

Novacyt sa

Report Update Sunday 19th July 2020

This report accompanies the financial analysis worksheets which follow this report.

All the current signs are still looking very positive for the Novacyt Group,

The half year trading gross revenue figure of €72.4m was a slight disappointment, however the net estimated profitability was excellent. My revenue figures for non covid-19 at €2m seems on the rather low side, not sure why; however the figures are very small compared the gross income.

I suspect the sales figures for June were slightly disrupted due to the release of the 3 new products, with customers delaying orders. Customers with problems of sourcing 3rd party reagents will prefer the new products as all the processing reagents are now included.

The trading statement to me was “very conservative”, no intention of pumping the share price up. The Outlook paragraph “the company anticipates revenue for the 2nd half of the year to be greater than the 1st half” was particularly conservative!

The key important areas to me were:-

- 1) Margins will be at least similar to 1st half (very good)
- 2) Significant investment in sourcing raw materials for the tests
- 3) Customer contracts have been extended, with some into 2021
- 4) New US Global Strategic partner – mainly initially US Market
- 5) June was the 6th consecutive month of growth! (may that continue)

The main purpose of this report is to clarify some of the points within the Financial Analysis, but also provide specific comments on certain areas.

Take-over by another Business

The chances of the Novacyt Sa being taken over by another business to me is extremely remote.

The Government has already clearly indicated that certain key UK industries will be protected

<https://www.gov.uk/government/news/new-protections-for-uk-businesses-key-to-national-security-and-fight-against-coronavirus>

Therefore any proposed takeover is likely to be opposed by the Government, Directors of Novacyt and more importantly the long term shareholders of the company.

Financial Analysis - Worksheets

The financial forecast figures have amended, with most reported Novacyt financial figures now being shown as Euros, compared to GBP pounds.

Sales revenues for 2020 have reduced, but 2021 have increased

Profitability for both 2020 & 2021 have increased, due to good margins

A few new worksheets have been added, see the introduction worksheet

My thanks go to the Novacyt team during this pandemic, which has throughout the world has caused so much disruption to the lives of its population.

It is Novacyt key input, with others, will I hope terminate this dreadful virus, and thus get us back to normality.

Keep safe

Further updates to this analysis work can be found on the London South East share chat forum – postings by ShaunP, generally at weekends. The next update will be after the next major RNS.

Introduction to Novacyt Financials		Further Details
Original Purpose	To produce a summary of the many RNS for Novacyt	See RNS Summary worksheet
Units sold to Value sold	Requirement to reconcile the number of kits sold to the values sold	See Weekly worksheet
Likely Profit?	Then it would be nice to work out a rough "Profit & Loss" for year	See Annual Basis worksheet
Share Valuation?	Possible Valuation methods based on Sales & Earnings	See Share Valuation worksheet
My Fair Value	My own rough valuation method of the share (conservative)	See My Fair Value worksheet
SWOT	The dangers etc to my "Fair Value"	See SWOT Analysis worksheets
Questions	What questions should you ask before investing?	See Questions worksheet
Information	What Useful Information should I know before investing?	See Links, Approvals, Distributors, Youtube & Timeline Worksheets
Information	What could supercede PCR as a testing method?	See Alternatives & Combating Technologies worksheet
Competitors	Information on Global & UK Competitors	See Competitors & UK Competitors News
Important changes to the Novacyt Financial (This issue)		
Worksheet		
Weekly	Converted to Euros from GBP	Novacyt Accounts are done in Euros
Annual Basis	Converted to Euros from GBP	Novacyt Accounts are done in Euros
Share Valuation	Lower sales, but at better margins	Increased Share Valuations
My Fair Value	Increased Net profit margin sustainable into 2021	All indications are that the Pandemic will last well into 2021
Links	More Links added	Some links are extremely useful !
Competitors (Global)	New Worksheet Added	
UK Competitor News	New Worksheet Added	

