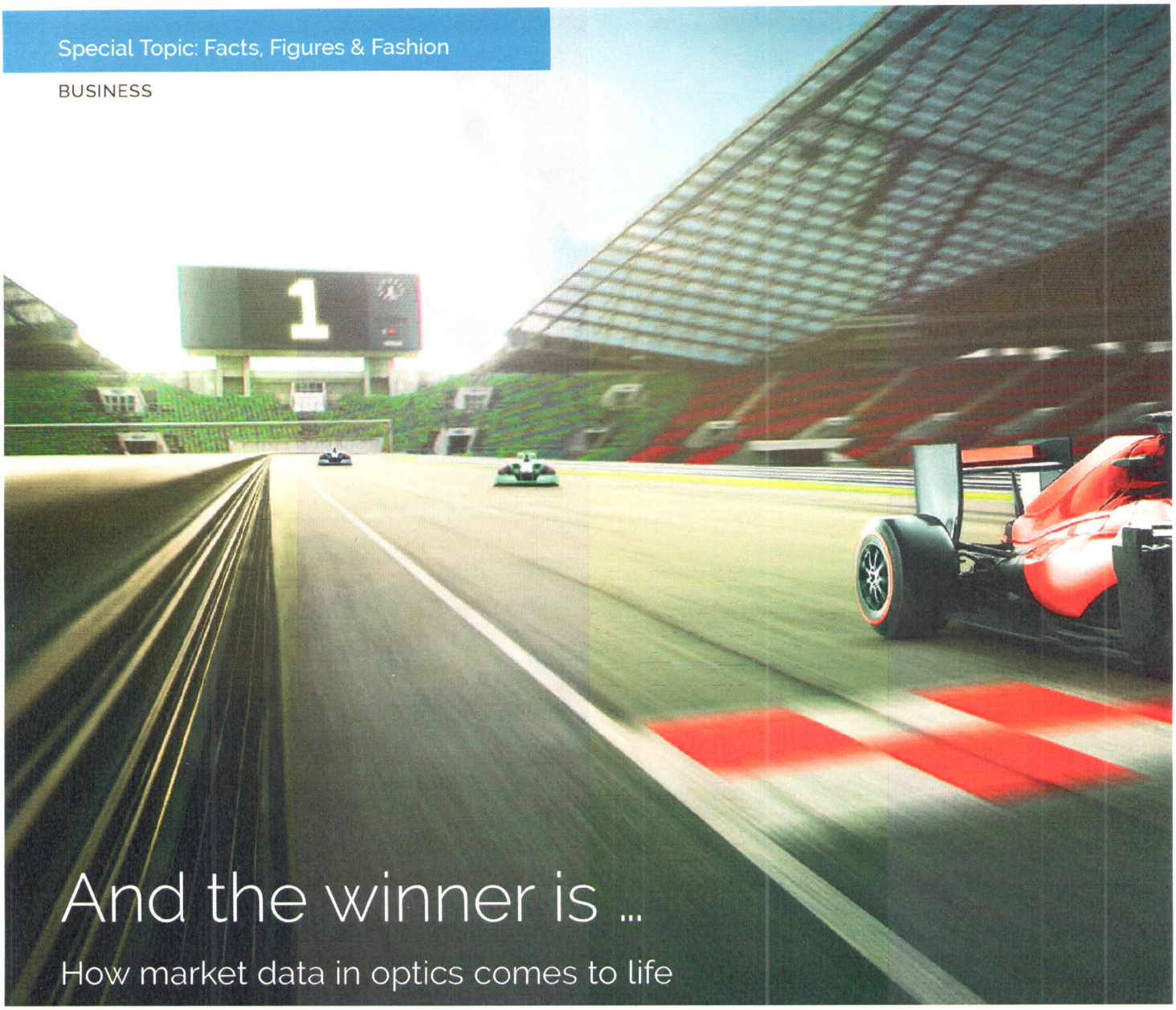


And the winner is ...

