



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Lessons from Skills for and through SIPs

How do we forecast skills needs in response to government interventions and strategies?

Presentation by

Adrienne Bird, Head: Special Projects Unit

Department of Higher Education and Training



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

The role of the Developmental State

- Global markets are powerful
- National states have restricted space to manoeuver
- BUT the Asian Tigers have taught the world that wise interventions bring considerable dividends
- It is not all about 'tracking the market'
- Our government has resolved to follow such a path with the National Development Plan



NIP, SIPs and the NDP

- The National Development Plan (NDP) has 14 chapters – the fourth of which relates to the rolling out of a National Infrastructure Plan (NIP) which consists of 18 Strategic Integrated Projects (SIPs)
- The SIPs seek to reverse the under-development of ‘homeland’ areas in SA (apartheid history) and to ‘crowd in’ private sector investment into targeted areas/sectors – roads, railways, harbours, energy, water systems, broadband etc, across all nine provinces.
- DHET given the task of ‘Skills for and through SIPs’



Can we train for specific projects?

- Given the uncertainties of resources and lead times, is it desirable to train for SPECIFIC projects?
- What project manager will confirm employment of graduates five or ten years in advance without a rigorous selection process? What happens to those who are not selected?
- There are many risks!

Generic approach for SIPs:

1. Increase the pool of skills required for MANY projects
2. Start where the demand will be greatest
3. Provide specialist 'top up' training wherever needed.
4. Target holistic specialist skills only where essential.



DHET developed a 21 STEP Methodology

(see <https://sip-skills.onlinecf.net>)

Steps 1 – 9: Identify occupations in demand

Steps 10: Training on project sites

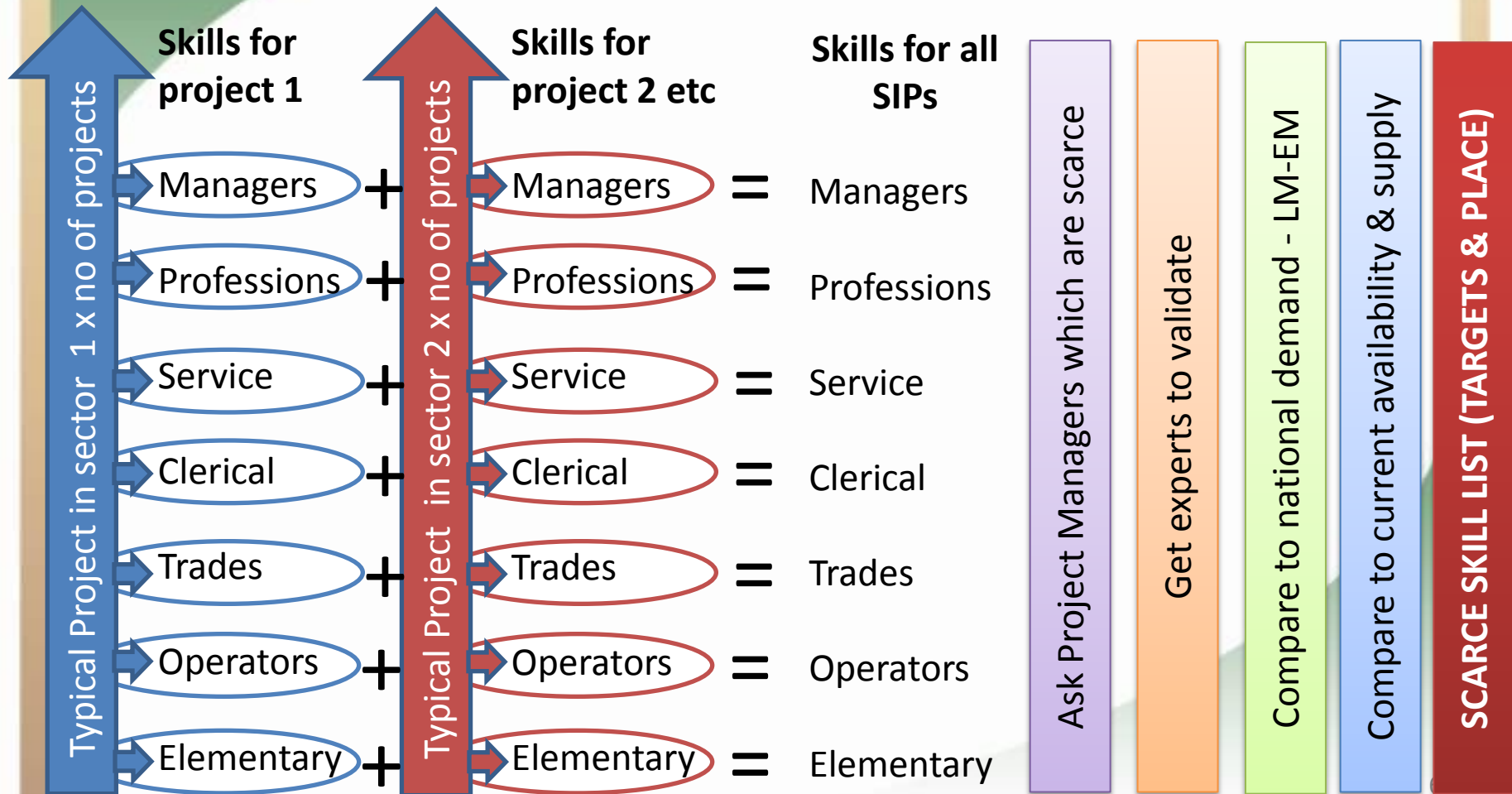
Steps 11 – 16: Develop occupations in demand

