

# Measuring the relation between Gender and Sustainable development

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Excellence®

GREEN ACADEMY  
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Batumi,  
Georgia

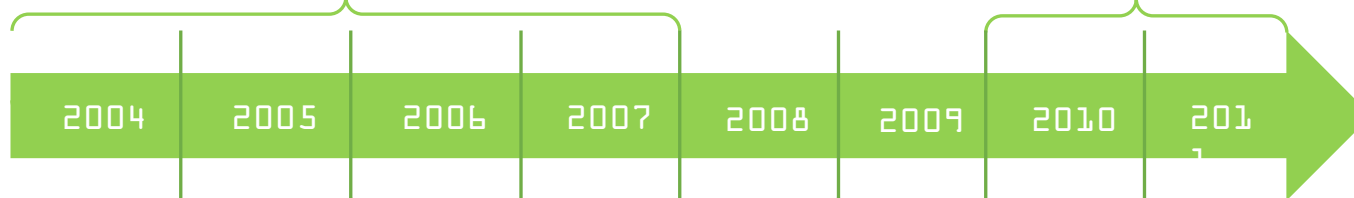


FEM - Female Entrepreneurs Meetings in the Baltic Sea Region, Baltic Sea Region Interreg III B (August 2004 - July 2007)

To strengthen the structures that support women's entrepreneurship through co-operation and the exchange of knowledge and best practices

Women In Net 8, WINNET8, Interreg IVC (2010 - 2011)

To contribute to regional growth by improving women's participation in the labour market, focusing on: the lack of women in innovation and technology, the lack of women in entrepreneurship



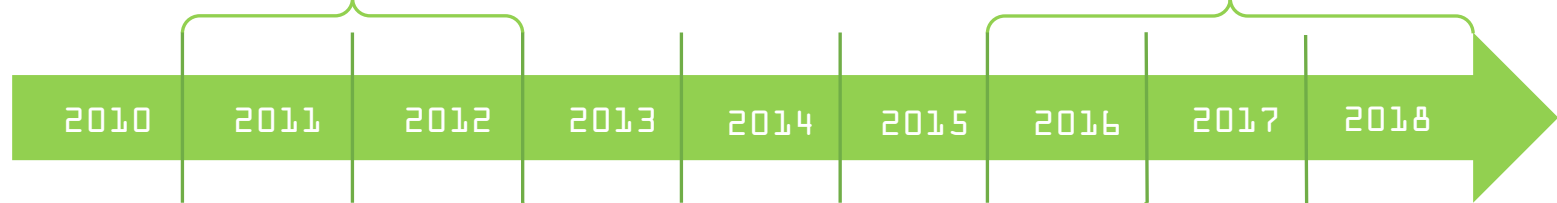
W.IN.NET Europe, Interreg IIIC (2006 - 2008)

To create WINNET Europe - the European Association of Women Resource Centres

Going abroad, South Baltic Programme (2011 - 2012)

To strengthen the position of female entrepreneurs with micro-businesses. Partners and associated organisations from Sweden, Germany, Lithuania and Poland

Winnet Model Goes Eastern Partnership, financed by Swedish Institute (2016-2018)  
To develop the Winnet Centre of Excellence network in Eastern Europe



Thematic Partnership Winnet Baltic Sea Region, Winnet BSR, financed by the Swedish Institute (2013 - 2016)  
To create the BSR Partnership Platform for Gender, Innovation and Sustainable Development and the Research Centre for Gender and Economy

# Outline

## research questions

1. Why engendering economics?
2. How to measure gender equality and its relation to growth?
3. How to go beyond standard growth measures - TMSD taxonomic measure of sustainable development?
4. What is the significance of the unpaid work in the economy?
5. What is LIMTIP?
6. Why so few women innovators in the market?
7. What are the positive actions enhancing

## Feminist economics

gender inclusive economics, showing fuller exploration of economic life. Focuses on topics of particular importance to women such as family economics, care economy, unseen and unpaid work, segregated labour market, unequal salaries and pensions (Elson 2009, Boserup 1970, Ferber 2003, Nelson 2015, Waring 1988, Antonopoulos & Hirway 2012, Piccio 2005, Cagatay 2001)

## Homo (not only) economicus

people are not rational actors in the market, considering only prices. They are more complex, more holistic, and motivated by many factors other than greed (Levison 2000, Schneider & Shackelford 2012).

## New Methodology

alternative measures of success needed. Not only objective quantitative data are valid (field

Rational, Objective,  
Linear, Market oriented

+

Irrational, Subjective,  
Multidimensional, Family oriented

=

Feminist Economics Approach

# Not only production but: Extended production concept

Non SNA	SNA	
<p>Non-market production 2</p> <ul style="list-style-type: none"><li>- Own account production of services</li><li>- Informal help to other households and volunteer work (services)</li></ul>	<p>Non-market production 1</p> <ul style="list-style-type: none"><li>- Own-account production of goods for own use</li><li>- Volunteer work resulting in goods</li></ul>	<p>Market production</p> <ul style="list-style-type: none"><li>- Recorded</li><li>- Hidden</li></ul>

SNA: System of National Accounts

HHSA Household satellite account links market and non market production value

(Carson & Grimm 1991, OECD 2010, Antonopoulos, Hirway 2010)

# Not only Growth but: Smart, Sustainable and Inclusive Development

## Smart:

Developing an economy based on knowledge and innovation.

## Sustainable:

Promoting a more resource-efficient, greener and more competitive economy.

## Inclusive:

Fostering a high-employment economy delivering social and territorial cohesion (European Commission 2010, ENERGIA 2006, 2007, 2013, Johnson-Latham, Gerd 2006)



Positive links between gender equality and growth, most often developing countries context (Klasen & Lamanna 2009)

"A two-way street" (Sequino 2009)

Studies focused on EU member countries (Löfström 2008, Bettio & Smith 2009)

Gender equality is a prerequisite for sustainable development. Women live in a more sustainable way than men and that their market activity is generally more environmentally friendly (Johnsson-Latham 2007, Löfström 2008, Dollar, Gatti 1999, Forsythe, Korzeniewicz and Durrant 2000, OECD 2004-2012, Plantenga, Remeny, Figueiredo, Smith 2009, Klasen & Lamanna 2009)

