

# March 2016 Presentation

Svein W. F. Lien – CEO



# Agenda

- **Biotec in brief**
- **Q4 Financials**
- **BetaGlucans**
  - Advanced wound care
- **Enzymes**
  - Molecular testing
- **Outlook**

# Biotech in brief

A corporation of two independent versatile technology platforms

## **Beta-Glucans:**

- Proprietary Beta-Glucans
- Immuno-modulatory substance activating the immune system
- Building up international marketing and sales organization in wound care
- Bulk sales of products for Animal Health and Nutrition
- Strong and experienced scientific team with in-house production

## **Enzymes - ArcticZymes:**

- Unique Cold-adapted Enzymes for the life science industry based on species from the Barents Sea
- International marketing and sales team
- Established relation with core industrial companies (B2B)
- Strong and experienced scientific team with in house production

# Biotec in brief

A corporation of two independent versatile technology platforms

## **Value proposition Beta-Glucans:**

To become a competitive supplier of advanced wound care products under the Woulgan® brand while continue to build the other business areas including cancer

## **Value proposition Enzymes:**

To expand the business into key molecular biology platform technologies with a ground breaking strategic value



Biotec is emerging into a commercially driven company



# Q4 financials

# Financial highlights Q4

NOK million	Q4 2015	Q4 2014	12M 2015	12M 2014
Enzymes	3.3	4.3	23.5	16.2
BetaGlucans	9.8	5.7	29.7	16.8
<b>Sales revenues</b>	<b>13.1</b>	<b>10.0</b>	<b>53.3</b>	<b>33.0</b>
Enzymes	-3.8	-1.1	1.2	-3.8
BetaGlucans	-3.3	-4.7	-15.6	-17.4
<b>EBITDA</b>	<b>-7.1</b>	<b>-5.8</b>	<b>-14.4</b>	<b>-21.2</b>
<b>EBIT</b>	<b>-8.0</b>	<b>-6.3</b>	<b>-17.3</b>	<b>-23.6</b>

# Cash flow and cash position

NOK million	Q4 2015	Q4 2014	12M 2015	12M 2014
Operating activities	2.3	1.3	-12.9	-22.0
Investing activities	-0.9	-0.5	-1.5	-1.9
Financing activities	0	0.8	4.4	77.7
<b>Changes in cash and cash equivalent</b>	<b>1.4</b>	<b>1.6</b>	<b>-9.9</b>	<b>53.3</b>
Cash and cash equivalents at the beginning of period	76.9	86.7	88.3	33.6
<b>Cash and cash equivalents at the end of period</b>	<b>78.3</b>	<b>88.3</b>	<b>78.3</b>	<b>88.3</b>



# Beta-Glucans

Advanced wound care

# Beta-Glucan product portfolio



**M-Glucan®**  
Feed ingredient

**NBG® Particulate**  
Nutrition



**NBG® Cos**  
Cosmetics

**SBG®**  
Soluble Beta-Glucan  
(Medicinal product)



- Animal Health: Deliver feed ingredients to improve animal health in e.g. fish farming
- Nutrition: Deliver bulk ingredients for food supplements
- Cosmetic: Deliver bulk ingredients for cosmetic products
- Medicinal: Produces SBG for use in wound care (Woulgan®) and for clinical trials as adjuvant in cancer treatment

# Active wound healing

- WOULGAN® is a CE-marked medical device, class III, rule 13, approved for a range of wound conditions including diabetic ulcers, leg ulcers, pressure ulcers, post-operative surgical wounds, 1st and 2nd degree burns, abrasions and lacerations
- WOULGAN® is a patent-protected, advanced gel containing soluble beta-glucan (SBG®), an ancillary medicinal substance proven to heal wounds faster
- SBG® is a proprietary platform technology that can be extended to other product formats and can be tailor-made for new application areas
- Woulgan® has a variety of strong primary and secondary claims, thus increasing the likelihood to demand higher prices. (Full set of approved claims are enclosed)
- The product is preferably positioned towards the advanced wound care market



