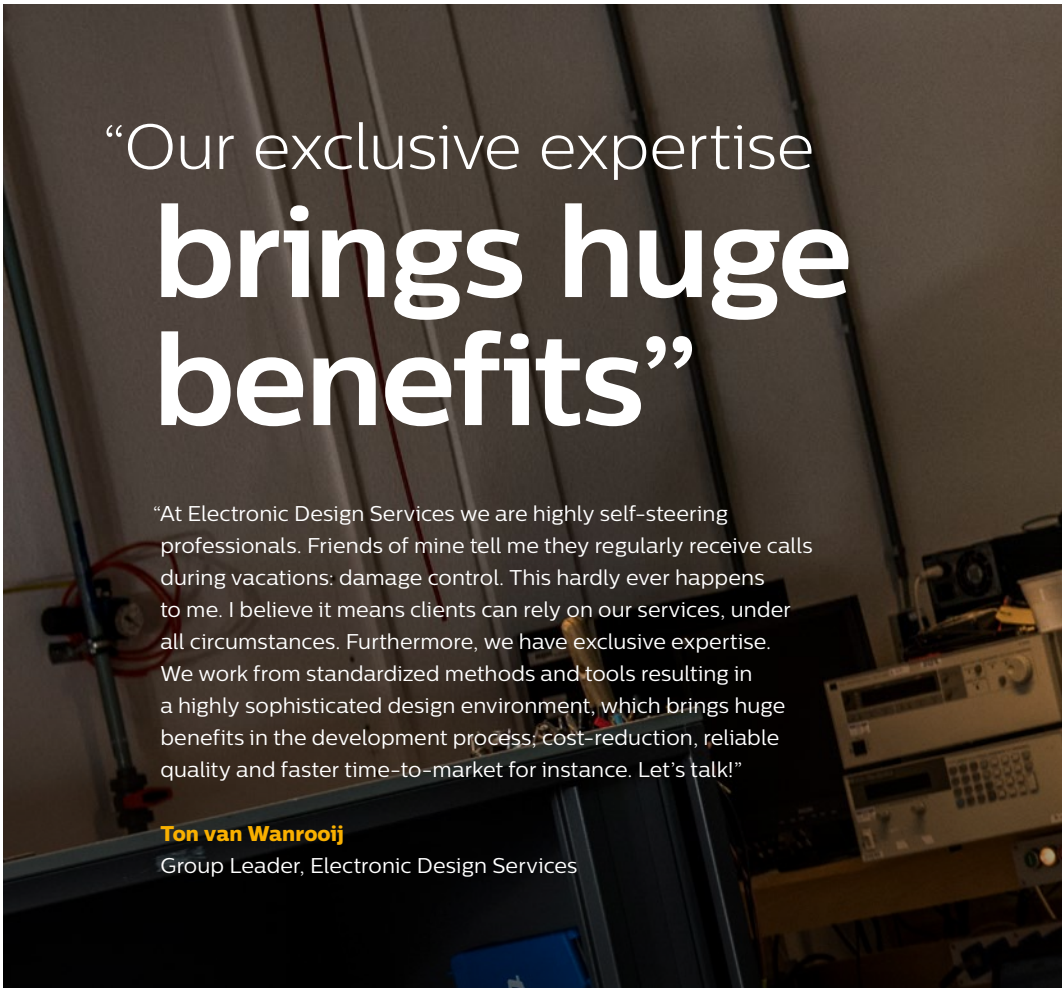
“Working in a routine-lab is not my thing. Solving puzzles is. At Innovation labs I get a chance to really think with clients and contribute to their quests.”

Saskia Tromp
Analyst Wet Chemicals, Material Analysis

“We can make any device”

“With our great team at Prototyping we can make (nearly) any device. We work closely together with development engineers to build prototypes for testing and evaluation. One of my latest projects was an instrument that analyses human faeces for the presence of diseases. We were able to guide our critical client towards a trustworthy proof of concept. That’s valuable. I love this job, diving into a technical challenge, thinking with clients and getting an idea to actually work in practice!”

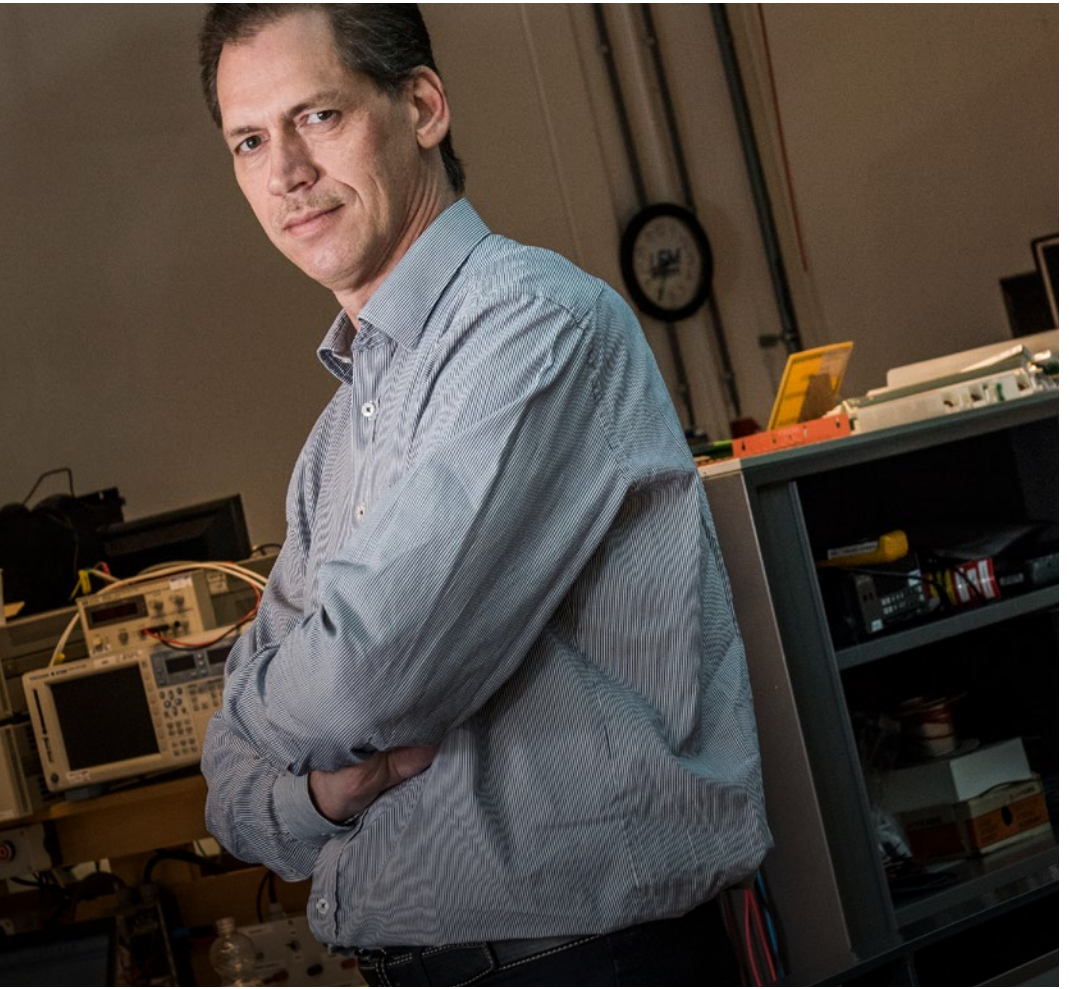
Robert Bevers
Technical Assistant Electronics, Prototyping



“Our exclusive expertise **brings huge benefits**”

“At Electronic Design Services we are highly self-steering professionals. Friends of mine tell me they regularly receive calls during vacations: damage control. This hardly ever happens to me. I believe it means clients can rely on our services, under all circumstances. Furthermore, we have exclusive expertise. We work from standardized methods and tools resulting in a highly sophisticated design environment, which brings huge benefits in the development process; cost-reduction, reliable quality and faster time-to-market for instance. Let’s talk!”