Novacyt SA - Company RNS Summary			
	Date	RNS	Detail
1	Fri 31 Jan 20	5043B	Launch of Novel Coronavirus Test : ability to run test on Multiple molecular testing platforms, including the Genesig q16 & q32
2	Fri 07 Feb 20	2692C	Update, Orders for 33K, Quotes another 32K - 30 Countries, Applied to FDA
3	Mon 17 Feb 20	2316D	CE-Mark launched, 288K Quotes, Orders 40K
4	Fri 28 Feb 20	4148E	Distribution Agreement in Asia ; OEM Agreement with US Healthcare Group (Manufacturing & Sale)
5	Thu 12 Mar 20	8486F	Sales to over 50 Countries, Manufacturing significantly increased by third party Manufacturer (Europe) ; Capacity 2m tests per month
6			Public Health England, Very Satisfied with the test (Formal Evaluation)
7	Mon 16 Mar 20	1889G	PHE, commenced ordering the test - £1M for 8 hospitals (Single largest order)
8	Fri 20 Mar 20	0578H	Sold £8.7 Million (exceeds 2019 sales for PrimerDesign) - Both Manufacturing plants working at full capacity
9	Mon 23 Mar 20	1209H	FDA Approval ; Approved by Indonesian Ministry of Health
10	Wed 25 Mar 20	4616H	Contract Manufacturing Agreement with YourGene Health plc (Critical components)
11		/ 4646H	YourGene Health Plc also helping to support the NHS in laboratory testing
12	Wed 25 Mar 20	4639H	Global Distribution agreement with Bruker Corporation (with use on GenoXtract device) ; Bruker shipments to Spain, France, Germany & UK
13			Philippines Approval
14	Mon 30 Mar 20	9622H	India & Argentina Approval ; Sold £17.8M ; 80 Countries ; Supplying 21 UK Hospitals; Used by HSE in Ireland ; Improved Gross Margin & Profitability
15			1700 Known variations of Covid-19 (strain evolution) ; Manuf Partner Europe is BioType Diagnostic GMBH (Dresden) ; 1st batches to UK for final assembly
16			Capacity with Biotype agreed to be increased to 4 Million per month (Combined)
17	Mon 06 Apr 20	8174I	France (CNR, French Institut Pasteur & Thailand Approval
18	Wed 08 Apr 20	1286H	WHO Emergency listing approval (no 2 @ 7th April) (Roche was 1st on 3rd April), 4 only as at 24/4/2020 !!
19	Wed 08 Apr 20	1392J	Testing Arrangement - Cambridge ; with Cambridge Uni, AstraZeneca, GSK : Explore use of alternative chemical reagents (supply shortage)
20	Wed 15 Apr 20	7845J	Making 4M per month ; 2 UK Manufacturing partners (BioPharma Process Services Ltd & Biofortuna Ltd) - Expect 8 Million tests per month
21			Chartwell Consultants appointed (Planning, Procurement & logistics) - Team of consultants in Novacyt ; 76 Components for the Kit!
22			Development of "Direct-to-PCR" Extraction method announced - Proposed launch May 2020
23			Saudi Arabia, Indonesia & India Approval
24	Mon 27 Apr 20	8862K	Supply Contract with UK DHSC - 6 months from 4th May 288K tests per week (i.e. 1.2 Million per Month) (with option to expand)
25	Wed 29 Apr 20	2374L	As at 28/4 = received orders / invoiced £90Million
26			Malaysia & Ecuador Approval
27			Manufacturing plans - 8 Million tests per month to be achieved during June
28			Signed Contracts with 2 further UK companies for manufacturing, thus 6 sub-contract manufacturers (Novacyt = Southampton & Camberley)
29			Development of "Direct-to-PCR" Extraction method re-confirmed - Proposed launch still in May 2020
30	Thu 14 May 20	8408M	Year End Results 31/12/19 ; 6.5 M Euros Loss; 30/4/20 9.2 M Euros cash balance - Low capital requirements to expand, April 20 > 50% EBITDA margin
31			PrimerDesign Gross Margin in 2019 = 85% (2018: = 84%)
32			Eight Manufacturing sites, Expect 10M test per month from June onwards ; Approved by 16 Countries, plus CE-Mark acceptance countries
33			Exsig Direct, going Final Clinical Trials, expected launch June 2020,
34			Plan to launch Exsig Mag - for those who wish to use the automated RNA extraction systems
35			Mobile testing being evaluated using Company's Q16 Instrument, for remote locations (eg care homes), trials expected to be completed in June 2020
36			High Throughput COVID-19 Tests, Kit containing 1,536 for use in 384 Well format (instead of 96 well format), launching in June 2020
37	Mon 18 May 20	1866N	Director Share purchases @ 310p & 304.9p (15/5/2020), on same day I purchased another 5K at 309p! Therefore very interesting
38	Tue 26 May 20	9886N	French Director share purchase (in Euros)
39	Thu 28 May 20	-	46 New Staff as indicated on Primer Design Blog
40	Tue 02 Jun 20	6039D	Sales 1/6/2020 = £40m, Orders & Sales = £120m; 130 Countries; Top UK & Germany (not France) ; Zimbabwe order 1.5m tests (Largest Global order)
41			New Markets = Panama, Ecuador, Columbia, Peru, Paraguay & UAE
42			Exsig Extraction on track to launch in June ; Mobile Covid-19 Launching in July
43	Wed 03 Jun 20	7428O	Buy out of Debt (cash Payment of e6.1m) & share issue; Cash before = e25m, therefore after balance = e19m, New Shares Issued of 2.9m (@e70p)!
44	Thu 18 Jun 20	2984Q	Launches 3 new products; Exsig Direct, Exsig Mag & Covid-HT
45			Exsig Direct = Innovative Direct to PCR Extraction Kit, allows improve lab workflow, cycle times & reduces costs (includes all reagents & components)
46			Exsig Mag = New Extraction kit to run on multiple automated magnetic bead extraction systems (can be used with 3rd party Covid-19 test kits)
47			Covid-HT Test = Optimised for high volumes of tests - No Premixing - More Streamlined workflow
48	Mon 13 Jul 20	7379S	Half Yr Trading Update Sales £63.3m (2019 = £6.3m), £57.6m (91%) accounted for in 2nd Qtr : EBITDA estimate over £41m
49			Cash 30/6 = £18m, after significant investment to meet continued demand
50			Covid-19 June sales (invoiced) £22.5m , 6th consecutive month of growth
51			New Major distribution agreement with a new global strategic partner; focus initially on the US market, then global!
52			Sufficient Resources (manufacturing, Materials, F Goods); 49 new staff recruited & more to come!
53			Received orders for the Covid-HT, Exsig Direct & Exsig Mag as at 30th June (no indication of Invoiced sales!)
54			New Investment in number of new Products & Innovations to be launched in the near future
55			Outlook ; Margins to be maintained
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Novacyt Financials - Covid-19							Note: Feb to May, Lower average price per test as Order Quantities get larger	
	Estimated	Average	Estimated				Better pricing from July, due to Exsig Direct	
	Weekly	Price	Weekly	Cum	Cum			
Week Ending	Units Sold	Test	Value Sold	Units Sold	Sales Value	Comment -1	Comment -2 (in the week)	
1	Fri 07 Feb 20	5,000	€8.80	€44,000	5,000	€44,000	7/2 Orders 33K units (sales/orders), Enquires 32K	
3	Fri 14 Feb 20	10,000	€8.80	€88,000	15,000	€132,000	7/2 Shaun purchased shares @46.2p (Excellent timing)	
4	Fri 21 Feb 20	20,000	€8.80	€176,000	35,000	€308,000	14/2 CE-Mark approved	
5	Fri 28 Feb 20	40,000	€8.80	€352,000	75,000	€660,000	17/2 Orders 40K units to date, Quotes for 288K (Units)	
6	Fri 06 Mar 20	80,000	€7.70	€616,000	155,000	€1,276,000	28/2 €1.1M value sold (But perhaps Invoiced & Orders received?)	
7	Fri 13 Mar 20	120,000	€7.70	€924,000	275,000	€2,200,000	11/3 Sold/Orders €2.6 Million	
8	Fri 20 Mar 20	150,000	€7.70	€1,155,000	425,000	€3,355,000	13/3 Sold/Orders €4.3m	
9	Fri 27 Mar 20	200,000	€7.70	€1,540,000	625,000	€4,895,000	20/3 Sold/Orders €9.6 Million	
10	Fri 03 Apr 20	250,000	€7.15	€1,787,500	875,000	€6,682,500	27/3 Sold/Orders €19.6 Million	
11	Fri 10 Apr 20	300,000	€7.15	€2,145,000	1,175,000	€8,827,500	30/3 Taking Orders of £1.6m per fortnight (Middle East only)	
12	Fri 17 Apr 20	400,000	€7.15	€2,860,000	1,575,000	€11,687,500	30/3 Indian Order €1.5m (largest so far)	
13	Fri 24 Apr 20	600,000	€7.15	€4,290,000	2,175,000	€15,977,500	15/4 Now Making 4M Tests per month (i.e. 1M per week) (Assume average price down to £5 from £8)	
14	Fri 01 May 20	700,000	€6.60	€4,620,000	2,875,000	€20,597,500	29/4 Planning manufacturing of 8M Tests for June (On schedule update)	
15	Fri 08 May 20	800,000	€6.60	€5,280,000	3,675,000	€25,877,500	29/4 Sold/Orders taken for €103M, inc NHS order for 6 mths = 7.5 Million Units	
16	Fri 15 May 20	900,000	€6.60	€5,940,000	4,575,000	€31,817,500	Thus 20% orders being invoiced, 80% Orders in hand	
17	Fri 22 May 20	1,000,000	€6.60	€6,600,000	5,575,000	€38,417,500		
18	Fri 29 May 20	1,000,000	€6.60	€6,600,000	6,575,000	€45,017,500	02/6 Confirmed invoiced sales €45m (1st June 2020) (Total Sales & Orders = €135m)	
19	Fri 05 Jun 20	1,050,000	€6.05	€6,352,500	7,625,000	€51,370,000	Thus 1/3 Invoiced, 2/3 Orders in hand!	
20	Fri 12 Jun 20	1,050,000	€6.05	€6,352,500	8,675,000	€57,722,500	14/5 June able to produce 10M Tests per month (i.e. 2.5M per week), but sales maybe lower!	
21	Fri 19 Jun 20	1,050,000	€6.05	€6,352,500	9,725,000	€64,075,000	Lack of reagents may be preventing "End_users" from placing further orders	
22	Fri 26 Jun 20	1,050,000	€6.05	€6,352,500	10,775,000	€70,427,500	13/7 Covid-19 June sales (invoiced) €25.4m YTD = €70.4m), 6th consecutive month of growth	
	Monthly	Monthly	Monthly				My guess is that the price of the basic kit has dropped from €5.50 to €5.00 as from 1st July 2020	
	July 2020	5,000,000	€7.15	€35,750,000	15,775,000	€106,177,500	18/6 Exsig Direct being sold at a higher price with Test kit (say £1.5 plus £5.00)	
	August 2020	6,000,000	€7.15	€42,900,000	21,775,000	€149,077,500		
	September 2020	7,000,000	€7.15	€50,050,000	28,775,000	€199,127,500		
	October 2020	8,000,000	€7.15	€57,200,000	36,775,000	€256,327,500		
	November 2020	9,000,000	€7.15	€64,350,000	45,775,000	€320,677,500	These monthly figures may need further revising DOWNWARDS if Large Sales Contracts do not occur	
	December 2020	10,000,000	€7.15	€71,500,000	55,775,000	€392,177,500		
							Exsig Direct - Increase Unit price, but by how much?	
2021 Financial Year								
	Qtr	Qtr	Qtr					
1	March 2020	30,000,000	€7.15	€214,500,000	30,000,000	€214,500,000		
2	June 2020	30,000,000	€7.15	€214,500,000	60,000,000	€429,000,000		
3	September 2020	30,000,000	€7.15	€214,500,000	90,000,000	€643,500,000		
4	Dec-20	30,000,000	€7.15	€214,500,000	120,000,000	€858,000,000		

Novacyt - Annual Accounts	Actual	Actual	Actual	Est 6 Months	Best Estimate		Best Estimate	
	31st December	31st December	30th June 2020	31st December	31st December	Estimate Costs	31st December	Estimate Costs
	2018	2019	2020	2020	2020	as % of Sales	2021	as % of Sales
	€ Millions	€ Millions	€ Millions	€ Millions	€ Millions		€ Millions	
Sales - Covid-19 only	€13.721	€13.081	€70.4	€321.8	€392.2	Covid-19 Test only	€858.0	Covid-19 Test only
Sales - Non Covid-19 (Why so little?)			€2.0	€2.0	€4.0			
			€72.4	€323.8	€396.2		€858.0	
Cost of Sales - Covid-19 only	€5.116	€4.709	€17.2	€61.3	€78.4	20%	€214.5	25%
Cost of Sales - Non Covid-19 only			€0.5	€1.5	€2.0			
						Gross Margin 80%		Gross Margin 80%
Gross Profit	€8.605	€8.372	€54.7	€261.0	€315.7	(see note below)	€643.5	(see note below)
Overheads & Exceptional								
Sales & Distribution	€2.454	€2.700	€3.4	€12.3	€15.7	4%	€42.9	5%
Admin	€6.119	€6.466	€2.6	€9.2	€11.8	3%	€21.5	3%
R & D	€0.406	€0.451	€0.9	€3.1	€3.9	1%	€6.4	1%
Government Subsidies	€0.051	€0.000						
Exceptional	€0.960	€0.534	€1.7	€6.1	€7.8	2%	€17.2	2%
Finance Costs / Income	€0.694	€2.104	€0.7	€0.0	€0.7		€0.0	
Total Overheads	€10.684	€12.255	€9.3	€30.6	€39.9	10%	€87.9	10%
Profit Before Tax	-€2.079	-€3.883	€45.5	€230.4	€275.8	70%	€555.6	65%
Corporation Tax	-€0.032	-€0.008	-€8.8	-€31.6	-€40.4	-15%	-€105.6	19%
Discontinued Operations	-€2.626	-€2.656	€0.0	€0.0	€0.0		€0.0	
Profit / (loss)	-€4.737	-€6.547	€36.6	€198.8	€235.4	60%	€450.0	52%
						Greater than 50%!		
Notes for 2020/21 (Sales Revenue)			Actuals as per RNS					
1) Plus Royalty income from the USA OEM arrangement								
2) Plus normal French Income								
3) Plus Non Covid-19 Test Kit income for PrimerDesign trading subsidiary								
4) 6 months to June 30th , EBITDA equals 70%								
Definition - What Is Earnings Before Interest, Taxes, Depreciation, and Amortization – EBITDA								
5) Tax Losses B/Fwd 62,570,000 Euros, Therefore reduced amount for 2020, Tax rate , thus used 19% less the loss B/fwd)								
6) Gross Margin - Used 80% for 2020 & 75% for 2021 (Increased competition)								
Lower competitive pricing might be matched by lower cost of manufacturing (Economies of sale)								

