

Aligning formal education and skills development for Industrial Development

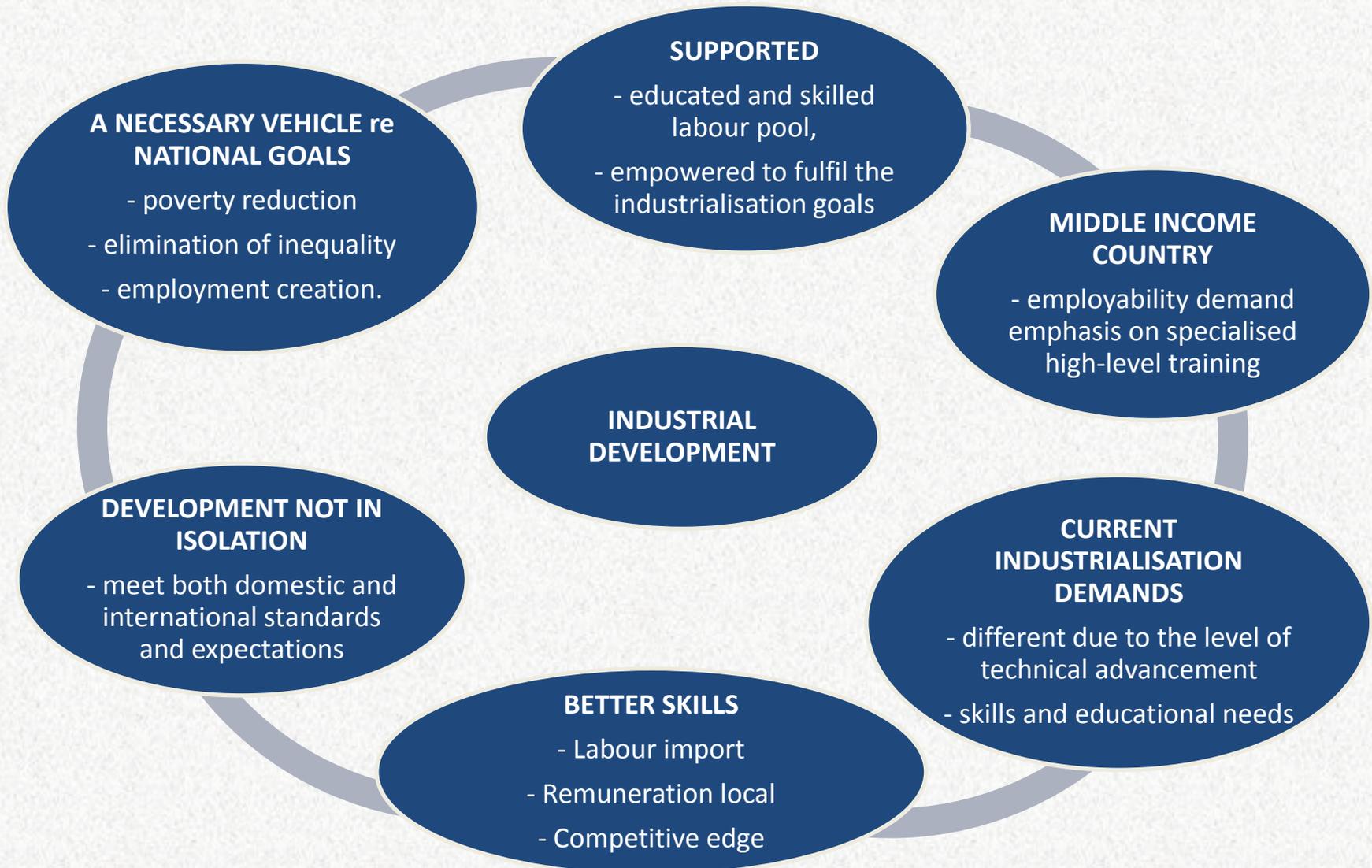
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INTRODUCTION



