# **Project Phoenix**

## **Executive Summary**

September 2014

## Strictly Private & Confidential





## **Background**

#### IVF Venture in UAE to be Established by Europe's Most Successful Clinic

The Operator is already established in Spain and boasts the highest success rate in Europe

- → The Clinic ("Clinic" or "Project") will be operated and managed by Bionac (the "Sponsor" and "Operator"). Bionac which was founded by the Sponsor in 2009, is considered among Top IVF Clinics in Europe and has provided IVF treatments to a large catchment area of patients coming from Central Europe and Middle East
- → The Operator implements a system which combines highest standards in embryo laboratory and gynecology procedures, to achieve the highest success rate in Europe. Dr. Jose Navarro, Director of Gynecology and Dr. Marco Toschi, Chief Embryologist are shareholders of Bionac.
- The Sponsor is now looking to venture with a GCC Healthcare Group or fund who can provide on top of the equity required to complete the project strong synergies in the healthcare sectors and support the approval process in UAE with concerned regulatory authorities
- → Dubai and Abu Dhabi have been selected as the start-up markets where to begin operations leveraging on growing population, high-income percentage of patients looking for IVF treatment and a sound infrastructure that can attract medical tourism from neighboring countries
- → The Clinic which expect to kick-off in 2015 to initially undertake securing the required approvals from the Ministry of Health, local municipalities and other regulatory bodies
- → The Clinic will provide the patients with a high-quality yet affordable treatment, following the high pregnancy success rate of the Operator, which blends comprehensive induction, retrieval and transfer methods.
- → The Sponsor will equip the clinics with state of the art medical equipment, a proprietary designed lab and filtration system that will be designed and assembled according to the environmental conditions of the UAE, a highly qualified staff coming from USA, Europe who has been trained internally and has already demonstrated a strong success rate.



# **Offering Terms**

The Company	A UAE-based limited liability company	y, to be used as the Operating Company.
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The Operator &	"Bionac	' as t	he O	perato	or of	the	Clinic,	will	own	49%	sweat	equit	y as	the
Brand	manage	ment	team	and s	shall	be	offering	the	perm	ission	to us	e the	"Bio	nac"
	brand,	intelle	ectual	prop	erty,	kn	ow-how,	tra	ining,	scie	ntific	and	techr	nical
	supervis	sion												

Purpose of Issue	The Company is looking to raise capital, by inviting a select pool of investors, to
	setup a new Clinic in UAE and to expand its operations further.

<b>Use of Proceeds</b>	The proceeds will be	used to setup the IVF (	Clinic or IVF department o	of Hospital
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Board	The Management has the right to appoint 50% of the Board and the Investor(s)
Representation	shall appoint the remaining 50% along with the Chairman.

# **Investment Highlights**

## Unique Opportunity to Invest in a Renowned Operator

Healthcare is a defensive sector which is immune to the downturns in economic activity, providing investors exposure to a low risk business which is currently experiencing strong growth

Brand & History

A unique combination made between Europe's fastest growing IVF clinic and among the World's most prestigious IVF professionals, shall partner with the Investor to run the Clinic.

Local partnership model

The investor(s) would be a GCC based PE House or specialty clinic center. The Clinic site will be provided by investor and the required approvals from the Ministry of Health, local municipalities and other regulatory bodies shall be secured in due course.

Market Dynamics

Booming expatriate population coupled with the increasing health and behavioral conditions causing infertility, has resulted in a shortage of IVF facilities and waiting-lists for patients in the GCC. Total number of patients in the GCC healthcare sector is expected to grow at a CAGR of over 5% between 2013 and 2018.

Competitive Advantage

Shortage of IVF clinics capacity, strong demand by the local and expatriate population which has a culture of 3 children or more per family, superior quality of service provided by the well known Operator, will help to attract patients.

**Opportunity** 

Selected Investors are being invited to participate in this attractive opportunity, which promises growing revenues, strong margins and fast pay-back.



