NOVACYT (+)

Initiation of coverage

Opinion	BUY
Target price	2,4 €
Upside potential	+79%

in € / share	2015	2016e	2017e	2018e
Adjusted EPS	-0,58	-0,13	-0,03	0,02
chg.	*n.s.*	*n.s.*	*n.s.*	*ns*
estimates chg	*n.s.*	*n.s.*	*n.s.*	*n.s.*

ISIN	FR0010397232
Ticker	ALNOV-FR
DJ Sector	Health Technology

Current price	€1,3
Nb of Shares (m)	12,4
Diluted nb of shares (m	21,1
Market cap. (m€)	13,1
Free float (m€)	4,8

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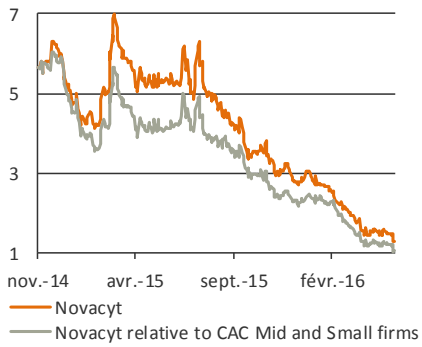
Absolute chg.	-18,9%	-42,7%	-75,5%
Relative chg.	-18,6%	-53,4%	-70,3%



31/12	2015	2016e	2017e	2018e
PE	n.s.	n.s.	n.s.	76,1x
EV/Sales	3,51x	1,20x	1,35x	1,42x
EV/EBITDA	n.s.	n.s.	20,9x	13,7x
EV/EBITA	n.s.	n.s.	high	29,2x
FCF yield*	n.s.	n.s.	0,4%	3,2%
Div. yield (%)	0,0%	0,0%	0,0%	0,0%
Net debt/EBIT	n.s.	n.s.	-0,5x	0,3x

* After tax op. FCF before WCR

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A real change in the paradigm with Primer Design

We are initiating NOVACYT with a recommendation for BUY and an objective of €2.4 (+53%). With the acquisition of Primer Design, the group cross a turning point in terms of size (Consolidated turnover 2016e of €13.9m), of profitability (EBITDA 2016e close to breakeven) and may be successful in self-financing its operation in 2017. NOVACYT have a balanced portfolio of activity (cytology, haematology/serology, microbiology and molecular biology) with strong perspectives for growth (CAGR CT for 2016-18e of + 14%) without yet incorporating the expected synergies of the acquisition.

- Novacyt was introduced on the Stock market in October 2012 based on its Novaprep activity of liquid-based cytology (LBC) diagnostic testing. This challenger differs by innovation to compete with the two-company duopoly formed by Hologic and Becton Dickinson. **After reaching a maximum of about €1m prior to acquiring Lab21, sales of Novaprep are taking off under new management.** We anticipate high sales growth (CAGR 2016-18e of 37%) with consolidated turnover 2018e of €3.9m. **New partnerships are to be announced (distribution, co-testing, etc.) offering additional growth levers, conditions necessary to plan a positive EBITDA (earnings before interest, taxes, depreciations and amortisation) in the medium term.**

- In 2014, Novacyt acquired Lab21 which offers diagnostic services with its medical laboratory and two entities (haematology/serology and microbiology) focused on development/manufacture/marketing of test kits. The haematology/serology division is a mature and profitable activity positioned in niche markets (emergent markets). The **Microbiology division, focused on immunology and biochemisty techniques, will fully benefit from expected synergies with Primer Design. Between now and then, the CAGR 2016-18e of consolidated turnover emerges at +6% and the Gross Margin is close to 50%,**

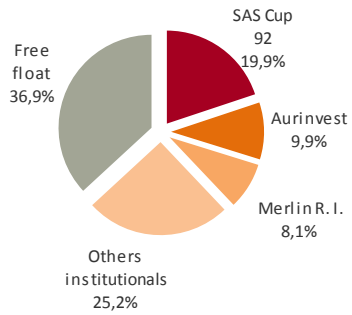
- **Beginning of May, Novacyt has finalised the acquisition of Primer Design for a total of €18.9m (of which €5.9m of variable).** This operation led to emergence of multiple EV/CT (enterprise value/consolidated turnover) and reasonable EV/EBITDA of 3.5x-10.7x in 2015 and 3.2x-9.1x in 2016e, respectively. This molecular diagnostics firm is specialised in the design, manufacture and sale of real time PCR kits and markets a proprietary technology platform named Genesig. The company has enjoyed high profitable growth with EBITDA 2016e of €2.09m (an EBITDA margin of 35%) for a turnover of €5.9m (+15% in organic growrh).

- **Consolidated turnover (CT) already shows high growth (CAGR 2016-18e of +14%) and has the potential for revision with a significant increase fuelled by the synergies related to the acquisition focused on the following:** (i) marketing of the offer of products from Primer Design via the Novacyt distribution network (Lab21) for clinical marketing and (ii) the technological complementary feature of the Novaprep (cytology) and molecular Genesig (molecular biology) platforms.

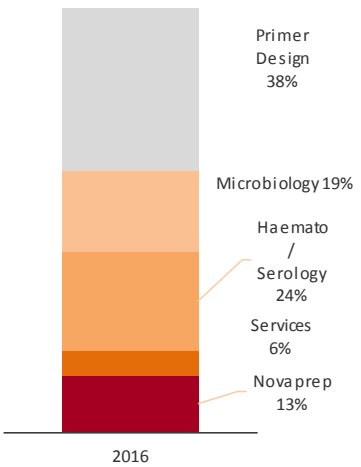
- **The target of 2.4 € (+ 79%) is obtained by averaging the comparable method of a Medtech sample (2,2 €) and a DCF (2,5 €).** This objective includes all the group's financing needs until it can be self-financing from 2018. We have assumed a capital increase (€ 7m) in 2017 based on the current share price. Given the low valuation and Novacyt's likely capacity to raise debt at that date, this approach seems is more penalizing in terms of dilution. **A rise in the stock price would have a significant accretive impact on our goal and funding exclusively by debt (without dilution from the AK) would aim 2.8 €.**

Financial data

Shareholders (31/12/2015)	
SAS Cup 92	19,9%
Aurinvest	9,9%
Merlin R. I.	8,1%
Others institutionals	25,2%
Free float	36,9%



2016e Sales breakdown	
Novaprep	13%
Services	6%
Haemato / Serology	24%
Microbiology	19%
Primer Design	38%



Next events	
AGM for 2015 results	28/06/16
Half-year 2016 revenues	21/07/16
Half-year 2016 results	27/10/16

Share information	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
Published EPS (€)	nd	nd	-0,23	-0,35	-0,83	-2,07	-0,23	-0,03	0,02
Adjusted EPS (€)	**nd**	**nd**	**-0,19**	**-0,35**	**-0,35**	**-0,58**	**-0,13**	**-0,03**	**0,02**
Chg. vs Consensus	*nd*	*nd*	*-11,1%*	*-15,5%*	*nd*	*nd*	*nd*	*nd*	*nd*
Net Asset	nd	nd	0,66	0,78	3,27	1,46	1,56	1,40	1,42
Dividend	nd	nd	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Valuation ratios	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
P/E	nd	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	76,1x
EV/Sales	nd	nd	18,97x	18,23x	5,48x	3,51x	1,20x	1,35x	1,42x
EV/EBITDA	nd	nd	n.s.	n.s.	n.s.	n.s.	n.s.	20,9x	13,7x
EV/EBITA	nd	nd	n.s.	n.s.	n.s.	n.s.	n.s.	high	29,2x
FCF op. bef. WCR yield	nd	nd	n.s.	n.s.	n.s.	n.s.	n.s.	0,4%	3,2%
FCF op. yield	nd	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	2,1%
Div. yield (%)	nd	nd	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%

Entreprise Value (m€)	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
Share price in €	*nd*	*nd*	*8,3*	*7,7*	*5,6*	*4,4*	*1,3*	*1,3*	*1,3*
Market cap.	nd	nd	20,5	21,8	25,8	29,5	13,1	24,8	28,3
Net Debt	nd	nd	-0,6	-0,8	-1,1	1,7	3,3	-0,6	0,7
Value of minorities	nd	nd	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Provisions/ near-debt	nd	nd	0,1	0,0	0,2	0,2	0,2	0,2	0,2
+/- Adjustments	nd	nd	0,0	-0,1	0,0	-0,3	-0,3	-0,3	-0,3
Entreprise Value (EV)	**nd**	**nd**	**20,0**	**21,0**	**24,8**	**31,2**	**16,4**	**24,1**	**28,9**

Income statement (m€)	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
Sales	nd	0,9	1,1	1,2	4,5	8,9	13,6	17,9	20,3
chg.	*nd*	*nd*	*+19,3%*	*+9,0%*	*ns*	*+96,3%*	*+53,0%*	*+31,4%*	*+13,6%*
EBITDA	nd	-0,6	-0,4	-1,1	-1,9	-2,9	-0,7	1,2	2,1
EBITA	**nd**	**-0,7**	**-0,6**	**-1,3**	**-2,0**	**-3,2**	**-1,4**	**0,2**	**1,0**
chg.	***nd***	***nd***	***ns***	***ns***	***ns***	***ns***	***ns***	***ns***	***ns***
EBIT	nd	-0,7	-0,6	-1,2	-3,6	-13,2	-1,4	0,2	1,0
Financial income (expense)	nd	-0,1	-0,1	0,0	-0,2	-0,7	-0,9	-0,8	-0,6
Corp. tax	nd	0,1	0,1	0,2	0,0	0,0	0,0	0,0	0,0
Minorities+affiliates	nd	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net attributable profit	nd	-0,7	-0,6	-1,0	-3,8	-13,9	-2,3	-0,6	0,4
Adjusted net att. profit	**nd**	**-0,6**	**-0,5**	**-1,1**	**-2,2**	**-4,2**	**-2,1**	**-0,6**	**0,4**
chg.	***nd***	***nd***	***ns***	***ns***	***ns***	***ns***	***ns***	***ns***	***ns***

Cash flow statement	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
EBITDA	nd	-0,6	-0,4	-1,1	-1,9	-2,9	-0,7	1,2	2,1
Theoretical Corp. Tax / EBITA	nd	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Capex	nd	-0,2	-0,6	-0,4	-0,6	-0,8	-1,0	-1,1	-1,2
After tax op. FCF bef. WCR	**nd**	**-0,8**	**-1,0**	**-1,4**	**-2,5**	**-3,8**	**-1,6**	**0,1**	**0,9**
Change in WCR	nd	-0,1	0,1	-0,5	1,5	-1,8	-1,0	-0,4	-0,3
After tax op. FCF aft. WCR	**nd**	**-0,8**	**-0,9**	**-2,0**	**-0,9**	**-5,6**	**-2,6**	**-0,3**	**0,6**
Acquisitions/disposals	nd	0,0	0,0	0,0	-1,2	0,0	-6,6	-2,0	-1,3
Capital increase/decrease	nd	1,0	3,1	1,7	3,2	4,1	8,5	7,0	0,0
Dividends paid	nd	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other adjustments	nd	0,0	0,1	0,5	-0,7	-1,4	-0,9	-0,8	-0,6
Free Cash Flow	**nd**	**0,3**	**2,3**	**0,2**	**0,3**	**-2,8**	**-1,6**	**3,9**	**-1,3**

Balance Sheet	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
Assets	nd	1,0	1,4	1,2	20,5	11,2	24,6	26,7	28,0
Intangible assets/GW	*nd*	*0,0*	*0,0*	*0,0*	*18,8*	*9,3*	*22,1*	*24,1*	*25,4*
WCR	nd	-0,1	-0,2	0,3	-0,9	0,9	1,9	2,3	2,6
Group equity capital	nd	-0,9	1,6	2,3	20,5	10,5	23,2	29,6	30,0
Minority shareholders	nd	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Provisions	nd	0,1	0,1	0,0	0,2	0,2	0,2	0,2	0,2
Net financial debt	**nd**	**1,7**	**-0,6**	**-0,8**	**-1,1**	**1,7**	**3,3**	**-0,6**	**0,7**

Financial ratios	2010	2011	2012	2013	2014*	2015	2016e**	2017e	2018e
EBITDA/Sales	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	6,4%	10,4%
EBITA/Sales	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	1,1%	4,9%
Adjusted Net Profit/Sales	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	1,8%
WCR/Sales	nd	-9,8%	-20,8%	24,8%	-19,7%	10,3%	14,1%	12,9%	12,9%
ROCE excl. intangible/GW	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	3,9%	18,9%
ROE adjusted	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	1,2%
ND/Shareholders' equity	nd	n.s.	-33,9%	-33,9%	-5,4%	16,0%	14,2%	-2,1%	2,3%
ND/EBITDA (in x)	nd	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	-0,5x	0,3x

Lab 21 consolidated in July 2014/Primer Design consolidated in March 2016*

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1 – Market panorama for In Vitro Diagnostics (IVD)

1 – Market panorama for In Vitro Diagnostics (IVD)

The term IVD (in vitro diagnostics) combines all techniques, equipment and products which make it possible to produce tests using tissue samples or biological fluids (blood, urine, etc.) collected from patients.

IVD participates in different stages in the healthcare course of patient management (screening, diagnostics, etc.) and use several techniques, used independently or combined (co-testing). IVD devices can range from simple tests up to sophisticated technologies involving reagents, standardisers, control equipment kits, software and related instruments. Schematically, products intended for the IVD market of laboratories are comprised of consumables (85% of sales in France) and instruments (15%).

The value of the world market for IVD was about $56Mds in 2015 according to Research and Markets and should grow at a mean annual rate of +5.8% for the period 2015-2020e to reach $75Mds.

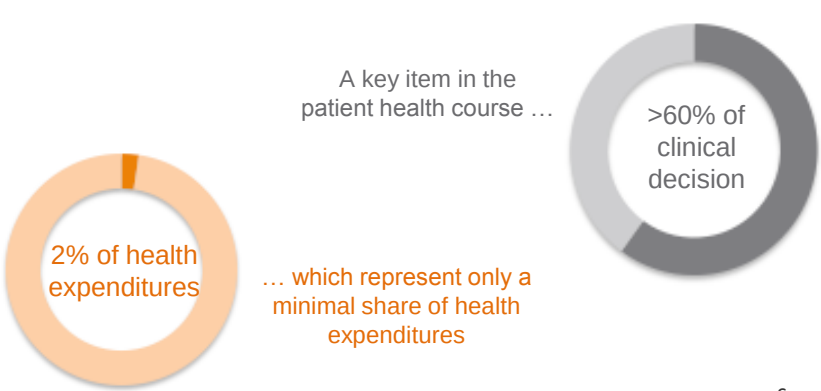
1.1 Characteristics of the IVD market

1.1.1 The diagnostics industry at the heart of the decision making device of the healthcare system

IVD: a decisive contribution to the quality of the healthcare course

The in vitro diagnostics industry is an integral part of the healthcare system. Diagnostic tests provide a decisive contribution to the quality of healthcare and have a favourable impact on health economics:

- IVD seeks to improve management of the patient. About 60% to 70% of diagnostics and therapeutic follow-up in outpatient practice is performed based on clinical laboratory tests and this proportion rises up to 80% in the hospital setting.
- Apart from medical utility, IVD integrates an economic dimension which enables better control of health expenditures (reduction of risk of therapeutic " wandering » or of self-prescription), a major economic challenge in all countries world-wide. On a world-wide scale, expenditures for diagnostic tests account for only 1% (2.4% in France) of budgetary resources allocated to health.



Source Biomérieux

1 – Market panorama for In Vitro Diagnostics (IVD)

1.1.2 IVD, a key element for each step in the healthcare course

IVD tests provide crucial information in each key step of the healthcare course of management: 1) prevention, screening, detection, 2) diagnosis and evaluation of a disease, 3) screening and treatment follow-up, 4) monitoring and management of a disease.