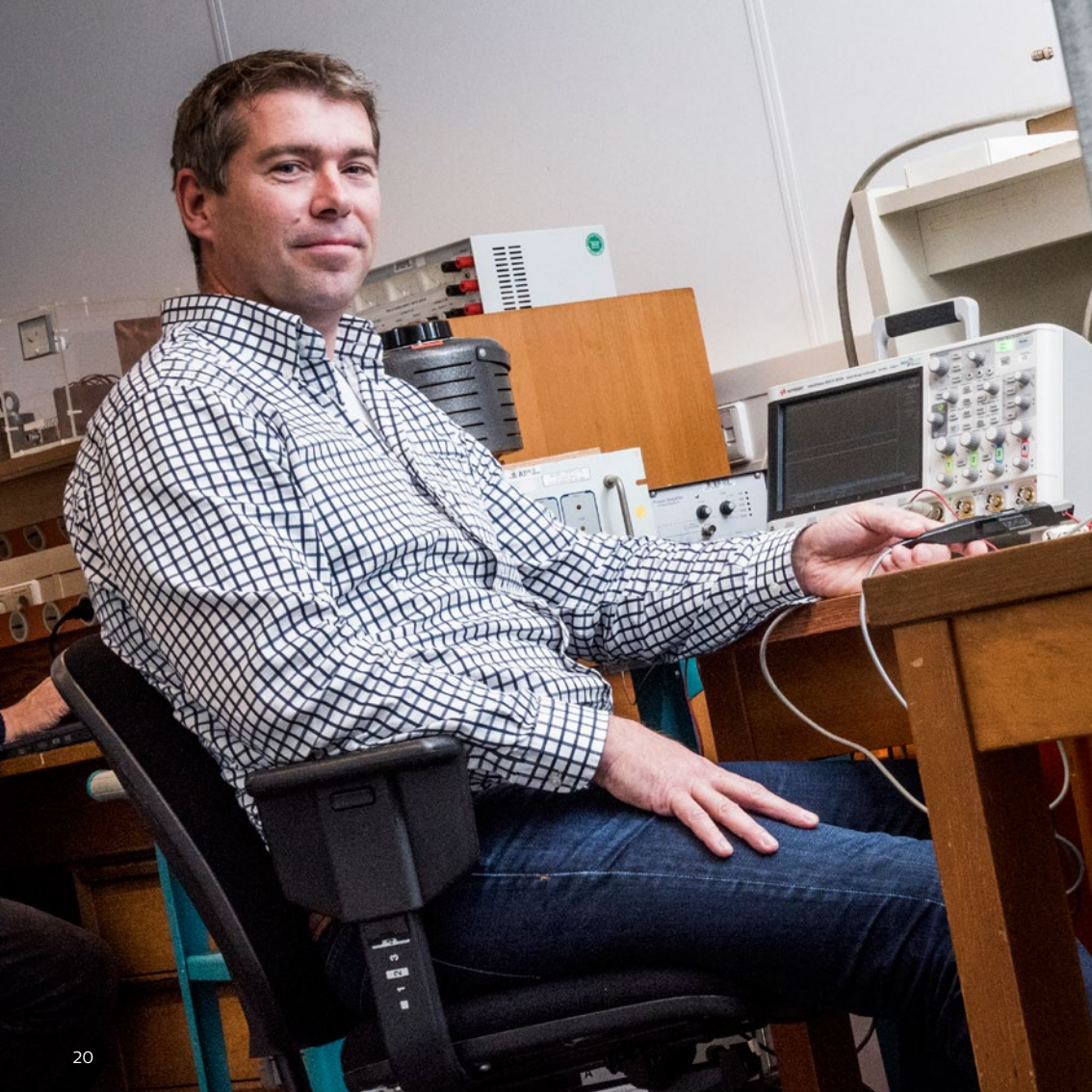
Ton van Wanrooij
Group Leader, Electronic Design Services



“Receiving a thank-you mail after a customer training makes my day!”

Paul Essers
Senior Technologist, Material Analysis


4.6
customer
satisfaction
score 2014
(on a 5 point scale, n=78)