# Status Woulgan®

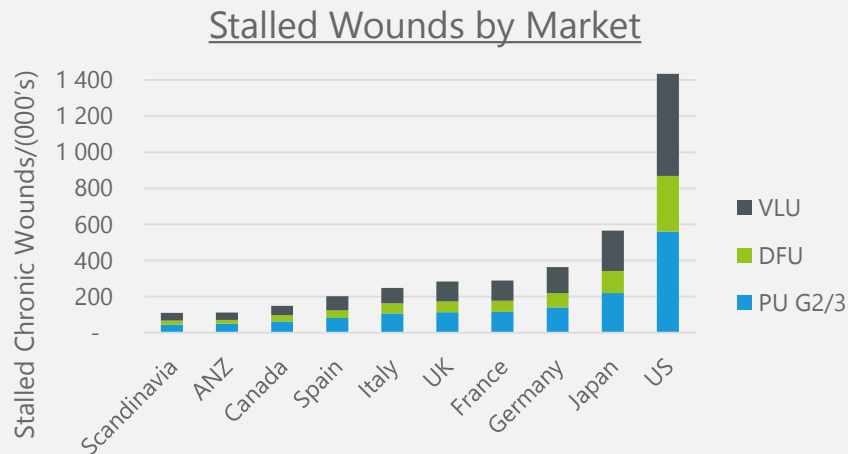


- Strategic decision to position the product towards “stalled wounds”
- Means it will utilize its ability to kick-start wounds that have stopped healing and health care professional can continue with existing treatment plans as 1<sup>st</sup> line therapy
- This also mean that the product will be targeted where its unique features are really needed
- Nothing in this strategy precludes the product from being used outside this target positioning

# Stalled Wounds: A Growing, Global Issue

- US: DFU costs \$9-13 billion per annum\*
- US: diabetic population to double to 44 million by 2034
- US: VLU incidence at 2.2% of population, costing \$14.9 billion\*\*
- China: diabetes prevalence at 11.6% of population‡

Globally >5M stalled wounds‡‡ ( >60% of all chronic wounds):



\*Rice JB1, Diabetes Care. 2014;37(3):651-8. \*\*Rice JB1, J Med Econ. 2014 May;17(5):347-56

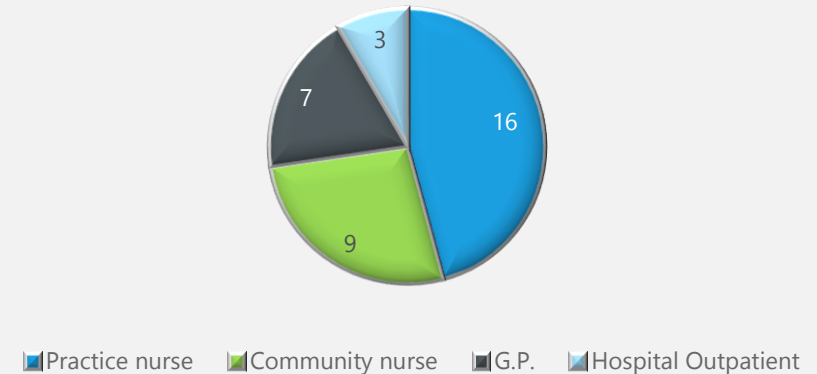
‡Prof. Xiaobing Fu EWMA Journal 2015 vol 15 no 1

‡‡BBG analysis: not responding after 4 weeks treatments with standard of care

## A Substantial Burden: UK<sup>+</sup> Example

- UK NHS managed 600K chronic wounds
- £3.0 billion annual cost of treating unhealed wounds (all types)
- Time to heal is main driver of cost in wound care