How market data in optics comes to life

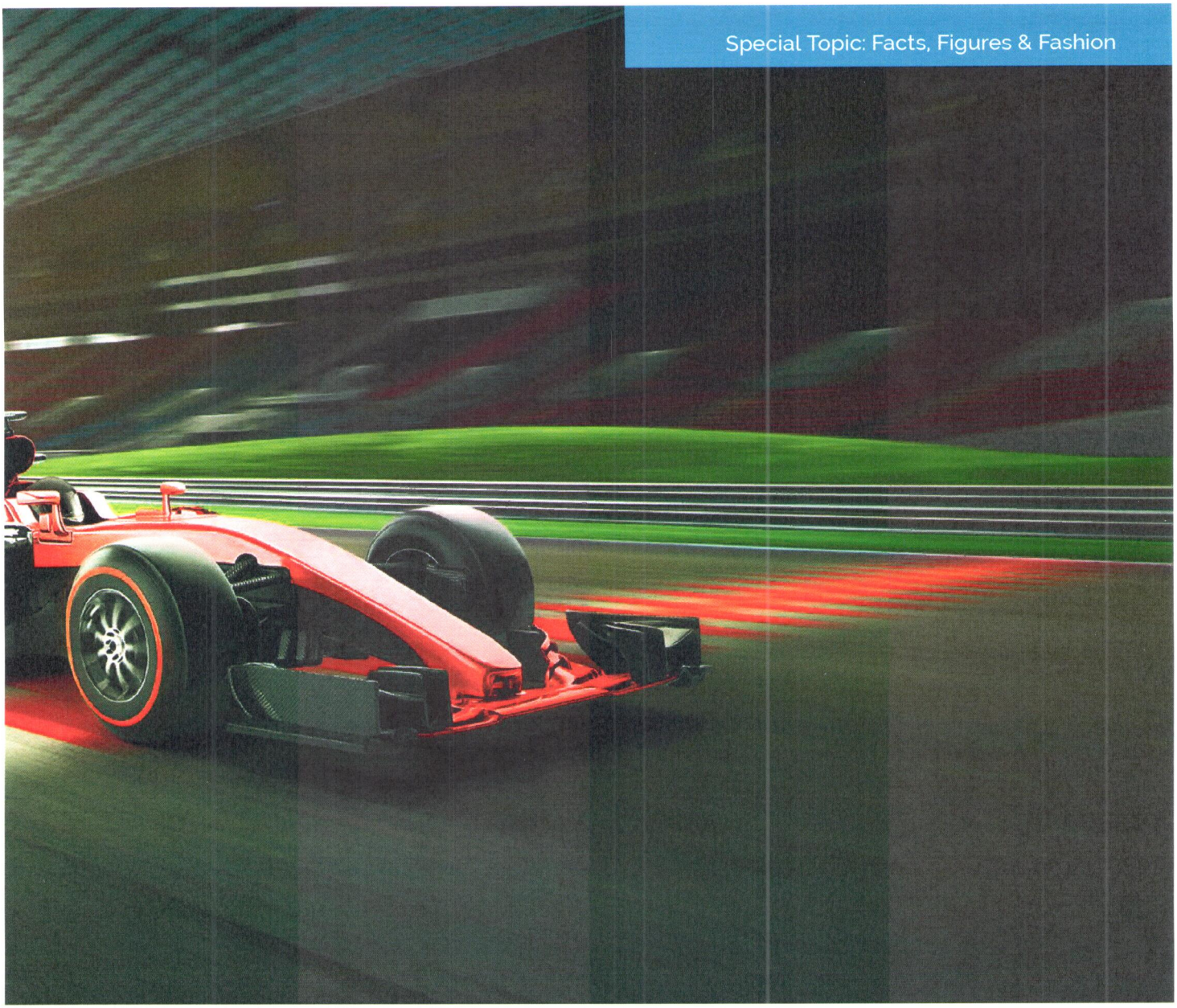
When Mark and Ingeborg Mackenzie began to conduct studies on the global optical industry in 2003, Ferrari won the Formula 1 with Michael Schumacher. At that time, the industry experts described Asia as the "Ferrari" of ophthalmic optics – and thus the undisputed number one on the world market.
In 2021, Ferrari is no longer a synonym for Formula 1 world champions, and the optical world market has also changed. But which three candidates are on the optical winners' podium today? And which country has the greatest future potential?

By Hanna Diewald

In this interview Mark Mackenzie explains how to create reliable market data, how and why COVID-19 has affected the global market in extremely different ways and how several countries have developed over the past 16 years. Some of Marks predictions from the year 2004 were absolutely right, whereas other forecasts turned out to be wrong. That does not surprise, as none of the most experienced experts could have predicted some of the global political events, which disrupted the world in the last years and therefore also affected the eyewear industry.

You have been researching the global optical market for 20 years. How did that happen?