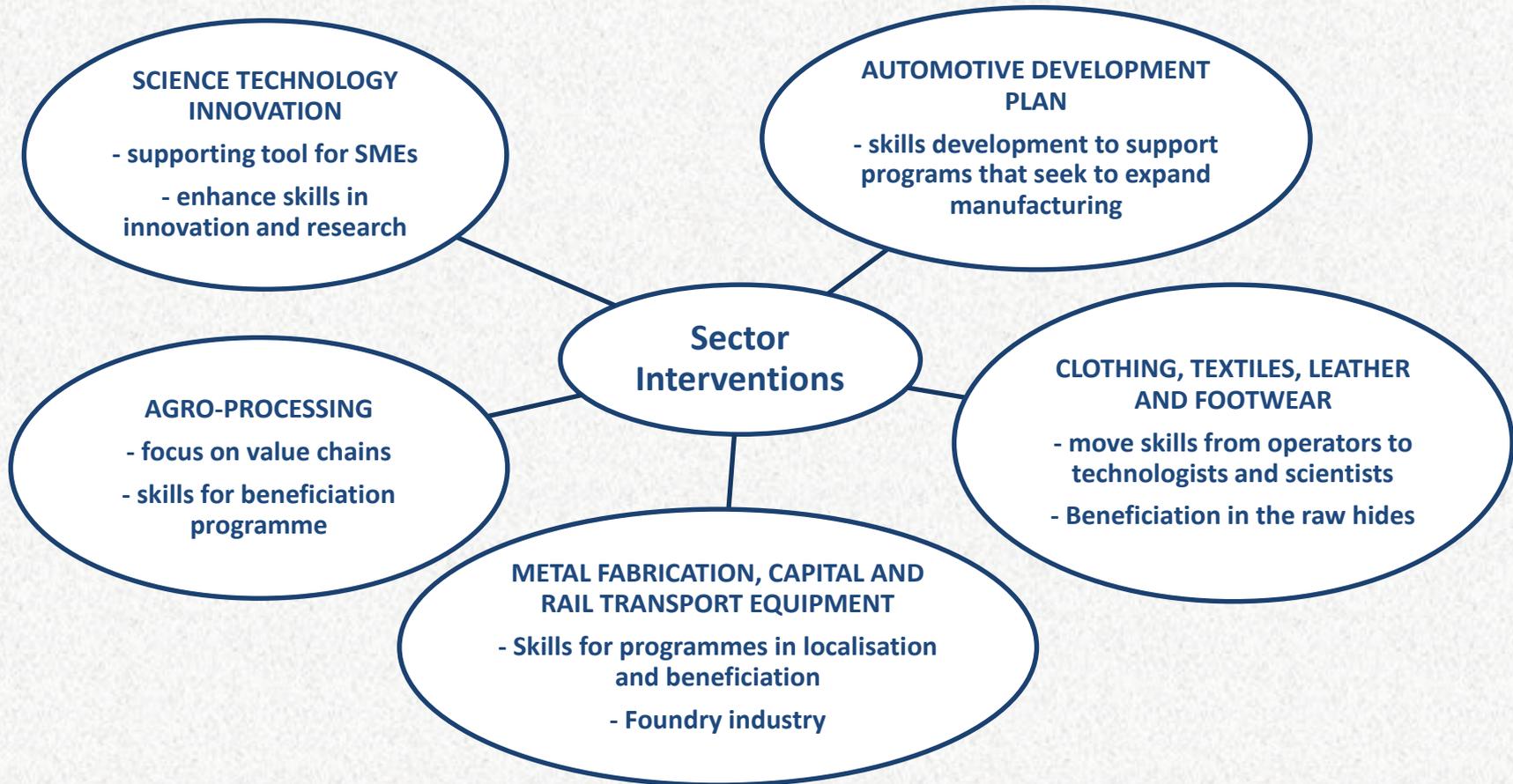
INDUSTRIAL POLICY ACTION PLAN

- **2007**
 - declining employment in traditional sectors
 - No offsetting employment in labour intensive sectors
- **NATIONAL INDUSTRIAL POLICY FRAMEWORK (2007)**
 - promote labour-intensive industrialisation path
 - increase value-add production
 - economic migration to knowledge economy
- **IPAP 2017/18**
 - sectors have shrunk from those of 2014/15
 - emphasis on labour intensive sectors - NIPF
 - sectors align with the National Development Plan
- **NDP 2030 (2012)**
 - enhance capabilities of the citizens
 - uncompetitive labour markets skew economy - high skills and high productivity sectors
 - by 2030 citizens access to the highest quality in education and training
 - clear linkage between education and training and world of work