Use	Purpose	Examples
 **Prevention, Screening, Detection**	Detection of asymptomatic diseases or prevention of disease. Set up of actions specific to prevent them by changing risk factors. Early treatment.	• Measurement of serum cholesterol: cardiovascular disorders. • Cytology and Papillomavirus test: cancer of the uterine cervix. • Genetic tests. • Glycaemia: diabetes.
 **Diagnosis or evaluation of a disease**	Confirmation of the diagnosis after clinical examination. Determination of progression or of severity of the disease and evaluation of risks of recurrence or complication.	• Screening for Streptococcus: Bacterial infection. • Measurement of cardiac markers (ex.: troponin, myoglobin): rapid evaluation of a cardiac lesion, a heart attack.
 **Selection and Follow-up of a therapy**	Selection of precise and targeted treatment, the most appropriate for individual needs.	• Genetic test: probability of recurrence of breast cancer and guidance to treatment decisions.
 **Monitoring and Management of a disease**	Understanding of the course of a disease or of the effects of a therapy to evaluate the success of a treatment or to determine the needs for treatment or laboratory tests.	• Viral load, blood count, CD4 count, biochemistry tests: evaluation of response to treatment in patients who are HIV positive. • Measurement of Alpha-fetoprotein (AFP): follow-up of therapeutic efficiency in patients with cancer of the liver, testes or ovary.

Source ADVAMED

1 – Market panorama for In Vitro Diagnostics (IVD)

1.1.3 A collection of techniques serving IVD

IVD uses different techniques which can be used independently or combined, and then this is called co-testing.

Different IVD techniques

Technologies	Characteristics	Examples
Everyday biochemistry	Measurement of basic components of the body.	• Strip step for urinalysis • Measurement of Calcium • Measurement of HbA1c
Haematology	Study of the blood.	• Complete blood count • Coagulation tests • Determination of blood group
Cytology	Morphological study of cells by observation under the microscope.	• Cytology associated with the Papillomavirus test in screening for uterine cervical cancer.
Immunochemistry	Antigen-antibody reaction enabling the detection or measurement of infectious agents (bacteria, viruses, parasites) and of markers of disease.	• Antibiotic susceptibility testing • Screening for anti-HiV antibody • Measurement of tumour markers
Microbiology	Culturing of biological samples in a medium enabling bacteria to multiply.	• Screening for streptococci • Cytobacteriological examination of the urine (urinalysis)
Molecular biology	Detection of genetic sequences of DNA or of RNA characteristics of a bacterium, a virus, a protein or a cell.	• Screening for BRCA-1 and BRCA-2 genes for determination of individual risk of development of breast or ovary cancer. • Determination of HIV viral load

Source : ADVAMED, Biomérieux, Roche

1.1.4 How are tests performed?

Depending on type, IVD tests are executed either in a clinical laboratory or directly in doctors' offices or in hospital departments or by patients themselves.

- **Tests for clinical analysis laboratories:** complex tests, in particular, requiring sophisticated technological equipment are performed by public or private specialised laboratories. Samples are collected or sent to the laboratory which then takes charge of communicating results to the prescribing doctor and to the patient.
- **Tests at the patient's bedside:** these tests are performed by healthcare professionals (doctors or nurses) in doctors' offices or in hospital centres. Results have the advantage of being quickly available, in particular, in order to enable diagnosis or follow-up and to manage a disease.
- **Self-tests**: simple to use and interpret, these tests are designed to be used directly by patients. Tests to measure blood glucose for management of diabetes, as well as pregnancy tests fall into this category.

1 – Market panorama for In Vitro Diagnostics (IVD)

1.2 Clients and IVD products

1.2.1 Structure of the clientele

Schematically, the clientele of the IVD industry is broken down into 2 categories:

- The healthcare professionals market (B to B) comprised primarily of clinical analysis laboratories and of pathology laboratories (40% du CT (consolidated turnover) in France) and of hospital centres (35% of CT),
- The market intended for users (B to B to C), represents 21% of CT in France, with the release of "self-tests" such as those intended to measure blood glucose.

B to B is the essential component of the market (75% in France)

In Vitro Diagnosis	
Healthcare professionals (B to B)	Users (B to B to C)
- Private clinical analysis laboratories (LBM) and pathology laboratories (ACP) - Public and private hospital centres (HC) - Blood banks - Other clients (occupational medicine, teaching/research, etc.)	- Wholesaler distributors /pharmacies Self-tests: - Blood glucose - Tests: INR, etc.

Source : SIDIV, Invest Securities

1.2.2 Typing of products and systems marketed

IVD devices can range from simple tests up to sophisticated technologies involving reagents, standardisers, control equipment, kits, software and related instruments.

Products for the IVD market of laboratories consist of consumables (85% of sales in France) and of instruments (15%).

- Consumables cover primarily recipients for samples and reagents. This activity is characterised by recurrence of sales and comprises the major share of results of the industrial firms in the sector.
- Instruments are automated analytical systems (hard + soft) and most often specialising in a technology (biochemistry, immunology, cytology, etc.). The price of these machines is between €15,000 and €150,000 on average. Automation enables important savings in terms of productivity, as well as standardisation of processes and greater reliability of results.

1.2.3 Business model

An economic model synonymous with high barriers to entry for all new entering parties

Generally, the combination reagents/instruments/software is designed via closed systems. In practice, consumables from a firm can be used only with instruments from this same firm. This type of model makes it possible to make the customer faithful and to ensure captive revenue via sales of consumables.

In practice, laboratories are less and less inclined to invest in the purchase of relatively costly systems. The current trend, reinforced by stagnant economic growth, favours the development of release (MAD), the rental or purchase of CPR (Patient Cost Delivered). In this case, the investment is underwritten by the firm whose financing is provided by an extra charge on the purchase price of consumables.

1 – Market panorama for In Vitro Diagnostics (IVD)

1.2.4 A sector which is characterised by major investment in R&D

Innovation is one of the principal elements of differentiation between the players in IVD. In Europe, IVD firms invest approximately 10% of CT (consolidated turnover) in R&D. Let us emphasise that small and medium sized firms in the sector are recognised as the engine of this innovation.

R&D: about 10% of the CT of the sector

This innovation most often involves improvement of existing techniques and tools in the area of reagents (which are used to perform the analysis) or instruments (automation, etc.). We then refer to this as incremental innovation. SIDIV (Industrial Association of In Vitro Diagnostics) estimates that investment in incremental research represents between 70 and 75% of budgets of R&D of the industry.

1.3 The IVD market

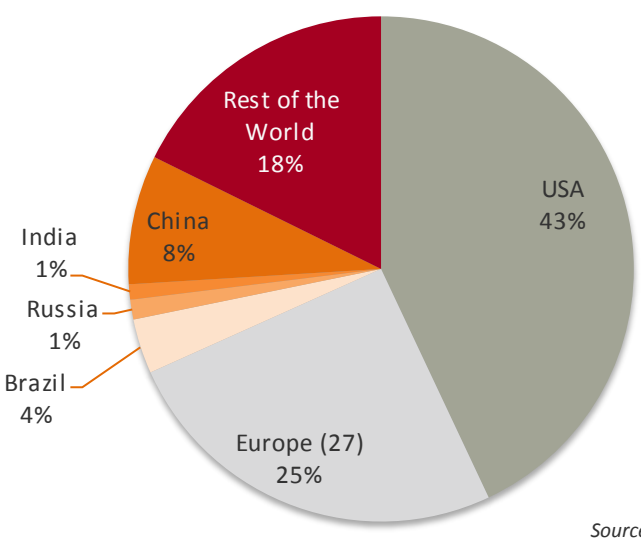
1.3.1 The world market

The world market for IVD is evaluated at about $56Mds in 2015 by Research and Markets and should increase at a mean annual rate of +5.8% during the period 2015-2020e to reach $75Mds.

The world market of IVD is estimated at $56Mds in 2015

The US is the largest market for IVD devices with 43% of world market, followed by Europe with over 25%. The policies for reduction of healthcare budgets conducted in the developed countries tend to limit reimbursement of clinical laboratory tests and of innovative tests, having the effect of reducing growth of the IVD industry. Generally, the emerging countries in Asia, in particular, have the highest growth rates (>10%), in particular through the set up of a policy of prevention of infectious diseases by governments. Generally, world-wide, the principal factors for rise in the IVD market are: increased awareness of patients to healthcare problems, the release for availability of self-diagnostic tests and the demographic explosion related to the baby-boom in emerging countries and to ageing of the population.

World distribution of the market for IVD



Source : EDMA, Research and Markets

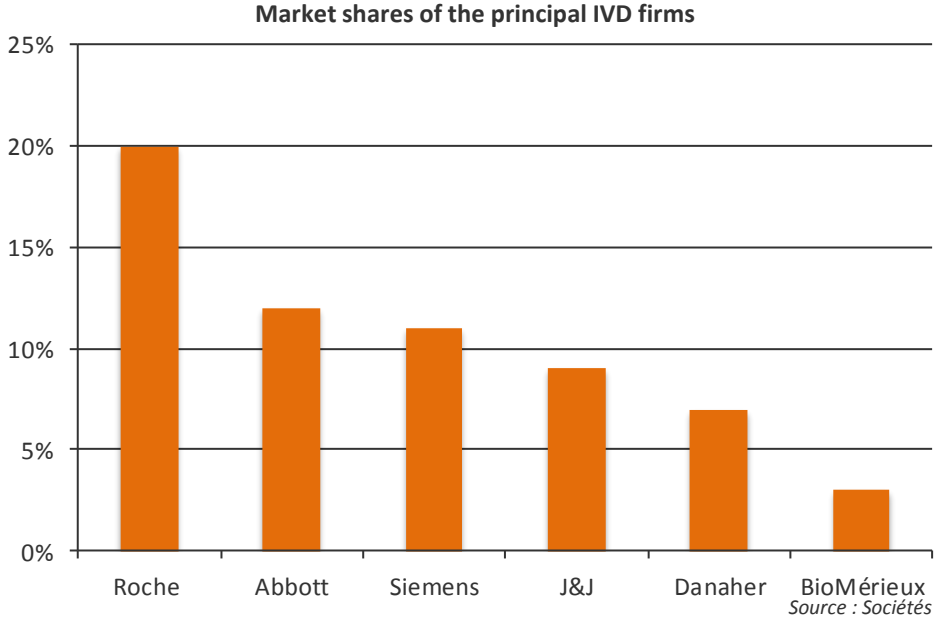
1 – Market panorama for In Vitro Diagnostics (IVD)

The 6 leading industrial firms in IVD account for over 60% of the market

1.3.2 The Blue chip IVD companies

The 6 principal IVD market players are: Roche, Abbott, Siemens, Johnson and Johnson, Danaher and Biomérieux. These six firms have 62% of the world market of IVD.

Market shares of the principal IVD firms



Source : Sociétés

Three players hold market shares greater than 10%:

- Roche Diagnostic, the affiliate of the pharmaceutical group, is the world leader with a market share estimated at about 20%. This group has a large portfolio of diagnostics in the field of infectious diseases (HPV, HIV, hepatitis, etc.).
- Abbott is the 2nd leading player with a market share of 12%. Immunochemistry comprises the majority of sales, but molecular biology is the most dynamic activity (HIV, Viral hepatitis, etc.).
- Siemens Healthcare has about 11% of the IVD market with a strong presence in the fields of immunology, haematology, molecular biology, urinalysis and blood gas analysis systems.

2 – Novacyt: a diversified group in in vitro diagnostics

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2 – Novacyt: a diversified group in in vitro diagnostics

Novacyt is a diversified group in in vitro diagnostics. Novacyt was founded in 2006 and specialises in liquid based cytology (LBC) diagnosis. In 2014, Novacyt acquired Lab21 which enabled it to extend its activity to the fields of haematology/serology and microbiology. In 2016, Novacyt concluded a contract for the purpose of acquiring the Primer Design firm which will enable it to hold a strong position in molecular biology.

2.1 Activities of the Novacyt group

The Novacyt group consists of 3 separate entities whose principal characteristics are summarised in the following table:

	NOVACYT	Lab 21	Primerdesign
Positioning			
Activity	Liquid based cytology	Clinical haematology/serology microbiology laboratory	Molecular biology
Product services	Consumables and automated analyser	Laboratory services Consumables	Consumables and automated analyser
Location	France	UK	UK
Figures			
Number of salaried staff	15	65	25
2016e Sales	€2.1 m	€8.1 m	€5.9 m
EBITDA margin 2016e	ns	2.5%	35%
Characteristics			
Characteristics	Inadequate critical size, but strong perspectives for growth	Development of niche markets in mature activities	Strong perspectives for profitable group Strong synergies with other activities

Source : Invest Securities

Diversification which strengthens the potential while reducing risks

2.1.1 Novacyt: a challenger in liquid based cytology (LBC)

Novacyt has developed and marketed an entirely automated system Novaprep for liquid based cytology (LBC) diagnosis. Novaprep targets preferably the market for gynaecological cytology (80% of total market) in screening for uterine cervical cancer (world market estimated at $5.9 Mds). As a challenger, Novacyt differs by innovation to compete with the 2 market players (Hologic and Becton Dickinson) in a duopoly situation. After reaching a ceiling of around €1m, sales of Novaprep finally seem to be taking off under the impetus of new management and new distribution channels including a recently concluded partnership in China. We expect high sales growth (CAGR (Compound Annual Growth Rate) 2014-18e of +40%) with CT 2018e of €3.9m. New partnerships are to be announced (distribution, co-testing, etc.) offering growth levers, conditions necessary to plan a positive EBITDA (earnings before interest, taxes, depreciation and amortisation) in the medium term.

2.1.2 Lab21: a haemato/serology/microbiology offer soon to be supplemented by molecular

A firm which benefits from the group's R & D and vast marketing network

Lab21 is a vertically integrated diagnostics firm proposing an offer of diagnostic services with its clinical laboratory and two entities (haematology/serology and microbiology) focused around development/manufacturing/marketing of test kits. With its laboratory, the group has a tool for research, development and certification of its products. The haematology/serology activity is a mature and profitable activity positioned in niche markets (emergent markets). The microbiology part, focused on immunology and biochemistry techniques, is developing its portfolio of molecular biology products.

2 – Novacyt: a diversified group in in vitro diagnostics

Through these 2 structures, Lab21 is based on a network of over 200 partners enabling it to cover over 115 countries. 2016e consolidated turnover of Lab21 is expected to be on the increase by nearly 6% of €8.06m.

Gross Margin is about 50%. EBITDA 2016e amounts to €0.2m (margin of 2.5%), but penalised by important costs of holding.

2.1.3 Primer Design: an acquisition synonymous with high synergies

Primer Design is a British molecular diagnostics firms specialising in the design, manufacture and sale of real time PCR kits and of a Genesig proprietary technological platform. The group enjoys high profitable growth with an EBITDA in 2015 of €1.77m€ (+62%) for consolidated turnover (CT) of €5.4m (+55%).

Novacyt concluded an agreement for the purpose of acquiring the firm for the total amount of €18,9 m (of which 5,9m€ as variable). This strategic movement will enable Novacyt to accelerate its profitability (EBITDA 2016e close to breakeven at -0,7m€ vs. €-1.9m) and to take a foothold in the dynamic market for molecular diagnostics in the key synergies of high revenues between the different entities in the group.

2.2 Key persons in the group

2.2.1 Organisational chart

Source : Novacyt

2.2.2 An experienced management

❖ **Graham Mullis CEO**

Graham Mullis was named CEO of Novacyt following the merger with Lab21 in June 2014, a position that he previously occupied in Lab21 since 2008. At that time, he restructured the activity and made the strategy of Lab21, whose activity was initially focused on services in the United Kingdom, evolve towards a products based commercial strategy and international expansion in other countries. Graham Mullis has over 25 years experience in the fields of health, pharmaceutical products and medical devices.

❖ **Anthony Dyer CFO**

Anthony Dyer started his career in 2010 in Lab21 as a financial controller before being appointed Finance Director of Novacyt in September 2014. He has a total of over 15 years experience as a healthcare player and has worked for companies such as Galapagos.

❖ **Eric Peltier CIO**

Dr. Peltier is a pathologist who held the position of Director of clinical research for Mauna Kea Technologies during six years before co-founding Novacyt in 2006. He was the General Director of Novacyt up until its merger with Lab21 in 2014. He now is Director of innovation.

