




Skills for and through SIPs

*What has been done and what still needs to be done to skill South Africans **for** SIPs and **through** SIPs*

2 September 2014




The SIPs skills plan

- **Vision of the SIPs skills plan** – skilling South Africans **for** SIPs and **through** SIPs
- **Core principle** – building people is as important as building assets

| Short term 2013 - 2014 | Medium term 2013 - 2017 | Long term 2013 - 2030 |
|---|----------------------------|--------------------------|
| Focus One: Information (demand, supply and gap) | | |
| Focus Two: Meeting the Demand | | |
| Focus Three: Building education and training capacity | | |
| Focus Four: Access and equity at the local level | | |
| Focus Five: Future (looking beyond the building) | | |



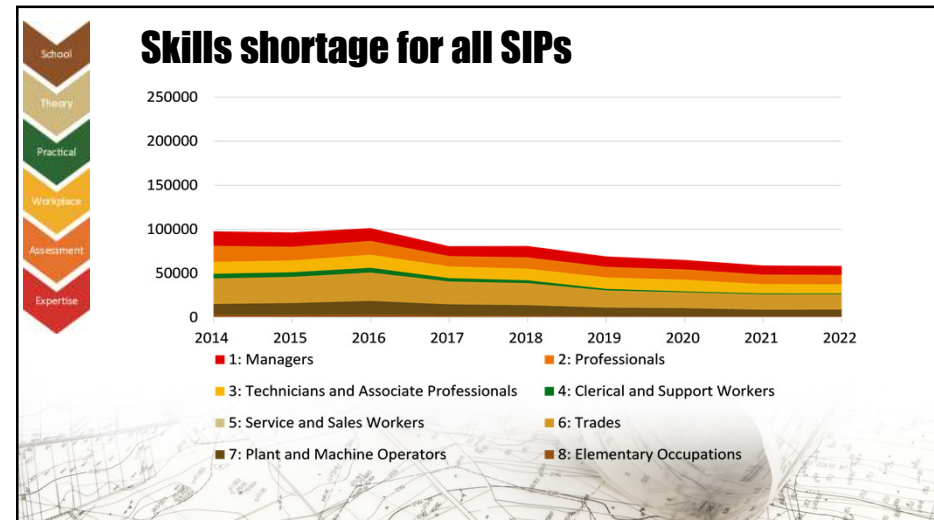
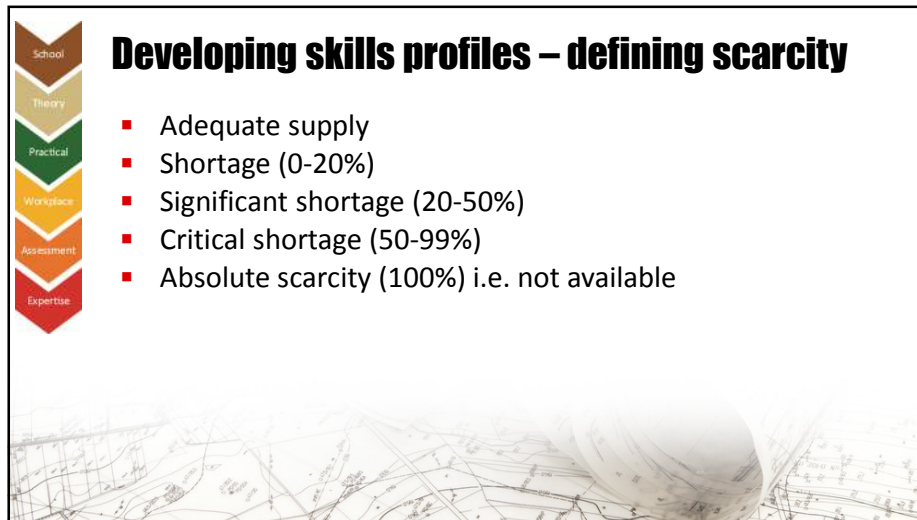
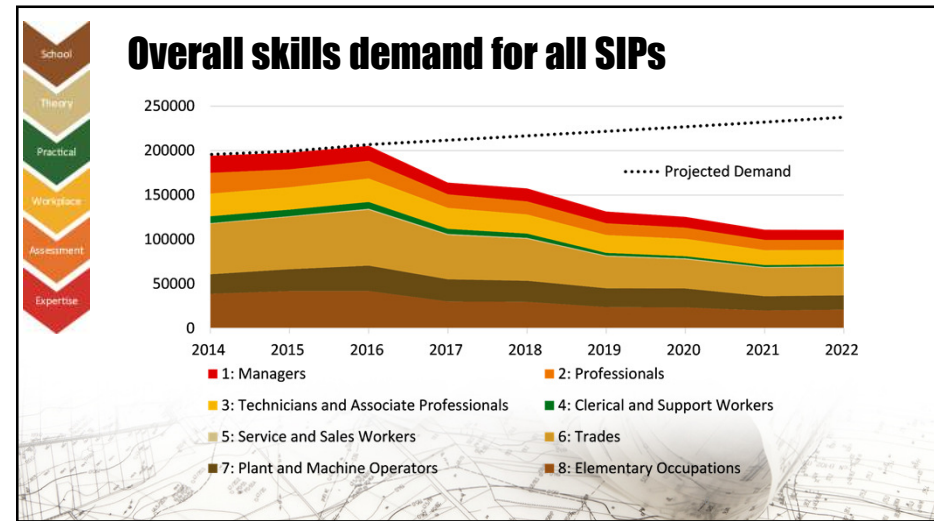
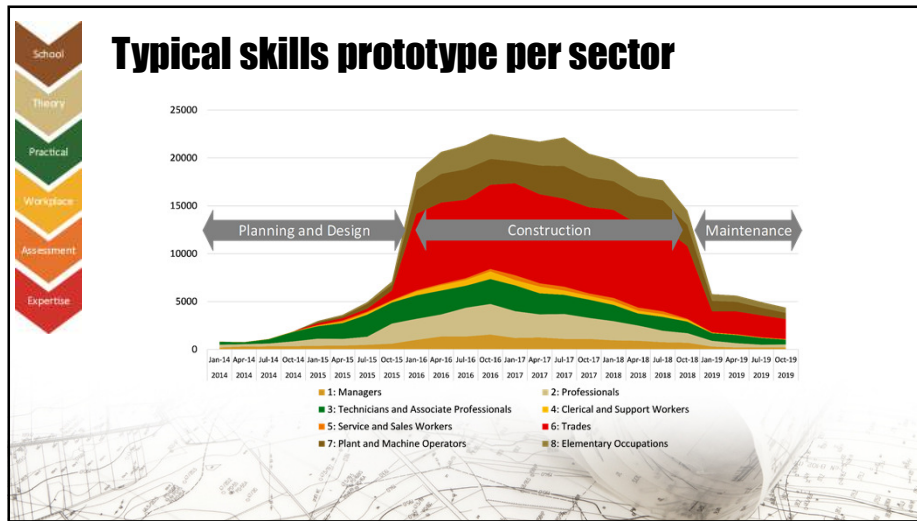
Purpose

