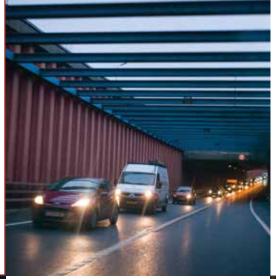






# URBAN DEVELOPMENT AND MOBILITY









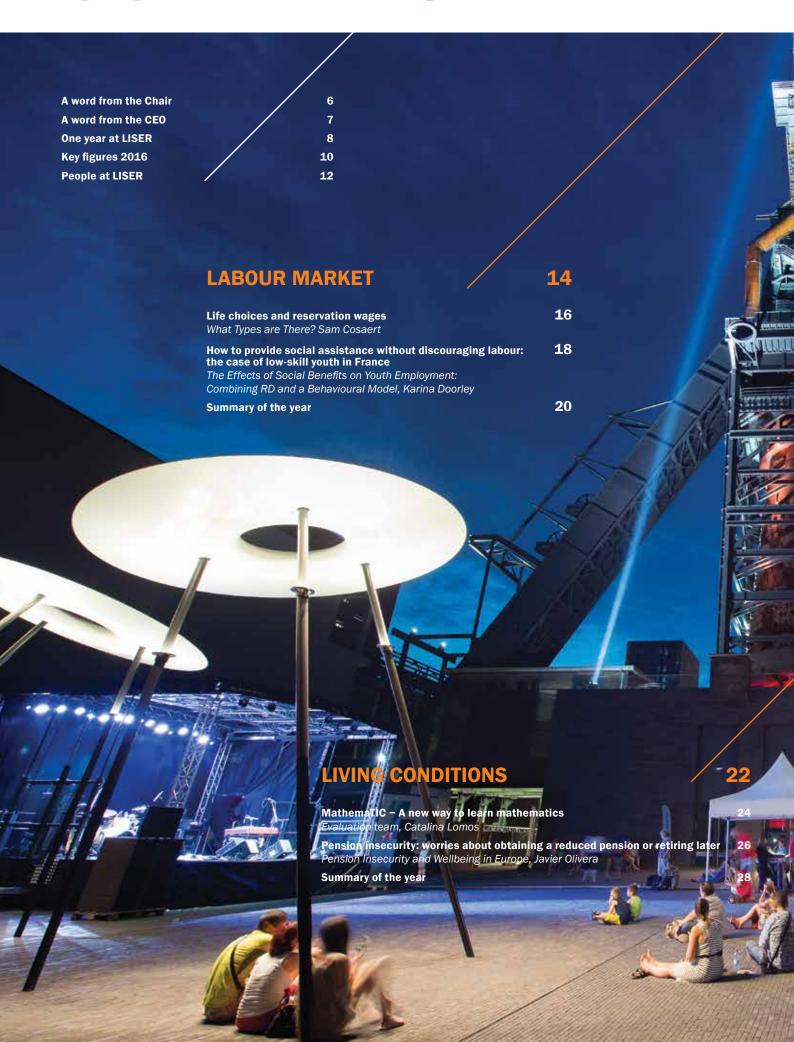
# LIVING CONDITIONS

LISER is a Luxembourgish public research institute, under the jurisdiction of the Ministry of Higher Education and Research. LISER's research focuses mainly on the fields of social and economic policies, including their spatial dimension.

Through its empirical and theoretical work, the institute's mission is to provide the scientific community and society with clear relevant and solid answers. The

Through its empirical and theoretical work, the institute's mission is to provide the scientific community and society with clear, relevant and solid answers. The objective is to develop a sharp understanding of socio-economic mechanisms and their spatio-temporal dimensions in order to contribute to the development of better policies and to lay the foundations for a future strategic vision for our society. LISER is composed of three research departments: Labour Market, Living Conditions, Urban Development and Mobility.

# CONTENTS







"Particular thanks go to the members of the administrative board, the interim collective leadership and all personnel for their contribution to the smooth functioning of LISER all year long"

# A Word from the Chair

2016 marked the arrival of the new Chief Executive Officer, Professor Aline Muller of the University of Liège, on 1 September.

During the first eight months of 2017, the functioning of LI-SER was ensured by a close collaboration of the administrative board and an interim collective leadership of LISER. This approach was based on a relationship of mutual trust and required a high level of commitment from the members of the administrative board, which met at least twice per month. There were numerous exchanges between the administrative board and the interim collective leadership, which proved to be a fruitful collaboration. LISER's activities continued without interruption and several research projects were submitted to the National Research Fund (FNR). Requests for scientific leave to the United States and United Kingdom were approved and new researchers were hired. Recruitment of joint-professors with the University of Luxembourg also continued.

As soon as she arrived, the new CEO set her vision for LISER in motion by proposing a new organigram centred on the three research departments along with the administration, as well as a team dedicated exclusively to surveys as a support to research activities. As for the administrative board, it welcomed a new member to replace Aline Muller. The government nomi-

nated Aline Schiltz, a young Luxembourg researcher specialising in the study of migration, in particular between Luxembourg and Portugal.

At the end of 2016, LISER developed a plan of exchanges and consultations for the coming months to assist in the preparation for the negotiations for the next multi-annual plan (2018-2021) with the Minister for Higher Education and Research. According to the law, the board has requested the Collaborative Council, an internal body made up of representatives from research and other personnel, to propose a consultative opinion on the implementation of the multi-annual research programme of 2014-2017.

Finally, I would like to take this opportunity to thank all the members of the administrative board for their commitment, the members of the interim collective leadership for their professionalism and all LISER personnel for their cooperation. It is thanks to you that LISER was able to enjoy a successful 2016!





"A research institute is first and foremost made up of men and women dedicated to research. Our mission at LISER is to make certain that the scientific work carried out by these men and women is seen and heard as well as used in the service of society."

## A Word from the CEO

Today Luxembourg constitutes an international and multicultural society where socioeconomic and intercultural parameters interact on a daily basis.

However, we cannot ignore the major challenges to our society's coherence represented by the diverging views currently being debated around our country. LISER needs to be ready to respond to these questions and integrate itself into our society in order to share the results of its research work, as well as its analyses, recommendations & innovative solutions. LISER has a responsibility to confront all the challenges that our society faces. Moreover, as a research institute, we must provide our society with the complete picture and not just focus on one particular angle. With regards to the question of minimum income benefits (see page18), for example, it is essential to be able to talk about their advantages without masking or denying their weaknesses and challenges. We must deal with the facts as they are.

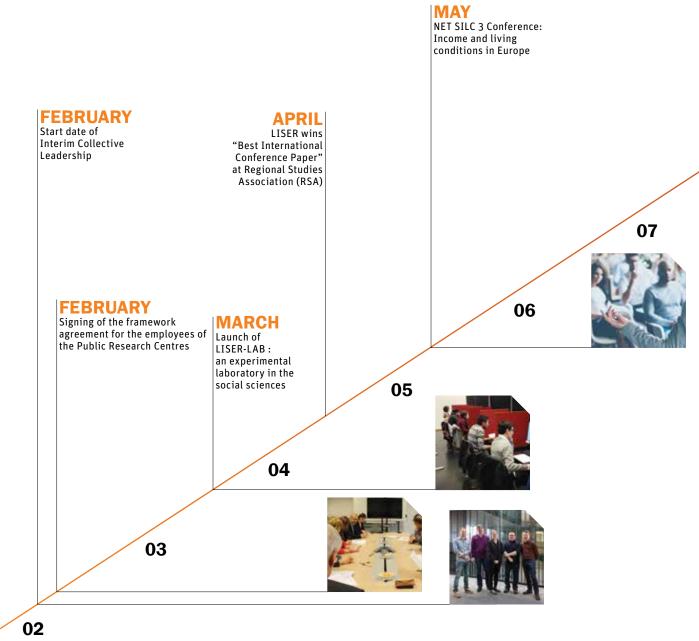
This report aims to increase understanding of who we are and what we do. In 2016 LISER was, once again at the forefront of the development of a multitude of research projects that respond to the challenges our society is facing today, as well as an epicentre with the organisation of more than one hundred events, seminars and conferences.

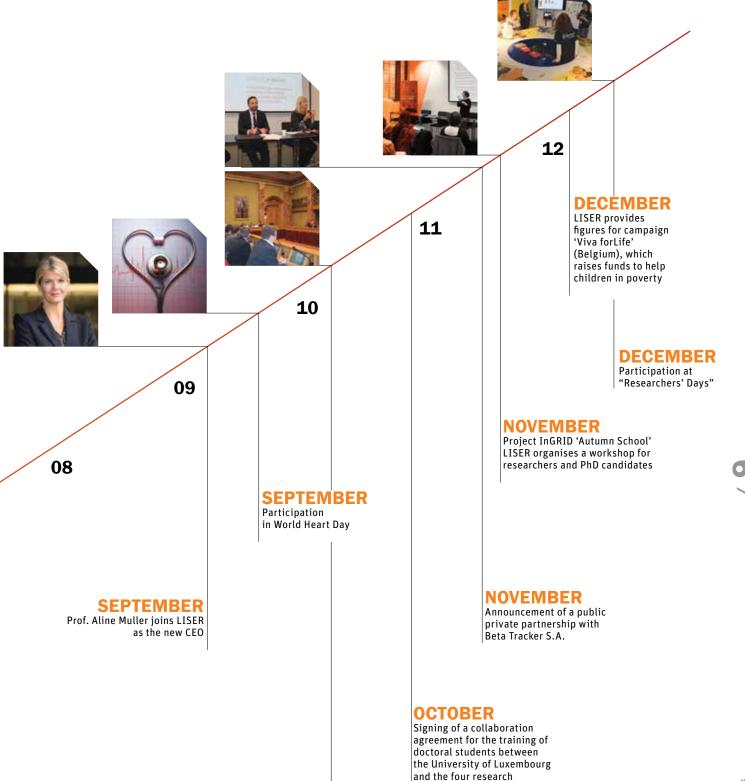
Since my arrival a number of important projects have been started, all continuously aiming at making the most efficient possible use of our resources. LISER continues to modernise its management tools and has launched the vast task of renovating its data base infrastructure in order to improve its quality, reliability and compliance. These tasks may seem incidental, but they are actually essential. It is difficult to ask a researcher to invest time and commitment if the necessary framework allowing his or fer idea to flourish is not present.

I am personally committed to ensuring that LISER meets its challenges and becomes an essential part of society. A research institute is first and foremost made up of men and women dedicated to research. Our mission at LISER is to make certain that the scientific work carried out by these men and women is seen and heard as well as used in the service of society. I am fortunate to have the inspiring mission to guide LISER towards its objectives and privileged to have a fantastic team around me. I cannot help but be enthusiastic about the future.



# ONE YEAR AT LISER





institutes

### **OCTOBER**

Participation in the FNR Pairing Scheme "politics meets research"

LISER is a core group member of World Bank's Commission on Global Poverty chaired by the late Professor Sir Tony Atkinson



# KEY FIGURES 2016

93

2300+

**65**%

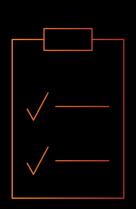


seminars & trainings organised

participants at LISER seminars & trainings

speakers from International Institutions

8 100
households contacted by LISER survey field-workers



64-00
Luxembourg companies
surveyed via the web

of visitors to LISER's website originate from outside Luxembourg

1000+
social media followers



## **VISITING SCHOLARS**





consultations of online publications

number of pages in peer-reviewed journals



reports for international organisations

articles published in peer-reviewed journals



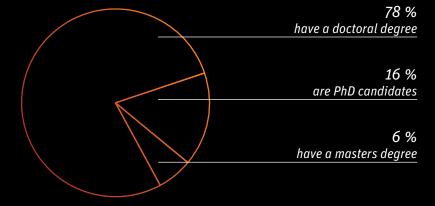


# PEOPLE AT LISER



128
employees

68
researchers





**58** % of LISER workforce are women



**42** % of LISER workforce are men

 $\mathbb{J}_{\mathbb{L}}$ 

# 26 countries represented

ARGENTINA

**LUXEMBOURG** 

**BANGLADESH** 

**NETHERLANDS** 

**BELGIUM** 

PERU

BULGARIA

**POLAND** 

CZECH REPUBLIC

PORTUGAL

ECUADOR

ROMANIA

canbon

SERBIA

FRANCE

JENDIA

**GERMANY** 

**SPAIN** 

GREECE

**SWITZERLAND** 

IRLAND

TAIWAN

ITALY

TUNISIA

KYRGYZSTAN

**UNITED STATES** 

LITHUANIA

VIETNAM













"Thanks to its dynamism and diversity, the labour market in Luxembourg offers our department the possibility to produce both sound advice to policy makers and original academic research."