# Outline

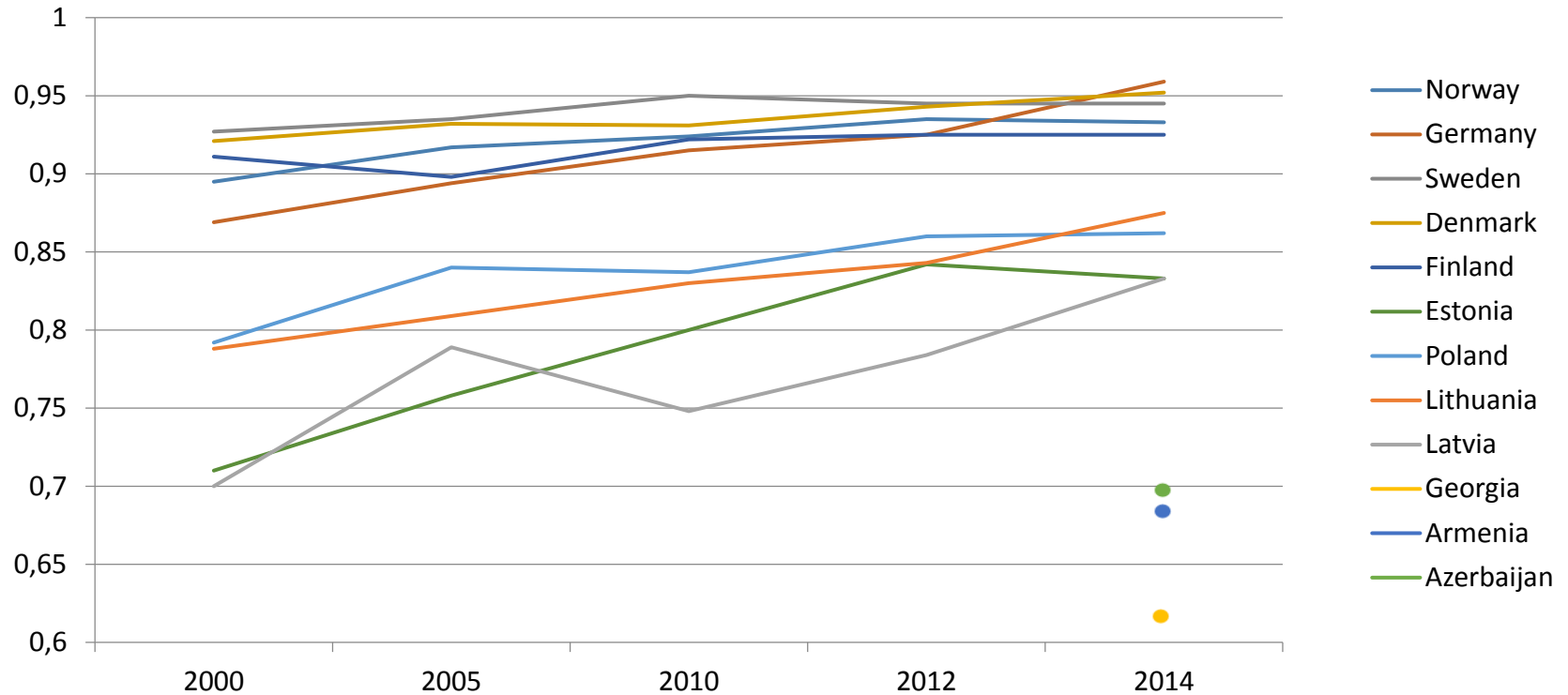
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# Main gender equality indices

Name	Country	Principle areas	Years
GEI_EIGE	27 EU states	i) work, ii) money, iii) knowledge, iv) time, v) power and vi) health + two satellite domains: vii) intersecting inequalities and viii) violence	2013 - 2015
GGG_ WEF	135 countries, 90 % of the global population	(i) economic activity, pay and professional practice, (ii) literacy and level of education, (iii) health and survival, and (iv) political activity	2006 - 2014
GII_UNDP	all countries	i) reproductive health, ii) labour market, iii) empowerment.	2000 - 2014

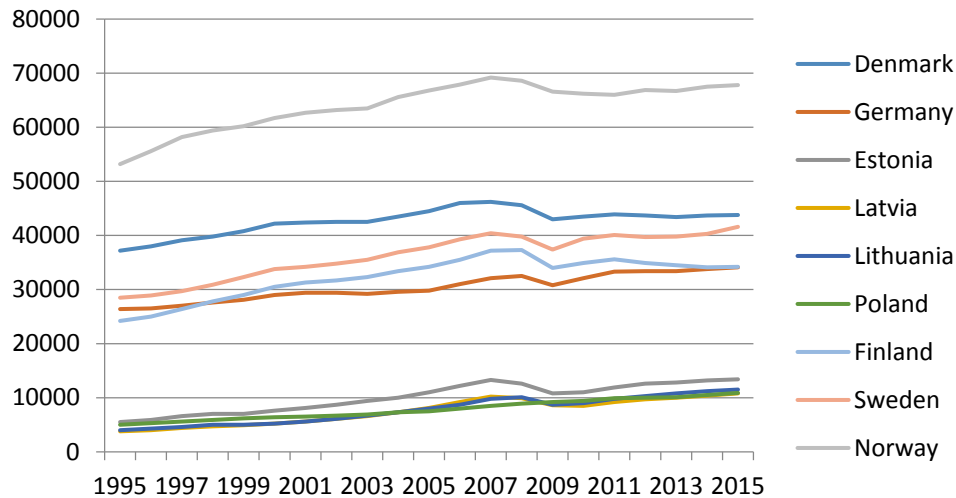
# Gender Equality Index by UN



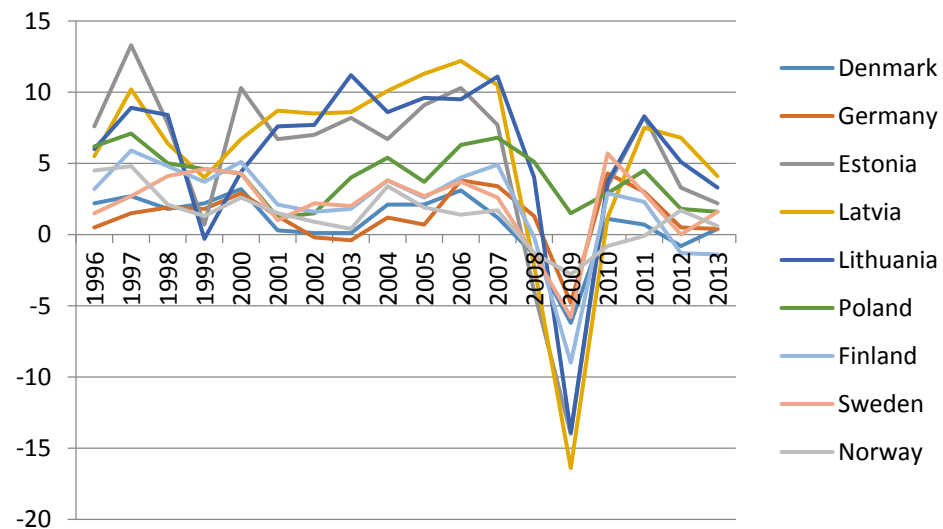
- In the majority of the countries the GEI was going up, which implies greater gender equality.
- Some countries saw the decrease in the index, which can have been the effect of the economic crisis and consequent worsening of women's situation on the job market as well as of their worsening economic status in general.

