CEEI

CENTRAL EUROPEAN ENERGY INSTITUTE

NERS 2014

František Hrdlička

Václav Dostál

1955
CZECHOSLOVAK NUCLEAR PROGRAM

Gouvernement decision:
Institute of Nuclear Research v Řeži u Prahy

Faculty of Technical and Nuclear Physics at UK in Prague,
Since 1959 part of CTU in Prague

Secondary School of Nuclear Engineering in Prague
Specialised centers of Skoda Plzen company
Nuclear projections Vochov and Test site Bolevec for embryo plant of Nuclear Engineering
leading researchers were simultaneously teachers in educational institutes and students trainees

CTU Faculty of Mechanical Engineering 2010

Accredited study program NEF - nuclear energy facilities co-sponsors Institute of Nuclear research institute a.s. Řež

lecturer: CTU FME and FNSPI, NRI Řež, SINS (nuclear safety), Energoprojekt, Škoda Nuclear Engineering

since 2013 akredited second study program

BILDINGS for ENERGY IN PARTNERSHIP WITH Fac. of CIVIL Engineering CTU in Prague

GOUVERNEMENT SUPPORT

Representation Commission of Ministry of Education allocated to first technical study program coefficient of the cost of the same amount, which normally receive Faculties of Science.

Today for FME: 1,65

to NEF : 2,8

NEED INTEGRATION of more universities and essentially supporting the industry

3 UNI + INR ŘEŽ requested the project OPVK ()
shall not relate to the settlement of Prague
the project Centrale European Energy Institute - CEEI

located to ROZTOKY u Prahy

To be accepted project:
Two main themes - Renewable and Nuclear sources of Energy

Introduction

- Central European Energy Institute is a project of three technical universities and a Research Center Řež in the field of education of specialists in energy engineering
- In the project participate:

Czech Technical University in Prague

Brno University of Technology

Technical University Ostrava

- Location of CEEI: Faculty of Mechanical Engineering of CTU in ROZTOKY

CEEI Objectives

- The main target is
  - To define the quality of the renewable and nuclear engineering education and keep improving it.
  - Based on the „European Master Engineering “ define the „national standard “ of master degree in the field of renewable and nuclear engineering.
  - Thus defining the standard of the „Czech Power Engeneering and Nuclear Engineer“.

Impulse for Center Foundation

- Faculty of Mechanical Engineering of CTU to support international activities of Czech Nuclear Education Network CENEN
- CENEN is a voluntary academic organization of educational institutions in the field of nuclear engineering which pursue the development and quality perseverance of the Czech nuclear education and its incorporation into the European context.
- Good results of cooperation between universities and the research center in the field of nuclear energy motivated foundation of common educational porgram for renewable and nuclear energy sources.

Main different activities

- Differentiated background for project, research and manufacturing institutions in the region of cooperating.
- Different approach for education, practical outputs and R&D focus

Main common target

- Common theoretical background at bachelor (Bc.) level
- Common lectures for specific courses for selected group of students from three universities
- Theory and practice at research facilities (reactors and accessories) in Research center Řež.

CTU in Prague

- Education of mechanical and nuclear engineering at CTU has a long and important tradition
- In energy engineering field is connected with history of development and utilization of energies in both thermal and nuclear power plants and other energy systems
- Concept and environmental aspects of renewable and nuclear energy sources

Brno University of Technology

- Share on all types of courses
- Main aspects of advanced energy utilization of biomass
- Energy from wastes

TU Ostrava

- Participates in all types of educational courses
- Specific focus on progressive technologies for energy generation and distribution.

Research center Řež

- Is a unique institution not only in the Czech Republic but also in European context
- Possesses research nuclear reactor LVR-15 and an experimental reactor LR-0.
- Both are used for fundamental and applied research and in parallel they are used for educational purposes for specialists from technical universities.

Institut next Activities

- The most important is the support of short trips of scientist during which
  - the links with the partner organizations can be established
  - possible mutual research interests found
  - project proposals can be prepared
- Once research projects are ongoing the traveling expenses are covered from the project budget and the center funding is not necessary

Institut Activities

- In addition longer stays of doctoral students funded form the IAEA are envisioned.
- Seminars or workshops can be organized.
- The center activities must be flexible with short waiting time for the funding.

Financing

- European Structure Fonds
- So far the Czech Ministry of Education kindly provided 43,5 mil CZK for the operation of the institut

Summary

- Central European Energy Institut is at its starting line
- Support from the Czech Ministry of Education was obtained
- Negotiations with private companies on going

Kvalifikační barometr: po kom bude poptávka?

