Education and Apprenticeship of Nonacademic Chemists in Georgia

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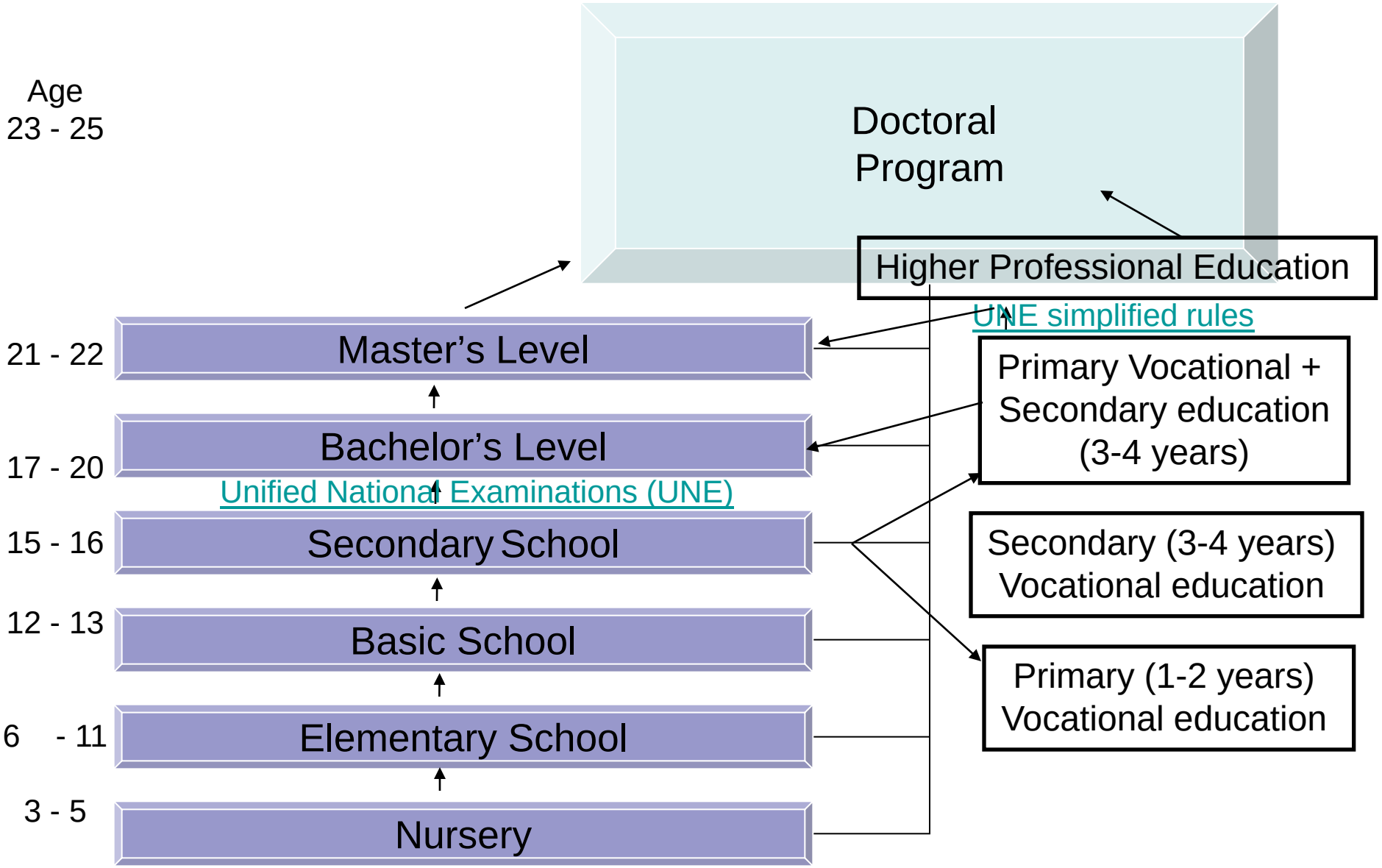
Introduction

- Why education or vocational training?
  - more chances for getting employed
  - competitive workforce vital basis
  - rapid economic development is possible