# Real GDP per capita and GDP growth rates

## Real GDP per capita

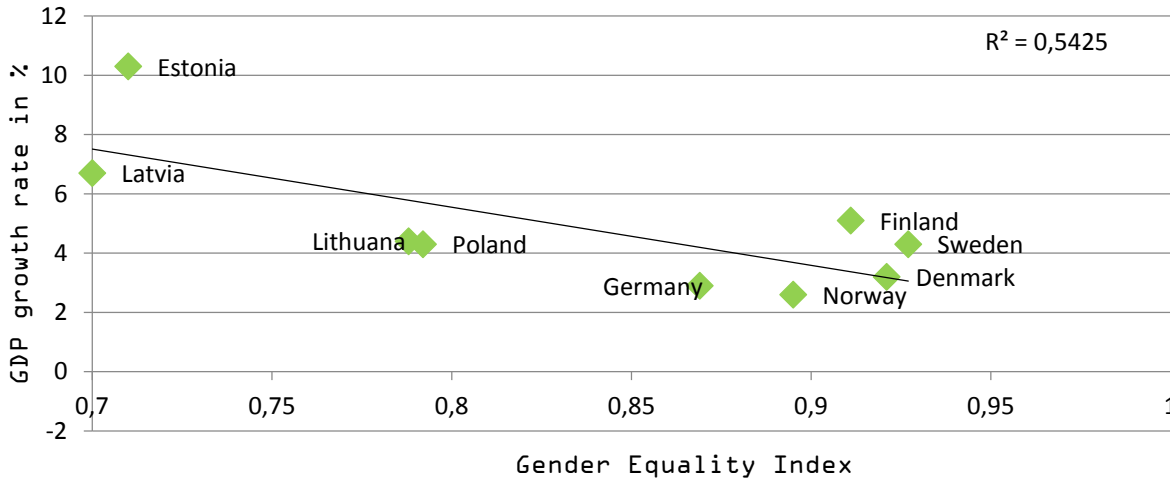


## Real GDP growth rate

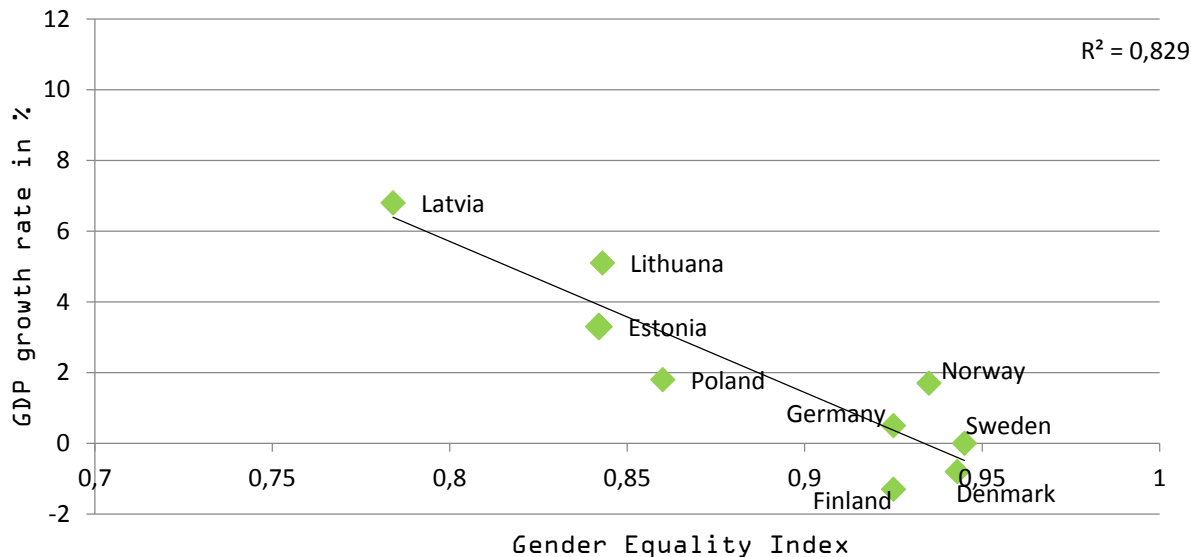


- Steady growth of the real GDP per capita; in 2008 economies slumped as a result of the global crisis.
- Considerable drop of GDP growth rates was observed as the effect of the global crisis of 2008-2009.

## GEI and GDP growth rate, 2000



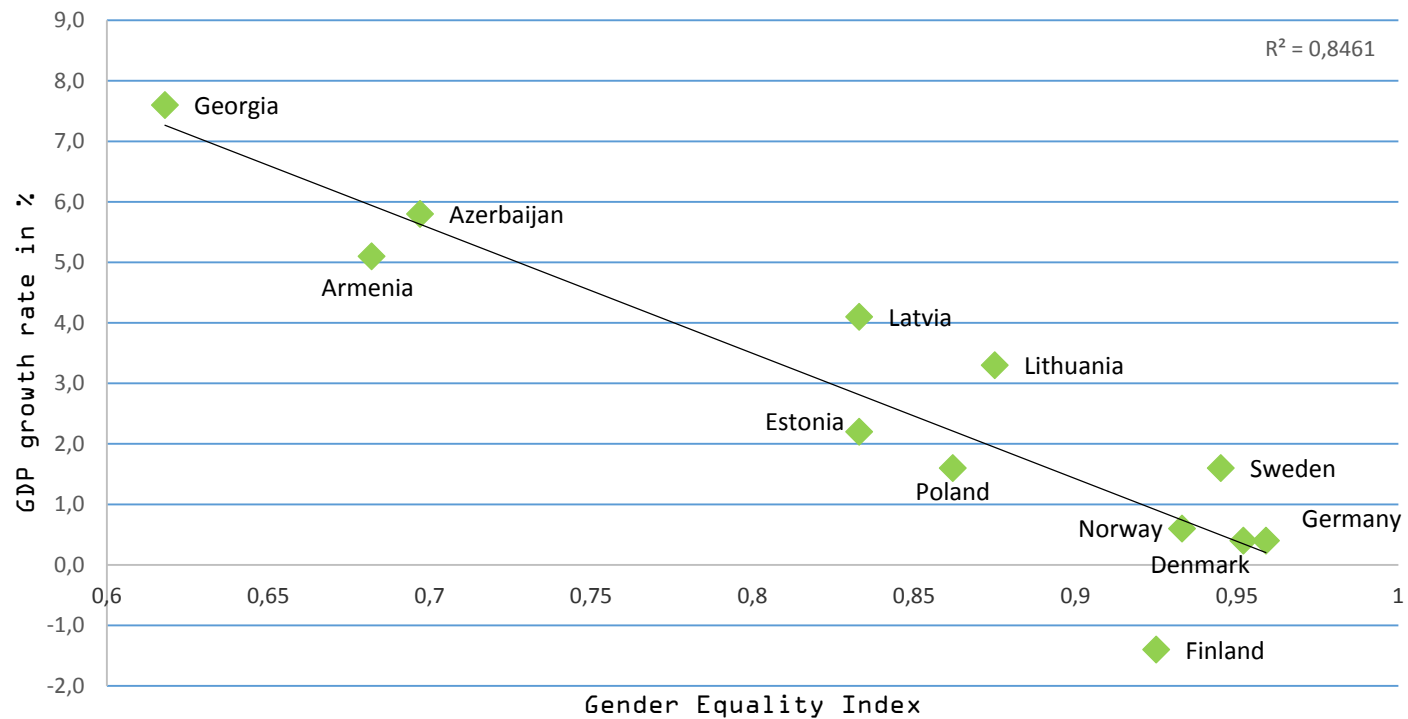
## GEI and GDP growth rate, 2012



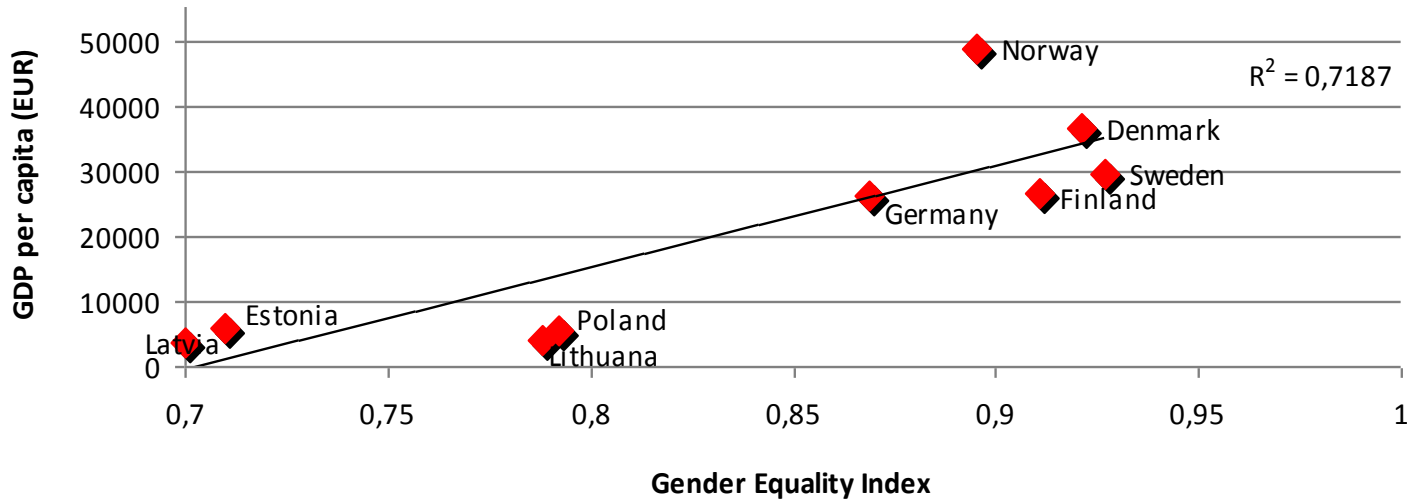
- A strong negative correlation between gender equality and the GDP growth rate

- The higher the growth rate is, the lower the values of the equality coefficient are.

