# ICT for Empowering Women

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Head of Young Computer User's School at Kaunas University of Technology
Head of „School Communities" Working group at National Digital Coalition, Lithuania

26 April 2017, Vilnius
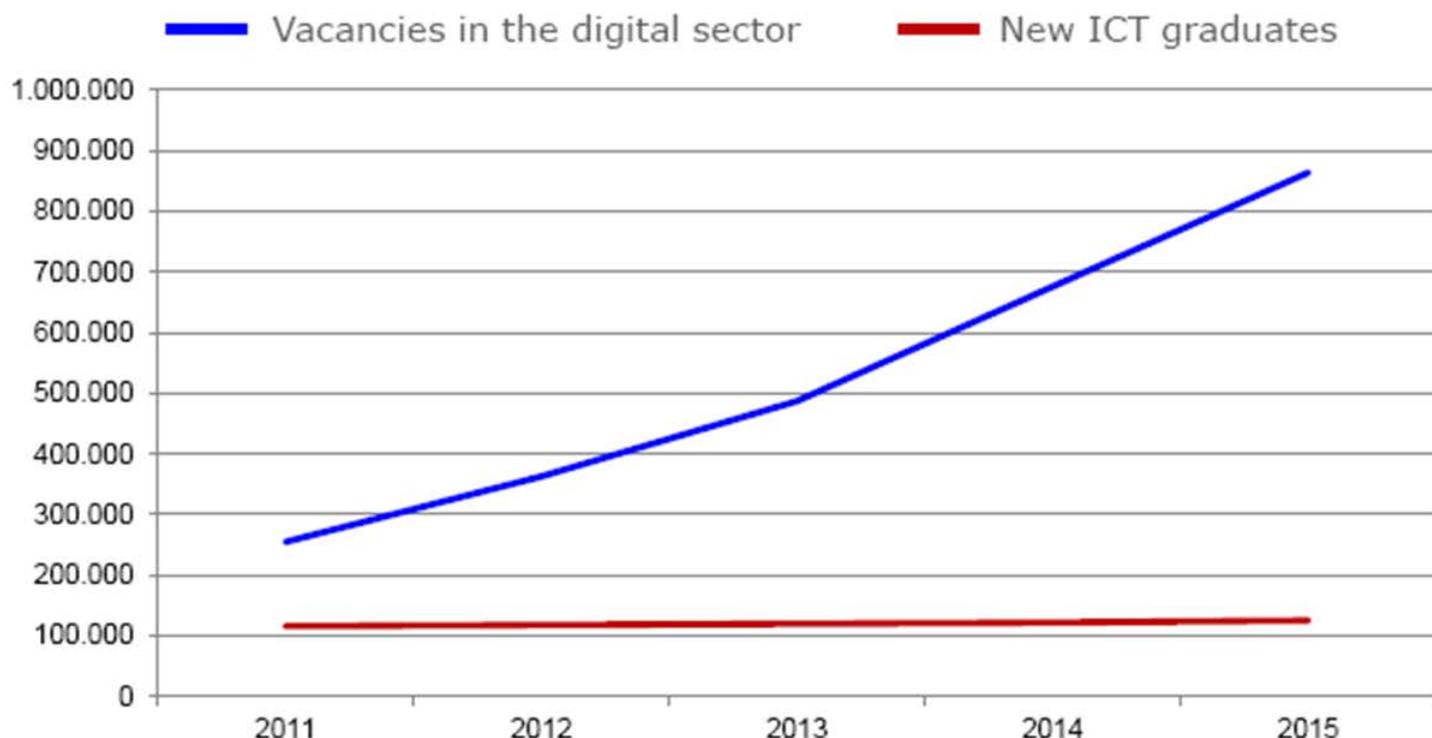
# Dr. Danguole Rutkauskiene - CV

- President of National Association of Distance Education (Lithuania)
- **Member of Teacher Academy Pedagogical Advisory Board at School Education Gateway**
- Member of Management Committee of EADTU (European Association of Distance Teaching Universities)
- Member of WITSA  Committee on Education, Training and Human Resources
- **Task Force Leader of "School Communities" at National Digital Coalition**
- **High-level Advisory Committee member at The European Centre for Women and Technology  (ECWT)**
- Steering Committee Member of INPUT association
- Member  of INFOBALT Association (vice-President 2011-2013)
- Member of Steering Committee of EDEN (European Distance Education Network)(2005-2010)
- Member of WB GDLN (World Bank, the Global Development Learning Network
- Member of "Knowledge Society Board" at President of the Republic of Lithuania (2001-2003)

