

# Multi-level cross-cutting register of certified engineers

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# Content

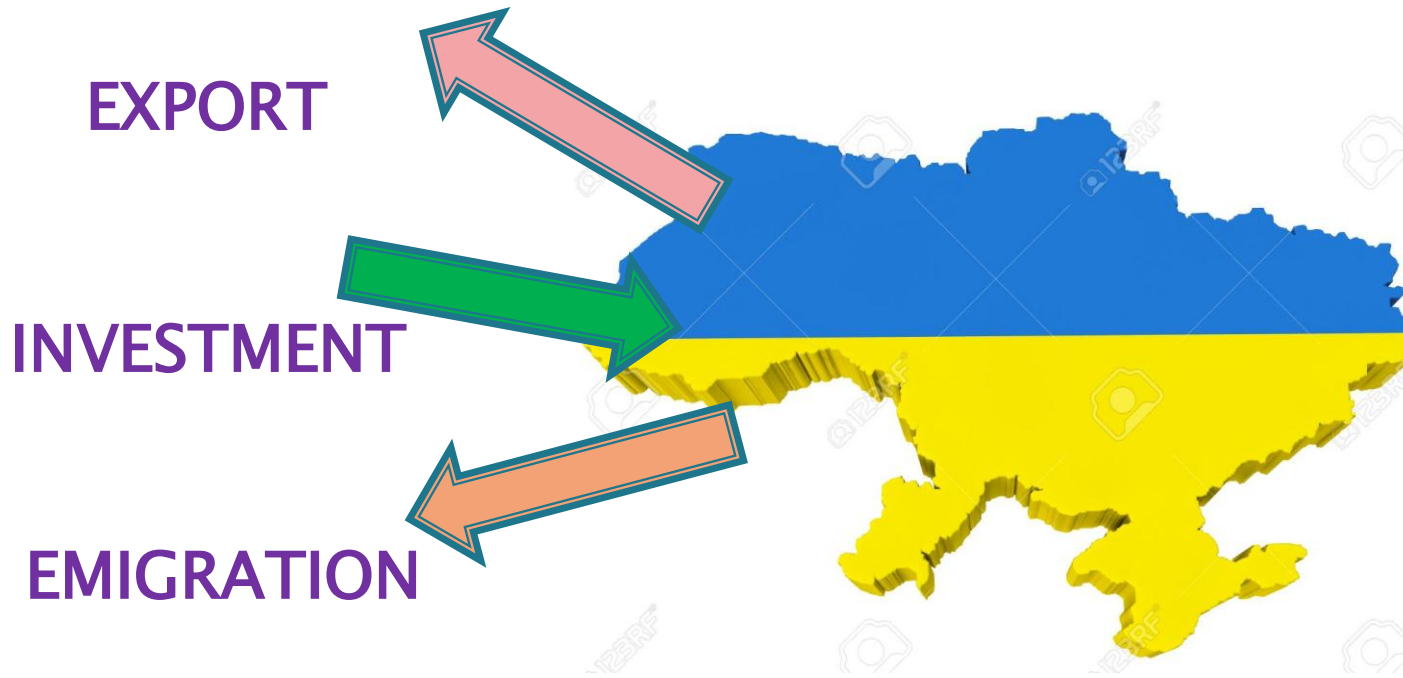
- ▶ Introduction (or target groups for certification)
  1. Certification systems, which were implemented in Ukraine
  2. Three key elements for correct certification
  3. Cross-cutting register
  4. Proposed novelties/new certification levels
- ▶ Summary (or invitation for cooperation)

# Introduction (I). Ukraine in the world/Europe



		Europe	World
Population	42 200 000	6	37
Territory	603 628 sq. km	2	43

# Introduction (II). Local demands



# Introduction / Global trends

- ▶ 17 UN SDGs;
- ▶ Multinational projects, e.g. New belt – new road;
- ▶ Excess/shortage engineers in certain areas;
- ▶ Creation of new production facilities by multinational companies;
- ▶ Professional experience instead of diploma
- ▶ .....

## Common Training Framework:

- ▶ **Min level of knowledge and skills for enough competence/qualification**



# Introduction/support of this idea



- ▶ Activities were started in 2009
- ▶ Today we have support from:
- ▶ Government;
- ▶ Business;
- ▶ 40+ technical associations



# 1. Implemented systems / FEANI EUR ING



The EUR ING title delivered by FEANI is designed as a guarantee of competence for professional engineers, in order

- \* to facilitate the movement of practicing engineers within and outside the geographical area represented by FEANI's member countries and to establish a framework of mutual recognition of qualifications in order to enable engineers who wish to practice outside their own country to carry with them a guarantee of competence
- \* to provide information about the various formation systems of individual engineers for the benefit of prospective employers
- \* to encourage the continuous improvement of the quality of engineers by setting, monitoring and reviewing standards

# 1. Implemented systems / FEANI Eng Card

Mobility is important for Engineers because of the demand for flexible deployment on an international basis and different availability of engineers across national borders. Engineers and Employers require a tool that shows a comparable educational profile whose recognition is based on international standards and is easy to use for professionals and employers.