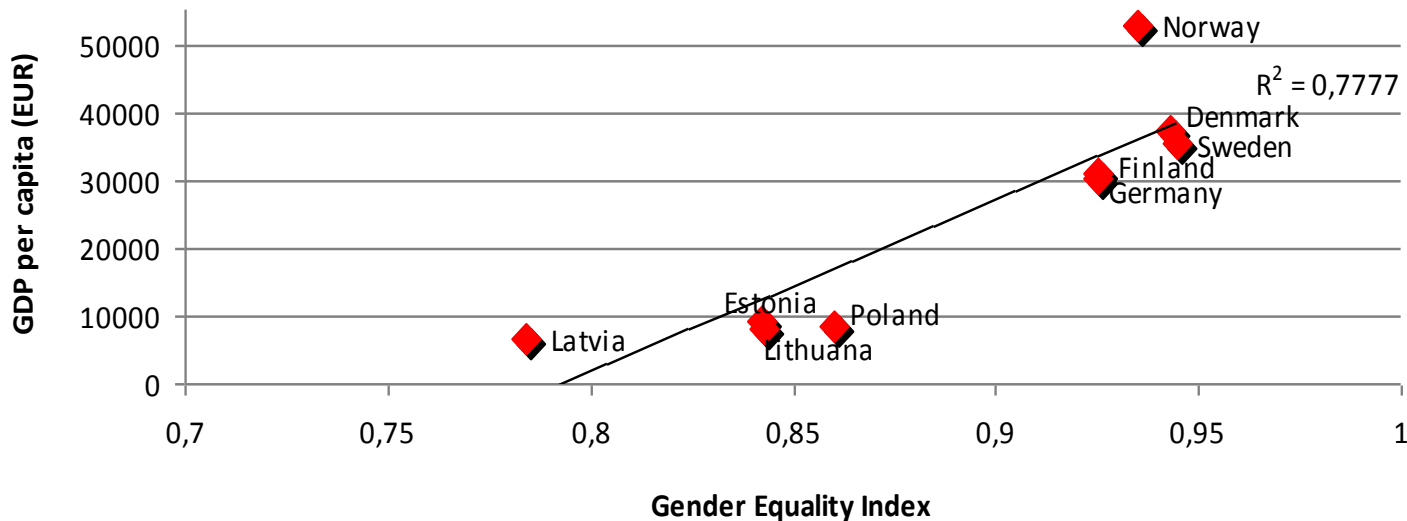
# GEI and GDP growth rate, 2014



## GEI and GDP per capita, 2000



## GEI and GDP per capita, 2012

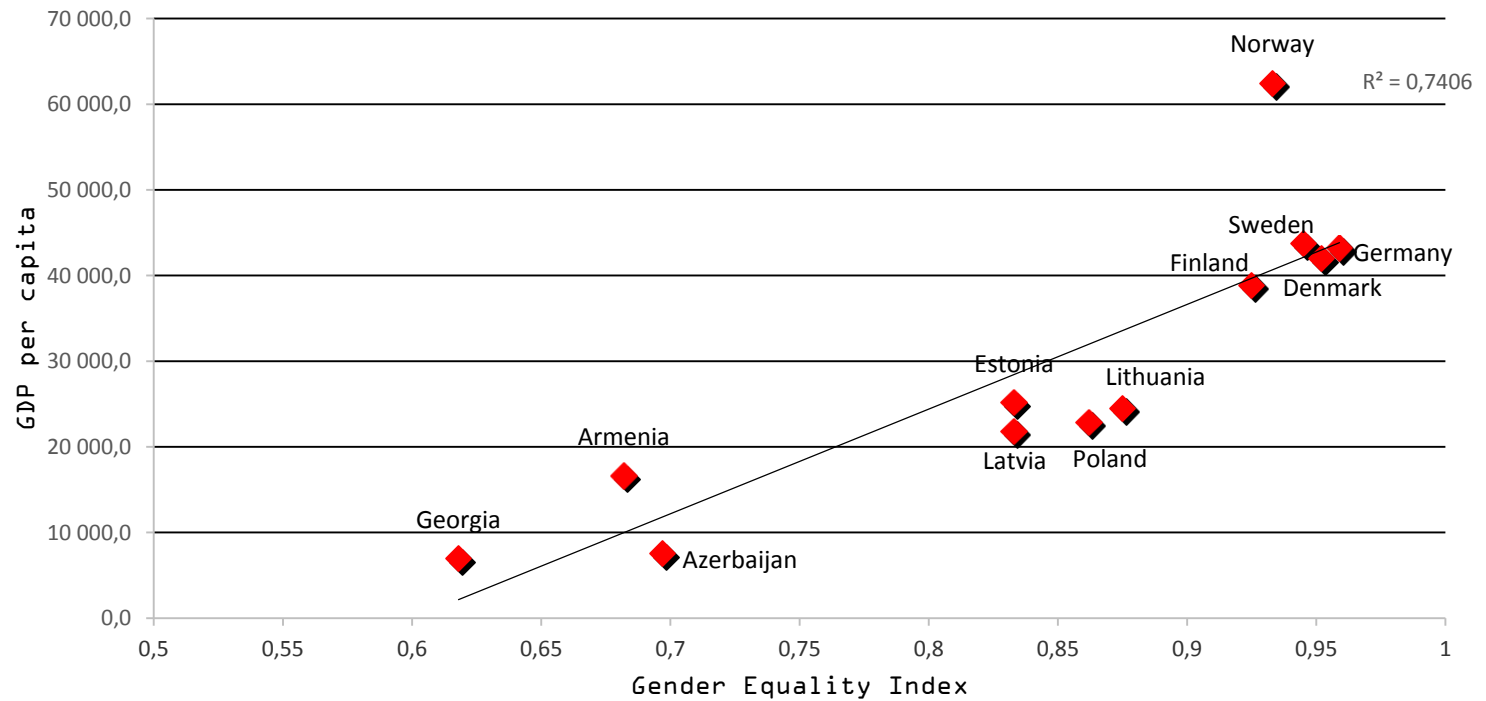


- A strong positive correlation between gender equality indices and the GDP per capita could be observed

- Why women contribute much less on growth than men?