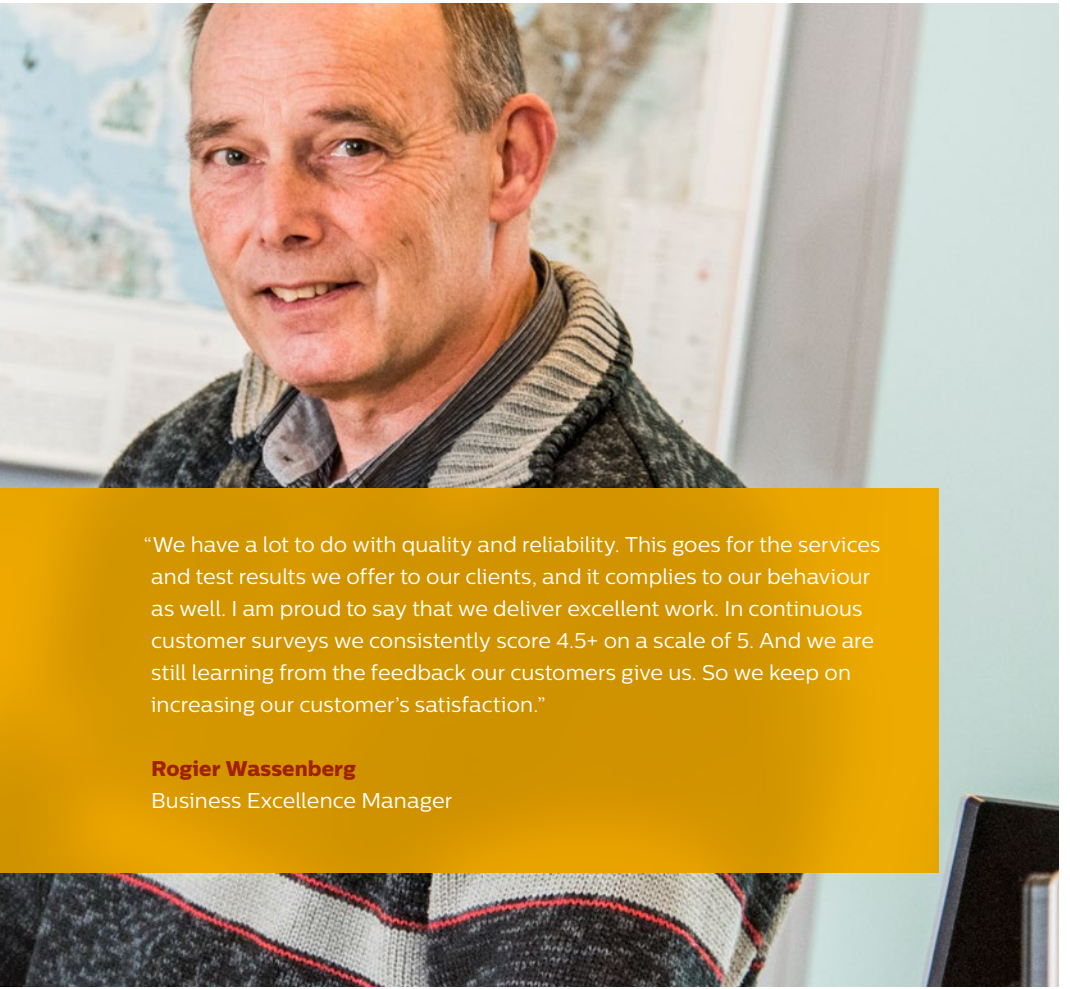


“Simulation enhances first-time-right designs”

“I started as an IC-designer; a world of simulation. I brought my skills and knowledge to the field of electromagnetic compatibility. Using simulations - virtual prototyping if you like - we can do valuable predictions in the product design phase of devices and components. A feature that can cut cost and reduce time-to-market considerably. Recently we used this approach for the development of Xenon-lights. It resulted in the creation of first-time-right physical prototypes. That’s a thrill!”

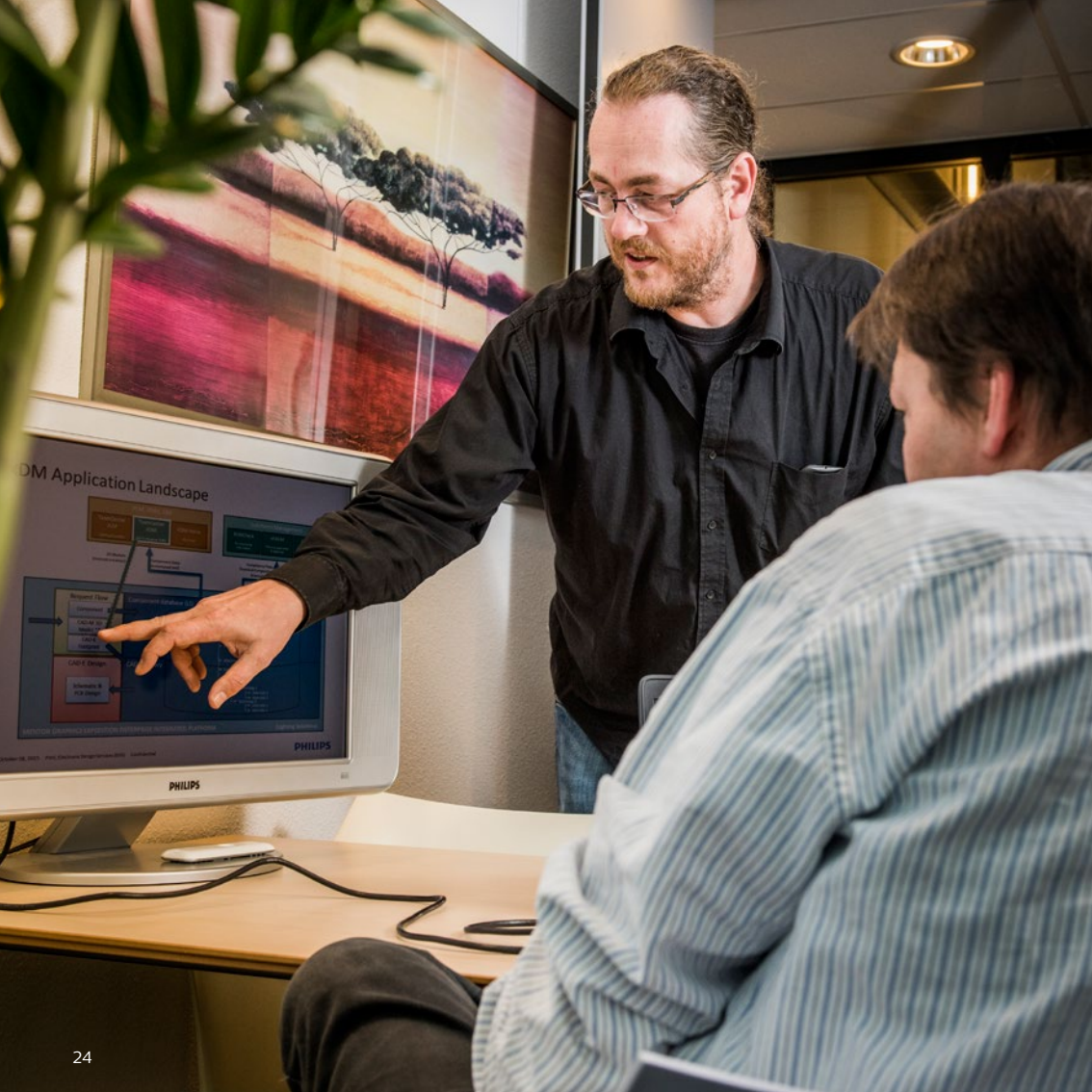
Remco de Jager
Consultant, Electromagnetic Compatibility


“We learn from
customer
expressions”
>90
experts
at your service



"We have a lot to do with quality and reliability. This goes for the services and test results we offer to our clients, and it complies to our behaviour as well. I am proud to say that we deliver excellent work. In continuous customer surveys we consistently score 4.5+ on a scale of 5. And we are still learning from the feedback our customers give us. So we keep on increasing our customer's satisfaction."