Steps 17 – 20: Building the skills of govt.

Step 21: Governance

Steps 1 – 9: Identify occupations in demand

Steps 1 – 3: Project lists + typical skills = projected skills needed



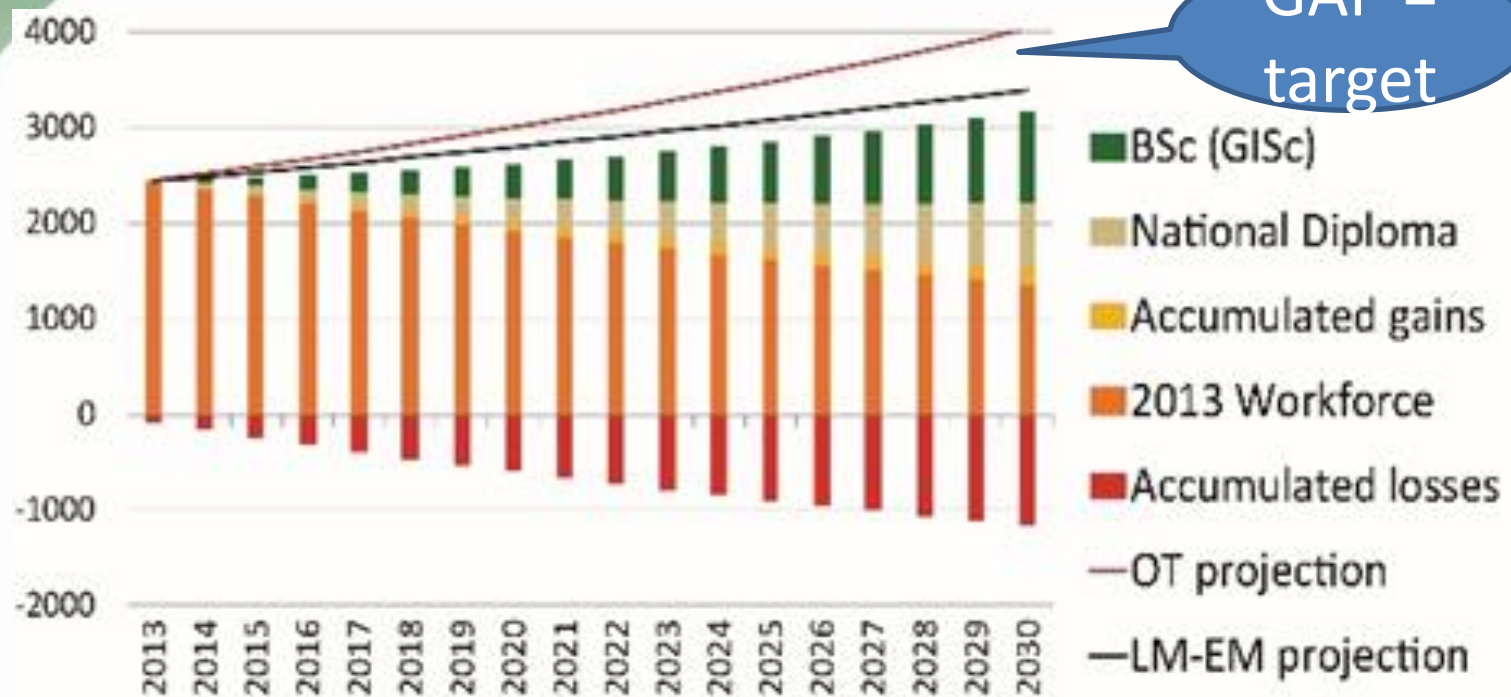
Steps 4, 5, 6, 7, 8 & 9

Trades for the SIPs ... and more =

Occupation	SIP 01	SIP 02	SIP 03	SIP 04	SIP 05	SIP 06	SIP 07	SIP 08	SIP 09	SIP 10	SIP 11	SIP 12	SIP 13	SIP 14	SIP 15	SIP 16	SIP 18	Phakisa	War on Leaks
Electrician	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Welder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		✓	✓	✓
Boilermaker	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
Diesel Mechanic	✓	✓	✓	✓	✓		✓				✓				✓		✓	✓	✓
Fitter and Tuner	✓							✓	✓	✓								✓	✓
Automotive Motor Mechanic	✓	✓	✓	✓	✓		✓				✓				✓		✓	✓	✓
Plumber	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mechanical Fitter	✓							✓	✓	✓								✓	✓
Bricklayer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Millwright	✓	✓	✓		✓	✓		✓	✓	✓	✓				✓			✓	✓
Rigger	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		✓	✓	✓
Carpenter / Joiner	✓	✓	✓	✓	✓		✓	✓			✓					✓	✓	✓	✓



Where are the gaps? Per occupation:



Lawless Skills Flow Model



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Steps 12 – 16: Develop occupations in demand



STEP 12: Identify **Centres of Specialisation** (i.e. WHERE the theory / practical component of learning will take place. The national target for the occupation 'divided' between the Centres.

STEP 13: Identify what they need to up their relevance, numbers and their success rate

STEP 14: Identify employer partners that can provide workplace learning opportunities

STEP 15: Secure resources (from fiscus and levy)

STEP 16: Monitor progress towards targets



1. Students are poorly prepared
2. Student numbers are too low
3. Student throughput too low