# GEI and GDP per capita, 2014



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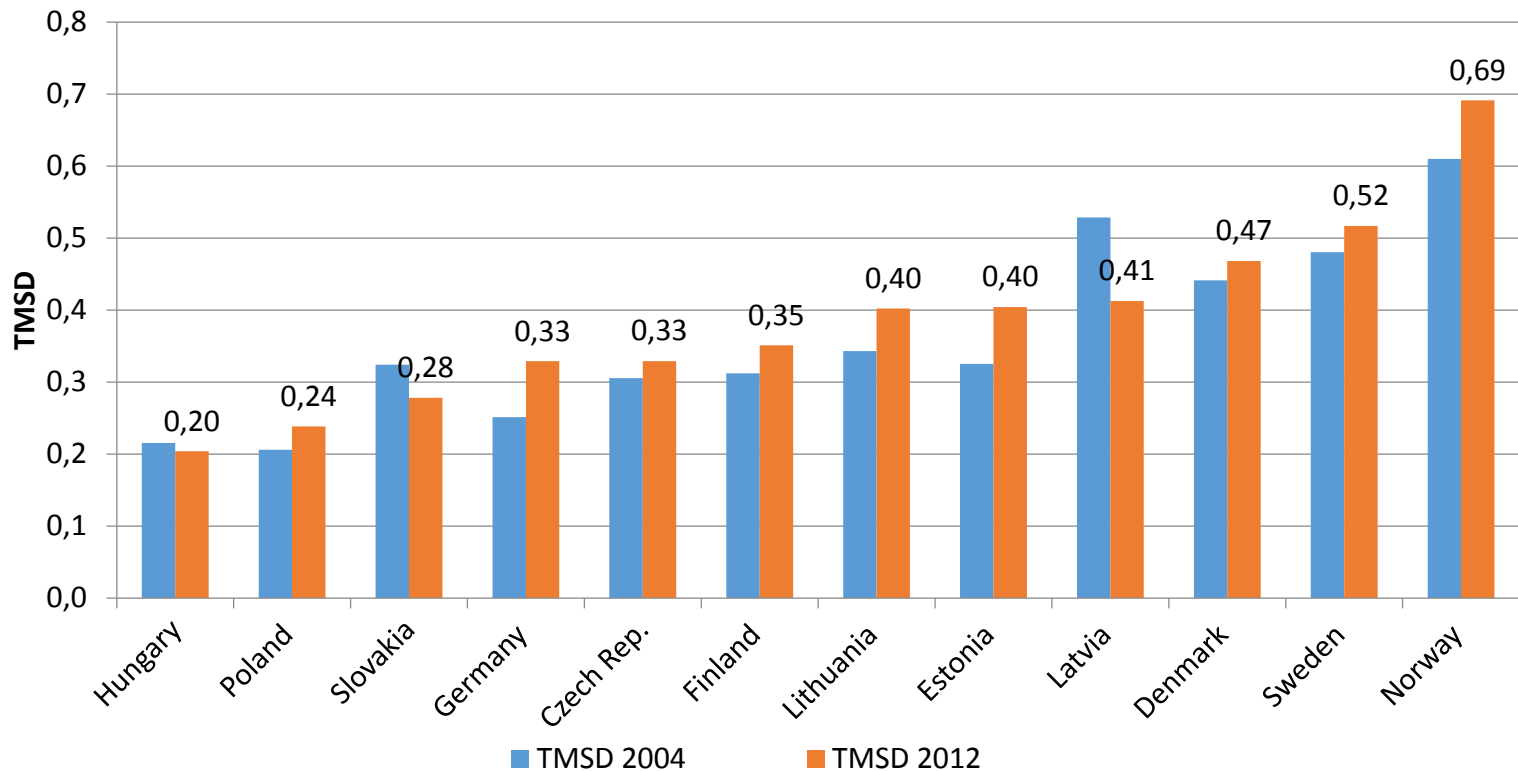
# Sustainable Development Indicators

The variables used to

calculate TMSD:

- |  |  |
|--|--|
| $X_1$ - Growth rate of real GDP per capita               | $X_6$ - Greenhouse gas emissions,                        |
| $X_2$ - Resource productivity,                           | $X_7$ - Share of renewable energy in                     |
| $X_3$ - People at-risk-of-poverty or social exclusion,   | gross final energy consumption,                          |
| $X_4$ - Employment rate of older workers,                | $X_8$ - Primary energy consumption,                      |
| $X_5$ - Healthy life years and life expectancy at birth, | $X_9$ - Energy consumption of transport relative to GDP, |
|  | $X_{10}$ - Official development assistance               |

## Taxonomic Measure of Sustainable Development in 2004 and 2012



- Increase in 9 out of 12 EU member countries.
- Decline in 3 countries: Hungary, Slovakia, Latvia

## GEI and TMSD for 'new' EU members

Country	GEI 2012	Work	Money	Know- ledge	Time	Power	Health	TMSD 2012
Czech R.	43.8	54.2	60.4	42.0	23.5	31.8	89.5	0.33
Estonia	50.0	64.6	49.1	53.0	51.4	27.5	83.8	0.40
Hungary	41.6	61.9	67.8	49.1	23.5	31.8	90.0	0.20
Lithuania	43.6	61.0	41.5	47.4	24.1	32.1	84.9	0.40
Poland	44.1	61.4	52.2	44.0	20.9	34.5	82.6	0.24
Slovakia	36.5	52.8	56.7	34.0	17.7	21.1	86.7	0.28

- Lower GEI, its components and TMSD in new EU members
- Very low values for time and power

## GEI and TMSD for 'old' EU members

Country	GEI 2012	Work	Money	Know- ledge	Time	Power	Health	TMSD 2012
Denmark	73.6	81.6	79.2	75.1	64.9	60.0	91.8	0.47
Germany	51.6	72.5	76.3	44.1	41.6	28.0	89.5	0.33
Sweden	74.3	78.6	80.2	66.3	63.9	74.3	93.1	0.52
Finland	72.7	72.6	79.9	67.3	61.3	75.7	89.0	0.35

Pearson coefficient  
(*GEI*, *TMSD*) = 0.73



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# Unpaid work characteristics

- Unpaid work is the production of goods and services by household members that are not sold on the market. Unpaid work is for the consumption within the family (cooking, gardening and house cleaning). The products of unpaid work may also be consumed by people not living in the household (Miranda 2011, Antonopoulus, Hirway 2010, Piccio 2005).
- Women devote most of their time to physical childcare, while men devote most of their time to teaching, reading and playing with their children.
- Routine housework is the largest component of unpaid work.
- Non-working fathers devote less time to childcare

# Unpaid work characteristics

- Women cook and clean while men are responsible for gardening, pet care and repairing.
- The value of the work performed in households amounts to 30-50% of the national product (Becker 1981, Giddens 2005, Hozer-Koćmiel 2007).

Miranda V. (2011): Cooking, Caring and Volunteering: Unpaid Work Around the World, OECD, Social, Employment and Migration Working Papers No. 116

# Time allocation in numbers

- Individual TUS data

[www.timeuse.org](http://www.timeuse.org)

- Panel TUS data for countries

e.g. 1976-2013 panel data for Poland

- HETUS - the Harmonised European Time Use Survey

[www.tus.scb.se](http://www.tus.scb.se)

# Time budgets in chosen European countries

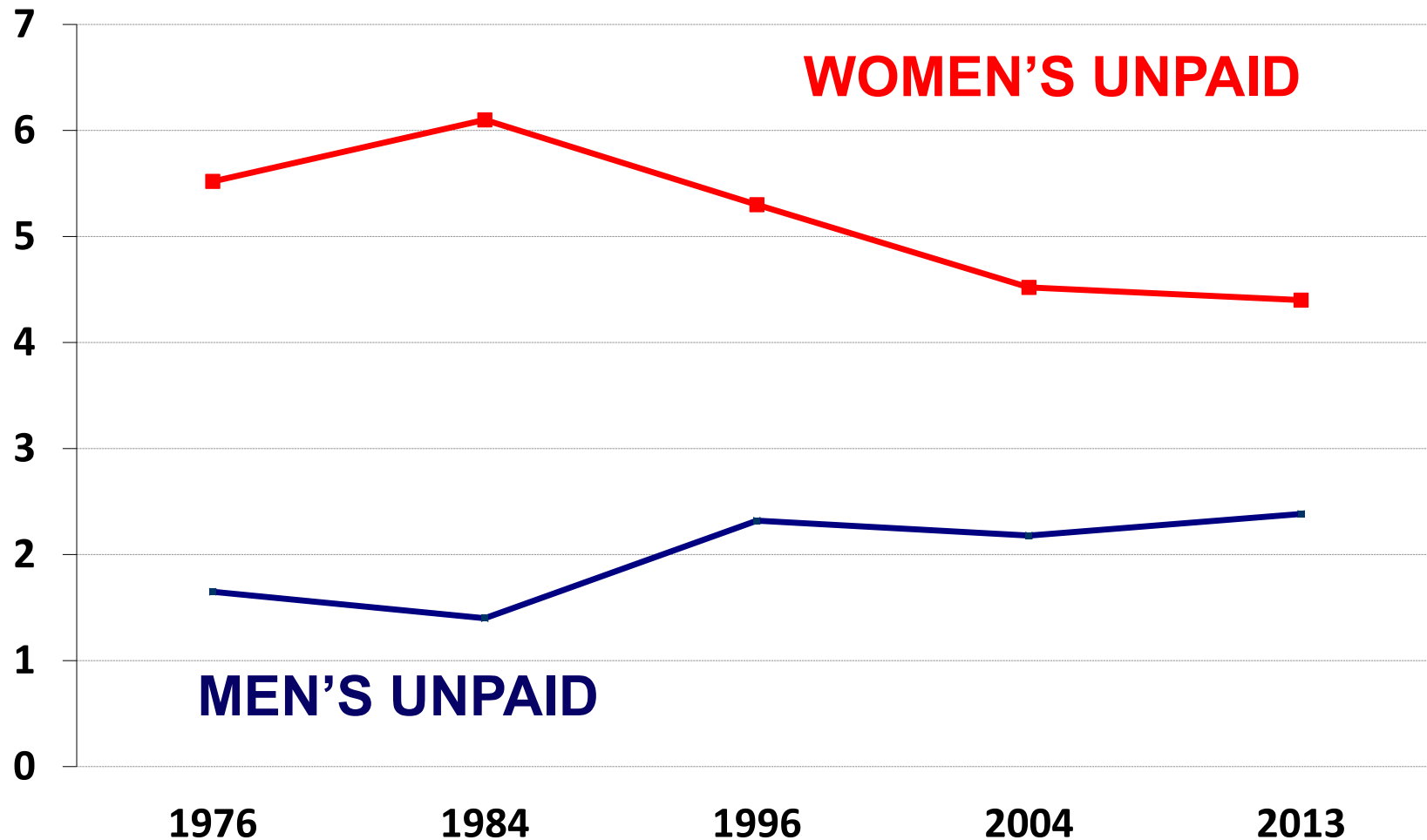
Country	Gender	Market work	Domestic work	Free time
Sweden	Women	173	222	303
	Men	251	149	324
Finland	Women	153	236	329
	Men	228	136	368
Germany	Women	112	251	324
	Men	200	141	353
Estonia	Women	147	302	276
	Men	215	168	328
Poland	Women	135	285	271
	Men	241	142	320
Lithuania	Women	211	269	225
	Men	286	129	287
Latvia	Women	209	236	247
	Men	300	110	285
Hungary	Women	148	297	270
	Men	227	159	317

