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FUTURE SKILLS NEEDS: INOVATION IN AGRI – FOOD AND FORESTRY CHAINS

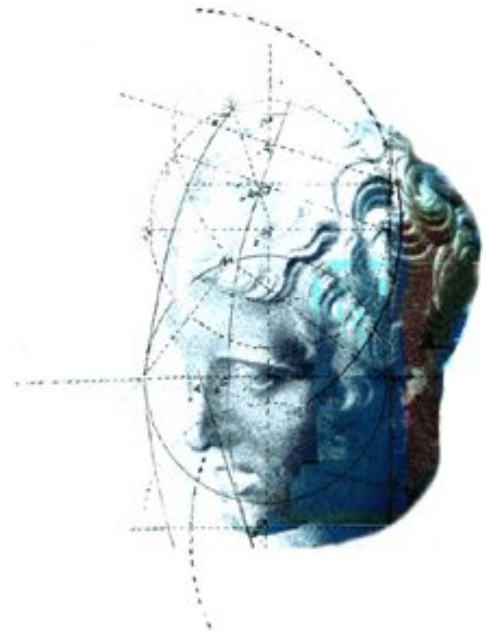
LISBON, NOVEMBER 2006

ZORKA HUSOVÁ

**NATIONAL INSTITUTE OF TECHNICAL AND VOCATIONAL
EDUCATION (NÚOV)
CZECH REPUBLIC**

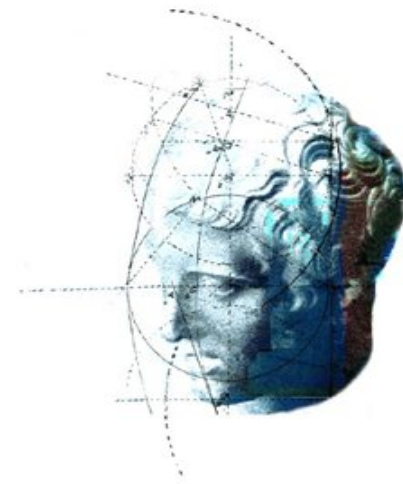
National Institute of Technical and Vocational Education (NUOV)

- **NUOV run directly by the Ministry of Education, Youth and Sports of the Czech Republic**
- **Works more than 55 years**
- **Basic purpose: Conception and strategy of VET development in wider context**



Main areas of activity

- **Concept of VET in the Czech Republic**
- **Analyses, information (schools, SPs, LM, career guidance and counselling, .)**
- **VET curriculum development**
- **Projects (national, EU)**
- **National Europass centre**