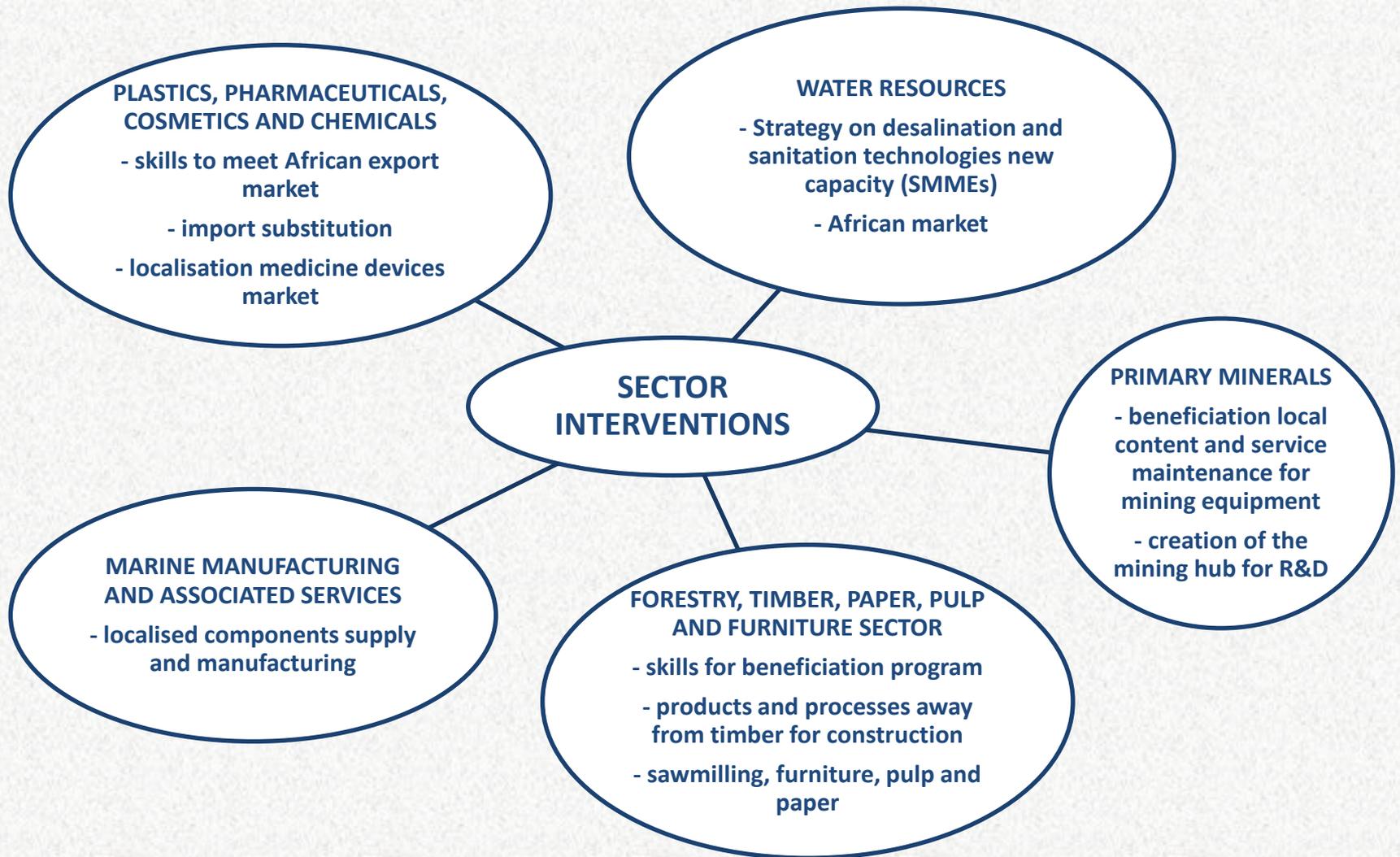
INDUSTRIAL POLICY ACTION PLAN

- **CHALLENGE IPAP 2017/18 (AND PREVIOUS ITERATIONS)**

- skills shortage and mismatch
- skills development tied into different sector interventions