Novacyt - Share Valuation (My Fair Value)		
It is very difficult to give a precise value to this company due to so many unknowns , in particular revenue income beyond 2020 / 2021		
My best idea of valuing this company would be to use Book value as at 31st December 2019, add any forecasted Net profit after tax for 2020, then take forecasted earnings for 2021 at a % rate only Plus add a value for increased "company Awareness" from new Distributors for Non Covid19 future sales revenue (2021 onwards).		
	Fair Value (Millions)	Comment
Book Value as at 31st December 2019	£13.00	Source Stockopedia - 14.6m Euros
Add 100% Projected Net Revenue Earnings to 31st December 2020 (Millions)	£214.20	See Annual Basis worksheet
Add 75% of Projected Net Revenue Earnings 1st Qtr 2021 (Millions)	£76.78	See Share Valuation worksheet
Add 55% of Projected Net Revenue Earnings 2nd Qtr 2021 (Millions)	£56.31	See Share Valuation worksheet
Add 40% of Projected Net Revenue Earnings 3rd Qtr 2021 (Millions)	£40.95	See Share Valuation worksheet
Add 25% of Projected Net Revenue Earnings 4th Qtr 2021 (Millions)	£25.59	See Share Valuation worksheet
New Company awareness from the Covid-19 Pandemic (Millions)	£35.00	This will help the company to sell Non Covid-19 business in the future
Total Fair valuation of company (Millions)	£461.83	
	Fair Value (£.p)	
Middle Value of company per share	£6.54	Fair Valuation of company divided by number of shares in issue
Lower Fair Value	£5.56	15% below medium value
Upper Fair Value	£7.52	15% above medium value
This fair value could change fairly quickly from changes at Novacyt, or externally outside it's control		
My current "Basement sale" purchases & disposals (Excess holdings - Short term only)		
Current Floor value where I would purchase further shares in Excess of normal holding	£2.50	By using daily Limit orders if the price is below the price
Current Top value where I would sell any "Excess shares as per above"	£5.00	By using daily Limit orders if the price is above the price

Novacyt SA			
Other Factors which may influence the Market Valuation of the Business (SWOT)			
	Probability	Importance	Comment
Business Strengths			
Been able to scale up Manufacturing to market requirements	Completed	Very High	Good diversification of manufacturing locations
Good Overseas Distributors Network	On Going	High	Web-site link of Distributors very good
No big company setup- easier to manage organisation change		Medium	Quick Decision making in a fast moving environment
Has the financial resources to finance other developments	Money in the bank	Medium / long term	Many businesses are restrained by cash-flow problems
Main Product - Regulation Approval	Completed	Very High	WHO & FDA Approvals
Main Product - "Gold Standard" view in the market	Completed	Very High	Quality of main products, Very important
Customers - re-occurring orders		Good	Majority of sales are regular & made to existing customers
Has the support of professional Consultants	In, Chartwell Consultants	Very High	Professional support vital due to new management skills required
Quality Control Standards	Completed	Very High	ISO 13485 and ISO 9001
New Product for High Volume testing - COVID-HT	Launched	High for Large Volume testing Environment	Good product for State backed "large testing laboratories" - Efficiency is key!
Business Threats			
Competition Pricing	Likely	High	Competitive tendering, Average selling price may be under pressure
Over-Supply of Testing Kits	Unlikely for next 12 months	Medium	McKinsey & Company Consultants - Supply Shortages Review
New Technology competitor	Good possibility	High, but in the medium/long term	Perhaps a new breath test? (see links section)
Regulation	Likely in some countries	Medium	Local Countries may not approve existing or new type of product test kits
Quality of Finished Products	Possible if not Monitored	Very High	See Quality issues at Radox Laboratories (Northern Ireland)
Virus will eventually be controlled	Likely	High in the Medium / Long Term	Eradicated perhaps in 24 months (December 2022?)
Business Weaknesses			
Lack of extraction reagents for "End_Users" Labs	On Going	Fair	However, new Exsig Direct will help to address the problem of reagent shortfall
Poor Media Coverage (Last updated 2014)	On Going	Fair	http://www.primerdesign.co.uk/about/media-coverage
Business Opportunities			
Mobile Testing stations / Laboratories	In the pipeline (UK)	High	Very useful for large employer sites (sales income from processing the tests?)
Mobile Testing stations / Laboratories	In the pipeline (Overseas)	Very Important	In countries where the labs are days away from population requiring testing
RNA Extraction - Exsig Direct	Launched 18/6/20	High	Possible Royalties from competitors?
Microgen Pathway product for SARS-COV-2	Possibility	High	Already have pathway products for RSV & Norovirus
Laboratory - Processing of completed test kits	Not sure	Not sure	Process all manufacturers of PCR test kits in regions / local / airports etc
Sell unrelated Covid-19 products to new Distributors	Very Likely	Important after Covid-19 sales start to reduce	
New Distributors - Global	On Going	Very High	Already an impressive list of distributors
New Distributors - USA	Work-in-Progress	High (New National Sales Manager)	US Federal Government losing stomach to fight the Corona-virus
ps, I would welcome any feedback on your perceived SWOT			
Other Factors that may have an influence on Market Value			
Take-Over Approach	Very Remote	Largest Holder = L & G Investment Management Ltd. (3.56%)	Source : Stockopedia
Vaccine	Possibility	But will everybody want to be immunised?	No Vaccine for RSV after many years of research!
General deterioration in Stock Markets	Very Likely	Big Depression on the horizon	Source : Economist
Forward Company Earnings very difficult to forecast	On Going & will continue	Very	Forecasting Revenues beyond 9 months is very difficult
Biotechnology & Medical Research Sector		Out of favour on the Stock Markets	Similar companies downgraded
Shorting the Security	On Going & may continue	Very unusual stock to short! (In particular an AIM stock, high risk)	Airain Ltd, 0.31% short position (9th June 2020)
May become a "Bioventix" look a like - success story	Possibility	Fully valued, with low turnover @ £10m!	PE Ratio = 31, Price to Sales = 21

Questions one should be reviewing periodically by all Novacyt Shareholders		
	Question	My Response / View
Novacyt SA		
1	Are Sales on track as per RNS reports - Future Revenue?	Too early to tell
2	Any recent large contract wins (within last week)	None, apart from the Zimbabwe order 1.5m tests
3	Reagent Shortages (worldwide), effected Sales?	I suspect Yes, thus lower sales than manufacturing
4	Has PrimerDesign been getting good 3rd party press publicity?	Not as I'm aware (only RNS information)
5	Has the Company been keeping to timetable on developments?	Eg ExSig Direct & Exsig Mag , Covid-HT, Yes
6	Has the Company been keeping to timetable on developments?	Eg Mobile Test Stations (to be Confirmed in July!)
7	What are they planning to do with the extra cash?	Perhaps small starter dividend to underpin the share price?
8	Recent effect on the Non Covid-19 business?	Hopefully a good increase in sales?
9	Could PrimerDesign kit become the world "Gold" standard?	Very possible - Health Authorities need quality testing
10	Who is Airain Ltd, why short the stock with 0.3% (9th June 20)	Very risky for anybody to short an AIM company, any answers?
11	Are Health providers slow at boosting testing?	I suspect yes, takes time to set up the Infrastructure
12	Current Manufacturing Level & Capacity?	Perhaps lower than 10 Million per month?
13	Current Manufacturing Level & Capacity?	Exsig Manufacturing is probably below requirements (new product)
14	How many sites using the Covid-HT test (by perhaps UK & overseas)?	Would give an idea whther this test is being used Overseas
15	Are the instruments q16 & q32 selling well?	I suspect they are selling as well as "Hot cross buns"
16	Can RNS be more specific, orders be split into current / Forward	Average delivery weeks of forward orders, also any for 2021?
17	Is Microgen going to market a Pathway product?	Why not, products available for RSV & Norovirus
18	How Important is the USA Market for PrimerDesign	Probably becoming the largest market in terms of PCR testing
19	If you are selling 10 million tests per month into 130 Countries	Requires an average of 19,230 test per country per week? (Easy??)
Covid-19 Virus - Coronavirus 2 (SARS-CoV-2)		
1	World cases - Still going Up?	Yes, Particularly India, South & North America
2	Competing Technologies that could impact Novacyt?	Plenty of potential developments, but not of any Substance (ready for sale)
3	When will a Vaccine be available?	Gut feeling, perhaps beyond 12 months in large quantities
4	What is the fastest Developed Vaccine?	4 years, Mumps
5	Will a Vaccine be effective?	Could be like Flu, slight changes in the virus may require vaccine updating?
6	Are there are Corona-virus Vaccines?	No, None for SARS or MERS
7	Will the public want to be Immunised?	Fear factor that this is a rush job - unknown side-effects?
8	Who are likely to be Immunised 1st?	High risk (those in close contact, eg public transport, social & work)
9	Can Asymptomatic people infect others?	Yes, as per Vietnam Study (Oxford University Clinical Research Unit)
10	Can a person's breath transmit the virus?	Yes, as per several scientific studies (enclosed spaces)
11	Can Asymptomatic people be super spreaders?	Not Sure
12	Can Asymptomatic people be super spreaders for a long period?	Not Sure
13	Will it Mutate?	Not Sure (one partial mutation?)
14	If it Mutates, could it help Novacyt?	Novacyt more likely to be aware than fellow competitors?
15	Will it continue to plague earth for years to come?	Not Sure
16	Is PCR testing currently the best method?	Yes
17	Are Lockdowns ending too early	Yes, particularly, in the USA & India
18	Overwhelmed Indian hospitals, will this happen in USA?	Very likely, if the Federal Government fails to act properly
19	Post Lockdown, catching the virus? Main Sources?	Your Household, Public Transport, Pubs, Schools & Hospitals
20	Are Governments losing "the energy" in fighting the Virus	Yes, just look at US Federal Government
21	Will it last as long as Spanish Flu (1918-20)?	Yes, could be even much longer
22	Will Organisations on a regular basis test their staff?	Very possible for key organisations / companies
23	Will it be standard to test Cruise ship staff & guests?	Yes, before & during the cruise ship voyage
24	Will Corvid-19 passports become the norm?	Yes, thus regular testing eg once a month will be required
25	Can you catch the virus again?	One case indicates one can get re-infected (Perhaps short term Immunity only)

