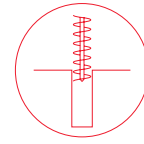


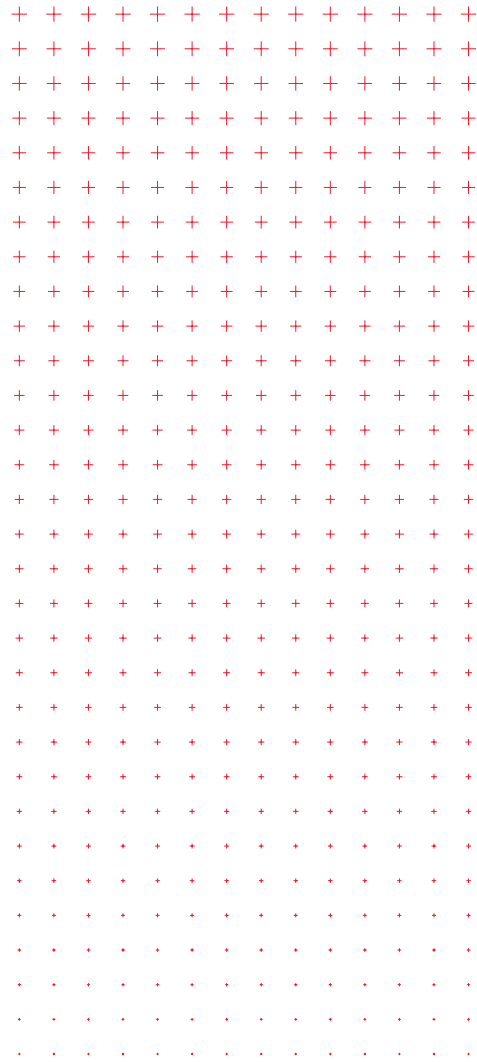
Redefining Value



The future of geotechnics series

What the industry needs to do to change the debate on cost and value in construction.

This is the second in Bachy Soletanche's series of thought leadership reports exploring the future of geotechnics and the challenges and opportunities facing the industry.





Foreword

The poet and philosopher Ralph Waldo Emerson once said: “Money often costs too much.”

It’s unlikely that he was thinking about the construction sector when he said it, of course, but it’s a sentiment that resonates with me when I think about our industry and some of the challenges that face it at the moment.

Construction companies are businesses like any other. They are looking to turn a reasonable profit in return for the good service they provide, so they can invest in the technology, innovation, people and capabilities that will help them to survive and thrive in years to come. And, as in any business, it’s important that construction companies remain competitive on price. The problem, however, is that healthy competition has given way to an extremely unhealthy race to the bottom on price. What’s worse, we’re in danger of seeing this become a race to the bottom on the very things the industry takes such pride in, like quality, standards and safety.

Our industry’s reputation is starting to suffer. The impression that construction contractors know the price of everything but the value of nothing has taken hold. We are vulnerable to the accusation that our industry takes a ‘just enough’ approach to the things that matter – meeting regulatory requirements, satisfying environmental standards, ensuring quality – even, perhaps, putting saving money before our health and safety.

I don’t believe for one minute this is the case. In my experience, construction companies want nothing more than to be able to provide a high quality product, and would never consciously do anything to put a building or structure’s users at risk. But contractors are finding themselves in the worst of catch 22 situations – forced to work within tiny profit margins, but expected to deliver projects quickly, safely, cheaply and to a high standard. It’s an impossible task and something always has to give.

We stand at a pivotal moment in the history of our industry. We are approaching a series of huge infrastructure developments, of which HS2 and the Heathrow expansion are but two notable examples. At a time of great political and economic uncertainty, construction is going to be part of the beating heart of the UK’s economic growth, charged with creating an infrastructure that will serve the nation for decades to come.

Britain needs value from its builders now more than ever. To answer that need, we need to show that we know what value really is.

Damien Kilkenny

Business Development and Major Projects Manager
Bachy Soletanche



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Changing the debate on cost and value



Value undermined: the real cost of cost-cutting

The last twelve months have seen a number of major construction firms entrenched in very public financial struggles, plagued by myriad problems caused by the construction industry's perpetual race to the bottom on cost. Bachy Soletanche asks some of its leading minds whether the construction industry has forgotten the true meaning of value and explores what can we do to bring cost, quality and efficiency back into balance.