INDUSTRIAL POLICY ACTION PLAN



INTERNATIONAL EXPERIENCE

VIETNAM

- skills development via technology transfer from Foreign Direct Investment firms
- interaction between FDI firms and TVET institutions (localised skills development/manufacturing value addition activities)
- human resources perform beyond standard tasks
- initiate and manage improvement of production
- government play a coordination role between TVETs and FDI

MALAYSIA

- transformation towards knowledge intensive economy
- concerted effort to invest in education and training to match demand and supply
- an expansion in both private and public tertiary institutions

MALAYSIA CHEMICAL INDUSTRY

- industrialized as a cluster
- comprising petrochemical and pharmaceutical sectors
- import substitution and foreign investment driven
- firms partner domestic R&D institutions (product design/marketing and distribution)
- strong links (collaboration, inter-firm cooperation, strategic alliances)
- balanced and proactive curricula - participation between public-private sectors

INTERNATIONAL EXPERIENCE

THAILAND

- moving the country to high-income status and higher levels in global value chains
- Upgrading industrial sophistication and increasing domestic value addition in exports
- effective higher education budget
- raise industry relevance of higher education (and research)
- high salaries for quality teachers across foundation institutions (maths/science)

KOREA

- followed the Confucius ideology (GOV by moral and properly-educated elite)
- education and training of the highest order
- development and growth driven by most educated (government/society)
- education a basis for deep thinking and strong moral sense
- development of new processes and products through innovation and research

CHINA

- strategy for human resource - demands for innovative nation / industrialisation
- Outline of the National Plan for Medium- and Long-term Scientific and Technological Development (2006-2020)
- Outline of the National Plan for Medium- and Long-term Human Resources Development (2010-2020)
- National High-tech R&D Program (863 Program), National Key Basic Research Program (973 Program), National Key Technology R&D Program and the National Natural Science Foundation

Education And Skills Development Policy

BASIC EDUCATION

- Action Plan and Vision for Schooling in 2025 (2009)
 - numbers on literacy and numeracy/mathematics for grade 3, 6, 9
 - numbers eligible for university
 - average performance in mathematics and literacy
 - improve access and progression education

HIGHER EDUCATION

- Integrated Strategic Planning Framework - Teacher Education and Development (2011–2025)
- Teacher education and development as integrated system
- cooperation DBE and DHET
- coordination provincial and national

SKILLS DEVELOPMENT

- Human Resource Development
- National Skills Development Plan (SETAs)
- National Skills Development Strategy (SETAs)

Education And Skills Development Policy - shortcoming

- **Pronounced target for qualified workforce for Industrialisation**
 - taking baseline information to determine policy directive for resulting gaps
- **Bridging programs after qualification**
 - address the current structural problem in unemployment
 - costs to orientate new workforce - skills mismatch, unnecessary costs and lack of partnerships
- **Effective model in skills development that includes SETAs – prevailing skills mismatch**
 - expert identification and bridging skills gap within industries
- **Aquaculture vets**
- **Future of industries under Industrial Revolution 4 (IR4)**
 - direction towards skills evolution into technology, internet, automated manufacturing and big data analytics
 - industrial revolution growth advanced by upper-tail knowledge (The Economist)
 - Incentive to acquire upper-tail knowledge

CONCLUSION AND RECOMMENDATIONS

- **CONCLUSION**

- IPAP offers country opportunities for growth
- Persistent skills mismatch

- **RECOMMENDATIONS**

- expand beneficiation skills needs within the Industrial Revolution (3rd/4th)
 - interventions involve beneficiation
- demand-driven, industry-specific skills
 - structural problem of unemployment
- develop market signals for job/skills demand
 - obsolete skills, a need for up-scaling and new skills
- education and skills development must fosters societal resilience
 - technological revolution
- future products and processes demand
 - different future education system
 - effective and strong public and private partnerships
- integrated skills development plan - upstream and downstream sectors

Thank you!