Novacyt SA		
General Sources of Information regarding Covid-19		
Financial Times	on-Line Subscription	Coronavirus Business update (by email - every few days) plus FT online
Financial Times	Coronavirus - Free to Read (very good articles)	https://www.ft.com/coronavirusfree
The Economist	Weekly Subscription, many very good articles on Corona Virus (Covid-19)	Economic Implications of the Pandemic
Trading Economics	Good indication on world economics (free service)	https://tradingeconomics.com/
Investors Chronicle	Printed weekly Subscription (some useful info on Covid-19 investments)	https://www.investorschronicle.co.uk/
Stockopedia	Annual Subscription (useful user forum - No day-traders chat!)	https://app.stockopedia.com/
London South East Share Chat	Share-chat on Novacyt (a few chats are useful, but majority are useless!)	https://www.lse.co.uk/SharePrice.asp?shareprice=NCYT&share=Novacyt
WorldoMeter	Good for statistics	https://www.worldometers.info/coronavirus/
CNN Live News - Corona-Virus	Good general insight news	https://edition.cnn.com/world/live-news/coronavirus-pandemic-06-08-20-intl/index.html
BBC News	Good general insight news	https://www.bbc.co.uk/news/coronavirus
WHO	Diagnostics (WHO Emergency Use Listing)	https://www.who.int/diagnostics_laboratory/EUL/en/
WHO	WHO - Global Research	https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov
Public Health England	COVID-19: PHE laboratory assessments of molecular tests (4/6/20)	https://www.gov.uk/government/publications/covid-19-phe-laboratory-assessments-of-molecular-tests
DHSC & PHE	Number of cases & Tests in the UK	https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public
NIBSC (UK)	National Institute for Biological Standards and Control	https://www.nibsc.org/
ECDC (Europe)	European Centre for Disease Prevention and Control (EU)	https://www.ecdc.europa.eu/en/novel-coronavirus/laboratory-support
CDC, USA	Frequently Asked Questions - & Answers (Clinical)	https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html
FDA - USA (Food & Drug Authority)	FDA Emergency Approvals	https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#COVID19ivd
Johns Hopkins	Johns Hopkins - Centre for Health Security	https://www.centerforhealthsecurity.org/resources/COVID-19/molecular-based-tests/index.html
USA Dept. of Health and Human Services	National Institutes of Health (USA)	https://www.nih.gov/coronavirus
Wikipedia.org	Good information, with PrimerDesign included	https://en.wikipedia.org/wiki/COVID-19_testing
Wikipedia.org	Covid-19 - UK Timeline	https://en.wikipedia.org/wiki/Timeline_of_the_COVID-19_pandemic_in_the_United_Kingdom
Medical News Today (USA)	Latest Medical News	https://www.medicalnewstoday.com/coronavirus
Bourse (Paris)	French Stock Exchange - for Novacyt share trades	https://www.boursorama.com/cours/1rPALNOV/
Find (Switzerland)	FIND is the Foundation for Innovative New Diagnostics. SARS-COV-2 MOLECULAR ASSAY EVALUATION: RESULTS	https://www.finddx.org/covid-19/ https://www.finddx.org/covid-19/sarscov2-eval-molecular/molecular-eval-results/
Primerdesign Provided Information		
Primerdesign	Link to the Exsig web-page	http://primerdesign.co.uk/exsig/
Primerdesign	What Primerdesign customers have to say (including one about US CDC!)	http://www.primerdesign.co.uk/about/what-our-customers-say
Primerdesign	Testing for 1 or 2 genes?	https://blog.primerdesign.co.uk/1-vs-2-gene-covid-19-assay-find-out-from-our-experts-which-is-best-for-testing-during-the-covid-19-pandemic/
LinkedIn - Around 21/6	Primerdesign can now supply 2 RNA extraction products in very high volumes.	https://www.linkedin.com/posts/lansand3rs_covid-covid19-workflow-activity-6679327034356887552-5EW0
4th July 2020	Contact us - two main links for the UK & the USA (very important business!)	http://www.primerdesign.co.uk/about/contact-us
4th July 2020	Current Vacancies - National Sales Manager USA still vacant	https://novacyt.com/careers/
21st June 2020	Protecting Novacyt Sa from foreign take-overs	https://www.gov.uk/government/news/new-protections-for-uk-businesses-key-to-national-security-and-fight-against-coronavirus
	Wikipedia - Novacyt	https://en.wikipedia.org/wiki/Novacyt