Education System of CR

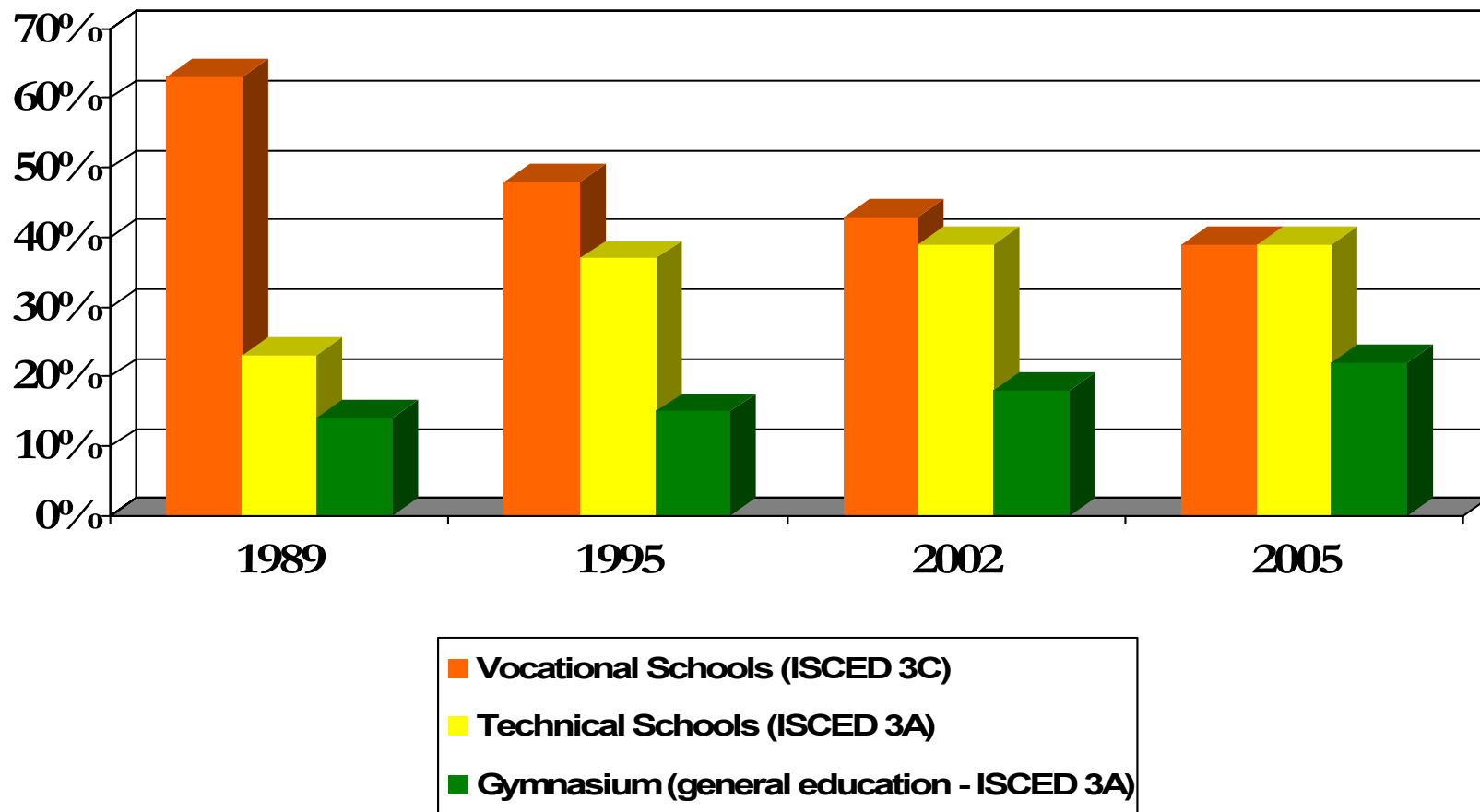


Acrobat Document

Access to Higher Level Education Institutions

Type of programme	Duration (years)	Level (ISCED)	Access to higher level
Secondary vocational	3	3 C	Not direct, only through follow-up courses
Secondary technical	4	3 A	Yes
Follow-up (extension) courses	2	4 A	Yes

The student population of the Secondary Schools in CR



VET IN CR - LEVELS

Upper - secondary level

- **ISCED 3C** ~ **apprenticeship certificate** – **occupation:** *f.e. miller, baker, confectioner, butcher, dairy-man, brewer, maltster, operator in canning industry, vintner, fisher, farmer, horticulturist, animal breeder, forest production, joiner, upholsterer, ...*
- **ISCED 3A** ~ **Maturita certificate**
 - *food –processing industry, analysis of foodstuffs (technology of meat; technology of milk; fermenting technology; canning industry technology, etc.);*
 - *agriculture, veterinary, animal breeding, horticulture, forestry, furniture and wood production, etc.*

Tertiary level

- **ISCED 5B** ~ **Post secondary technical schools**
Dipl. Specialist certificate in – technology of foodstuffs, forestry, ..



Characteristic features in CR

- **approx. 45 % economically active inhabitants**
~ 4 764 000 people (2005)
 - 3,2 % in agricultural sector
 - 2,9 % in food industry
- **approx. 6% economically active inhabitants have at least minimal qualification (1/7-1/8)**
- **average % of unemployed people = 7,5%**
 - in some regions is very high – about 20%



AGRICULTURE IN NUMBERS

■ Employed people in

- Agriculture: **2005 - 150 000 p.**
2004 - 162 900 p.
- Forestry and fishery: **2005 – 38 700**
2004 - 39 400

Total = 188 700; reduction about 4,7 % every year

■ Number of students - approx. 23 500

- 11 500 students; 1000 – at HPS (VOŠ)
- 11 400 apprentices
- 5800 st. - finished study last year (1/6)