01. Name/Title Surname/Title	02:	
02. Vorname Given Name	Studium I Academic studies	Datum I Date
03. Geburtsdatum and -ort Date and Place of Birth	A1 Bachelor/Diplom [FH]	30.07.2003
04a. Ausstellungsdatum Date of Issue	A2 Master/Diplom [TU/TH]	27.11.2005
04b. Gültig bis Date of expiry	A3 (blank)	
05. Verbandszugehörigkeit Member of Association/ Organisation	Berufserfahrung I Professional Experience	
06. Ausweisnummer ID Number	B1 Unternehmen I Free Economy	X
07. Unterschrift Signature	B2 öffentl. Dienst I Civil Service	
08. Schlüssel für Qualifikationen Key for Qualifications	B3 selbstständig I Self-employed	
007	CPD	
	C1 Seminar mit Teilnahmebescheinigung I Tutorial with Certificate of Attendance	1
	C2 Seminar mit Abschlussprüfung I Tutorial with Final Exam	
	C3 Fortbildung mit Zeugnis I Advanced Education with Certificate	

Education

Prof. experience

CPD



# 1. Other implemented systems

- ▶ ECCE Engineering Card;
- ▶ SPE Petroleum engineering certification (OPECountries);
- ▶ Local licenses for civil engineers;
- ▶ Licenses for civil engineers in Europe

Austria; Bulgaria; Croatia; Cyprus;  
Czech Rep; FYR of Macedonia;  
Germany; Hungary; Italy;  
Montenegro; Poland; Serbia;  
Slovakia; Slovenia; Spain



## 2. Three key elements for correct certification of engineers

- ▶ Good education
  - ▶ Professional experience
  - ▶ Continuing Professional Development
- 

## 2. Three elements: education & accreditation

### Founders (1989):

- ▶ Australia; Canada; Ireland; New Zealand; United Kingdom; USA



### Members after 2000:

- ▶ China; Turkey; India; Japan; Korea; Russia; Malaysia; Taiwan; Singapore; Hong Kong; South Africa; Sri-Lanka

### Associated members:

Bangladesh; Mexico; Pakistan; Peru; Philippines

### **ENAAE (2006):**

**France;**  
**Germany;**  
**Poland;**  
**Russia;**  
**Italy;**  
**United Kingdom;**  
**Ireland;**  
**Portugal;**  
**Romania;**  
**Turkey;**  
**Switzerland;**  
**Spain;**  
**Belgium**

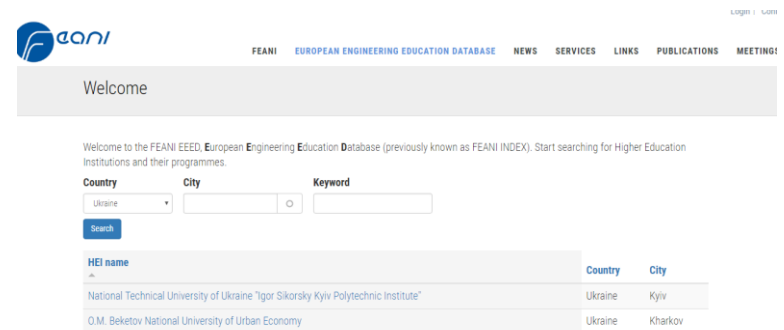


## 2. Three elements: additional

### Professional experience:

- Difference from country to country;
- Company name

### Continuing Professional Development



The screenshot shows the FEANI website interface. At the top left is the FEANI logo. To the right are navigation links: FEANI, EUROPEAN ENGINEERING EDUCATION DATABASE, NEWS, SERVICES, LINKS, PUBLICATIONS, MEETINGS. Below the navigation is a 'Welcome' banner. The main content area contains a search form with fields for 'Country' (set to 'Ukraine'), 'City', and 'Keyword', and a 'Search' button. Below the search form is a table of results.