Participated in more than 80 international projects, wrote 30 books and more than 180 articles

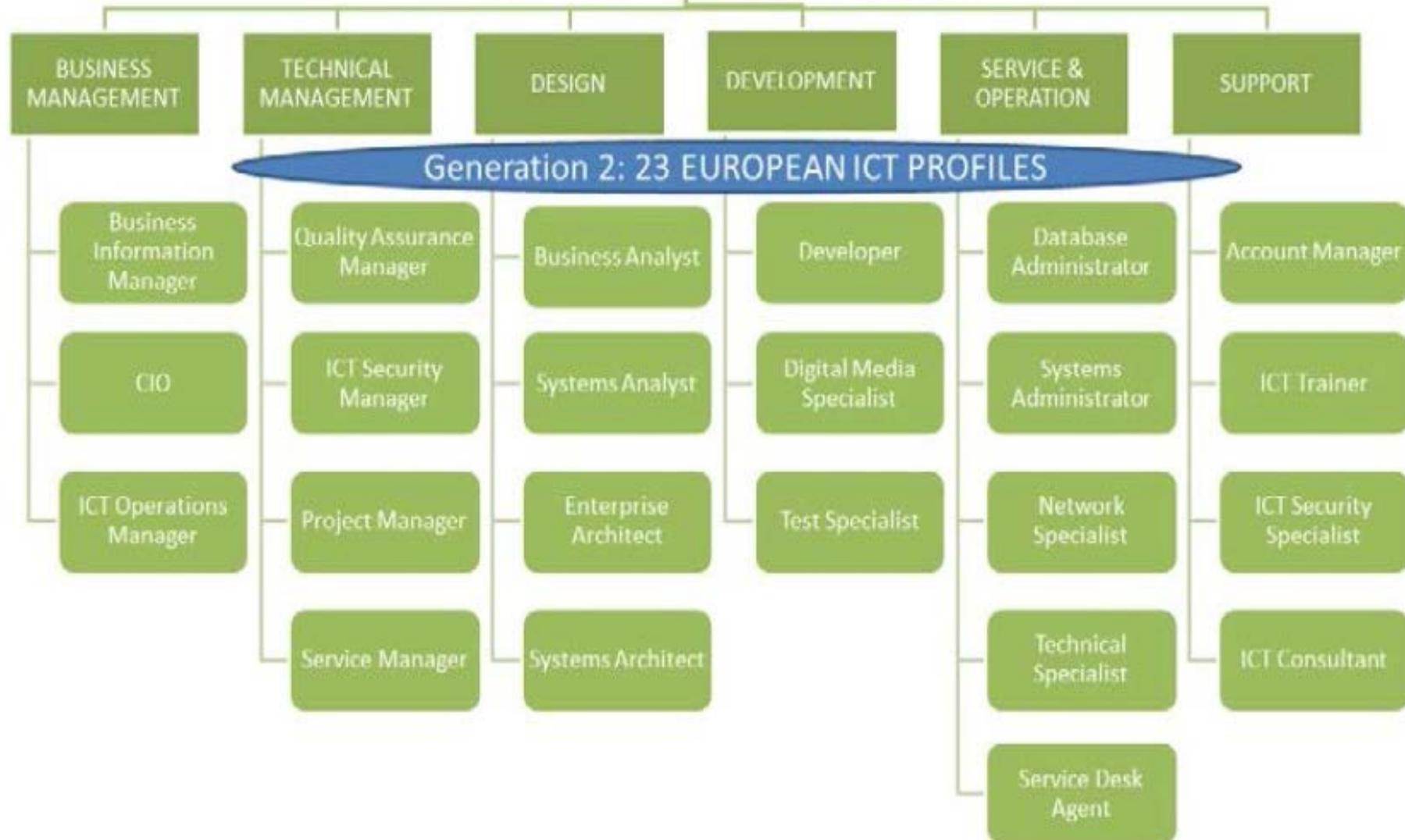# The example of the ICT sector

## Digital jobs: vacancies and graduates*
### (numbers)



Legend: **Vacancies in the digital sector** — **New ICT graduates**

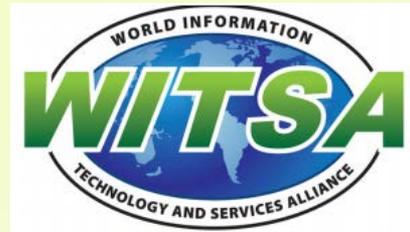X-axis: 2011, 2012, 2013, 2014, 2015

Y-axis: 0 to 1.000.000

* Surveys and forecasts assuming moderate growth in GDP and ICT investment. Only ICT graduates are considered here.
Source: Empirica

# EUROPEAN ICT PROFILE FAMILY TREE

## Generation 1: SIX FAMILIES

- BUSINESS MANAGEMENT
- TECHNICAL MANAGEMENT
- DESIGN
- DEVELOPMENT
- SERVICE & OPERATION
- SUPPORT

