# Entrepreneurship dynamics and regional economic development



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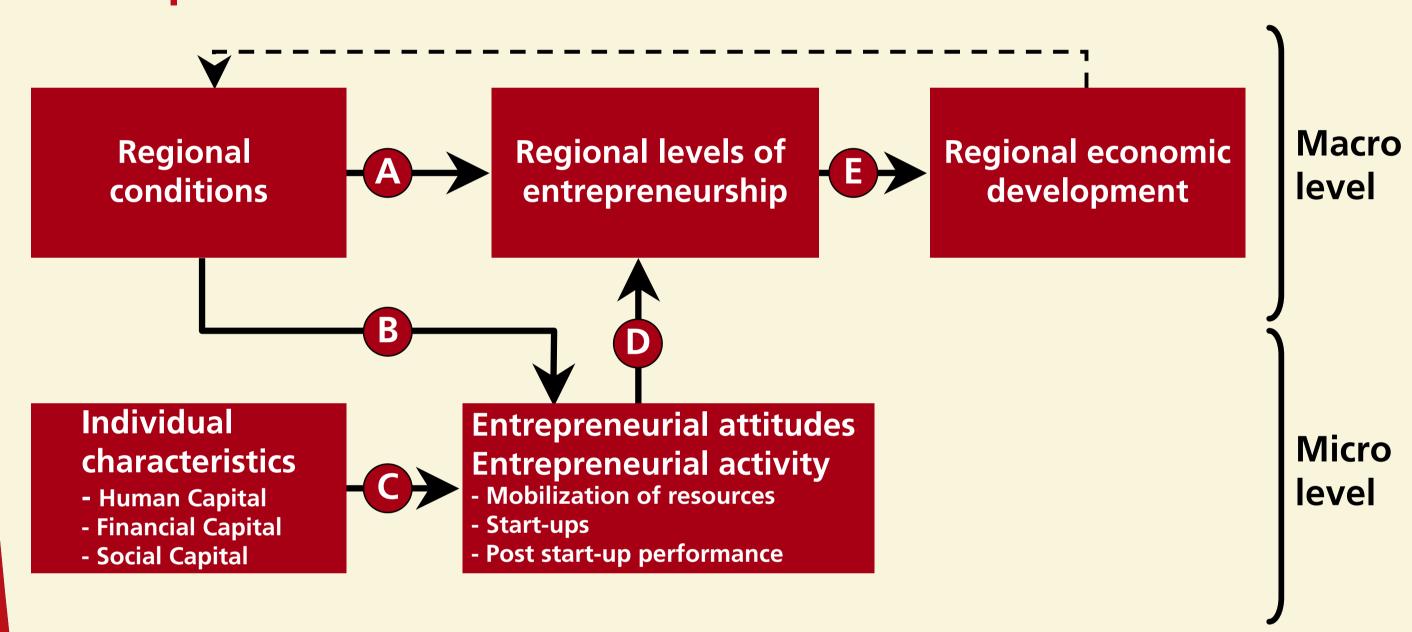
### Research objective

Objective is to investigate the causal mechanisms between regional conditions and entrepreneurial activity at the individual level on the one hand, and entrepreneurship and regional economic development on the other hand.

## Partial research questions

- 1. How do levels of entrepreneurial dynamics differ across regions and how has it developed in the Netherlands since 1988?
- 2. Which factors determine regional and national differences in entrepreneurship levels, and to what extent?
- 3. How and to what extent do regional conditions influence individual behaviour and performance in the start-up process?
- 4. What is the impact of regional conditions on regional levels of entrepreneurship through individual entrepreneurial activity and how do differences in regional conditions affect economic development via entrepreneurial processes in three contrasting Dutch regions?

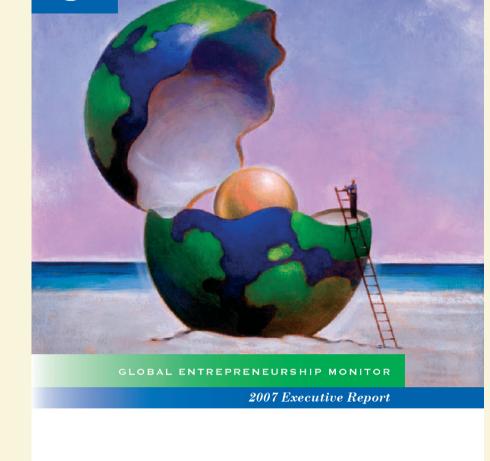
### **Conceptual Model**



#### **Global Entrepreneurship Monitor**

The Global Entrepreneurship Monitor (GEM) research program is an annual assessment of the national level of entrepreneurial activity. Initiated in 1999 with 10 countries, GEM expanded to 42 countries in 2007.

The research program, based on a harmonized assessment of the level of national entrepreneurial activity for all participating countries, involves exploration of the role of entrepreneurship in



national economic growth. The methodology allows exploring several types and phases of entrepreneurship.

In the PhD project we use the individual data (some 300,000 observations in the adult population) for 2001-2006 to derive several measures on entrepreneurial attitudes and entrepreneurial activity for 125 European regions.