## The Project

#### Premium Quality Healthcare at State-of-the Art IVF Clinic

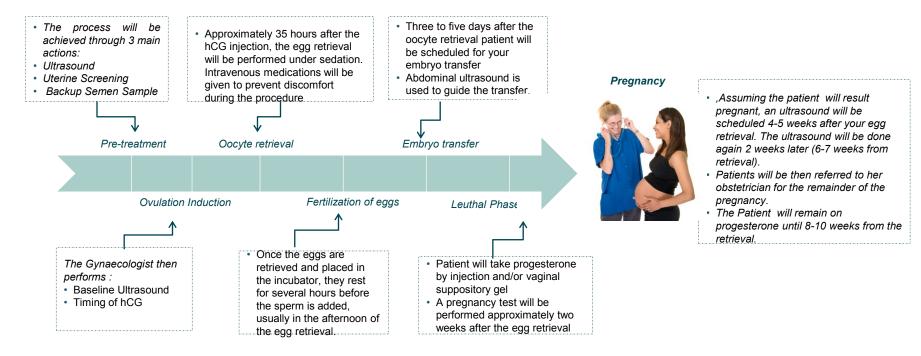
A renowned brand coming to the GCC, due to high demand from the local and expat community

- → The salient features of the Project are shown below;
  - → Designed to meet an annual capacity of 2000 cycles (expected to be achieved by year 5), with 2 surgery rooms, 6 treatment rooms and 6 consultation rooms.
  - → High healthcare standards comparable with IVF centers in the US and Europe. The Clinic will invest in on-going development of medical personnel leveraging on the affiliation with top international professionals, Dr. Schatmann (Cornell University, USA) and Dr. Kuwayama, (Japan) in order to maintain its pregnancy success rate and attract new medical talents.
  - → A well trained front-office staff together with a renowned team of medical and scientific specialists in embryology, cryobiology and andrology, will ensure patients receive the highest quality of personal clinical attention.
  - → State of the art diagnostic equipment and proprietary patented laboratory will contribute breakthrough research to be quickly translated into new/innovative treatments due to the collaboration with research organization in Japan
- → The Clinic will treat patients starting with an average of 1 cycle per day, phasing up to 5 cycles by Year 5. However, all the construction work, interior fit-outs and airfiltration systems will commence after fund-raise, since dust pollution has an adverse impact on fertility success and noise pollution will not be tolerated by patients.
  - → Construction and installation will be completed in less than 6 months
  - → Total investment cost for construction, equipment, pre-operating expenses and initial working capital is estimated at US\$ 8.5 mn to be raised mostly as Equity and lease financing of equipment to be arranged from suppliers such as GE Medical, Philips etc.



## The Process

#### **Standard Snap-shot of the Treatment Process**



- In order to reach its full potential IVF and increase the pregnancy rate the clinic shall blend a mix of highly dedicated staff working in close co-ordination, using precise timing
- The newly established clinic will be lead by 2 very successful Medical Doctors, who have graduated from the US and are working together and have established a benchmark at Bionac in the medical IVF specialty:
  - Dr. Marco Toschi (Chief Embryologist and Lab Director)
  - Dr. Jose Navarro (Chief Gynecologist and Director of Endocrinology)



## The Medical Lead

## **Top Achievers in the IVF Medical Profession**

A team of well known and highly regarded medical professionals who have improved further the IVF techniques



Dr. Jose M. Navarro, M.D., Ph.D Director of the Endocrinology Unit, Human Reproduction and Endoscopic Surgery Bionac Sevilla



Dr. J. M. Navarro obtained his M.D. and Ph.D at the University of Seville. He specialized in General Surgery and Obstetrics and Gynecology.

After completing OB/GYN residency training at Hospital Universitario Virgen de la Arrixaca, Murcia, he acquired his subspecialty in Reproductive Endocrinology and Infertility at Instituto Valenciano de Infertilidad.

He concluded his studies of Reproductive Medicine at Weill Medical College of Cornell University, New York (USA) and at Northwestern University Medical School of Chicago (USA).

He completed a 12-month course on advanced Endoscopic Gynecological Surgery at Ircad/Université de Strasbourg (France).

After having directed several assisted reproduction centers, he co-founded with Dr. Marco Toschi the Instituto de Biotecnología Aplicada BIONAC, and is currently the Director of the Human Reproduction and Endoscopic Surgery Unit.

Dr. Navarro regularly participates in symposia and scientific conferences worldwide, and is the author of numerous scientific publications of medical disclosure.





Dr. Marco Toschi , MSC Laboratory Director Bionac Sevilla

Dr. Marco Toschi is the Medical Lab Director of Bionac Sevilla and is well known as Spain's top IVF embryologist.

