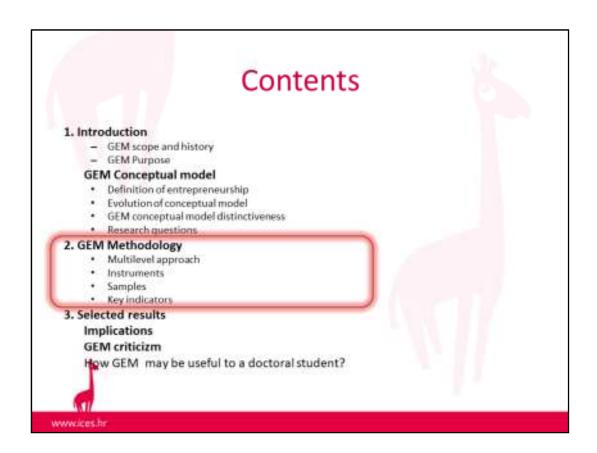Second part of the presentation intends to inform you about the GEM methodology.

You will be able to look into the main instruments, the sampling procedures and the main indicators that result from the GEM research.

GEM Methodology

- **Annual collection of multi-level primary data:**
- Individual entrepreneurial behaviours and attitudes of adults (18-64) are captured with Adult Population Survey.
- **National environment conditions** are captured with annual survey of expert perceptions on entrepreneurship framework conditions – EFC.

www.ices.hr

Each year participating countries collect and analyze primary data related to both individual and national context – for example Adult Population survey targets individual entrepreneurial activities while National Expert Survey reflect experts' perception of the quality of the national entrepreneurship framework conditions.

GEM Methodology (cont.)

- **Instruments**
- GEM 'Adult Population Survey' (APS) is a standardized instrument designed to **measure level and nature of individual entrepreneurial activity**. The several blocks of questions reflect the individual attitudes, attributes, and characteristics of engagement in entrepreneurship activity (from conception to discontinuation of the business). The **focus is on the individuals** engaged in **new businesses and initiatives, both formal and informal, independent or within established businesses.**
- GEM 'National Expert Survey' NES is standardized instrument structured to **address entrepreneurship framework conditions (EFC)**. EFC are structured in nine segments such as: sources of finances, government policies, programs, education, R&D Transfer, commercial and legal infrastructure, internal market dynamics, physical infrastructure and cultural/social norms.

www.ices.hr

GEM uses two primary sources of information. The GEM 'Adult Population Survey' (APS) is designed to collect data about individual characteristic, personal attitudes toward entrepreneurship, types of new business activities a person is engaged with, individual's motivation for starting a business, the actions taken to start and run a business, as well as entrepreneurship related aspirations. The questionnaire aims to measure the level and nature of entrepreneurial activity in a particular country, and is applied in the standardized manner in all participating countries. The focus is on the individuals engaged in new businesses and initiatives, both formal and informal, independently or within established businesses.

GEM 'National Expert Survey' NES is standardized instrument that specifically addresses entrepreneurship framework conditions (EFC) such as entrepreneurship centered-sources of finances, government policies, programs, education, R&D Transfer, commercial and legal infrastructure, internal market dynamics, physical infrastructure, and cultural and social norms. NES remains the sole source of harmonized, internationally comparable data that specifically addresses the environmental factors that enhance (or hinder) new and growing firms' performance. With regards to the NES, its main methodological difference is that it focuses only on EFCs, rather than on general economic factors.