I went into the optical industry in 1994. In 1999 I joined Carl Zeiss and I realized how difficult it was to find good research on the optical market. You could get research for one country that was good, but in another country, it was done in another way. I felt if one could conduct research across the optical industry with people who understand optics and using the same methods in every country, that this would be a service which could be of interest to other companies in this sector as well.



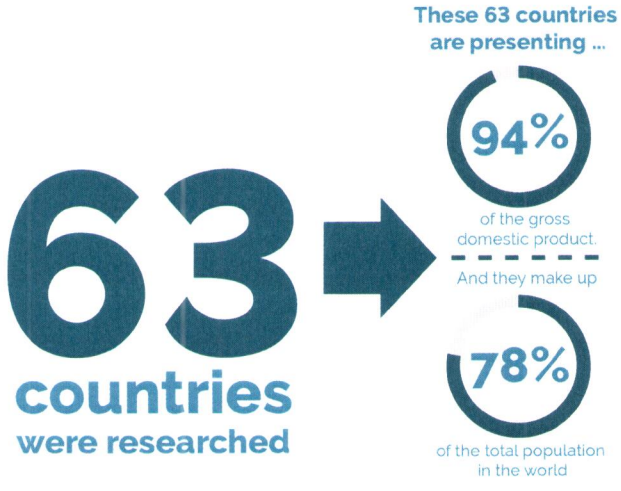
So, we started Strategy with Vision in 2001. In the last four years alone we have done 78 studies.

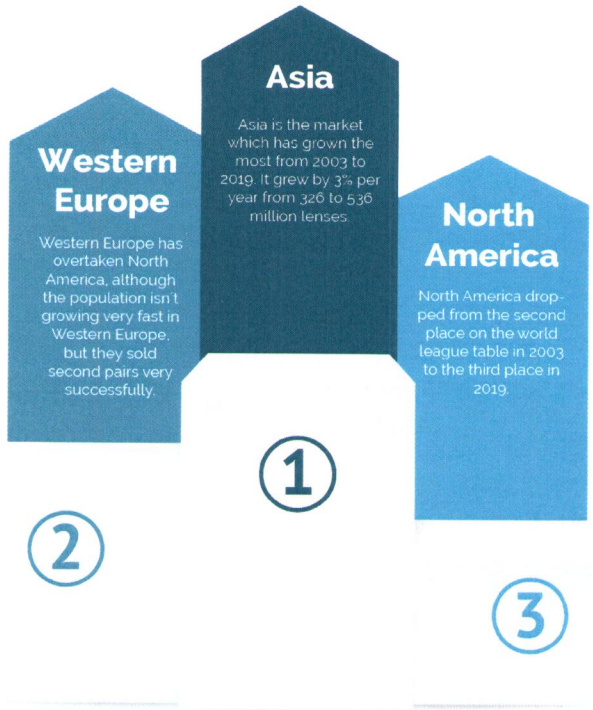
What are the objectives of the "world lens and frame demand study 2020"?

The objective was to estimate the total number of optical outlets operating in 2019 in the countries researched. To assess the number of ophthalmic lenses sold worldwide and to make an estimation of the number of ophthalmic frames sold by country. We wanted to assess the ophthalmic lens and frame market in value at net manufacturers/wholesalers selling prices to optical retailers in local currency. And finally, we wanted to make a growth forecast for ophthalmic lenses and ophthalmic frames in volume and net value by country for the period 2019 -2022.

How many countries were researched?

For the study – I talk about today – we collected data from 63 countries. We did the work in 2020, the year measured was 2019. These 63 countries are presenting 94% of the gross domestic product and they make up 78% of the total population in the world.





A market with a very big potential is the Near East and Middle East, exactly as the experts predicted in 2003. The market has grown by 3.6% per year.

You compared your first study from 2003 with the current outcomes. What are the most interesting trends?

We said in 2003 that Asia was the undisputed Ferrari of the ophthalmic world because at that time Ferrari was the car winning the Formula 1.

We stated also that Western Europe lies in third position in the world league table but not even the increase in the European Union to 25 members would allow them to catch up with North America. On the positive side the new European Union with a total population of 455.5 million inhabitants at that time, of which 187.5 million were over the age of 45, would provide a potential for much higher demand in the future. And we advised lens companies to look more carefully at the markets of the Near East.

Then we looked at the data today – 16 years later. We got the forecast of Asia growing fast correct. It is the market which has grown the most from 2003 to 2019. It grew by 3% per year from 326 to 536 million lenses.

Western Europe has actually overtaken North America, although the population isn't growing very fast in Western Europe – but they have been very clever. They sold second pairs successfully across several countries and could therefore overtake North America.