## 35 Million Visits to Care for Chronic Wounds in UK



+ *BMJ Open* 2015;5, issue 12

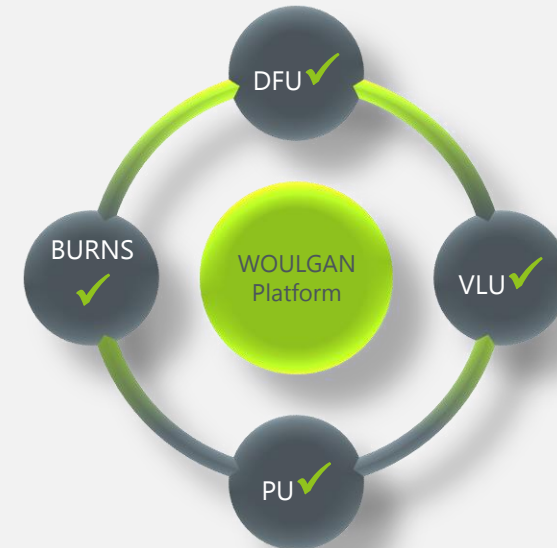
# Vision: "Building a >USD100M Wound Care Company"

Bioactive Beta-Glucan technology demonstrated ability to kick-start "stalled wounds" where healing slowed or stopped:



Positioning for stalled wounds allows Woulgan to show:

- more healing benefit versus standard of care
- stronger, positive clinician experiences

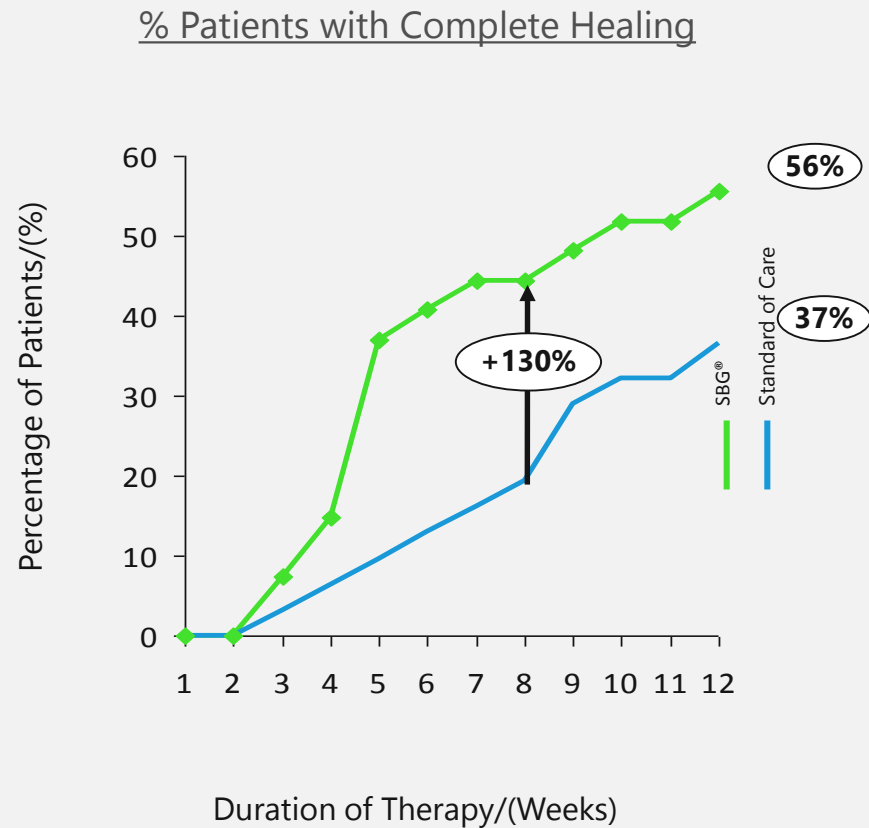


Clear, clean and credible message on when to use and when to not use Woulgan across multiple wound types