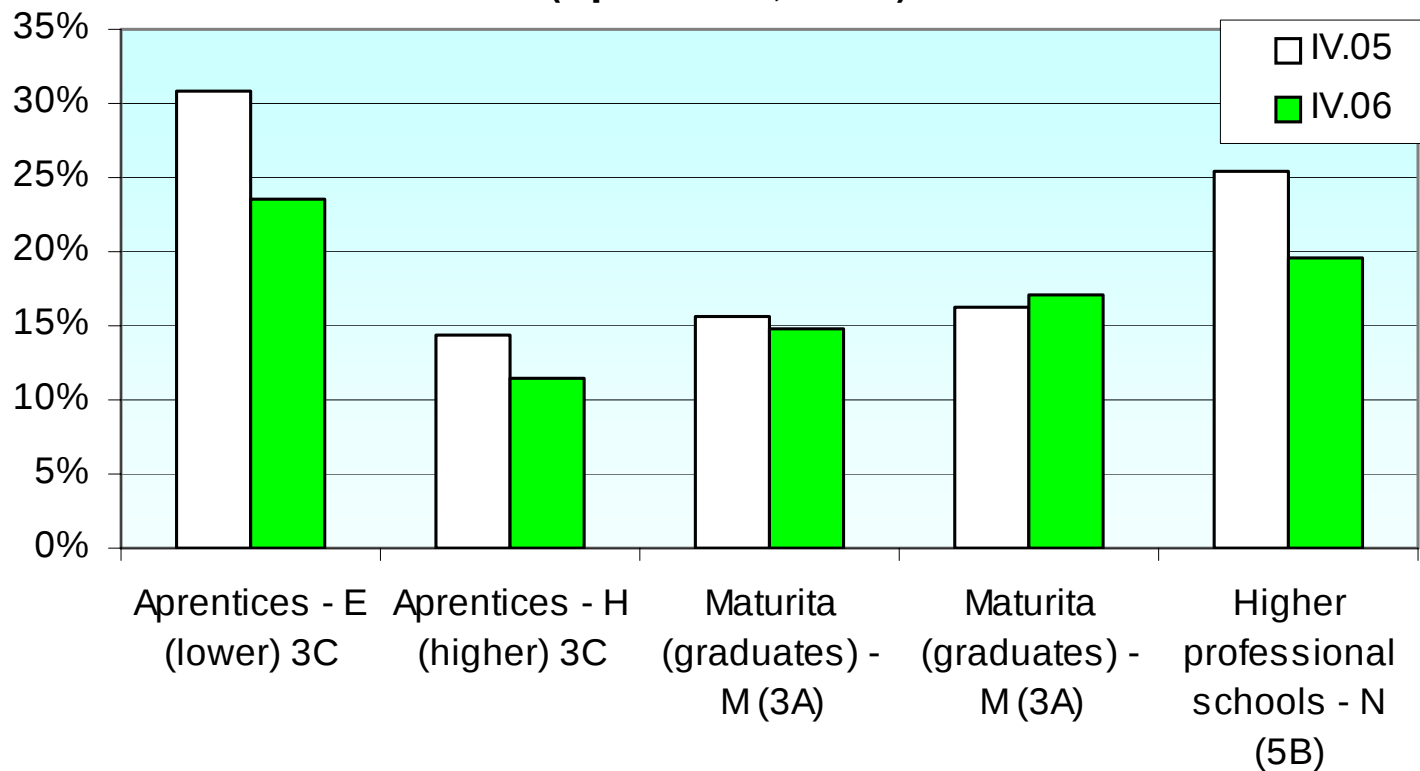


FOOD INDUSTRY IN NUMBERS

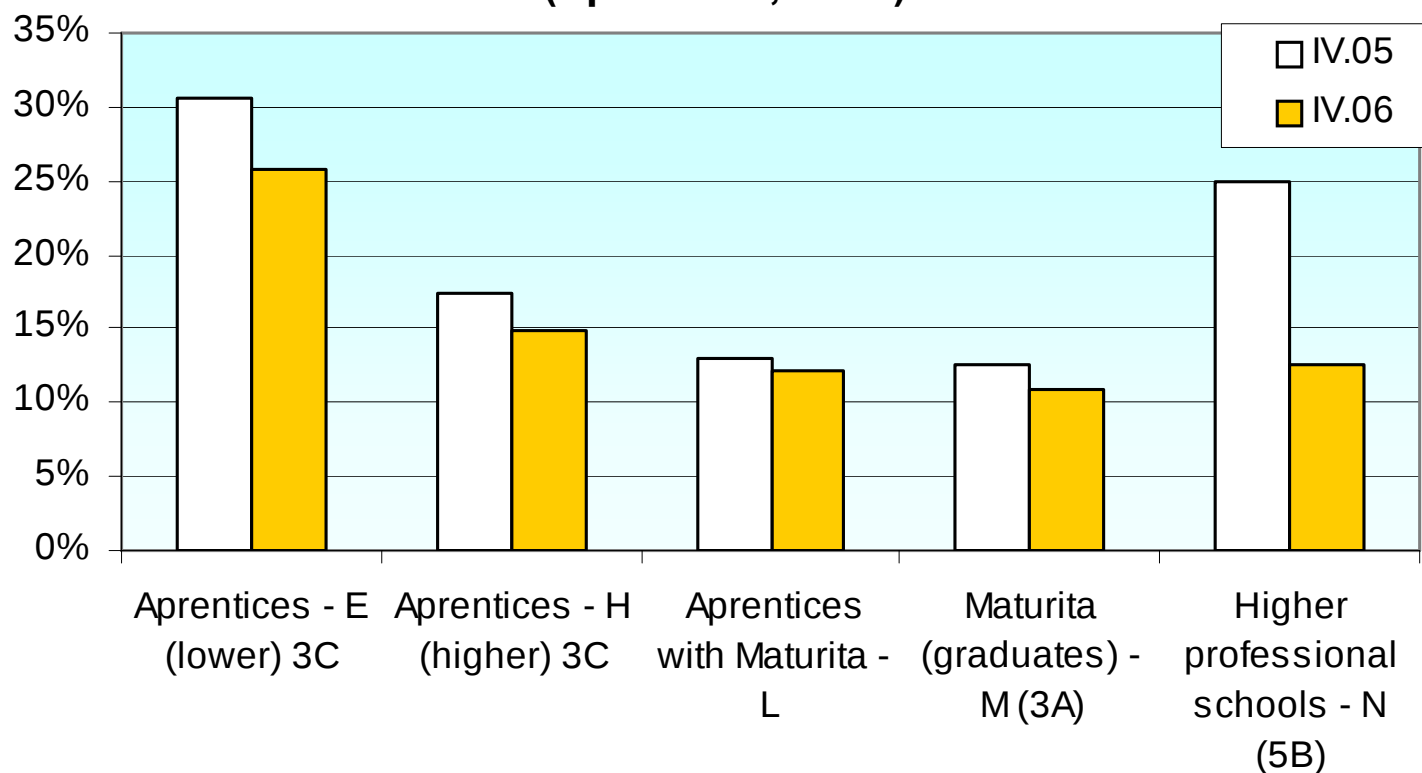
- **Total: 138 800 employed people = approx. 10, 3% within processing industry sector (2004)**
 - 44 000 e.p. in comp.with ... **50-249** p. (big quotient on volume receipts)
 - 34 000 e.p. comp.with ... **250-999** p.
 - 29 000 e.p. comp. with10-49 p.
 - 21 000 e.p. comp. with ... > 1000 p.
 - 10 000 e.p. comp. with0-9 p.
- **Number of students – approx. 9577 (stable in last 7 y)**
 - 7 400 apprentices
 - 2050 students, 160 – in HPS (VOŠ)
 - Cca 2700 of them finished study last years



