Managing Director's Report
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President & CEO

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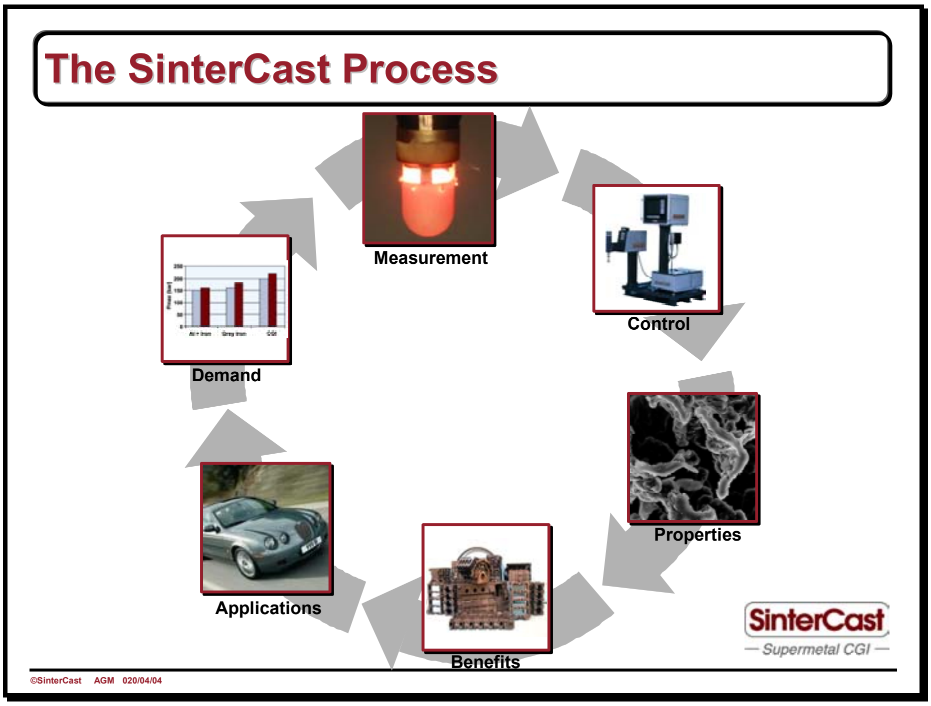
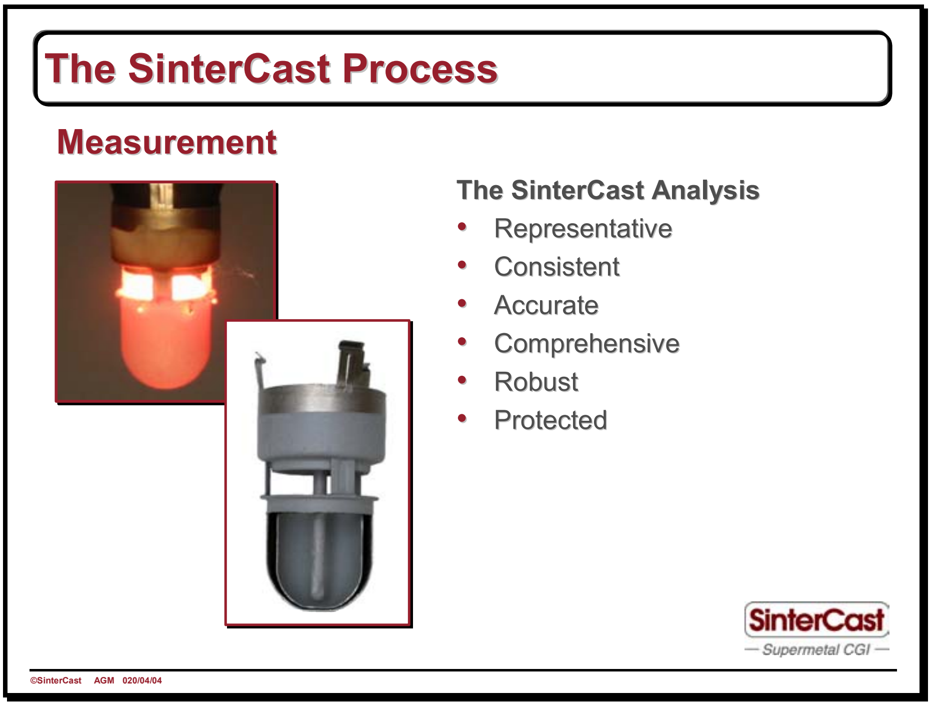
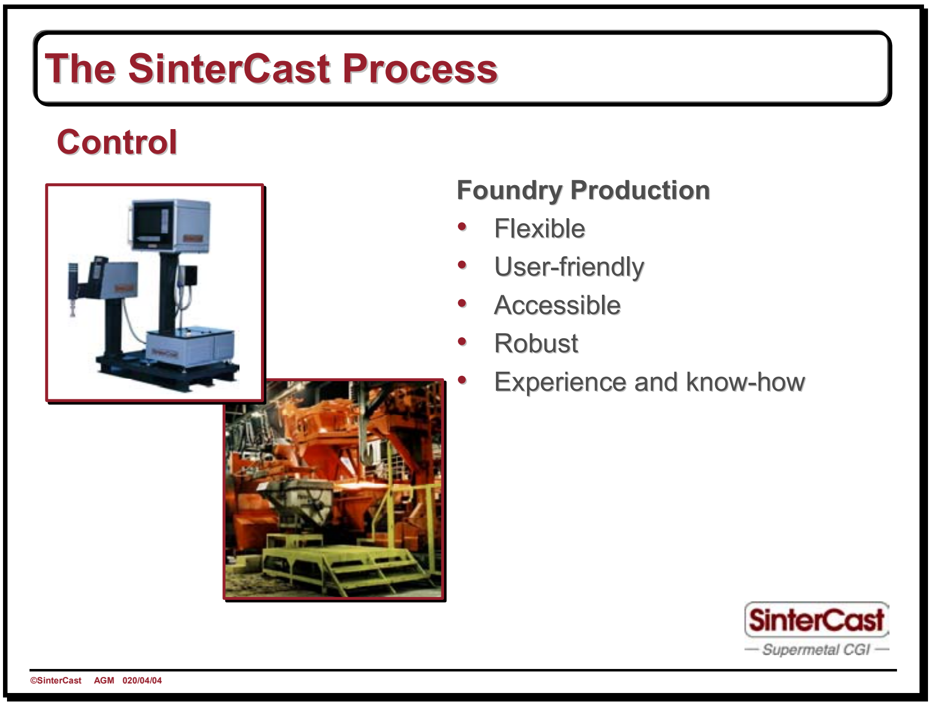
With the presentations provided by Bob Dover and by Tupy as background, I would like to spend the rest of our time together this afternoon discussing the SinterCast Process. Normally, when we refer to the SinterCast Process, we mean our technology, our core foundry measurement-and-control. However, in this group today, I would like to present the SinterCast Process in terms of our entire business cycle.