# Woulgan® Improves Outcomes AND Reduces Costs

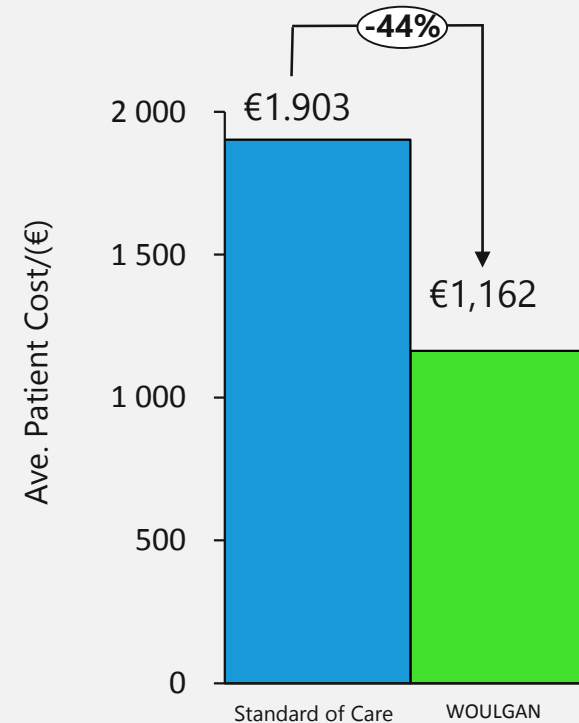
- 2.3 times more patients healed at 8 weeks\* (44% vs. 17% in control)

- Woulgan® heals faster, saving 44% costs\*\*



\*Zykova et al

Cost to Reach Standard Healing rates (12 weeks)