2 – Novacyt: a diversified group in in vitro diagnostics

❖ **Jean Pierre Crinelli Company Secretary**

Jean Pierre Crinelli was the director for over 15 years of several international firms before co-founding Novacyt in 2006.

❖ **Ian Wilde Responsible for regulatory and quality**

Ian Wilde joined Novacyt in October 2014 in the capacity of person responsible for quality. He has experience of over 15 years in the medical field.

❖ **Manuela Gazzard Commercial Director**

Manuela Gazzard worked for over 18 years in multi-national pharmaceutical firms (Johnson & Johnson) and biotechnology firms before jointing Novacyt in March 2015 as Commercial Director.

2.3 Vision and strategy: convergence between cytology, microbiology and molecular biology

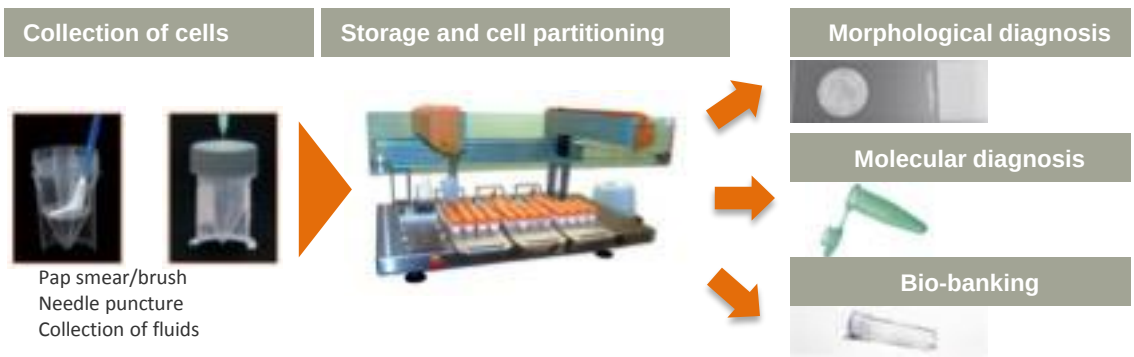
Novacyt has strong expertise in the field of oncology and of infectious diseases through diagnostic techniques which use cytology, microbiology and molecular biology with acquisition of Primer Design.

The current trend is to jointly use these different techniques (co-testing) for diagnosis of cancer caused by oncogenic viruses (viruses which have the ability to make cells cancerous). This convergence involves the ability , starting with a sample stored in an adequate medium, to be able to perform these different diagnoses.

2.3.1 Upstream: strong expertise in the field of sample collection and storage

The Novaprep offer, initially designed for cytology activity is evolving, starting from a single sample, to be able to prepare a sample both for: 1) a cytological analysis, 2) a biomolecular analysis, 3) bio-banking (collection of samples and of biological data for scientific research).

A group present in the upstream part and down stream of diagnosis



Source : Novacyt, Invest Securities

2.3.2 Down stream: an offer for cytological, microbiological and soon molecular diagnoses

The group now and already has an offer which meets the needs of tests in cytology, in virology and in microbiology. One of the strong poles of development involves the fields of molecular biology in general and of cancers caused by oncogenic viruses, in particular. Novacyt is going to rely on the expertise of Primer Design and on the capacities offered by its clinical laboratory to develop an offer in molecular biology (biomarkers) in order to meet the expectations of the market, in particular in the fields of co-testing. Beyond internal developments, acquisitions appear feasible in the field of molecular diagnostics to strengthen in the medium term the portfolio of biomarkers of the group.

3 – Novaprep: growth at last achieved

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3 – Novaprep: growth at last achieved

Novacyt has developed and marketed the Novaprep entirely automated system of cytological diagnosis in liquid medium (LBC). Novaprep targets preferably the gynaecological cytology market (80% of total market) in screening for uterine cervical cancer (a world-wide market estimated at $5.9Mds). As a challenger, Novacyt differs by innovation to compete with the 2 key market players (Hologic and Becton Dickinson) in a duopoly situation . After reaching a ceiling of about €1m, Novaprep's sales finally seemed to be taking off under the impetus of new management and expanded distribution including the recently concluded partnership in China. We anticipate strong sales growth (CAGR 2016-18e of +37%) with CT 2018e of €3.9m. New partnerships are to be announced (distribution, co-testing with Abbott, etc.) offering growth levers, necessary conditions to plan in the medium term a positive EBITDA.

3.1 Conventional cytology

3.1.1 History

The Pap test: demonstrated efficacy in detection and prevention of cancer of the uterine cervix…

After the 2nd world war, based on research by Georges Papanicolaou, cytology developed with tangible applications in the field of gynaecology. At that time, cancer of the uterine cervix was one of the main causes of mortality in women. Georges Papanicolaou demonstrated the clinical utility of a study of cervical-vaginal cells by the so-called vaginal smear method (or Pap test) for the detection and prevention of cancer of the uterine cervix. Infection with a virus, human papillomavirus (HPV), is the number one cause of cancer of the uterine cervix.

3.1.2 Conventional cytology: the different stages

A healthcare professional collects a sample of cells from the uterine cervix of a woman using a small flat spatula or a brush (step 1). He then proceeds to spread it on a glass microscope slide and fixation of the cells (step 2). The slide then is sent to a cytology laboratory where it is stained (step 3). Lastly, the slide is examined under the microscope (step 4) to determine classification of cells.

Step 1	Step 2	Step 3	Step 4
Brush	Slide	Process	Analysis

Source: Novacyt

3.1.3 Advantages and limits of conventional cytology

… even if this technique is far from being infallible

The almost systematic screening in the developed countries has made it possible to drastically reduce the risk of occurrence of cancer of the uterine cervix. Throughout life, according to the health surveillance institute, this risk is less than 1% in the developed countries, while it is estimated at 4% in the developing countries where screening is rarer.

However, this technique is far from being infallible since according to a study by the Agency for Health Care Policy and Research (AHCPR) in 1989:

- The sensitivity (proportion of patients with the disease that the test identifies correctly as positive) emerges as 51% (range of 37% to 84%).
- The specificity (proportion of patients who do not have the disease (normal) that the test correctly identifies as negative) reaches 98% (range of 86% to 100%).

The low sensitivity of the test and the high rate of false negative test results have their origin primarily in the collection of samples and/or preparation of slides.

3 – Novaprep: growth at last achieved

3.2 Novaprep: new generation cytology or liquid-based cytology (LBC)

3.2.1 Principle of liquid-based cytology (LBC)

Liquid based cytology automates and makes the entire process reliable

In contrast to conventional cytology which requires many manual procedures, liquid based cytology aims to automate and to make the entire process reliable. Concretely, once the sample has been collected (step 1), the latter is transferred into a vial containing a solution for storage (step 2). Then, an automatic analyser performs preparation of the cytology and deposits the cells of interest on a microscope slide (step 3). A cytologist then performs the analysis (step 4) with the help of software for aid in diagnosis or not.

Step 1 Brush

Step 2 Vial

Step 3 Process

Step 4 Analysis

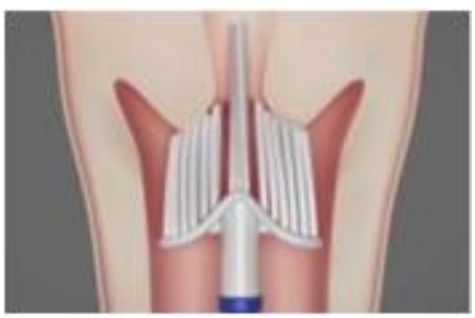
Source: Novacyt

3.2.2 Novaprep Technologies and Process

Novaprep technology consists of consumables (Vials, decantation system and a liquid solution to optimise adhesion of cells on the glass microscope slide: Novastick) and automatic analysers (NovaPrep Processor System) for the preparation of cytology. Automatic analysers and consumables are inseparable.

❖ **Sampling**

Step 1: sampling



Source : Novacyt

Step 1: using a Cervix-Brush-Combi, a sample is collected from the uterine cervix.

Step 2: transfer of sample

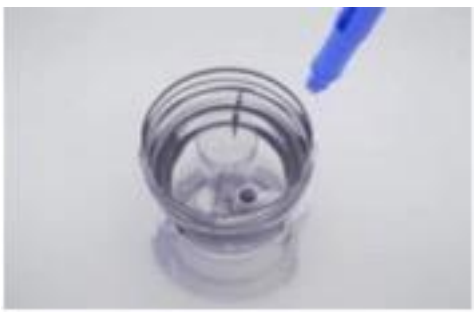
Source : Novacyt

Step 2: the brush then is crushed and rubbed against the filtration system in order to release the cells from the sample. A rough surface nylon filter detaches the cells from the flat large head brush while the elbow with a crenelated surface makes it possible to detach the cells from the brush such as a bottle brush.

3 – Novaprep: growth at last achieved

100% of the sample collected is transferred to the laboratory

Step 3: detachment of the brush



Source : Novacyt

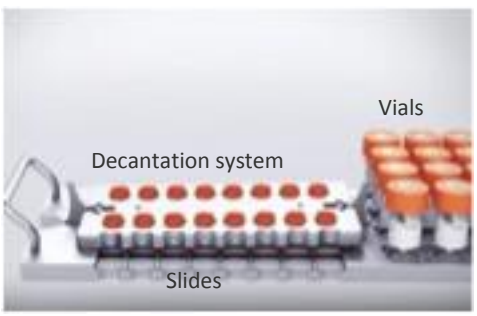
Step 3: the extremity of the brush is detached and left in the vial with the cellular suspension. It should be noted that the design of the vial makes it possible to remove the brush without touching the sample.

The vial then is closed again with a stopper which has a membrane that can be penetrated and closes up and thus is isolated from all outside contamination.

❖ **Automated processes**

A completely automated system

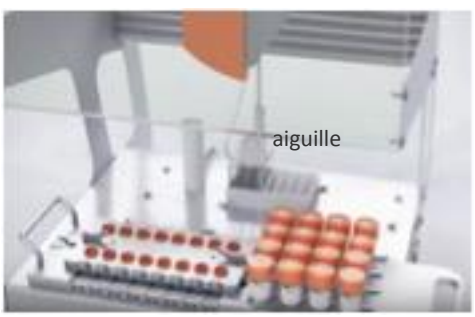
Step 4: loading



Source : Novacyt

Step 4: vials are loaded into the processing tray on the right side. In the left side, the decantation system is superimposed on the slides on which the spread of cells will be performed.

Step 5: processing 1/2



Source : Novacyt

Step 5: the needle collects the cells deposited at the bottom of a cylindrical vial which concentrates the cells of interest which are heavier than normal cells.

Step 5: processing 2/2

Source : Novacyt

Step 6: the sample collected in the needle is mixed with Novastick solution before being deposited on a microscope slide.

3 – Novaprep: growth at last achieved

3.3 Competing liquid-based cytology (LBC) technologies

A market dominated by Hologic and Becton Dickinson

LBC pioneers are the firms Hologic ($500m CT (consolidated turnover) in cytology) and Becton Dickinson ($1.3Md in diagnostics in general of which $592m in the US) with solutions approved by the FDA in 1996 for the Hologic ThinPrep test and in 1999 for the Becton Dickinson SurePath test. As a precursor in this technology, these 2 groups are in a duopoly position in certain mature markets such as the USA or the United Kingdom. Although the process between the different offers in terms of LBC is similar, however it is possible to make several distinctions in the technologies offered by the three players.

3.3.1 Competing advantages of the Novavprep technology

Novacyt: a challenger which differs by innovation

	Hologic	Becton Dickinson	Novacyt
Offer	**ThinPrep**	**SurePath**	**Novaprep**
Automated analyser			
Automation	✗ TP 2000 ✓ TP 5000	✗	✓
Differentiation of volumes	✗	✗	✓
Vial			
Shape	standard	standard	Cylindrical
Stopper	Standard screw top	Standard screw top	Pierceable and closing up
Brush stored in the vial	✗	✓	✓
Fixative liquid	Alcohol	Alcohol + formaldehyde	Alcohol
Duration of storage of cells	42 days	28 days	45 days
Duration of storage DNA (co-testing)	>3 months	3 weeks	>3 months
Price position	€2.5/€3	€2/€2.5	€2/€2.5
Aid in diagnosis			
Software	✓	✓	✓ 2016/17

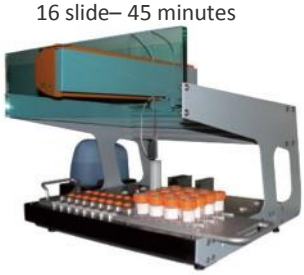
Source : Novacyt, Invest Securities

3.3.2 Automated analysers

Novacyt offers 2 types of automated analysers that can process relatively high volumes. This two-fold offer enables to target laboratories which have different volumes of activity which is not the case for its competitors which are tend to be positioned on high volumes comparable to NPS 50 (up to 100,000 tests/year vs. 20,000 for NPS 25) from Novacyt.

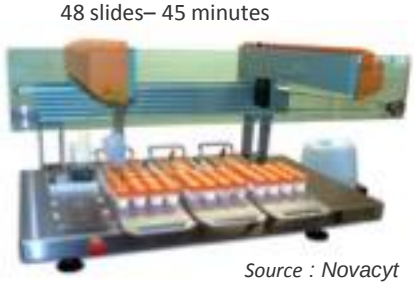
NPS 25: 1 tray

16 slide– 45 minutes



NPS 50: 3 trays

48 slides– 45 minutes



Source : Novacyt

3 – Novaprep: growth at last achieved

Becton Dickinson and TP 2000 Hologic automatic analysers (which account for the majority of the base installed) require a certain number of manual steps and in this regard are considered as "semi-automated".

3.3.3 The Vials

Novacyt offers two types of especially innovative patented vials (gynaecological and non-gynaecological) dedicated to optimisation of cell collection using a unique fixative appropriate for all types of sample collection (brush or needle puncture).

An innovative vial protected by many patents

Gynaecological vial (GYN)
Samples by brushing

Non-gynaecological vial (NON GYN)
Samples collected by needle puncture

Source : Novacyt

Unlike vials from the competitors which do not have any specific functional aspect apart from the fact of containing the cellular fixative fluid, Novacyt vials offer many advantages.

❖ **Importance of design**

A design studied "to safeguard" the sample and select the cells of interest

Once the sample has been collected and transfer of the cells into the vial has been performed (including the sampling for the GYN vial), the latter is never opened and each transfer is performed through a penetrable and self-sealing membrane of a stopper which closes up. This approach enables to save the sample in its natural condition, avoiding all outside contamination, a measure of reliability of results for the patient. Laboratory technicians are protected from all risk of airborne dissemination of micro-particles which can contain different cellular suspensions (viruses, bacteria, spores, etc.).

The cylindrical shape of the vial makes it possible to select the cells of interest by using differential sedimentation rate (with cells of interest being heavier and are deposited at the bottom of the cylinder) and to extract only the most informative elements.

❖ **A long duration storage solution appropriate for co-testing**

Abbott, a tradename of interest for the Novaprep cytological medium

Hologic and Novacyt both use an alcohol base preserving agent, while that of Becton Dickinson contains alcohol + formaldehyde. Formaldehyde is a very good fixative for cytological analysis, but on the other hand it offers a lower performance for molecular analysis which is frequently used to confirm the initial cytological diagnosis (reflex test or co-testing). This fixative has the disadvantage of fixing too strongly the strands of DNA/RNA which result in breakage during extraction. The fixative from Becton Dickinson in spite of all has been validated for molecular biology, but under conditions of storage: 3 weeks at room temperature(15-30°C) and 6 months in a refrigerated medium (2-10°C).

Conversely, storage of samples from a solution without formaldehyde is done at room temperature for a duration greater than 3 months.

A study has validated use of the Novaprep cytology medium with the molecular diagnostic test "RealTime High Risk HPV" from Abbott. Abbott, in partnership with Novacyt, currently is performing a comparative study of the different cytology media (see 3.4.3).