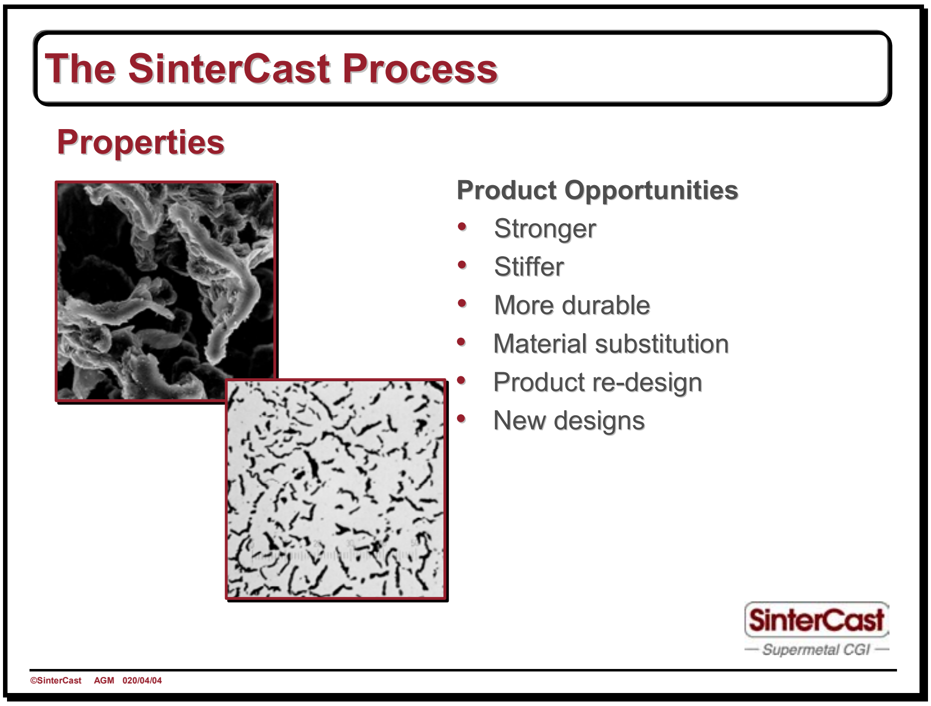
The overall SinterCast Process begins with our core measurement-and-control, but this technology is simply a means of providing a better material with consistently superior properties - Compacted Graphite Iron. These improved material properties then provide benefits to a variety of different products, and the products generate new applications in the industry which, as Bob Dover said, continue to drive the market demand. The improved products increase the state-of-the-art and motivate additional high performance products. Finally, the increased market demand has the ultimate effect of expanding the need for our process control technology. This afternoon, I would like to elaborate on each of the individual steps in the SinterCast Process.



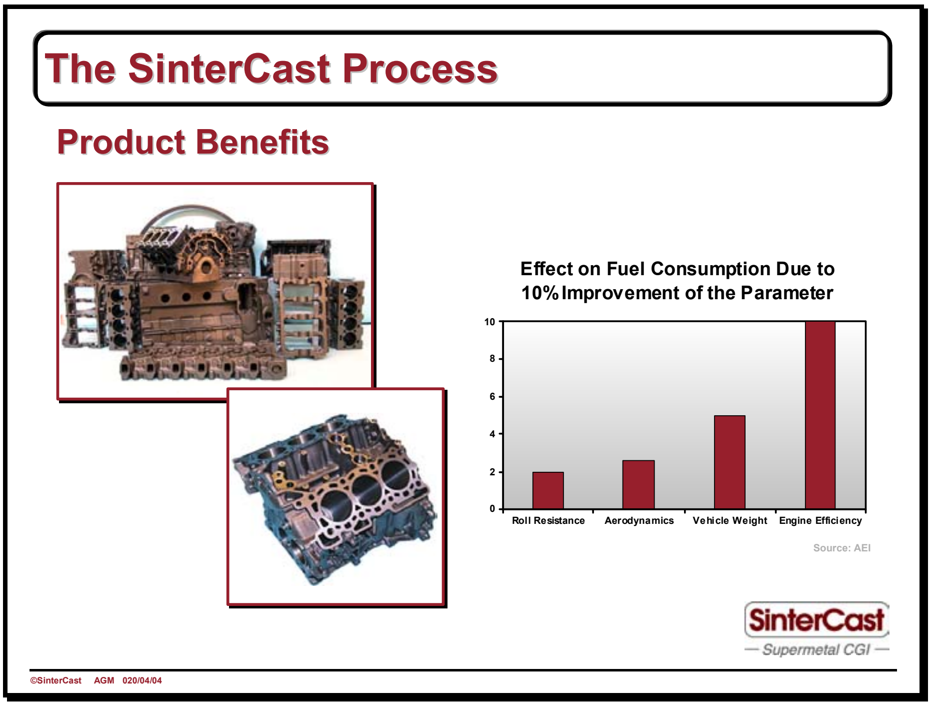
The SinterCast business cycle begins with the control measurement. As we say in process control: *you can't control what you can't measure*. The SinterCast measurement enables the foundry to see inside the iron and understand its behaviour. Based on this understanding, the foundry can take a corrective action to make each ladle consistent. There are a lot of technical advantages in our measurement, in our SinterCast analysis. These advantages begin with a representative sample. As we saw from the video, we take a spoon of iron from the ladle and we lift that spoon over the Sampling Cup. In comparison to conventional thermal analysis techniques which use an open sand cup, where the iron is poured into the cup, the SinterCast sampling technique does not expose the iron to the oxygen in the air. For SinterCast, the iron in the SinterCast Sampling Cup is exactly the same as the iron the ladle. We know what we are measuring. The SinterCast sampling conditions are also very consistent. If you consider that we are measuring hundreds and thousands of batches of iron, we need to be certain that measured result is due to differences in the behaviour of the iron. If both the iron and the sampling conditions are changing, we can't determine the source of the measured variation. Our consistent sampling conditions allow us to isolate our measurement on the behaviour of the iron. The SinterCast analysis is also very accurate. A key temperature for us is 1150ºC. This is the temperature at which the iron begins to solidify and, at this temperature, we have a measurement variation at the 99% confidence level of just plus/minus 2.29ºC. That is less than two-tenths of a percent of measurement variation, and it's not just the variation coming from the thermocouple. It is the measurement variation from the entire System including the thermocouple, the Sampling Cups, the way the Operator obtained the sample and the electronics and the data acquisition system. So we have a very accurate starting point. The SinterCast analysis is also a comprehensive measurement. The Sampling Cup provides all of the information needed to reliably produce CGI castings. It measures the parameters that determine the shape of the graphite and the shrinkage tendency of the casting. Most importantly, it not only tells us how the iron is behaving at the moment of sampling but it also forecasts how it will behave after fifteen minutes of casting. So, in the two tonne ladle at Tupy, we know that the first casting is good and we also know that the last casting is good. The SinterCast analysis is also very robust. Since we began producing and delivering the steel Sampling Cup to our Customers in 1999, we have not yet had a single return for defective product. Finally, our analysis is well protected. It is the subject of eight of our twenty-five patents. These are the technical advantages that we bring to the industry and these are the advantages that have earned us the technical respect of the foundries and the OEMs.