HEAD OF DEPARTMENT (ACTING): DR BERTRAND VERHEYDEN

### **Research areas**

- / Career paths and the role of skills on employability
- / Combating unemployment and labour market participation of target groups such as mothers, young people and older workers
- / Dispute resolution and labour law
- / European employment policy
- / Human resources and behavioural economics
- / Labour relations and collective agreements
- / Link between national policies and the regional and international mobility of workers
- / Migration and crossborder workers; Greater Region and Europe

# Life choices and reservation wages

On a daily basis, people make choices and consume on the basis of a series of "preferences". In his study entitled, "What Types are There?" Sam Cosaert, a researcher within LISER's Labour Market department, explains how these preferences influence labour supply choices in particular.



AUTHOR Dr Sam Cosaert

"The object of my study is to model the labour supply choices of households. It is clear that people have their preferences in terms of consumption and leisure, which they finance via professional and extra-professional income," the young researcher explains. The modelling of these choices on the ba-

sis of wages and income not related to work makes it possible to identify what is referred to as the "reservation wage". This represents the minimum salary required by each individual in order accept full-time work. "The study concentrates on the reservation wages associated with full-time work. In other words, what salary is required for a person to

accept full-time work? The challenge lies in the diversity of employment preferences and wage requirements." Sam Cosaert's study takes into account that preferences vary within and across households in order to calculate the reservation wage for all.

To do this, the researcher used a panel from LISS (Longitudinal Internet Studies for the Social Sciences) in the Netherlands. This data base comprises a module entitled "Consumption and time use", which describes the choices observed with regards to work and consumption. "To test if two individuals have the same preferences, revealed preference theory is applied," explains Cosaert. Thus, in a sample of 106 couples, four different types of preferences were identified for men against three for women. As a result of this the reservation wage of each one could be analysed. "For a man, the reservation wage varied from 10 to 16 euro per hour and for a woman, from 11 to 18 euro per hour. This indicates that the two sexes have different preferences. However, variations observed on the labour market depend more on the diversity between households than within households."

With these results, Sam Cosaert brings supplementary tools to analyse the labour market. For example, his study allows the identification of the fraction of the population disposed to work full-time in function of salary levels, as well as develop new scales of income tax. Contrary to previous studies, "What Types are There?" had the objective of identifying the preferences of individuals within the population, regardless of how different they might be.

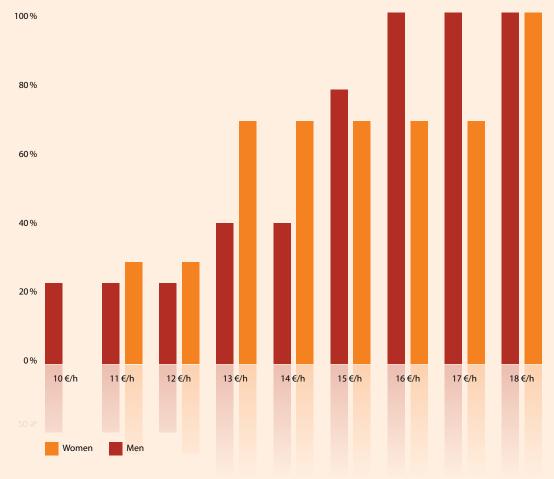
"All of the research reveals the extreme diversity of factors that influence labour supply choices and hence employ-

ment and wellbeing in society. Intra-household bargaining power and consumption sharing are also interesting at the micro economic level as they shine a light on the nature of decision-making within families."

"For a man, the reservation wage varied from 10 to 16 euro per hour and for a woman, from 11 to 18 euro per hour."

The interpretation of the figure is as follows. For wages below 11 EUR/hour, no woman in this sample can rationally supply her labour full-time. By contrast, for wages between 11 and 13 EUR/hour, women of preference type 1 (29% of the sample) may be willing to work full-time. In order to rationalise full-time work by all women, wages equal to or higher than 18 EUR/hour are required. Let us finally compare these results to the share of men who are willing to work full-time. In order for all men to work five days per week, wages of 16 EUR/hour are necessary.

\* Conditional on wages, median non-labour income and taking general forms of unobserved preference heterogeneity into account.



Source : Data LISS

# How to provide social assistance without discouraging labour: the case of low-skill youth in France

Do social benefits encourage young people to work, or do they discourage them? Karina Doorley, the leader of the Employment and Salaries team within the LISER Labour Market department, considered this question in her study entitled, "The Effect of Social Benefits on Youth Employment: Combining RD and a Behavioural Model."

"I am particularly interested

in government policies that

discourage young people from

looking for a stable job."



**AUTHOR** Dr Karina Doorley

"In my study, I investigated how to encourage young people to be active on the job market, despite the existence of social

benefits that ensure a minimum income, such as the case of France with its RMI (Revenu Minimum d'Insertion) and RSA (Revenu de Solidartité Active)," the researcher explains.

The situation of young workers is problematic, especially since the crisis in 2008. Newcomers to the job market have more and more difficul-

ty in finding long term employment. Several factors explain this phenomenon, including social benefits, which are often accused of having a negative influence. "I am particularly interested in government policies that discourage young people from looking for a stable job," says Karina Doorley. On her radar was RMI, the guaranteed social minimum in France until 2009, which had long been suspected of demotivating young people from looking for work, as well as its successor RSA, which allows for a part-time professional activity while maintaining an indemnity.

Data from a population census in France in 1999 allowed the comparison of employment rates before and after 25 years of age in order to identify any disincentive to work linked to the RMI. "Prior to 2011 eligibility for the RMI and the RSA was based on age. This meant that young people, under 25 years old and without children were not eligible," explains Karina Doorley. A gap of 7% in the employment rate of less educated young high school dropouts was also noted. The same data was also used to develop a structural model of employment. "I was able to evaluate the replacement of the RMI by the RSA in 2009," explains the researcher. "The research indicated that this reform, which allowed small financial indemnities to young people on low salaries, did indeed encourage these people to seek work. It also allowed us to confirm that the availability of this minimum income to people younger than 25 years old had no impact on employment rates."

While the objective of this study was to examine the effect of both types of social benefit on the incentives for young

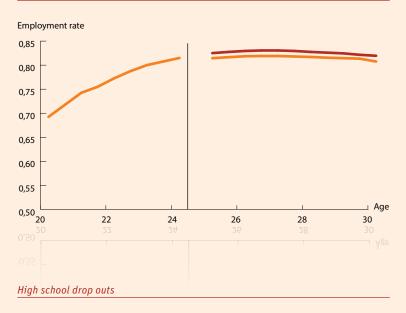
people to work, it has also demonstrated that a well-conceived social minimum, guaranteeing a minimum income can maintain incentives to work among young people. This is enough to fuel the debate on social minimums in other countries, notably in Luxembourg.



The two graphs below illustrate the employment rate for the entire population aged 20 to 30 (upper graph) and the employment rate for 20-30 year olds without a high school diploma (bottom graph).

A first comparison of these two graphs shows that the employment rate for all 20-30 year-olds is higher than that of 20-30 years without a diploma. After age 25, individuals become eligible for the RMI (from 1988 to 2009) or the RSA (after 2009). The graph at the top shows that becoming eligible for the RMI or the RSA has had almost the same effect (the red curve being very close to the orange curve), and that there is no change in employment after becoming eligible for either the RMI or RSA. On the other hand, the bottom graph illustrates that the employment rate for those without a high school diploma experiences a structural decline for potential beneficiaries of the RMI, whereas it remains stable for the potential beneficiaries of the RSA. This confirms that the risk of losing the RMI discouraged the less qualified to work. However, as the RSA allowance is maintained in case of employment, this avoided detrimental effects on participation in the labour market.

### All educations level



### Employment rate



### **Background information:**

In France, from 1988 to 2009, people whose income were below a certain level were entitled to an allowance called the minimum income for integration (RMI). In 2009 this allocation was replaced by the RSA in order to limit its perverse effects on 'job search' while maintaining a decent income level for its beneficiaries. While the beneficiary of the RMI was not entitled to benefits if he/she found a job, the beneficiary of the RSA continues to collect part of the benefits without any limitation on the duration.

Source : 1999 French Census



# **ANNUAL REPORT 2016**

# Summary of the year

// Labour Market

"2016 was a prolific year for the Labour Market department. Numerous scientific works were published in international reviews of high standing and the FNR accepted two CORE projects on older workers and the integration of migrants into the labour market. The department also produced several reports for national policy makers."

// Bertrand Verheyden, Head of Department (acting)

### **RESEARCH TEAMS**

### **COLLECTIVE BARGAINING**

- / Carole Blond-Hanten
- / Roland Maas
- / Monika Maminskaite
- / Fanny Robert
- / Patrick Thill
- / Adrien Thomas

### INFORMATION AND COMMUNICATIONS TECHNOLOGIES, **HUMAN RESOURCES MANAGEMENT, WORKING CONDITIONS**

- / Ludivine Martin
- / Nicolas Poussing
- / Thi Thuc Uyen Nguyen

### **EVALUATION**

- / Michela Bia
- / Blandine Lejealle
- / Andrea Mercatanti

#### **EMPLOYMENT AND WAGES**

- / Andrea Albanese
- / Audrey Bousselin
- / Sam Cosaert
- / Matthieu Delpierre
- / Karina Doorley
- / Bo Ra Kim (PhD)
- / Mathias Kuepie
- / Amparo Nagore

### **LABOUR MARKET OBSERVATORY**

- / Pauline Bourgeon
- / Franz Clément
- / Laetitia Hauret
- / Fabienne Jacquet

### **PUBLICATIONS**

articles in refereed journals

book chapters

article in a conference proceeding LISER publications

## **VISITING SCHOLARS**



## **PROJECTS**

projects financed on a contractual basis

projects financed on a competitive basis



# LIVING CONDITIONS HOTO Grand-Rue, Luxembourg City / Patrick Galbats GENDER DISTRIBUTION STAFF DISTRIBUTION

Researchers

**59** %

41%

**PhD Candidates** 

Support





"We observe increasing inequalities and vulnerability. It is essential to seek to understand their multiple causes and their effects on our societies."

**HEAD OF DEPARTMENT** Dr Philippe Van Kerm

### **Research Areas**

- / Analysis of social policy
- / Child poverty
- / Equal opportunities and territorial inequalities
- / Health and ageing
- / Inequality and education
- / Integration and assimilation of foreigners
- / Microsimulation methods
- / Poverty, discrimination and inequality
- / SHARE (Study of Health Ageing and Retirement in Europe)
- / Social cohesion and wellbeing
- / Social inclusion
- / Social indicators
- / Social mobility and the dynamics of incomes and wages
- / Socio-economic inequalities in health
- / Sustainability of pension systems and the Welfare
- / Taxation, social policies, employment and inequality
- / Work/life balance



# MathemaTIC: A new way to learn mathematics

Mathematics often scares students. However, imagine a modern mathematics approach that would allow children to have fun in the universe of numbers, to easily practice at home what they have learned in class. The Ministry of Education, Children and Youth has launched MathemaTIC, an online learning environment that allows children to learn in a new way. LISER is part of the team that has supported this project since 2015 and has observed its integration into the educational process, as well as its first impacts

"In the first phase we would

like to get feedback from stu-

dents and teachers."