4. Not enough lecturers
5. Lecturers not sufficiently trained
6. Qualification not up to date
7. Syllabus / curriculum not in place
8. Learning materials out of date
9. Insufficient equipment for practical learning
10. Insufficient workshop space
11. Placement in workplaces too low
12. Workplace mentors weak
13. Range of work at workplace not as required
14. Student accommodation inadequate
15. Funding challenges for each of the above.

**Step 13: The
kind of
challenges
that have to be
addressed**



Step 15: INTEGRATED plans

a) Individual learner support

Bursaries or loans linked to priority programmes (specific not generic)
(including NSFAS)

Workplace incentives for employers to provide workplace learning

Career guidance

Support for gateway subjects for learners (foundation programmes)

b) Qualification/ curriculum / assessment development

Qualification, Syllabus/Curriculum development

c) Institution support (either college, university AND/ OR training centre)

More lecturers (heads of departments etc.)

Lecturer development

Learning materials (including open learning)

Learner support measures

Learning equipment

Infrastructure development (including student accommodation?)

Innovation and research

d) Workplace learning identification and capacity building



Progress and current initiatives:

- Detailed plans for priority professions completed, funding being sought, some secured
- Protocol with Office of the Premiers in Provinces to apply 21 STEPs – starting with SIPS and extending to Provincial Growth and Development Plans. A number of agreements already in place.
- Centres of Specialisation Programme underway to build the capacity of two or three selected TVET colleges for each of 13 priority trades nationally
- These require system & policy developments too ...

Thank you