#### **Contents thesis**

|   | Chapter  | Relations | Method  | Data   | Status          |
|---|--|-----------|---|--|-----------------|
| 1 | Introduction   |           |   |  |                 |
| 2 | Mapping entrepreneurial attitudes and entrepreneurial activity in European regions                                     |           | Correlations, Cluster analysis                                  | Europe GEM<br>2001-2006                            | Accepted        |
| 3 | Determinants of ambitious entrepreneurial activity in European regions   | Α         | Multi-equation regression (3SLS), regional level                | Europe GEM<br>2001-2006                            | Submitted       |
| 4 | Explaining individual involvement in entrepreneurial activity for European regions; a multilevel approach              | A,B,C     | Multilevel analysis<br>(individual, regional,<br>national)      | Europe GEM<br>2001-2006                            | To be submitted |
| 5 | The geography of new firm formation:<br>Evidence from independent start-ups and<br>new subsidiaries in the Netherlands | Α         | Seemingly Unrelated<br>Regression (SUR), regional<br>level      | Dutch Corop; Chamber of Commerce registration data | Published       |
| 6 | Firm dynamics and regional economic growth in the Netherlands  | E         | Generalised Method of<br>Moments (GMM) - Panel<br>data analysis | Dutch Corop; Chamber of Commerce registration data | Submitted       |
| 7 | Whither a flat landscape? Regional differences in entrepreneurship in the Netherlands                                  | B,C,D     | Logit, multilevel   | Dutch REM 2007 (three regions)                     | To be submitted |
| 8 | Entrepreneurial activity & economic growth in European regions   | A,B,C,D,E | Multilevel analysis<br>(individual, regional,<br>national)      | Europe GEM<br>2001-2006                            |                 |
| 9 | Conclusion   |           |   |  |                 |

> 7.5

6.5 - 7.5

5.5 - 6.5

4.5 - 5.5

3.5 - 4.5

# **Some Results** Netherlands Independent entry rates New subsidiaries rates

Controlling for individual level characteristics (for three

- Observed differences in early-stage entrepreneurial activity

Explanation of regional & time variation:

- Growth value added (+)
- Unemployment rate (-)
- Relaxation Establishment Act (+)

regions indicated in the maps)

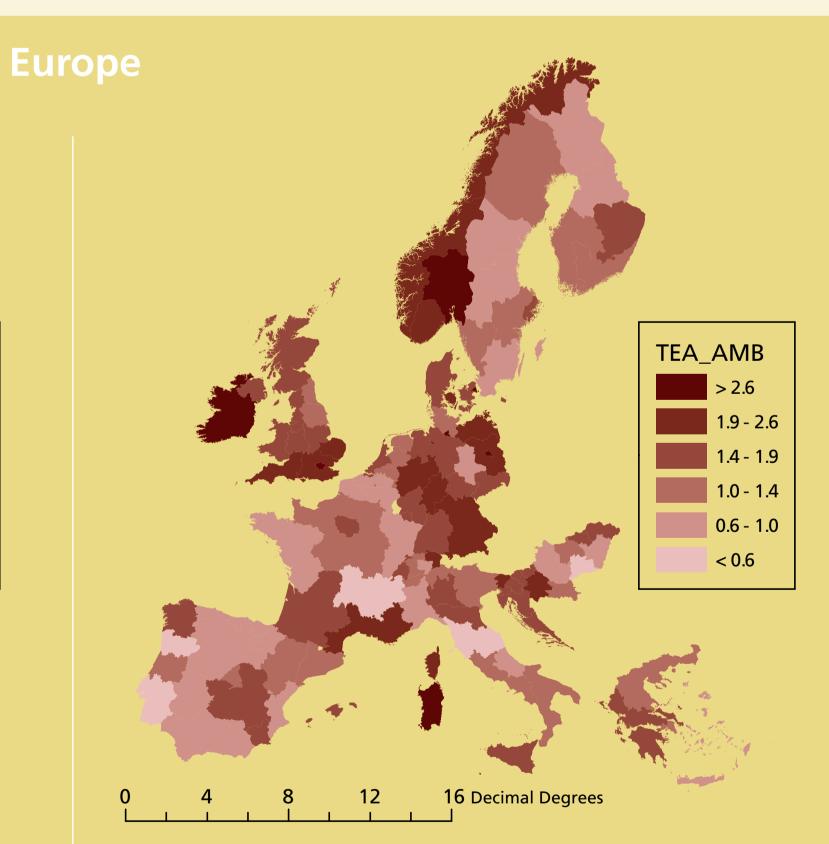
rates become non-significant

Explanation of regional & time variation:

- Degree of urbanisation (+)
- Population growth (+)

Controlling for individual level characteristics

- Gross regional product (U-shape)
- Perceived opportunities for starting business (+)
- business (+)
- Fear of failure when it comes to start a business (-)
- National degree of employment



Ambitious early-stage entrepreneurial activity rates

Total early-stage entrepreneurial

activity rates

- Perceived capabilities to start
- protection / social security level (-)

#### Controlling for individual level characteristics

- Population density
- Gross regional product (U-shape)
- Perceived capabilities to start business (+)
- Fear of failure when it comes to start a business (-)
- National degree of employment protection / social security level (-)