Value means different things to different people. A global developer creating a world-leading commercial office building in the heart of London will, for example, have very different expectations of what constitutes 'good value' to a small to medium housebuilder looking to build private residences in a rural town.

From a contractor's perspective, value is defined by the needs and expectations of the client. For a simple project requiring basic materials and solutions, the cheapest option may well provide good value. But for a highly complex and challenging build that requires a high-end finished product, that cheap option shouldn't even be on the table.

It sounds simple. But the financial challenges many contractors are now facing suggest the industry has forgotten the basic principles of value. 'Good value' is now synonymous with 'cheap' in the eyes of clients and main contractors alike. Specialists are being asked to take on more and more risk, with fewer opportunities to off-set these risks against.

The resulting outcome is a huge amount of strain on all parts of the supply chain, profit margins being driven to untenable levels and, perhaps most concerning, perceptions of the construction industry being steadily eroded. Something has to change.

Buy cheap, buy twice

So how can we shift the focus of the industry away from cost-cutting and back to delivering true value?

"As an industry we seem to have forgotten the 'triple constraint' of project management: out of cost, quality and time, you can only have focus on two," remarks Damien Kilkenny. "Anyone who says they can deliver a project quickly, cheaply and to a high quality is either bending the truth to win the work, or they're killing themselves on margins – neither of which is good!"

To tackle this, the industry needs to get better at collectively learning from past mistakes. That goes for clients as well as contractors, who would do well to remember the old adage of 'buy cheap, buy twice', says Area Design Manager Ana Carvalho.

"Often, it's a bad experience that drives a client to start looking beyond the pound sign to other measures of value," she explains. "They bought cheap and they got a sub-standard product. It's only once they've realised that this is a false economy that they start looking at the more premium end of the market."

"Out of cost, quality and speed, you can only have two. Contractors and clients must not forget that."

Ana Carvalho, Area Design Manager

Education, education, education

There is a pressing need to educate clients on the true nature of value in construction.

"We can't wait for clients to have a bad experience to realise that low cost doesn't equate to value," says Kilkenny. "They need to think long and hard about what is important to their projects and, collectively as an industry, we need to help them do it."

Plant Manager Andrew Eggesden believes that we need to better illustrate the balance between cost and other variables: *"There's nothing wrong with choosing the cheap option. But you won't be getting the best product, the safest product, the greenest product. You'll get what you pay for. As contractors, we need to be honest and transparent on this up front if we're going to educate clients about the meaning of value."*

The industry – contractors and clients alike – can learn from some of the UK’s biggest projects, says Ana Carvalho.

“There’s nothing wrong with choosing the cheap option, but you won’t be getting the best product, the safest product, the greenest product. You get what you pay for.”

Ana Carvalho, Area Design Manager

“Our customer on the Tideway project is relentlessly focused on safety. It’s important to optimise cost efficiencies wherever possible, of course, but never at the expense of meeting the highest safety standards and delivering a high-quality project,” Ana explains.

“There is a real recognition of value beyond price, and that washes down through the entire supply chain,” adds Carvalho. “We should be better as an industry at shining a light on Tideway and demonstrating to other clients that this is what they should be aspiring to.”

David Hard, Chief Engineer at Bachy Soletanche, says the same is true of Crossrail. There have been challenges along the way as with any major project, but Hard says Crossrail has brought the industry on leaps and bounds when it comes to early contractor involvement.

“The message from Crossrail’s Lessons Learned conferences came through loud and clear: specialist contractors getting involved earlier and having more time to add insight and expertise had a huge positive impact. For forthcoming major infrastructure projects like HS2 and Crossrail 2, we need to make sure we heed this clarion call.”

Specialists can shape the debate

Damien Kilkenny believes specialist contractors have been guilty in the past of taking a back seat in this education process with clients.

“Perhaps it’s a case of not wanting to rock the boat for fear of losing work. Perhaps it’s because we see ourselves as too far down the food chain. Whatever the reason, specialists have been too timid about engaging with end clients on the subject of value,

and we’ve suffered as a result.

“Specialists can add a huge amount to this debate,” he says. “If we are engaged early enough and understand from the get-go what a client truly wants to achieve from a project, we can add huge value – from coming up with workable alternative solutions to forecasting and solving problems before they occur. But it takes a strong working relationship and a mutual understanding of the capabilities of the wider project team and the boundaries of the project to make it work.”