## Generation 2: 23 EUROPEAN ICT PROFILES

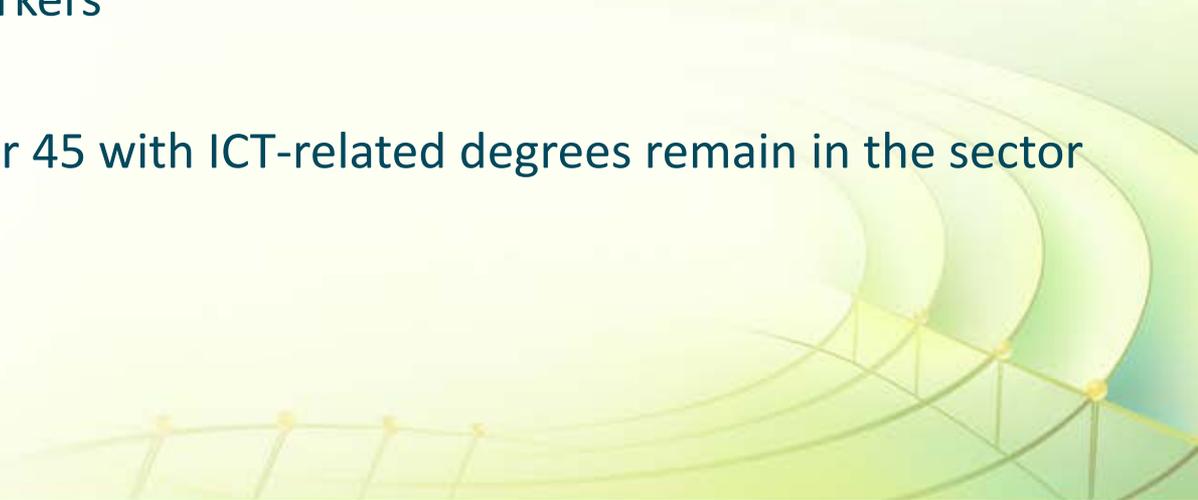| BUSINESS MANAGEMENT | TECHNICAL MANAGEMENT | DESIGN | DEVELOPMENT | SERVICE & OPERATION | SUPPORT |
|---|---|---|---|---|---|
| Business Information Manager | Quality Assurance Manager | Business Analyst | Developer | Database Administrator | Account Manager |
| CIO | ICT Security Manager | Systems Analyst | Digital Media Specialist | Systems Administrator | ICT Trainer |
| ICT Operations Manager | Project Manager | Enterprise Architect | Test Specialist | Network Specialist | ICT Security Specialist |
| | Service Manager | Systems Architect | | Technical Specialist | ICT Consultant |
| | | | | Service Desk Agent | |

