IEA

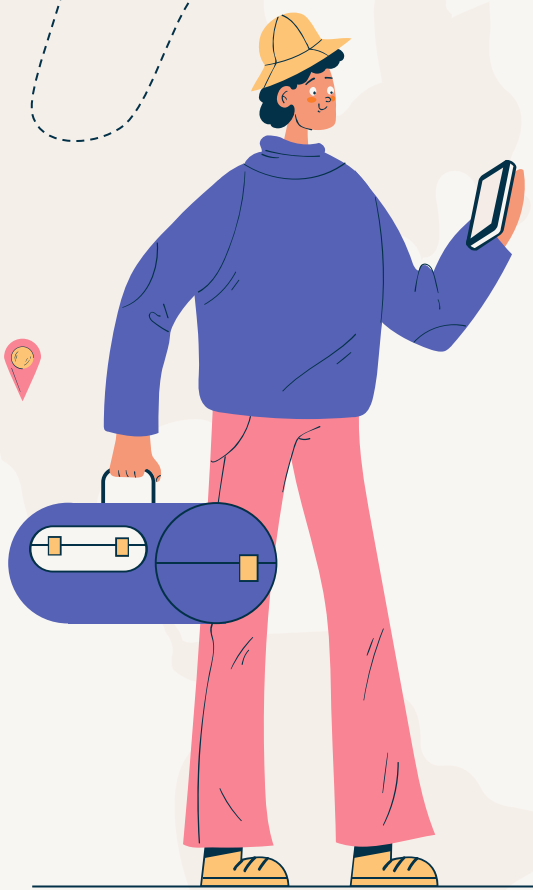
Researching education, improving learning

11th IEA International Research Conference

Researching Education for Sustainable Futures

UNIVERSITY OF LATVIA

FACULTY OF EDUCATION SCIENCES AND PSYCHOLOGY



Language at Home and Achievement at School: Insights form IEA's PIRLS 2021 Study

Kristine Kampmane

Andrejs Geske

Antra Ozola

Funded by the European Union

2027 National Development Plan

The Purpose of This Study

To identify the main classroom, student and family factors that **differentiate** students who **speak the language of the test at home from those who do not.**

Countries of comparison:
PIRLS 2021 EU Countries,
Norway and Serbia

01

PIRLS

Progress in International Reading Literacy Study

Progress in International Reading Literacy Study

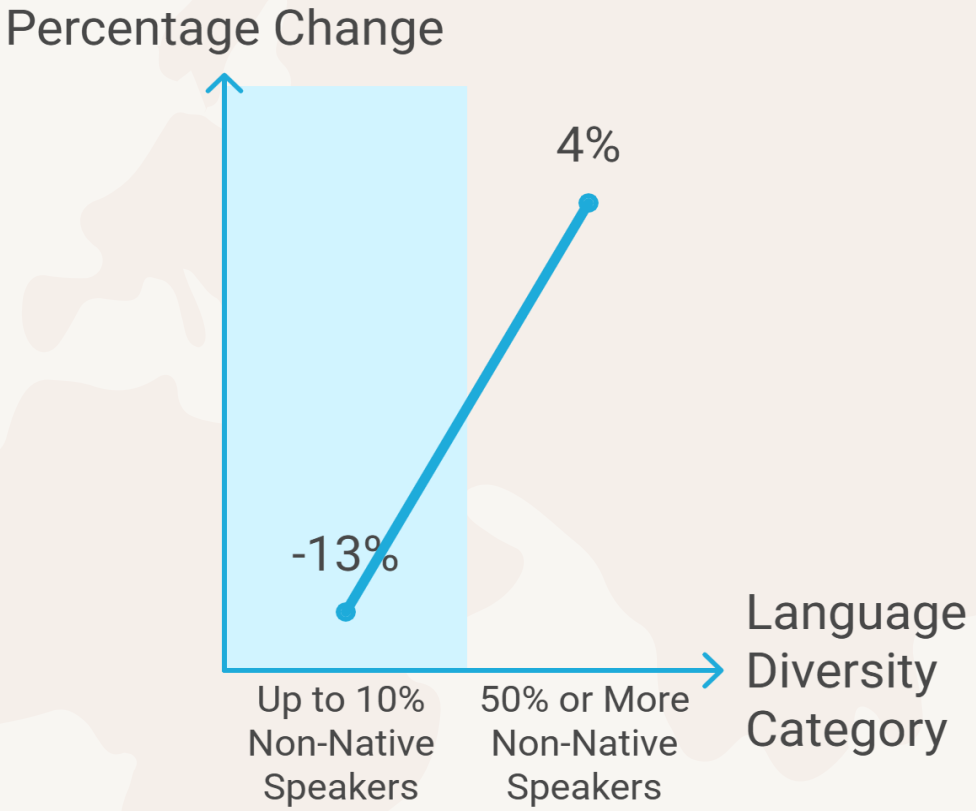
- **Frequency** – every 5 years since 2001
- **Countries** – ~50 countries in every cycle
- **Participants** – ~4000 4th grade students from every country
- **Goals:**
  - to measure and compare reading literacy internationally
  - to describe school, home, student background factors influencing literacy