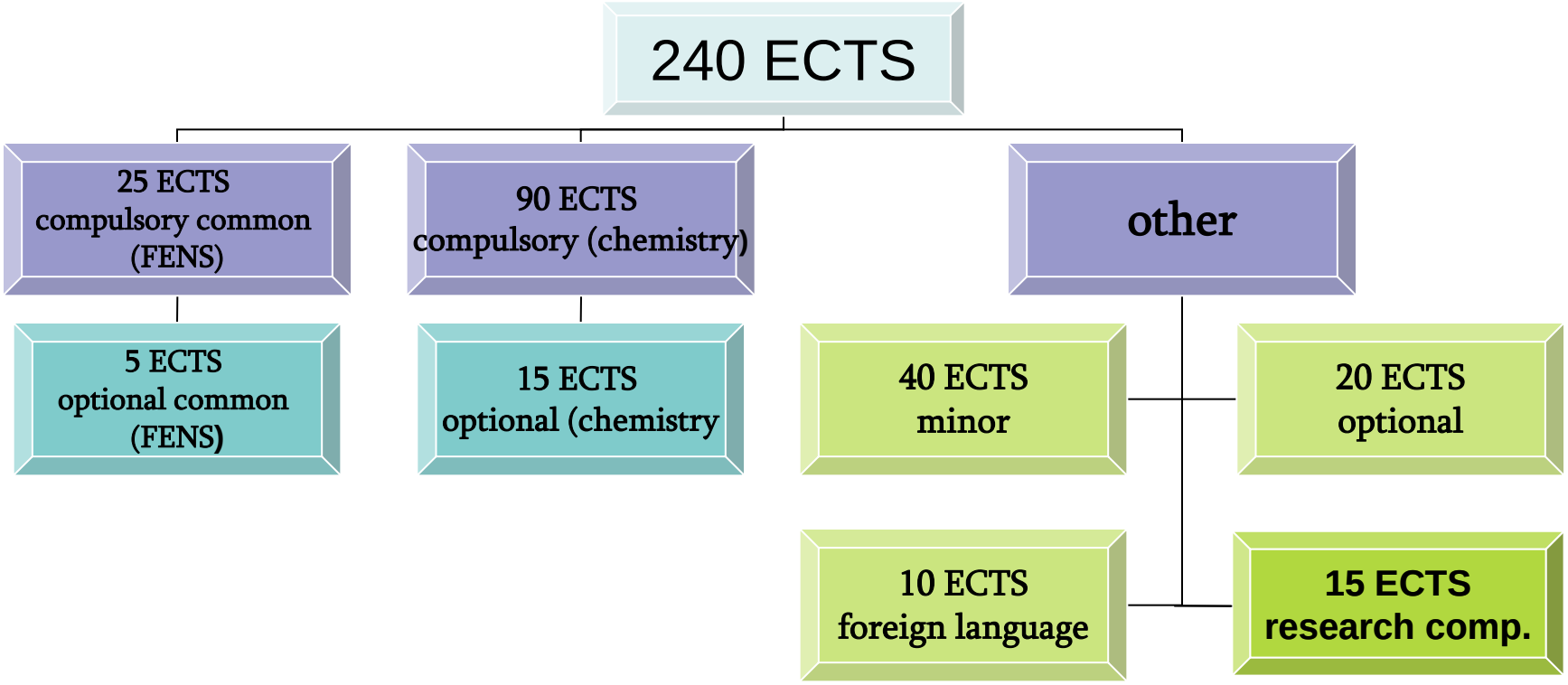
  - creation of the market economy
  - new fields requiring the qualification of a chemist
  - requirements on the chemist have changed
    - ability to obtain, process, analyse and communicate data
    - knowledge of the neighbouring fields

training needed for those professionals that are to operate in private and public sectors, ranging from pharmaceutical companies to food, customs any environmental agencies and others

Georgian Educational System



BSc, Chemistry (4 year)



Educational programmes in chemistry

- Inorganic, organic, physical, biological and analytical chemistry
- Combination of theoretical and practical components
  - Laboratory work
  - Internship in a chemical company
  - Scientific-research establishment
- Learning outcomes
  - Knowledge and understanding of the Field
  - Field-Specific Knowledge
  - Generic/transferable competences
- Learning, Teaching, Assessment

Professional education

- The education system of Georgia ensures interconnection between general education,
  professional education, and higher academic educations.
- Professional education, except higher professional education
  - Formal
  - informal
- Formal professional education
  - accredited educational institution
  - created for the professional education
  - has a structured environment
  - granting relevant qualification or changing the existing one
  - issuing documents approving the relevant education.
- Informal education
  - no document is issued that would prove the accredited education
  - may be obtained after independent, non-institutionalized, or non-structured work.