# Global situation

- Over 3.4 billion people around the world use the Internet. However, only 43% of women are connected

- Women comprise **half** of the world's **working population** but they **only** generate about **37 %** of GDP today

- If women reached parity with men in the workforce, it would add up to $28 trillion, or 26 %, to annual global GDP in 2025 compared with a business-as-usual scenario

- According to a 2015 study "Women in the Workplace", it will take more than 100 years for U.S. corporations to reach gender parity based on current trends
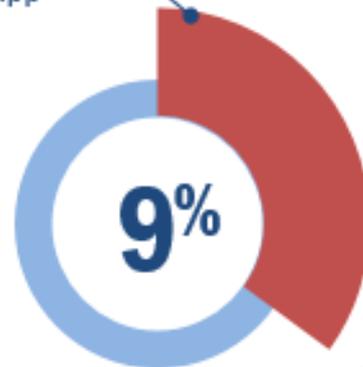
# European situation

- Today, only 29 per 1,000 women in the EU have an ICT related degree (compared to 95 men per 1,000 men)

- Women leave the tech sector mid-career much more frequently than men

- In the EU, only 19.2% of ICT-sector workers have female bosses, compared to 45.2% of non-ICT workers

- Only 9 % of women over 45 with ICT-related degrees remain in the sector

# European situation



**ICT Managers**

Only 19% of ICT managers are women

**Application Developers**

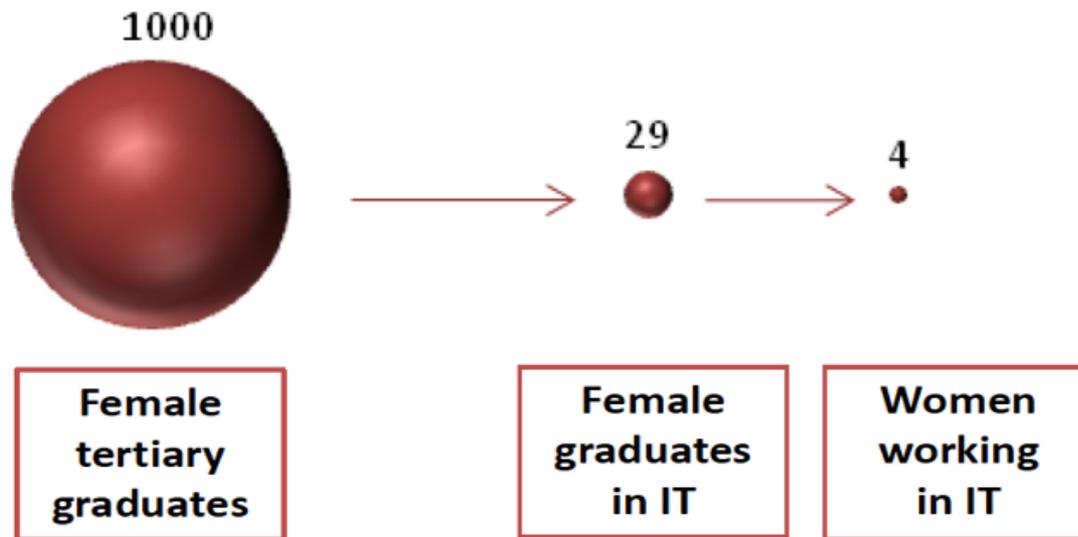Only 9 in 100 European app developers are female