02

Background

The background of this study

In PIRLS 2021 home language diversity in EU classrooms have increased compared to PIRLS 2016



Other Studies Have Found

Volante et al., 2019

Underperformance due to home and school language differences.

Chang, 2024

Underperformance due to migration background.

Alieva et al., 2018

The achievement gap becomes minimal in adolescence.

Martin et al., 201

The age of school entry in the destination country determines achievement.

Van Ewijk & Sleegers, 2010

Minority students have negligible effects on local student achievemen.

Dronkers et al., 2013

Ethnic diversity negatively impacts both non-native and native students' performance.

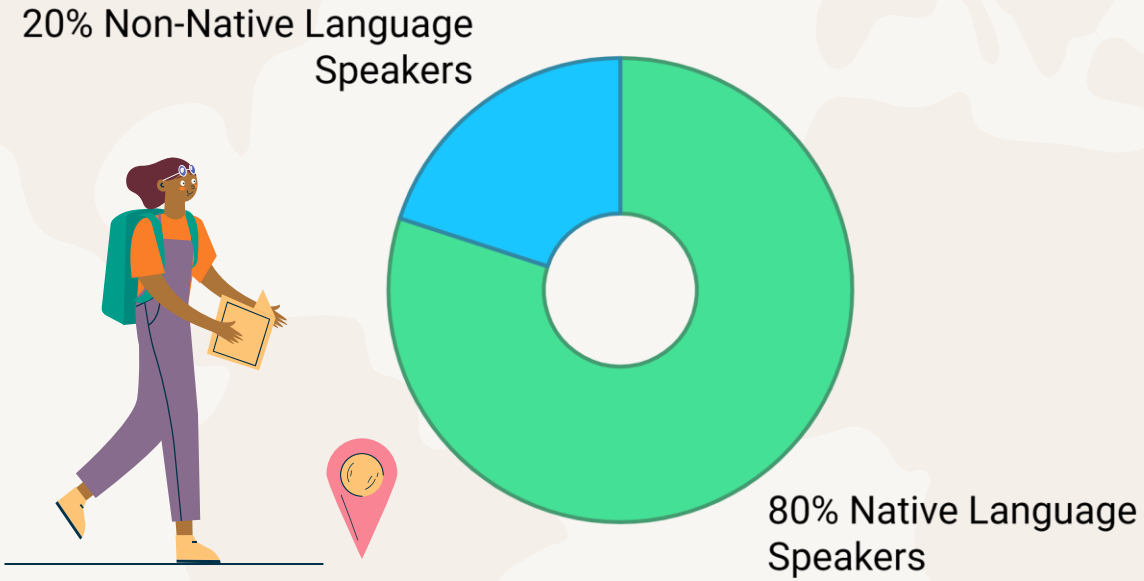
03

Findings

The Results from This Study

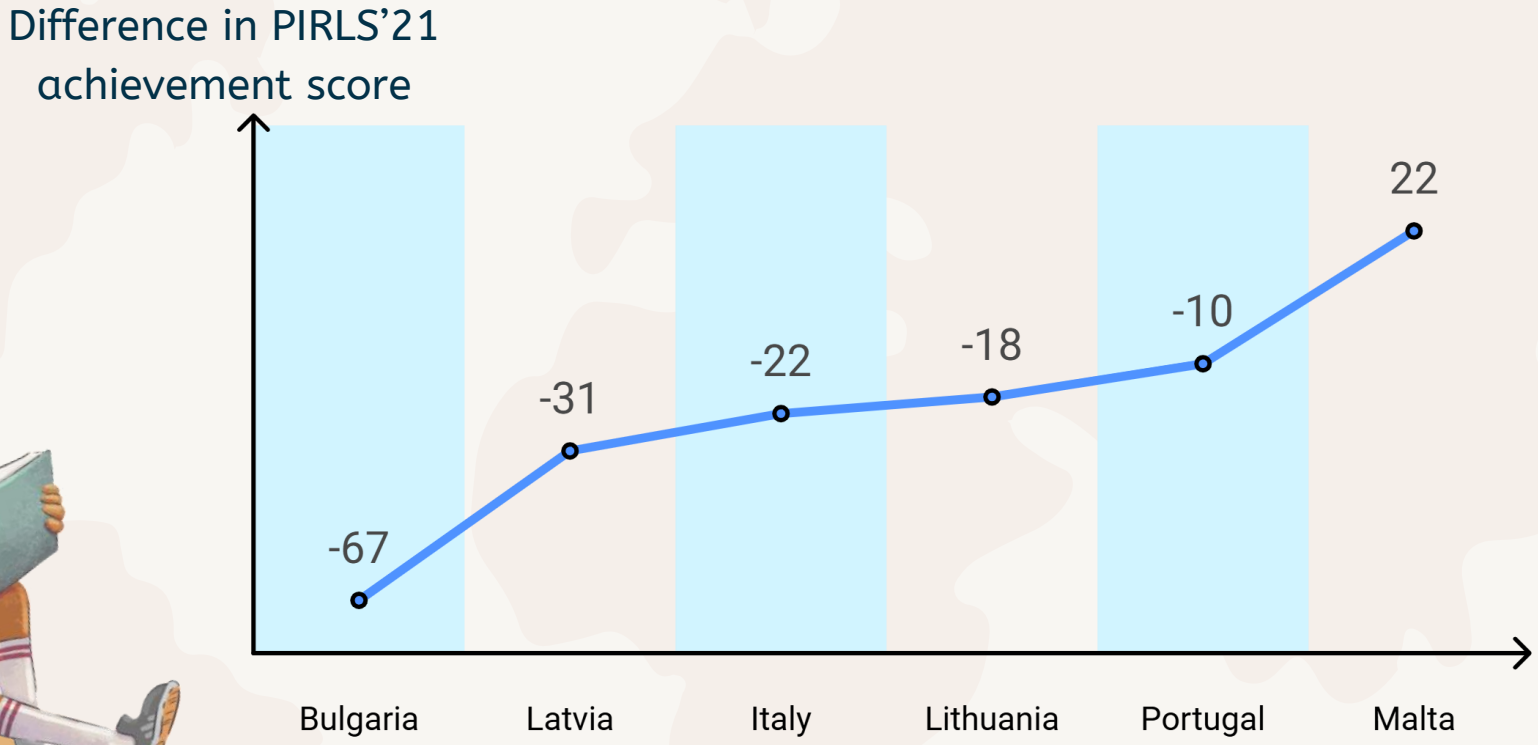
Methodology

In countries of comaprison of this study

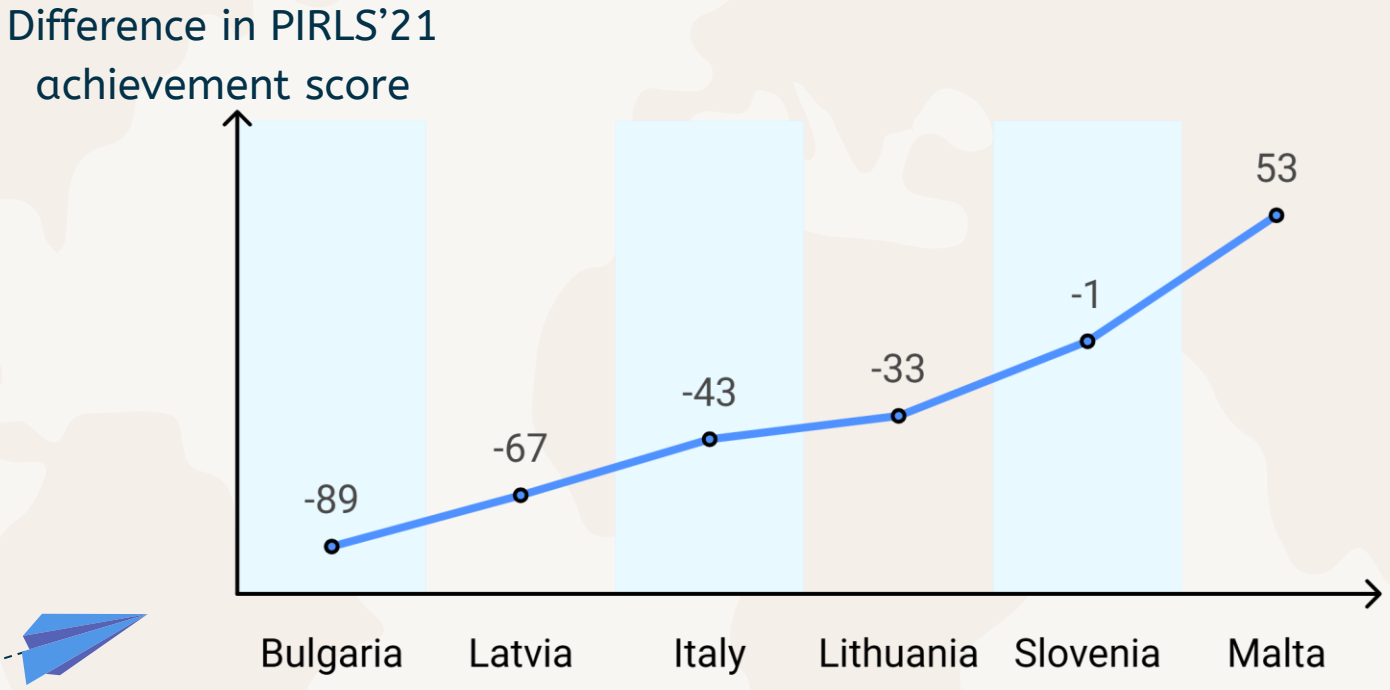


- Native vs non-native language speaker detection from student's and parent's questionnaire
- Classroom composition:
  - up to 10% non-native speakers
  - 10% to 30% non-native speakers
  - 30% or more non-native speakers
- High-achieving (above countries average) non-native speakers vs low-achieving (below countries average) non-native speakers

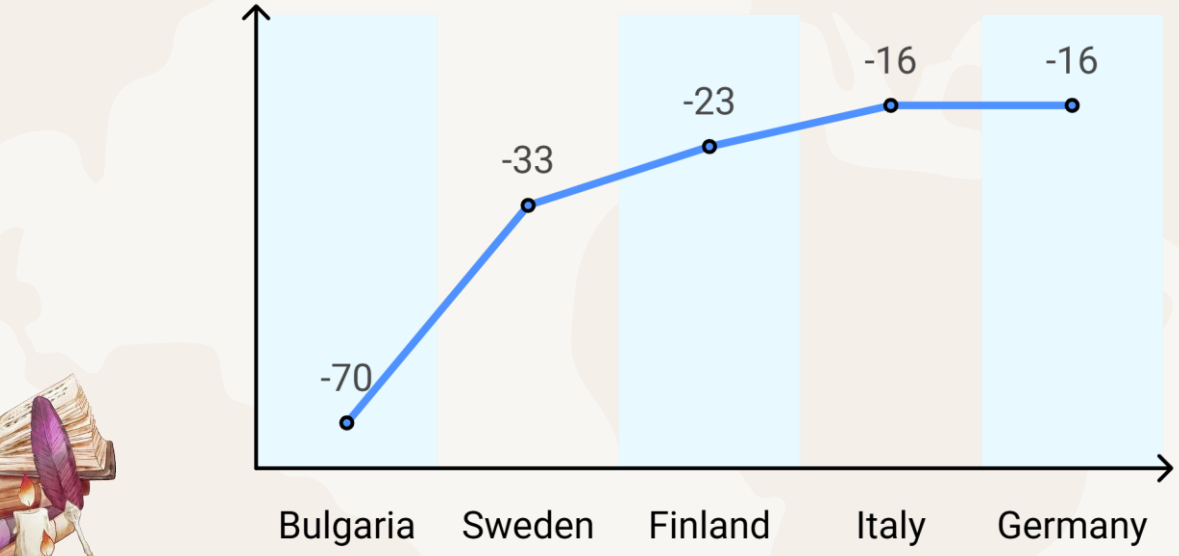
Average non-native speakers' achievement gap compared with native language speakers in reading achievement



Non-native language speakers' achievemet gap comparing classrooms with up to 10% non-native spekers and more than 30% non-native speakers.