\*\*UK Drug Tariff submission based on Zykova et al

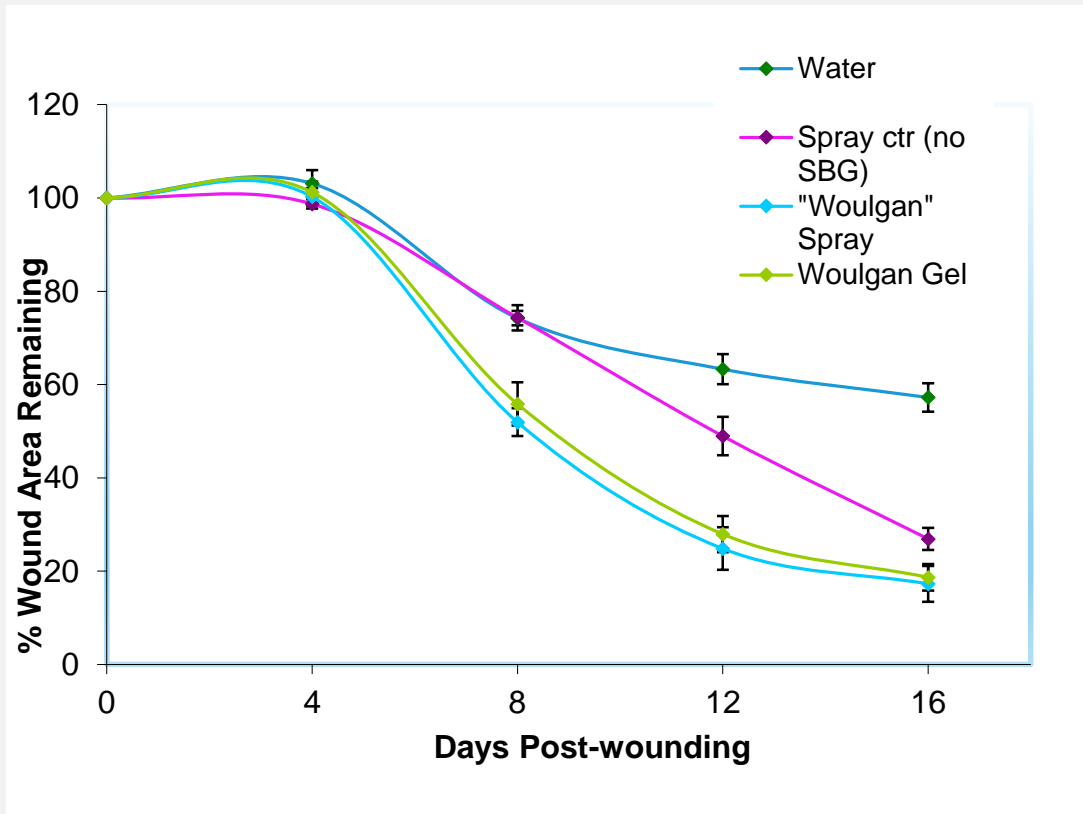
# Status Woulgan®



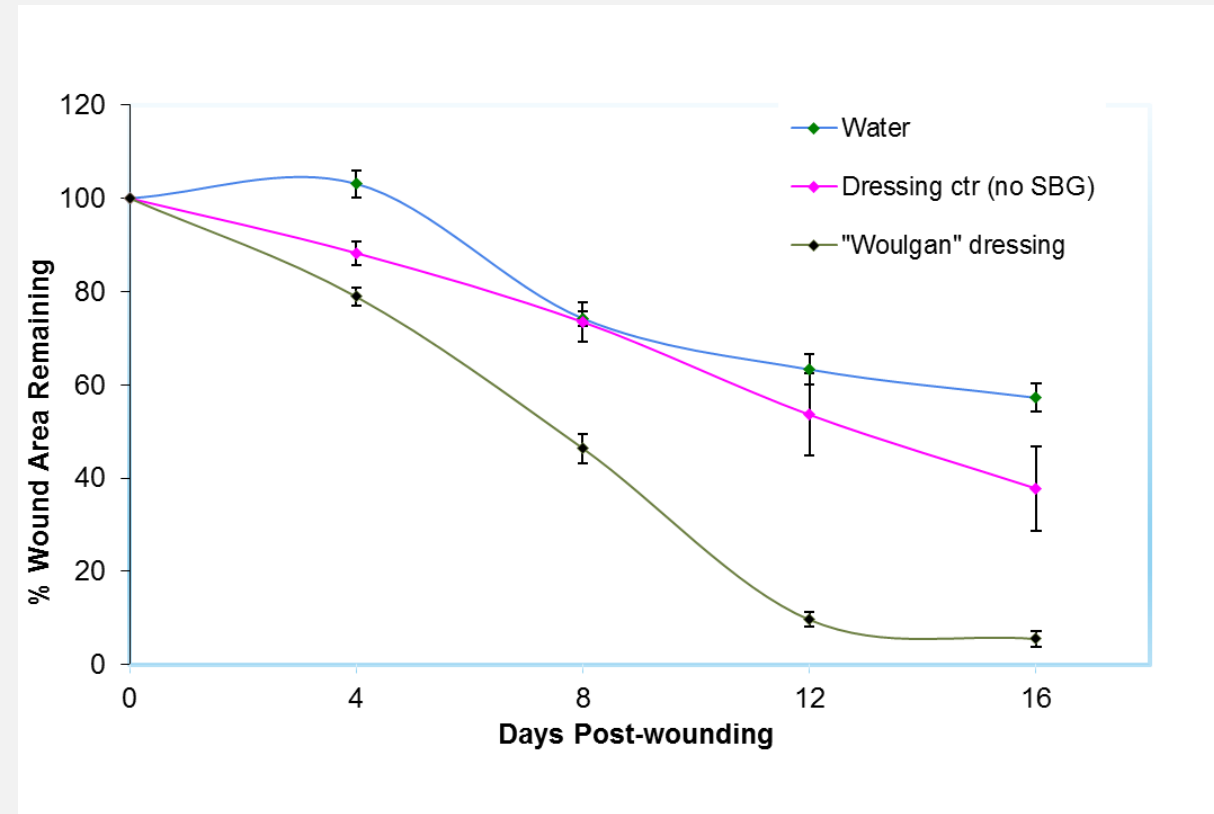
- Appointed H&R Healthcare in UK and Navamedic in Nordic Countries
- Drug Tariff Application sent in December 2015 - expect approval mid 2016
  - Used health economic data to support application
- KOL contacts for evaluation studies ongoing
- A number of marketing activities in process
- Aim for commercial launch in the Nordic and UK this year