19%

9%

0.4%

*Women in ICT*

Of 1,000 women with a Bachelors or other first degree, only 29 hold a degree in Information and Communication Technologies (ICTs) (as compared to 95 men), and only 4 in 1000 women will eventually work in the ICT sector.
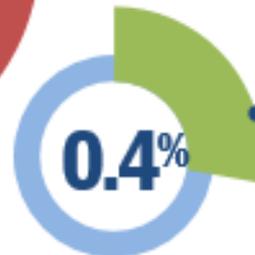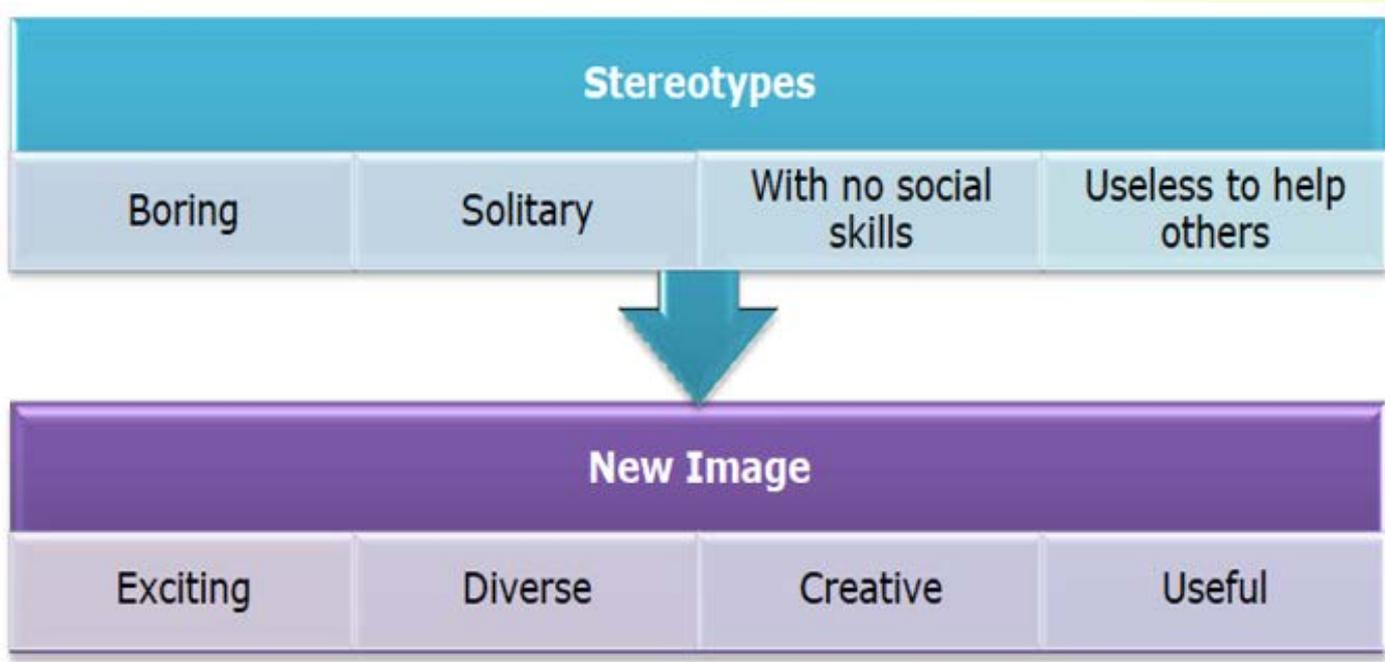
– Un-tapped Potential

# Female participation in the ICT sector in Europe

# Factors that limit women's presence in the ICT sector

**Social sterotypes**    **Low self-confidence**    **Poor negotiation skills**    **Lower leadership ambition**    **Personal preferences**

# Image of the ICT sector among women

| Stereotypes | | | |
|---|---|---|---|
| Boring | Solitary | With no social skills | Useless to help others |

| New Image | | | |
|---|---|---|---|
| Exciting | Diverse | Creative | Useful |

# The European Centre for Women and Technology (ECWT)

Key Priorities

1. *Getting more girls to study ICT and STEM*
2. *Attracting to and retaining more women in ICT*
3. *Designing gender sensitive ICT solutions*
4. *Fostering women's digital entrepreneurship*
5. *Sustaining ECWT as the leading platform and single point of contact in Europe for women in computing*

Grand Coalition for Digital Jobs

# National Digital Coalition (NDC) in Lithuania

## MISSION

Institutions, companies and organizations agreed to form the National Digital Coalition for the Promotion of Digital Skills for Jobs in Lithuania mission to increase employment and **to achieve a more effective use of digital potential** and cooperate in implementing information society development programme 2014–2020 *Digital Agenda for Lithuania.*

2. **To attract more young people to choose ICT and other science studies and professions**, to ensure the acquisition of digital skills also when learning other professions:

- To continuously improve general education, higher education and vocational training programmes according to the labour market requirements.