From the accurate and comprehensive measurement, we obtain a complete understanding of the behaviour of the iron. This understanding allows us to determine response actions to control the overall process. The System 2000 is a flexible System. The hardware and the software can be configured to fit any foundry layout and any process flow. So, when Tupy talks about a new installation at their Maua foundry, a layperson walking through the Joinville foundry and the Maua foundry would think that they are identical Systems. The two Systems would have the same boxes, the same brand image and the same SinterCast logo. But to our engineers, they are completely different Systems with totally different configurations to suit the requirements of each foundry. The System 2000 is user-friendly. The operators in the foundry learn how to use our System with only three or four days of training. It is an accessible System. Whereas the operators only need to obtain the samples, the engineers are able to go inside the software, to configure the System for the control of their own production and to calibrate the System for new products. The System 2000 is not a black box. There is a lot of open access for the foundry engineers. When we talk with our Customers, we refer to it as a Zebra. There are a lot of white areas where they can go in and access the software, but there are also black areas which protect our know-how. I think that for both our Customers and our corporate security, we have struck the right balance. The System 2000 is robust. In our Customer foundries, we have now been operating for a total of 41 years, without any significant failures affecting production capability. But most importantly, the System 2000 is not just a series of boxes that we put on the foundry floor and walk away from. The System 2000 is the engineering experience and the know-how that stands behind the product. We work together with the foundry to define the requirements of the System and the process flow. If you consider the pouring car that was shown in the Tupy production video, our engineers worked together with the company that designed and assembled the pouring car in Germany. They shared ideas about the process flow and they shared control logic. So, as the wirefeeder moves into place and ladle lid comes down, there is a lock-out that prevents the wire from feeding before the lid is in place and there is also a time-out which prevents the pouring car from pouring when the iron becomes too old. These signals are provided by the System 2000. We integrate ourselves directly into the foundry process.



With a reliable process control, our foundry Customers are able to produce a material with consistently improved properties. CGI is stronger than either grey iron or aluminium. CGI is stiffer than either grey iron or aluminium. And, most importantly, it is more durable. When we speak of durability, we mean the fatigue strength. For the design engineer, fatigue strength is a measure of how much load can be put on the component while still being certain that it will never fail. And that is what the engineer must design to - zero failures. With CGI, we have approximately twice as much fatigue strength as in normal grey cast iron. In comparison to aluminium, depending on the temperature, CGI has anywhere from two to fives times higher fatigue strength. The improved properties of CGI allow designers to apply it for material substitution. Where a component may be failing in the field, the design engineer can use the stronger material to prevent the current failures. CGI can also be used for a product re-design to take an existing product and reduce the weight or increase the performance. As Bob Dover mentioned, when an OEM starts a new engine program, that engine must remain competitive for ten to fifteen years. And the market doesn't stand still during those years. There must be enough durability in each new product to allow for future upgrades to ensure that the engine remains competitive throughout the entire life cycle. Finally, CGI can be used for new, clean sheet of paper designs, where the designer can take full advantage of the properties.



The improved properties of CGI lead toward new benefits in the end component. Before we discuss individual results for weight reduction and other benefits, I would like to show the importance of the area where we are focused, our core market of cylinder blocks and heads. This is the right target market for SinterCast. It is the market where CGI brings the most benefit because of the simultaneous mechanical loading and thermal loading requirements, and it is the right market because the cylinder blocks and heads are two of the heaviest components in the vehicle, thus providing volume. We can see from this overhead that our core focus is also correct in terms of benefit to the vehicle. This graph shows the effect on improved fuel consumption due to a 10% improvement of four different parameters. For example, for rolling resistance, the resistance of the tyre against the road. A 10% improvement in rolling resistance provides only a 2% improvement in fuel economy. And, generally speaking, the industry is moving in the wrong direction on this point. Vehicles are moving toward wider tyres, low profile tyres, and also run-flat tyres. All these things actually increase rolling resistance but make the vehicles more attractive and more sellable. For aerodynamics, or the coefficient of drag, for a 10% improvement in aerodynamics, we have only about a 3% reduction in fuel economy. In contrast, a 10% improvement in vehicle weight provides a 5% improvement in fuel economy, and for engine efficiency, the fuel economy benefit is 1 to 1. And these last two areas are the areas where SinterCast is focusing. We are actively contributing to improved engine efficiency and weight reduction. These are two of the main areas where the automotive industry is focusing and these are the areas where SinterCast provides solutions.