# Woulgan<sup>®</sup> in Spray and Dressing

## Proof of concept obtained – diabetic mice model



Spray format



Dressing format

# Activities outside Woulgan®

- Signed a one-year non-exclusive agreement with NutraQ (Sana Pharma )for supply and delivery of beta-glucans to the nutrition segment
- Biotec and Sana Pharma will enter into arbitration relating understanding of an IP agreement that was entered into in 2009
- Nutrition is not a key focus area for Biotec
- Biotec will await any further strategic initiatives for the nutrition segment until arbitration is settled

# Activities outside Woulgan® cont...

- Increasing interest for Biotec's M-Glucan® within the animal health segment
- This week signed additional agreement of NOK 20M over 2 years
- Continue to document the M-glucan® effect as a feed ingredient
  - R&D projects ongoing
  - Promising preliminary results





# Enzymes

Molecular testing

# Commercialising the Arctic's Uniqueness

## Leveraging Uniqueness



ArcticZymes  
Enzyme innovations  
from the Arctic

your OEM partner to deliver novel solutions

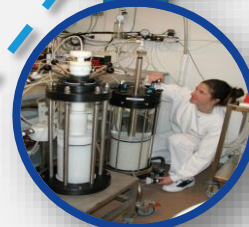
HEAT LABILE

COLD ACTIVE

SALT TOLERANT

UNIQUE SPECIFICITY

Biotech-Pharmaco-AS



## Arctic Bioprospecting

- Driven by University of Tromsø (UiT)
- Large biobank of novel enzymes

## Discovery

- Identifying commercially attractive & novel enzymes
- Engineering & formulation to enhance desired features

## Product Development & Manufacturing

- Cost efficient manufacturing
- Scalability & customisation

## Commercialisation

- B2B product offering => Early access
- Support for application development (integration into customer workflows)

# Molecular Diagnostics (MDx)



**Large platforms**



**Points Of Care**



**Specialised/Lab  
Developed Test**

- DNA or genetic tests used to diagnose, and prevent disease as well as guides treatment:
  - Infectious Disease (HIV, HCV, Influenza)
  - Cancer (colorectal, prostate)
  - Prenatal care (Down Syndrome, Turners, Edwards)
- Dominated by instrument platforms – running integrated workflows
- Highly regulated – FDA/EU regulatory authorities
- Enzymes are very essential components. Unique features are often demanded
- Market Size: \$6,5 Bil (8,5% CAGR) in 2016

# Molecular Research



**Qiagen kit**  
*Isolate DNA*



**Thermo kit**  
*Amplification (PCR)*



**Affymetrix kit**  
*Clean up*

- Advancing our understanding and knowledge about DNA and other genetic material
- Kits are used in sequential fashion in performing workflows
- Large diversity of kits on the market which can be combined to achieve the desired workflow
- Majority of kits are driven by enzymes. Leading technologies demand novel enzymes
- Market size: \$8,9 Bil (6% CAGR) in 2016