Novacyt SA		
General Sources of Information regarding Covid-19		
Specific Links to Articles / Research Bodies		
Updated periodically	COVID-19 vaccine development pipeline	https://vac-lshtm.shinyapps.io/ncov_vaccine_landscape/
22nd April 2020	UK and US firms 'lag' in race to commercialise COVID-19 diagnostic tests	https://www.cam.ac.uk/research/news/uk-and-us-firms-lag-in-race-to-commercialise-covid-19-diagnostic-tests
24th April 2020	Coronavirus Antibody Tests: Can You Trust the Results?	https://www.nytimes.com/2020/04/24/health/coronavirus-antibody-tests.html
23rd April 2020	In-Depth: 32 FDA-Approved COVID-19 Testing Kits	https://hitconsultant.net/2020/04/23/in-depth-32-fda-approved-covid-19-testing-kits/#.Xupz4dW2mUJ
17th April 2020	The Promise and Peril of Antibody Testing for COVID-19	https://jamanetwork.com/journals/jama/fullarticle/2764954
9th April 2020	CEPI publishes analysis of COVID-19 vaccine development landscape	https://cepi.net/news_cepi/cepi-publishes-analysis-of-covid-19-vaccine-development-landscape/
Updated periodically	Urgent Public Health COVID-19 Studies	https://www.nih.ac.uk/covid-studies/
5th May 2020	Ireland - Alternatives to PCR testing! (Very good PDF report)	https://www.higa.ie/reports-and-publications/health-technology-assessment/rapid-hta-alternative-diagnostic-testing
13th May 2020	Variation in False-Negative Rate of RT PCR	https://www.acpijournals.org/doi/10.7326/M20-1495
18th May 2020	Australia - \$18.9 million worth of government antibody tests inaccurate	https://www.smh.com.au/national/18-9-million-of-government-antibody-tests-inaccurate-review-finds-20200518-p54u22.html
14th May 2020	When 61 people met for a choir practice in a church in Mount Vernon	https://www.livescience.com/covid-19-superspreader-singing.html
20th May 2020	COVID-19 RT-PCR kits that have 100% accuracy according to the WHO-FIND study	https://www.rapidmicrobiology.com/news/who-release-covid-19-test-scores-of-100
Updated periodically	Jenner Institute (Twitter)	https://twitter.com/search?q=Jenner%20Institute&src=typed_query
Updated periodically	Good General Information Site	https://www.rapidmicrobiology.com/test-method/testing-for-the-wuhan-coronavirus-a-k-a-covid-19-sars-cov-2-and-2019-ncov
Mary Malone	The Typhoid Asymptomatic Super Spreader (New York 1900s)	https://www.nationalgeographic.com/history/2020/03/typhoid-mary-tragic-tale-exposed-health-impacts-super-spreaders/
Respiratory Syncytial Virus (RSV)	RSV is passed from person to person by close contact.	https://vk.ovg.ox.ac.uk/vk/rsv
12th June 2020	Nature Research Updates on Corona Virus (very good)	https://www.nature.com/articles/d41586-020-00502-w
Collection of articles	The New England Journal of Medicine	https://www.nejm.org/coronavirus
The Lancet	Covid-19 Resource Centre	https://www.thelancet.com/coronavirus
Fred Hutch News Stories	Latest Scientific Research	https://www.fredhutch.org/en/news/center-news/2020/03/coronavirus-latest-scientific-research.html
BioMed Central	Open Access Published Articles	https://www.biomedcentral.com/collections/Coronavirus
Dengvaxia controversy	Vaccine that went wrong (Philippines)	https://en.wikipedia.org/wiki/Dengvaxia_controversy
Genestore	Possible lower cost PCR 1 hour Test? (but only 2m tests per month!)	https://www.genestore.org/
Updated periodically	Thailand Medical News - Some good articles & links	https://www.thailandmedical.news/articles/covid19-diagnostics
17th June 2020	BBC News Coronavirus: NHS staff need tests 'twice a week'	https://www.bbc.co.uk/news/health-53066177
10th June 2020	The Royal Society (Canada) Not all PCR test kits the same! (7 Mismatches from 27)	https://royalsocietypublishing.org/doi/10.1098/rsos.200636
11th June 2020	Anti-body Scientific Research Paper	https://immunology.sciencemag.org/content/5/4/8/eabc8413
12th June 2020	CGTN - Should I worry about catching COVID-19 twice?	https://newseu.cgtn.com/news/2020-06-12/Should-I-worry-about-catching-COVID-19-twice-RfeVd4yzZu/index.html
15th June 2020	Homemade masks can dramatically reduce transmission rates	https://www.medicalnewstoday.com/articles/widespread-face-mask-use-can-control-covid-19-outbreak-study-suggests
16th June 2020	40-45% of people who contract SARS-CoV-2 most likely remain symptom-free.	https://www.medicalnewstoday.com/articles/40-45-who-contrast-new-coronavirus-are-asymptomatic
27th June 2020	Can Nanosponges act as decoy?	https://www.medicalnewstoday.com/articles/nanosponges-act-as-a-decoy-for-the-new-coronavirus#Decoy-polymers
26th May 2020	Questions raised about Abbott ID NOW Covid-19 test (PCR)	https://www.medicaldevice-network.com/comment/questions-raised-abbott-id-now-covid-19-test/
21st May 2020	Abbott: ID NOW COVID-19 results more accurate with earlier testing	https://www.massdevice.com/abbott-id-now-covid-19-results-more-accurate-with-earlier-testing/
29th May 2020	Malaysian Paediatric Association (MPA) - Covid-19 to test or not to test?	https://mpaeds.my/covid-19-to-test-or-not-to-test/
13th June 2020	Transmission of COVID-19 virus by droplets and aerosols:	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7293495/
23rd June 2020	Can you catch the virus again - Perhaps "yes" is the answer	https://www.bbc.co.uk/news/uk-scotland-highlands-islands-53149046
27th June 2020	Twitter link - Emirates Airways using PrimerDesign	https://mobile.twitter.com/footyfacts90/status/1276869139680899073
27th June 2020	Roche unable to meet demand for Molecular test kits	https://uk.reuters.com/article/us-health-coronavirus-treatments-roche/roche-not-yet-meeting-demand-for-molecular-covid-19-tests-chairman-says-idUKKBN23Y0EZ
25th June 2020	Winter Partnership - NHS & Primerdesign?	https://mobile.crowdcity.com/testingmethods.crowdcity.com/idea/3390320
25th June 2020	Exsig - Product Validation (Primerdesign)	https://mobile.crowdcity.com/testingmethods.crowdcity.com/idea/3389610
26th June 2020	UK Mobile Testing Units now 147 (Manned by the army)	https://www.gov.uk/government/news/health-secretary-calls-on-country-to-get-tested-as-access-is-expanded-even-further
1st July 2020	BBC - T Cells providing Immunity? (Swedish Research)	https://www.bbc.co.uk/news/health-53248660
2nd July 2020	Guardian - UK set to award major contracts	https://www.theguardian.com/world/2020/jul/02/uk-set-to-award-covid-19-testing-contracts-worth-5bn-to-private-bidders
6th July 2020	The Lancet - Spain (Nationwide seroepidemiological study)	https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31483-5/fulltext
17th July 2020	T-cells: the missing link in coronavirus immunity? Free to read	https://www.ft.com/content/5cf2ee49-df7a-4990-b337-860cf7737b2f

Novacyt SA			
Approvals			
Country	Date	Organisation	Link / or Search wording for PDF approval document
World	07/04/2020	World Health Organisation	https://www.who.int/news-room/detail/07-04-2020-who-lists-two-covid-19-tests-for-emergency-use
USA	23/03/2020	US Food and Drug Administration	https://www.genomeweb.com/regulatory-news-fda-approvals/novacyt-primerdesign-coronavirus-dx-test-receives-fda-emergency-use#.XwR1q222mUk
United Kingdom	June 2020 (updated)	Public Health England (Primerdesign included)	https://www.gov.uk/government/publications/covid-19-phe-laboratory-assessments-of-molecular-tests
Philippines	Novacyt 25/3/20	FDA Link see item no 6 - for Approved PCR tests	https://www.fda.gov/ph/covid-19-faqs/
Indonesian	Novacyt 23/3/20		
India	Novacyt 30/3/20	Date 1st July 2020 (PDF Document)	Indian Council of Medical Research (ICMR) test kits approvals PCR Genesis
Argentina	Novacyt 30/3/20		
Ireland	Novacyt 30/3/20		
Thailand	Novacyt 06/4/20		
Saudi Arabia	Novacyt 15/4/20	Saudi Food & Drug Authority	Google: Saudi Arabia Covid-19 PCR test kits approvals , downloads a PDF listing, Includes Primerdesign on the list (number 3, therefore very early!)
Malaysia	Novacyt 29/4/20		
Ecuador	Novacyt 29/4/20		
Zimbabwe	Novacyt 02/6/20	Implied, by large order	
Panama	Novacyt 02/6/20		
Columbia	Novacyt 02/6/20		
Peru	Novacyt 02/6/20		
Paraguay	Novacyt 02/6/20		
UAE	Novacyt 02/6/20		
Spain		Implied, "by Bruker has already initiated shipments of the test to the UK, Spain, France and Germany"	
Non Approvals			
Australia		Department of Health	https://www.tga.gov.au/covid-19-test-kits-included-artg-legal-supply-australia
France		No approval for Re-imbusement	https://www.investigate.co.uk/novacyt-s-a-/rns/coronavirus-update/2020060207000360390/
Canada		Authorized medical devices for uses related to COVID-19	https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/medical-devices/authorized/list.html#wb-auto-5
New Zealand			https://www.health.govt.nz/news-media/media-releases/covid-19-point-care-test-kits