But we got the European Union totally wrong because we did not forecast Brexit and so the European Union has actually shrunk since 2004 from 455 to 447 million people. However, the number of people over the age of 45 is growing to 210 million and the markets of the Near East and Middle East have grown by 3.6% per year. That didn't surprise us because we had told people that they should look at it. In those days, Syria and Yemen were countries that were showing economic growth. Now Syria is in civil war, but countries like Turkey and Iran have shown an enormous amount of growth.

Which further outcomes are important?

The ophthalmic lens market in volume grew from 2003 to 2019 on average by 2.6% per year. That has been a rate of growth which has been very constant. It is not surprising because this industry relies on population growth and the GDP because you need money to buy those glasses. These factors all together lead to long-term growth. The population grew by 1% per year, the GDP by 2% a year.

But I said **has proved** very regular because this clock mechanism, which was perfectly working until 2019, has now stopped working regularly across the world, due to coronavirus.

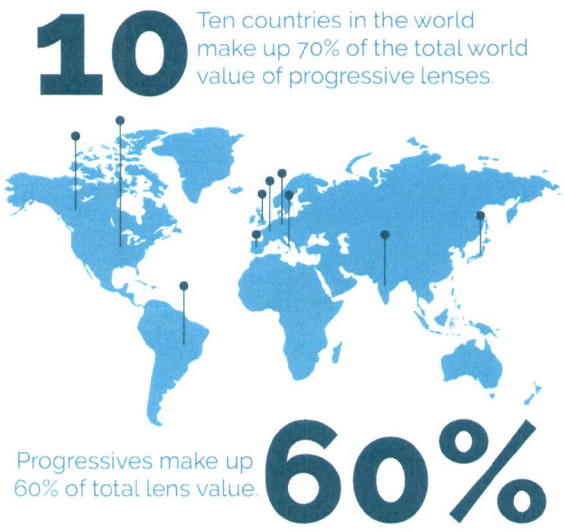
What may surprise people: single vision has remained at the same unit share in the last sixteen years, from 76% in 2003 to 75% in 2019. We always talk about progressive growth but one of the big reasons for the increase in progressives was the decline

2.6% The ophthalmic lens market in volume grew from 2003 to 2019 on average by 2.6% per year.

2.0% The GDP grew by 2% a year.

1.0% The population grew by 1% per year

in bifocals. What is perhaps surprising is that progressives now make up 60% of total lens value but ten countries in the world make up 70% of the total world value of progressive lenses. This shows how dependent we – I mean the whole optical industry – are on just these ten countries in the world: USA, France, Germany, Japan, Brazil, UK, Canada, Italy, Spain, and India.



Can you guess the reasons?

They tend to be countries with quite an old population, they are all countries with high income per capita, and they are partly countries which have social medical health plans which include eyewear.

Which products have the biggest potential in the future?

I think progressives will continue to grow. Even if we are affected economically by COVID-19, richer and wealthier people will probably still have money to afford progressives. Whereas poorer people maybe can just afford a single vision lens and may be more affected by COVID-19.
I think we will see continued growth in high-index lenses, we will see continued growth in multiple layer AR coatings and we will probably see growth in blue light cutting.
Furthermore, we are seeing one strange thing happening in 2020 which is the demand for workplace lenses. These lenses were always very difficult to sell in certain markets in Western Europe, but suddenly workplace lenses are selling quite well.

We think this could be due to the fact that people are spending day after day in their houses in front of the computer and are maybe realizing that a workplace lens is a much better lens if you are doing a lot of work, either on the computer or at home in a distance of one meter to four meters.

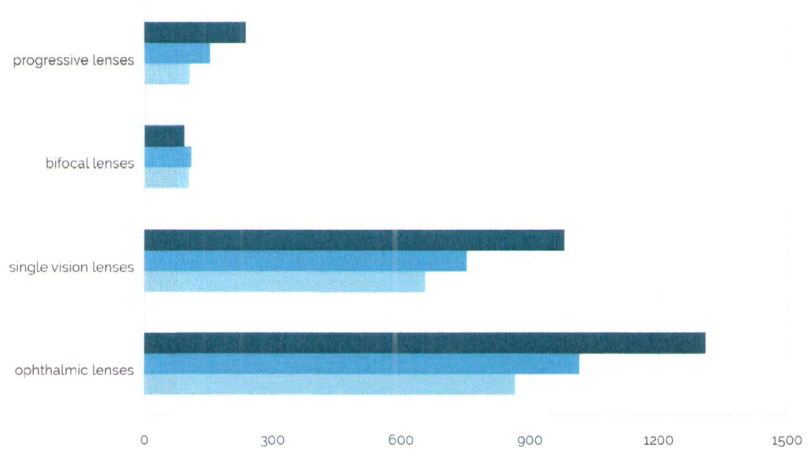
How exactly do you gather your data?