Time use budgets show that in all the EU countries women spend considerably less time at paid work than men and more time doing unpaid work. What is more, they have less free time than men.

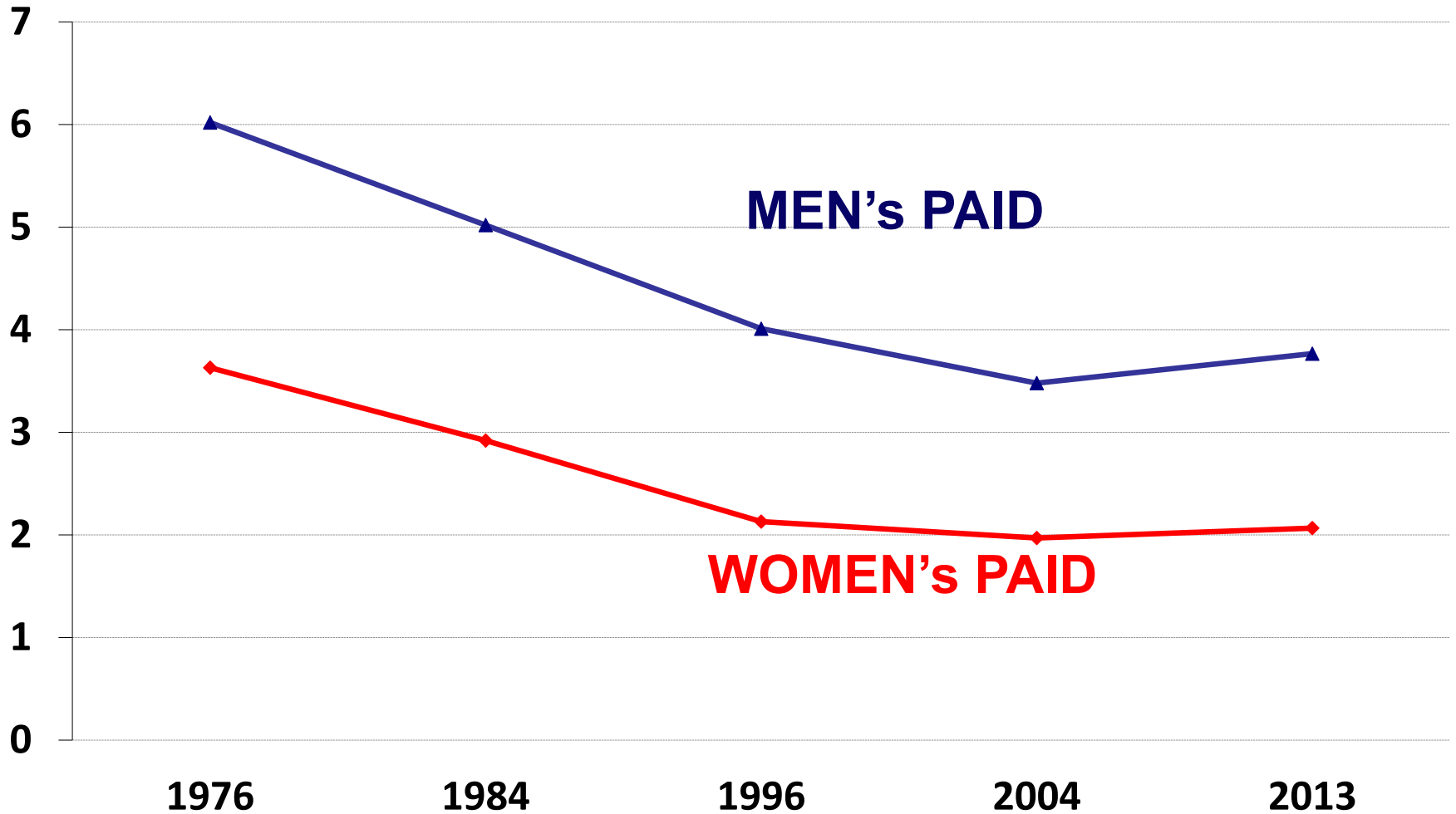
# Time budgets in EU countries

Mean in hours daily			
	Market work	Domestic work	Free time
Women	2.68	4.37	4.68
Men	4.06	2.36	5.38

Dynamics of the Allocation of  
Unpaid Work Time in Post  
Transition Polish Economy (in  
hours daily)



# Dynamics of the Allocation of Paid Work Time in Poland (in hours daily)





# The value of Unpaid Work in Relation to GDP (Paid Work)

Country	Unpaid Work Value (mln euro)	GDP (mln euro)	WPD/ PKB
Norway	64203,0	209 423,5	31%
Germany	880743,7	2 195 700,0	40%
Sweden	86604,7	291 634,1	30%
Finland	49033,4	152 266,0	32%
Estonia	1981,4	9 685,3	20%
Poland	73884,9	204 236,5	36%
Lithuania	3181,2	18 244,8	17%
Latvia	2194,8	11 154,6	20%

One of the key components of gender equal growth is the balance between paid and unpaid work provided by men and women.

Therefore, we propose the implementation of the 3R rule:

- **Rethink** the concept of paid and unpaid work,
- **Register** the quantity of paid and unpaid work time, and

This will surely help to design more effective policies boosting sustainable growth.

- **Reallocate** the unpaid work into paid one in the markets.

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The LIMTIP identifies the "hidden" poor-households with income above the standard threshold but with poverty inducing time deficit.

The central objective was to develop a measure of time and income poverty that took into account household production (unpaid work) requirements.

	Official Income-poor		LIMTIP Income-poor		"Hidden" Poor	
	Number in thousands	%	Number in thousands	%	Number in thousands	%
Argentina	60	6.2	107	11.1	47	4.9
Chile	165	10.9	271	17.8	106	6.9
Mexico	10 718	41	13059	50	2341	9



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# Low number of women innovators

Low number of women innovators in Europe  
(Eurostat 2000-2014,  
N. Ahmad and A. N. Hoffmann, 2008, OECD 2000-  
2014,  
Nyberg 2002, Pettersson 2007)

Only 10% of patents awarded by the European Patent Office are awarded to women. Only 20% of businesses started with venture capital belong to female entrepreneurs. Women score less than men when assessing the level of innovation of their own business



# 10 reasons why there is so few women innovators

1. Women's educational choices, and horizontal and vertical segregation in employment, result that the number of women in science and technology and the number of women innovators is lower than the number of men.