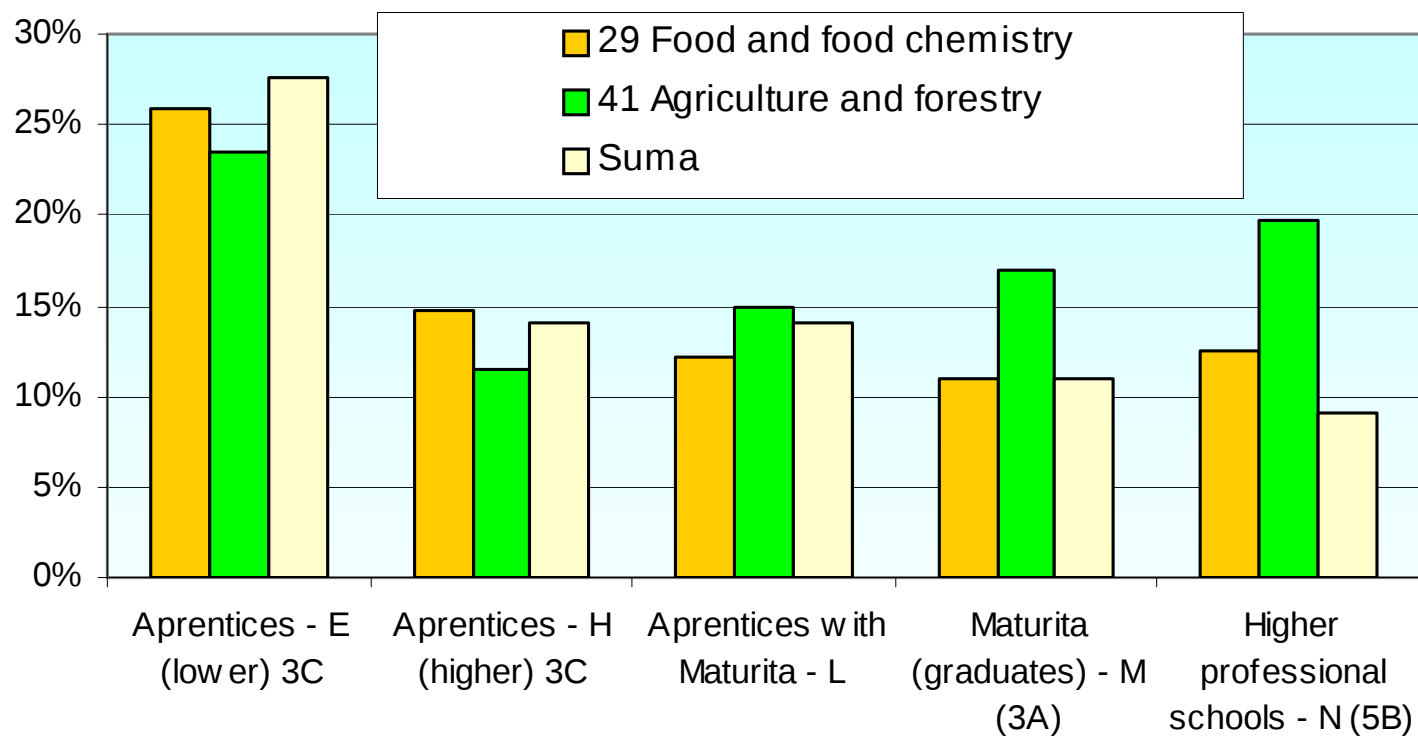
Rate of unemployment of graduates 41 41 Agriculture and forestry (April 2005, 2006)



Rate of unemployment of graduates 29 29 Food and food chemistry (April 2005, 2006)



Rate of unemployment of graduates - April 2006



DEVELOPMENT TRENDS IN AGRICULTURE IN CR

Trends are in according to principles of common agricultural policy in EU and Conception of Agrarian policy in CR 2007 - 2013:

- Sustainable development (and rural development)
- Organic farming
- Growing alternative crops
- Landscape protection
- Animal welfare
- Quality assessment of products
- Modern technology
- Agri – tourism, country development
- Knowledge of legislation