In 2009, after founding Bionac together with Dr. Jose Navarro Pando, he led the design and implementation of one of the most innovative IVF laboratories. This project stems from his professional experience and a scientific and technical cooperation with some of the leading figures in the field.

Marco heads a team of 12 embryologist with different seniority who have been personally trained and vetted by him.

In 2012, Dr. Toschi through a scientific and technical alliance with a leading Japanese Expert in IVF, helped to promote Bionac as the Spanish reference center in the application of the latest protocols and technology for embryo and oocyte cryopreservation.

Marco was a research associate at the The Ronald O. Perelman and Claudia Cohen Center for Reproductive Medicine of Weill Cornell Medical College and a key staff member of the ICSI team directed by M.D. Gianpiero Palermo.

Dr. Toschi holds a Bachelor Degree in Biological Science from Milan University and a MSc. In Reproductive Biotechnologies.



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## The Medical Lead

## **Top Scorer in Pregnancies Achieved**

Dr. Navarro together with Dr. Toschi have become the reference for all those couples with a complicated medical history

- The combined efforts of the Gynecologist and Embryologist lay at the foundations of superior pregnancy results and therefore the new clinic will be lead by 2 experienced and highly accredited specialist like Dr. Navarro and Dr. Toschi
- Dr. Navarro together with Dr.Toschi have become the reference for all those couples with a complicated medical history and who have failed previous attempts in getting pregnant among other centers in Europe, based on the philosophy of tailoring a unique IVF strategy according to the patient profile.
- Bionac has a proven outstanding track record in pregnancy rate as shown below;
- According to ESHRE ("European Society for Human Reproduction and Embryology") around 1.5 million ART cycles are performed each year worldwide, with an estimated 350,000 babies born.
- In Europe, in 2010 the mean pregnancy rate per embryo transfer was 35.5% after IVF, 32.1% after ICSI, 23.8% after frozen embryo transfer and 45.8% after egg donation.

ICSI	≤ 34	35-38	39-40	41-42	≥43	Tot
Pick-up	345	380	129	60	32	947
Ovovit	19	17	5	4	4	49
Transfer	272	308	98	46	22	746
Pregnancies	204	212	53	18	3	490
% Pick-up	62,6	58,4	42,7	32,1	10,7	54,6
% Transfer	75,0	68,8	54,1	39,1	13,6	65,7



# A Snap-shot of the IVF Clinic

#### **IVF Laboratory is the Heart of the Clinic**

The IVF Lab is the core of the entire Clinic. Here is where gametes and embryos are actually manipulated and cultured.

- The IVF Lab represents the core of the entire Clinic, where the gametes and embryos
  are actually manipulated and cultured. All this procedures must be carried out under
  very strict and stable conditions in order to ensure the final result.
- The Lab, which will be implemented initially in Dubai, will be designed following the stringent quality standard that have made Bionac clinic results so outstanding, in orde to achieve the established success rate.
- The Lab will be designed and assembled in order to process up to 2000 cycles per year and will follow not only ISO and UAE's MoH medical guidelines, but also the intellectual property and custom made design and equipment selected by Bionac with particular care for the ventilation and filtration systems, which need to be customized.
- The Lab will be equipped with high efficiency particulate air (HEPA) and activated carbon filters plus positive pressure for air particulate control.
- Prior to the installation of the Lab Equipment, air samples will be collected outside and inside the laboratory and intra-incubator at three different time points and this will be used as benchmark to build and select the most accurate and custom made filters in order to maximize the success rate.
- To this end the design and the equipment used to build the lab become a key success factor in the pregnancy rate.



# A Snap-shot of the IVF Clinic (cont'd)

## A State of the Art Lab to Beat the Competition

It's proved that Air Quality is crucial for the success of IVF. The presence of volatile organic compounds (VOCs), microbes, and perfumes can be harmful to in vitro embryo development.