Native language speakers' achievemet gap comparing classrooms with up to 10% non-native spekers and more than 30% non-native speakers.



Achievement differences in Latvia, Lithuania, Malta, etc. were not statistically significant

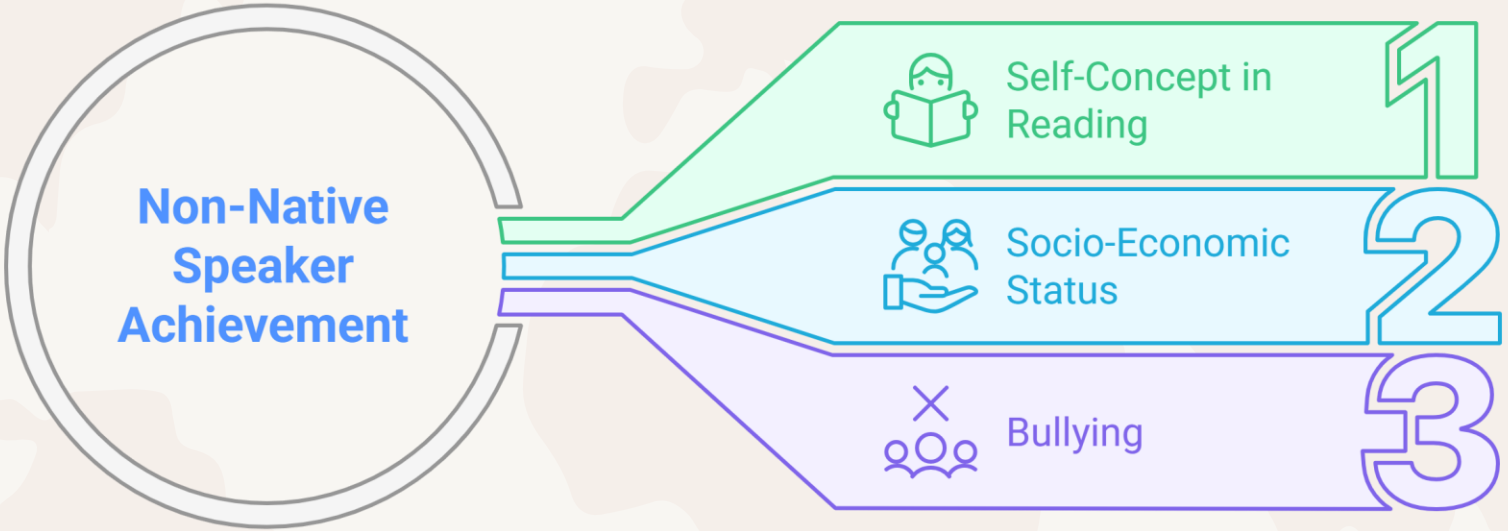
Non-native Speaker's Profile*

* In Malta non-native speakers had:

- higher SES
- fewer absenteeism
- higher reading self-confidence

Classification accuracy ranged from 61% in Malta to 94% in Serbia

Most influential predictors for a low-achieving non-native speaker to become high-achievieving



Classification accuracy ranged from 60% in Bulgaria to 73% in Lithuania

Main Conclusions

The number of non-native speakers in the classroom influence achievement for both – natives and non-natives

The most influential predictors were the same as for reading achievement in general; confidence in reading being the most influential for low-achievers

Malta showed unique patterns for non-native speakers being with higher SES and higher confidence