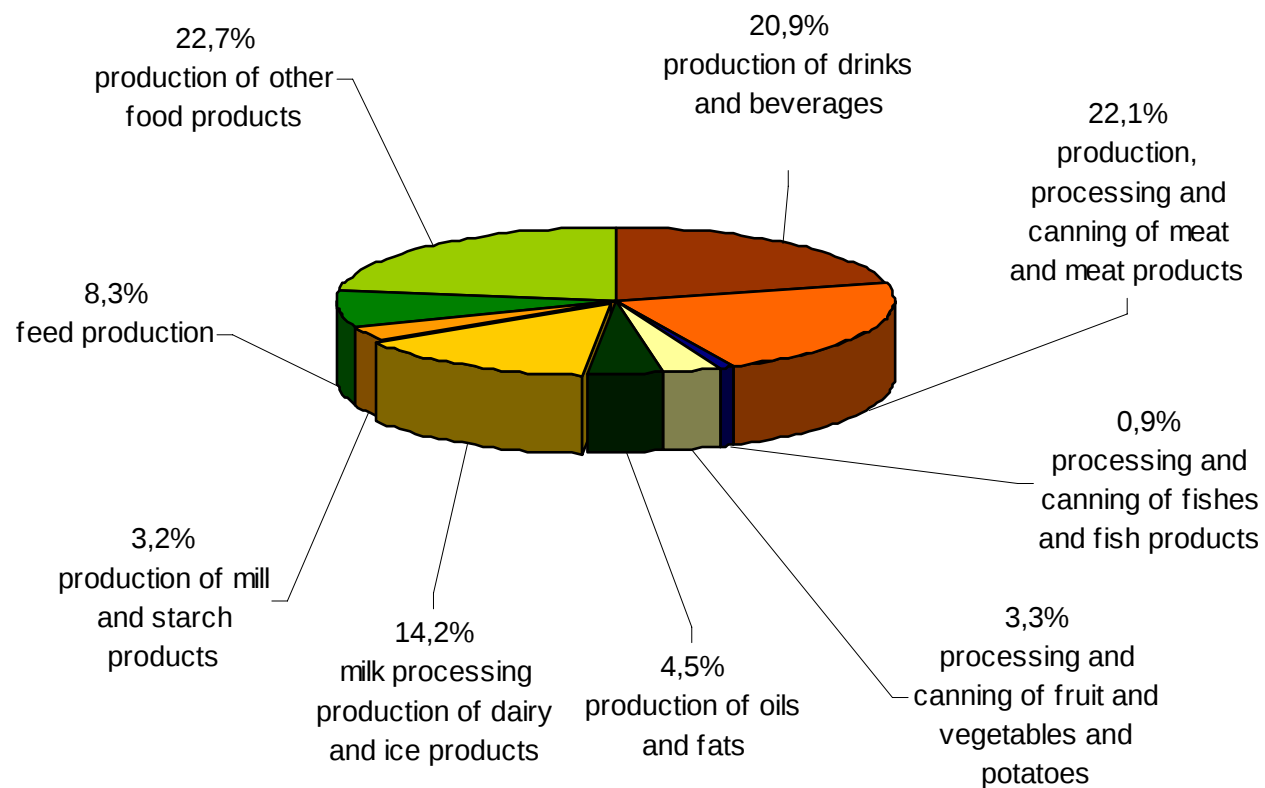
DEVELOPMENT TRENDS IN FOOD INDUSTRY

According to principles of common EU policy 2007-2013:

- Safety food, system RASFF
- Bio-products
- Marketing strategy - high quality food, label „Klasa“ (support, agency)
- Use own agricultural products
- Adaptation to needs of changing society (fast food, prepared meals,...)
- Effective control system – focused on process and products
- Non genetic modified products
- Modern technology (environmental production - waste disp
- New machines, automation of production
- Quality raw material in output
- Hygiene and safety work
- Knowledge of legislation



Share of branches on sales for sale of own products and services (2004)



DEVELOPMENT TRENDS IN FOOD EDUCATION

All trends – skills needs must be transformed to education (qualification standards -> FEPs)

- **General competences**

team work, ability for decision, communication, ICT, foreign language, marketing, management, personal development

- **Vocational competences**

- hygiene and safety work, ecological principles
- produce safety food (high quality products)
- produce new products – bio-products, non genetic modified
- use system of critical points
- make analyses of process and products
- use new raw and technology
- use new equipment and operate safety modern machines



VET - Initial and Further Vocational Education

3 kinds of standards will be applied in VET (at the secondary school level)

- **Qualification standards (QS)**
- **Educational standards**
- **Assessment standards (AS)**



Legislative embedding

Qualification and assessment standards

- These standards will promote further education and lifelong learning
- Both the types of standards are a part of the **new Act** „ Assessment and Recognition of Results of Further Education“
 - approved in February 2006
 - will be in force from July 2007