- Creating an optimal environment for embryo culture is important for ensuring embryo viability, and thereby maintaining stable pregnancy outcome. Various factors, such as air quality, temperature and light, are known to affect oocytes and embryos development.
- High efficiency particulate air (HEPA) and active carbon filters, positive pressure and general sterility precautions are only some of the technical aspects that will help the Clinic to prevent and/or reduce contamination.
- Specifically, the outside air which will be introduced into the unit will be first filtered with active carbon in order to extract all the eventual hydrocarbons and after with HEPA filters witch will help to remove all the particulate materials.
- The selected equipment will mainly consist in cutting edge technology dedicated to Embryology, Andrology, Cryobiology and Investigation. It will be sourced by high quality medical brands such as:
  - K-systems
  - Thermo Scientific
  - Nikon
  - Olympus
  - Embryoscope Time-Lapse System



# A Snap-shot of the IVF Clinic (cont'd)

A state of the art lab coupled with Top Skilled Staff will beat the competition

- The laboratory will contains equipment essential for preparation of stock solutions and culture media; quality control testing; neat and post-wash semen analysis; sperm processing for IVF, embryo and sperm cryopreservation.
- The embryology lab with shelter up to 20 incubators, 8 independent embryology workstations, 3 micro-manipulators and 3 andrology safety cabinets
- The Lab will have a size of c. 500 m2
- Two surgery rooms



## **Market Overview**

# THE MARKET OPPORTUNITY

- Direct health spending in the GCC will rise by 300% to \$60bn in 2025 compared with \$15bn in 2008
- The healthcare market is expected to grow dramatically due to:
  - Changes in roles Ministry of Health:
    - Increased acceptability and confidence in IVF as a safe and viable method for over-coming infertility
    - Creation of independent health care regulators for the public and private sector
  - UAE to become Middle East's largest medical tourism destination:
    - This niche market was estimated to be c. \$5.4 billion in 2012
    - The Government is seeking to add 54,000 new hospital beds by 2016
  - Private sector involvement in healthcare delivery:
    - Engaging international and local private sector in managing public care facilities (PPP, Outsourcing services)
    - Creation of dedicated cluster 'health cities' to attract FDI and know-how (i.e. Dubai Health City)

THE ENTRY

- Two phases entry strategy:
  - Operator can strategically enter the UAE IVF market by:
  - A. Secure a long term service agreement as a specialty clinic within a Prime Hospital Brand
  - B. Establish an independent speciality IVF Clinic
  - C. Merge option A & B adopting similar competitors strategy

THE POTENTIAL

• With reference to the achievable market share we believe that Operator may target in the medium term (3 years) c. 5% of the total market share of the IVF market in the Gulf

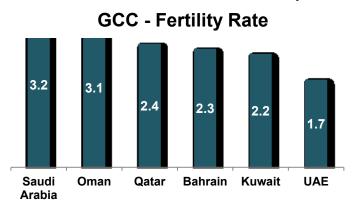


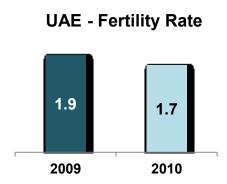
## **Market Overview**

## Infertility & IVF Treatment is no Longer a Social or Cultural Taboo

Infertility is one of the most prevalent disorders which affect every sixth couple in UAE

- Infertility is one of the most prevalent disorders which affect one out of every 6 couples in the UAE. Recent survey by one of the leading hospitals in UAE has shown that awareness is so widespread that both men and women try to gather as much information as possible from all sources including internet.
- Infertility has become so prevalent because of the poor lifestyle that has been adopted by most of the couples. Lifestyle choices are more focused on food and less on physical activity and all these lead to lifestyle disorders like obesity and metabolic syndrome.
- Causes of male infertility may include: Abnormal sperm production or function, problems with the delivery of sperm due to the anatomy or the physiology, overexposure to certain chemicals and toxins or damages related to cancer and its treatments.
- → Causes of female infertility may include: Ovulation disorders, Uterine or cervical abnormalities, Endometriosis, Primary ovarian insufficiency, cancer and its treatment.