Literature List

- Alieva, A., Hildebrand, V. A., & Van Kerm, P. (2018). How does the achievement gap between immigrant and native-born pupils progress from primary to secondary education?. *Luxembourg Institute of Socio-Economic Research (LISER) Working Paper Series*, *20*.
- Andon, A., Thompson, C. G., & Becker, B. J. (2014). A quantitative synthesis of the immigrant achievement gap across OECD countries. *Large-scale assessments in education*, *2*, 1-20.
- Chang, F. C. (2024). Meta-Analysis of Differences in Learning Performance between Local and Immigrant Students: Evidence from 2018 PISA Data. *Journal of Educational Research and Development*, *20*(1), 57-97.
- Cobb-Clark, D. A., Sinning, M., & Stillman, S. (2012). Migrant youths' educational achievement: The role of institutions. *The Annals of the American Academy of Political and Social Science*, *643*(1), 18-45.
- Dronkers, J., & Van der Velden, R. (2013). Positive but also negative effects of ethnic diversity in schools on educational performance? An empirical test using PISA data. In *Integration and inequality in educational institutions* (pp. 71-98). Dordrecht: Springer Netherlands.
- Dustmann, C., Frattini, T., & Lanzara, G. (2012). Educational achievement of second-generation immigrants: an international comparison. *Economic Policy*, *27*(69), 143-185.
- Entorf, H., & Minoiu, N. (2005). What a difference immigration policy makes: A comparison of PISA scores in Europe and traditional countries of immigration. *German Economic Review*, *6*(3), 355-376.
- Kaya, M., & Selvitopu, A. (2024). The roles of family contextual factors on immigrant students' academic achievement: a meta-analysis. *Current Psychology*, *43*(5), 3853-3865.
- Levels, M., Dronkers, J. D., & Kraaykamp, G. (2006). Educational Achievement of Immigrant Children in Western Countries: Origin, Destination, and Community Effects on Mathematical Performance.
- Martin, A. J., Liem, G. A., Mok, M., & Xu, J. (2012). Problem solving and immigrant student mathematics and science achievement: Multination findings from the Programme for International Student Assessment (PISA). *Journal of educational psychology*, *104*(4), 1054.
- Shapira, M. (2012). An exploration of differences in mathematics attainment among immigrant pupils in 18 OECD countries. *European Educational Research Journal*, *11*(1), 68-95.
- Unicef. (1989). Convention on the Rights of the Child.
- Van Ewijk, R., & Sleegers, P. (2010). Peer ethnicity and achievement: A meta-analysis into the compositional effect. *School Effectiveness and School Improvement*, *21*(3), 237-265.
- Volante, L., Klinger, D. A., Siegel, M., & Yahia, L. (2019). Raising the achievement of immigrant students: Towards a multi-layered framework for enhanced student outcomes. *Policy Futures in Education*, *17*(8), 1037-1056.

IEA

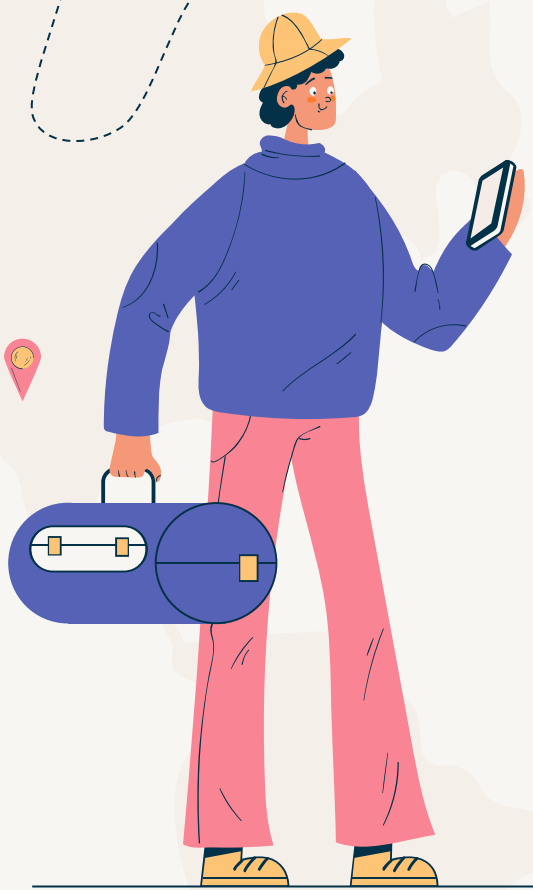
Researching education, improving learning

11th IEA International Research Conference

Researching Education for Sustainable Futures

UNIVERSITY OF LATVIA

FACULTY OF EDUCATION SCIENCES AND PSYCHOLOGY



Language at Home and Achievement at School: Insights form IEA's PIRLS 2021 Study

Kristine Kampmane

Andrejs Geske

Antra Ozola

Funded by the European Union

2027 National Development Plan