The method you use is very important. Because if you don't understand what you are measuring and how you are measuring, then the numbers very often raise further questions.
We are measuring lenses sold to optical outlets – ophthalmic lenses do not include the sales of ready readers and pre-mounted spectacles – and we use the lens data gathered to make an estimate of the number of ophthalmic frames sold by country. This is because normally an optician will order a collection of frames for several months in stock in the shops.
If consumers come in and chose a frame, then they decide what lenses should go into it. Therefore, the order of a lens is very much in time with the sale of the frame to the consumer.
We always do the research in local currency because otherwise you tend to pick up the variations in value between either the euro or the US-Dollar, but what if you buy your glasses in Turkish lira? Then we split frames into three price categories: Under 100,- euro, under 199,- euro and 200,- euro or more.

Are there particular challenges in collecting the data in individual countries?

The ophthalmic lens data have been researched in five separate studies and I believe that the numbers in most places are very

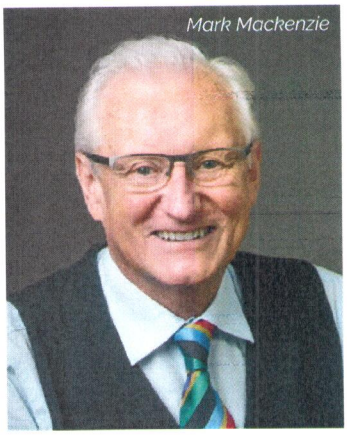
Total estimated world wide sales of ophthalmic lenses (lens volume - millions)



	ophthalmic lenses	single vision lenses	bifocal lenses	progressive lenses
2019	1309.5	979.5	92.9	237.1
2011	1015.4	752.5	109.4	153.5
2003	865.5	655.9	104	105.6

close to reality. We are using the term "close to reality" because when you are studying countries like Indonesia, Iran or India you are never going to find the last lens sold. You can just try to get as close as possible.

The biggest challenge we had is not with lenses but with frames. For instance, we worked with a consultant who knew the branded frame market in North Africa very well and when his numbers came back we realized that there was a mistake in those numbers because it turned out that Algeria was the most valuable market for frames in the whole world and we knew that this wasn't the case. We tried to understand why and the following happened.


Mark Mackenzie

People who sell a branded frame tend to look at a segment of a hundred euro or two hundred euro, because that tends to be the prices at which branded frames are sold to the consumer. But they don't go down to the market and to the cheap shops.

But especially those cheap shops sell to 80% or 85% of all people living in Algeria. Because the reality is that the annual income is just over 3,000 dollars. If you divide that by 254 days you can work out how much someone earns per day and there is no way that that person ever buys a branded frame. Because a branded frame would mean 30 or maybe 60 days of work and they still have to put the lenses in it. So what will they do? They go to their local shops! But very often someone focusing on the branded segments doesn't go into the local shops, because it does not interest him or her. So I tried to explain to the consultant: 85% of all frames sold in this country are sold through the local shops and not trough the smart shops in the main street which sell to the very rich Algerians. That was a big problem we had, trying to make people think of the whole market and not just a little segment of the market. In the end the guy actually said "Mark, that was very good advice because the market is so big and I never realized that the prices were so low!"

How has COVID-19 affected your work?

We started on the first of April 2020 with having all our orders cancelled. After we got over the initial shock we realized that COVID-19 was bigger than we had thought. It was going to stay for quite a long time. So we thought maybe it is good to have a good set of numbers for 2019, which was the last pre-COVID year. Because companies need to do budgeting, they need to do forecasts, they need to make plans and you cannot really plan on the basis of 2020.

Then we had to get in touch with people, but some didn't answer their phones, because they had business phones but they were not working at that time. So we needed to find new ways to contact the people through social media, at home and so on. But then it worked very well, because a lot of people were at home and they had time to talk to us and were very interested.

How did you measure the influence of COVID-19?

For the bottom-up method we asked consultants in each country in May and June to use a color for the year 2022. And we said: "If you think the market is going to have growth give us green, if you think it is going to go down give us orange or red" and so on. The system was simple. At the end of August we went back to them and we asked them to check their color again. It was interesting that especially in some countries in Europe we got changes in the color because people had seen how the markets had recovered.