3 – Novaprep: growth at last achieved

3.3.4 Software for aid in diagnosis

Compared to its two competitors, Novacyt lags behind in the field of aid in diagnosis. The purpose of these systems is to improve the efficacy of diagnosis compared to a solely human approach, while increasing the productivity of cytologists. Hologic offers the TIS imaging system (ThinPrep Imaging System) designed to facilitate diagnosis by selecting different views to present to the technician. With its BD FocalPoint system, Becton Dickinson classifies slides with a probability of an anomaly. However, Novacyt is on the verge of catching up with this delay with development ongoing of its own software for aid in diagnosis which should be available in 2016/17.

3.4 Cytology: a future market?

3.4.1 Market size for diagnosis of cancer of the uterine cervix

Gynaecological cytology a world-wide market of $5.9Mds$

The world-wide market for diagnosis of cancers of the uterine cervix is estimated to be worth $5.9Mds in 2013 according to the Transparency Market Research firm and should rise by 6.1% per year for the period 2014 to 2020 to reach $8.9Mds. Based on this study, conventional cytology tests account for 45% of this market, i.e. $2.7Mds, liquid-based cytology accounts for an equivalent share and the remainder is represented by molecular biology ($625m).

Geographically, North America represents the largest share of this market. However, strong growth comes from the Asia-Pacific region (Japan, South Korea, Malaysia, Australia, Thailand, India and China) with a mean annual growth estimated at about 8.1% under the impetus of a rise in the living standard, awareness of screening tests and support of public health policies.

3.4.2 Will vaccination replace diagnosis?

Two vaccines directed against two (type 16 and 18) to four genotypes of the HPV virus (human papillomavirus) involved in the aetio-pathogenesis of cancer are marketed since 2006. In France, as in the majority of the industrialised countries, the characteristics of existing vaccines offer protection of about 70% even though the real impact of vaccination will not be known for at least ten years. Consequently, the French National Authority for Health in 2010 repeated its recommendations on screening for cancer of the uterine cervix, as well as its promotion by firms which market the vaccines.

3.4.3 Is molecular biology a risk or an opportunity?

❖ **Can molecular biology replace cytology in diagnosis of cervical cancer?**

Molecular biology is undergoing strong growth (CAGR +8.3% for a market estimated at $625m by Transparency Market Research) in the detection of cancer of the uterine cervix. Some countries plan to use the HPV test (human papillomavirus) as the principal method of screening.

Opportunities for development in co-testing

Novacyt sees in this progression of the market opportunities for development insofar as the HPV test does not provide optimum detection and there is more of a trend to a co-testing approach, combining molecular biology and cytology. This analysis has been supported by new published scientific observations recently in *Cancer Cytopathology* (a medical journal published by the scientific committee of the American Cancer Society) by Quest Diagnosis, one of the largest molecular biology laboratories in the world and by the University of Pittsburgh.

3 – Novaprep: growth at last achieved

Novacyt/Abbott: a partnership under study in co-testing

Their study, published on 14 April 2015, reached the conclusion that screening based solely on the HPV test has less chance of detecting precisely a precancerous lesion or cancer of the uterine cervix than screening based on a pap smear in women 30 to 65 years of age. A false negative result is observed in no less than 19% of women for cancer of the uterine cervix when the HPV screening test is the only method used. The study recommends use of double screening consisting of a cervical smear and of an HPV screening test for women in this age category.

❖ **Opportunities for development with manufacturers of HPV tests**

Novacyt intends to conclude partnerships with manufacturers with HPV screening tests in order to associate the clinical and technical advantages of use of the Novaprep system with HPV screening tests.

In this setting, Novacyt is collaborating with Abbott to evaluate the potential of the Novaprep cytology medium with the "RealTime High Risk HPV" molecular diagnostic test from Abbott. This HPV test enables to determine if the patient is infected with one of 14 types of high risk HPV viruses. The objective of this collaboration is to associate the result of the cytological screening for management of patients in whom the first results obtained with an HPV test are inconclusive. In this setting of this partnership, a study has now validated the use of the Novaprep cytology medium with the Abbott molecular diagnostic test. Currently, Abbott is conductng a comparative study between the different cytology medium (Hologic, B&D and Novacyt). Results of this study will be known in the following months.

3.4.4 Cytology for non-gynaecological application

Screening for cancer of the uterine cervix is the principal market for cytology (80%). Cytology also makes it possible to diagnosis other cancers, such as that of lung cancer (2m tests world-wide according to Novacyt), thyroid cancer (2m tests) and urine (9m tests), etc.

Even though the market remains in an embryonic state for Novacyt, nevertheless, a pole of development exists for the group. The Novaprep technology makes it possible to target this market with the same automatic analysers by using the NON GYN vial appropriate for sampling which is performed by direct sampling (ex.: urine), brushing (ex.: lung) or needle puncture (ex.: breast).

3.4.5 Policy of reimbursement of cytological tests

Management of cytological tests by healthcare systems varies widely from one country to another. For gynaecological activities, the mean reimbursement in Europe is estimated at around €20 with high disparities: €6 in Germany/Austria, €15.40 in France and €20 in Switzerland. Generally, non-gyncaecological cytological tests are better reimbursed similar to that of France which reimburses €28.

3.5 Novaprep: CAGR 2016-18e of +37% of consolidated turnover (CT)

3.5.1 Markets targeted by Novacyt

❖ **Certification**: Novaprep technology obtained EC IVD marking for Europe in 2008 for gynaecological cytological applications and in 2009 for other cytological indications (urine, lung, thyroid, lymph node and breast tissue). Novacyt also has CFDA marking in China since 2012. Certification in the USA (FDA) is planned probably after conclusion of a concrete agreement of a partnership to target the US market.

3 – Novaprep: growth at last achieved

❖ **Distribution:** in its national market, France, Novacyt markets directly all of its products. More generally, the group targets about twenty countries in the world, primarily focused in Europe, the Asian pacific area and the Middle East. Marketing widely uses a sales force of Lab21 by targeting specialised distributors who ensure relation with the final client.

3.5.2 Marketing strategy

The marketing strategy of the group in the first place targets markets where conventional cytology is performed. This approach de facto excludes the US and British markets where LBC represents mainly screening tests with Hologic and Becton Dickinson technologies. The situation is more contrasted in continental Europe, where depending on country, conventional cytology still accounts for 30% to 60% of screening procedures. The most promising markets are in the countries of Asia-Pacific area (see 3.4.1). Of course, insofar as possible Novacyt is seeking to convert users of LBC to its technology by emphasising its advantages with respect to competitors.

3.5.3 China: a new "eldorado"

First contributions to the CT of the partnership in China at end of 2015

Although certification in China was obtained in 2012, the group had a first setback with the distributor initially planned which delayed by almost 3 years the launch in this country. In 2015, Novacyt concluded a new partnership with Leica Biosystems incorporating distribution, logistics and after-sales service. The first fallout from this partnership in terms of CT (consolidated turnover) were visible in the last two months of 2015 and should accelerate during the activity for 2016.

3.5.4 Expected high growth sales

After reaching a ceiling of around €1m of CT, Novaprep in 2015 recorded growth of +30% in its CT under the impulse of sales, only during the last two months of the year. The contribution of this market to CT should continue in 2016 with expected sales rising by +60% and continuing into the following years of activity. More sustained sales growth is feasible, but we are awaiting the tangible expression of the promises in China before planning a revision upward of our estimates. Let us and of its note, at this stage, CT does not incorporate any contribution of the partnership planned with other platform providers (co-testing) such as Abbott possible synergies of revenue resulting from acquisition of Primer Design which represents a strong leveraging effect on sales.

CAGR 16-18e of CT +37% propelled by sales in China

Forecasts of CT, Gross Margin and EBITDA of Novaprep

(in m€)	2014		2015		2016e		2017e		2018e	
Sales Novaprep	**1,0**	**22,2%**	**1,3**	**14,7%**	**2,1**	**15,4%**	**3,0**	**17,0%**	**3,9**	**19,4%**
chg.	**-12,6%**		**+30,0%**		**+60,0%**		**+45,0%**		**+30,0%**	
Gross margin	**0,4**	**40,3%**	**0,6**	**48,7%**	**1,13**	**54,0%**	**1,70**	**56,0%**	**2,29**	**58,0%**
chg.	**ns**		**+57,3%**		**+77,4%**		**+50,4%**		**+34,6%**	
Subventions	**0,2**		**0,1**		**0,2**		**0,1**		**0,1**	
Opex	-2,0		-2,8	-213%	-3,4	-160%	-3,4	-113%	-3,7	-94%
chg.	nd		+42,6%		+20,3%		+2,5%		+7,7%	
EBITDA Novaprep	**-1,38**	**-137%**	**-2,00**	**-153%**	**-2,06**	**-98%**	**-1,64**	**-54%**	**-1,31**	**-33%**
chg.	**nd**		**+45,3%**		**+3,0%**		**-20,6%**		**-19,8%**	

Source : Invest Securities

Under the effect of sales growth, Gross Margin in 2015e reached €0.6m and should progress significantly during the next years of activity. On the contrary, EBITDA will remain in negative territory in our horizon of prediction in light of high cost of structure. We estimate that a level of CT of about €6/7m would enable Novaprep to reach positive profitability.

4 – Lab21: 3 entities with a separate potential

4 – Lab21: 3 entities with a separate potential

Lab21 is a vertically integrated diagnostics firms which proposes an offer of diagnostic services with its medical laboratory and two entities (haematology/serology and microbiology) focused on development/manufacture/marketing of test kits. With its laboratory, the group has a tool for research, development and certification of its products. The activity of haematology/serology is a mature and profitable activity positioned in niche markets (emergent markets). The Microbiology part, focused on techniques of immunology and biochemistry is developing its portfolio of molecular biology products. CT (consolidated turnover) 2016e is expected to be at €7,8m and should grow on an annual base of +6% to reach €8.6m in 2018e. Gross Margin for Lab21 is about 50%. EBITDA is expected to be breakeven (+€0.2m) in 2016e and be at €0,6min 2018e.

4.1 Lab21: a specialist in diagnostics and personalised medicine

4.1.1 History

Lab21 became a part of Novacyt in July 2014 enabling to increase distribution of Novaprep products

Lab21 was founded in 2005 as a clinical diagnostic laboratory in the UK market. The group then diversified by organic growth and outside growth (NPTech Services, Biotec Laboratories, Plasmatec Laboratory Products, Delphic Diagnosis, Selah Technologies, Microgen Bioproduct, Myconostica) in the development, manufacturing and sales of products and diagnostic kits for clinical and veterinary medicine markets, the food industry and environment.

Lab21 merged with Novacyt in 2014 and is integrated in the accounts of the latter since 1 July. This strategic operation enabled the group to increase its offer and to use the Lab21 clinical laboratory for development of Novaprep and the marketing network (distributors) for sales of Novaprep products.

4.1.2 Lab21 at the centre of personalised medicine

Regarding its position, Lab21 is described as a specialist in personalised medicine which is legitimised by its offer of services as a laboratory through its offer of products.

The Council of Advisors on Science and Technology (PCAST) defines personalised medicine as follows: “Personalised medicine consists of adapting a medical treatment to a given patient’s individual characteristics…It is translated by the ability to classify persons into subpopulations characterised by a predisposition for certain disorders or by response to specific treatment. Preventive or therapeutic measures therefore are prescribed to patients who will benefit from them while avoiding to impose adverse events on subjects who will not receive any benefit from them. The costs associated with these adverse events are also avoided.”

4.1.3 A distribution network that covers over 115 countries

Each entity has its own market force. Generally, sales are performed directly in the national market (United Kingdom). Internationally, the group is based on a network of over 200 partners, enabling to cover over 115 countries.

4 – Lab21: 3 entities with a separate potential

4.1.4 Positioning and characteristics of the 3 entities

Lab21 consists of 3 legally independent structures: 1) Lab21 Ltd in services, 2) Lab21 Healthcare in haematology and serology, 3) Microgen Bioproduct in microbiology.

3 entities in positioning and separate perspectives

	Firm [Services]	Haematology/ Serology	Microbiology
Activity	R&D/services	Development, manufacture and marketing	
Service/product	Molecular diagnostic, genetic mutations tests, etc.	Reagents and test kits in haematology/ serology	Reagents and bacterial/fungicidal test kits
Location	Cambridge UK	Bridport UK	Camberley UK
Tradename	Lab21	Lab21/Biotec/Plasmatec	Microgen/myconostica
Customers	Medical sector	Laboratories/blood banks	Medical/veterinary sector Food and environmental industry
2016e Sales	€0.9m	€3.9m	€3.1m
Est. normative growth	6/8%	5/6%	6/8%
EBITDA margin	0/3%	20/25%	20/25%
Export	ns	80/90%	70%
Characteristics	R&D tool and certification for Novacyt	"Cash cow" mature products	Development of the portfolio in molecular biology

Source : Invest Securities

4 – Lab21: 3 entities with a separate potential

4.2 Clinical laboratory

4.2.1 A service activity

Lab21 is a certified clinical analysis laboratory (ISO 9001/CPA) based in Cambridge, U.K. Its principal fields of expertise are oncology, infectious diseases and more generally management of treatments and of accompanying diagnostic tests.

Beyond the business activity, the firm represents a formidable tool of R&D

The firm aims at:

- Patients directly or at doctors in diagnosis and follow-up of treatment,
- The pharmaceutical industry, diagnostic and biotechnology firms in development and certification of accompanying diagnostic tests and of biomarkers.

Of course, Novacyt relies on the expertise and know-how of the firm for its research, development and certification of its products. R&D activity on behalf of the group represents about 20% of total activity of the firm.

4.2.2 Principal fields of expertise

❖ Oncology

Lab21 offers a collection of molecular diagnoses to evaluate genetic markers of cancers: colorectal, skin, liver cancer, etc.

❖ HIV/viral hepatitis

Lab21 offers a collection of services in the field of HIV and of viral hepatitis. These tests make it possible to determine the viral load of a patient and cover his/her therapeutic management.

❖ Management of treatments and accompanying diagnostic tests

Lab21 has a broad range of services and specialised tests to facilitate choice of an appropriate treatment, to evaluate optimum dosage and to monitor its assimilation by the body. This range of services includes accompanying tests which enable to determine if a patient is likely to respond positively to a planned treatment.

4.2.3 Sales propelled by development of a new offer of services

A limited contribution but the utility of this activity lies in its ability to develop new products for the group

CT (consolidated turnover) 2016e is expected to see an increase +9% in organic field (+2.8% in published data) at €0.9m under the effect of launch of a diagnostic service for HPV. Growth should remain sustained (around +8%) in the activity for 2017 and 2018.

Forecasts for CT, Gross Margin and EBITDA of the Services activity of Lab21

(in m€)	2014*		2015		2016e		2017e		2018e	
Sales Services	**0,4**	**9,6%**	**0,9**	**10,1%**	**0,9**	**6,7%**	**1,0**	**5,5%**	**1,1**	**5,2%**
chg.	**nd**		**+2,8%**		**+2,1%**		**+8,0%**		**+8,0%**	
Gross margin	**nd**		**0,26**	**29,2%**	**0,28**	**31,0%**	**0,33**	**33,0%**	**0,38**	**35,5%**
chg.			**nd**		**+8,3%**		**+15,0%**		**+16,2%**	
Opex	0,0		-0,3	-30,8%	-0,3	-32,3%	-0,3	-31,1%	-0,3	-29,9%
chg.	nd		nd		+7,1%		+4,0%		+4,0%	
EBITDA Services	**nd**		**-0,01**	**-1,5%**	**-0,01**	**-1,3%**	**0,02**	**1,9%**	**0,06**	**5,6%**
chg.			**nd**		**ns**		**ns**		**+215%**	

** Consolidated in July 2014 (6 months)* *Source : Invest Securities*

We expect a slight improvement in gross margin and in EBITDA under the conjugated effect of sales growth and of optimisation of purchases. Beyond the limited contribution to EBITDA of the group (€-0.01m in 2016e), this activity is no less strategic by supplying the pipeline of products of other entities in the group.