- To seek that the professionals that are being trained had necessary ICT skills required by the labour market.

- To reinforce the framework of digital skills training by cooperation between the representatives of business, education and other organizations.

- **To include ICT training to the system of non-formal youth education**.

# Situation in Lithuania

Women and men by frequency of using a computer, 2015
Aged 16 – 74, per cent

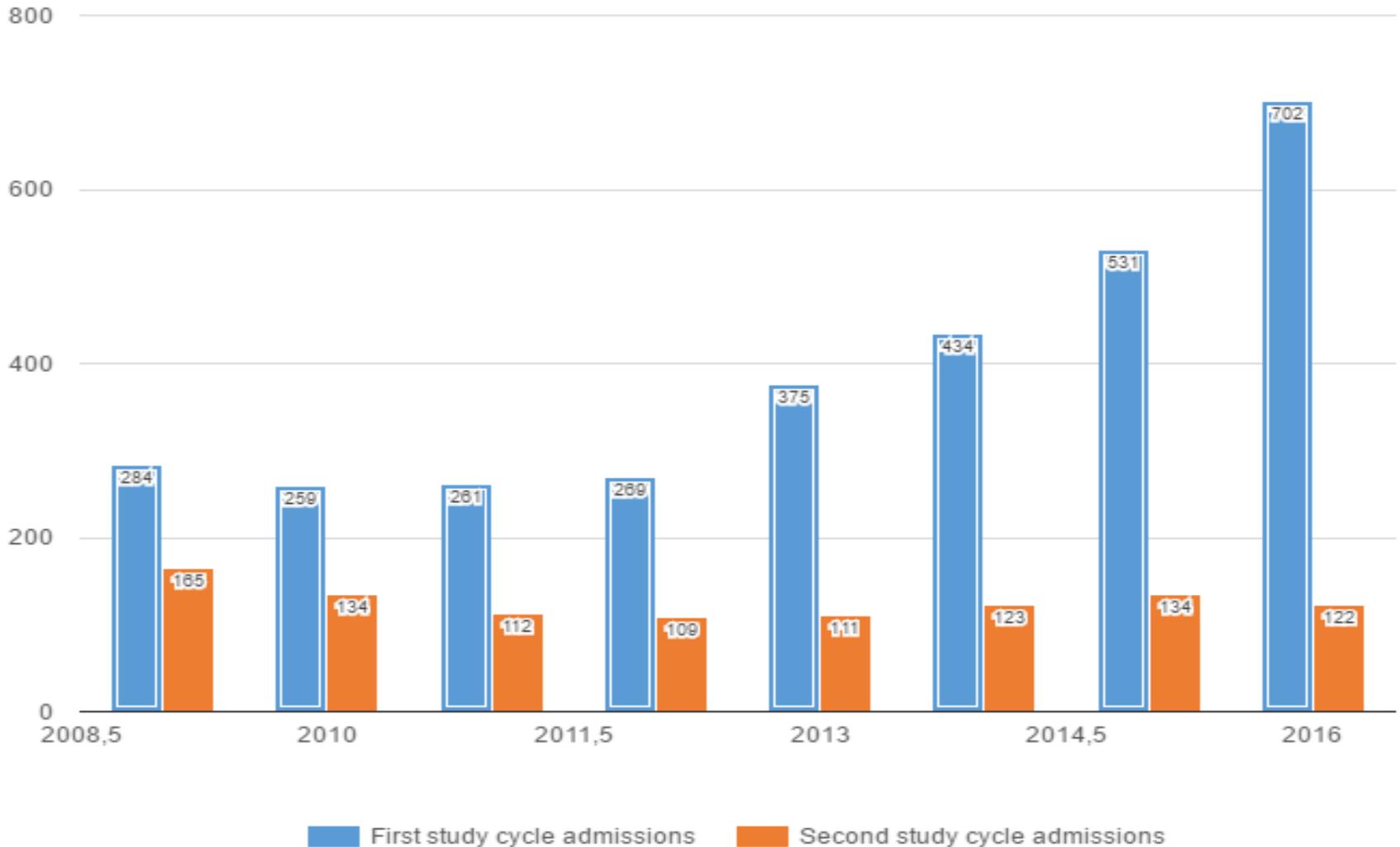| Moterys<br>Women | Vyrai<br>Men | |
|---|---|---|
| | | Have used a computer |
| 57,1 | 55,1 | daily |
| 11,5 | 13,2 | at least once a week but not daily |
| 2,6 | 2,5 | less than once a week |
| 28,8 | 29,2 | Did not use |