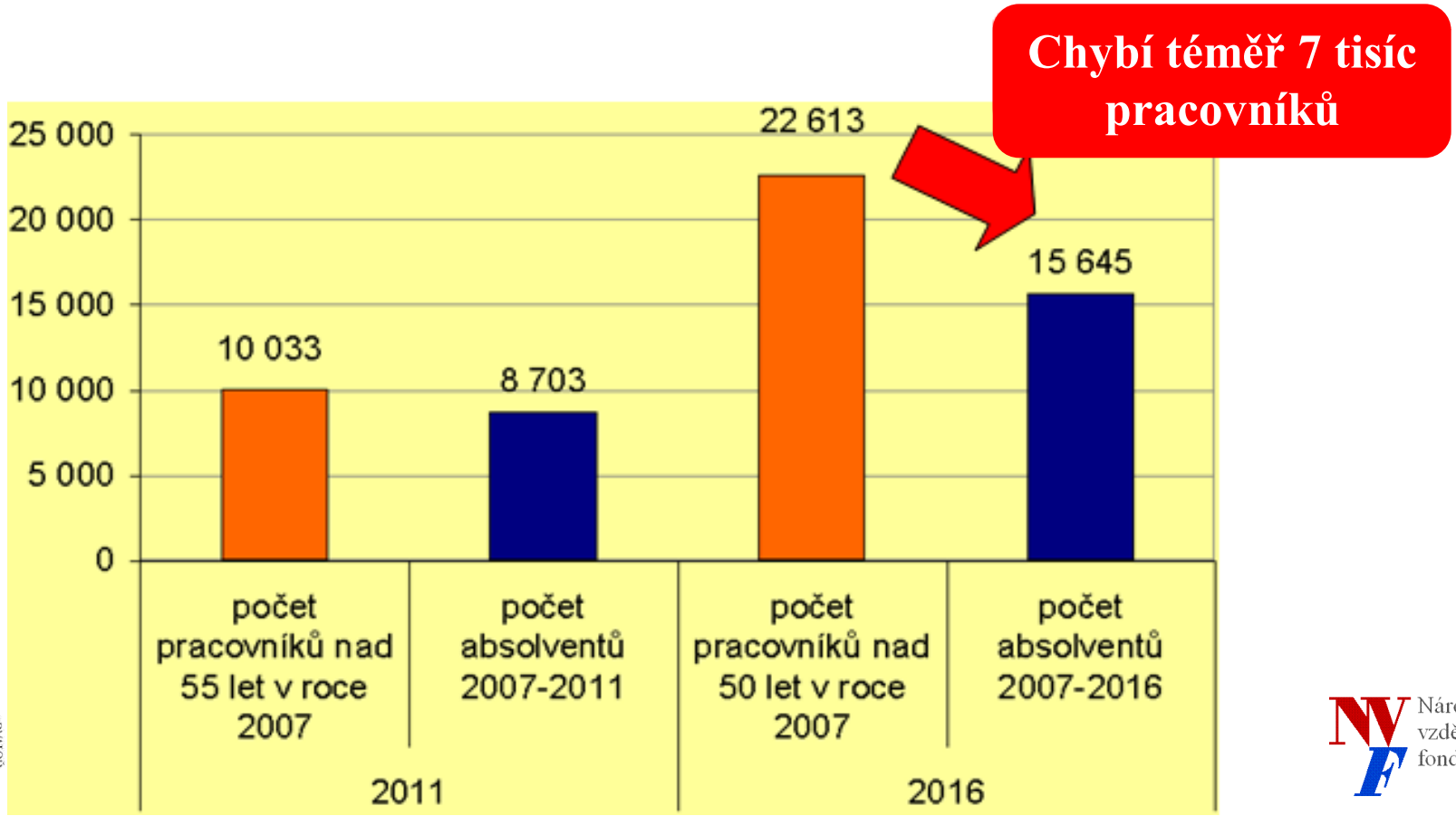
Okruh pracovních pozic	Změna
Projektanti a konstruktéři	↑↑
ICT specialisté	↑↑
Kvalifikovaní technici se strojírenským/elektrotechnickým vzděláním	↑↑
Dispečeři v energetice a specialisté na rozvod energie	↑
Strojníci energetických zařízení	↑
Specialisté na úspory a management energií, energetičtí „auditoři“	↑
Specialisté v jaderné energetice	↑
Operátoři výrobních bloků	↓
Dělníci výrobních a rozvodných energetických systémů	↓↓

www.nvf.cz/observatory

Národní vzdělávací fond

Demografie: školy nestačí nahrazovat úbytky

- **2007-2016: ze sektoru může odejít přes 22 tisíc pracovníků (zejména odchody do důchodu – kapacita škole je o třetinu nižší**
- **Jakou cestou tento problém řešit: rekvalifikacemi, nebo zvyšováním produktivity, která umožní počet zaměstnanců snížit?**
- **Riziko nevhodné kvalifikační struktury nově příchozích pracovníků je velmi reálné**



THANK YOU FOR YOUR ATTENTION