PROJECT LEADER Dr Catalina Lomos

A mathematics approach that is adapted to the learning pace of each student and which explores new educational

methods? This is not a utopia. The MathemaTIC project is an innovative pedagogical approach that offers the possibility to learn mathematics with the help of digital support. The online MathemaTIC environment is based on the national curriculum and invites students to solve interactive

problems in French, German, English or Portuguese. While the student is playfully immersed in the universe of numbers, the teacher can follow his or her progress or difficulties. The teacher can also propose individual follow-up and, if necessary, repeat certain specific exercises with specific students.

During the pilot phase in 2015, MathemaTIC was tested by students from Cycle 4 in 40 elementary schools across the country. By 2016 the students of Cycle 4 of almost 90 schools have been voluntarily participating in the project. These pupils will be joined by students from Cycle 3 and classes 6/8 ES/EST from September 2017.

As scientific partner of the Ministry since 2015, LISER, under the project leadership of Catalina Lomos, has been mandated to evaluate the added value of this new learning environment in order to improve it further. Catalina Lomos' contribution to the study as member of the evaluation team is to improve the environment's implementation, as well as to measure the benefits it brings to the different parties concerned.

How is MathemaTIC used in the classroom as well as at home? What are the impacts on the student performance and motivation in mathematics? How useful are the different language options offered through the online learning environment? The evaluation focuses on short term and long term outcomes. "In the first phase we would like to get feedback from students and teachers," explains Catalina Lomos. To achieve

this, the team has been visiting the classrooms to establish close contact with the students and teachers. The effects on students' performance will be assessed in a second step.

As a member of the evaluation team, Catalina Lomos contributes toward the improvement of the environment's implementation, as well as the measurement of the benefits it brings to the different parties concerned. The evaluation focuses on short-term and long-term outcomes.

40

90
Elementary Schools (cycle 4)

écoles fondamentales (cycle 4)

écoles fondamentales (cycle 4)

2015-2016

2016-2017 Implementation phase

Pilot phase

LISER is part of the evaluation and research team

LISER is part of the evaluation and research team



The MathemaTIC project is an innovative pedagogical approach that offers the possibility to learn mathematics with the help of digital supports.

# Pension insecurity: worries about obtaining a reduced pension or retiring later

Since the crisis in 2008, a feeling of anxiety has prevailed in many European countries. The discussion and announcement of a number of pension reforms have brought uncertainty, raised questions and have had a direct impact on the wellbeing of future pensioners. What are the consequences of this uncertainty for the individuals?



**AUTHOR** Dr Javier Olivera

In their study entitled, "Pension Insecurity and Wellbeing in Europe," Javier Olivera and Valentina Ponomarenko, researchers from LISER and the University of Luxembourg res-

pectively, analysed the subjective wellbeing of the residents of 18 EU countries aged 50 and above, before and after the economic crisis. Using data from the Survey of Health, Aging and Retirement in Europe (SHARE), covering the years 2006/2007 and 2011/2012, they confirmed a distinct

difference between the two periods. "After the economic crisis there was a marked increase in the feeling of pension insecurity experienced by the persons aged 50 and over, especially in those countries that were worst hit by the financial crisis," comments Javier Olivera. "During and after the crisis, governments have put austerity policies in place and this has generally meant a reduction in the generosity of pensions and/or the increase of the statutory retirement age."

The researchers corroborated that the setting of austerity proposals and policies have impacted on the wellbeing of se-

nior Europeans. "People approaching the end of their careers feel that they are in a situation of increasing insecurity. Often they do not know what measures will be put in place, nor under what conditions they will be carried out." This uncertainty affects both the professional and private lives of future pensioners. "Our study shows that the stress caused by this uncertainty greatly affects the wellbeing of these people."

What is most surprising is the sharp difference in views expressed by different age groups. "We observe that the senior individuals who are further away from their retirement age are more worried about the future," revealed Javier Olivera. The gap also widens according to social class. The study has proven that those people over 50 most influenced by this apprehension are those with low incomes, notably those with no access to private pensions. There is a risk that existing social inequalities may be exacerbated by pension policy reforms.

"Retirement is an essential subject today," says Javier Olivera. "Retirement systems will necessarily change, but it is imperative that these changes are made progressively, always taking the people affected into account first and foremost." According to the two authors, the fears and uncertainties caused by the pension reforms must be taken into consideration. "People must be given time to adapt and respond," concludes Javier Olivera.

"This study was the result of a close collaboration between LISER and the University of Luxembourg,"

Luxembourg is not covered by the Olivera/ Ponomarenko research as the SHARE study was only conducted in the country for the first time in 2013, and the neces-

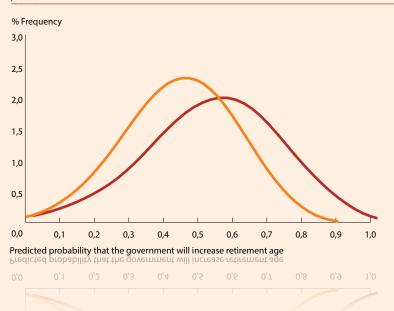
sary data was not yet available. "This study was the result of a close collaboration with the University of Luxembourg," highlights Olivera. "It will be interesting to conduct a follow-up study to include supplementary countries like Luxembourg, as well as more recent data."



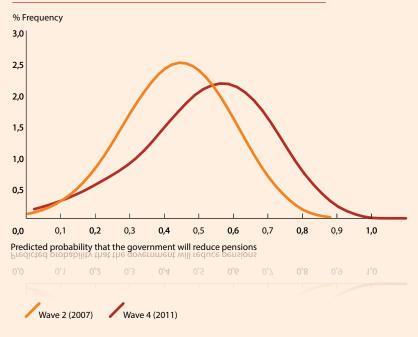
Figure A shows the estimated probability that the government will increase the retirement age, according to the opinions expressed by the individuals interviewed in 2007 (orange line) and 2011. The 2011 line placed further to the right than that of 2007 indicates the probability that the government increases the retirement age is higher in 2011 than in 2007, according to the opinions of the individuals.

Figure B shows the estimated probability that the government will reduce pensions. Similarly, individuals believe that this probability increased between 2007 and 2011.

A : Predicted probability that the government will increase the retirement age in the future



B : Predicted probability that the government will reduce pensions in the future



Source : Wave 2 and 4 from SHARE



# Summary of the year

// Living Conditions

"2016 saw the consolidation of our work on the socio-economic dimension of health in Luxembourg, as well as our research on the driving factors of inequality of income and wealth in Europe. We have also started a new research programme on the guaranteed minimum income scheme in Luxembourg."

// Philippe Van Kerm, Head of Department

### **RESEARCH TEAMS**

### **INCOME, WEALTH AND POVERTY**

- / Francesco Andreoli
- / Monique Borsenberger
- / Alessio Fusco
- / Silvia Girardi
- / Nizamul Islam
- / Isabel Martinez
- / Nicaise Misangumukini
- / Javier Olivera
- / Denisa Sologon
- / Michel Tenikue

### **CHILDHOOD, FAMILY AND EDUCATION POLICIES**

- / Aigul Alieva
- / Marie-Sophie Callens
- / Catalina Lomos
- / Anne Reinstadler
- / Alexandros Theloudis
- / Marie Valentova
- / Maike van Damme

#### HEALTH

- / Anissa Amjahad
- / Gaëtan de Lanchy
- / Eric Bonsang
- / Nathalie Lorentz
- / Gintare Mazeikaite
- / Maria Noel Pi Alperin
- / Jordane Segura
- / Anastase Tchicaya

### **SOCIAL AND ECONOMIC INDICATORS**

/ Kristell Leduc

### **MODELLING AND SIMULATION**

- / Philippe Liégeois
- / Anne-Sophie Genevois

### **SOCIAL AND SPATIAL INEQUALITY DYNAMICS**

- / Eric Marlier
- / Anne-Catherine Guio
- / Eva Sierminska

### **PUBLICATIONS**

articles in refereed journals

LISER publications

## **VISITING SCHOLARS**



## **PROJECTS**

14

projects financed on a contractual basis

14

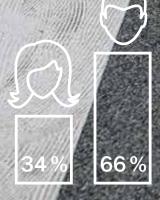
projects financed on a competitive basis





GENDER DISTRIBUTION

STAFF DISTRIBUTION



Researchers 66 %

PhD Candidates 10 %

Support 24 %



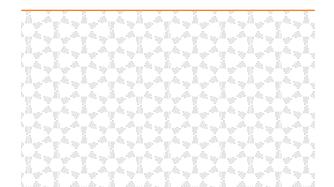


"Faced with daily transport problems and difficulties accessing housing, it is crucial to study deeper into the interactions between urban development, housing and daily mobility."

**HEAD OF DEPARTMENT (ACTING)** Dr Olivier Klein

### **RESEARCH AREAS**

- / Cross-border integration: practices and representations
- / Cross-border metropolitan areas and the role of the media
- / Cross-border territorial cooperation and planning
- / Evaluation of national and cross-border transport networks
- / Healthy ageing, urban environment and mobility
- / Housing policy
- / Housing prices modelling
- / Individual mobility behaviour: practices and representations
- / Interaction between transport systems and land use
- / Land use and availability
- / New forms of mobility and sustainability
- / Social mutations and access to housing
- / Spatial planning and urban social policy
- / Specialisation of financial centres





# Ageing better in Luxembourg urban environments

Urban planning for ageing population is urban planning for everyone. This is one of the conclusions of the study entitled, "Understanding the Role of Contrasting Urban Contexts in Healthy Ageing," by Philippe Gerber, part of a research consortium made up of a team from LISER, the Centre Hospitalier of the University of Montreal and the National Institute of Health and Medical Research in Paris. The consortium looked at the questions of mobility, wellbeing and social participation of older people living in different urban environments in Luxembourg, Montreal and Paris.



PROJECT LEADER Dr Philippe Gerber

Geographer and researcher at LISER since 2001, Philippe Gerber has examined the importance of the urban environment on persons aged 65 and over. His objective? To measure the level

of wellbeing, mobility and social participation of the elderly according to the environment they operate in. "The urban environment can influence mobility practices and feelings of wellbeing in the elderly," explains the researcher. "We also noted that in taking care of our ageing population and organising

our ageing population and organising our urban planning to meet their needs, we finish up by planning

"It is the first study of

its type to deal with this

category of the population on

Luxembourg."

In order to achieve their study, Philippe Gerber, along with the consortium, developed a new protocol for the collection of data. A device combining a GPS and accelerometer was supplied to a sample of older people. "For seven days their trips and physical activity were measured in order to collect objective and reliable data on their movements, even within the home" explains Philippe Gerber. An interactive card showing where the activity took place (doctor, hairdresser, supermarket...) was also developed.

While the data collection took place at the end of 2016 and the information is still being processed, the first results are emerging. "It is the first study of its type to deal with this category of the population on Luxembourg. The elderly go out relatively often, the number of times they leave the home is estimated at between 100 – 120 times per month, which is quite significant. We now need to compare these results with those generated by the GPS. Deeper analysis will follow to further develop the results and cross reference them with different urban areas," adds the researcher. "We believe a "walkable" environment will favour more active trips, compared to certain other environments which are more likely to favour the use of a car or public transport."

In time the results should help public decision-makers to better scale their urban planning choices, as well as alert the authorities and public to the habits of the elderly and their consequences. "Often, following a fall of an accident for example, we notice a break in the habits and movements of

an elderly person - a break than can often lead to isolation. Our studies allow us to measure these risky situations and possibly simulate them in order to alert the authorities and family members," highlights Philippe Gerber.