The SinterCast Process

Product Benefits – Weight Reduction

Engine Size	Engine Type	Grey (kg)	CGI (kg)	Percent Reduction
1.6 L	I-4	35	25	29
1.8 L	I-4	38	30	21
2.0 L	I-4	32	27	16
2.5 L	V-6	57	45	21
2.7 L	V-6	xx	xx	(15)
3.3 L	V-8	xx	xx	(10)
4.0 L	V-8	xx	xx	(15)
4.6 L	V-8	73	60	18
5.8 L	V-8	92	73	21
9.2 L	I-8	158	140	11
12.0 L	V-6	240	215	10

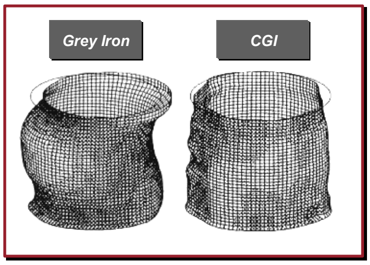
— Supermetal CGI —

Now let's look at results from different engine programs that we have supported, first for weight reduction. This overhead shows a series of engines from 1.6 litre displacement up to 12 litres. It includes In-line and V-type engines. Petrol and diesel engines. Engines in Europe and America and Asia. A very wide mix. The overhead shows the original weight in grey cast iron, the redesigned weight in CGI and finally the percent weight reduction. Percent weight reduction can be a misleading term because, of course, if you start with an old block you can make a relatively large weight reduction. And, if you start with a new start-of-art design, CGI will make a lesser contribution. But generally the weight reduction is in the range of approximately 10-20%. The interesting results are the three engines in the middle denoted by 'x'. The 2.7 is of course the Ford-PSA. The 3.3 is the original Audi V8 that started production at Halberg in 1999 and the 4.0 litre is the upgraded Audi engine that was released just over a year ago. We have 'x' in the column for grey iron because the blocks were never produced in grey iron. We have 'x' in the CGI column because our Customers don't want us to disclose the weight of their products. The percent reduction values provided in parentheses are internal results from either Ford or Audi stating that: if we had to make that block in grey iron we would have needed 15% more weight to make it survive.

The results in this overhead provide a comparison between CGI and grey iron. But we can also discuss the comparison to aluminium. As Bob Dover said, we don't sell engines, we sell vehicles. Same for us. We don't put cylinder blocks into vehicles, we put engines into vehicles. Of course a CGI block will be heavier than an aluminium block, but focusing on the weight of the engine block is the wrong comparison. We have supported one V-engine program that was developed simultaneously in aluminium and CGI. If you remember that orange area in the bottom of the block in the Tupy production video, where we have to absorb all of the fatigue load, well, because aluminium is not as strong as CGI, each one of those supports has to be thicker. The final result was that the aluminium engine was more than 30 mm longer. In a V-engine that also means that each of the two cylinder heads are more than 30 mm longer and the crankshaft and the camshafts and the oil pan and all of the other parts are also longer, and therefore heavier. Ultimately, the CGI engine provides overall weight reduction potential because it is shorter. For the V6 program, the fully assembled CGI engine was the same weight as the fully assembled aluminium engine. It was also more powerful, smaller, quieter and built to a lower production cost.

The SinterCast Process

Product Benefits – Cylinder Bore Distortion



Engine Displacement	Engine Type	% Improvement CG vs Grey
1.8 L	I-4	18
1.8 L	I-4	20
2.2 L	I-4	28
2.7 L	V-6	24
4.6 L	V-8	22

SinterCast
— Supermetal CGI —

Our next overhead provides results for cylinder bore distortion. Because CGI is stronger and stiffer it is better able to withstand the combustion forces in the engine and it is less likely to expand outward like a balloon. These results show that CGI incurs approximately 20 to 25% less cylinder bore distortion than normal grey cast iron. As the CGI cylinder bore will not expand as much, the engineers can specify a lower piston ring tension. Ultimately, this results in less frictional losses and less oil consumption. So again, a CGI benefit that is good for engine efficiency, and good for the environment. Important benefits for CGI.

The SinterCast Process

Product Benefits – Noise Refinement

Engine Size	Engine Details	First Torsional Frequency Mode	Sound Pressure Level (dBA)
13.8 L	I-6	+8%	
12.0 L	V-6	+8.3%	-0.5 to -1.0
8.0 L	V-8	+10%	Variable
5.8 L	V-8	+18%	
4.6 L	V-8	+12%	
2.8 L	I-4	+8%	Variable
2.4 L	I-4	+9%	-1.0 to -1.5
2.2 L	I-4	+16%	-1.0 to -1.5
2.0 L	I-4	+7%	-1.0 to -1.5
2.0 L	I-4	+8%	-1.0 to -1.5
1.8 L	I-4	+12%	Same
1.6 L	I-4	+9%	Same (-29%)

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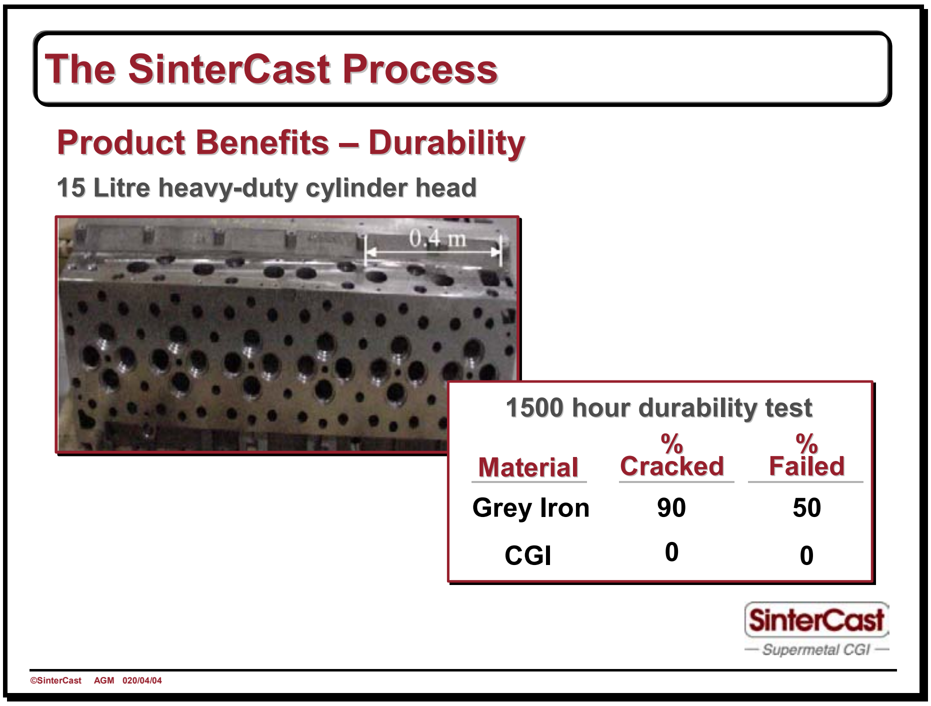
— Supermetal CGI —

