Setting up vaccines human capital capacity in South Africa
History: ....prior 2000

- **State Vaccine Institute (SVI)**
  - Established in 1965
  - Pinelands, Cape Town
  - Produced: BCG; rabies; human growth hormone; foetal calf serum; smallpox
  - Vaccine production ceased in 2001

- **SAIMR**
  - Established in 1935
  - Sandringham, Jhb - formerly known as SA Vaccine Producers (SAVP)
  - Produced: DPT combinations; antivenoms; polio; cholera; typhoid
  - Vaccine production ceased in April 2000
  - SAVP currently producing snake venom

- **National Institute of Virology (NIV)**
  - Established in the 1950’s
  - Previously the Laboratory for Poliomyelitis Research Foundation
  - Produced: OPV (Oral polio Vaccine); Yellow Fever
  - Vaccine production ceased in 1995

*Vaccine Productions skills were all lost due to all operations ceasing*
Revival from 2003

- Private Consortium: 52.5%
- Cape Biotech (TIA): 12.5%
- SA Government: 35%

• THE BIOVAC INSTITUTE
  • Private Public Partnership
Mandates

**Mandate 1**
Procure, supply & distribute EPI vaccines as per DoH requirements

**Mandate 2**
Re – establish vaccine manufacturing
Scaling up to Manufacture (mandate 2)

Phase 1
(2003-2008)
- Packaging & distribution of finished product

Phase 2
(2008-2013)
- Building of formulation and filling capacity

Phase 3
(2013 & beyond)
- Commence Manufacture & expand activities

Implementation of:
- Basic R&D
- Basic quality control
- Labeling & packaging
- Build up Cold chain capacity
- Distribution network
- Recruit expertise

Implementation of:
- Implementation of:
  - New facility
  - New equipment
  - Invest in QC, QA, Production, Logistics expertise & training
  - Attract technology transfers

Implementation of:
- Technology transfers
- Bulk production expertise
- Expand site
- New R&D labs
- New warehouse and cold rooms
- Invest in new technology platforms.
Growth in permanent staff
**The Biovac DNA**

**Qualifications**

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**Major Subjects – Trends**

Chemistry, Analytical Chemistry, Microbiology, Biochemistry, Biotechnology, Pharmacy, Medicine

**Headcount per Department**

(out of 116 perm staff)
Attraction & Selection of Talent

- **Partnership with African Management Services Company (AMSCO)**
  - United Nations Project to provide expatriate managers and funded training to African Companies
  - Assisted Biovac in recruiting and co-funding the current Chief Operations Officer with global vaccine manufacturing experience
  - Assisted in funding two other international expertise in the areas of engineering and production

- **Partnering with Local Tertiary Institutions (LEAP/ UCT/ UWC/CPUT)**
  - Assist in development of products (UCT & Stellenbosch)
  - Biovac annually accepts Master and PhD students
  - Annually have interns deployed in R&D, QC, Engineering and production departments (CPUT)
  - Internships to graduates from the Dept. of Science & Technology
  - Bursaries to Biotech scholars from disadvantaged backgrounds (LEAP schools)

- **After successful completion of Internships**
  - Some are absorbed in the organisation
Training & Development of our People

Sterile/Aseptic Manufacturing Related Training
- Dave Begg Associates Course on site - Biovac tailor made course
- Biozeen (India) training (Train the Trainer)
- Local & International Pharma/Vaccine manufacturing site visits

Vaccine Related Training
- Partnering with Cuba, Indonesia & Denmark manufacturers
- Training with upcoming technology transfer partners
- Learning through visiting and/or auditing other sites
- Training from Equipment Suppliers, e.g. Bosch through FAT/SAT and qualification process

Other
- Internal business project exposure
- Coaching and mentorship programmes
- Soft Skills training
Retaining our Talent

**Reward & Recognition Initiatives**

**Reward**
- Remuneration Packages
  Paid up to max of salary band for scarce talent
- Short Term Incentives
  Performance Bonus for top performers of up to 3x monthly salary
- Long Term Incentives
  Company Shares & Long Service Awards

**Recognition**
- Biostar Awards
- CEO Awards

**Lucrative Financial Investment in Learning & Development Opportunities**

- **SA L&D budget norm:**
  3 – 5% of payroll spent annually
- **Biovacs’ L&D budget norm:**
  10% of payroll spent annually

**Talent Management through Succession Planning**

- Identify & mobilise internal talent pools (A/ B & C players):
  - Targeted Future Roles for A players
  - Targeted Development for A players in Line with future roles
  - Targeted pay & incentivisation for A players
  - Develop B Players into A through job enrichment and soft skill development
  - Rectify performance constraints of C players

**Stimulating Environmental Factors**

- Challenging & meaningful work.
- Lots of training and access to great minds.
- Access to all levels of leadership.
- Wellness Programmes.
- Participative planning and goal alignment.
- Internal mobility and career opportunities.
- Cape Town is an attractive location to work in
**In Conclusion**

- Vaccine (biological) production regulation standards are increasing globally.

- This requires more skills and higher level skills to maintain global standards.

- Experienced skills are expensive and difficult to attract.

- Largest pool of global vaccine skills are located in Europe, Asia.

- Innovation is needed to attract skills.
  
  **e.g. Homecoming Revolution**
  
  Strives to locate locals who have worked abroad and gained international exposure in the field and who are looking for opportunities back in SA.