

# PARADIGM SHIFT?

27th International  
Colloquium of  
Gerpisa

## THE AUTOMOTIVE INDUSTRY IN TRANSITION

11-14 June 2019

ENS Paris-Saclay



**ORGANIZATION  
COMMITTEE**

Tommaso Pardi, CNRS-IDHES, GIS-GERPISA  
Géry Deffontaines, GIS GERPISA, ENS Paris-  
Saclay

**ORGANIZATION  
TEAM**

Géry Deffontaines, GIS-GERPISA, ENS Paris-  
Saclay  
Géraldine Thouvay, MSH Paris-Saclay

**INTERNET SITE  
ONLINE REGISTRATION  
PAPERS  
ONLINE PROGRAMME**

[HTTP://GERPISA.ORG/NODE/5132](http://gerpisa.org/node/5132)

[HTTP://GERPISA.ORG/EN/NODE/923](http://gerpisa.org/en/node/923)

[HTTP://GERPISA.ORG/ACCEPTEDPROPOSALS\\_NOW](http://gerpisa.org/acceptedproposals_now)

[HTTP://GERPISA.ORG/NODE/5492](http://gerpisa.org/node/5492)

**GIS GERPISA  
INTERNATIONAL  
NETWORK**

École normale supérieure de Paris-Saclay  
61, avenue du Président Wilson  
94235 Cachan cedex  
Tel : +33 (0)1 47 40 59 50  
[HTTP://GERPISA.ORG](http://gerpisa.org)

# 27TH INTERNATIONAL GERPISA COLLOQUIUM

## 11-14 June 2019

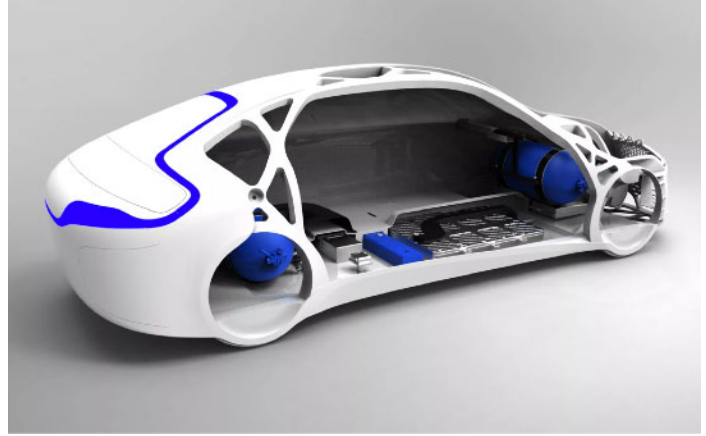
### Paris, France

During the last three years we have been exploring how the new frontiers of the automotive industry are transforming the way cars are conceived, produced, used and regulated. We have been debating the nature, the pace and the long-term consequences of these transformations; whether they are disruptive or evolutionary; whether they are driven by new or traditional actors. We have highlighted the theoretical and methodological challenges raised by the following kind of phenomena: much of the debated changes within the auto industry currently represent only small and marginal change, yet any of the forces could well grow and change the industry profoundly; the assumption that the knowledge accumulated on the past trajectory of industries and firms may not be pertinent going forward in order to understand what is happening as changes are brought by technologies and firms from outside the automotive industry, notably by digital companies; and the difficulty of working on forecasts and expectations, whose predictability and performativity are by definition debatable and uncertain. For the 27th international colloquium of GERPISA we propose to address these issues and questions from the perspective of a common empirical and theoretical question: is the automotive industry going through a paradigm shift?