HEI name	Country	City
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"	Ukraine	Kyiv
O.M. Bekefov National University of Urban Economy	Ukraine	Kharkov

## European Engineering Education Database



# 3. Cross-cutting register/Labor book

СВЕДЕНИЯ О РАБОТЕ				ВТ № 2866703	
№ записи	Дата			Сведения о приеме на работу, переводе на другую работу, увольнении (с указанием причин и ссылкой на статью, пункт закона)	Вс дата и на ос
	число	месяц	год		
1.	11	04	2005		
2.	01	07	2005		
3.	30	12	2005		

Приказ № 40/0  
Приказ № 47/0  
Приказ № 138/0

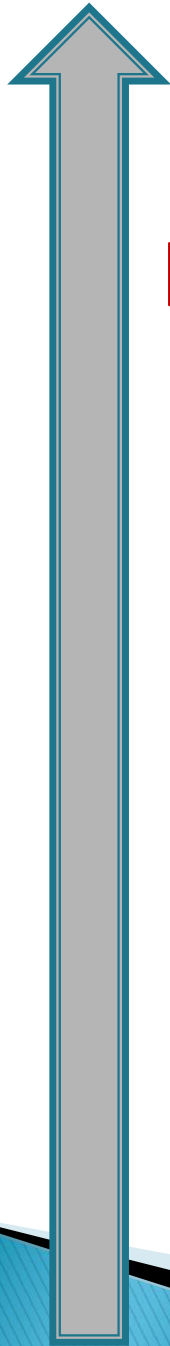


ВІДОМОСТІ ПРО НАГОРОДЖЕННЯ					
№ записи	Дата			Відомості про нагородження орденами і медалями, присвоєння почесних звань	На підставі чого внесена запис (документ, його дата і номер)
	число	місяць	рік		
18	04	02	1996	Українське державне підприємство поштового зв'язку «Укрпошта» Нагороджено Почесною відзнакою Президента України за видатні заслуги у розвитку поштового зв'язку України	Указ Президента України від 04.02.1996 № 457/2010

М.П. Начальник

СВЕДЕНИЯ О ПООЩРЕНИЯХ				И НАГРАЖДЕНИЯХ	
№ записи	Дата			Поощрения и награждения	На основании чего внесена запись (документ, его дата и номер)
	Год	Месяц	Число		
1.	1957	V	1	Финансовый Взаимосчет за достигнутые успехи в работе	Приказ № 105 от 29.11.57
2.	1959	IV	26	Учтена благодарность объявлена Президиумом ЦК ВКП(б)	Приказ № 104 от 15.11.1959
3.	1955	V	1	За хорошую работу	Приказ № 112 от 24.11.1955
4.	1955	IV	7	За хорошую работу	Приказ № 108 от 24.11.1955
5.	1956	V	1	За хорошую работу	Приказ № 109 от 24.11.1956
6.	1956	VI	4	За хорошую работу	Приказ № 110 от 24.11.1956
7.	1957	III	13	За хорошую работу	Приказ № 111 от 24.11.1957
8.	1957	V	1	За хорошую работу	Приказ № 112 от 24.11.1957
9.	1960	IV	8	За хорошую работу	Приказ № 113 от 24.11.1960
10.	1960	IV	28	За хорошую работу	Приказ № 114 от 24.11.1960

Age/Qualification



IV { Highest qualification levels

III { Certificates for high skilled engineers

II { Primary confirmation of qualification

I { Certificates for future engineers, which are school/university students now

3. Cross-cutting register/Bands

### 3. Cross-cutting register/initial filling

<b>IV</b> Highest qualification	
	<b>National honorable titles</b>
<b>III</b> High skilled engineers	<b>FEANI EUR ING</b>
	<b>SPE Petroleum eng certification</b>
	<b>Licenses for civil engineers/Ukraine</b>
<b>II</b> Primary qualification	<b>FEANI Engineering Card</b>
	<b>ECCE membership Card</b>
<b>I</b> Future engineers	