## **UAE IVF Treatment Market Potential**

## **Growing Demand for Quality Healthcare**

IVF market potential is huge and seizing the right opportunity at the right time will help capture a major market share

- → The potential of IVF market in UAE stands huge owing to the statistics which depict that one of every 6 couples in UAE is facing fertility issues. WHO statistics also reveal that the conception rates in UAE, have recently gone down from around 5.7 children per woman to 2 children per woman. This has been reported by one of the popular local dailies, which states late marriages, stress and hormonal imbalance as the major reasons for infertility in UAE.
- → Though there are many private clinics and government hospital offering IVF services, what is offered to the patient is nothing but eyewash. Some of these Centers only provide guidance, treatment involving hormonal tablets and procedures related to minor surgeries. All patients are referred to specialty clinics if the treatment is beyond the scope of the laboratory/department.
- → On a social front, great emphasis is laid on motherhood and bigger family size. Issues like secondary infertility also contribute towards couples who have had their first child through natural cycle, now prefer to go for IVF.
- → The role of Epigenetic related with gene expression plays a key role in designing and setting a cutting edge IVF laboratory. In fact lab conditions may affect gene expression in initial embryonic development leading to long term human disorders such as Angelman and Prader-Willi syndrome.



# **UAE IVF Treatment Market Potential (cont'd)**

## The Existing Landscape

**Tight** regulations coupled with existing IVF's centers saturations. leaves to qualified international players an opportunity to enter the IVF market by partnering with existing healthcare chains

- → The United Arab Emirates show a very strong potential for a new entrants adopting cutting edge technologies and latest IVF techniques
- → To date only 6 major clinics are fully dedicated in the specialty and are running at full capacity despite the average success rate. According to press releases from Dr. Fakih a leading UAE medical IVF practitioner there are more than 10,000 cycles a years performed
- → The market of infertility in the United Arab Emirates is highly fragmented, but despite the capillarity of IVF centers, the cost of treatments have resulted in some of the highest worldwide and remains stable taking advantage of the medical tourism and the industry gap in neighboring GCC countries and Sub-Indian Continent
- → The UAE market is largely dominated by small niche players and sole practitioners, but are running at full capacity, and therefore this leaves for internationally qualified and accredited players room to entry the market despite the tight regulations:
  - → Bourn Hall Clinic (currently in joint venture with TVM Capital)
  - → Dubai Gynecology and Fertility Centre
  - → Fakih Fertility Clinic
  - → New Medical Life Centre

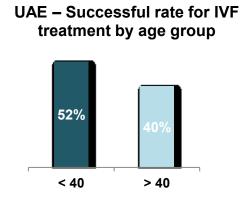


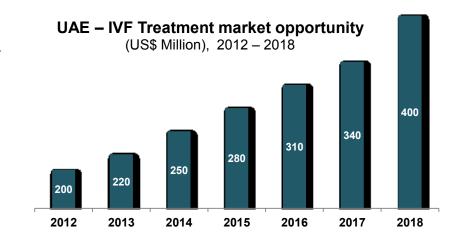
# **UAE IVF Treatment Market Potential (cont'd)**

## **Growing Demand for Quality Healthcare**

Prospects
appear bright
for operators
and investors in
the private
clinics segment
across the
region

- Since the country is well advanced in terms of the healthcare facilities expected and hospitals in general meet international standards, it can also contribute further to medical tourism, providing an option to couples from the Middle East region and beyond to seek IVF treatment in UAE.
- If these delimiting factors are removed UAE can emerge as one of key players in the IVF market in the region.
- → The determinant would be the comparative costs as well as the kind of treatment extended along with high rates of success.





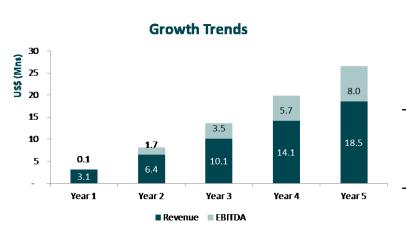


# **Financial Snapshot**

#### **Attractive Investment Returns**

Anticipated strong patient visits should help achieve positive cashflows in a relatively short span of time

US\$ ('000s)	1	2	3	4	5
Revenue	3,069	6,435	10,120	14,149	18,545
Gross Profit	1,286	3,547	5,888	8,615	11,436
EBITDA	109	1,708	3,535	5,696	7,960
Net Income	(1,709)	126	2,243	4,585	6,848
Revenue Growth		109.7%	57.3%	39.8%	31.1%
GP Margin	41.9%	55.1%	58.2%	60.9%	61.7%
EBITDA Margin	3.6%	26.5%	34.9%	40.3%	42.9%
Net Margin	-55.7%	2.0%	22.2%	32.4%	36.9%



- → Resilient demand for good quality IVF Clinics in UAE coupled with a wellrecognized brand, should help the project attract a large number of patients.
- The Project is expected to achieve positive cash-flows in a relatively short span of time.
  - The Project should be able to distribute dividends from the second year of operations due to predictable profit margins and low cash retention requirements.