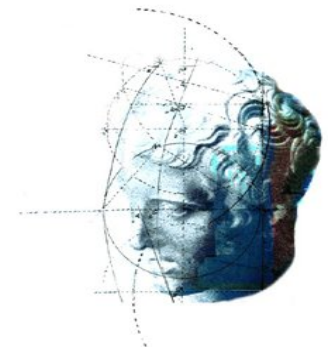


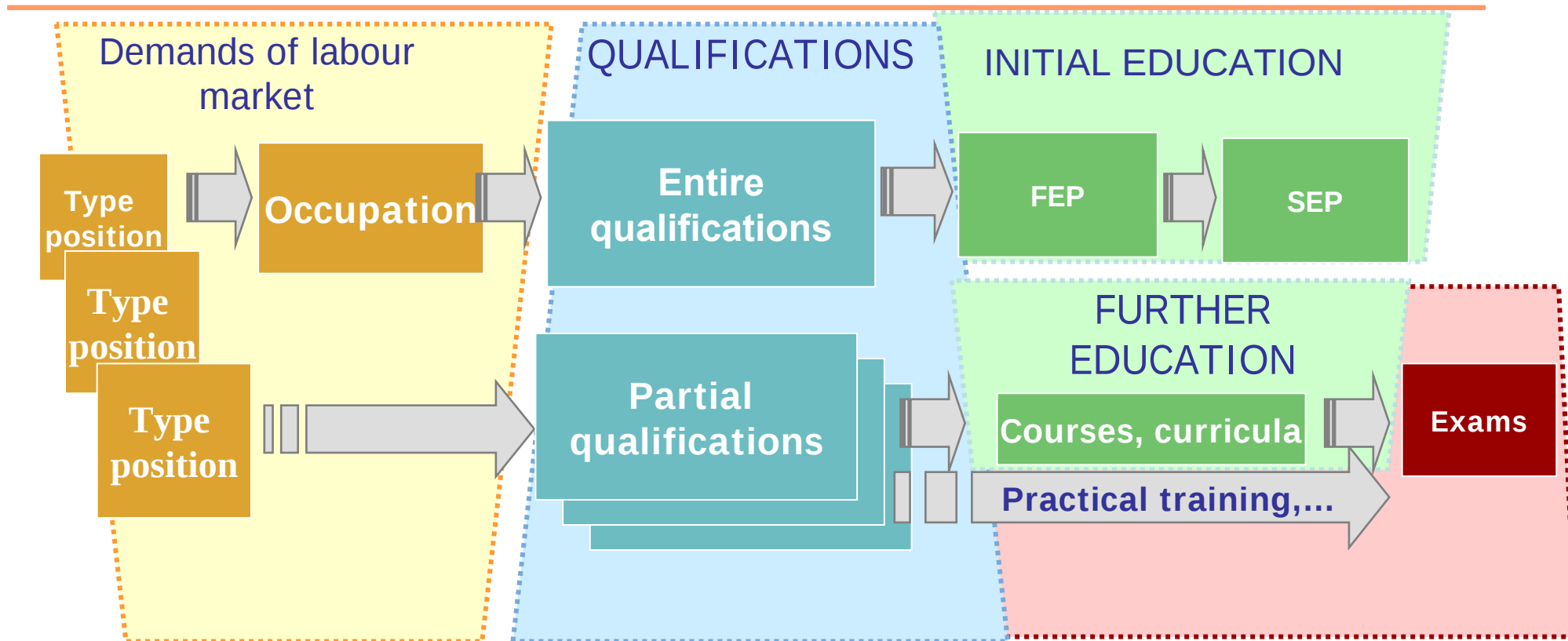
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Development of the National qualifications framework



- A system project NQF(NSK) of MOE, ESF project
- A basis for linking initial a further education and support for lifelong learning (recognition of qualifications, non-formal, informal learning)
- **Clearly describes qualifications (required in LM)**
- Close co-operation with SPs (national, regional authority)
- The link between NQF and EQF





National qualification framework
Bridge between sphere of work and sphere of education