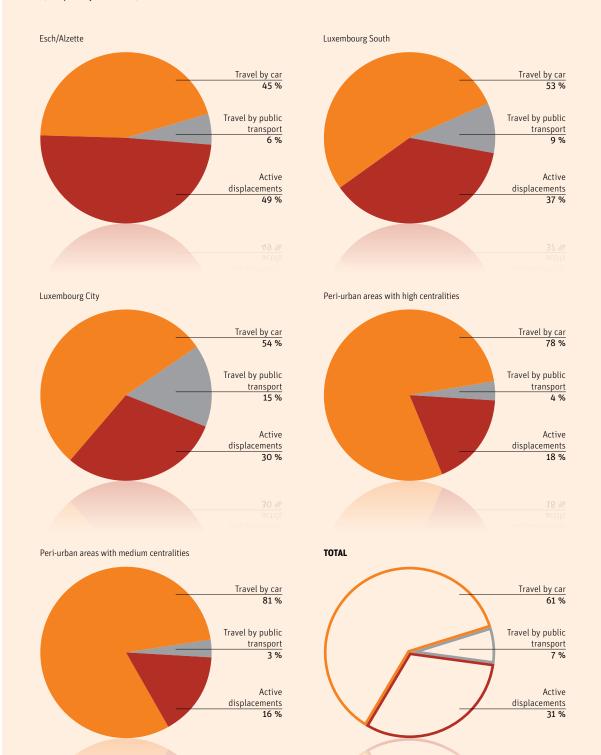
for everyone."



Source: Survey CURHA, LISER

According to the first descriptive results from the survey on the regular activities of the elderly, the proportion of public transport usage is relatively high: for the 470 people interviewed, almost a third of them used some for public transport. On the other hand, the majority of car trips are carried out in peri-urban areas.

Esch-sur-Alzette, Luxembourg and the cities of the south of the country (like Differdange or Dudelange) had the highest concentration of the journeys made on foot.



# Finance through the geography prism

What is it that distinguishes the world's different financial centres? This is a question that opens the door to an exciting field of research, that of financial geography. Sabine Dörry, a researcher at LISER, takes an alternative look at the world of finance.

"Geographers are generally

interested in spaces, places

and their contexts."



**AUTHOR** Dr Sabine Dörry

Finance is almost always exclusively analysed from the economics point of view. However, other disciplines like economic geography can throw a new and surprising light on the subject. In her study, entitled "The Geographies of Industrialised

Finance: Probing the Global Production Network of Asset Management," Sabine Dörry scrutinises the world of networked financial 'production'.

"Geographers are generally interested in spaces, places and their

contexts," says Sabine Dörry. However, how do the world's financial hubs specialise? What role do they play in the creation of value? Can financial centres be considered as strategic, creative engines for urban economies? Unanswered questions like these suggest taking fresh look at the world of finance and their production sites.

The analysis of the interdependences and specialisations of the different financial centres allows us to better understand the reactions of each one in the face of the crisis. In certain parts of the world, like London and New York, redundancy plans came one after the other, while in other finance centres, like Luxembourg and Singapore, the market has been flourishing and the number of job losses was much fewer. So what do the financial centres resemble, and can they be characterised despite each having unique histories, political accents and legal requirements?

Sabine Dörry aspires to understand the structures and processes of global finance 'production', which she observes with a critical eye. Among other aspects, the researcher is concentrating on three particular features of the asset management sector: value creation, scientification of the financial work, and changes in power relations.

A first observation is that the understanding of 'value creation' may differ between the finance and the productive sectors. Does the finance sector create social surplus value, or is it characterised by financial wealth growth, such as the accumulation of wealth for a few?

Secondly, Sabine Dörry observes a scientification of the financial work. Processes, which were relatively simple in the past, are now highly complex - characterised by speculation and an artificial extension of the value chains. Numerous professional groups are involved and a whole new set of highly specialised experts is created.

Finally, power relations are changing within the financial system. Digitalisation in particular could reduce the value of

traditional banks. For example, tech giants such as Google and Amazon are active in this sector. With a generation of millennials (digital natives) reaching adulthood, will the giants disrupt the entire industry?

Sabine Dörry's paper provides a taste of what is to come. For example, further research projects are taking place at LISER, in particular with regard to Luxembourg's financial centre and its future positioning. "Green finance will be at the heart of future concerns", reveals Sabine Dörry. New questions cast their shadows ahead; a new field of research emerges.

 $Financial\ centers\ are\ strategic\ and\ creative\ engines\ for\ economic\ development$ 



Luxembourg



London



Singapore



# **Summary of the year**

// Urban Development and Mobility

"After an excellent 2015, the department Urban Development and Mobility has continued its good results with, among others, 17 articles in international journals and the launch of its first public-private partnership in the framework of the Beta-Tracker project."

// Christophe Sohn, Head of Department (till 31/07/2016),

// Olivier Klein, Head of Department (acting from 01/08/2017)

### **RESEARCH TEAMS**

### **URBAN DEVELOPMENT**

- / Reine-Maria Basse
- / Antoine Decoville
- / Sabine Dörry
- / Valérie Feltgen
- / Bernhard Köppen
- / Antoine Paccoud
- / Nicolas Raimbault

### **MOBILITY**

- / Pierre-Olivier Chasset
- / Valentine Judge
- / Sylvain Klein
- / Tai-Yu Ma
- / Hichem Omrani
- / Camille Perchoux
- / Veronique van Acker

### **CROSSBORDER INTEGRATION**

- / Philippe Gerber
- / Vincent Dautel

#### **BORDERS**

- / Frédéric Durand
- / Laura Herzog
- / Christian Lamour
- / Christophe Sohn

### **HOUSING OBSERVATORY**

- / Lauriana Gabriella Dragut
- / Brano Glumac
- / Magdalena Gorczynska
- / Julien Licheron
- / Konrad Skoczylas

### **GEOGRAPHICAL INFORMATION SYSTEMS AND DATA PROVI-**

- / Bérengère Darud
- / Anasse El Maslohi
- / Marc Schneider

### **PUBLICATIONS**

articles in refereed journals

book chapter

LISER publication



**ANNUAL REPORT 2016** 

## **VISITING SCHOLARS**



## **PROJECTS**

projects financed on a contractual basis

11 jects financed o

projects financed on a competitive basis







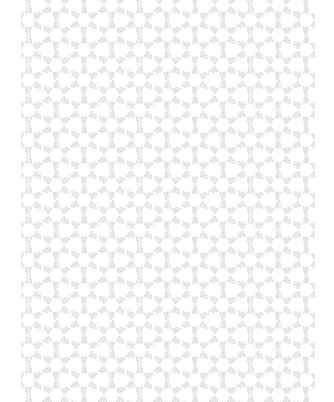
"Building on tradition and introducing new approaches in survey methodology to develop a centre of excellence within the Institute."

SURVEY TEAM LEADER Dr Agnieszka Walczak

#### **SURVEY TEAM**

- / Manuela Baesch
- / Jean-Yves Bienvenue
- / Alexandra Biever
- / Sylviane Breulheid
- / Maxime Di Blasi
- / Mireille Foog
- / Cristina Frutuoso
- / Eric Guastalli

- / Viviane Hartert
- / Henriette Hendrickx
- / Nada Magnoni
- / Marie-Josée Munchen
- / Ginette Schickes
- / Laureen Vanni
- / Anne Villeret
- / Jean Carlo Welter





## **SUMMARY OF THE YEAR**

"Based on its experience and know-how built up over many years, the LISER team dedicated to surveys wishes to develop a centre of excellence for survey methodology. This will allow LISER to offer academic expertise in the conception of surveys and the collection of data. The objective is to reinforce LISER's capacity to respond in the best possible way to the research needs of its partners and maximise the impact of its research on society."

// Agnieszka Walczak, Survey Team Leader

## Four major projects in 2016

**EU-SILC: Income and living conditions** 

Fieldwork was carried out for the EU-SILC survey (European Statistics on Income and Living Conditions), which ran from 16 February to 15 November 2016. The EU-SILC is an annual survey aiming to collect data on income and poverty, social exclusion and living conditions. Since the inception of the Europe 2020 strategy, researchers have used the EU-SILC data to study poverty and social inclusion in the European Union. In February 2017, LISER will participate in the 15th wave of the EU-SILC survey.







## **SHARE:** Health, Ageing and Retirement in Europe

Two face-to-face pilot surveys were carried out in preparation for the main fieldwork of the SHARE survey (Survey on Health, Aging and Retirement in Europe). This survey provides essential information on the living conditions of people aged 50 and over. Its objective is to better understand the ageing process and examine the differences in living conditions of older people in Europe with a view to developing policies aiming to improve health and quality of life in Europe. In March 2017, LISER will participate in the 3rd wave of the SHARE survey in Luxembourg.



101

households contacted for two pre-tests



## **ADEM: Employer Satisfaction in Luxembourg**

Two online surveys aimed at Luxembourg businesses were carried out in 2016. The first project was conducted for ADEM (National Employment Administration) in order to measure the level of satisfaction of employers in Luxembourg concerning ADEM services. In addition to being interviewed on their level of satisfaction, employers gave their opinions on the financial assistance they can benefit from, as well as on the new online platform JobBoard. The results of the survey will allow ADEM to improve the quality of its public services.





## **Employee Mobility in the South of Luxembourg**

This project was carried out with the Vekéiersverbond and Pro-Sud on behalf of the Ministry for Sustainable Development and Infrastructure with the objective of studying the transport conditions of employees in the South of Luxembourg. The study focused on the accessibility of the business parks and public transport, as well at the transport methods used by employees to get there (car sharing, cycling, walking...). The information collected allowed the definition of concrete measures on how to improve the commute to work. This study on mobility in the South of Luxembourg will continue in 2017.

63

face-to-face interviews with companies







"Through a culture of close collaboration with research, the Administration Department strives to continually improve the services provided to LISER researchers and their partners."

ADMINISTRATIVE DIRECTOR Claire Egan (MBA)

#### **ADMINISTRATIVE TEAMS**

#### COMMUNICATION

/ Benoît Lanscotte / Nicolas Stamets

#### **EVENTS**

/ Carole Wiscour-Conter

#### **FACILITY MANAGEMENT**

/ Sanela Ceman

/ Mireille Coos

/ Enes Crnic

/ Susanna Geiss

/ Nicole Klasen

/ Ute Lauer

/ Patrick Siedler

/ Fabrizio Standardi

#### FINANCE AND ACCOUNTING

/ Monique Fernandes Almeida / Sylvie Herschbach

/ Sonia Livoir

/ Salima Mansouri

#### **HUMAN RESOURCES**

/ Valérie Baran

/ Paola Dumet

/ Vanya Kirova

/ Esther Zana-Nau

/ Florentin Arno

/ Benjamin Boehm

/ Bruno Clicque

/ Michel Leman

/ David Vasaune

#### IT BUSINESS ANALYSIS

/ Frédéric Klein

#### LIBRARY AND **DOCUMENTATION**

/ Isabelle Bouvy

/ Begoña Levices

#### **PROJECT MANAGEMENT**

/ Clémence Pouget

#### **SECRETARIAT**

/ Karima Djaït

/ Nicole Hégerlé

/ Birgit Schneider





## **New LISER website**

At the end of 2016 LISER management decided to modernise, reinforce and adapt its web presence in order to better meet its strategic objectives. In parallel, LISER began to update part of its IT system with the modern enterprise resource planning (ERP) called 'Odoo', which will provide structural improvements. The developments aim to make works more accessible to the general public and advance the scientific reputation of the institute within the academic community.



## Research seminars



**28 SEPTEMBER 2016** 

How welfare reform in the UK has harmed health: the case of housing

Associate Professorial Research Fellow in Poverty and Inequality DR AARON REEVES International Inequalities Institute

London School of Economics & Political Science

Housing security is a determinant of mental health that can be strengthened or undermined by public policy.

In April 2011 the British government reduced housing benefits (an average reduction of 2315\$ per year in housing benefits for low income people in the private rental sector). This reform created a natural experiment by splitting the population into two groups – those receiving a government housing benefit and those not receiving housing benefits. This change in policy has been used to explore the link between housing security and wellbeing by comparing the prevalence of mental

illness between the two groups before and after the reform. It appears that between April 2011 and March 2013 the prevalence of symptoms of depression in private tenants who received housing benefits increased by 18% compared to those did not receive a housing benefit. Our models estimate that in the region of 26,000 people have shown symptoms of depression in connection with the reduction in housing benefits.