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# Financial Snapshot (cont'd)

#### Incentive Schemes for Staff to Boost Revenue

Dynamic and flexible business model with incentives to staff to increase IVF treatments

US\$	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Fixed Assets	7,665,000	6,529,081	5,393,162	4,257,243	3,121,324	1,985,405
Current Assets	413,000	1,456,552	2,320,887	3,735,454	5,534,476	12,990,891
Total Assets	8,078,000	7,985,633	7,714,049	7,992,697	8,655,800	14,976,296
Shareholders Equity	4,265,000	2,452,115	2,284,991	3,931,849	7,928,448	14,048,360
Long-Term Debt	3,813,000	2,795,625	1,542,790	-	-	-
Current Liabilities	-	2,737,892	3,886,267	4,060,848	727,352	927,936
SHE & Total Liabilities	8,078,000	7,985,633	7,714,049	7,992,697	8,655,800	14,976,296

#### → Basic Assumptions;

- → Starting at 2 patient visits per day in Year 1 and rising up to 10 patient visits per day, to be serviced with 2 Gynecologists, which will increase to total of 10 by Year 5
- $\rightarrow$  Based on the visits, there will be average conversion of 50% from consultation visits to actual cycles performed
- → The clinic will operate 7 days a week and excluding Eid holidays, will operate for 330 days a year
- → Gynecologists will earn a fixed salary, plus a share of revenue to maintain loyalty and increase IVF treatments
- → Direct costs which include lab costs, clinical supplies, cleaning and rent are assumed at 38% of revenues in Year 1 and gradually declining to 30% by Year 5 due to economies of scale
- → Other Operating costs mainly comprise of maintenance, marketing, royalty, IT and other admin expenses



# **Next Steps**

An efficient process to ensure successful consummation of the Transaction

#### NDA & IM

#### LOI / Due Diligence

#### Execution

- → Sign NDA to receive information memorandum
- → Provide a letter of intent (LOI)→ Conduct Due

Diligence

- → Sign Subscription Agreements
- → Effect Share Issuance to Investor

#### Non Disclosure Agreement & Information Memorandum

- → Interested Parties are requested to present their interest through a formal letter sent to Arkios, expressing their interest to explore the transaction.
- → The investor is then required to sign a Non Disclosure Agreement in order to receive the Information Memorandum.

#### **LOI & Data Room**

- → Investors will be required to provide a letter of intent that will include an indicative commitment that is subject to reviewing information and documentation.
- → Should the preliminary offer by the investor to the Company be acceptable, Arkios will arrange and coordinate the due diligence process with the investor.

#### Execution

→ Upon agreement on final conditions, execution of subscription agreements, fund transfers, and shares issuance shall be effected.



# **Important Notices**

Confidentiality is essential to ensure the successful completion of the transaction

#### **Confidential Information and Process**

All of the information provided in this information flyer is strictly confidential to the Institution, and must not be disclosed to any other party or used for any purpose other than assessing the opportunity presented herein. To preserve strict confidentiality, communications regarding this proposed financing process must be referred to as "Project Phoenix".

#### **Purpose & Restrictions of Information**

The purpose of this information flyer is to provide an overview of the Project and to advise potential financing of the proposed opportunity. This information has been compiled solely to assist interested parties in deciding whether they wish to participate, as potential lenders or investors in the proposed Project. It does not purport to contain all of the information that a prospective financier may require and interested parties should conduct their own analysis of the opportunity.

#### No Representations

Information contained herein is believed to be accurate at the time it was prepared, but none of the shareholders, the Operator, Arkios, or any of their respective directors, officers, trustees, partners, employees, agents, advisers or other representatives make any representation or warranty as to the accuracy, reliability, completeness or reasonableness of such information, nor accept any liability whatsoever for or in respect of the same.

#### Rights Reserved

Provision of this information flyer does not constitute and is not to be taken as any form of commitment by the shareholders that they will sell any or all of the Company.

The shareholders will not be responsible for, or pay, any costs, expenses or losses which may be incurred by any interested party in connection with the opportunity.



## Communication

All communications or enquiries relating to this material or to the Transaction should be directed to:

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