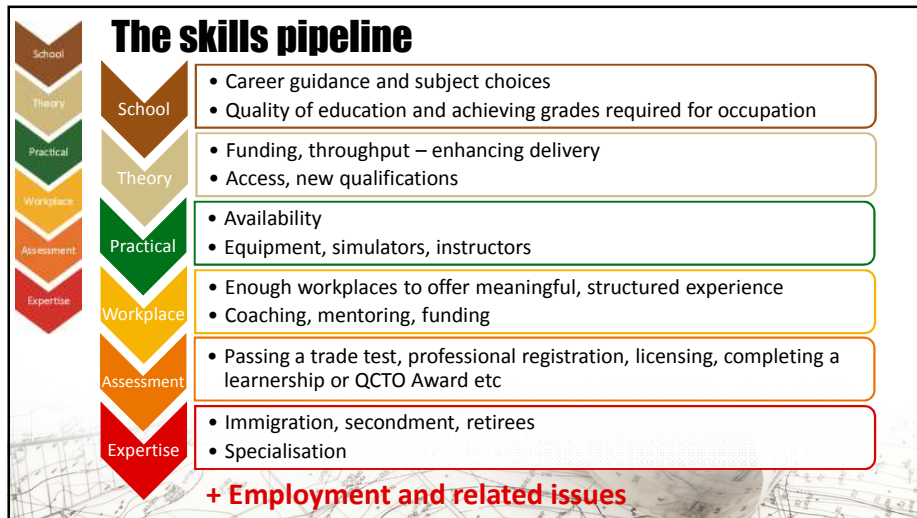
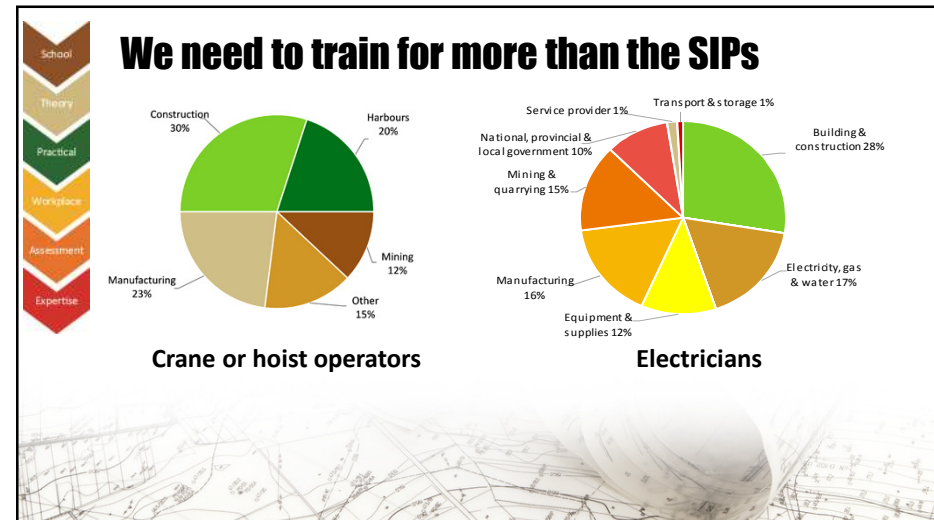
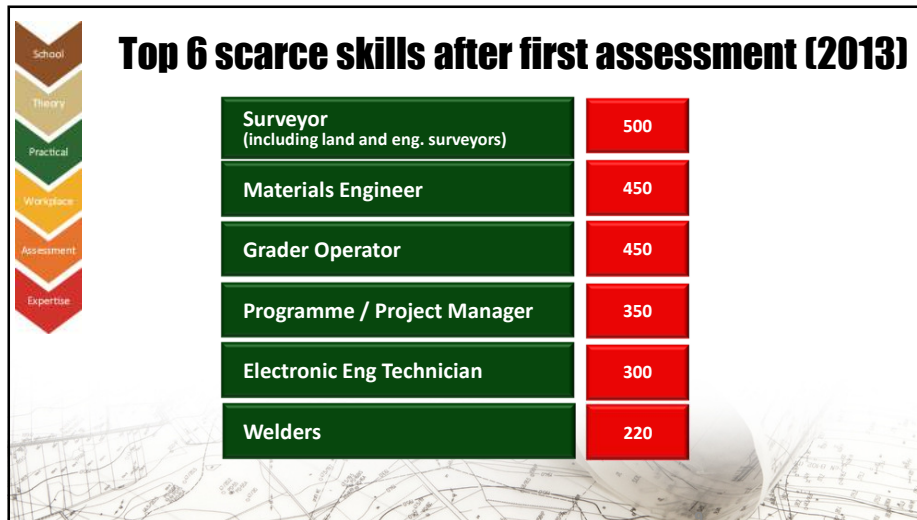
- Outline the skills **demand** for SIPs
- Invite **researchers** and **partners** to assist with improving the methodology
- Describe the learning pathways, **bottlenecks** and possible **solutions**
- To promote **broader engagement** on understanding and addressing challenges
- Inform education and training **planners** of occupations in demand for SIPs
- Direct the attention of planners to specific **interventions** required
- Encourage all with the **resources** to support the interventions identified
- **Report** to South Africans about the work that has already been done and still needs to be done in terms of generating South African skills.