# 4. Novelties / Project leader

Archimedes screw



Ford assembling Line



Jobs/Wozniak computer



Paton Bridge

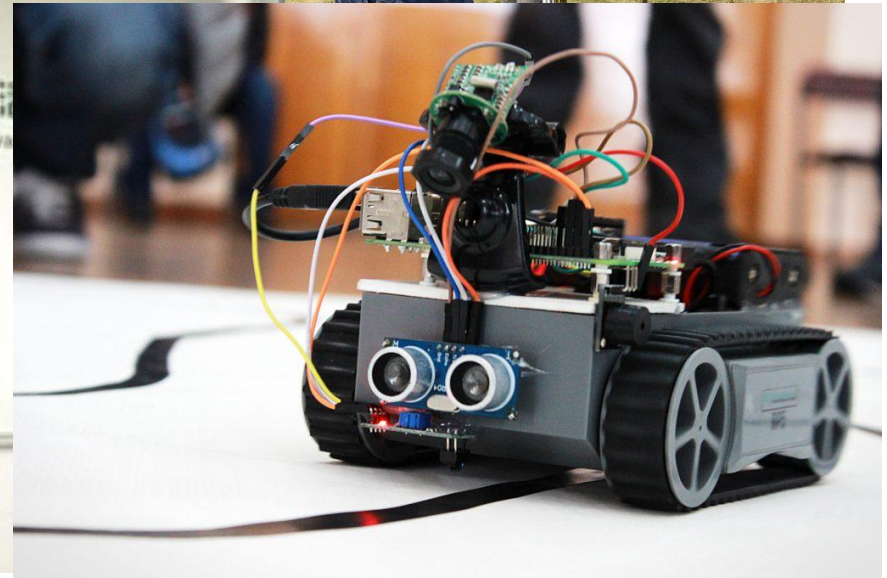
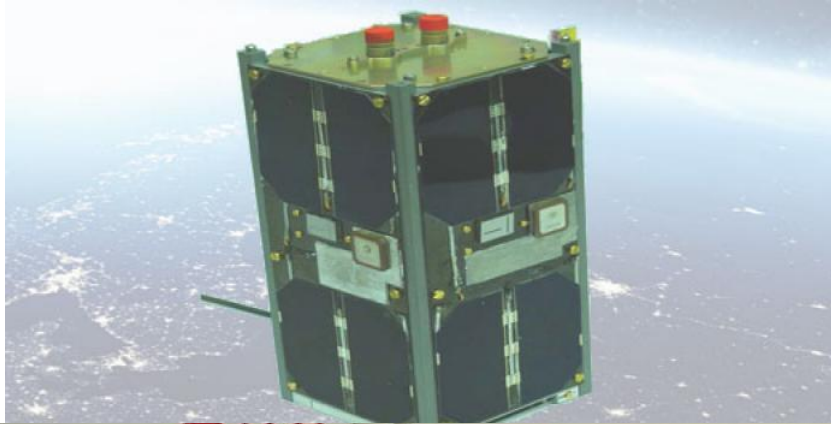


Diesel engine



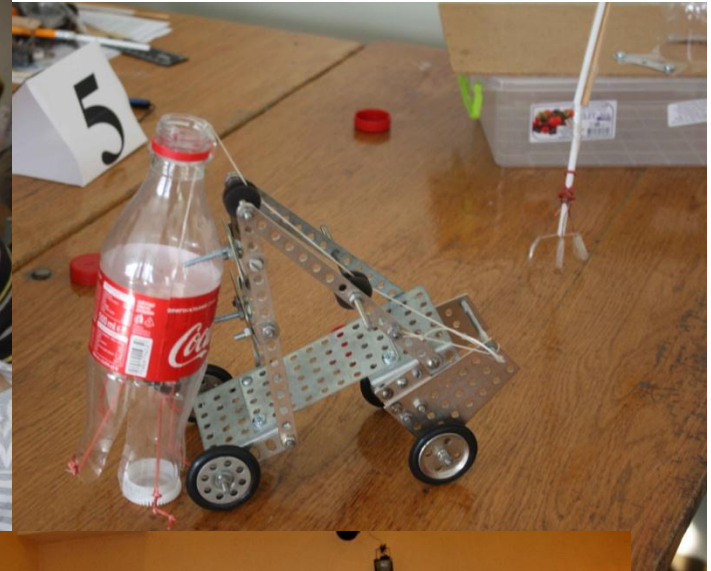


## 4. Novelties / university students





# 4. Novelties / school students



## 4. Novelties / completed (?) register

IV Highest qualification	International Honorable Titles
	<b>National honorable titles</b>
	Certification for project leader
III High skilled engineers	<b>FEANI EUR ING</b>
	Licenses for civil engineers in Europe
	<b>SPE Petroleum eng certification</b>
	<b>Licenses for civil engineers/Ukraine</b>
II Primary qualification	<b>FEANI Engineering Card</b>
	<b>ECCE membership Card</b>
I Future engineers	Card of Future engineer (for university)
	Card of Future engineer (for school)

# 5. Invitation for cooperation

- ▶ System, which is based on local experience: a) no info about Asian or African certification systems; b) no links to North American system (s);
- ▶ Management: decision is on the level of authorized technical association; country level is for appeals only ;
- ▶ Legislation: should be similar manuals for each level;
- ▶ Approximately 6 months for model demonstration;
- ▶ **Joint efforts are much more efficient;**
- ▶ **Welcome to cooperation!!!**



THANK YOU  
FOR YOUR  
ATTENTION!