4 – Lab21: 3 entities with a separate potential

4.3 Haematology-Serology

4.3.1 An activity focused on infectious diseases

Products especially adapted to the emerging countries

This entity, located in Bridport, UK, develops, manufactures and markets a collection of tests for infectious diseases. These products are used by laboratories in the setting of diagnosis or by blood banks for screening of donors. The products are marketed a complete test kits or in bulk for reagents. With a tried and tested technique and relatively inexpensive, the haematology/serology products from Novacyt are especially appropriate for the emerging countries (Middle East, Asia-Pacific, South America). Distribution is performed via a call for bids with large volumes or through regular orders for smaller size orders.

4.3.2 Principal products

❖ Infectious diseases

These tests cover diseases such as: syphilis, malaria, cytomegalovirus (CMV) infection and Chagas disease. They are designed for the diagnostic part in laboratories and in screening for blood banks.

❖ TORCH Diagnosis

These tests cover pathogens which cause dangerous infections in neonates and unborn children, such as: toxoplasmosis, rubella, cytomegalovirus (CMV), herpes virus (HSV), etc.

❖ Bacterial infections

All tests dedicated to identification of bacterial infections, such as: salmonella, Brucella, rickettsiae.

❖ Virology

Rapid tests used in clinics, laboratories and pharmacies for detection of rotavirus, the virus involved in cases of acute diarrhoea.

❖ Latex Serology

These tests are designed to determine rheumatoid factors: streptococcus, arthritis, pneumococcus, mononucleosis, etc.

4.3.3 A profitable activity and with regular growth

"cash machine" of the group: low capex and good profitability

After suffering a billing discrepancy related to too late tenders to be accounted in 2015, revenue growth was + 1.3% at constant exchange rate (+ 11.2% as published). The 2016 year will benefit from this catch-up and launch of new products with an expected growth of 7% at constant exchange rate (+ 0.1% as reported) to €3.7m. Organic growth for the years 2017/18e is expected in line with the normative level estimated at 6%.

Forecasts of CT, Gross Margin and EBITDA of the Haematology and Serology activity

(in m€)	2014*		2015		2016e		2017e		2018e	
Sales Haematology & Serology	**1,8**	**39,6%**	**3,7**	**41,4%**	**3,7**	**27,0%**	**3,9**	**21,8%**	**4,1**	**20,4%**
chg.	**nd**		**+11,2%**		**+0,1%**		**+6,0%**		**+6,0%**	
Gross margin			**1,55**	**42,1%**	**1,62**	**44,1%**	**1,76**	**45,0%**	**1,90**	**46,0%**
chg.			**nd**		**+4,7%**		**+8,2%**		**+8,4%**	
Opex	0,0		-0,7	-18,5%	-0,7	-18,3%	-0,7	-18,0%	-0,7	-17,7%
chg.	nd		nd		-0,7%		+4,0%		+4,0%	
EBITDA Haematology & Serology	**nd**		**0,87**	**23,6%**	**0,95**	**25,8%**	**1,05**	**27,0%**	**1,17**	**28,3%**
chg.			**nd**		**+9,0%**		**+11,1%**		**+11,3%**	

** Consolidated in July 2014 (6 months)* *Source : Invest Securities*

With small investments, high profitability (EBITDA margin of 25%), the activity for haematology and serology can be considered as a cash cow of the group.

4 – Lab21: 3 entities with a separate potential

4.4 Microbiology

4.4.1 An activity which is developing in molecular biology

Interesting developments in molecular biology

The Microbiology activity, located in Camberley, UK, is developing, manufacturing and marketing bacterial and fungal tests. These products are aimed at the medical and industrial markets such as the food industry and protection of the environment. These activities are the result of the Microgen Bioproduct and Myconostica firms acquired in 2011. The portfolio of products includes tests based on more mature techniques in immunology and in biochemistry and in innovative techniques in molecular biology (PCR).

Lab21 is also developing a portfolio of molecular diagnostic products in oncology which may supplement the offer of this entity in the medium term.

4.4.2 Principal products

❖ Bacteriology

This activity resulting from Microgen Bioproduct offers both biochemical tests (which are designed to demonstrate a bacterial enzyme activity) and immunological (which are based on detection of bacterial antigens and antibodies directed against the latter) for demonstration of the following bacteria: listeria, bacillus, Staphylococcus, Streptococcus, E. coli, etc. These tests are also intended for the medical setting, as well as industrial or environmental setting.

❖ Molecular biology kits for fungal diseases

In late 2014, Lab21 has started marketing a new molecular biology kit to detect fungal infection under the trade name Myconostica. These tests enable early diagnosis of an invasive fungal disease and the prescription of an appropriate medical treatment.

Myconostica also markets markers used for PCR in real time in detection of the fungi Aspergillus and Pneumocystis (respiratory disorders).

4.4.3 Organic growth close to 6%

A expected margin of EBITDA close to 25%

The 2015 turn over was to €3.0m, up by + 13.7% as published (+2.7% at constant exchange rate). We expect organic growth of around 6% for the next 3 years, in line with the estimated normal level of that entity. This growth rate may accelerate due to the acquisition of Primer Design since Microbiology activity offers significant revenue synergies with Primer Design.

Forecasts of CT, Gross Margin and EBITDA of Microbiology activity

en m€	2014*		2015		2016e		2017e		2018e	
Sales Microbiology	**1,3**	**28,6%**	**3,0**	**33,9%**	**3,0**	**21,9%**	**3,2**	**17,7%**	**3,4**	**16,5%**
chg.			**+13,7%**		**-0,9%**		**+6,0%**		**+6,0%**	
Gross margin	**nd**		**1,83**	**60,6%**	**1,68**	**56,4%**	**1,82**	**57,6%**	**1,97**	**58,7%**
chg.			**nd**		**-7,8%**		**+8,2%**		**+8,0%**	
Opex	0,0		-1,1	-36,9%	-1,1	-37,4%	-1,2	-36,6%	-1,2	-35,7%
chg.	nd		nd		+0,5%		+3,6%		+3,6%	
EBITDA Microbiology	**nd**		**0,71**	**23,8%**	**0,57**	**19,0%**	**0,67**	**21,0%**	**0,77**	**23,0%**
chg.			**nd**		**-20,8%**		**+17,4%**		**+15,7%**	

** Consolidated in July 2014 (6 months)* *Source : Invest Securities*

This activity produces a good level of profitability with an expected EBITDA margin close to 23%, propelled by the rise in range of molecular diagnostic products.

4 – Lab21: 3 entities with a separate potential

4.5 Lab21: forecasts of CT, Gross Margin and EBITDA

4.5.1 CAGR 2015-18 of CT of +6%

Evaluation of €/£ parity has a significant impact on consolidated accounts of the group published in €

CT is expected to be in constant progression at a rate of +6% (excluding exchange rate effect) during the next periods of activities to reach €8.55m in 2018e. As reported, the 2016e growth of this activity, carried out largely in GBP, will be penalized by the rise of the Pound Sterling (+7.4% since the beginning of the year) compared to the euro.

Forecasts of CT, Gross Margin and EBITDA Lab21

(in m€)	2015		2016e		2017e		2018e	
Sales Lab 21	**7,58**		**7,58**		**8,05**		**8,55**	
chg.	*ns*		*-0,1%*		*+6,2%*		*+6,2%*	
Sales Services	0,90		0,91		0,99		1,07	
Sales Haematology & Serolog	3,68		3,68		3,90		4,14	
Sales Microbiology	3,01		2,98		3,16		3,35	
Gross margin Lab21	**3,6**	**48,0%**	**3,6**	**47,4%**	**3,9**	**48,5%**	**4,2**	**49,7%**
chg.	*ns*		*-1,3%*		*+8,7%*		*+8,9%*	
Gross margin services	0,26		0,28		0,33		0,38	
Gross margin Haematology &	1,55		1,62		1,76		1,90	
Gross margin Microbiology	1,83		1,68		1,82		1,97	
EBITDA Lab21	**-0,93**	**-12%**	**0,16**	**2,1%**	**0,39**	**4,8%**	**0,59**	**6,9%**
chg.	*ns*		*ns*		*ns*		*+53%*	
EBITDA services	-0,01		-0,01		0,02		0,06	
EBITDA Haematology & Serol	0,87		0,95		1,05		1,17	
EBITDA Microbiology	0,71		0,57		0,67		0,77	
Corporate costs	-2,50		-1,35		-1,35		-1,41	

Source : Invest Securities

Expected return of profitability starting in 2016

4.5.2 A Gross Margin which should approach 50%

During 2015-18e, Gross Margin should rise at a little more sustained rate than that of CT with CAGR of 9% under the conjugated effect of progression of CT and a relative decrease in cost of purchases. For the same period, the per cent Gross Margin should fluctuate with a range of 47/50%.

4.5.3 Structural charges which penalise profitability

For 2015e, expenses of the holding company estimated at €-2,5m (administrative expenses and R & D expenditures) will not be fully covered by the operation, leading to an EBITDA loss of €0,93m. After a strong reduction expected in 2016 on corporate costs (cost reduction + Novacyt transfer of €0.7m), Lab21 will find the road to profitability with an 2016e EBITDA of €0.16m (margin of 2.1%). This profitability is expected to improve gradually in the following years with an expected margin of 6.9% in 2018e.

5 – Primer Design: a promising acquisition

5 – Primer Design: a promising acquisition

Primer Design is a British molecular diagnostic firm specialising in design, manufacture and sale of real-time PCR test kits and of Genesig proprietary technological platform. The group has enjoyed strong profitable growth with EBITDA 2015 of €1.77m (+62%) for a CT of €5.4m (+55%).

Novacyt has concluded an agreement for the purpose of acquiring the firm for a total amount of €18.9m (including €5.9m as variable). This strategic movement will enable Novacyt to accelerate its profitability (EBITDA 2016e close to breakeven -0.7m vs. €-1.9m) and to take a foothold in the dynamic market for molecular diagnostics, with as a key element synergies in major revenue between the 2 entities.

5.1 Principles of molecular biology

Real-time PCR has become the cornerstone of modern molecular biology.

Molecular biology has been part of medical practices for many years, but its development has accelerated during the last ten years with the development of real-time PCR (Polymerase Chain Reaction). Real-time PCR or quantitative PCR (qPCR) has become the cornerstone of modern molecular biology.

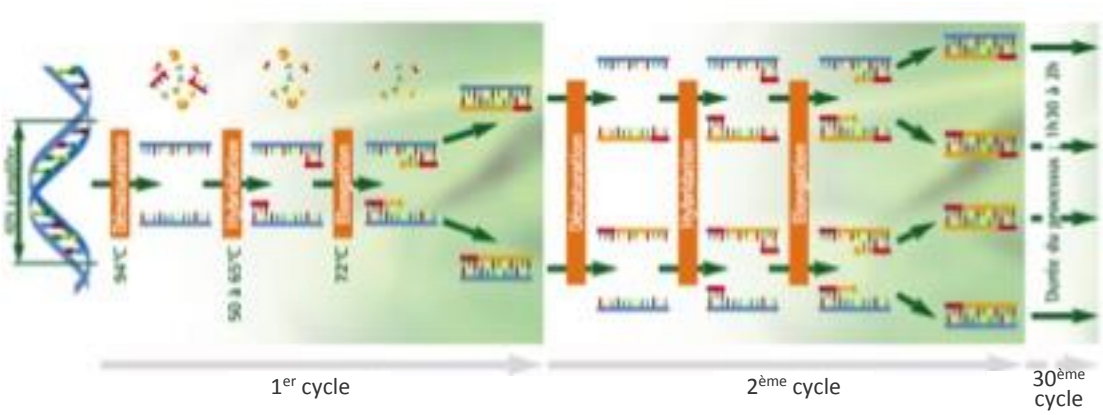
5.1.1 Principles and techniques of PCR

A DNA sample cannot be analysed directly because it contains a too high mass of nucleotide sequences. Therefore, it is necessary to isolate the sequences which are of interest. The Polymerase Chain Reaction (PCR) is an in vitro technique for DNA amplification. Starting with a DNA extract (matrix DNA), therefore PCR can select one or more sequences determined and amplify them by replication to tens of billions of copies.

PCR amplification consists of a repetition of cycles comprising 3 stages:

- **Denaturation**: separation of the two strands of DNA.
- **Hybridisation**: attachment of biomarkers to the target sequence which will be the starting for synthesis of a new fragment.
- **Elongation**: synthesis of the nucleotide chain by an enzyme, Taq polymerase.

About thirty amplification cycles are sufficient to detect amplified DNA.



Source : Monsanto

5.1.2 Utility of PCR

PCR is used to perform genetic imprinting, whether it involves genetic identification of a person (for example: in an investigation) or identification of animal or plant varieties. PCR is widely used for diagnostic purposes to detect the existence of a specific DNA sequence with molecular markers or biomarkers (see 5.1.5).

5 – Primer Design: a promising acquisition

5.1.3 Contributions of real-time PCR

Real-time PCR uses technical principles of PCR amplification, but instead of looking at strips in an agar medium at the end of the reaction, the process is controlled in real time with a detector which monitors the reaction. The main advantages of real-time PCR are:

- Comfort and rapidity of use,
- Follow-up in real time of change to the reaction and of results which follow from it,
- Use of data to perform quantitative analyses.

5.1.4 Importance of biomarkers

In order to amplify selectively nucleotide sequences using a DNA extract by PCR, it is essential to have a biomarker. The latter will be used for replication and should show the best complementarity possible with the two ends of the sequence of interest that it is desired to amplify.

In medicine, apart from R&D applications, biomarkers can be used for screening or diagnostic purposes in management of treatments (efficacy, toxicity) or as accompanying tests, etc. They are associated with all major therapeutic areas, such as: oncology, cardiovascular diseases, infectious diseases, immunology and neurology.

5.1.6 Size and characteristics of the molecular biology market

According to the journal Research and Markets, the molecular biology market as a whole is estimated at about $27Mds and has high growth propelled by real-time PCR applications. Mean annual growth rate of real-time PCR should be about 15%.

A market for real-life PCR with expected growth of 15% between 2015 and 2020e

North America is the largest market with a market share estimated at 40% ($11Mds), while Europe and the Asia-Pacific area together represent over 50% of the world market.

5.2 Primer Design: a complete offer of real-time PCR

5.2.1 Strong expertise in molecular diagnostics

The firm was founded in 2005 in the University of Medicine of Southampton, UK. It specialises in the design, manufacture and sales of real-time PCR test kits, reagents and instruments.

Primer Design markets its products, apart from the clinical market, in academic sectors (1/3 of sales) and industrial/veterinary/environmental sectors (2/3 of sales). Marketing is performed directly in the UK and by a network of over 90 distributors enabling to cover over 100 countries. Let us also emphasise that Primer Design has an e-commerce website which enables a customer to give an order directly.

5.2.2 Principal products: consumables and automated analyser

❖ Consumables and reagents for real-time PCR

Primer Design has a complete catalogue of consumables and reagents for real-time PCR. These products are compatible with the majority of real-time PCR equipment available on the market.

❖ Real-time PCR test kits

Primer Design has a portfolio of over 450 real-time PCR test kits for detection of pathogens. This portfolio of products covers the tests for:

- Infectious diseases (R&D only) such as: HCV, HIV, m RSA, etc.
- L'industrie alimentaire comme la détection de la salmonellose, la Listeria ou encore l'E.coli.
- Le diagnostic vétérinaire (fiévre aphteuse, tuberculose bovine...).
- La détection de biotérrorisme (anthrax, peste…).

5 – Primer Design: a promising acquisition

Primer Design has developed a non-clinical real-time molecular screening test for the Zika virus which is already used in 18 countries world-wide, including Brazil.

❖ Genesig: an affordable real-time PCR instrument and simple to use

Primer Design has developed and marketed since 2015 a real-time PCR instrument called Genesig Q16. Q16 is a "closed" system which is used solely with Primer Design kits.