We conclude that the reduction of housing support to low income people in the private rental sector had increased in the prevalence of depression in the UK.

seminars and trainings organised at LISER in 2016

150+
hours of seminars and trainings
organised at LISER in 2016



### Launch...

#### ...of LISER-LAB

For some time now, events like the 2008 crisis have demonstrated the need to better understand and predict economic change. This need results from the complexity of the economic environment: the economy is interconnected, globalised and characterised by an innumerable quantity of human interactions which are often subject to diverging interests. This contrasts with "hard sciences", where laboratory experiments allow scientists to analyse a given phenomenon while isolating it from disrupting or confounding factors. Human sciences, which use administrative or quantitative surveys, generally do not offer this possibility.

Over the course of the last two decades a new approach aiming to study economic phenomena in a controlled environment has risen. Known as experimental economics, its goal is to replicate economic situations through experiments involving participants whose behaviour is analysed by the researcher. The researcher can also modify the parameters, or rules, of the experiment in order to precisely assess the impact of these rules on participants' behaviour. The collected information, together with the socio-demographic profile of participants, is compiled in a data base, which is then analysed with statistical methods.

Through the LISER-LAB, created in January 2016, LISER contributes to this growing discipline and takes advantage of the microcosm of the Grand Duchy of Luxembourg. Indeed, due to its multiculturalism and multilingualism, Luxembourg offers an especially favourable context to analyse the impact of identity and diversity of groups on the behaviour of individuals, in particular the propensity to cooperate. While it is only emerging in the experimental literature, the subject of diversity presents enormous academic potential for LISER and is particularly relevant for social cohesion and the national economy.

The LISER-LAB offers a versatile decision-making and analytical tool that addresses a multiplicity of questions that are relevant to public and private decision makers. In addition, it contributes to LISER's visibility on the national and international scales. Do not hesitate to come and take part in our experiments, they are meant to involve a large public and to foster progress in science!

#### ...of Cataliser

With a large number of databases at LISER's disposal from its various research projects, the institute has decided to provide the broader scientific community the possibility to access the valuable data. Through Cataliser, LISER informs the scientific community, both internal and external, of these

databases. The newly-developed web application now allows access to a list of databases and their associated metadata. In addition, where applicable the visitor can also view technical guides and methodologies.

150+

number of databases now visible within Cataliser



#### ...of interactive socio-economic indicators website

A new web space dedicated to socio-economic indicators was launched in 2017. The objective of this new space is to improve the national and international visibility of LISER's research production. Through their work, LISER researchers have identified different socio-economic phenomena, which are relevant to the Grand Duchy, such as ageing of the working population, material deprivation or property prices. While not exhaustive, this new page is designed to provide an overview of the economic, social and geographical dimensions of the country with a temporal and/or spatial scope thanks to dynamic and/or interactive graphics.

Beyond the numbers, this page also aims to guide the users in interpreting these indicators. Thus, an indicator's page may include supporting texts, which will allow for a better understanding of the facts and of the socio-political context for scientists as well as the general public. For users wishing further information on an indicator or research theme, each indicator will be linked to the publications (where possible) or to other relevant themes.



## PUBLICATIONS 2016

## **Articles in refereed journals**

#### **Labour Market**

BARGAIN Olivier, CALLAN Tim, DOORLEY Karina, KEANE Claire. Changes in Income Distributions and the Role of Tax-benefit Policy During the Great Recession: An International Perspective. Fiscal Studies, 2016 (Online first: 09 June 2016).

BARGAIN Olivier, DOORLEY Karina. The Effect of Social Benefits on Youth Employment: Combining RD and a Behavioral Model. Journal of Human Resources, 2016 (Online first: 07 July 2016).

BOHAS Amélie, POUSSING Nicolas. An empirical exploration of the role of strategic and responsive corporate social responsibility in the adoption of different Green IT strategies. Journal of Cleaner Production, 2016, vol. 122, pp. 240-251.

BOUSSELIN Audrey. Emploi des mères et recours à un mode de garde payant: le rôle de la proximité des services de garde d'enfants et de leur coût – un exemple à partir de données luxembourgeoises. Economie & prévision, 2016, vol. 2015/1, n°206-207, pp. 91-115.

#### BROCHARD Delphine, BLOND-HANTEN Carole, ROBERT Fanny.

Les effets de l'invitation européenne à agir sur la conciliation emploi-famille : une analyse comparée de la négociation collective en France et au Luxembourg. La revue de l'IRES, 2016, vol. 2015/2-3, n°85-86, pp. 99-143.

DELPIERRE Matthieu, VERHEYDEN Bertrand, WEYNANTS Stéphanie. Is informal risk-sharing less effective for the poor? Risk externalities and moral hazard in mutual insurance. Journal of Development Economics, 2016, n°118, pp. 282-297.

KIROV Vassil, THILL Patrick. Employment Relations and Restructuring Management in the Banking Sector in Luxembourg. Warsaw Forum of Economic Sociology, spring 2015, vol. 6, n°1, pp. 75-100 (ed. 2016).

KUEPIE Mathias, NORDMAN Christophe. Where Does Education Pay Off in Sub-Saharan Africa? Evidence from Two Cities of the Republic of Congo. Oxford Development Studies, 2016, vol. 44, n°1, pp. 1-27.

KUEPIE Mathias. Determinants of labor market gender inequalities in Cameroon, Senegal and Mali: the role of human capital and of fertility burden. Canadian Journal of Development Studies/Revue canadienne d'études du développement, 2016 (Online first: 07 March 2016).

MERCATANTI Andrea, LI Fan. Do debit cards decrease cash demand? Causal inference and sensitivity analysis using principal stratification. Journal of the Royal Statistical Society: Series C (Applied Statistics), 2016 (Online first: 03 November 2016).

MOTHE Caroline, NGUYEN Thi Thuc Uyen. Persistent openness and environmental innovation: An empirical analysis of French manufacturing firms. Journal of Cleaner Production, 2016 (Online first: 13 December 2016).

THOMAS Adrien. « Provocateurs et semeurs de ragots » : les immigrés au prisme des débats syndicaux. Cahiers d'histoire. Revue d'histoire critique, 2016, n°132, pp. 89-104.

THOMAS Adrien. The transnational circulation of the 'organizing model' and its reception in Germany and France. European Journal of Industrial Relations, 2016, vol. 22, n°4, pp. 317-333.

#### **Living Conditions**

ANDREOLI Francesco. Robust Inference for Inverse Stochastic Dominance. Journal of Business & Economic Statistics, 2016 (Online first: 13 January 2016).

BAUMANN Michèle, TCHICAYA Anastase, LORENTZ Nathalie, LE BIHAN Etienne. Impact of Patients' Communication with the Medical Practitioners, on Their Adherence Declared to Preventive Behaviours, Five Years after a Coronary Angiography, in Luxembourg. PLOS ONE, 2016, vol. 11, n°6, 10 p.

BONAN Jacopo, DAGNELIE Olivier, LEMAY-BOUCHER Philippe, TENIKUE Michel. The Impact of Insurance Literacy and Marketing Treatments on the Demand for Health Microinsurance in Senegal: A Randomised Evaluation. Journal of African Economies, 2016 (Online first: 31 October 2016).

BORSENBERGER Monique, FLEURY Charles, DICKES Paul. Welfare regimes and social cohesion regimes: do they express the same values? European Societies, 2016, vol. 18, n°3, pp. 221-244.

BOVER Olympia, CASADO Jose Maria, COSTA Sonia, DU CAJU Philip, McCARTHY Yvonne, SIERMINSKA Eva, TZAMOURANI Panagiota, VILLANUEVA Ernesto, ZAVADIL Tibor. The distribution of debt across euro-area countries: The role of individual characteristics, institutions and credit conditions. International Journal of Central Banking, 2016, vol. 12, n°2, pp. 71-128.

CALLENS Marie-Sophie, MEULEMAN Bart. Do integration policies relate to economic and cultural threat perceptions? A comparative study in Europe. International Journal of Comparative Sociology, 2016 (Online first: 29 August 2016).

FLOOD Lennart, ISLAM Nizamul. The rise of working pensioners: the Swedish case. Nordic Tax Journal, 2016, vol. 5, n°1, pp. 41-66.

FRAZER Hugh, MARLIER Eric. Enhancing the potential contribution of minimum income schemes to a more Social Europe. Politiche Sociali/Social Policies, 2016, n°3/2016, pp. 519-535.

FUSCO Alessio. The Dynamics of Perceived Financial Difficulties. Journal of Happiness Studies, 2016, vol. 17, n°4, pp. 1599-1614.

GUIO Anne-Catherine, MARLIER Eric, GORDON David, FAHMY Eldin, NANDY Shailen, POMATI Marco. Improving the measurement of material deprivation at the European Union level. Journal of European Social Policy, 2016, vol. 26, n°3, pp. 219-233.

JENKINS Stephen P., VAN KERM Philippe. Assessing Individual Income Growth. Economica, 2016, vol. 83, n°332, pp. 679-703.

KYZYMA Iryna, WILLIAMS Donald R. Public cash transfers and poverty dynamics in Europe. Empirical Economics, 2016 (Online first: 15 April 2016).

OLIVERA Javier, PONOMARENKO Valentina. Pension Insecurity and Wellbeing in Europe. Journal of Social Policy, 2016 (Online first: 17 November 2016).

OLIVERA Javier. An Assessment of a Proposed Multi-Pillar Pension Reform in Peru. Apuntes, 2016, vol. 43, n°78, pp. 9-40.

OLIVERA Javier. The division of inter-vivos parental transfers in Europe. The Journal of the Economics of Ageing, 2016 (Online first: 09 July 2016).

**OLIVERA Javier.** Welfare, Inequality and Financial Effects of a Multi-Pillar Pension Reform: The Case of Peru. The Journal of Development Studies, 2016, vol. 52, n°10, pp. 1401-1414.

PI ALPERIN Maria Noel. A multidimensional approach to measure health. Economics Bulletin, 2016, vol. 36, n°3, pp. 1553-1568.

SELEZNEVA Ekaterina, VAN KERM Philippe. A distributionsensitive examination of the gender wage gap in Germany. Journal of Economic Inequality, 2016, vol. 14, n°1, pp. 21-40.

TCHICAYA Anastase, LORENTZ Nathalie, DEMAREST Stefaan. Socioeconomic Inequalities in Smoking and Smoking Cessation Due to a Smoking Ban: General Population-Based Cross-Sectional Study in Luxembourg. PLOS ONE, 2016, vol. 11, n°4 (Online first: 21 April 2016).

TCHICAYA Anastase, LORENTZ Nathalie. Socioeconomic inequalities in health-related quality of life between men and women, 5 years after a coronary angiography. Health and Quality of Life Outcomes, 2016, vol. 14 (Online first: 03 December 2016).

VALENTOVA Marie. Generation and the propensity of long career interruptions due to childcare under different family policy regimes: A multilevel approach. International Sociology, 2016 (Online first: 18 August 2016).

VAN KERM Philippe, YU Seunghee, CHOE Chung. Decomposing quantile wage gaps: A conditional likelihood approach. Journal of the Royal Statistical Society (Series C: Applied Statistics), 2016, vol. 65, n°4, pp. 507-527.

#### **Urban Development & Mobility**

BASSE Reine Maria, CHARIF Omar, BÓDIS Katalin. Spatial and temporal dimensions of land use change in cross border region of Luxembourg. Development of a hybrid approach integrating GIS, cellular automata and decision learning tree models. Applied Geography, 2016, vol. 67, pp. 94-108.

DAUTEL Vincent. L'adoption d'innovations technologiques et/ou organisationnelles dans la région métropolitaine de Luxembourg. Economie & prévision, 2016, vol. 2015/1, n°206-207, pp. 71-90.

DECOVILLE Antoine, DURAND Frédéric. Building a cross-border territorial strategy between four countries: wishful thinking? European Planning Studies, 2016, vol. 24, n°10, pp. 1825-1843.



DÖRRY Sabine, ROSOL Marit, THISSEN Fee. The significance of creative industry policy narratives for Zurich's transformation toward a post-industrial city. Cities, 2016, vol. 58, pp. 137-142.