2. Science and technology, innovation and inventions are concepts mostly associated with men and male areas. These fields are less attractive to women.

3. Stereotypes about women and men that science, technology and innovations are male dominated sectors, in which women are perceived as less professional.

4. The boards of technology companies are predominantly male. They often say that there aren't enough women

5. Traditional views about the role of women in society and greater difficulties in balancing family responsibilities with working in fast-moving and competitive sectors (that expect long and flexible working hours and constant training).

6. Economic obstacles - difficulties in accessing finance. Female entrepreneurs find it more difficult than men to access finance.

The issue of accessing adequate finance is a greater problem in science and technology sectors because:

- it requires substantial investments, and
- women are seen as less credible by financial stakeholders and investors (stereotypical thinking).

7. Lack of access to relevant technical, scientific and general business networks. Access to these networks is essential to develop business ideas, meet potential clients and business partners, understand the market with its developments.

8. Lack of business training when undertaking technical and scientific studies presenting entrepreneurship as a possible employment opportunity for women.

9. Women's perception that they lack personal or entrepreneurship skills such as self confidence, assertiveness and risk-taking.

10. Lack of role models sending positive messages that women can be successful in these sectors and fields of activities and to whom women could turn for mentoring and advice.

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# WOMEN'S RESOURCE CENTRES INNOVATION & PRACTICES

for Smart, Inclusive and Sustainable Growth

## EU projects and results

1. Introduction
2. Women's Resource Centres and Mobilisation
3. Horizontal Occupational Segregation
4. Innovation and Organizational Development
5. Leadership and Entrepreneurship

*„The future Cohesion Policy requires major attention being paid to the gender dimension and actions such as WINNET 8 can only reinforce economic and social cohesion throughout the Union”*

- prof. Danuta Hübner  
Chair, Committee on Regional

# Participation in Summer Schools and Conferences on Gender and Economics

GEM-IWG Gender & Macroeconomics International  
Working Group + HBS = Knowledge Networking  
Program on Engendering Macroeconomics and  
International Economics 2013

[www.gem-europe.eu](http://www.gem-europe.eu)

IAFFE International Association for Feminist  
Economics; Conferences, Feminist Economics  
Journal

[www.iaffe.org](http://www.iaffe.org)

# Winnet Centre of Excellence® in the Baltic Sea Region

[Watch a video](#)

# Women Resource Centre

- the network of practitioners that  
aims at:

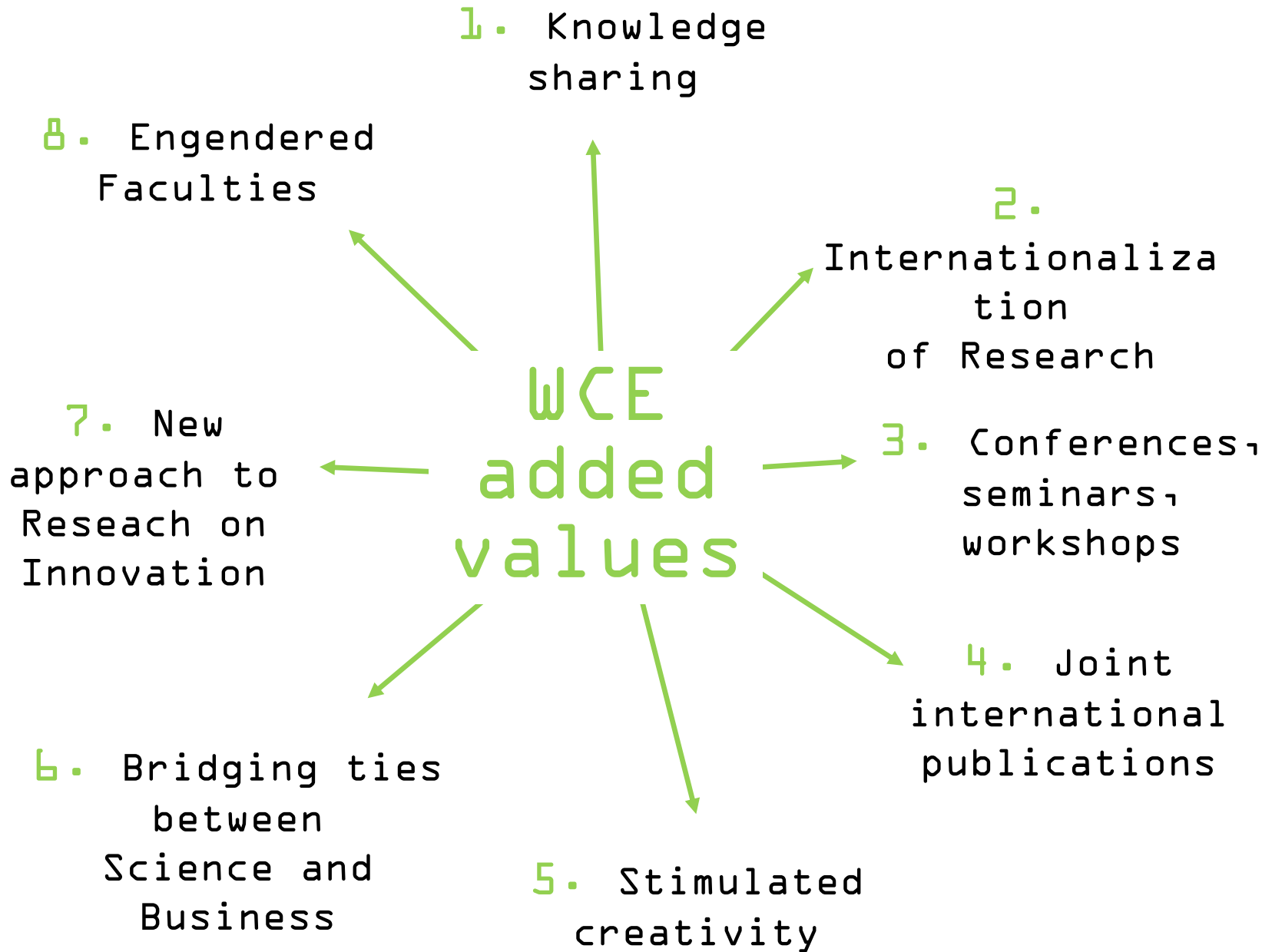
1. empowering women,
2. being a neutral meeting place for networking groups of women,
3. being a centre for information and documentation,
4. providing women with advice on how to implement their projects or business ideas,
5. mediating contacts with others women's networks,