Novacyt SA		
Distributors (with some web-pages referring to Primerdesign)		
Country	Name	Link
Argentina	Bio Systems	http://www.biosystems.com.ar/en/covid-19
Australia	Integrated Sciences	http://www.integratedsci.com.au/product/coronavirus-covid-19-genesig-detection-kit.html
Australia	Pacific Lab	https://www.pacificlab.com.au/shop/search/?term=corona&x=0&y=0
Austria	Fisher Scientific	https://www.fishersci.at/at/de/catalog/search/products?keyword=Primerdesign
Austria	Serobac	http://www.serobac.at/labor/molekulardiagnostik/realtime.html
Belgium	Fisher Scientific	https://www.fishersci.be/be/en/catalog/search/products?keyword=primerdesign
Belgium	Sopachem Life Sciences	https://www.sopachem.com/lifesciences/new-covid-19-product-catalog/
Canada	Cedarlane - Kits	https://www.cedarlanelabs.com/products/search?text=genesig+ncov&lob=AllProducts&supplierTag=
Canada	Cedarlane - Q16 Instrument pricing! (\$12070.00 CDN)	https://www.cedarlanelabs.com/products/detail/z-genesig-q16?lob=AllProducts
Chile	Biotecom	https://www.biotecom.cl/
Columbia	ADN Internacional	http://adninternacional.co/kit-agnostico-rt-pcr-de-virus-sars-cov-2-covid-19/
Columbia	Andina de Tecnologías SAS	http://anditecnica.com/covid.html
Cyprus	Meslo	https://www.meslo.com/category/704/Coronavirus-qPCR-test-Kits--and--Rapid-Kits-COVID-19.html
Czech Republic	VWR (Part of Avantor)	https://cz.vwr.com/store/
Denmark	AH Diagnostics	https://www.ahdiagnostics.dk/denmark/webshop?GroupID=DK&ProductID=GENESIGEASY-EK
Dubai (& Middle East)	Alliance Global	https://www.agbl.net/partner-portfolio/primer-design/
Egypt	Clinilab	https://www.clinilab.net/devision/9
France	Atothis	https://www.atofthis.fr/
France	Clini Sciences	https://www.clinisciences.com/autres-produits-186/genesig-real-time-pcr-detection-64225093.html
France	Fisher Scientific	https://www.fishersci.fr/fr/fr/catalog/search/products?keyword=primerdesign
Germany	7 Bioscience	https://www.7bioscience.com/ce-ivd-corona-virus-genesig-real-time-pcr-detection-kit-for-coronavirus-covid-19-ce-ivd.html
Germany	AH Diagnostics	https://www.ahdiagnostics.dk/denmark/webshop?Search=Genesig
Germany	Biotrend Chemicals GmbH	https://www.biotrend.com/rresult.php?motclef=GENESIG&page=2
Germany	BioZol	https://www.biozol.de/de/product/prd-z-path-covid-19-ce
Germany	Check Diagnostics GMBH	https://www.check-dx.de/aktuelles.html
Germany	Fisher Scientific	https://www.fishersci.de/de/de/catalog/search/products?keyword=Primerdesign
India	Bio Innovations	https://www.indiamart.com/bio-innovations-mumbai/coronavirus-testing-kit.html#genesig-real-time-pcr-covid-19-ce
India	Genetix Biotech Asia (P) Ltd	http://www.genetixbiotech.com/principals.php
Indonesia	Elokarsa	https://elokarsa.com/product_brand/covid-19/
Ireland	AccuScience	https://www.accuscience.ie/primerdesign/
Ireland	Generon	https://www.generon.ie/buy/cat-sars-cov-2-rt-qpcr-for-research-5107.html
Israel	TAMAR – Laboratory Supplies Ltd.	http://www.tamar.co.il/represented-companies/
Italy	A.Menarini Diagnostics	https://www.menarinidiagnostics.it/it-it/Home/Prodotti-di-laboratorio/COVID-19/genesig-Real-Time-PCR-Coronavirus-COVID-2019/Features
Italy	Microtec	https://coronavirus21.webnode.it/
Italy	VWR (Part of Avantor)	https://it.vwr.com/store/search?navSearch=VARLP051520VARI00001
Japan	Filgen	https://filgen.jp/Product/Bioscience4/Primerdesign/index2.htm
Korea	Zenith Bio Chemical Co., Ltd.	http://www.zenithbio.co.kr/gnuboard4/bbs/board.php?bo_table=sub0203&wr_id=100001
Mexico	Bio Care	http://www.biocaremexico.com/primer-design/coronavirus-covid-19/
Mexico	Medicalam	http://www.medicalam.com.mx/prueba-pcr-para-covid-19.html
Netherlands	Sopachem Life Sciences	https://www.sopachem.com/lifesciences/new-covid-19-product-catalog/
Norway	AH Diagnostics	https://www.ahdiagnostics.no/norway/webshop?Search=Genesig

Novacyt SA		
Distributors (with some web-pages referring to Primerdesign)		
Country	Name	Link
Philippines	Guill-Bern Corporation	http://guill-bern.com.ph/news-and-events/genesig-real-time-pcr-covid-19-ce-ivd-kit
Philippines	Health Solutions	http://healthsolutions.com.ph/primer-design/
Poland	Polygen (Testing what is in a meat product - Cow or horse?)	http://polygen.pl/odczynniki-do-biologii-molekularnej/zestawy-do-identyfikacji-roznych-gatunkow-miesa.html
Singapore	Fisher Scientific	https://myfisherstore.com/singapore/genesig-easy-dna-rna-extraction-kit-genesig-easy-dna-rna-extraction-kit.html
Slovakia	Bio Consult	https://bioconsult.cz/cs/1283-genesig-detekcni-kity-na-patogeny-a-alergeny
Slovakia	Bio Consult	https://bioconsult.cz/cs/genesig-detekcni-kity-na-patogeny-a-alergeny/7540-coronavirus-covid-19-ce-ivd.html?search_query
South Africa	Celtic Diagnostics	https://celticdiagnostics.com/product-category/diagnostic-products/covid-2019/covid-19-qpcr-tests/
South Korea	Lim & Biosystems	https://www.lbiosystems.co.kr/?act=board&bbs_mode=view&bbs_code=sub5_2&bbs_seq=71
Spain	Bioser	https://www.bioser.com/productos/genesig-real-time-pcr-kit-para-covid-19-4222p/
Spain	MDC Molecular Diagnostics Centre	https://laboratoriomdc.com/productos-laboratorio-mdc/kit-pcr-a-tiempo-real-para-deteccion-del-coronavirus/
Spain	Nirco	http://www.nirco.com/en/kit-de-deteccion-de-coronavirus-covid-19.html
Sweden	AH Diagnostics	https://www.ahdiagnostics.se/sweden/webshop?Search=Genesig
Switzerland	Lucerna-Chem	https://lucerna-chem.ch/shop/4144088/genesig-real-time-pcr-detection-kit-for-coronavirus-strain-2019-ncov-ce-ivd-europe-only
Thailand	Iscience Technology	http://www.isciencetech.com/real-time-pcr-reagents
Thailand	Prima Scientific	https://www.prima-sci.com/15490789/primerdesign
Thailand	Prima Scientific	https://en.prima-sci.com/17130663/q16-real-time-pcr-cycler
Ukraine	Next Level Diagnostics	https://nextleveldiagnostics.com/genesig-pcr-covid-19/
United Kingdom	Cole Parmer	https://www.coleparmer.co.uk/i/techne-dna-r-d-of-genesig-real-time-pcr-detection-kit-without-mastermix/9397078
United Kingdom	Fisher Scientific UK	https://www.fishersci.co.uk/gb/en/catalog/search/products?keyword=PrimerDesign
United Kingdom	Medbelle (Clinical Testing)	https://www.medbelle.com/covid-19-clinical-testing-delivered-to-you/#can-i-trust-this-test-how-does-it-compare-against-antibody-tests
United Kingdom	Trafalgar Scientific	http://www.trafalgarscientific.co.uk/Catalogue/Industry/Food-Drink-2/DNA-Testing
United Kingdom	VWR (Part of Avantor)	https://uk.vwr.com/store/
Uruguay	TAGACA SRL	https://www.tagaca.com/representaciones
USA	ARP - Pricing for a Q16 Instrument	https://www.arp1.com/the-genesig-q16-qpcr-machine-q16.html
USA	Attogene	https://www.attogene.com/primerdesign-genesig-kits/
USA	USBiological Sciences	https://www.usbio.net/promos/genesig
USA	USBiological Sciences (with pricing details for 3 kits)	https://www.usbio.net/promos/genesig-covid-19
USA	Zageno	https://zageno.com/catalog/assays-labels-stains/assays-kits?brand_id=133
USA	Anatrace - Disinfectant Distributor!	https://www.anatrace.com/Products/Protein-Tools/Viral-Research-Tools/genesig%C2%AE-RT-PCR-Coronavirus-(COVID-19)-Kit

Novacyt SA			
You Tube & Other Media			
Source	Date	Narrative	Link
Primerdesign	14 Jan 2015	genesig Easy DNA/RNA extraction kit	https://www.youtube.com/watch?v=DvPuNu33opc
Primerdesign	23 Feb 2015	Analysing results from the genesig q16	https://www.youtube.com/watch?v=rIDZaRRmI64&t=60s
Primerdesign	25 Jul 2015	The genesig q16 intro movie	https://www.youtube.com/watch?v=KVXKolHrgJE
Primerdesign	09 Oct 2015	Setting up a genesig Easy test on the q16	https://www.youtube.com/watch?v=1q-Tp_6FqDE
Primerdesign	22 Oct 2015	Real-time PCR in the Amazon Jungle!	https://www.youtube.com/watch?v=M9F1ZWxlehc
Primerdesign	09 Aug 2017	genesig easy DNA/RNA extraction sample prep from beverage	https://www.youtube.com/watch?v=avTZHYiLO9k
Primerdesign	02 Jul 2019	Primerdesign qPCR Tips Check Your Melt Curves	https://www.youtube.com/watch?v=pP5yQbvrE9M
Primerdesign	05 Feb 2020	BBC South Today - Primerdesign's Coronavirus kit designed to detect the latest outbreak (2019-nCoV).	https://www.youtube.com/watch?v=pi5QTMfaw84
Primerdesign	14 Feb 2020	Our launch of the NEW CE-IVD Coronavirus (COVID-19) kit	https://www.youtube.com/watch?v=PL71KkQCfil
Primerdesign	11 Mar 2020	Primerdesign's COVID-19 assay and how our kit provides 100% detection profile of SARS-CoV-2.	https://www.youtube.com/watch?v=ff9hBpbYEik
Primerdesign	12 May 2020	Design and performance of our COVID-19 assay	https://www.youtube.com/watch?v=RhlnDd07uMU
Primerdesign	26 May 2020	Primerdesign's Production Capacity Growth	https://www.youtube.com/watch?time_continue=2&v=9VwVuUY4nPQ&feature=emb_logo
Primerdesign	05 Jun 2020	Maximising Primerdesign's COVID-19 Testing Capacity	https://www.youtube.com/watch?v=LIV8IZsNADA
Primerdesign	18 Jun 2020	Introducing exsig™	https://www.youtube.com/watch?v=fZnXXT6qJq
Primerdesign	25 Jun 2020	Exsig™ Direct	https://www.youtube.com/watch?v=feWWZ0mkX8s&app=desktop
Primerdesign	26 Jun 2020	Exsig™ Mag	https://www.youtube.com/watch?v=QrUilJeUZ-8
Primerdesign		PrimerDesign Youtube Channel	https://www.youtube.com/channel/UCbFfGSz0-0CiPe9ovoSOrLw
Facebook		Main Primerdesign Facebook page	https://www.facebook.com/realtimePCR/?epa=SEARCH_BOX
Facebook		Primerdesign Facebook - Video	https://www.facebook.com/pg/realtimePCR/videos/?ref=page_internal
Facebook	01 Jun 2017	Primerdesign Facebook - Video - APAC Distributor Meeting Bali	https://www.facebook.com/realtimePCR/videos/1526813604035430/
Twitter		Main Primerdesign Twitter page	https://twitter.com/PrimerdesignLtd?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor
Instagram		Main Primerdesign Instagram page	https://www.instagram.com/explore/locations/185953218121482/primerdesign/
Primerdesign		Primerdesign own Blog	https://blog.primerdesign.co.uk/
Primerdesign		Primerdesign Media Coverage - Perhaps in need of an update (last update Oct 2014)	http://www.primerdesign.co.uk/about/media-coverage