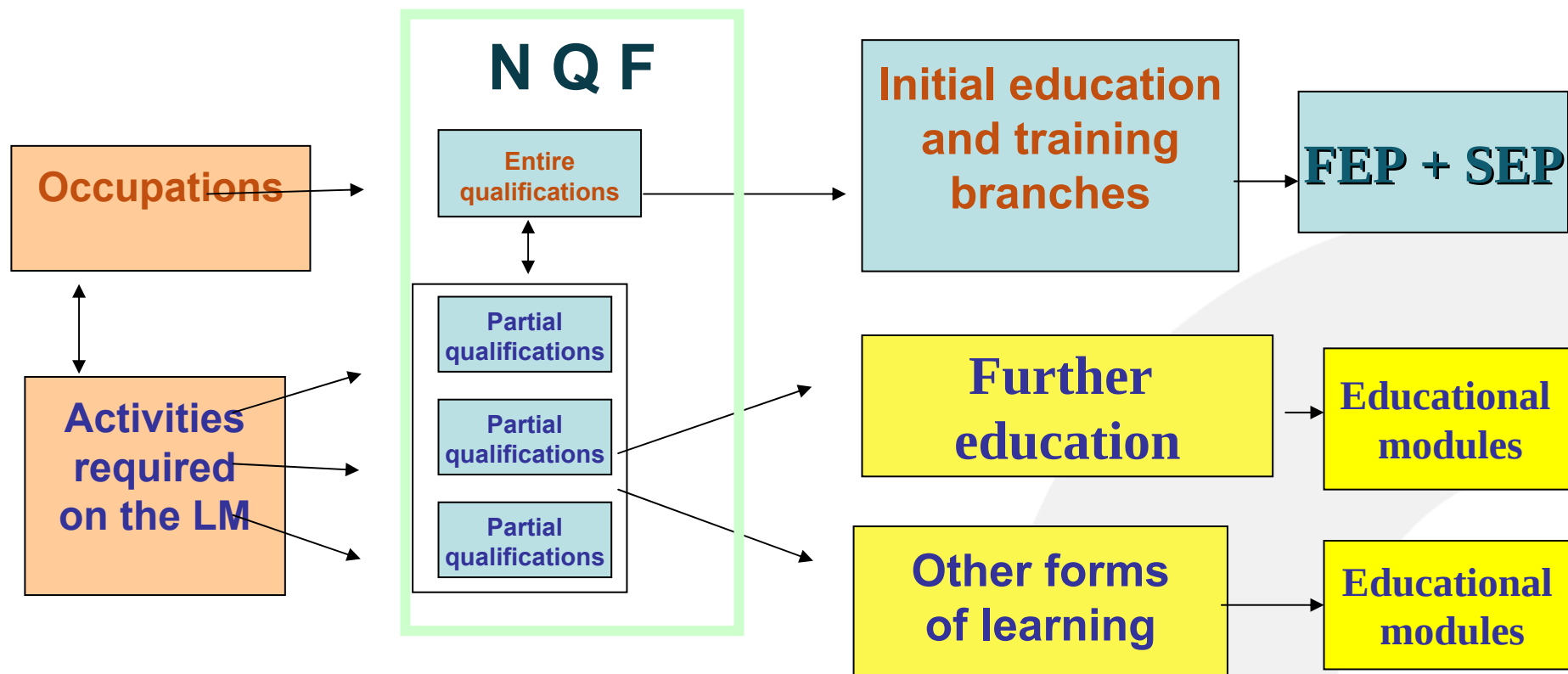


Structure and content of the NQF

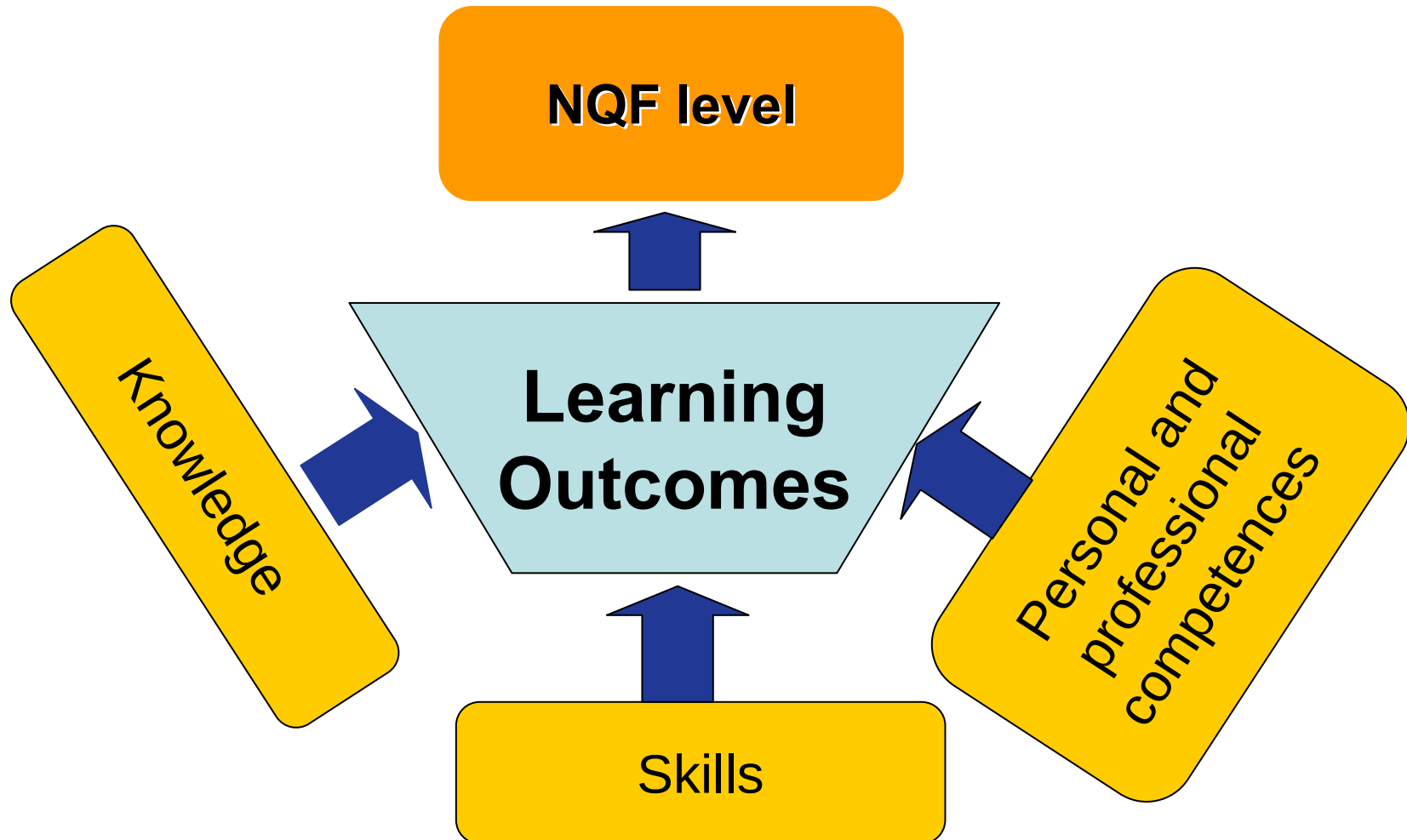
The basic units of the NQF will be qualifications divided into two types:

- **Entire qualification** – ability to perform an occupation; as a rule, it is connected with achievement of an appropriate level of education
- **Partial qualification** – ability to perform a work activity or several work activities, which provide opportunity to apply for a job