DÖRRY Sabine. The Geographies of Industrialised Finance: Probing the Global Production Networks of Asset Management. Geography Compass, 2016, vol. 10, n°1, pp. 3-14.

DREVON Guillaume, GERBER Philippe, KLEIN Olivier, ENAUX Christophe. Measuring Functional Integration by Identifying the Trip Chains and the Profiles of Cross-Border Workers: Empirical Evidences from Luxembourg. Journal of Borderlands Studies, 2016 (Online first: 16 December 2016).

GLUMAC Brano, HAN Q., SCHAEFER W. A negotiation decision model for public-private partnerships in brownfield redevelopment. Environment and Planning B, 2016 (Online first: 21 September 2016).

KESTENS Yan, CHAIX Basile, GERBER Philippe, DESPRES Michel, GAUVIN Lise, KLEIN Olivier, KLEIN Sylvain, KÖPPEN Bernhard, LORD Sébastien, NAUD Alexandre, PAYETTE Hélène, RICHARD Lucie, RONDIER Pierre, SHARECK Martine, SUEUR Cédric, THIERRY Benoit, VALLEE Julie, WASFI Rania. Understanding the role of contrasting urban contexts in healthy aging: an international cohort study using wearable sensor devices (the CURHA study protocol). BMC Geriatrics, 2016, vol. 16, n°96, pp. 1-12.

KORTELAINEN Jarmo, KÖPPEN Bernhard. The EU-Quarter as a political place: Investigating fluid assemblages in EU policy making. European Urban and Regional Studies, 2016 (Online first: 26 November 2016).

LAMOUR Christian. Free Dailies in the European Cross-Border Metropolis: The State-Based Economic Deals. International Journal of Communication, 2016, vol. 10, pp. 818-837.

LAMOUR Christian. The Neo-Westphalian Public Sphere of Luxembourg: The Rebordering of a Mediated State Democracy in a Cross-Border Context. Tijdschrift voor Economische en Sociale Geografie, 2016 (Online first: 15 July 2016).

MA Tai-Yu, CHOW Joseph Y.J., XU Jia. Causal structure learning for travel mode choice using structural restrictions and model averaging algorith. Transportmetrica A: Transport Science, 2016 (Online first: 25 November 2016).

PACCOUD Antoine. Buy-to-let gentrification: Extending social change through tenure shifts. Environment and Planning A, 2016 (Online first: 18 November 2016).

RAUX Charles, MA Tai-Yu, CORNELIS Eric. Variability in daily activity-travel patterns: the case of a one-week travel diary. European Transport Research Review, 2016, vol. 8, n°26, pp. 1-14.

TAYYEBI Amin, ARSANJANI Jamal J., TAYYEBI Amir H., OMRANI Hichem, MOGHADAM Hossein S. Group-based crop change planning: Application of SmartScape™ spatial decision support system for resolving conflicts. Ecological Modelling, 2016, vol. 333, pp. 92-100.

TAYYEBI Amin, TAYYEBI Amir H., ARSANJANI Jamal J., MOGHADAM Hossein S., OMRANI Hichem. FSAUA: A framework for sensitivity analysis and uncertainty assessment in historical and forecasted land use maps. Environmental Modelling & Software, 2016, vol. 84, pp. 70-84.

VICTOR Nadja, KLEIN Olivier, GERBER Philippe. Handicap de situation et accessibilité piétonne : reconcevoir l'espace urbain. Espace Populations Sociétés, 2016, vol. 2016, n°2, 18 p.

VICTOR Nadja, KLEIN Olivier, JOLIVEAU Thierry. Modéliser la marche urbaine et les relations environnement—usagers dans un SIG. Application à la ville de Luxembourg. Revue Internationale de Géomatique, 2016, vol. 25, n°4/2015, pp. 537-560.



# Articles in non-refereed journals

#### **Labour Market**

CLEMENT Franz. L'état de l'état-providence au Luxembourg/De staat van de verzorgingsstaat in Luxemburg. Revue Belge de Sécurité Sociale/Belgisch Tijdschrift voor Sociale Zekerheid, 2016, n°4/2015, pp. 797-818.

CLEMENT Franz. La coopération policière dans la Grande Région et au sein du Bénélux. REAP – Revue Européenne de l'Action Publique, 2016, n°2, pp. 41-42.

CLEMENT Franz. Le Luxembourg s'adapte à son économie cosmopolite. REAP – Revue Européenne de l'Action Publique, 2016, n°2, pp. 11-12.

DOLLS Mathias, DOORLEY Karina, PAULUS Alari, SCHNEIDER Hilmar, SIEGLOCHSebastian, SOMMEREric. Fiscal Sustainability and Demographic Change: A Micro Approach for 27 EU Countries. IZA, 2015, IZA Discussion Paper Series n°9618, 41 p. (ed. January 2016).

DOORLEY Karina, PESTEL Nico. Labour Supply after Inheritances and the Role of Expectations. IZA, 2016, IZA Discussion Paper Series n°9822, 39 p.

KIM Bora, ISLAM Nizamul. Gender difference in path dependency and spousal bargaining in lifestyle formation: evidence from Korea. KULeuven, 2016, Discussion Paper Series n°DPS 16.15, 42 p.

KIM Bora. Inequity in unmet medical need among the European elderly. KUKeuven, Department of Economics, 2016, Discussion Papers Series n°DPS16.08, 48 p.

#### **Living Conditions**

ABID-FOURATI Yosr, O'DONOGHUE Cathal, SOLOGON Denisa. Exploring the Determinants of Welfare Distribution in Tunisia and Egypt Using a Welfare Generation Model. Economic Research Forum, 2016, working paper series n°1009, 35 p.

ABID-FOURATI Yosr, O'DONOGHUE Cathal, SOLOGON Denisa. Decomposing Welfare Inequality in Egypt and Tunisia: An Oaxaca -Blinder Based Approach. Economic Research Forum, 2016, working paper series n°1015, 29 p.

#### **Urban Development & Mobility**

DÖRRY Sabine. Die Geographie der Finanzkrise auf den Immobilienmärkten. Geographie aktuell, 2016, vol. 28, p. 3.

DREVON Guillaume, GERBER Philippe, KLEIN Olivier. Pour une approche spatiale de l'intégration des frontaliers au Luxembourg. Entreprises Magazine, 2016, n°80, pp. 30-32.

SCHIEBEL Julien. Les déplacements dans la Grande Région : le point de vue des acteurs de la mobilité. Entreprises Magazines, 2016, n°80, pp. 26-29.

SOHN Christophe. La frontière: un atout dans un monde urbain globalisé. Questions Internationales – La Documentation française, 2016, n°79-80, pp. 37-47.



## **Book chapters**

#### **Labour Market**

BLOND-HANTEN Carole. La place de l'égalité entre femmes et hommes dans l'espace de la négociation collective de l'OGBL. In: KRIER Frédéric, MAAS Jacques, SAUER Arnaud, SCUTO Denis. 100 Joer fräi Gewerkschaften 1916-2016. Esch-sur-Alzette: Éditions Le Phare, 2016, pp. 427-437.

DOORLEY Karina. Making the switch. The employment and fiscal effects of introducing individual income taxation in Luxembourg. In: Ministère du Travail, de l'Emploi et de l'Economie sociale et solidaire. Imposition individuelle et emploi. Luxembourg: Éditions d'Lëtzebuerger Land, 2016, pp. 81-100.

SCUTO Denis, THOMAS Adrien. Entre solidarité internationale et protection de l'emploi national : les syndicats et les immigrés. In: KRIER Frédéric, MAAS Jacques, SAUER Arnaud, SCUTO Denis. 100 Joer fräi Gewerkschaften 1916-2016. Esch-sur-Alzette : Éditions Le Phare, 2016, pp. 225-252.

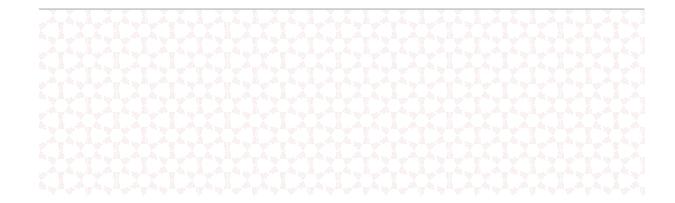
#### **Urban Development & Mobility**

GLUMAC Brano, SMEETS Jos, VAN DE VEN Leonie. Arbeidsmobiliteit en wonen. Flexibele woonlocaties en de investeringsmogelijkheid. In: SMEETS Jos. Wonen. Discoursen, praktijken, perspectieven. Eindhoven: Technische Universiteit Eindhoven, 2016, pp. 193-204.

# Articles in a conference proceeding

#### **Labour Market**

NAGORE GARCIA Amparo. Gender Differences in Unemployment Dynamics and Initial Wages Over the Business Cycle. In: MURGUI Santiago, PAVIA José Manuel, CASINO Alejandro, GARCIA-CARCELES Belén (coord.) Anales de economía aplicada 2016. Valencia: XXX International Conference of Applied Economics ASEPELT, 2016, pp. 971-1000.



## **Reports**

#### **Labour Market**

LEJEALLE Blandine, BIENVENUE Jean-Yves, BREULHEID Sylviane, DI BLASI Maxime, GUASALLI Eric, MUNCHEN Marie-Josée, SCHICKES Ginette, VANNI Laureen, VILLERET Anne. The Luxembourg Household Finance and Consumption Survey LU-HFCS (Residents) 2014 – Final report. LISER, 2016, 395 p.

MAAS Roland. Policies addressing in-work poverty in the EU Luxembourg. In: Policies addressing in-work poverty in the EU. Dublin: European Foundation for the Improvement of Living and Working Conditions, 2016, 17 p.

THILL Patrick. Implementation of the Council Recommendation on a Quality Framework for Traineeships. Report for the Europeen Commission. Brussels: European Commission, 2016, 14 p.

THILL Patrick. Labour market integration of asylum seekers and refugees in Luxembourg. In: Labour market integration of asylum seekers and refugees in Europe. Brussels: European Commission, 2016, 12 p.

THILL Patrick. Undeclared Work in Luxembourg. In: Factsheets on Undeclared Work in Europe. Brussels: European Commission, 2016, 9 p.

THILL Patrick. The role of social dialogue in Luxembourg. In: Social dialogue in Europe. Brussels: European Commission, 2016, 30 p.

THILL Patrick. Early retirement of older workers and active ageing in Luxembourg. Brussels: European Commission, 2016.

THILL Patrick. The labor market integration of refugees in Luxembourg. In: Report Refugees and labor market integration in Europe. Dublin: European Foundation for the Improvement of Living and Working Conditions, 2016, 17 p.

#### **Living Conditions**

FUSCO Alessio, ALIEVA Aigul, LOMOS Catalina, REINSTADLER Anne, THILL Patrick. Social Mobility in Luxembourg. In: Social mobility in Europe. Eurofound, 2016.

FRAZER Hugh, MARLIER Eric. Minimum Income Schemes in Europe. A study of national policies 2015. Brussels: European Commission, 2016, 62 p.

FRAZER Hugh, MARLIER Eric (eds.) Towards a European Pillar of Effective Social Rights. Submission to the European Commission, European Social Policy Network (ESPN), Brussels: ESPN, 2016, 44 p.

LOMOS Catalina. MathemaTIC – Evaluation framework and measurement tools (confidential and internal MENJE report). LISER, 2016, 22 p.

LOMOS Catalina. MathemaTIC – Evaluation report of the pilot Phase 2015-2016 (confidential and internal MENJE report). LISER, 2016, 80 p.

SEGURA Jordane. Le "droit à l'enfant" et la filiation : Contribution pour le Luxembourg. In : BRUNETTI-PONS Clotilde (sous la Dir.) Le "droit à l'enfant" et la filiation en France et dans le monde – Rapport intermédiaire. France : Mission de Recherche Droit et Justice / Ministère de la Justice, 2016, pp. 49-57.