Developing skills profiles – identifying sectors

| | |
|--|--|
| <ul style="list-style-type: none"> □ Agriculture, Forestry & Fisheries □ Basic Education □ Commercial and Office Buildings □ Communication □ Correctional services □ Crime prevention (SAPS) □ Energy □ Health □ Higher Education & Training □ Human Settlements | <ul style="list-style-type: none"> □ Justice □ Manufacturing □ Mining □ Other (e.g. Public Works) □ Ports, rail, pipelines □ Public Transport □ Roads □ Social Services □ Tourism □ Water & Sanitation |
|--|--|





- ### Professionals and associate professionals
- #### The occupations
- Built environment professionals**
 - Draughtsperson
 - GISc practitioner, technologist, technician
 - Landscape architect, technologist, technician
 - Land and engineering surveyor
 - Quantity surveyor
 - Planner
 - Construction professionals**
 - Construction project manager
 - Construction manager
 - Construction health and safety agent, manager and officer



Professionals and associate professionals


The occupations (cont)

Engineers

- Aeronautical engineer, technologist, technician
- Chemical engineer, technologist, technician
- **Civil engineer, technologist, technician**
- Electrical engineer, technologist, technician
- **Environmental engineer, technologist, technician**
- Industrial engineer, technologist, technician
- **Materials engineer, technologist, technician**
- Mechanical engineer, technologist, technician
- Mining engineer, technologist, technician

Scientists

- ICT
- Forestry
- Physicist
- Astronomer



Professionals and associate professionals

Schooling


- Common challenges
 - High symbols in maths, science and literacy required
 - Limited pool from whom to choose and a challenge i.t.o. transformation
 - Limited awareness
- Solutions
 - Address Basic Education challenges
 - **Work with National Career Advice Portal to improve information on careers, attend career days and give career talks on radio in all 11 languages**



Professionals and associate professionals

Theory


- Common challenges
 - Low throughput and inadequate numbers entering industry
 - Inadequate numbers enrolling or inadequate number of institutions
 - New qualifications required
- Solutions
 - Modernise and increase amount of **equipment** and expand facilities
 - Reduce high student to lecturer ratios – attract, develop more lecturing staff by making scholarships available, **funding Chairs, subvention, increasing salaries** etc
 - Increase support staff
 - Increase tutoring, use of e-learning and range of student support
 - **Increase number of bursaries available**
 - **Develop new qualifications where required**
 - Greater % of DHET subsidy should reach the departments developing professionals



Professionals and associate professionals

Workplace-based learning

- Common challenges
 - Limited opportunities in the workplace
 - Poorly structured training
- Solutions
 - Develop structured programmes including mentorship and coaching
 - Recognise candidate training as a learning pathway
 - **Encourage employers to take on candidates** and SETAs to fund training during the candidacy phase
 - Encourage SETAs to work with VAs to manage programmes
 - **Public sector to use Gazette 36760 to ensure their staff adequately training**



Professionals and associate professionals

Assessment


- Common challenges
 - Small Councils have insufficient capacity to establish robust review system
 - Costly to establish new qualifications, occupations, professions
 - Not all occupations recognised on OFO
 - RPL not in place in all Councils
- Solutions
 - Offer seed funding and subsidise review process to establish new Councils and new qualifications, occupations, professions
 - Link Councils with the OFO committee to make recommendations
 - Fund the development of RPL systems where required