- Formal professional educations in Georgia
  - vocational education
  - Professional higher education

Professional education (continued)

- Vocational education may be obtained after completion of the basic secondary education
- professional higher education may be obtained after completion of the entire course of the general (secondary) education.

Formal professional education

- Cover theoretical teaching, learning practice, and/or entrepreneurial practice.
- carried out
  - in the professional education institutions
  - at secondary and higher education institutions
- Duration: < 2 years
- vocational education activity
  - covers vocational educational programs
  - Completion: a professional qualification
    - should be licensed in accordance to the Georgian legislation in force
- State recognition awarded if institution accredited
- Upon graduation, receipt of
  - vocational specialist’s certificate

Formal professional education (continued)

- In the higher education institutions
  - in accordance with the normative acts determined by the Georgian law “On Higher Education”
  - Upon completion diploma of specialist of that professional education
- professional education center calculates vocational education programs with credits in accordance to the regulation of the Ministry of Education and Science of Georgia
  - credits obtained in accredited vocational education program regarded to be in accordance with the Georgian regulation in force
- If contractual agreement
  - the occupational education considered as part of the united national curriculum in accordance
  - certification issued by the vocational education center

Informal education

- Informal education aims to teach the profession, provide professional retraining, and/or improve qualifications
- The State recognizes informally obtained professional qualification after passing attestation in accordance to the determined rules

Managing Bodies of the Professional Education System

- Government of Georgia;
- Ministry of Education and Science of Georgia;
- Ministry of Labor, Health and Social Affairs of Georgia;
- Ministries of Education of Adjara and Abkhazia Autonomous Republics;
- Local self-governance bodies;
- The legal entity of public law National Professional Agency;
- The legal entity of public law National Center of Education Accreditation;
- The legal entity of public law National Curriculum and Assessment Center;
- The legal entity of public law of Teachers' Professional Development Center.

The competent bodies of managing the professional education system are carrying out activities in the field of professional education based on the principles of educational-entrepreneurial partnership.

VET Development Department

- set up to establish a demand-driven vocational education and training (VET) system in Georgia
  - link between the VET centers and employers
  - refers to market research for informed policy decisions and involves all stakeholders in debates about the market requirements of workforce skills, knowledge, and competences
  - employers’ active involvement and collaboration will guarantee the establishment of the VET system that will meet the rapidly changing market demands in our transitional economy

Vocational education and training (**VET**) center

- needs to work towards raising the employment rate of graduates
- strong guarantee for demand on the training and education provided
- cooperation with employers crucial for providing graduates with market-demanded knowledge, skills, and competence
- kept informed by VET Development Department about the major developments in terms of skills, knowledge, competence requirements on the labor market
  - Information useful for the design - structure, goals and contents - of curricula, for the integration of new teaching methodology, for modernization of the teaching infrastructure, etc.

Professional associations

- **VET** Development Department to involve professional associations in the process of developing quality **VET** curricula - occupational standards, textbooks, and other teaching materials

- Close collaboration of professional associations with the Department will ensure that the vocational education and training (**VET**) programs are reflecting the latest industry developments

National Curriculum and Assessment Center

- Grants accreditation to VET centers
- Grants program accreditation to certain pedagogical educational courses for VET teachers/instructors
- Develops the project of vocational educational standards
- Develops VET programs in compliance with occupational standards
- Establishes relevance of vocational education programs designed by other parties to the educational standard

Teacher Professional Development Center

- Develops occupational standards for VET teachers/instructors
- Creates the Code of Ethics for VET teachers/instructors
- Elaborates certification rules and implements certification of VET teachers/instructors

Outlook

- Leonardo da Vinci program will
  - enable development of vocation training in Georgia
  - enable exchange of best practices with our European counterparts
    - increasing the expertise of their staff and respond to the teaching and learning needs of people
  - bolster the competitiveness of the European (and Georgia) labor market

Thank you !