Rogier Wassenberg
Business Excellence Manager

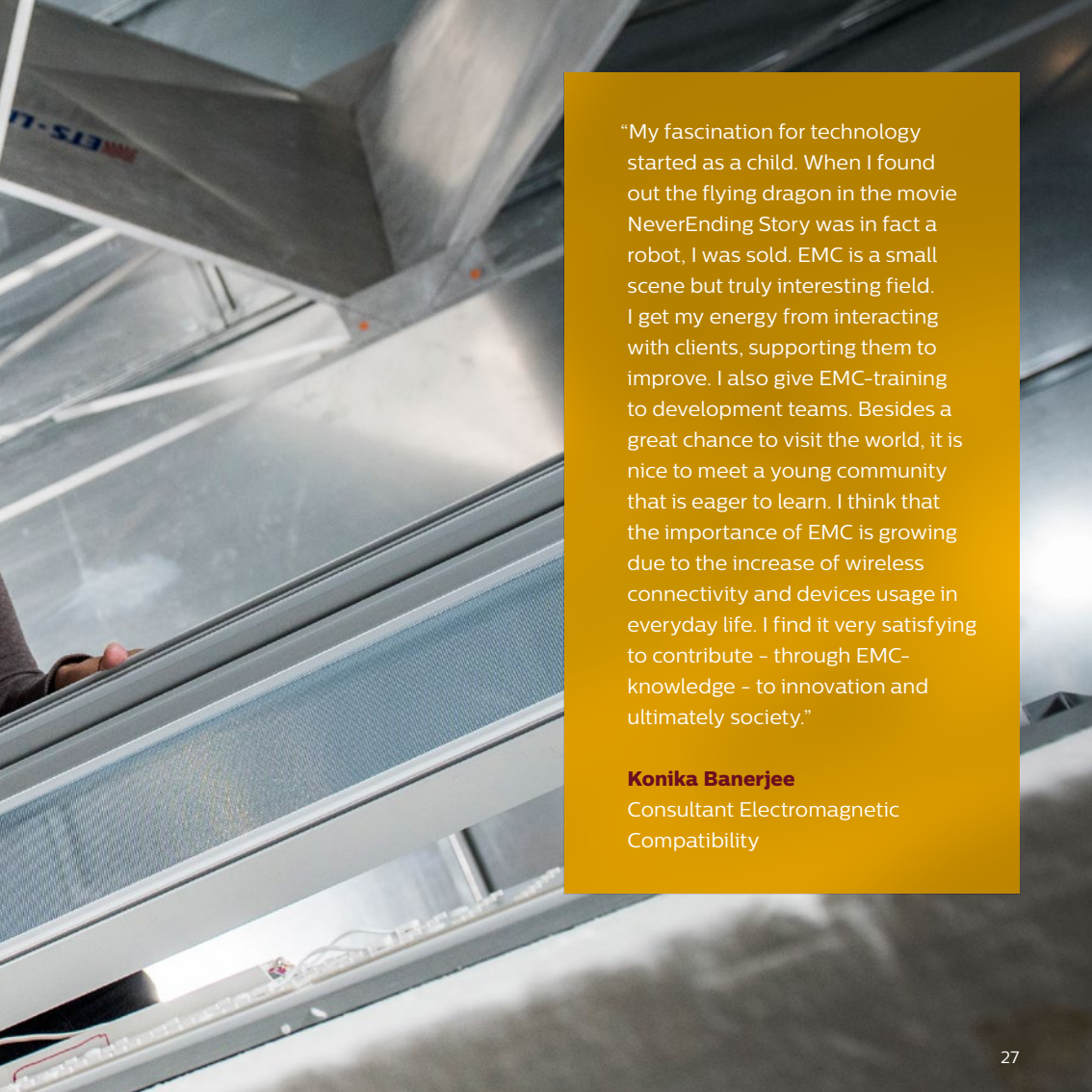

DM Application Landscape
PHILIPS
PHILIPS

“If you want a business to achieve its goals, it is crucial to ensure a good, understanding between the people involved. Creating common understanding and an optimal interplay between quality, money and planning, that’s a challenge I like.”

Edwin Brekelmans

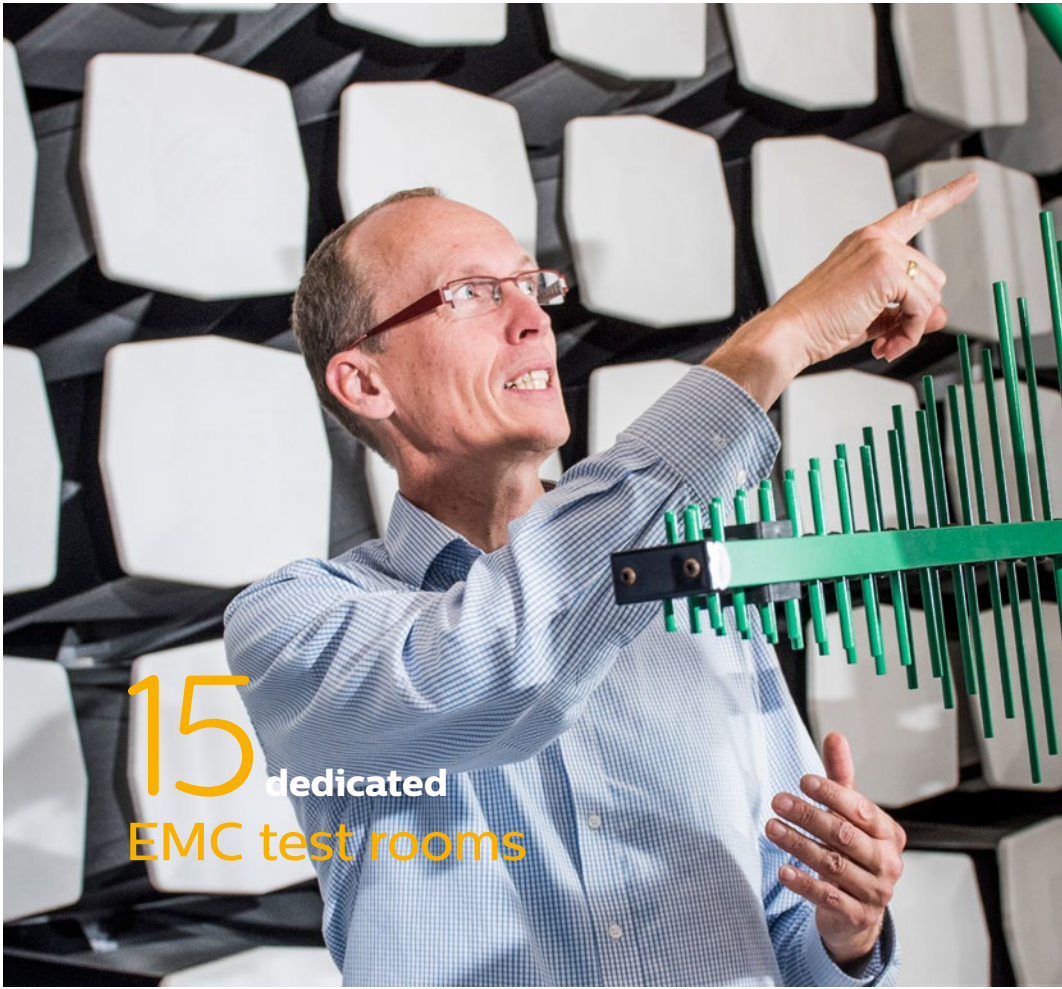
Project Leader, Electronic Design Services