“It’s not just the big ticket innovations that add value. Often it’s the incremental improvements to plant and processes that bring the most benefit to clients.”

*Damien Kilkenny,
Business Development and Major Projects Manager*

David Hard believes that early engagement between end clients and specialists would make the mid-project value engineering process obsolete.

“Every client talks about value engineering: getting technical experts and specialists in to advise on how to take cost out of their project. What they need to realise is, if specialists are involved from the ground up, the whole project is designed to be as cost-effective as it can be. You don’t need someone to come in and make improvements, because there aren’t any to make!”

For Damien Kilkenny, it’s time for specialists to bolster their design and consultancy capabilities if they are to fight their way up the food chain and earn a seat at the top table of big projects. Bachy Soletanche, he says, has done this by investing heavily in its engineering and R&D facility in Burscough, under Andrew Eggesden’s leadership.

“We’ve built one of the world’s leading geotechnical engineering teams at our facility in Burscough,” says Andrew. “They can devise solutions that other smaller contractors can’t come close to and provide technical guidance on any geotechnical problem a project might face. As a result, we are now being brought into projects much earlier.

“It’s not just the big-ticket innovations that add value though,” Andrew explains. “Often it’s the incremental

improvements to plant or to processes that bring the most value to clients. A great deal of work is being done in dense urban areas, for example – so a lot of our R&D and investment is around creating greener, quieter machinery that can be deployed in residential areas or over underground utilities and, in London, tube lines.”

“If specialists are involved early on, you don’t need someone to come in and value engineer further down the line – the whole project is designed to be as cost-effective as it can be.”

Andrew Eggesden, Plant Manager

Predictive troubleshooting

There are myriad ways that unexpected costs can be added to a project, but more often than not it is a result of a technical problem arising that delays delivery and adds days, weeks or even months to the project schedule. It is by identifying potential problems and helping to tackle them before they occur, says David Hard, that specialists can bring the greatest value to main contractors and end clients.

“You will face unexpected challenges on every project,” he explains. “One of our biggest selling points is our ability to sort problems quickly and keep projects on track. But this predictive troubleshooting requires significant technical expertise and experience. That is at a premium, and should be appropriately valued.”

Ultimately, says Damien Kilkenny, this is the challenge for specialist contractors across the industry.

“Specialists have remarkable expertise and knowledge in their fields. If engaged in the right way, and given the opportunity to contribute at the business end of a project, the value we can deliver is huge,” he concludes. “We’ve not been very effective at communicating this to the industry in the past. That needs to change – and when it does, we will find our value in the eyes of contractors and clients rising, as will the added value we can provide to them.”



Early specialist involvement: what the experts say

Early contractor involvement has been a subject of much discussion across the construction industry in recent years. But while main contractors are now often involved much earlier alongside architects and consultants, specialist contractors find themselves called in much later all too often. Our experts make the case for specialist involvement in the vital formative period of major projects.

Ana Carvalho, Area Design Manager:

The early contractor involvement debate often focuses in too closely on price – reducing expense for the client and boosting margins for the supply chain. But it's not about just saving money. It's about making the building better, safer and greener.

Perhaps most importantly, it's also about reducing risk. If specialists are involved at an early stage, we can identify risks that other parties may not have spotted, and put solutions in place to mitigate them. Saving money is important – but not as important as improving safety and saving lives.

Specialists can help do all of this if we're given a voice in the decision-making process – not just during design phase, but through the entire project. And it is beholden on us to raise awareness of this fact, doing everything we can to explain to clients and main contractors what we could have done differently and how the project would have been improved as a result. It's the only way to educate the industry and make early specialist involvement the norm.



Damien Kilkenny, Business Development and Major Projects Manager:

There are notable developers who have embraced early contractor involvement. Land Securities are well known for getting specialists involved at very early stages of projects and committing to a pipeline of work with them. It gives them visibility of their supply chain in the long-term and a guarantee of the quality of the finished product, while costing them a lot less in the long term. For the specialists, it means certainty and consistency, which ultimately encourages a higher standard of work.

The blunt reality is that if specialists are the last people to get involved, we can't add the value that we want to. If we are brought in early and there is some assurance that we won't lose out to a cheaper provider when it comes to tender stage, there really is no limit to the expertise and benefit we can bring.