When we look at the electrification of cars, the promise of autonomous vehicles, the spreading of new forms of mobility, and the prospects for smart factories what do we see? Are we dealing with a new paradigm in the making? Or are these technological developments still grounded in the existing technological paradigm, pushing the boundaries of digitalization to its limits? How will this technological race towards EVs and AVs play out? How will the structuring of new value chains for the production of EVs impact the geopolitics of the automotive industry? How will the digitalization of the AV redistribute value capture between software and hardware makers? Who will be the winners and who will be the losers? How are these technological transformations affecting global value chains? How do they transform labor and work? Do they create new opportunities for technological and social upgrading in emerging countries? Or do they rather reinforce the hegemony of “global north” multinational companies over intellectual property and value creation? Are there alternative patterns of technological development for emerging countries and their automotive industries? If yes, what kind of firm strategies and government regulations could promote them?

The GIS GERPISA invites social science researchers, representatives of the industry, public policy makers and advisers, union representatives and consultants to debate these crucial questions for the present and the future of the automotive sector at its 27th International Colloquium.

# Tuesday 11th of June 2019



## Factory tour Renault Technocentre

Only for those who have registered

**07:00 Meeting point at Gare du Nord  
(RER B station)**

07:15 Departure

**09:00 PLASTIC OMNIUM AlphaTech R&D  
center visit**

12:00 Lunch at AlphaTech

13:30 Departure to PSA Hordain

**15:00 Factory tour PSA HORDAIN**

17:30 Departure to Paris

20:00 Dinner at the restaurant Bouillon Racine,  
3 rue racine, Paris

**Contact:**

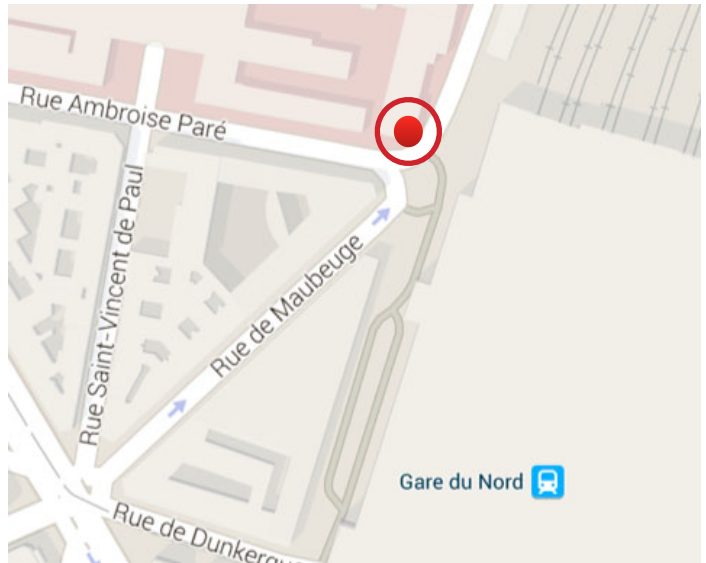
Gery Deffontaines: **+33 6 12 89 27 83**

Tommaso Pardi : **+33 6 63 89 23 68**

(also available on WhatsApp and Skype -  
tommasopardi)

**Important note:**

You must wear closed shoes, no high heels.



# Wednesday 12th of June, 2019

08:00 – 08:45

## Welcome of participants

08:45 - 09:00

Room : **Amphi Marie-Curie**

### Opening

TOMMASO PARDI, director of GERPISA

09:00 – 10:30

## ▶ Parallel sessions

### Session n°: 1

Room : **Amphi Marie-Curie**

Chair : BRUCE BELZOWSKI, University of Michigan  
Transportation Research Institute

- ADRIANA MAROTTI DE MELLO & ROBERTO MARX  
Who drives the change? Transitions for Sustainable Mobility and the role of Automotive Industry
- HEIKE PROFF  
Impact of new technologies in the automotive industry  
- Measuring the profit impact of digitalisation
- MIKE SMITKA  
Technology and the Motor Vehicle Industry

### Session n°: 2

Room : **Satie**

Chair : TOMMASO PARDI, CNRS-IDHES, GIS-GERPISA

- ADRIANA MARTINEZ & TANIA MEDEL GARCIA  
A perception of Industry 4.0 and the needed labour profile: an exploratory study in auto parts firms in Guanajuato, Mexico
- LORENZA MONACO, JASON BELL & JULIUS NYAMWENA  
The political economy of technological change: transitioning to 4.0 in plastic auto components in South Africa and Thailand
- MARGHERITA RUSSO, PASQUALE PAVONE & ARMANDA CETRULO  
From wage bargaining to the negotiation on “cognitive surplus value”: reflections on a laboratory for Industry 4.0 in Lamborghini.