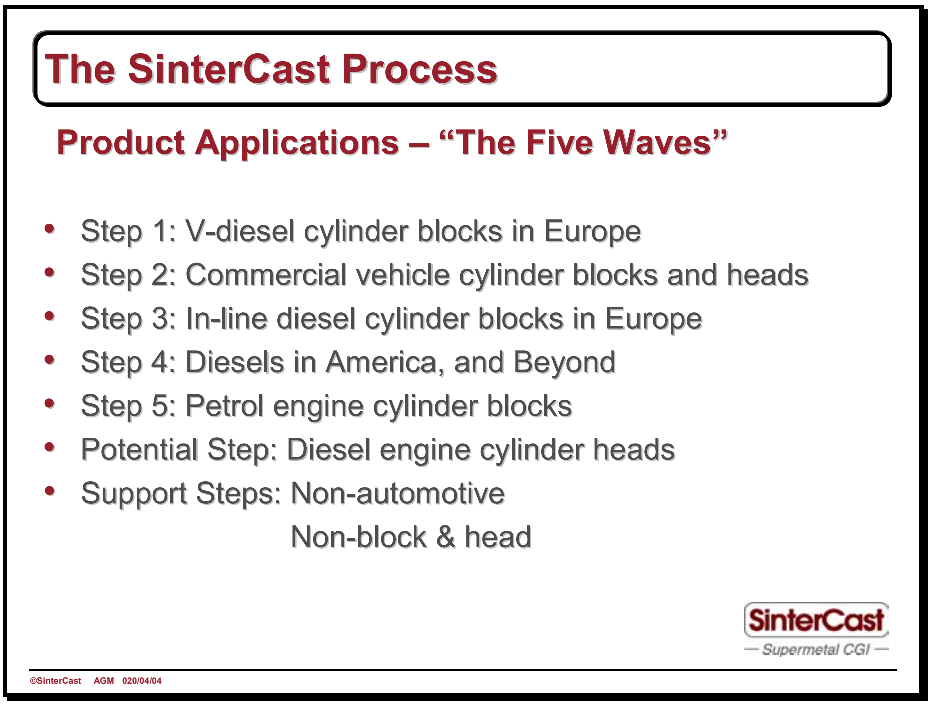
The next overhead shows engine noise results. It is not my ambition this afternoon to discuss the technical reasons for noise reduction. But what we see here again is a trend toward lower noise, and this overhead also gives a better feeling for the number of products that have been developed to this level. Generally, because CGI is stiffer than grey iron, it vibrates at a higher frequency, and this is the result that we see in the third column which shows that the resonant frequency is approximately 8-18% higher for a CGI cylinder block. As a result of this shift in the resonant frequency, the engines tend to run quieter. For many of these engines in this overhead, the noise level is 1.0-1.5 decibels quieter. Decibels are measured on a logarithmic scale, so a reduction in sound level of one decibel is equal to a noise reduction of about 6%.

When we produced the first Ford-PSA blocks and assembled the first engines for operating tests on benches and in sound chambers, one of the first remarks from the Design Team at Ford was just how quiet the engine was. It was so quiet that it even surprised the Design Team. And, when you first drive the new S-type you will have the same initial reaction - quiet. So, noise reduction is another important benefit of CGI.



Finally, I would like to present one example from a commercial vehicle engine durability test for a 15 litre cylinder head of an In-line six cylinder engine. Before any manufacturer will release a new product in the field, they will conduct durability testing where they operate the engine in very harsh conditions. While a component would normally fail in service after approximately one million kilometres, the durability test must compress the time to induce failure to just 50 or 60 days in the laboratory. The durability tests are extremely severe, running at full speed, then shutting off and repeating the cycle. From time to time during the test, the OEM will tear down the engine and inspect the cylinder head to observe the progress. Over the 1500 hour durability test, 90% of all grey iron heads developed cracking and 50% failed. The failure is similar to what you see in Formula 1 races when the engine cracks and the cooling water mixes into the combustion area and a lot of steam comes out the back. That is an outright failure. For the CGI cylinder head with the same design, the result of the 1500 hour durability test result was zero cracks, zero failures. You can imagine what this does to the confidence of a Design Team when they see results like this. They understand the potential of this material for their next generation of designs. They can push their engines harder and have more confidence in the field performance and reliability.

In this section about engine benefits, we have looked at 19 different engine examples. Some of these projects were done for development and learning purposes and won't go on to series production. Some of the others are already in series production. Beyond the group that we showed today, there are other components where we are actively supporting the development and that we haven't included in this presentation.