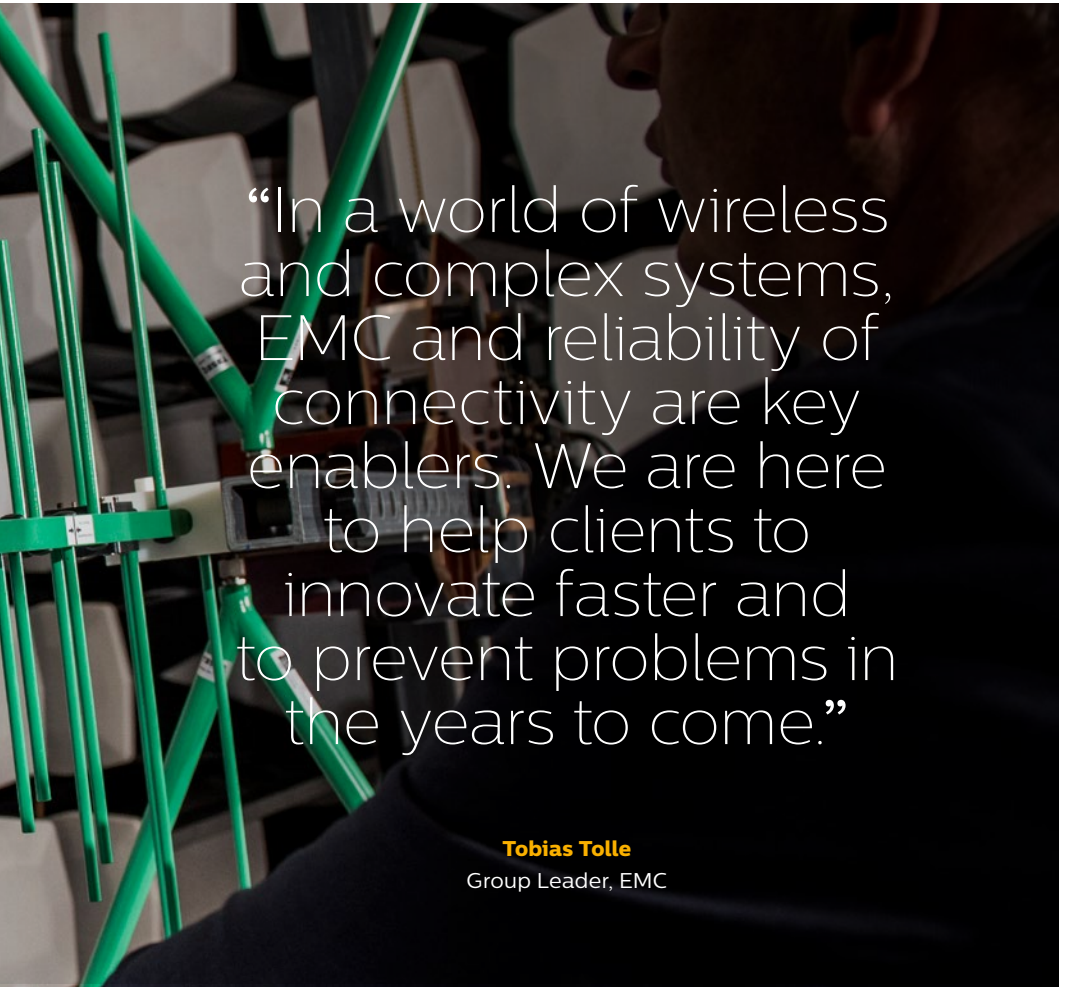

“Contribute to
innovation
and society”



"My fascination for technology started as a child. When I found out the flying dragon in the movie NeverEnding Story was in fact a robot, I was sold. EMC is a small scene but truly interesting field. I get my energy from interacting with clients, supporting them to improve. I also give EMC-training to development teams. Besides a great chance to visit the world, it is nice to meet a young community that is eager to learn. I think that the importance of EMC is growing due to the increase of wireless connectivity and devices usage in everyday life. I find it very satisfying to contribute - through EMC-knowledge - to innovation and ultimately society."

Konika Banerjee
Consultant Electromagnetic Compatibility


15 dedicated
EMC test rooms


“In a world of wireless and complex systems, EMC and reliability of connectivity are key enablers. We are here to help clients to innovate faster and to prevent problems in the years to come.”
Tobias Tolle
Group Leader, EMC

“Speeding up the problem solving, that’s my job. I like to think with clients and route their question to the desired technologist fast and easy. And someone has to take care of the paperwork, of course!”

Francien Cremers
Business Support


>10,000
orders a year


“Finding the
Red X”

"I love to work with customers directly. It gives me the opportunity to ask the proper questions straight away. As a technologist I look at things from a different perspective. At MA we perform measurements, but I think the interpretation is just as important. You can create sheets with numbers, but it is mainly the translation that counts. We can add a lot of value for customers. Recently, we were able to significantly reduce costs in a large recall for lighting systems. By adequately choosing methods of measurement and analysis, we brought the scope back from 10 to 2 years. That meant huge savings; always great to make a customer happy!"

Carry Hermans
Technologist Molecular Characterization, Material Analysis

60

Reliability test cabinets

“We like to take products to the edge of their specifications. We call it Highly Accelerated Lifecycle Testing (HALT). However, breaking a product is not hard, the intelligence is in the applied testing methods. Depending on the project we often collaborate with our mechanical and EMC groups.”

Toine Bazelmans
Reliability Engineer, Reliability Testlab


“First-time-right
is what you want”
EMC Testlab certified for
ISO 9001
ISO 14001
ISO 17025

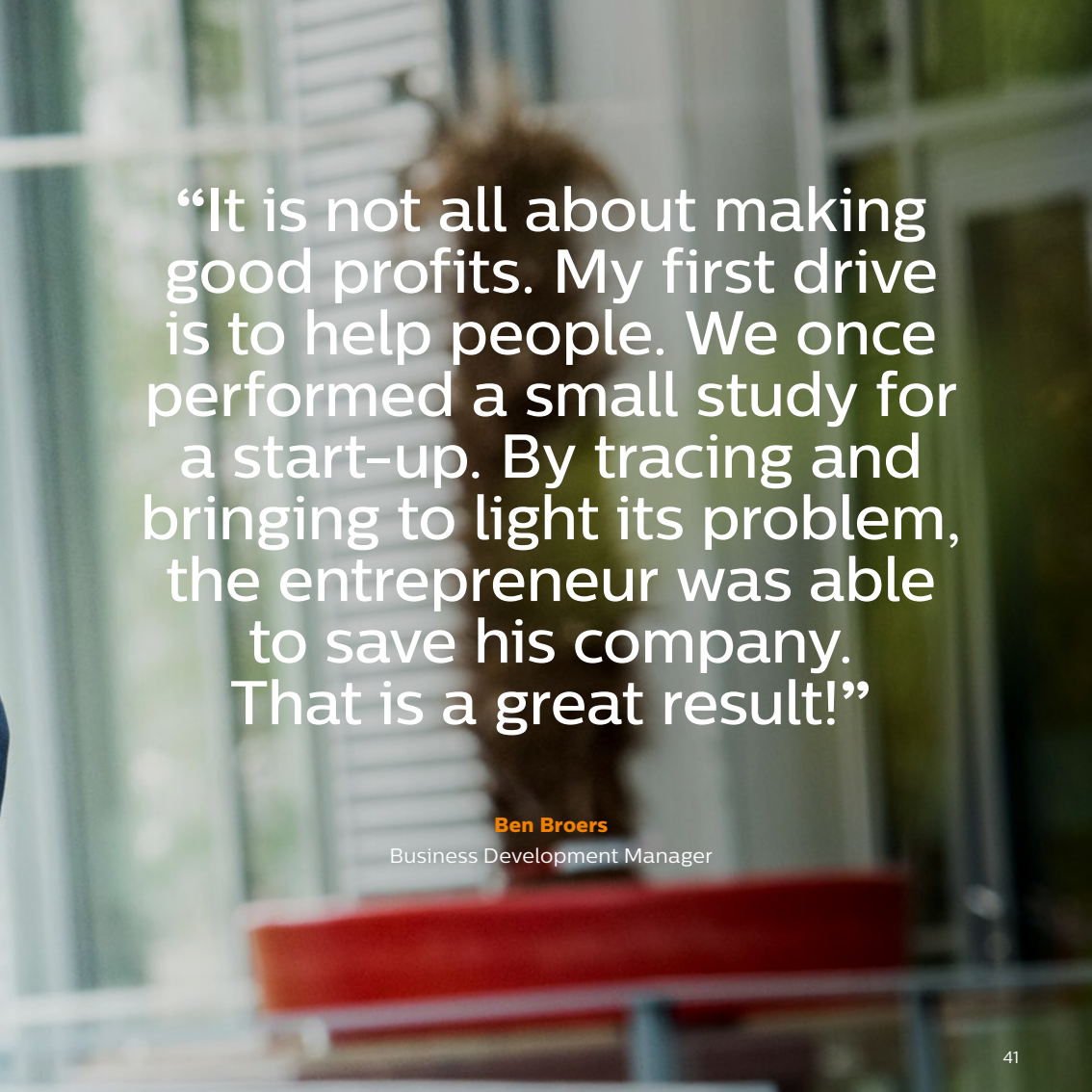
"Before I started here, I worked at several smaller firms and was indirectly involved with electromagnetic compatibility. From this experience I can understand the needs of our clients and transfer it to our offering. Let's face it; it is far better to measure than having to stick huge plasters on reputation and budget in case of failures. That's why we like to come aboard already in the design phase. I think we play a valuable role, as EMC is getting increasingly complex due to trends like wireless connectivity, miniaturization, higher clock frequencies and huge growth in the use of electronic devices. We aim for a first-time-right launch."