**Molecular Enzymes - \$1,5 Bil today (8,3% CAGR)**

# ArcticZymes Unique Value Proposition



## Arctic Access

Direct access to unique bioprospecting libraries via University of Tromsø



## Commercial Capability

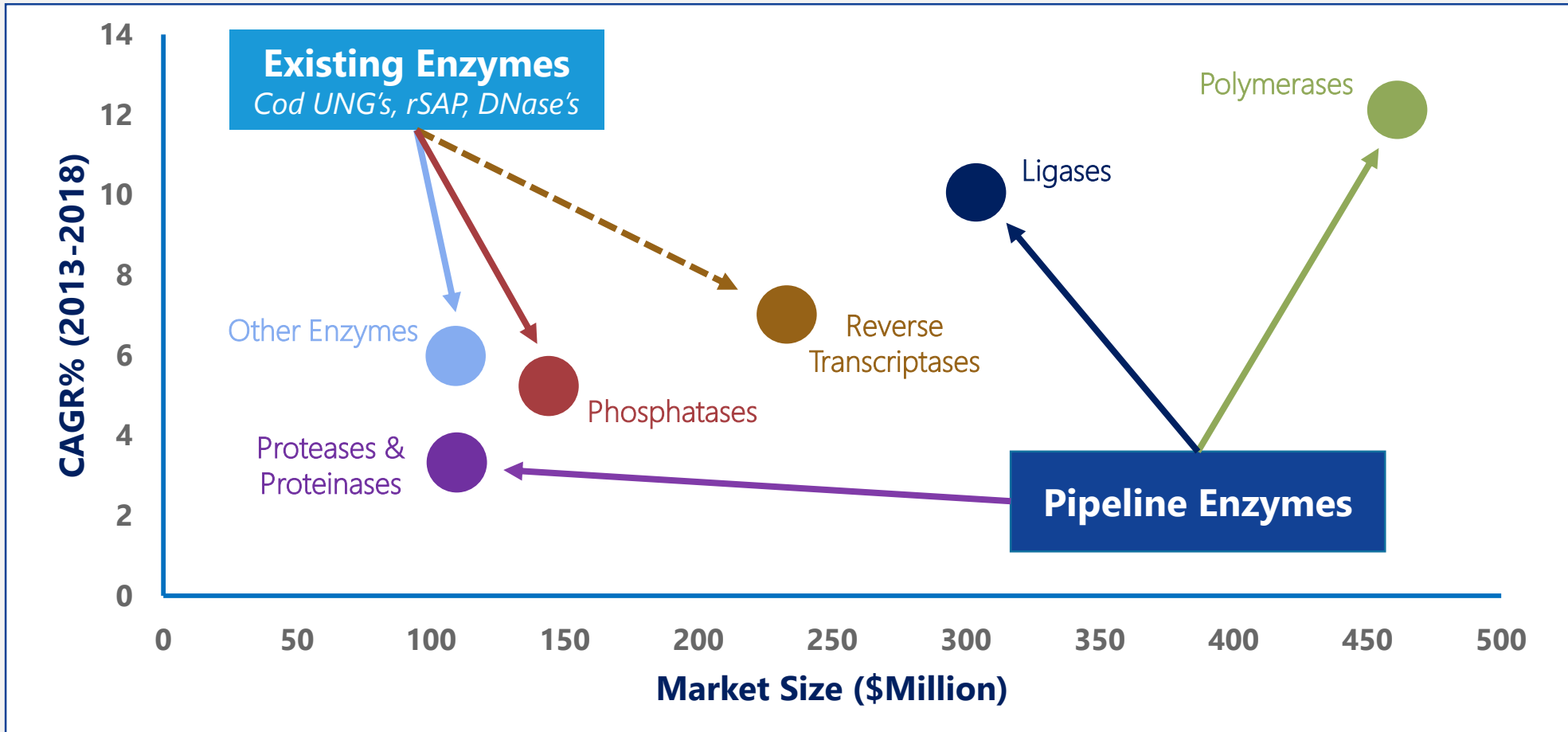
Internal capabilities to translate into high value & novel enzyme products



## B2B Approach

Commercial Partnering - collaborate and provide our solutions to global players in Molecular Research & Diagnostics

# Molecular Enzyme Market \$1.5 Bil (2016)



Adapted from Molecular Biology Enzymes and Kits & Reagents market – Global Forecast to 2018; MarketsandMarkets 2014. Data excludes restriction enzymes.



# Outlook



# OUTLOOK 2016

- Enter into distribution agreement(s) for Woulgan<sup>®</sup> in Germany
- Finalize the UK reimbursement process in the high-end category of the market
- Full launch and growing revenues in UK and Scandinavia
- Grow business further in Animal Health and Nutrition
- Achieve important milestones in the development of the ArcticZymes business and in the new enzyme development projects