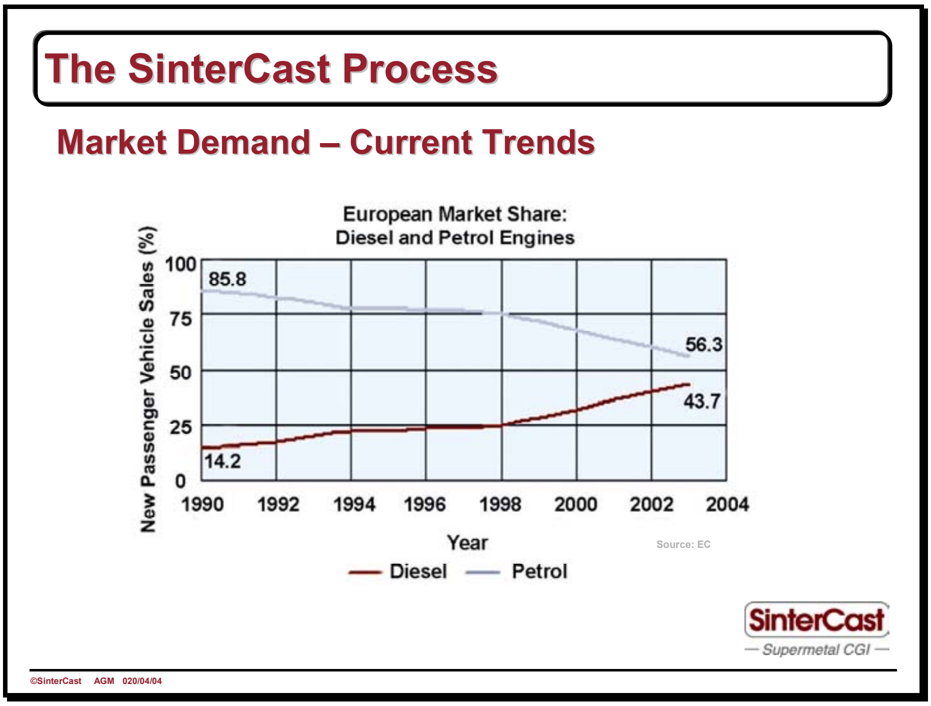


With improved products, we can have new and better applications in vehicles, and these applications relate to our Five Waves. We have discussed the Five Waves on our website and also in our Annual Report, so I don't want to go into a lot of detail today. However, I will make a few comments on each of the waves. The first wave is for V-diesels in Europe. This first step is positive, as good as we could have hoped. The market is growing and some of the six programs that Tupy referred to are in this category. It is a good reference for us. Step Two, commercial vehicles. No public announcements as yet, but a lot of good development. Of course, the installation at Tupy in Maua, which is their foundry for commercial vehicle cylinder block and head production, provides another positive indication of the progress of this second wave. The In-line diesels here in Europe are slower than we had initially thought, but are moving forward. We delivered prototypes last month for another new program and we are confident that there will be in-line diesel engine blocks in our future. As Bob Dover said, what we really need is the confidence in the machining and when we go from the V's to the In-line's there is a very big increase in volume. The initial programs in the first two CGI waves will provide the confidence that will allow the OEMs to commit to higher volumes. The fourth wave, Diesels in America, is shaping up to be a positive step for us. Each of the American OEMs is now developing diesel engines and looking toward diesels for their SUV and pick-up truck markets after the low sulphur comes in 2006. The fifth wave is for petrol engine cylinder blocks. We have always said that this wave is further out in time. However, some good initial development has been made. We expect to make first prototypes in Asia-Pacific later this year. The confidence needed for this high volume sector will be based on the experience from the early-wave programs. Here in the petrol engine sector, CGI can provide a cost-effective alternative to aluminium for weight reduction. Finally, we have a potential sixth step for diesel engine cylinder heads. I would like to come back to this opportunity in the next section, but before that I would like to read a short statement from an e-mail I received from a Chief Engineer of a European engine manufacturer on 30 March of this year:

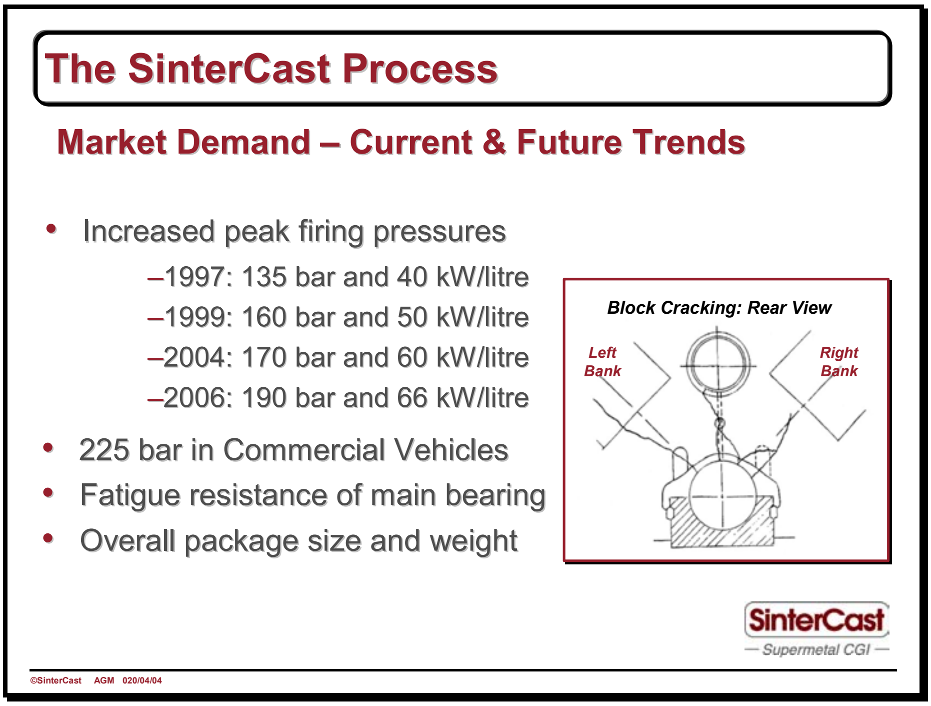
"I keep asking to myself whether we could have thin wall CGI heads, not only blocks". Cylinder heads will come. I think it will be an interesting market for us in the future.

In addition to the Five Waves in our core cylinder block and head market, we also have some support steps. Firstly in the non-automotive field, which is primarily the industrial power generation sector. We have successful series production with Daros and it looks as if the production could increase during the next years. We also have successful production with Rolls-Royce Power Engineering and most recently the new production that will ramp-up later this year for General Electric Locomotive engines in America. There is a second support step within the automotive sector for non-block and head applications. Here we are actively involved in development for CGI cylinder liners and also for brake components for commercial vehicles and clutches and flywheels for passenger cars. These support steps can provide important supplementary revenue for SinterCast.

I would now like to take a few minutes to discuss how we see the market developing over the next few years. The theme of this next section is "*It's not over*". If we look back to the engines that we drove in the early 1970's and compare those engines to what we have today, we see that there has been a huge improvement. But this development and improvement is not finished - *It's not over*. In the lobby of the advanced development centre at Ford in Dearborn, they display the engine that won the 1957 Indianapolis 500 race. The engine is 5.7 litres and it delivered 157 horsepower. Today, we get 157 horsepower from a 2.0 litre family car as we drive to the grocery store. *It's not over*.



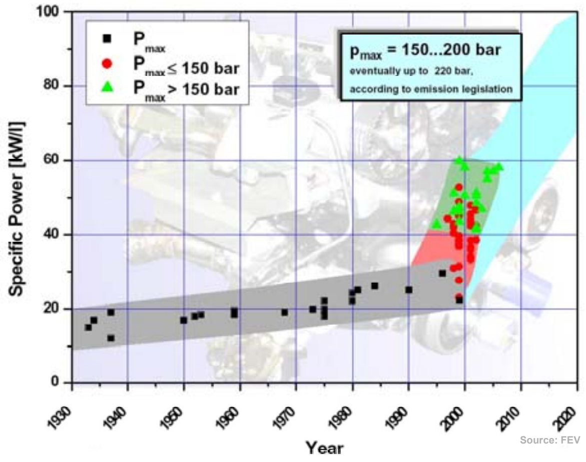
One of the most important developments in our market is the significant increase in diesel penetration here in the European market. Diesel penetration took a significant upturn in 1998 with the introduction of new fuel injection technology that increased the engine performance and refinement. The net effect of the increased diesel penetration is that it simply makes SinterCast's core market bigger. All growth for diesel is good for SinterCast. Even though we have petrol engines out in the final waves, in the near term, all diesel growth is good for SinterCast.