A real-time PCR automatic analyser which breaks with existing equipment

Genesig Q16

16 simultaneous tests

Consumables

Over 450 different kits

Source : Primer Design

This automatic analyser represents a break compared to existing equipment in terms of price and use. The Genesig automatic analyser is offered at a price of €5,952 while the most comparable products sell for 25/€40,000. It also differs by its simplicity of use (equipment + software) which do not necessarily involve a laboratory professional.

This positioning eliminates the 2 main inhibitors related to the equipment in real-time PCR which are: 1) high cost of investment, 2) complexity of use. Primer Design democratises accessibility of real-time PCR technology by opening to a new class of customers evolving in the medical sectors (R&D, small laboratories), veterinary medicine, industrial or environmental medium. This product (small and transportable) falls within the trend for point of care tests which seek to perform and interpret a test in direct contact with the patient rather than in a central laboratory. As an example, results of an HPV molecular test can be obtained in less than 2 hours with the Genesig while 3 to 4 hours are needed when using a central laboratory.

5.2.3 Primer Design: strong growth and excellent profitability

Primer Design has enjoyed profitable growth with an EBIT 2015 of €1.77m for a CT of €5.4m, which led to emergence of a 33% EBITDA margin. CT growth 2016-18e should be about 15% and EBITDA progressed by about 19%.

An EBITDA margin greater than 30%

Forecasts of CT, Gross Margin and EBITDA of Primer Design

(in m€)	2014		2015		2016e		2017e		2018e	
Sales Primer Design	**3,5**	**76,5%**	**5,4**	**60,3%**	**5,9**	**43,4%**	**6,8**	**38,0%**	**7,8**	**38,5%**
chg.	**nd**		**+54,9%**		**+10,3%**		**+15,0%**		**+15,0%**	
Gross margin	**2,56**	**198,3%**	**3,77**	**70,4%**	**4,28**	**0,16**	**5,01**	**73,8%**	**5,82**	**74,5%**
chg.	**nd**		**+47,1%**		**+13,4%**		**+17,2%**		**+16,1%**	
Opex	-1,5		-2,0	-37,4%	-2,2	-37,3%	-2,5	-37,0%	-2,9	-37,0%
chg.	nd		+36,1%		+10,0%		+14,1%		+15,0%	
EBITDA Primer Design	**1,09**	**31,6%**	**1,77**	**33,0%**	**2,08**	**35,1%**	**2,50**	**36,8%**	**2,93**	**37,5%**
chg.	**nd**		**+62,0%**		**+17,3%**		**+20,4%**		**+17,3%**	

Source : Invest Securities

5 – Primer Design: a promising acquisition

5.3 Interest, modalities and impact related to acquisition

5.3.1 Strategic utility of the operation

This operation has several strategic interests:

- To obtain strong positions in a dynamic market of molecular diagnostics,
- To benefit from the technological complementary feature of Novaprep platforms (Cytology) and Genesig,
- To reveal synergies in revenue by targeting the offer Primer Design products via the network of Novacyt distribution for the clinical market,
- To accelerate profitability of Novacyt which should produce an EBITDA close to breakeven (-€0.7m) v. an estimated loss of €-1.9m.

5.3.2 Principal expected synergies of the alliance

Strong expected synergy of revenue between the 2 groups

Thanks to Novacyt, Primer Design will benefit from regulatory infrastructure (Lab21 firm) enabling to develop and to certify molecular biology products designed for the clinical market. Up until now, Primer Design could not target this market in light of regulatory requirements which are stricter than for academic and industrial markets. Apart from adaptation of current products from Primer Design to the clinical market, new opportunities for products will be studied in order to increase the product portfolio.

Marketing of Primer Design molecular biology products may be done through the Novacyt marketing network in general and the microbiology activity in particular. In return, Novacyt will renew its portfolio with high added value products which ultimately will seek to replace products based on mature technologies.

In the longer term, the perspectives for development are feasible in the scope of automated analysers based on the complementary nature of platforms held by the group: Novaprep for cytology and Genesig for real-time PCR.

We do not expect synergies in costs, related to the alliance insofar as Primer Design will remain an independent entity in the group,

5.3.3 Financial modalities

The purchase price for 100% of the capital amounts to €18.9m (£14.3m), of which €5.9m of variable including: 1) the warrants for a maximum of €2.56m, 2) earnout of up to €3.3m (£2.5m) indexed to the turnover 2016 to 2018. The financing of the fixed part of the operation (€13m) was made partly in exchange for securities (€6.4m) and the balance (€6.6m) in cash. For this cash component, Novacyt raised about €7,75m in H1 2016: 1) €4m capital increase, 2) €0.75m hybrid securities (OCABSA), and 3) €3m of bond debt (maturity 3 years interest rate 12.5%).

Primer Design is valuated at €16m

Financial modalities for acquisition of Primer Design

in m	£	€
Cash	5,0	6,6
Titres	4,9	6,4
BSA*	1,9	2,6
earnout 1	1,5	2,0
earnout 2	1,0	1,3
Total	**14,3**	**18,9**

** montant maximum*

Source : Novacyt

Financing raise on H1 2016

in m	€
Augmentation de Capita	4,0
OCABSA*	0,8
Obligation	3,0
Total	**7,8**

**hors conversion BSA*

Source : Novacyt

5 – Primer Design: a promising acquisition

Acquisitions multiple 2016e: 3.2 EV/CT 9.1x EV/EBITDA

The operation reveals multiple VE/CT and VE/EBITDA of 3.5x-10.7x in 2015 and 3.2x-9.1x in 2016e, respectively.

Multiples of acquisition

	2015	2016e
EV/CA	3,5x	3,2x
EV/EBITDA	10,7x	9,1x

Source : Invest Securities

By integrating all dilutive instruments related to the transaction, the total dilution is estimated at 44%. The number of shares increases from 7.2m to 14.2M post operation, a number of shares multiplied by nearly 2. Note that the Primer Design shareholders hold 15% (excluding the exercise of the warrants) of Novacyt capital with a lock-up clause of 12 months.

Elements of dilution

	Amount m€	Est. price	Nbr. of shares	Dilution
2016 Capital Increas	4,0	1,40 €	2 857 143	18%
Shares exchange	6,6	2,70 €	2 365 815	15%
OCABSA (bond)	0,8	1,38 €	544 465	3%
OCABSA (BSA)	0,4	1,60 €	235 110	1%
BSA*	2,6	1,16 €	1 000 000	6%
Sous total	14,3		7 002 532	44%

** maximum amount* *Source : Invest Securities*

5.3.4 Impact of acquisition on Novacyt accounts

The impact of Primer Design on accounts in the new group is significant:

- CT 2016e is €13.6m (€+3.9m related to Primer Design), i.e. a tripling of value in 3 years. Organic growth, similar to the 2 groups, of about 15% from 2016 to 2018e.
- Gross margin for 2016e gains 7.5 points at 55.6% and will continue to improve progressively during the next 2 years.
- EBITDA 2016e is expected to be close to breakeven €-0.7m versus a loss of €-1.9m without the operation with a target of an EBITDA margin of about 10% in 2018.

The new group records a EBITDA for 2016e close to beakeven vs a loss of -1,9m€

Consolidated P&L/Novacyt Group/Primer Design

(in m€)	2014*		2015		2016e**		2017e		2018e	
Sales Novacyt + PD	**4,5**		**8,9**		**13,6**		**17,9**		**20,3**	
chg.	*ns*		*+96%*		*+53%*		*+31%*		*+14%*	
Sales Novacyt Group	**4,5**		**8,9**		**9,7**		**11,1**		**12,5**	
chg.	*ns*		*+96%*		*+9%*		*+15%*		*+13%*	
Sales Primer Design	**3,5**		**5,4**		**3,9**		**6,8**		**7,8**	
chg.	*ns*		*+55%*		*ns*		*+72%*		*+15%*	
Novacyt + PD Gross margin	**2,0**	**43,6%**	**4,3**	**48,1%**	**7,6**	**55,6%**	**10,6**	**59,4%**	**12,4**	**60,8%**
var	*nd*		*ns*		*+77%*		*+40%*		*+16%*	
Novacyt Group Gross margin	**2,0**	**43,6%**	**4,3**	**48,1%**	**4,9**	**50,5%**	**5,7**	**51,4%**	**6,6**	**53,1%**
chg.	*nd*		*ns*		*+14%*		*+17%*		*+16%*	
Primer Design Gross margin	**2,6**	**74,1%**	**3,8**	**70,4%**	**2,9**	**72,4%**	**5,0**	**73,8%**	**5,8**	**74,5%**
chg.	*nd*		*ns*		*ns*		*+76%*		*+16%*	
EBITDA Novacyt + PD	**-2,0**	**-45,2%**	**-3,1**	**-34,6%**	**-0,7**	**-5,0%**	**1,2**	**6,4%**	**2,1**	**10,4%**
chg.	*nd*		*ns*		*ns*		*ns*		*+83%*	
EBITDA Novacyt Group	**-1,874**	**-41,4%**	**-2,927**	**-32,9%**	**-1,9**	**-19,7%**	**-1,2**	**-11,3%**	**-0,7**	**-5,8%**
chg.	*ns*		*ns*		*ns*		*ns*		*ns*	
EBITDA Primer Design	**1,1**	**31,6%**	**1,8**	**33,0%**	**1,4**	**35,1%**	**2,5**	**36,8%**	**2,9**	**37,5%**
chg.	*nd*		*+62%*		*ns*		*+81%*		*+17%*	

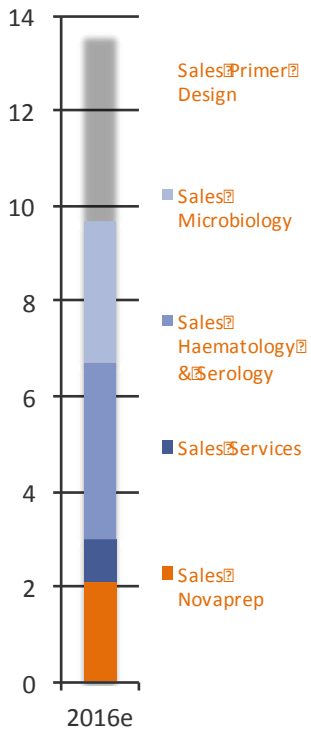
** Lab 21 consolidated in July 2014*
*** Primer Design consolidated in March 2016*
Source : Invest Securities

6 – Novacyt Group: strong growth and increasing profitability

6 – Novacyt Group: strong growth and increasing profitability

With Primer Design, Novacyt has crossed a decisive step in terms of size (CT 2016e of €13.6m) and profitability (EBITDA 2016e €-0.7m vs €-1.9m without the acquisition). The group should be able to report an EBIT and a Net Profit close to breakeven in 2017 and positive in 2018. Organic growth of CT will be dynamic (CAGR 2016-18e of +14%) while it has not yet integrated the expected synergies of the acquisition.

Remember, Novacyt raised €7.75m in H1 2016 to finance the acquisition of the cash portion of Primer Design (€6.6m) and a part for the actual operations (€1.15m). In 2016, we estimate that Novacyt will need funding of €1.5m which could be obtained through the exercise of OCABSA. In addition, we believe that the group will need additional funding of about €7m over the period 2017-18e. To address this need, we retain the assumption of a capital increase of €7m.



6.1 CAGR of CT 2016-18 of +22% published and +14% in organic growth

6.1.1 CT 2016e which exceeds €13.6m after acquisition of Primer Design

The success of acquisition of Primer Design, the CT of the new group crosses a decisive point by arriving at €15.1m (vs. €8.9m in 2014 and €10.1m for Novacyt without Primer Design). During the period 2015-18e, the CAGR of the CT emerged at 33%.

Consolidated CT/Novacyt Group/Primer Design

(in m€)	2014*	2015	2016e**	2017e	2018e
Sales Novacyt + PD	**4,5**	**8,9**	**13,6**	**17,9**	**20,3**
chg.	*ns*	*+96%*	*+53%*	*+31%*	*+14%*
Sales Novacyt Group	**4,5**	**8,9**	**9,7**	**11,1**	**12,5**
chg.	*ns*	*+96%*	*+9%*	*+15%*	*+13%*
Sales Primer Design	**3,5**	**5,4**	**3,9**	**6,8**	**7,8**
chg.	*ns*	*+55%*	*ns*	*+72%*	*+15%*

** Lab 21 consolidated in July 2014*
*** Primer Design consolidated in May 2016*

Source : Invest Securities

6.1.2 Organic growth of +14% in CT without taking into account synergies of revenues

A CT in strong increase propelled acquisition of Primer Design and dynamic organic growth of all activities

In terms of organic growth, Novacyt and Primer Design report a growth of CT which are very similar with CAGR 2016-18e close to +14/15%.

As we have seen previously, the growth of Novacyt is going to be propelled by the totality of activities of the group. However, the cytology activity (Novaprep) is expected to be in strong increase under the impulse of sales in China with CAGR 2016-18e of over +33%. Lab21 has recorded a more moderate growth with CAGR 2016-18e of +6%.

At this stage, we will not yet integrate the synergies of revenues related to the acquisition. We expect first of all the first publications to measure its impact. However, the CT therefore reveals a significant potential for revision upwards propelled mainly by:

- In the short term, marketing of the Primer Design products offer via the Novacyt distribution network (Lab21) for the clinical market,
- In the longer term, the complimentary technological feature of the Novaprep platforms (cytology) and of Genesig (molecular biology).

6 – Novacyt Group: strong growth and increasing profitability

6.2 A new group soon to be profitable

6.2.1 A net result penalised by a goodwill impairment linked to the Lab21 acquisition

Novacyt published for the first time the 2015financial statements under IFRS. EBITDA in 2015 stood at € -2,9m (vs €-1,9m in 2014), for a turnover of €8.9m (+14% on a comparable basis). The group record a goodwill impairment non-cash charge of €9.8m following the acquisition of Lab21 in June 2014. This acquisition, fully funded with shares, suffered from declining Novacyt shares in recent months .

6.2.2 EBITDA in 2016e moving towards breakeven

Up until now, Novacyt was structurally deficient, penalised primarily by its cytology activity which has not yet reached critical size to cover its expenses. Acquisition of Primer Design, a very profitable firm (EBITDA margin of 35%), makes it possible for the new group to report an EBITDA 2016e close to breakeven €-0.7m and profitable in 2017 at €+1.2M. The EBITDA margin is going to continue to improve during the following years and will be above 10% in 2018e.