ZHELYAZKOVA Nevena, LOUTSCH Marianne, VALENTOVA Marie. Luxembourg country note. In: KOSLOWSKI Alison, BLUM Sonja, MOSS Peter (eds.) 12th International Review of Leave Policies and Related Research 2016.

#### **Urban Development & Mobility**

DECOVILLE Antoine, FELTGEN Valérie, BOUSCH Patrick. Indicateurs relatifs aux actions des parcs naturels. Luxembourg: Ministère du Développement durable et des Infrastructures, Département de l'aménagement du territoire, 2016, 40 p.

DECOVILLE Antoine, FELTGEN Valérie. Partie C du Programme directeur d'aménagement du territoire. Luxembourg : Ministère du Développement durable et des Infrastructures, Département de l'aménagement du territoire, 2016, 15 p.

LAMOUR Christian. Projet stratégique opérationnel luxembourgeois Alzette-Belval. Esch/Alzette: LISER, 2016, 116 p.





## LISER's publications

#### **Working Papers**

HERZOG Lawrence A., SOHN Christophe. The co-mingling of bordering dynamics in the San Diego-Tijuana cross-border metropolis. LISER, 2016, Working Papers n°2016-01, 22 p.

BARGAIN Olivier, DOORLEY Karina, VAN KERM Philippe. Minimum wages and the gender gap in pay. Evidence from the UK and Ireland. LISER, 2016, Working Papers n°2016-02, 42 p.

MARTIN Ludivine. High involvement management practices, technology uses, work motivation and job search behaviour. LISER, 2016, Working Papers n°2016-03, 40 p.

KOSNY Marek, SILBER Jacques, YALONETZKY Gaston. Measurement of Multi-Period Income Mobility with Contingency Tables. LISER, 2016, Working Papers n°2016-04, 32 p.

AYLLON Sara, FUSCO Alessio. Are income poverty and perceptions of financial difficulties dynamically interrelated? LISER, 2016, Working Papers n°2016-05, 24 p.

OLIVERA Javier. The division of inter-vivos parental transfers in Europe. LISER, 2016, Working Papers n°2016-06, 36 p.

DEUTSCH Joseph, PI ALPERIN Maria Noel, SILBER Jacques. Disentangling the impacts of circumstances and efforts on health inequality: the case of Luxembourg. LISER, 2016, Working Papers n°2016-07, 24 p.

SIERMINSKA Eva, SILBER Jacques. On the diversity of assets holdings in the United States in 2007 and 2009. LISER, 2016, Working Papers n°2016-08, 33 p.

MENON Martina, PERALI Federico, SIERMINSKA Eva. An Asset-based Indicator of Wellbeing for a Unified Means Testing Tool: Money Metric or Counting Approach? LISER, 2016, Working Papers n°2016-09, 38 p.

SIERMINSKA Eva, ROSSI Cristina. Housing Decisions, Family Types and Gender. A cross-national perspective. LISER, 2016, Working Papers n°2016-10, 40 p.

MUSSARD Stéphane, PI ALPERIN Maria Noel, THIREAU Véronique. Aggregable Health Inequality Indices. LISER, 2016, Working Papers n°2016-11, 28 p.

BARGAIN Olivier, DOORLEY Karina. The Effect of Social Benefits on Youth Employment: Combining RD and a Behavioral Model. LISER, 2016, Working Papers n°2016-12, 38 p.

MOTHE Caroline, NGUYEN Thi Thuc Uyen. Openness and environmental innovation: Does time-horizon matter? LISER, 2016, Working Papers n°2016-13, 28 p.

NAGORE GARCIA Amparo, VAN SOEST Arthur. Unemployment Exits Before and During the Crisis. LISER, 2016, Working Papers n°2016-14, 40 p.

MUSSARD Stéphane, PI ALPERIN Maria Noel. A Two-parameter Family of Socio-economic Health Inequality Indices: Accounting for Risk and Inequality Aversions. LISER, 2016, Working Papers n°2016-15, 42 p.

HAURET Laetitia, MARTIN Ludivine, OMRANI Nessrine, WILLIAMS Donald R. Exposure, participation in human resource management practices and employee attitudes. LISER, 2016, Working Papers n°2016-16, 44 p.

#### Les Rapports du LISER

HAURET Laetitia. Sentiment de vulnérabilité sur le marché du travail luxembourgeois et pratiques managériales. LISER, 2016, Les rapports du LISER, 24 p.

#### **Publications of the Housing Observatory**

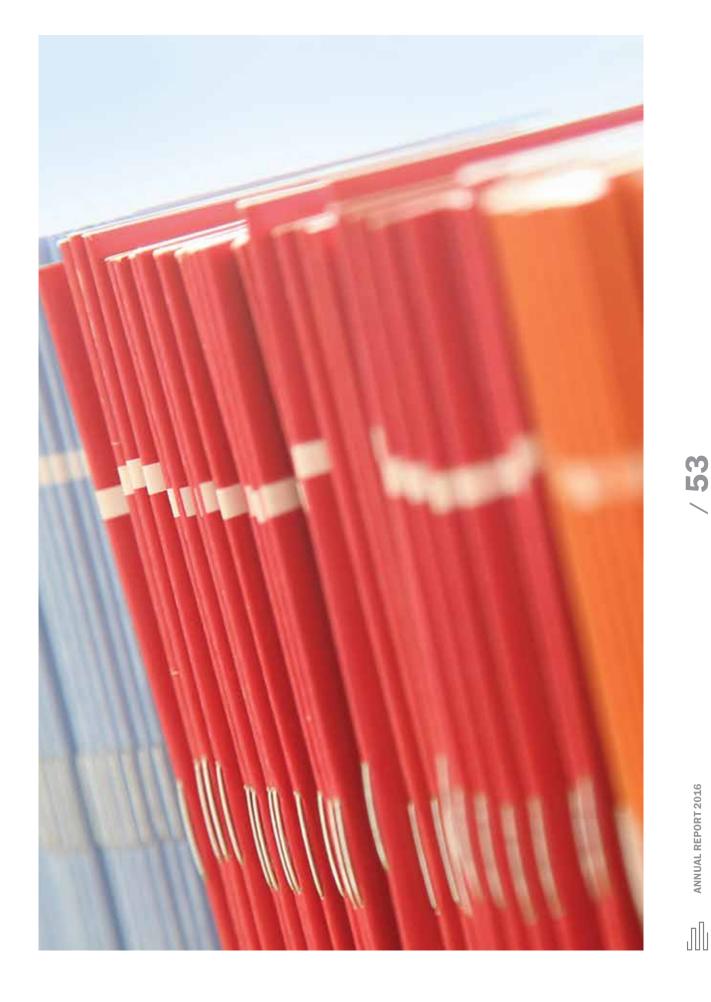
*Indicateurs des prix proposés à la location au 3° trimestre 2015.* LISER, 2016, Indicateurs des prix annoncés, 4 p.

*Indicateurs des prix proposés à la vente au 3<sup>e</sup> trimestre 2015.* LISER, 2016, Indicateurs des prix annoncés, 4 p.

Le logement en chiffres au 2<sup>e</sup> semestre 2015. Observatoire de l'Habitat, LISER, STATEC, 2016, Le logement en chiffres n°4, 8 p.

Le logement en chiffres au premier semestre 2016. LISER, 2016, Le logement en chiffres n°5, 10 p.





## AUDIT REPORT



Au Gouvernement du Grand-Duché de Luxembourg Luxembourg Institute of Socio-Economic Research (Liser)

Nous avons effectué l'audit des comptes annuels ci-joints de Luxembourg Institute of Socio-Economic Research (Liser), comprenant le bilan au 31 décembre 2016, le compte de profits et pertes pour l'exercice clos à cette date et l'annexe contenant un résumé des principales méthodes comptables et d'autres notes explicatives.

Responsabilité du Conseil d'Administration pour les comptes annuels

Le Conseil d'Administration est responsable de l'établissement et de la présentation sincère de ces comptes annuels, conformément aux obligations légales et réglementaires relatives à l'établissement et la présentation des comptes annuels en vigueur au Luxembourg ainsi que d'un contrôle interne qu'il juge nécessaire pour permettre l'établissement de comptes annuels ne comportant pas d'anomalies significatives, que celles-ci proviennent de fraudes ou résultent d'erreurs.

Responsabilité du Réviseur d'entreprises agréé

Notre responsabilité est d'exprimer une opinion sur ces comptes annuels sur la base de notre audit. Nous avons effectué notre audit selon les Normes Internationales d'Audit telles qu'adoptées pour le Luxembourg par la Commission de Surveillance du Secteur Financier. Ces normes requièrent de notre part de nous conformer aux règles d'éthique et de planifier et réaliser l'audit en vue d'obtenir une assurance raisonnable que les comptes annuels ne comportent pas d'anomalies significatives.

Un audit implique la mise en œuvre de procédures en vue de recueillir des éléments probants concernant les montants et les informations fournis dans les comptes annuels. Le choix des procédures relève du jugement du Réviseur d'entreprises agréé, de même que l'évaluation des risques que les comptes annuels comportent des anomalies significatives, que celles-ci proviennent de fraudes ou résultent d'erreurs. En procédant à cette évaluation, le Réviseur d'entreprises agréé prend en compte le contrôle interne en vigueur dans l'entité relatif à l'établissement et la présentation sincère des comptes annuels afin de définir des procédures d'audit appropriées en la circonstance, et non dans le but d'exprimer une opinion sur le fonctionnement efficace du contrôle interne de l'entité. Un audit comporte également l'appréciation du caractère approprié des méthodes comptables retenues et du caractère raisonnable des estimations comptables faites par le Conseil d'Administration, de même que l'appréciation de la présentation d'ensemble des comptes annuels.

Nous estimons que les éléments probants recueillis sont suffisants et appropriés pour fonder notre opinion.



#### Opinion

A notre avis, les comptes annuels donnent une image fidèle du patrimoine et de la situation financière de Luxembourg Institute of Socio-Economic Research (Liser) au 31 décembre 2016, ainsi que des résultats pour l'exercice clos à cette date, conformément aux obligations légales et réglementaires relatives à l'établissement et la présentation des comptes annuels en vigueur au Luxembourg.

PricewaterhouseCoopers, Société coopérative Représentée par

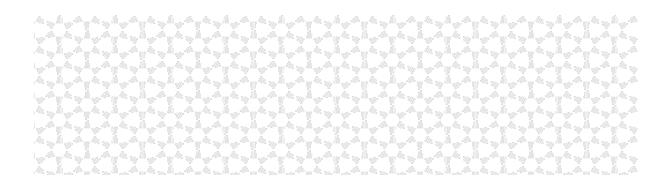
Luxembourg, le 14 avril 2017

Christiane Schaus

**ANNUAL REPORT 2016** 

## FINANCIAL STATEMENT

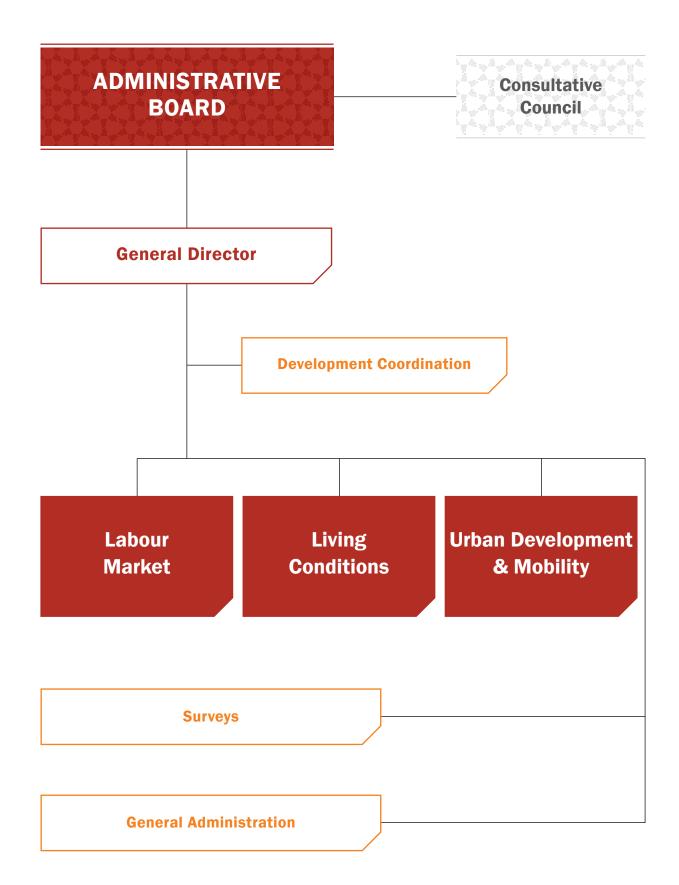
ACTIF	2016	2015
ACTIF IMMOBILISÉ		
Immobilisations incorporelles et corporelles	551.322,03	528.258,03
Immobilisations financières	2.100,00	
	553.422,03	528.258.03
ACTIF CIRCULANT		
Créances		
Créances résultant de ventes et prestations de services dont la durée résiduelle est inférieure ou égale à un an	4.233.454,84	2.485.426,39
Autres créances dont la durée résiduelle est inférieure ou égale à un an	447.228,43	424.464,39
voirs en banques, avoirs en compte de chèques postaux, chèques et encaisse	3.114.052,90	3.781.406,92
	7.794.736,17	6.691.297,70
Comptes de régularisation	176.300,19	170.539,41
Total du bilan (actif)	8.524.458,39	7.390.095,14