The reason that diesel penetration has increased is because the engines have become so much better. If we compare the engine of 1997 to the engine of today, there has been 50% improvement, from 40 kW/litre up to 60 kW/litre. As the engine performance gets better, the products become more attractive to the consumer. And, *it's not over*. We are already working on programs for 2006 that are targeting 190 bar and 66 kW/litre. These future engines will continue to need improved fuel injection technology, improved engine management systems and better exhaust gas treatment, and they will also need stronger materials. In the commercial vehicle sector, engines are already targeting 225 bar and, as these pressures are increased, the fatigue loads on the bottom part of the engine are increased to the point where fatigue cracking and failure can occur. The challenge to the designer is to prevent those fatigue cracks without making the block bigger or heavier. Of course, the best way to do that is with stronger materials.

The SinterCast Process

Market Demand – Future Trends



Source: FEV

SinterCast — Supermetal CGI —

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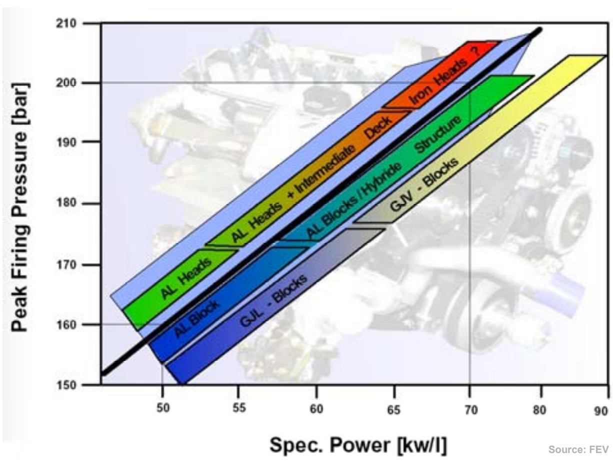
The next overhead, which we showed a simplified version of in our Annual Report, shows the historical development of diesel engine performance and provides a forecast for the future. This overhead shows the original data from FEV, the engine design consulting firm in Germany. In the early years, the market was characterised by indirect injection diesel engines with relatively low specific performance. Then, with the introduction of new fuel injection techniques, again around 1998, there was a significant upturn. Initially, with peak firing pressures up to 150 bar - the red dots - and more recently, with higher peak firing pressures above 150 - the green triangles. And, *it's not over*. FEV forecasts peak firing pressures reaching up to 200 bar and eventually as high as 220 bar depending on the requirement for emissions legislation. With an end-goal of 200 bar and 100 kW/litre, there is a clear demand for stronger materials.

The SinterCast Process

Market Demand – Material Limits



Source: FEV

SinterCast — Supermetal CGI —

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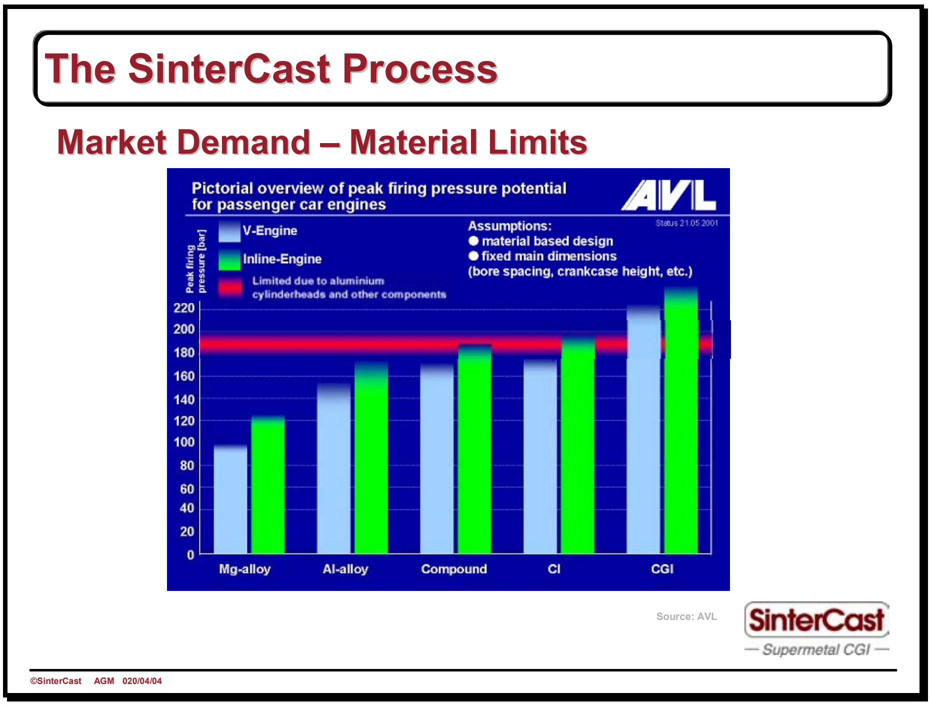
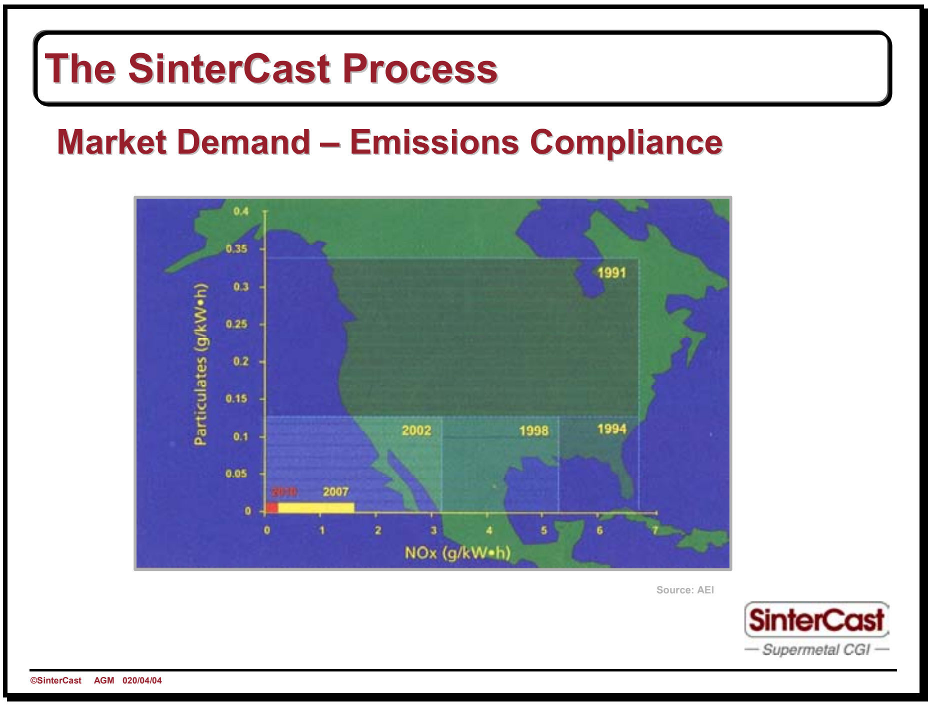
If we stay with FEV, and see how they present the development of engine materials, we see on the top half of this chart a representation for cylinder heads. The aluminium heads are reaching their limit around 170 bar, which is where we are today. There is potentially a design opportunity to introduce an intermediate deck or something like a girdle in the middle of the cylinder head to provide additional durability but, out in the 200 bar range, FEV is also considering cast iron cylinder heads. Just like SinterCast, FEV is saying that iron heads are a potential step as suggested by their question mark. The concern about iron heads is related to weight. The heads are at the top of the engine and this shifts the centre of gravity upward and thus affects the driveability and road handling of the vehicle. However, if we want to achieve our future performance targets, iron heads provide a solution.