Corona-Virus - Time-line of other news & Events		
Date	Description	Comment
Fri 01 May 09	BBC News - The only news available re Primerdesign is years old!	http://news.bbc.co.uk/1/hi/england/hampshire/8029646.stm
Tue 12 Jul 16	Primerdesign acquired by Novacyt	https://www.setsquared.co.uk/primerdesign-acquired-by-novacyt-for-12-5m/
Thu 06 Feb 20	1st UK Corona-Virus case in the UK	
Thu 05 Mar 20	1st UK Corona-Virus death in the UK	
Wed 18 Mar 20	100th UK Corona-Virus death in the UK	
Mon 23 Mar 20	UK Shutdown started	All non essential businesses closed, people must stay at home
Sat 28 Mar 20	1,000 UK Corona-Virus deaths in the UK	
Sun 05 Apr 20	Queen Elizabeth II makes rare public broadcast	
Sun 26 Apr 20	Novacyt Financials.xls	My 1st draft (own use)
Sun 10 May 20	UK Shutdown revised	Stay alert, control the virus, save lives - Greater movement allowed
Mon 18 May 20	PrimerDesign Deliveries 40,000 Test Kits to Egypt	https://www.gov.uk/government/news/uk-company-delivers-over-40000-pcr-test-kits-to-egypt
Wed 20 May 20	The number of people in hospital with COVID-19 drops below 10,000 for the first time since March.	
Sat 06 Jun 20	Novacyt Financials.xls	1st published to London South East Forum - (To get any constructive feedback)
Sat 13 Jun 20	Warns of a Bubble (AVCT shares drop 21% on 15th June)!	https://www.telegraph.co.uk/investing/shares/five-unknown-healthcare-stocks-flying-year-experts-warn-bubble/
Mon 15 Jun 20	GW2014 : The price they sell them to small non NHS companies is £842 for 96 kits. That's £8.77.	
Mon 15 Jun 20	Face Coverings compulsory on public transport	
Mon 15 Jun 20	UK Shutdown Revised	General shops allowed to reopen
Thu 18 Jun 20	Launch of 3 new products by PrimerDesign	https://www.med-technews.com/news/diagnostics-firm-launches-new-products-to-support-covid-19-t/
Fri 19 Jun 20	UK Alert Level reduced from 4 to 3	Gradual relaxation of restrictions!
Thu 25 Jun 20	BATM Advanced Communications - Very good trading report (Similar business)	https://www.londonstockexchange.com/news-article/BVC/business-and-trading-update/14590726
Sun 28 Jun 20	PrimerDesign Deliveries 100,000 Tests to Egypt	https://www.gov.uk/government/news/british-embassy-holds-virtual-healthcare-webinar-on-covid-19
Mon 29 Jun 20	Reuters Special Report - What went wrong with UK's response - Plenty!	https://www.reuters.com/investigates/special-report/health-coronavirus-britain-tracing/
Tue 30 Jun 20	Yourgene Releases their Clarigene Sar2-Cov-2 test for Evaluation	https://www.londonstockexchange.com/news-article/YGEN/covid-19-assay-launched/14596135
Tue 30 Jun 20	Leicester Local Lockdown	https://www.bbc.co.uk/news/uk-england-leicestershire-53229371
Sat 04 Jul 20	UK Shutdown Revised	Pubs, restaurants, hotels, campsites and hairdressers can reopen
Wed 15 Jul 20	COVID-19: Overcoming supply shortages for diagnostic testing	https://www.mckinsey.com/industries/pharmaceuticals-and-medical-products/our-insights/covid-19-overcoming-supply-shortages-for-diagnostic-testing
Thu 16 Jul 20	Abbott tops Q2 estimates aided by 233.6% jump in molecular diagnostics	https://www.medtechdive.com/news/abbott-q2-tops-wall-street-estimates-buoyed-by-covid-19-test-surge/581728/
Fri 17 Jul 20	A million mink culled in Netherlands and Spain amid Covid-19 fur farming havoc	https://www.theguardian.com/world/2020/jul/17/spain-to-cull-nearly-100000-mink-in-coronavirus-outbreak
Fri 17 Jul 20	UK Capacity will be increased to at least 500,000 tests a day by the end of October	https://www.bbc.co.uk/news/uk-53438486

Novacyt SA		
Alternative Testing & Combating Technologies		
New & Alternative Technologies for Testing for Covid-19		
20th April 2020	The Centre for Evidence-Based Medicine (CEBM)	https://www.cebm.net/covid-19/what-tests-could-potentially-be-used-for-the-screening-diagnosis-and-monitoring-of-covid-19-and-what-are-their-advantages-and-disadvantages/
BioSensors	Swiss Federal Laboratories for Materials Science and Technology (Empa)	https://www.europeanpharmaceuticalreview.com/news/117659/developing-a-covid-19-biosensor-for-faster-diagnostics-and-environmental-monitoring/
BioSensors	Frontiers in Chemistry	https://www.frontiersin.org/articles/10.3389/fchem.2020.00517/full
BioSensors	Biosensors using Graphene	https://www.electropages.com/blog/2020/05/graphene-biosensor-designed-diagnose-covid-19
Breath Test (very early stages)	Breath Test - South Africa	https://www.the-scientist.com/news-opinion/in-south-africa-covid-19-breath-test-trial-set-for-june-67631
Breath Test (very early stages)	Breath Test - Australia	https://7news.com.au/lifestyle/health-wellbeing/the-world-first-on-the-spot-covid-test-that-could-detect-the-virus-in-minutes-c-1135877
Breath Test 29/06/20	Breath Test - Finland	http://www.xinhuanet.com/english/2020-06/29/c_139175999.htm
Breath Test (very early stages)	Breath Test - UK	https://www.lifescienceindustrynews.com/clinical-need/developing-a-patient-friendly-breath-test-for-covid-19/
Breath Test (very early stages) 22/4/20	Breath Test - Israel	https://www.timesofisrael.com/israeli-startup-hopes-to-sniff-out-deadly-coronavirus-via-breath-tests/
9th July 2020	Breath Test - Israel - Aiming for 10-second result, breathalyzer detector	https://www.timesofisrael.com/israeli-startups-breathalyzer-detector-for-covid-19-begins-early-tests/
21st May 2020	Breath Test - UCLA - USA	https://newsroom.ucla.edu/stories/ucla-team-receives-nsf-grant-to-develop-breathalyzer-like-diagnostic-test-for-covid-19
Breath Test (very early stages)	Using a Special Mask Insert - University of Leicester	https://www.technologynetworks.com/diagnostics/articles/mask-sampling-for-covid-19-detection-333724
Ben-Gurion University	One minute electro-optical coronavirus test developed	https://www.eurekalert.org/pub_releases/2020-05/aabu-ome052220.php
Crispr (5th May 2020)	New York Times - Crispr Technology	https://www.nytimes.com/2020/05/05/health/crispr-coronavirus-covid-test.html
Intelligent Fingerprinting	The 10 minute fingerprint test for Covid-19	https://www.intelligentfingerprinting.com/imperial-college-london-intelligent-fingerprinting-covid-19-fingerpri
21st May 2020 (LAMP)	Trial of rapid coronavirus test launched in Hampshire (Lamp Technology)	https://www.gov.uk/government/news/trial-of-rapid-coronavirus-test-launched-in-hampshire
16th July 2020 (LAMP)	Trial of rapid coronavirus test launched in Hampshire (Lamp Technology)	https://hampshirehospitals.nhs.uk/news-events/news/lab-van-supporting-hampshire-communities-fight-against-covid-19
17th Jul 2020 (LAMP)	Would you spit in a tube every week to end the pandemic? (LAMP)	https://www.bbc.co.uk/news/health-53437555
Field-effect transistor technology	Hand Held device - results in 5 minutes for \$10	https://news.uchicago.edu/story/handheld-covid-19-test-could-deliver-results-five-minutes-just-10
Microfluidic chip-based diagnostic	Portable COVID-19 micro-PCR diagnostic - Epidax system	https://news.nus.edu.sg/research/portable-point-care-test-covid-19-diagnosis
Microfluidic chip-based diagnostic	MiCo BioMed, South Korea (Each Device can test as many as 140 samples per day).	https://www.uc.edu/news/articles/2020/03/n20899023.html
Impedance spectroscopy	Mobi SensDx electrochemical impedance spectroscopy reader	https://www.sensdx.eu/products/sars-cov-2-sensdx-assay/
Impedance spectroscopy	Elsevier B.V.	https://www.journals.elsevier.com/results-in-materials/news/seeking-simpler-tests-for-viruses
Combating The Corona Virus (Removing / Destroying)		
Air-Filtration	Combating airborne transmission through small particles	https://www.camfil.com/en-gb/insights/life-science-and-healthcare/virus
Air-Filtration	Are HEPA Air Purifiers Effective Against COVID-19 Coronavirus?	https://www.techgearlab.com/expert-advice/are-hepa-air-purifiers-effective-against-covid-19-coronavirus
UVC LEDs for Disinfection	KLARAN UNIVERSITY (USA)	https://www.klaran.com/in-the-lab/coronavirus
UVC LEDs for Disinfection	Science Daily (University of California - Santa Barbara)	https://www.sciencedaily.com/releases/2020/04/200414173251.htm
UVC LEDs for Disinfection	Sciences Engineering	https://sites.nationalacademies.org/BasedOnScience/covid-19-does-ultraviolet-light-kill-the-coronavirus/index.htm
UVC LEDs for Disinfection	International Ultraviolet Association (IUVA)	https://www.iuva.org/IUVA-Fact-Sheet-on-UV-Disinfection-for-COVID-19