Huib van Asseldonk
Team Leader, EMC Testlab

“Models solve business problems”

“At EDS we have the combined knowledge to make the design and development process of printed circuits efficient and first-time-right. Through extensive application experience we have developed our own methodologies. I focus on how components relate to PCBs and I love to sit around with clients and explore their challenges, figuring out models that provide adequate solutions. Recently, I developed a new methodology for the risk analysis of (the possible presence of) noxious materials in complex devices. Working with this model we were able to cut the need for actual measurements from > 10.000 components to merely 10. That’s solving a business problem!”

Bert Habraken
Senior Technologist,
Electronic Design Services



“It is not all about making good profits. My first drive is to help people. We once performed a small study for a start-up. By tracing and bringing to light its problem, the entrepreneur was able to save his company. That is a great result!”

Ben Broers
Business Development Manager


5,000
m²
lab space

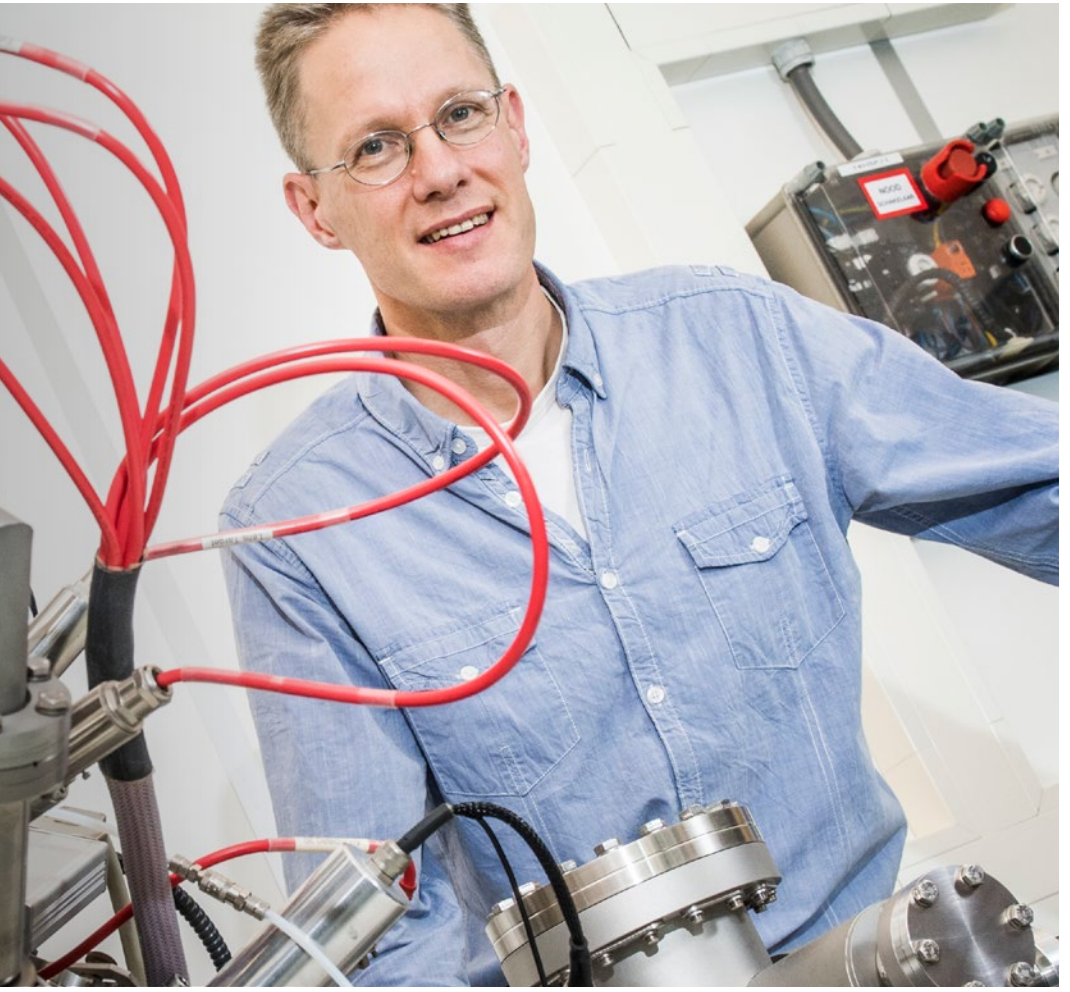
“We link requests to proper answers”

“I think you can best describe me as a connector. I am always aiming at linking requests to proper answers. Whether we can test and evaluate it ourselves or use other teams or labs in our network. By visiting clients and seeking open discussions I can help to tackle the real questions and service them better than they expected. I believe that making clients happy is our reason of being here in the first place.”

Marc Kuilder
Technologist, Reliability Lab

“We are a CSI-like team. We love to dig deep. This leads to results clients can use, and sometimes to odd discoveries. Like the time we revealed the glove of an operator as the felon in a troubled galvanizing process.”