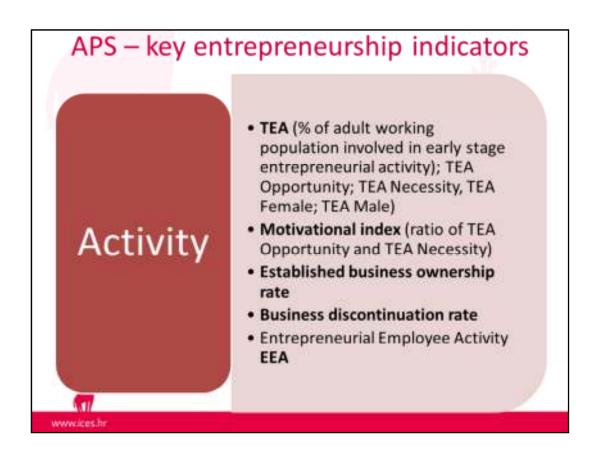Each year, in each participating country at least 2000 adults are included in the APS sample, and 36 or more experts in NES sample. The APS samples are defined as random stratified samples in order to reflect the population structure and main features. The NES sample is convenient sample where experts are chosen for their experience, recognition and by few other strict rules.
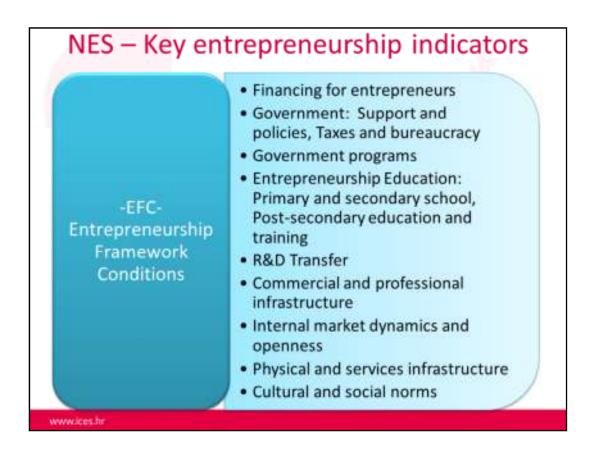
The main indicators of GEM research can be grouped in three broad set of indicators. Attitude indicators measure individual self-perception and intentions, as well a perception of the social norms related to entrepreneurship and entrepreneurs.

APS – key entrepreneurship indicators

Activity

- **TEA** (% of adult working population involved in early stage entrepreneurial activity); TEA Opportunity; TEA Necessity, TEA Female; TEA Male)
- **Motivational index** (ratio of TEA Opportunity and TEA Necessity)
- **Established business ownership rate**
- **Business discontinuation rate**
- Entrepreneurial Employee Activity EEA

www.ices.hr

The Activity indicators include several indexes such as TEA and EEA and so on. TEA index measures percentage of adults involved in Total early stage Entrepreneurial Activity (TEA). Those who are entrepreneurially engaged (TEA) may have started their activities due to a different motive. Therefore, GEM distinguishes between those adults who start their ventures due to opportunity and track the percentage of those who are involved in opportunity (TEA OPP) or necessity driven activities (TEA NEC). In addition, the interesting indicator is also the ratio between TEA OPP and TEA NEC adults. For instance, it has been found that higher percentage of opportunity driven entrepreneurs, or higher motivational index (there is more opportunity driven individuals than those driven by necessity) are correlated with higher level of economic development.

APS – key entrepreneurship indicators

Aspirations

- **Growth** - Job creation projections measure whether entrepreneurs anticipate opening 0 new jobs, 1-5, or more new jobs in the next five years
- **Innovation** measure whether entrepreneurs introduce products that are new to some or all customers, and whether few or no competitors offer similar products
- **Internationalization** measures whether entrepreneurs expect that 25% or more of their sales will come from outside their countries.

www.ices.hr

The aspiration indicators measure the entrepreneurially active individuals' expectations regarding new job creation, innovativeness of their products or degree of internationalization of their businesses.

NES – Key entrepreneurship indicators

-EFC-
Entrepreneurship
Framework
Conditions

- Financing for entrepreneurs
- Government: Support and policies, Taxes and bureaucracy
- Government programs
- Entrepreneurship Education: Primary and secondary school, Post-secondary education and training
- R&D Transfer
- Commercial and professional infrastructure
- Internal market dynamics and openness
- Physical and services infrastructure
- Cultural and social norms

www.ices.hr

The distinctive part of GEM methodology is the assessment of the quality of environmental factors that enhance or hinder new or growing firms' performance. The quality of particular condition is assessed from the experts voting on how sufficient is particular condition on a scale from 1 (insufficient) to 9 (highly sufficient) (until 2015 the scale was from 1 to 5).