Professionals and associate professionals

Expertise


- Common challenges
 - Insufficient expert/experienced capacity
- Solutions
 - Companies to support CPD
 - Encourage postgraduate studies
 - Support secondments
 - Employ retired professionals to offer expertise and mentor
 - Harness international specialists where necessary



Professionals and associate professionals

Employment and related issues

- Common challenges
 - Identification of Work
 - Labour legislation
 - Building a Capable State
- Solutions
 - Finalise Identification of Work and regulations for BEPs
 - Ensure changes in legislation do not reduce training opportunities
 - Create an enabling environment in the public sector recognising the value of professional judgement in all activities such as HR, supply chain, finance etc
 - Develop career pathing and grow own staff




Operator and elementary occupations – challenges

- Lack of standardised/accredited training programmes
- Informal/in-house training
- No clearly defined career pathways
- Insufficient or inadequate training providers
- Inadequate equipment, facilities
- High cost of training
- In the case of operators need for relicensing ever 3 years
- Mobility of workers (in view of localisation of labour)



Elementary occupations – solutions

- Standardisation of qualifications – develop:
 - Qualifications – QCTO and/or modules of employable skills
 - Learning material
 - Practical facilities e.g. simulators and equipment
 - Logbooks for workplace learning
 - AQP
- Career progression
 - Outline learning & occupational pathways
- **Implementation of cidb Skills Standard**



cidb Skills Standard – overview

- **Gazette No. 36760 of 2013**
- Collaborative effort - cidb, DPW, DHET, DED
- Standard provides for structured workplace training towards the attainment of national outcomes leading to:
 - Occupational qualifications
 - Trade qualifications
 - University of technology diploma (P1 and P2)
 - Candidacy for professional registration



Solutions from government's side – tax base

- Universities
 - Block grant (enrolments, graduation, research outputs and a special factor to remedy past disadvantage)
 - Earmarked grants (for special purposes)
- Colleges
 1. Formula funding of programmes
 2. Earmarked capital funding
 3. Earmarked recurrent funding
 4. College fees
 5. Student financial aid
 6. Fee-free-service income



From government's side – SETA levies

- Workplace Skills Plans / Annual Training Reports
- Sector Skills Plans
- Professional, Vocational, Technical and Academic Learning (PIVOTAL) programmes with occupational purposes through:
 - Learnerships, internships, apprenticeships, candidacy programmes ...
 - Bursaries ...
 - Partnerships with colleges and universities
 - Equipment, infrastructure and the like ...

For SETA commitments already made, we salute you!



From government's side – other

- **National Skills Fund**
 - Funds have already been allocated to key projects
 - Systematic planning for further applications needed
- **Other government departments**
 - National Treasury: Infrastructure Skills Development Grant
 - Department of Public Service & Administration: Internships
 - Dept. of Cooperative Government: MISA
 - Department of Public Enterprises for SOCs
 - Other sectoral departments are contributing to skills development too e.g. Department of Transport, Health, ...
- **All government departments**
 - Provide structured workplace learning opportunities



From the private sector

- Invited the private sector to join government in supporting learning opportunities in support of the SIPs – there are multiple opportunities to do so – see the Report
- All SIP Implementing Agencies urged to implement the cidb Training Standard
- Commitments can be made on the Portal so that commitments can be consolidated

<https://sip-skills.onlinecf.net>



Need for materials technicians and technologists

- **Senior Materials Tech/Technologist**
 - Qualification and registration required?
 - Determine demand and requirement
 - Identify institutions prepared to offer qualification
 - Curriculum development and approval
 - Enrolment planning and approval (3 year cycle)
 - Provide facilities including classrooms, laboratories, equipment etc
 - Appoint lecturers and develop detailed material
 - Advertise course
- **Laboratory Manager and Testers**
 - Qualification needed
 - Set up National Laboratory Association as AQP
 - What progress, what help needed