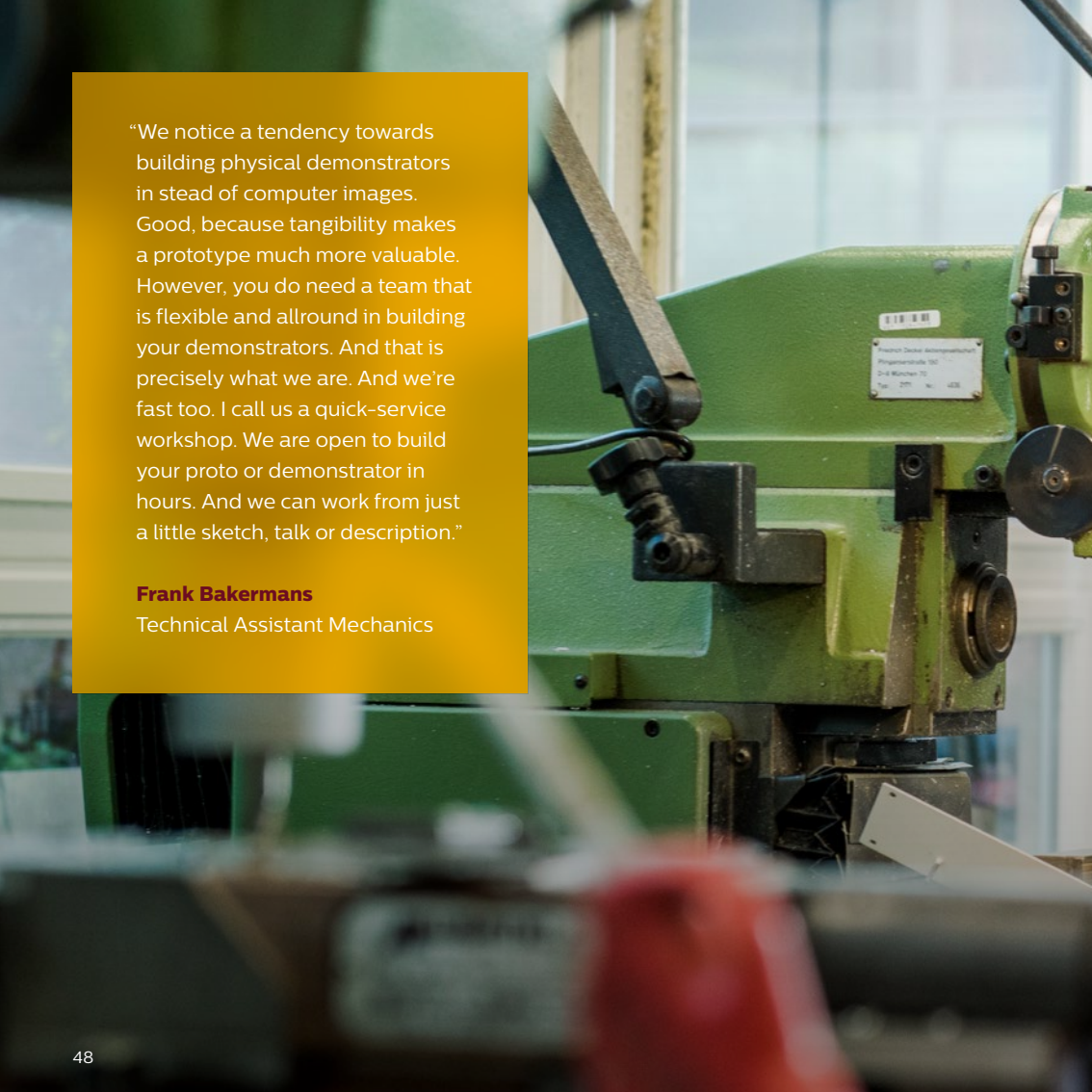
Jurgen van Berkum
Senior Technologist, Material Analysis




1859
years of
experience
together

“We have done so much projects and seen so many problems, we know what works or not!”

Arjan Mank
Principal Technologist, Material Analysis



"We notice a tendency towards building physical demonstrators in stead of computer images. Good, because tangibility makes a prototype much more valuable. However, you do need a team that is flexible and allround in building your demonstrators. And that is precisely what we are. And we're fast too. I call us a quick-service workshop. We are open to build your proto or demonstrator in hours. And we can work from just a little sketch, talk or description."

Frank Bakermans
Technical Assistant Mechanics


“I call us a
quick-service
prototyping
workshop”


“Looking forward
to meeting you
(again)”

"Companies nowadays need to focus on their core. And if innovation is your thing, you will have your hands full. The world of technology is increasingly complex. Wireless connectivity, miniaturization, smart materials... On top of that you will face challenges in cost-effective production, in-time delivery and of course realizing products that are reliable under diverse conditions. These factors are continuously raising the bar when it comes to design, manufacturing and marketing. And the competition is always just a global village away.

Luckily, you are not alone. Philips Innovation labs is here to support you on your quests. I am very proud of our team. Our specialists are seasoned, one by one. We combine 1,859 years of expertise in a spectrum of technical fields with extensive application knowledge. Our tools, know-how and experience give us an unprecedented edge when it comes to analyzing & testing, technical problem solving and consultancy around your technical challenge.

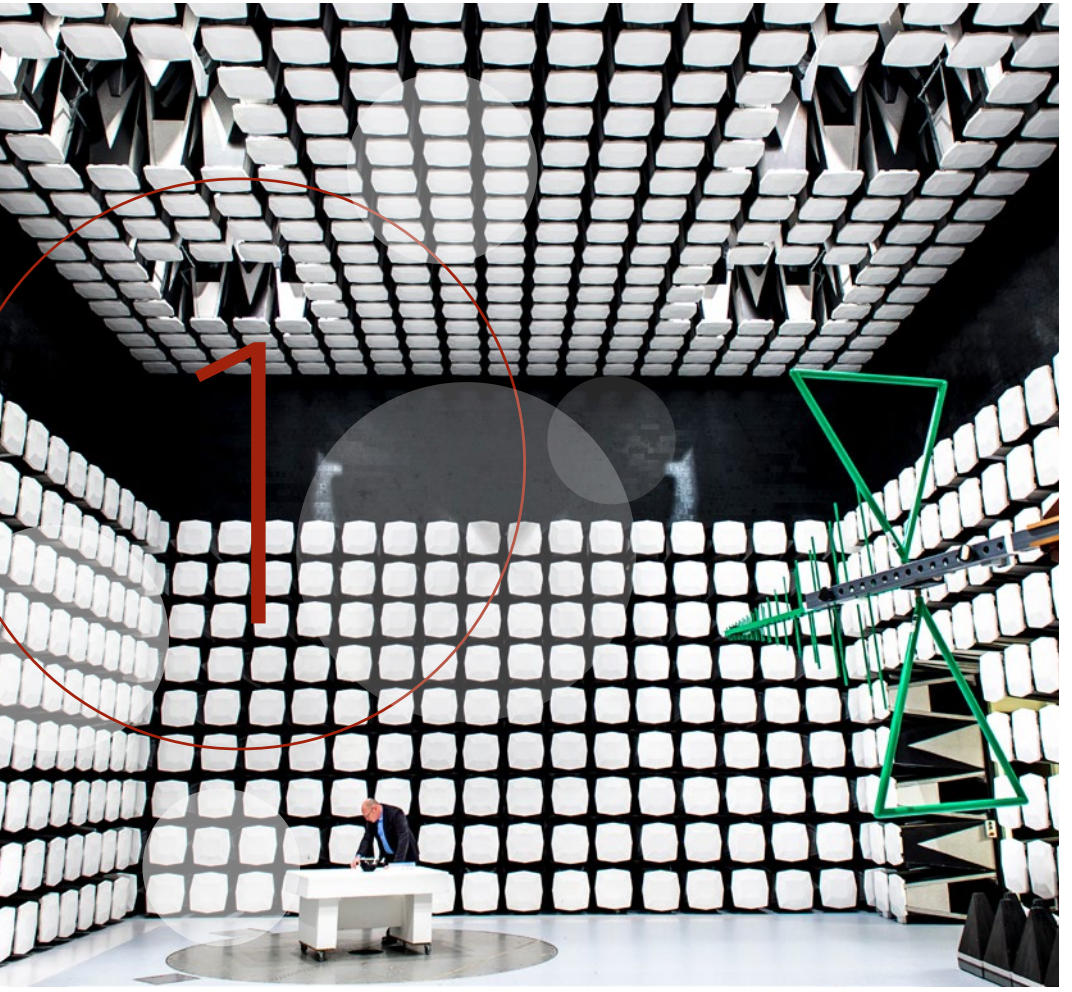
Looking forward to be of service!"