In 2015 only 35 % of private sector executives were women
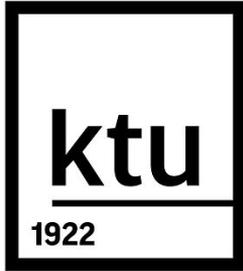
# Situation in Lithuania
## KTU case. Informatics dep.
## Student admissions

5-10 % of students are female

# Prof. Valentina Dagienė



**1st European Celebration of Women in Computing**,
April 25-26, 2016

- Founder of BEBRAS Challenge, which engaged almost **1,5 million children from 50 different countries**

- 55 % of BEBRAS participants are girls!

# Milda Mitkutė

- VINTED startup establisher, current marketing manager

- VINTED is an online fashion marketplace for buying, selling and swaping clothes

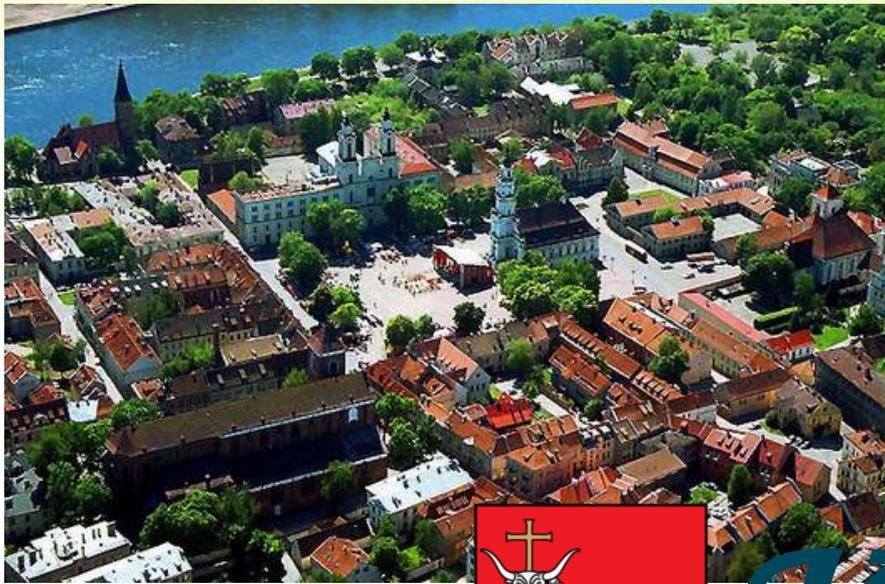- 8 countries with 10 million members, and growing

# Recommendations

- To educate girls about ICT from the early years

- Review education system at schools focusing on ICT

- To show more **good practises** of women in ICT

- Allocate funds and means to engage more young people in ICT

- Special means to support youngsters and particular women entrepreneurship

- Foster women engagement to ICT skills and ICT relater career and business

- Reach for synergy in „Women in ICT" organizations (National Digital Coalition, Women in Tech, Women and Technologies)

# Thank you for your attention

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# Kaunas