Andrew Egglesden, Plant Manager:

Piling contractors and other specialists are sometimes viewed as a simple commodity. But we want clients to understand that buying something as a commodity means they'll get a commodity solution.

Sometimes it feels like piling is treated as an afterthought. Lead time is becoming a real issue. All too often we're receiving information on the logistics and requirements of a site 3-4 weeks before it's due to begin, due in part to the relentless reviews to reduce costs which inevitably pushes back decisions. Unfortunately, that's nowhere near enough time to comprehensively evaluate the site and scan for any potential problems, let alone to look at innovative, bespoke solutions that could cut programme time and save money.

You often hear "With the benefit of hindsight..." in this industry – far too often, in fact. It really goes to show that actually we should be focusing on the benefits of foresight. That's what specialists like Bachy Soletanche provide. With more lead time, we can add huge amounts of value to clients and main contractors.

David Hard, Chief Engineer:

Early contractor involvement can be a double-edged sword. Specialists want to be involved early and to be able to help clients to make the right decisions at the front end, but you're also aware that early involvement doesn't automatically mean the business will go to you – even if your ideas and suggestions are taken on board! This is a fundamental problem hindering early contractor involvement: specialists will always be reluctant to provide valuable expert guidance up front if it doesn't result in work further down the line.

This conundrum really goes to the heart of one of construction's biggest challenges, which is an industry-wide reluctance to share and collaborate. People are very suspicious and protective – sometimes with good reason, because they've been burned before. But early contractor involvement requires collaboration and trust from the get-go, and recognition or reward for the advice that's being provided.

We need a cultural shift – to move away from the "this is just how it's always been" mentality, towards a more holistic and collaborative approach. If we crack this, we crack the early contractor involvement conundrum, and the whole industry will benefit.





Risk and reward

Ignoring possible risks at the start of a project may reduce up-front costs – but it’s a false economy that will see you paying the price later, says **Ian Acreman, Bid Manager Major Projects.**

Risk is a very important subject for ground engineering specialists. Because our work takes place below the ground, we cannot immediately see areas of potential risk – we need to carry out extensive site investigations and rigorous tests to understand the ground in which we’re working and how its properties may impact or influence the design and construction of the structure above it.

If a ground engineering specialist fails to interpret this vital information correctly or identify possible risks, a project can face serious problems. It’s not just the risk of a catastrophic failure of a structure, although this is of course the ultimate concern. Minor problems with foundation solutions are often very challenging to fix later in a project, and can have significant knock-on effects on programme timescales and costs.

As specialists, it’s our industry’s responsibility to ensure that this due diligence occurs and that possible risks are factored into our recommendations to clients. Yet all too regularly, we are seeing risks being either missed or ignored at tender stage, with serious implications further down the line.

“The lure of cheap solutions is getting stronger by the day, but you need to be very careful. If it looks too good to be true, it probably is.”

Ian Acreman, Bid Manager Major Projects

At Bachy Soletanche, our approach is always to create a design solution that encompasses and tackles as many of a project’s risk factors as possible. If we believe a scheme design will not work or will lead to unnecessary risk, we will notify clients and identify a practicable solution. Does that mean that our costs will sometimes be higher? Yes, and with good reason – the solution we are proposing is tackling all the possible challenges that we have identified from the benefit of our experience and expertise.

Identifying and tackling these risks at the front end will save significant amounts of money in the long term – not just in terms of physically sorting the problem, but in the lost revenue experienced as a result of late completion. In the case of a shopping centre or major retail outlet, for example, that could be hundreds of thousands of pounds a day – all because the decision was made to save a negligible percentage on ground engineering costs at the front end.

When the industry is in the midst of a race to the most economical bottom line and cost is still king on every tender, the lure of cheap solutions is always going to be strong. But these costs are coming in 10% or 15% cheaper for a reason – because they are heavily qualified and have not accounted for real risks. If it looks too good to be true it probably is, and falling for this false economy will cost clients more in the long term.

The allocation of risk and agreeing who takes what is vital to an open, honest and transparent relationship.

The evolution of procurement

Procurement had become a bit of a dirty word in the construction industry. But things are changing. We ask our own **Procurement Manager, Jemma Thompson**, how the discipline has changed in recent years, and where it is going in future.

Procurement hasn't enjoyed the best reputation within the industry in the past. Is this changing?