René Driessens
Head of Innovation labs
Philips Lighting

Electromagnetic Compatibility & Wireless Connectivity lab

Are you confident that your product is electrically safe? Are you aiming for trouble-free wireless connectivity? Do you have all the necessary evidence for your CE marking? The EMC Center supports you with profound EMC advice, testing and certification.

From workbench and (pre-) compliance to accredited EMC testing, our well-equipped facilities (1,500 m^3 test chambers) will suit your needs. We support you in building quality into your designs efficiently.
Our experts know their way around the standards, making sure your product complies and is safe to use in all required conditions. Furthermore we can fulfill your need for robust, small and cost-effective wireless connections by our unique set of RF engineering expertise that includes antenna design, interaction modeling, and robustness testing.

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Electronic Design Services lab

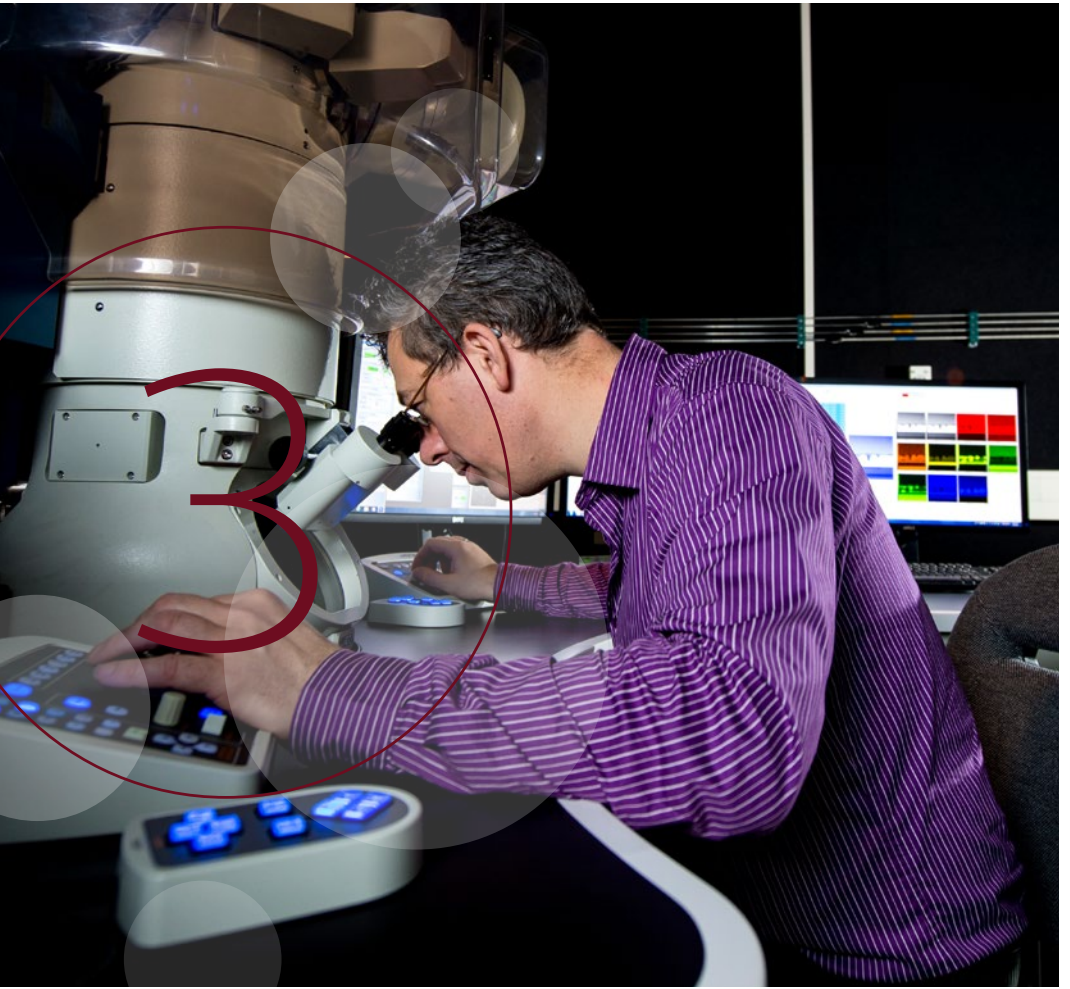
Looking for a smart and slim electronic design solution? Want to make products that can stand the test of time? Aiming to develop with Design Anywhere, Source Anywhere and Build Anywhere principles? Trying to cut costs of your PCB components?

Our EDS Center is completely equipped to support you with the design and management of your circuit boards and beyond. Services comprise PCB design rule management, component registration and component data management in the electrical and mechanical domain, CAD-E library creation, CAD-M 3D modeling, Electronic Design Automation and its interface to the mechanical design. Moreover, we can provide a full training program and make you the expert in the Design Tools and processes. We can also execute the full PCB design for you. With advanced methodologies and automation tools, our team of seasoned designers fulfills your quality, reliability, compliancy and planning requirements.

Material Analysis lab

Is your prototype facing a seemingly unsolvable issue? Do you want to understand why your product fails? Do you have a troubled production process that could use a rapid inspection? The Material Analysis lab is at your service!

Tap into our know-how and facilities (more than 35 analytical techniques) to address all your analytical needs. We combine extensive application knowledge with state-of-the-art analytics. Whether you want to solve a problem fast or need long-term research support, we cover all your analytical challenges. Moreover, our specialists think with you, providing you with an interpretation of the found figures. Supporting you to (re-)develop faster and better.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4

Reliability lab

You need to get proven quality products to the market fast. Lifetime forecasts and reliability testing are vital. How can you make sure your prototype gets from concept to pre-certification quickly and cost-effectively?

Our Reliability Test Center gives easy access to cutting-edge expertise and the latest testing equipment, no investment needed. Our extensive reliability services (60 different cabinets) range from environmental simulation (temperature range up to +300 °C, cabinet dimensions up to 2x2x2 meters) and Highly Accelerated Lifetime Testing (HALT) to mechanical simulation and permeability testing. Ideal for your pre-qualification phase. Our ready-to-use, fast, efficient and cost-effective solutions will shorten your product's time-to-market and prevent expensive product recalls.

Prototyping lab

Eager to bring your concept to life? Need a fast and accurate realization of your design? Want a workshop that understands your application dynamics? Walk in with your ideas.

Our prototyping experts support you with the realization of first-of-a-kind components and prototypes. With a broad and deep experience in implementation methods, interface methods, application aspects and testability of components and systems, we can deliver quality prototypes fast (sometimes in hours). Working with us, you do not need to worry about putting together extensive briefings. We are experienced in starting to work with only minimal specifications; a sketch and brief description mostly suffices. Moreover, we are flexible to develop with you as your concept matures.


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