CAPITAUX PROPRES ET PASSIF	2016	2015
FONDS PROPRES	•	
Excédents budgétaires cumulés	3.146.993,04	2.827.078,14
Résultat de l'exercice	672.152,94	319.914,90
Subventions d'investissement	551.322,03	528.258,11
	4.370.468,01	3.675.251,15
PROVISIONS		
Autres provisions	534.137,13	544.295,50
DETTES NON SUBORDONNÉES	•	
Dettes sur achats et prestations de services dont la durée résiduelle est inférieure ou égale à un an	1.326.362,46	996.865,02
Autres dettes		
Dettes fiscales	268.865,65	254.646,04
Dettes au titre de la sécurité sociale	325.082,88	314.503,73
Autres dettes dont la durée résiduelle est inférieure ou égale à un an	27.534,27	35.748,58
	1.947.845,26	1.601.763,37
Comptes de régularisation	1.672.007,99	1.568.785,12
Total du bilan (capitaux propres et passif)	8.524.458,39	7.390.095,14

## 

## **Organisational Chart**



## Administrative board

#### Chair

/ Nicole KERSCHEN Senior researcher at CNRS

#### Vice-chair

/ Jean-Marc GOY Counsel for International Affairs of the Commission de Surveillance du Secteur Financier (CSSF)

#### Members

/ Claude Lüscher Director of Tecsys IT-HAUS

/ Aline Muller Professor at HEC Université de Liège (in fonction till 31/08/2016)

/ Maria Pietrangeli Editor-in-Chief of ALINÉA

/ Aline Schiltz Geographer, MIGRARE, IGOT-CEG, Université de Lisbonne (14/10/2016 starting date)

/ Bob Strotz Architect, urbanist at HSA – Heisbourg Strotz Architectes

/ Raymond Wagener Honorary Director of IGSS – Inspection Générale de la Sécurité Sociale

/ Nico Weydert Deputy Director of STATEC

/ Laura Zuccoli Chair at ASTI

#### Government comissioner

/ Josiane Entringer Assistant executive advisor at the Ministère de l'Enseignement supérieur et de la Recherche



## 09

## **LISER Doctoral Programme**

For many years, LISER has welcomed PhD candidates affiliated to different European and international universities.

In LISER students find a dynamic, multicultural environment, uniquely set up for applied research.

A team of highly qualified researchers accompanies them as their research work progresses and provide them support and scientific advice. LISER also offers the PhD candidates the opportunity to attend training courses which complement their university curriculum. LISER enables them to develop their qualifications in the field of social sciences as well as their capacities to carry out research with integrity and in accordance with international ethical standards.

In 2016 LISER teams supervised 30 PhD candidates, 19 of whom benefited from FNR funding and were completely integrated into the research teams.

Of the 30 PhD candidates, 8 were able to successfully defend their doctoral thesis and have started their professional careers. One of them testified that: "The completion of a thesis at LISER has allowed me to gain a rich experience and to benefit from a high level applied research environment in an international context. Thanks to LISER many different skills were acquired and developed, including project management and events organisation, in parallel with academic work. Working with Doctoral students and researchers from so many different horizons helped to set up a solid network across Europe."

# LISER's participation in FNR PRIDE programme

Following the reform by the FNR of its Doctoral funding programme and the introduction in 2015 of the PRIDE Programme, a DTU (Doctoral Training Unit) project in which LI-SER participates in cooperation with two departments of the University of Luxembourg, has been accepted and is currently in its implementation phase. It is a joint research project on

the topic «Migration, Inequality and Labor Market «, which will host a total of 12 PhD candidates in the various doctoral schools of the partners. This will offer specialised training programmes specifically related to the research topics of the DTII

LISER is proud to be a sponsor of the first edition of the "National PhD Welcome Day".



## PhD completions 2016

DIAS Pierre. Les représentations spatiales de la ville et les mobilités quotidiennes au prisme des positions sociales: Une approche socio-cognitive des ségrégations socio-spatiales. Thèse de Doctorat en psychologie sociale et environnementale, soutenue le 17 mars 2016 à l'Université de Strasbourg, France.

DREVON Guillaume. Mobilité quotidienne et stratégies d'adaptation des ménages. Une approche comparée des espaces transfrontaliers et non frontaliers des métropoles luxembourgeoise et grenobloise. Thèse de Doctorat de l'Institut de Géographie Alpine de l'Université Grenoble Alpes, soutenue le 27 juin 2016 à Grenoble, France.

DUPLAN Karine. Devenir 'expat'. Pratiques de l'espace du quotidien de femmes en situation de mobilité internationale à Luxembourg. Thèse de Doctorat en géographie culturelle et politique de l'Université Paris-Sorbonne, soutenue le 13 mai 2016 à Paris-Sorbonne, France.

HECK Stéphanie. The dynamics of market, credit and liquidity risk in the US corporate bond market. Thèse de Doctorat en sciences économiques et de gestion de l'Université de Liège, soutenue le 27 octobre 2016 à Liège, Belgique.

NDODJANG Peguy. Impact of Information and Communi-

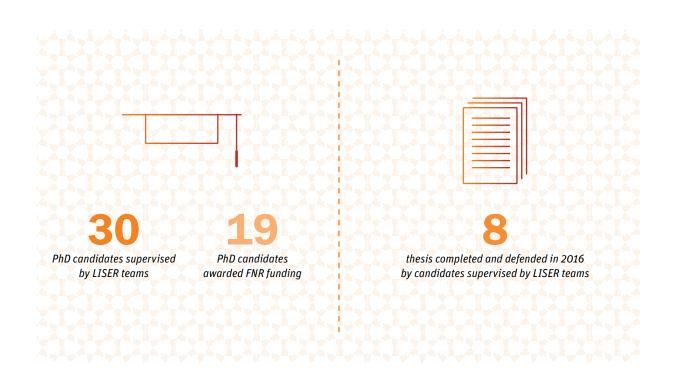
cation Technologies on workers' behavior: An experimental Investigation. Thèse de Doctorat de l'Université de Montpellier, soutenue le 8 décembre 2016 à Montpellier, France

SCHIEBEL Julien. Impacts de la frontière sur la mobilité quotidienneetsadurabilité. L'exemple de l'espace transfrontalier luxembourgeois. Thèse de Doctorat en géographie de l'Université de Rouen Normandie, soutenue le 14 juin 2016 à Rouen, France.

TSUKADA Raquel. Essays on Household Production with Labour-Saving Technology. Thèse de Doctorat de UNU-Merit et Maastricht University, PaysBas, soutenue le 15 novembre 2016.

VICTOR Nadja. Évaluation des déplacements piétons quotidiens. Application à la ville de Luxembourg. Thèse de Doctorat de l'Université Jean Monnet, soutenue le 24 octobre 2016 à Saint-Etienne. France.

## **Key Figures**



The LISER annual report is published in French and English.
We would like to thank all those who participated in its development.

#### **IMPRESSUM**

/ Design, editing and production : binsfeld

#### / Photos:

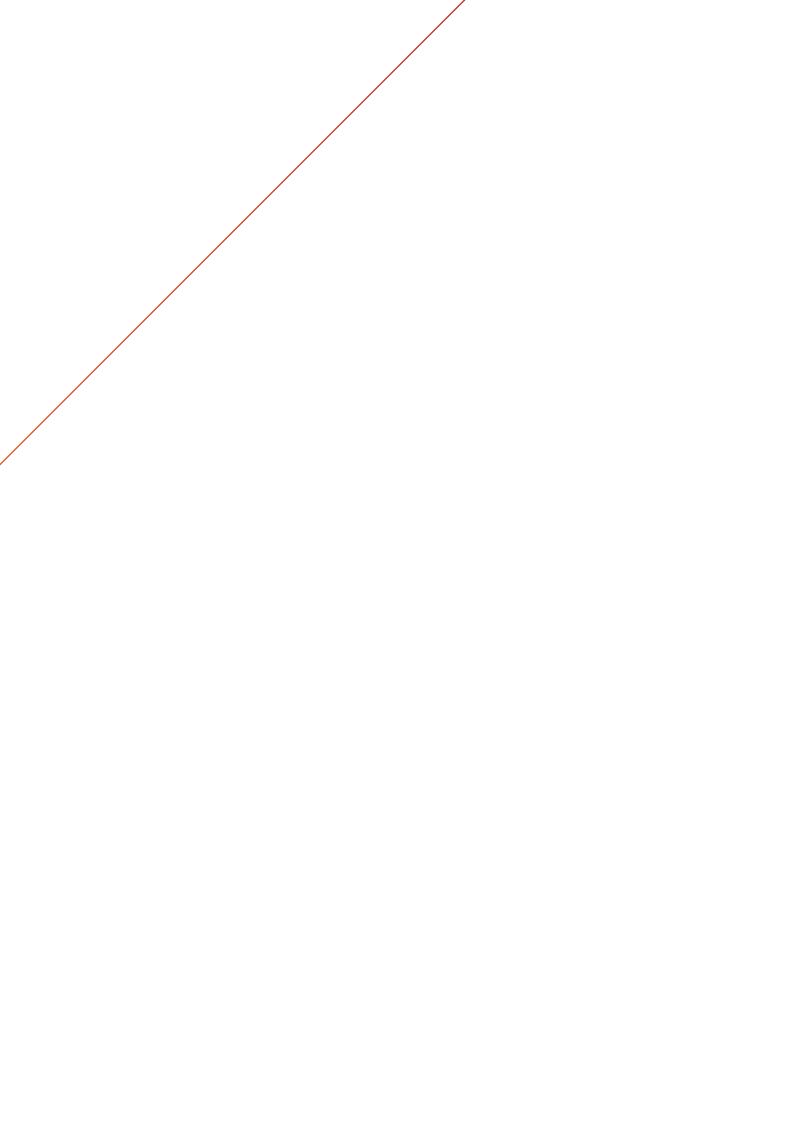
Patrick Galbats (cover, 2-5, 14, 22, 30, 38, 40, 41), Christof Weber (p. 2), Fonds Belval (p. 42), LISER (6-9, 15, 16, 18, 23-26, 31-34, 39, 43, 44, 53, 59), Bohumil KOSTOHRYZ (p. 53), iStock (p. 8, 9, 35)

#### / Printing:

Centre des technologies de l'information de l'État – Division imprimés et fournitures de bureau

This report is also available for download on www.liser.lu





## LUXEMBOURG INSTITUTE OF SOCIO-ECONOMIC RESEARCH

11, porte des Sciences Campus Belval L-4366 Esch-sur-Alzette

T +352 58 58 55-1

www.liser.lu