NQF – work and learning



Based on learning outcomes



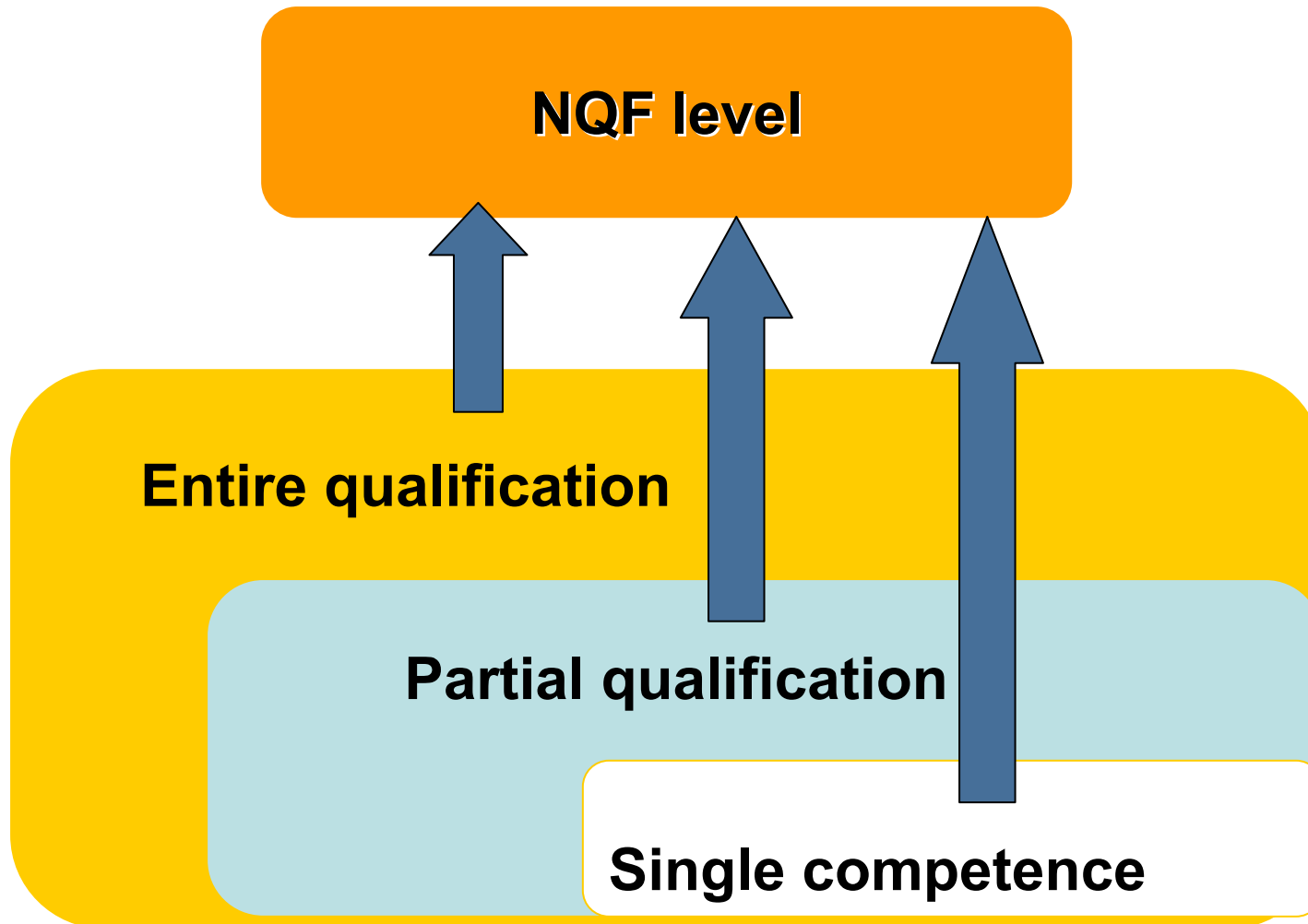
Qualification standards

- **Qualification standards (in Act) = a structured description of vocational capabilities, which are recommended requirements of a natural person - **knowledge, skills, competences****
- **Entire and partial qualifications**
- **Qualification standards = a starting point for development of assessment and educational standards**





Qualification assignment in NQF



Assessment standards:

- Sets of criteria assessing students, adults or whomever else who have particular competences which are set by the qualification standards
- The standard will contain target and partial competences and criteria, methodological recommendation, authority, etc.





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NQF in CR



Project NQF/NSK/ focused on:

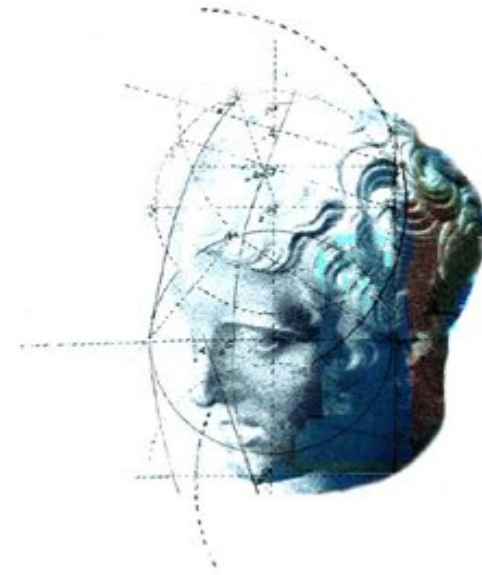
At „national-wide and European level“

- NQF conception and structure
- Development of qualification standards
- Development of assessment standards
- NQF information system
- Credit transfer

At „regional level“

- Development of modules for partial qualifications

What will bring NQF?





Thank you for your attention

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