P&L Novacyt + Primer Design

(in m€)	2014*		2015		2016e**		2017e		2018e	
Sales	**4,5**	**100%**	**8,9**	**100%**	**13,6**	**100%**	**17,9**	**100%**	**20,3**	**100%**
chg.	*ns*		*+96%*		*+53%*		*+31%*		*+14%*	
Other operating income	0,0	0,0%	0,0	0,0%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Cost of sales	-2,6	-56%	-4,6	-52%	-6,0	-44%	-7,3	-41%	-8,0	-39%
Gross margin	**1,9**	**42,8%**	**4,275**	**48,1%**	**7,6**	**55,6%**	**10,6**	**59,4%**	**12,4**	**60,8%**
chg.	*ns*		*ns*		*ns*		*+40%*		*+16%*	
Other expenses	-3,8	-84,3%	-7,2	-81,0%	-8,3	-60,6%	-9,5	-52,9%	-10,2	-50,4%
EBITDA	**-1,9**	**-41,4%**	**-2,9**	**-32,9%**	**-0,7**	**-5,0%**	**1,2**	**6,4%**	**2,1**	**10,4%**
chg.	*ns*		*ns*		*ns*		*ns*		*+83%*	
Depreciation and amortisation	-0,2	-4,9%	-0,3	-3,5%	-0,7	-5,1%	-1,0	-5,4%	-1,1	-5,5%
EBITA	**-2,0**	**-45,0%**	**-3,2**	**-36,4%**	**-1,4**	**-10,1%**	**0,2**	**1,1%**	**1,0**	**4,9%**
chg.	*ns*		*ns*		*ns*		*ns*		*ns*	
Extraordinary items	-0,5	-11,8%	-0,294	-3,3%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Goodwill amortisation	-1,0	-21,9%	-9,8	-110%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Provisions	0,1	2,7%	0,0	0,3%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Others	-0,2	-4,5%	0,1	0,7%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Total non recurring items	**-1,6**	**-35,5%**	**-10,0**	**-111,9%**	**0,0**	**0,0%**	**0,0**	**0,0%**	**0,0**	**0,0%**
Reported EBIT	**-3,6**	**-80,5%**	**-13,2**	**-148%**	**-1,4**	**-10,1%**	**0,2**	**1,1%**	**1,0**	**4,9%**
chg.	*ns*		*ns*		*ns*		*ns*		*ns*	
Cost of net debt	**-0,1**	***ns***	**-0,9**	***-41,2%***	**-0,7**	***-12,5%***	**-0,8**	***-12,5%***	**-0,6**	***-12,5%***
Other financial charges	**-0,1**		**0,2**		**-0,2**		**0,0**		**0,0**	
Financial income (expense)	**-0,2**		**-0,7**		**-0,9**		**-0,8**		**-0,6**	
NOPAT	**-3,8**	**-84,9%**	**-13,9**	**-156,4%**	**-2,3**	**-16,7%**	**-0,6**	**-3,4%**	**0,4**	**1,8%**
chg.	*ns*		*ns*		*ns*		*ns*		*ns*	
Corp. Tax / C.T. rate / NOPAT	0,0	*0,0%*	0,0	*0,0%*	0,0	*0,0%*	0,0	*0,0%*	0,0	*0,0%*
Net attributable profit	**-3,8**	**-84,9%**	**-13,9**	**-156,4%**	**-2,3**	**-16,7%**	**-0,6**	**-3,4%**	**0,4**	**1,8%**
chg.	*ns*		*ns*		*ns*		*ns*		*ns*	
Goodwill adjustment	1,0	21,9%	9,8	110%	0,0	0,0%	0,0	0,0%	0,000	0,0%
Non recurring items adjustment	0,7	14,8%	-0,1	-0,7%	0,2	1,5%	0,0	0,0%	0,000	0,0%
Adjusted net att. profit	**-2,2**	**-48,1%**	**-4,2**	**-47,0%**	**-2,1**	**-15,3%**	**-0,6**	**-3,4%**	**0,4**	**1,8%**
chg.	*ns*		*ns*		*ns*		*ns*		*ns*	

** Lab 21 consolidated in July 2014*
*** Primer Design consolidated in May 2016*

Source : Invest Securities

6 – Novacyt Group: strong growth and increasing profitability

6.2.3 Operating Result in 2017e profitable and net result close to breakeven

The continuing improvement of profitability will be particularly visible in the net operating results (EBIT) in 2017e expected with a slight gain of €0.2m. Let us keep also in mind that the taking into account of synergies related to acquisition of Primer Design should have a two-fold impact on profitability with:, on one hand, revenues revised upward, and on the other hand, a significantly higher margin for activities focused on molecular biology.

The net result will still be in slight deficit in 2017e (€-0.6m) and will be positive the following year at €0.4m.

6.2.4 A rate of Income Tax nil for many years to come

The group has major deficits reported (both in France and in the UK), that we estimate at around €40m as of end of 2015. Consequently, Novacyt should not pay any income tax on profits before many years. Once the group has ended its reported deficit, we evaluate the standard tax rate to be between 15 and 20% in light of the fact that the main company activity is carried out in the UK (income tax rate of 20% - tax credit for research).

Generation of FCF in operations will be positive starting in 2017

6.3 Generation of FCF expected to be on the rise and need for financing which is decreasing

6.3.1 An operation which should soon be able to self-finance

Development of Novacyt has been financed through an increase in capital, debt and hybrid shares. With acquisition of Primer Design, generation of FCF is strengthened and we estimate that starting with the operations for 2017e, the group will be able to finance its own operation (operating FCF after BFR of €0.1m in 2017e and €0,6m in 2018e.

FCF Novacyt + Primer Design

(in m€)	2014*		2015		2016e**		2017e		2018e	
EBITDA	-1,9	-41,4%	-2,9	-32,9%	-0,7	-5,0%	1,2	6,4%	2,1	10,4%
Theoretical Corp. Tax / EBITA	0,0	0,0%	0,0	0,0%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Capex	-0,6	-13,3%	-0,8	-9,3%	-1,0	-7,1%	-1,1	-5,9%	-1,2	-5,8%
After tax op. FCF bef. WCR	**-2,5**	**-54,8%**	**-3,8**	**-42,2%**	**-1,6**	**-12,0%**	**0,1**	**0,5%**	**0,9**	**4,6%**
Change in WCR	1,5	34,1%	-1,8	-20,4%	-1,0	-7,4%	-0,4	-2,1%	-0,3	-1,5%
After tax op. FCF aft. WCR	**-0,9**	**-20,6%**	**-5,6**	**-62,6%**	**-2,6**	**-19,4%**	**-0,3**	**-1,6%**	**0,6**	**3,0%**
Acquisitions/disposals	-1,2	-27,1%	0,0	0,3%	-6,6	-48,5%	-2,0	-11,1%	-1,3	-6,5%
Capital increase/decrease	3,2	69,6%	4,1	46,1%	8,5	62,7%	7,0	39,2%	0,0	0,0%
Dividends paid	0,0	0,0%	0,0	0,0%	0,0	0,0%	0,0	0,0%	0,0	0,0%
Other adjustments	-0,7	-16,2%	-1,4	-15,2%	-0,9	-6,7%	-0,8	-4,5%	-0,6	-3,1%
Free Cash Flow	**0,3**	**5,7%**	**-2,8**	**-31,5%**	**-1,6**	**-11,9%**	**3,9**	**22,0%**	**-1,3**	**-6,5%**

** Lab 21 consolidated in July 2014*
*** Primer Design consolidated in May 2016*

Source : Invest Securities

6.3.2 A sharp decrease in the need for financing

❖ **Financing 2015**

For the activities of 2015, the group has: 1) raised €3.7m through two increases in capital, 2) has contracted an obligation of €3.5m (in particular, used for reimbursement of a bank debt of €1.6m), and 3) secured potential financing of €7.5m (€5m via convertible bonds and €2.5m via BSA) from Yorkville through an OBCASA (Convertible Bond Subscription of Shares) including 1 instalment of €0.25m has been exercised.

6 – Novacyt Group: strong growth and increasing profitability

❖ **Financing of €7.75m linked to the acquisition of Primer Design**

In H1 2016, Novacyt raised € 7,75m through: 1) € 4m capital increase, 2) € 0.75m hybrid securities (OCABSA), and 3) € 3m bond debt (maturity 3 years interest rate 12.5%). This amount is intended to finance the cash portion of the acquisition of Primer Design (€ 6.6m) and part of the operations (€ 1.15m).

Novacyt said to have sufficient cash resources to make its operations until September 2016. We believe that the group would need additional funding for the remainder of the year of € 1.5m. This funding could be obtained through the exercise of 6 vouchers OCABSA to obtain funding for € 1.5 million (excluding exercise of the warrants).

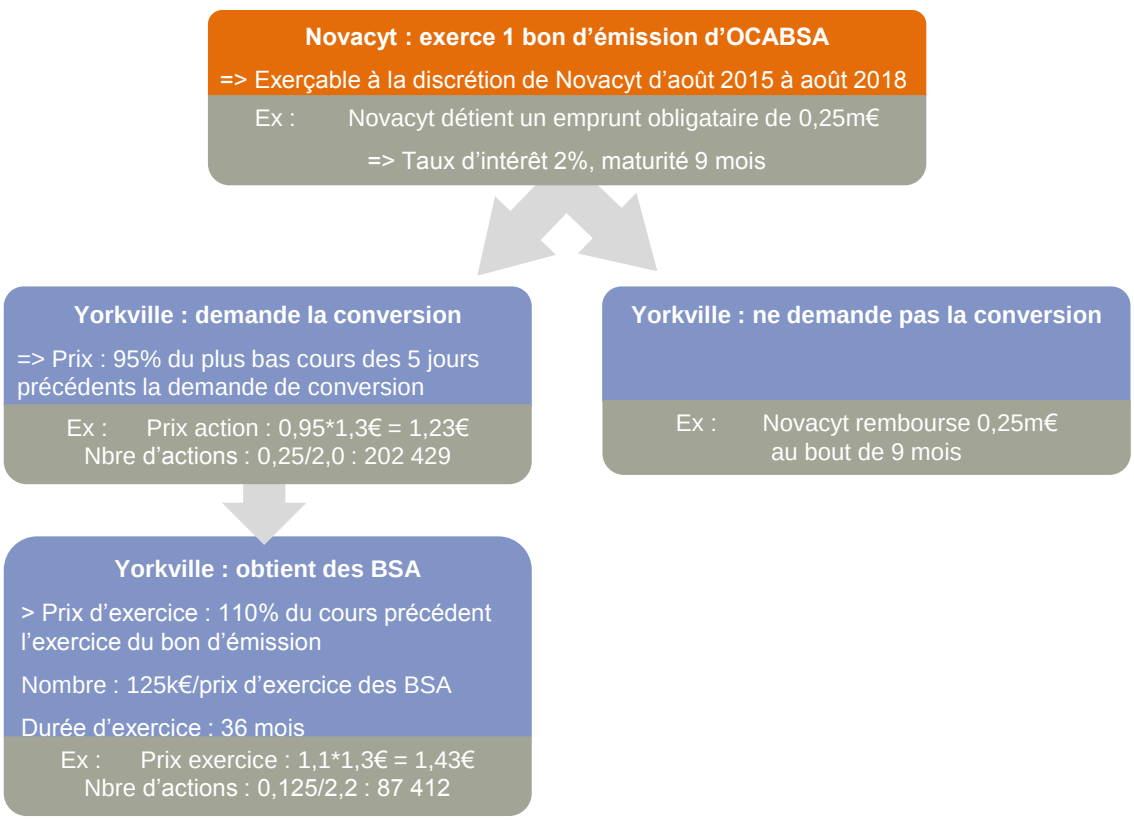
❖ **Financial needs forecasted at €7m for 2017-18e**

A sharp decrease in need for financing , estimated at €7m in 2017-18

Although in 2017e, operations should be partly covered by generating operational FCF (free cash flow), we estimate that the group will need additional financing of around €7m in 2017-2018e. This financing will be particularly used to honour earn-out related to acquisition of Primer Design estimated at €2m and €1.3m for 2017e and 2018e on which must be added the reimbursement of a portion of the 1H 2016 bond debt (€2.9m) and financial charges (€1.4m).

6.3.3 Modalities and impact of activity of OCABSA in 2016 and of financing 2017-2018e

❖ **Example of activity in OCABSA emission of bonds by Novacyt**



Flexible financing, but relatively diluting considering the current valuation of the group

6 – Novacyt Group: strong growth and increasing profitability

❖ **Impact of the exercise of OCABSA on financing 2016e**

By retaining the exercise of 9 good Issue (3 made in H1 2016 and 6 expected in H2 2016) in OCABSA in 2016, the group will get a total financing of €2.25m (excluding exercise of the warrants). By integrating the conversion of the bond and the exercise of the warrants on the basis of a share price of 1.45 for the part exerted on H1 2016 and the current price (€1.3) to that exerted in H2 2016 the number of shares issued amounts to 2,53m.

❖ **Hypotheses chosen for financing 2017-18e**

To face its financing needs over the period 2017-18e, we believe Novacyt could appeal to the market through a capital increase. On the assumption that this is done on the last market price (€1.3), the capital increase would result in the creation of 5.4m shares, or 25% more shares post transaction.

6.3.4 Balance sheet and net debt

Novacyt + Primer Design balance sheet

(in m€)	2014*	2015	2016e**	2017e	2018e
Goodwill	18,8	9,3	22,1	24,1	25,4
Intangible assets	1,1	1,3	1,6	1,7	1,7
Tangible assets	0,5	0,7	0,9	0,9	0,9
Fixed assets	**20,5**	**11,5**	**24,8**	**26,9**	**28,3**
Inventory	1,3	1,5	2,8	3,8	4,3
Trade receivables	1,3	1,9	3,9	5,0	5,7
Other receivables	1,1	0,6	1,0	1,3	1,4
Cash	**2,3**	**1,7**	**1,8**	**3,5**	**0,2**
Total assets	**26,6**	**17,105**	**34,3**	**40,4**	**39,9**
Group equity capital	20,5	10,5	23,2	29,6	30,0
Minority shareholders	0,0	0,0	0,0	0,0	0,0
Total group equity capital	**20,5**	**10,5**	**23,2**	**29,6**	**30,0**
Financial Debts	**1,2**	**3,4**	**5,1**	**2,9**	**0,9**
Provisions	**0,2**	**0,2**	**0,2**	**0,2**	**0,2**
Creditors	3,7	2,5	4,3	5,7	6,5
Social debts	0,3	0,4	1,0	1,4	1,6
Fiscal debts	0,1	0,1	0,1	0,2	0,2
Debts on assets	0,2	0,0	0,0	0,0	0,0
Other debts	0,1	0,0	0,2	0,3	0,3
Advances received	0,1	0,0	0,1	0,1	0,1
Total assets	**26,6**	**17,1**	**34,3**	**40,4**	**39,9**
Net Debt /gearing (%)	**-1,1**	**-5%**	**1,7**	**16%**	**3,3**	**14%**	**-0,6**	**-2%**	**0,7**	**2%**
chg. Net Debt	**-0,3**		**2,8**		**1,6**		**-3,9**		**1,3**	
Net Debt/EBITDA	**0,6x**		**-0,6x**		**-4,9x**		**-0,5x**		**0,3x**	

** Lab 21 consolidated in July 2014*
*** Primer Design consolidated in May 2016*

Source : Invest Securities

At the end of 2015, the group's net debt stood at €1.7m and should reach €3.3m at the end of 2016. consideration of a fund raising €7m in 2017 that allow the group to be in a situation of net cash (€-0,6m) at the end of that year.

7 – Valuation: a significant potential estimated at +79%

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7 – Valuation: a significant potential estimated at +79%

In our opinion Novacyt has now an attractive profile with the acquisition of Primer Design and in light of the expected strong growth of activity (TMVA of CT for 2016-18 of 14% in organic growth). The price objective of €2.4 (+79%) obtained by the mean of the method of comparable firms in a Medetech sample (€2.2) and of the DCF method (€2.5) leads to emergence of multiples of EV/CT 2016-17e of 1.9x and 2.1x, respectively. Note that this target price incorporates all of the group's financing needs before it is able to self finance its development.Therefore, we are initiating the share as BUY.

7.1 Restatement of the EV and calculating the number of shares outstanding

Concerning the calculation of the EV and the number of shares outstanding, we present a dual approach.

❖ **1 - Taking into account the 2016 financing and the estimated theoretical dilution**

In addition to the usual items (net debt and other provisions), the restatement of EV integrates:

- The total purchase price for Primer Design (EV of €18,9m).
- The funds actually raised in 2016 (OPE, OCABSA, BSA, AK) for €14.3m and the estimated additional financing of €2.3m through the exercise of OCABSA.

The number of shares used (15.9m) includes shares outstanding end of 2015 (7,19m) in H1 and dilution (8,76m) to the different sources of financing used by the group in 2016.

❖ **2 - Taking into account the financing need for 2017-18e through a Capital increase of €7m**

We are integrating a maximum dilution based on our hypotheses of conversion of OCABSA based on the current price

In assessing the Novacyt value by integrating its financing needs until it can be self-financing, we have hypothesized a €7m capital increase to cover the period 2017-18e. This capital increase, based on the current price of 1.30 € per share, induces the creation of 5,43m additional shares. Given the current low valuation and Novacyt capacity to raise debt at that date, this approach seems to be more penalizing in terms of dilution. A debt financing for a part or all of the financing need and / or a higher share price will have a significant accretive impact on our target price.