Procurement in construction has advanced and evolved a great deal. People from all disciplines are realising the value that a strong procurement team can bring to a company. More importantly, they recognise that the procurement function cannot operate in a vacuum and needs to be closely aligned with corporate strategy, commercial value and better understanding of risk. Slowly but surely, procurement is getting a seat at the top table, and it's having a real impact.

What's important to the modern procurement person?

As buyers we must show integrity and professionalism, and always ensure due process. Our reputation must be impeccable; we want to be the customer of choice with key suppliers to ensure we receive the best product and service at a reasonable price. Relationships need to be built on trust and transparency, with a strong understanding of each other's business and specific requirements.

Surely it's all about the bottom line?

The bottom line is always going to be important: when is it not in business? But there's much more to procurement than money. Quality. Safety. Sustainability. Risk management. Regulatory compliance. Relationships. Lead Times. These are all firmly at the top of our agenda, and they directly influence our purchasing decisions.

Sustainability and corporate social responsibility, for example, may have fallen down the agenda for some in our industry, but for us it remains extremely

important when it comes to choosing who we partner with. Legislation like the Modern Slavery Act is vital in our sector and we do a lot of work to make sure everything we buy and everyone we work with complies with the standards set by government.

Ultimately, what we want is key supply chain members on board where we can look at working in partnership, developing innovations and helping all parties to successfully advance together through value engineering.

How does Bachy Soletanche handle its own supply chain?

We have a significant annual spend across material, plant and sub-contract trades. We ensure all our suppliers and sub-contractors have gone through a verified approval process before placing any orders. We ensure that high risk commodities such as reinforcement suppliers get audited at least twice a year. Many of our key supply chain members will undergo quarterly meetings with us as part of their KPIs, held within our framework agreement.

We want to get to a place where we benefit from strategic alliances with a number of key supply chain members which we know and trust. If we have a strong supply chain, we are able to do our job better, which ultimately enables us to do our job better for our customers. That is good procurement in my book, and it's why having procurement that's aligned with your wider business strategy is so important.

What we don't want to do is find ourselves in a place where we're trying to squeeze the most we can out of our suppliers for the smallest price possible. While we don't hand our suppliers a blank cheque, we don't believe that penny pinching is a strong basis for a successful relationship or the best way to get the product or service we require.

What can the industry do to make better use of procurement experts?

The industry talks a lot about early contractor involvement – but we also need early procurement involvement! Too often procurement teams are handed a bundle of indents and told to make a

decision, without being involved in any of the crucial discussions that led to that point. If that's the case, it's more than likely that the decision will default to price, rather than the broad range of other factors that should be considered.

It works from the other side too. As a business, Bachy Soletanche is trying to get me and my team actively involved when we tender for projects. I may not be able to provide much insight on the engineering side, but I can advise on fluctuating material prices, on wider economic issues, and on supplier challenges – all of which can be hugely valuable to our customers and their projects. Involving procurement in big decisions is something that should be happening across the industry, at all levels of the supply chain.

Training is also key. We are working on Chartered Institute of Procurement & Supply (CIPS) training: a 3-4 year programme which is the registered qualification for procurement specialists. We are also doing a lot through the CITB Sustainability Supply Chain School, which Bachy Soletanche is proud to be a part of. We're bringing procurement into the 21st century!

Does 'buying local' still matter for a global company like Bachy Soletanche?

We have a responsibility to the local community to continue to use local suppliers. Our business can make or break an SME, and we wholeheartedly try to support these companies wherever possible. Being a socially responsible contractor is very important to us.

What's the most important lesson that the construction industry can learn from procurement?

We say knowledge is power, but sharing that knowledge with the right people is even more powerful. Share. Be transparent. Be clear and give ample notice. Most of all, work together. If we do, the value that can be added to a company is unbelievable and that then gets passed up and down the chain, to the benefit of all.



Changing the debate on cost and value

A final word from **Bachy Soletanche**
Managing Director, Chris Merridew

In 1998, Deputy Prime Minister John Prescott's Construction Task Force advised that the construction industry replace competitive tendering with long-term relationships based on clear measurement of performance and sustained improvements in quality and efficiency. The rationale of the Egan report was clear and simple: that "cut-throat price competition" and "inadequate profitability" benefit no one, and were detrimental to the "long-term health" of the industry.