Women Resource Centre + Academia =  
Winnet Centre of Excellence



# Winnet Centre of Excellence

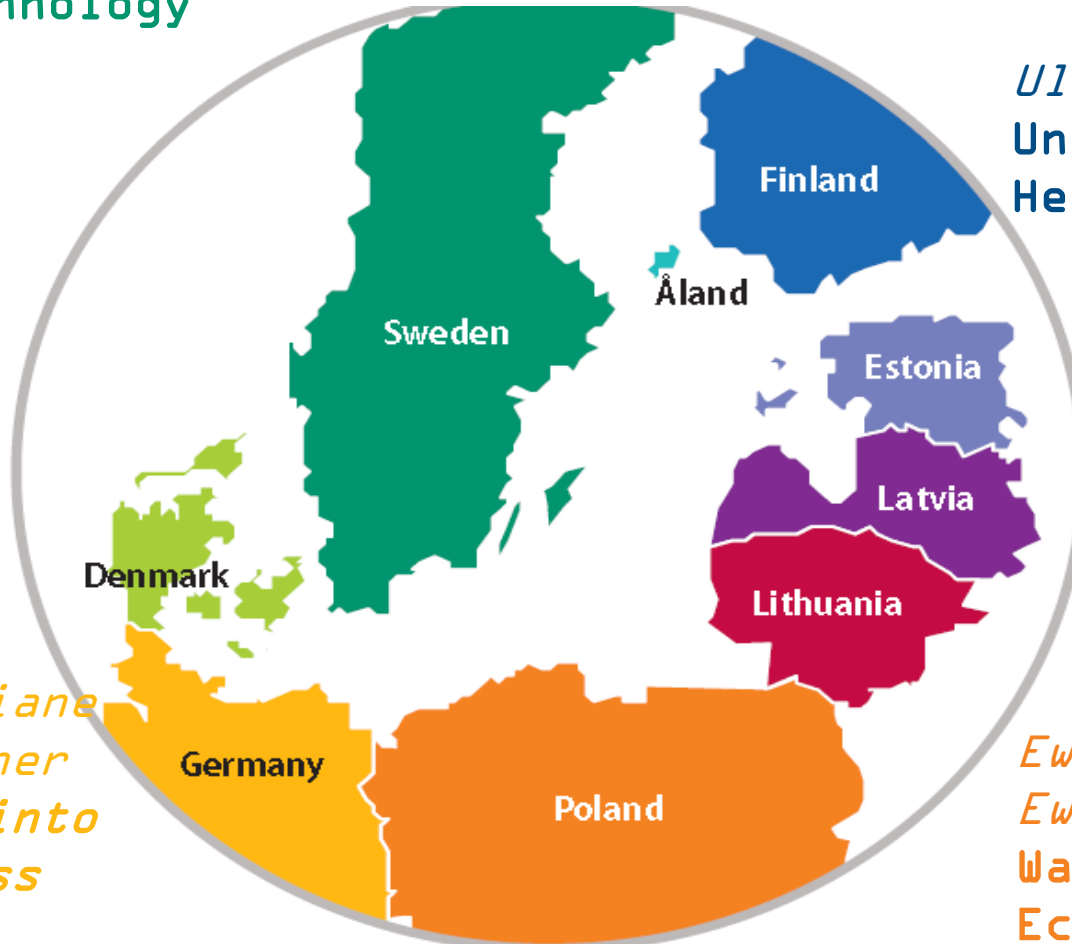
the international network of  
researchers and practitioners for the  
purpose of doing and promoting policy  
oriented research on Gender and  
Economics in the Baltic Sea Region



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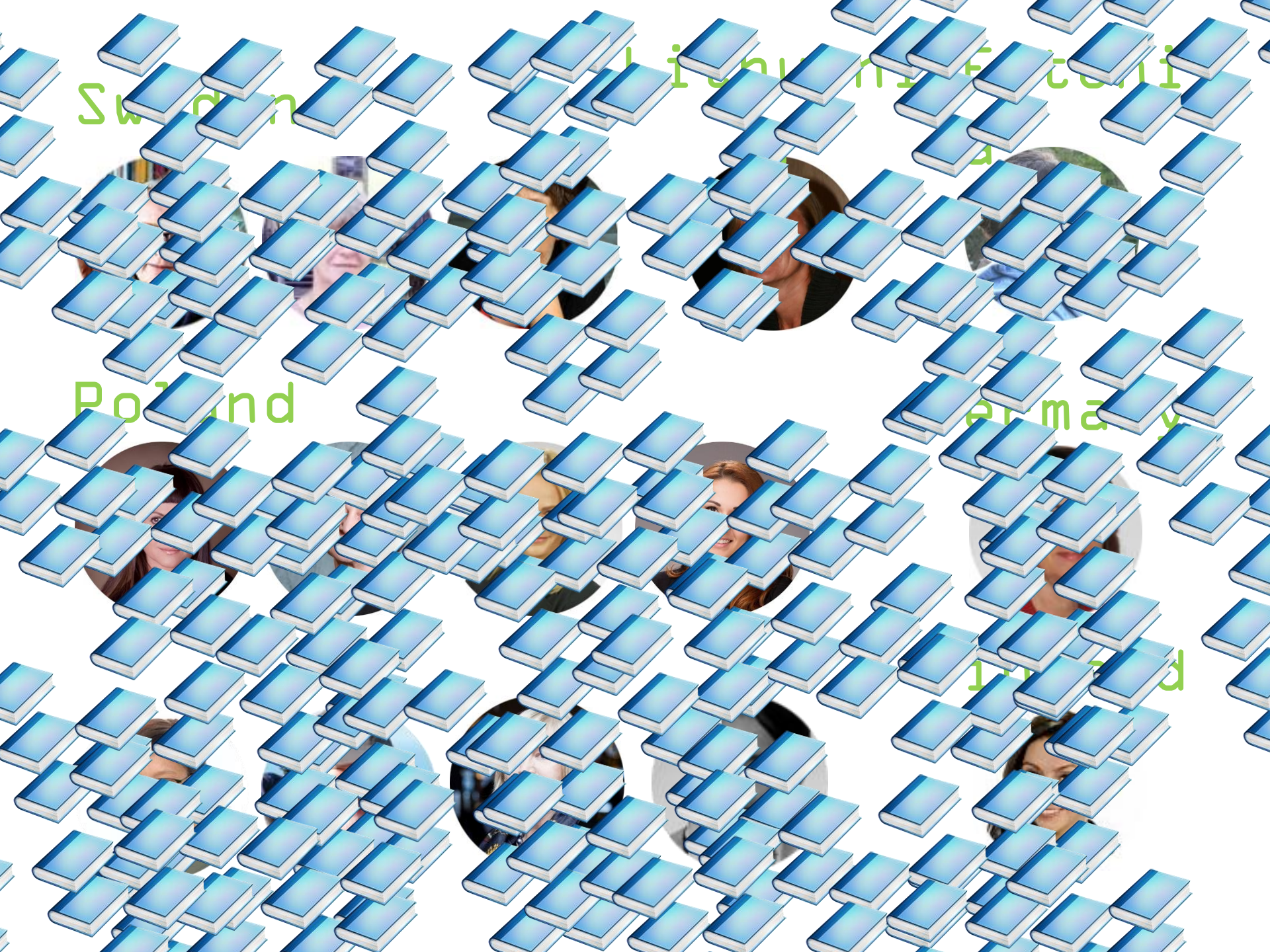
*Christiane*  
*Banuscher*  
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*Business*

*Ewa Ruminska-Zimny*  
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West Pomeranian  
University of Technology  
Warsaw University of Life  
Sciences



Sweden

Lithuania

Poland

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[www.balticsearegion.org](http://www.balticsearegion.org)

WCE Researchers' Profiles

WCE Researchers' Publications

TP Winnet BSR Publications

Institute of  
Econometrics  
and  
Statistics

Faculty of  
Economics  
and  
Management  
of the  
University  
of Szczecin













# Outline

## 1. Why engendering economics?

Roles of women and men are different and not taking the fact into consideration deforms the assessment of economic situation and processes.

## 2. How to measure gender equality and its relation to growth?

Statistical methods (such as regression analysis and correlation coefficients) may be used to measure the relation; gender equality should be expressed as an index (quantitative variable).

# Outline

## 3. How to go beyond standard growth measures?

TMSD Taxonomic measure of sustainable development, based on EU Sustainable Development Headline indicators, may be calculated.

## 4. What is the significance of the unpaid work in the economy?

The value of the work performed in households amounts ca 40 % of the national product.

## 5. What is LIMTIP?

Levy Institute Measure of Time and Income Poverty is a two-dimensional, extended measure of poverty.

# Outline

6. Why so few women innovators in the market?  
Stereotypes about women and men, women's educational choices and difficulties in accessing finance are the main reasons of fewer women innovators than men.

7. What are the positive actions enhancing gender equality and empowering women?  
EU projects like Winnet& and TP Winnet BSR, consciousness raising conferences, seminars and summer schools, cooperation with academia e.g. Winnet Centre of Excellence

Thank you for your  
attention!

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