Novacyt SA		
Covid-19 - Other Investments		
Ticker Code	Company	Details
AVCT	Avacta Group PLC	Shareholder from 08/04/2020 to 18/05/2020 (Sold, lack of substance in RNS)
BVC	Batm Advanced Communications	Shareholder from 27/04/2020 (Medium Holding)
EKF	Ekf Diagnostics Holdings	Shareholder from 09/04/2020 (Medium Holding)
HEMO	Hemogenyx Pharmaceuticals PLC	Shareholder from 29/04/2020 (Minor holding)
NCYT	Novacyt SA	Shareholder from 07/02/2020 (Important Holding)
ODX	Omega Diagnostics	Shareholder from 24/04/2020 to 02/07/2020 (Sold, lack of PHE / NHS approval for Microgen test! Lost faith in the management, rights issue)
RENX	Renalytix AI plc	Shareholder from 20/05/2020 (Medium holding)
YGEN	Yourgene Health PLC	Shareholder from 25/03/2020 (Medium Holding)
Related Healthcare & "Shutdown" Investments		
IHC	Inspiration Healthcare Group PLC	(Small Holding)
TSTL	Tristel PLC	(Medium holding)
BYOT	Byotrol PLC	(Medium holding)
LOOP	LoopUp Group PLC	Premium remote meetings solution

Novacyt SA			
Competing PCR Tests (Major)			
Country	Name	Test Name	Link
Ecuador	Distributor		https://www.nsmmedicaldevices.com/news/precheck-health-to-exclusively-distribute-coronavirus-covid-19-test-in-ecuador-for-co-diagnostics/
Germany	Altona Diagnostics GmbH	RealStar	https://altona-diagnostics.com/en/products/reagents-140/reagents/realstar-real-time-pcr-reagents/realstar-sars-cov-2-rt-pcr-kit-ruo.html
Germany	Siemens Healthineers	FTD SARS-CoV-2 Assay	https://www.siemens-healthineers.com/en-uk/press-room/press-releases/confirmatory-test-kit-for-coronavirus-covid-19.html
Germany	Tib Molbiol/Roche Diagnostics	ModularDx Kit SARS-CoV (COVID19) E-gene	https://www.bloomberg.com/news/articles/2020-03-12/a-berlin-biotech-company-got-a-head-start-on-coronavirus-tests
Holland	Mainly Roche	cobas - Sars-CoV-2 PCR Test	https://www.ftm.nl/artikelen/test-test-test-only-if-it-pleases-roche?share=0AB3rvFDVDogwt4RTzo4IISyMoDrHzISmWV6wdb9ca4VQXrM/4hd3DeC
Italy	Clonit srl	quanti COVID-19 kit CE-IVD	https://www.clonit.it/en/news/covid-19-1/
Korea	SD Biosensor	STANDARD M nCoV Real-Time Detection Kit	http://sdbiosensor.com/xs/product/7662
Poland	BioMaxima	SARS-CoV-2 Real Time PCR LAB-KIT	https://biomaxima.com/737-sars-cov-2.html
Spain	Certest	VIASURE	https://www.certest.es/viasure/
Switzerland	Roche	cobas - Sars-CoV-2 PCR Test	https://diagnostics.roche.com/global/en/c/covid-19-pandemic.html
UAE	BGI Genomics, China		https://www.bgi.com/global/
UAE	UAE set up massive coronavirus testing laboratory in 14 days: Science companies		https://english.alarabiya.net/en/News/gulf/2020/04/01/UAE-set-up-massive-coronavirus-testing-laboratory-in-14-days-Reports
USA	Abbott	RealTime e SARS-CoV-2	https://www.molecular.abbott/int/en/products/infectious-disease/RealTime-SARS-CoV-2-Assay
USA	Cepheid	Xpert Xpress	https://www.cepheid.com/coronavirus
USA	PerkinElmer	Perkin Elmer Sars-CoV-2 PCR test	https://perkinelmer-appliedgenomics.com/home/products/sars-cov-2-real-time-rt-pcr-assay-ce-ivd/
USA	Promega Manufacturing - With Co-Diagnostics kit	Logix Smart™	https://www.promega.co.uk/aboutus/press-releases/global/2020/promega-to-manufacture-test-kits-for-co-diagnostics-new-coronavirus-test/
USA	Qiagen		https://www.qiagen.com/gb/customer-stories/suppliers-behind-the-front-lines-of-covid-19
USA	Thermo Fisher Scientific	TaqPath COVID-19 Multiplex	https://www.thermofisher.com/uk/en/home/clinical/clinical-genomics/pathogen-detection-solutions/taqpath-covid-19-diagnostic-kit.html
USA & Singapore	Vela Diagnostics	ViroKey SARS-CoV-2 RT-PCR	https://www.genomeweb.com/molecular-diagnostics/vela-diagnostics-automated-coronavirus-test-gets-ce-ivd-mark#_XxllsVW2mUk
	Companies behind PCR Testing		https://ojo-publico.com/1741/biotech-groups-behind-covid-19-test
	FINN - Switzerland - Report of PCR Testing	Listing of companies	https://www.finddx.org/covid-19/sarscov2-eval-molecular/molecular-eval-results/
	Study for Roche & Cepheid		https://www.rapidmicrobiology.com/news/cdc-roche-and-cepheid-rt-pcr-covid-19-tests-score-over-96-accuracy-in-study
	Top 8 Test Kit Suppliers		https://www.businesswire.com/news/home/20200609005020/en/Top-8-Coronavirus-COVID-19-Test-Kit

Novacyt SA		
UK Competitor News (PCR Tests)		
Randox Laboratories		
Sun 19 Feb 17	Two employees of Randox Testing Services arrested	https://www.theguardian.com/uk-news/2017/feb/19/manchester-lab-randox-drink-drug-tests-toxicology-may-have-been-manipulated
Thu 06 Dec 18	Convictions for drug-driving quashed in forensics lab inquiry	https://www.theguardian.com/uk-news/2018/dec/06/forty-convictions-quashed-after-investigation-at-uk-forensics-lab
Thu 06 Dec 18	Randox forensics inquiry: Forty drug-driving offences quashed	https://www.bbc.co.uk/news/uk-england-manchester-46466710
Mon 11 May 20	Won Contract £133m unopposed	https://www.theguardian.com/world/2020/may/11/healthcare-firm-advised-by-owen-paterson-won-133m-coronavirus-testing-contract-unopposed
Thu 16 Jul 20	UK government orders halt to Randox Covid-19 tests over safety issues	https://www.theguardian.com/world/2020/jul/16/uk-government-orders-halt-randox-covid-19-tests-over-safety-issues
Genefirst		
Fri 01 May 20	Real-time PCR-based test for the detection of two targets (ORF1ab and N gene)	https://www.genefirst.com/covid-19
Yourgene		
Tue 30 Jun 20	Clarigene™ SARS-CoV-2 - Launch for Research use only	https://www.investigate.co.uk/yourgene-health-plc/rns/covid-19-assay-launched/202006300700054466R/