Nearly 20 years later, it's clear that not much has changed. Whether a complete departure from competitive tendering is desirable or even possible is the subject of some debate – but what's certain is that something needs to change in our industry, and fast.

Bachy Soletanche believes that it is beholden on all parts of the construction industry supply chain to change the tenor of the conversation around cost and value. There is no one party that can achieve this on its own – but if we all commit to a different, more collaborative way of working, we can start to make a change for the better.

There are a number of ways that we are committing to make this change, and to deliver even more value for our clients across the industry:

Early project involvement

We always encourage our clients to get us involved as early as possible, to benefit from the expertise we can provide on geotechnical and initial project issues. Make sure to use us to our full potential by involving us at design stage.

Consultancy workshops

If you have a complex project requiring geotechnical advice at a very early stage, contact one of our technical experts. We would be happy to hold a technical workshop with you to discuss your project and brainstorm some possible solutions.

Key client initiative

We are building closer links with our key clients so we can feel the mutual benefit of our strategic partners and supply chain. Contact us to find out more.

Training junior engineers

Bringing through the next generation of geotechnical specialists is very important to the future of our industry, and we have invested heavily in our own skills and training programmes. If our clients have young engineers that could benefit from specialist geotechnical training, we are happy to hold workshops and seminars, free of charge, to introduce them to the basics. Get in touch with us to find out more.

Give us feedback

Feedback is incredibly important to us. If we are unsuccessful on a tender, please let us know why we lost and what we could do better. When a project is complete, tell us what we did well and what we didn't do so well. This honest, open discussion is what will help us to improve and bring greater value to our clients in future.



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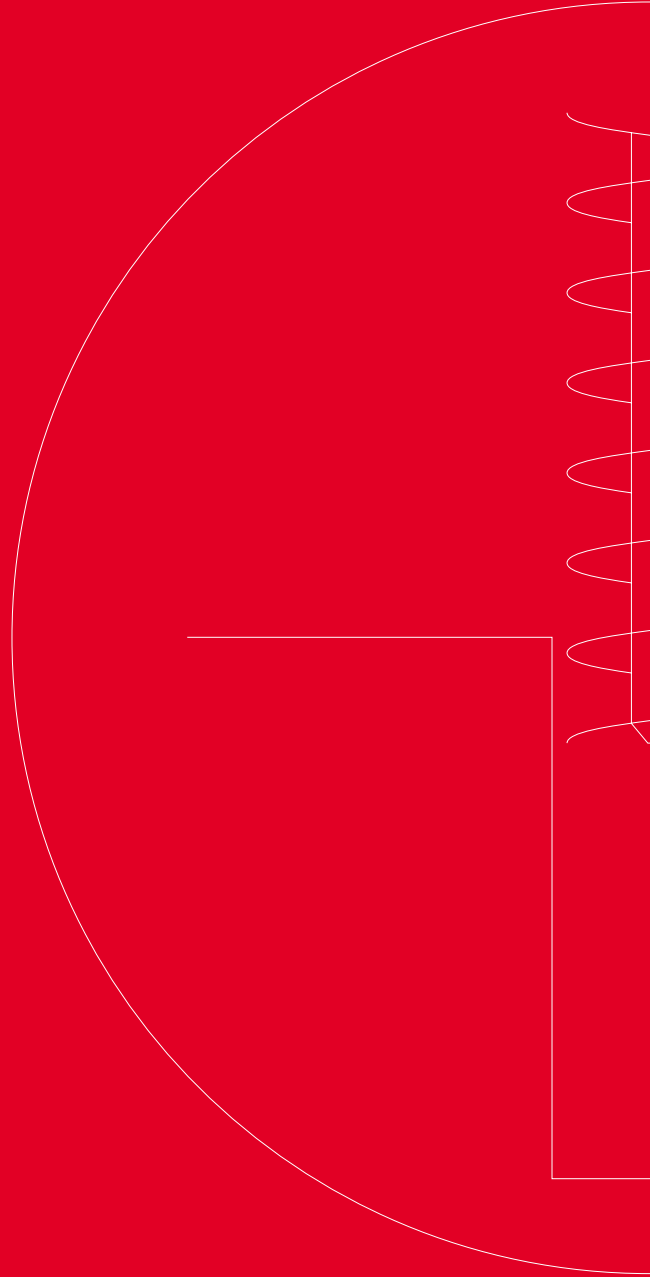
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