Synthèse des éléments intégrés dans la VE et du nombre de titres en circulation

		Amount m€	Est. price	Nbr. of shares	Dilution
Financing raised in H1 2016	2016 Capital Increas	4,0	1,40 €	2 857 143	18%
	Shares exchange	6,6	2,70 €	2 365 815	15%
	OCABSA (bond)	0,8	1,38 €	544 465	3%
	OCABSA (BSA)	0,4	1,60 €	235 110	1%
	BSA*	2,6	1,16 €	1 000 000	6%
	Sous total	14,3		7 002 532	44%
Financing estimated in H2 2016	OCABSA (bond) 2S201	1,5	1,23 €	1 223 990	8%
	OCABSA (BSA) 2S2016	0,8	1,42 €	528 541	3%
	TOTAL 2016	**16,5**		**8 755 064**	**55%**
Financing estimated in 2017-18e	Capital Increase	7,0	1,29 €	5 426 357	25%
	TOTAL 2017-18	**7,0**		**5 426 357**	**25%**

** Maximum amount*

Source : Factset, Invest Securities

7 – Valuation: a significant potential estimated at +79%

7.2 Medtech comparable firms: valuation of €2.2

In the absence of a significant sample of comparable firms in the field of in vitro diagnostics, we chose a sample of 18 firms in the Medtech sector. We used the criterion of multiple EV/CT insofar as these firms, in strong growth, are not yet profitable to plan multiples of EV/EBITDA. Although, heterogeneous, the mean of the multiple EV/CT in our opinion seems to well characterise the profile of this type of firms.

Based on multiples of EV/CT 2016-17e, Novacyt will report for these 2 years a decrease of over 50% compared to our sample.

Based on our "diluted" approach, integrating the entire 2016 financing, our average target is €2.5. By incorporating the dilution caused by the capital increase of €7m based on the current price ("fully diluted approach"), our average valuation stood at €2.2.

Valuation by method of comparables: Medtech sample

	Mark. Cap	Sh. price	chg.		EV/Sales	
	(m€)	(€)	1 month	ytd	16e	17e
Amplitude Surgical	163,8	3,5	+6%	-27%	2,3x	1,8x
Cellnovo Group SA	61,2	5,7	-21%	-24%	ns	6,9x
Crossject SA	53,6	8,1	-18%	-22%	ns	3,6x
EOS Imaging SA	65,7	3,3	-15%	-34%	2,3x	1,9x
I.CERAM		4,3	-13%	-29%	7,7x	6,9x
Intrasense SA	7,5	0,9	-12%	-26%	3,2x	3,1x
Mauna Kea	34,1	2,1	-6%	-31%	2,7x	2,2x
Medicrea	46,9	5,2	-8%	-23%	1,8x	1,6x
Medtech SAS	71,6	30,0	+4%	+18%	4,0x	2,4x
Pixium Vision SA	86,4	6,8	+0%	+19%	ns	15,5x
Quantel SA	28,6	3,5	-2%	+23%	0,6x	0,5x
Safe Orthopaedics	30,3	2,2	+14%	-15%	5,2x	2,9x
SpineGuard SA	25,6	5,1	+6%	+2%	2,9x	2,0x
Spineway SA	10,4	2,9	+1%	-4%	1,8x	1,4x
Stentys SA	46,1	2,6	-8%	-47%	3,7x	3,1x
SuperSonic	46,2	2,9	-25%	+24%	1,5x	1,6x
Theraclion SA	30,0	6,2	+18%	-6%	4,4x	3,2x
Vexim SA	68,5	9,0	+7%	-11%	3,1x	2,7x
Average			**-4%**	**-13%**	**3,1x**	**3,5x**
Novacyt	**12,6**	**1,3**	**-19%**	**-58%**	**1,2x**	**1,3x**

Source : Factset, Invest Securities

	Sales 16e	Sales 17e
Novacyt sales	13,6	17,9
EV estimated vs Medtech	42,7	63,0
2015 Net financial debt	-1,7	-1,7
Primer Design acquisition	-18,9	-18,9
2016 financing	16,5	16,5
Provisions/ near-debt	0,1	0,1
Valuation	38,8	59,0
/ 2016 Number of Shares fully diluted*	15,9	15,9
= Share Price	2,4	3,7
Valuation	38,8	59,0
2017-18e financing	7,0	7,0
Valuation	45,8	66,0
/ 2017 Number of Shares fully diluted*	21,4	21,4
= fully diluted Share Price	2,1	3,1

**14.94m diluted shares (including 2016 financing (OPE, AK, OCABSA, BSA))*
***21,37m fully diluted shares (including 2016 financing + 2017-18e financing needs (capital increase)*

7.3 Blue chip comparable firms: indicative valuation of €2.6

Although we are of significantly smaller size than the blue chip firms in the IVD sector, in our view it is useful to estimate the valuation of Novacyt by means of this sample. At the outset, let us emphasise that Novacyt generates growth in its CT which is much higher than that of the leading firms in the sector with TMVA 2016-18e of +22% as published vs. +3.4% for the sample.

On the basis of our "diluted" approach, our average target reached € 3.6 versus € 2.6 in the context of our "fully diluted" approach.

However, we do not choose this approach in the final valuation of Novacyt in light of the different profile of the firm (low capi/high growth) compared to blue chip firms (high capi/small growth).

7 – Valuation: a significant potential estimated at +79%

Valuation by method of comparable firms: Blue chip sample

	Mark. Cap (m€)	Sh. price (€)	chg. ytd	EV/Sales 16e	EV/Sales 17e
Roche	188 549	221,5	-13%	4,4x	4,1x
Abbott Laboratories	49 594	33,8	-18%	2,8x	2,7x
Johnson & Johnson	277 807	101,0	+7%	4,1x	3,8x
Danaher Corporation	59 959	87,1	+2%	3,4x	3,1x
bioMerieux SA	4 489	113,8	+4%	2,3x	2,1x
QIAGEN NV	4 464	19,2	-25%	4,1x	3,7x
Average			**-4%**	**3,5x**	**3,3x**
Novacyt	**12,6**	**1,3**	**-58%**	**1,2x**	**1,3x**

	CA 16e	CA 17e
Novacyt sales	13,6	17,9
EV estimated vs blue chips	48	58
2015 Net financial debt	-1,7	-1,7
Primer Design acquisition	-18,9	-18,9
2016 financing	16,5	16,5
Provisions/ near-debt	0,1	0,1
Valuation	44	54
/ 2016 Number of Shares fully diluted*	15,9	15,9
= Share Price	2,7	3,4
Valuation	43,7	54,2
2017-18e financing	7,0	7,0
Valuation	50,7	61,2
/ 2017 Number of Shares fully diluted*	21,4	21,4
= fully diluted Share Price	2,4	2,9

7.4 DCF: valuation of €3.3

For our valuation of DCF, we integrate the following hypotheses:

- Mean annual organic growth of sales of +15% for the period 2016-24e, of +8% for the last year (2025e), followed by growth of +1.5% to infinity.
- Progressive improvement in the EBITDA margin to reach a top rate of 25% in 2023e and a more cautious long-term fixed margin of 20% in 2025e (vs 2016e EBITDA margin of 30% for our blue chips sample). A long-term EBITDA margin of 25% is possible but we are waiting for that confirmation of the improved profitability in upcoming releases.This improvement in margin is explained by obtainment of a critical size propelled by progression of activity enabling to better amortise fixed costs, as well as the rise in power of molecular biology activity with a higher margin.
- An Income tax nil for the period 2016-2024e in light of the amount of deficits and the normative rate of 20% (IT rate in UK) after.

In order to update our FCF, we choose a WACC of 8.69% based on:

- A French 10 year OAT rate of 0.48%.
- A risk premium for shares market of 6.57%.
- A beta of 1.25x.
- A financial lever that is nil insofar as Novacyt to date uses debt in a limited manner.

7 – Valuation: a significant potential estimated at +79%

Valuation by DCF method

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Sales	**8,9**	**13,6**	**17,9**	**20,3**	**23,4**	**26,9**	**30,9**	**35,5**	**40,2**	**45,0**	**48,6**
chg.	***ns***	***+53%***	***+31%***	***+14%***	***+15%***	***+15%***	***+15%***	***+15%***	***+13%***	***+12%***	***+8%***
EBITDA	-2,9	-0,7	1,2	2,1	3,0	4,3	6,2	8,0	10,1	10,1	9,7
EBITDA margin	*-32,9%*	*-5,0%*	*6,4%*	*10,4%*	*13,0%*	*16,0%*	*20,0%*	*22,5%*	*25,0%*	*22,5%*	*20,0%*
Capex	-0,8	-1,0	-1,1	-1,2	-1,4	-1,6	-1,8	-2,1	-2,4	-2,7	-2,9
in % of sales	*-9,3%*	*-7,1%*	*-5,9%*	*-5,8%*	*-5,9%*	*-5,9%*	*-5,9%*	*-5,9%*	*-6,0%*	*-6,0%*	*-6,0%*
Amortissements	-0,3	-0,7	-1,0	-1,1	-1,3	-1,5	-1,8	-2,1	-2,4	-2,7	-2,9
in % of sales	*-3,5%*	*-5,1%*	*-5,4%*	*-5,5%*	*-5,6%*	*-5,7%*	*-5,7%*	*-5,8%*	*-5,9%*	*-5,9%*	*-6,0%*
WCR	0,9	1,9	2,3	2,6	1,8	2,0	2,3	2,7	3,0	3,4	3,6
WCR / Sales (%)	*10,3%*	*14,1%*	*12,9%*	*12,9%*	*7,5%*	*7,5%*	*7,5%*	*7,5%*	*7,5%*	*7,5%*	*7,5%*
Corp. tax	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	-20,0%
Summary											
EBITDA	-2,9	-0,7	1,2	2,1	3,0	4,3	6,2	8,0	10,1	10,1	9,7
Corp. tax	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-1,4
Capex	-0,8	-1,0	-1,1	-1,2	-1,4	-1,6	-1,8	-2,1	-2,4	-2,7	-2,9
Change in WCR	-1,8	-1,0	-0,4	-0,3	0,9	-0,3	-0,3	-0,3	-0,4	-0,4	-0,3
Op. FCF aft. WCR	**-5,6**	**-2,6**	**-0,3**	**0,6**	**2,5**	**2,5**	**4,1**	**5,5**	**7,3**	**7,1**	**5,2**
Discounted Op. FCF		**-2,5**	**-0,3**	**0,5**	**1,9**	**1,7**	**2,6**	**3,2**	**3,9**	**3,5**	**2,3**

Source : Invest Securities

Details of our valuation by DCF

Weighted Average Cost of Capital	
OAT 10 years	0,48%
Risk premium	6,57%
Beta	1,25
Cost of capital	**8,7%**
Cost of debt	8,5%
gearing	0%
Corporate Tax	20,0%
WACC	**8,69%**

Source : Invest Securities

Valuation	dilué		Fully diluted	
	in m€	€/share*	in m€	€/share**
Period 1-10 years	16,8	1,1	16,8	0,8
Infinity growth	33,1	2,1	33,1	1,5
Total Entreprise Value	**49,9**	**3,1**	**49,9**	**2,3**
2015 Net financial debt	-1,7	-0,1	-1,7	-0,1
Primer Design acquisition	-18,9	-1,2	-18,9	-0,9
2016 financing	16,5	1,0	16,5	0,8
2017-18e financing	0,0	0,0	7,0	0,3
Provisions/ near-debt	0,1	0,0	0,1	0,0
Valuation	**46,0**	**2,9**	**53,0**	**2,5**

**14.94m diluted shares (including 2016 financing (OPE, AK, OCABSA, BSA))*
***21,37m fully diluted shares (including 2016 financing + 2017-18e financing needs (capital increase)*

croissance à l'infini	WACC						
	7,2%	7,7%	8,2%	**8,7%**	9,2%	9,7%	10,2%
+0,5%	2,9	2,7	2,5	2,3	2,1	2,0	1,8
+1,0%	3,1	2,8	2,6	2,4	2,2	2,0	1,9
+1,5%	3,3	3,0	2,7	**2,5**	2,3	2,1	2,0
+2,0%	3,5	3,1	2,8	2,6	2,4	2,2	2,1
+2,5%	3,8	3,4	3,0	2,7	2,5	2,3	2,1

Source : Invest Securities

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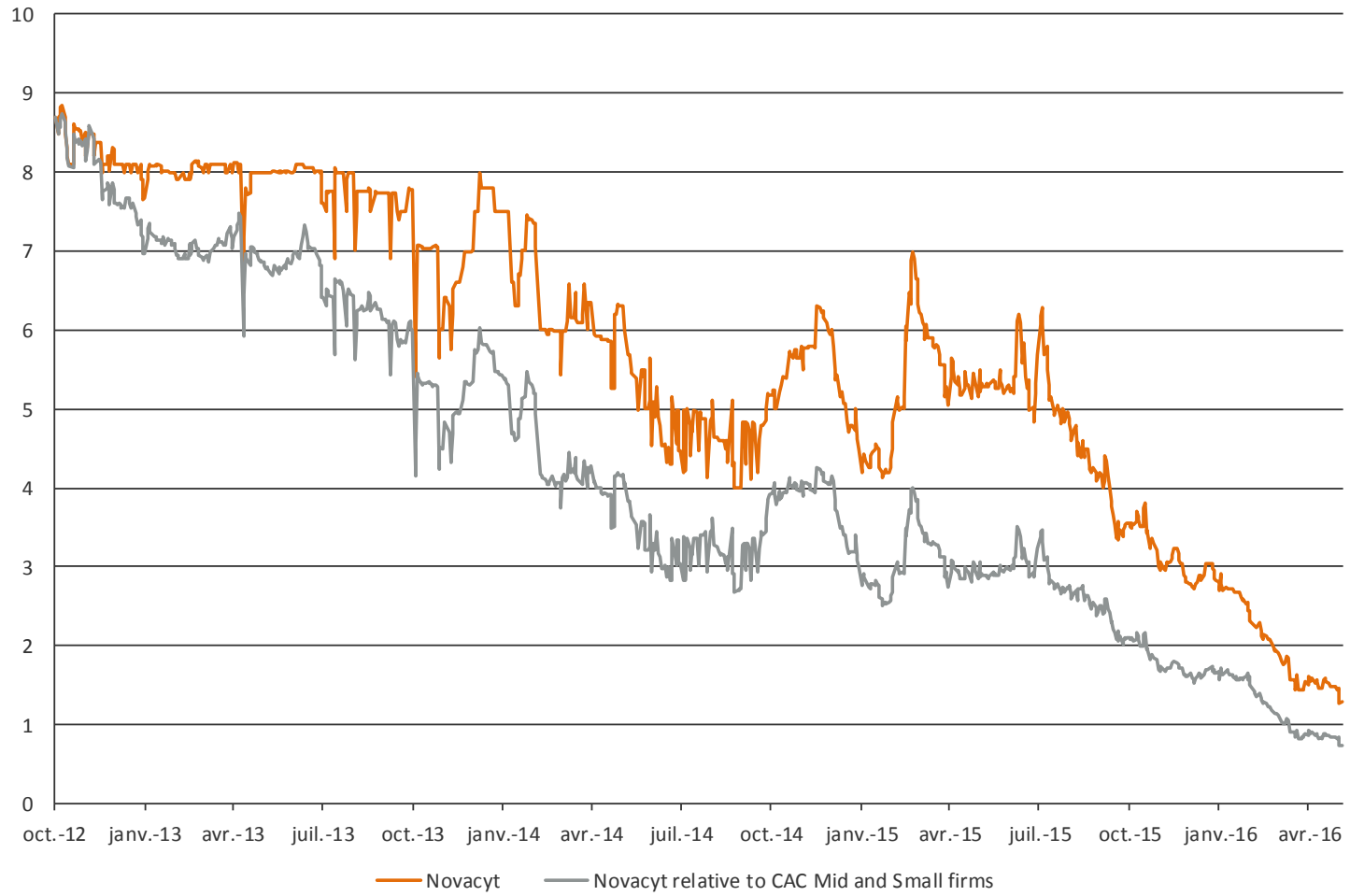
Relative and absolute change in share value since the IPO



CONFLICT SCREEN

	Corporate Finance	Tresory stocks holding	Prior communication	Analyst's personnal interest	Liquidity contract	Listing Sponsor	Research contract
Novacyt	no	no	yes	no	no	no	yes

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