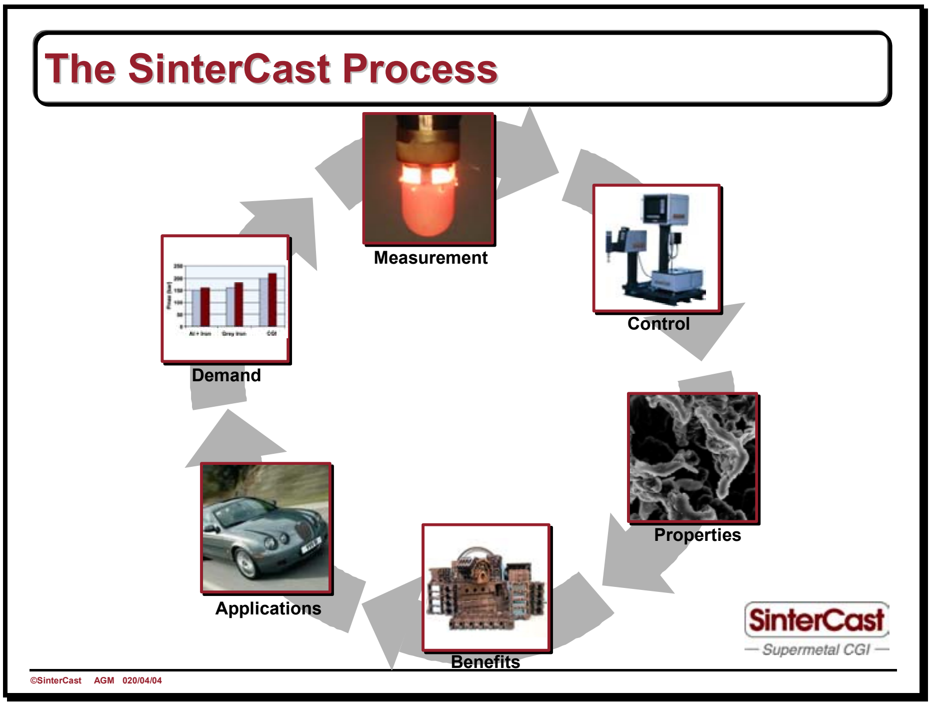
In the bottom half of the FEV materials graph, the aluminium block also reaches its limit at around 170 bar. FEV suggest a so-called aluminium hybrid block which refers to an aluminium engine block with a cast iron tunnel inserted at the bottom to carry the operating load. Of course, this design concept can achieve higher peak firing pressure limits, but it is also more complex than a normal aluminium block and more costly. The hybrid concept may provide a solution for some companies and for some higher value vehicles, but it is not the solution for the low cost, high volume average passenger vehicles. The FEV representation also shows the limit for GJL, which is the ISO designation for grey iron, at around 170 bar and, for the future development to 200 bar and beyond, CGI providing the best solution.



AVL, the Austrian engine design consultancy firm, has also developed a representation for material limits. A similar plot to this was included in our Annual Report, but here we show the full original AVL data. Again, the AVL analysis shows how each of the different materials runs out of durability, starting with magnesium, then aluminium, then a “compound” engine which is the aluminium engine with the iron tunnel in the bottom, and finally CGI having the highest potential and reaching beyond the target level of 200 bar. As you can see from the horizontal red line at around 180 bar, AVL shares the same concern with FEV about the future durability of aluminium cylinder heads. The industry has to look to new solutions for diesel engine cylinder heads, and this provides a potential opportunity for CGI.



The future challenges are not only related to the material limits, but also to emissions. Again, the same story: *it's not over.* While I don't have the objective to discuss emissions legislation in Europe and North America, this one overhead provides a powerful representation of how emissions legislation has changed over the past fifteen years and how it will continue to change in the future. So, even on the emissions side, *it's not over* and, to meet these requirements, the industry is going to need new engine management systems, new fuel injection technologies, new exhaust cast treatments, higher peak firing pressures and, of course, stronger materials.



The continued development of engine performance and the continued improvement in fuel economy and emissions will drive the demand for new materials and, this demand will, in part, be met by the use of CGI. The demand is the basis of our confidence in our breakeven. The demand is the basis of the six programs that Tupy referred to in their presentation which, when fully ramped-up to mature volumes, will alone be sufficient to secure our breakeven. There is a lot of CGI interest in the industry, and of course we have to convert that interest to mature volume. However, the initial volumes are sufficient to secure our initial breakeven and the programs in the later waves provide a continuous potential for our growth.

Thank-you.