Furthermore, we used a top-down method. We looked at the data and we said, let's see what we know about the coronavirus on a country by country basis. A country like Malaysia is less affected by the virus than a country like Austria and we asked, what's the economic impact of COVID-19?

What are the main differences?

The United Arab Emirates have not had that many cases of COVID-19 but they have a lot of expatriates. Their families have

In some countries like Algeria 80% to 85% of all frames are sold through local shops and not through the smart shops in the main street.

gone home because it is very expensive to have medical treatment in the United Arab Emirates or they haven't had their contracts renewed and the permit visa is linked to the work contract. If you don't have a work contract you need to go home.

If you look at New Zealand, exactly the opposite happened. There are about fifty to a hundred thousand New Zealanders working in top jobs in the world who have either moved back or are planning to move back to New Zealand during the period of 2020 or 2021.

The reality is: if you have lost your job as a banker in New York, then you may decide to go home or maybe your wife says to you "look we earn 300.000 dollars here in New York, the quality of life especially for our children is not that great with COVID-19, but in New Zealand they have done a fantastic job with controlling the coronavirus and even if we only earn a hundred or fifty thousand dollars, the quality of life may be much better at home. So there have been countries that have had a positive effect from corona.

What are you currently working on?

In December, SWV started working on new projections by country for 2022. The reason for doing this is that significant changes have taken place since September 2020: vaccines have now been developed and are being used. Mutations of the coronavirus, which are more contagious, have been found in South Africa, Brazil, and the UK. Many countries in Europe have now entered a strict lockdown. A new president of the USA has been elected, who may inject significant sums of money into the US economy. The economy of China grew by 2.3% in 2020[1]. For these reasons, we are preparing new projections for 2022, which can be compared with the initial projection of September 2020. These projections have been prepared following direct contact with all 63 countries in the study. These 63 countries made up 94% of the world in 2019.

Is there anything else you would like to tell us?

There is one thing we didn't cover and which is something a lot of people in the optical industry never think about. We always tend to think about progressives or individualized progressives, about all the lovely frames we produce and all the wonderful methods we have. Magazine covers and articles in trade journals like yours are full of theses high-end products.

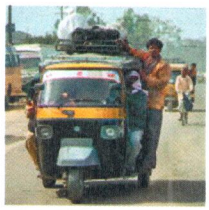
But at the end of the day we are probably just talking to 70% of the world. Because there are a lot of of people in the world who do not earn much money and who can never afford those spectacles – that is something that really concerns me.

Thank you for the interview and these uncomfortable but true words. ◆

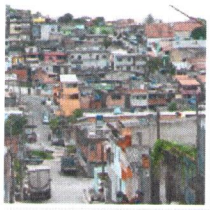
[1] Source: Statista (preliminary data published by the National Bureau of Statistics of China).

The World Bank Group's goals are to end extreme poverty and promote shared prosperity. The institution states on its website: "For almost 25 years, extreme poverty [...] was steadily declining. Now, for the first time in a generation, the quest to end poverty has suffered its worst setback. Global extreme poverty is expected to rise in 2020 for the first time in over 20 years as the disruption of the COVID-19 pandemic compounds the forces of conflict and climate change, which were already slowing poverty reduction progress.

The global extreme poverty rate fell to 9.2 percent in 2017, from 10.1 percent in 2015. That is equivalent to 689 million people living on less than $1.90 a day. At higher poverty lines, 24.1 percent of the world lived on less than $3.20 a day and 43.6 percent on less than $5.50 a day in 2017."

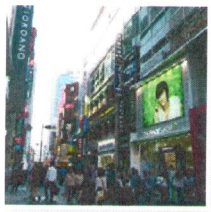


India
6,754
(Per capita GDP in USD
(adjusted for purchasing power)

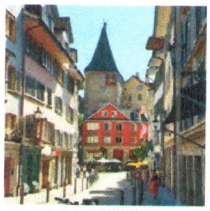


Brazil
14,652
(Per capita GDP in USD
(adjusted for purchasing power)

Thailand
18,463
(Per capita GDP in USD
(adjusted for purchasing power)



South Korea
42,661
(Per capita GDP in USD
(adjusted for purchasing power)



Switzerland
68,627
(Per capita GDP in USD
(adjusted for purchasing power)

Source: Spectaris industry report (tradingeconomics.com)