### Session n°: 3

Room : **Amphi Fortunato**

Chair : GIUSEPPE GIULIO CALABRESE, CNR-IRGRES

- Garbellini, N.  
European production chains : the new geography of automotive
- ALICE MILOR  
Struggling Paradigms: the takeover of French suppliers by the Japanese firms (1980-1984)

- THOMAS KLIER & JIM RUBENSTEIN  
Powertrain sourcing in the automobile industry: The role of scale and geography in North America

10:30 – 11:00

## Coffee break

11:00 – 12:30

## ▶ Parallel sessions

### Session n°: 4

Room : **Amphi Marie-Curie**

Chair: HEIKE PROFF, University of Duisburg

- TAKAHIRO FUJIMOTO  
Balancing the power of global network and the power of local/asset knowledge
- VINCENT FRIGANT & MARTIN PAQUETTE  
Canaries in the coal mine: how do newcomers participate to the growth of new niches in the automotive industry?
- PIN ZHOU & HUA WANG  
Manage the Organizational Change to Build the Smart Car in China A Study of SAIC-Alibaba Joint Venture

### Session n°: 5

Room : **Satie**

Chair : MARTIN KRZYWDZINSKI, WZB

- MATTEO GADDI  
Working conditions and labour organisation within Italian FCA plants
- GIOVANNI BALCET & GRAZIA IETTO-GILLIES G.  
Internationalization, outsourcing and labour fragmentation. The case of FIAT
- THOMASZ OLEJNICZAK & MASATO ITOHISA  
Come for the low wages, stay for the people: Labour relations and the adoption of Industry 4.0 in Japanese automotive plants in CEE

### Session n°: 6

Room : **Amphi Fortunato**

Chair : THOMAS KLIER, Federal Reserve Bank of Chicago

- MARTIN SCHROEDER, HIDEO KOBAYASHI & MASAOKI FUTAGI  
Supporting Role in Global Research and Development Networks: Automotive Technology Centres in Viet Nam
- MIKA SMITKA  
China's "Auto Belt:" Implications for Assembler Competitiveness
- SHAHADAVE SHRESTHA  
Process of automobile cluster development in India: Case of Maruti Suzuki

# Wednesday

## 12th of June, 2019

12:30 – 14:00

### Lunch

14:00-15:30

#### ► Plenary session I. The future of batteries

Chair : TOMMASO PARDI, CNRS-IDHES, GERPISA



**PATRICK BASTARD**

DIRECTOR OF RESEARCH  
RENAULT

**NICOLAS LECLERE**

HEAD OF ELECTRIFICATION  
PSA

15:30 – 16:00

### Coffee break

16:00 – 17:30

#### ► Parallel sessions

##### Session n°: 7

Room : **Amphi Marie-Curie**

Chair : GÉRY DEFFONTAINES, GERPISA

- MARC DIJK  
The emergence of electric mobility between 1995 and 2015 in the Netherlands: evidence of a transition pathway
- MICHAËL FERNANDEZ  
The FCEV deployment in the Japanese transport and mobility sector: a revolution?
- TAKUYA HASEGAWA  
A Fermi estimate of economic rationality: back-casting the way forward to zero-emission society and the roll of automotive industry

##### Session n°: 8

Room : **Satie**

Chair : FRANCESCO GARIBALDO, "Claudio Sabattini"

Foundation

- ANTHONY D'COSTA  
Long Waves and Techno-economic Paradigms: Assessing the Future of Work in the Indian Automotive Industry
- LISA DORIGATTI & MATTEO RINALDINI  
World Class Involvement: Workers' Participation in a 4.0 Lean Production System

- MIAO TIAN  
Temporary Labor and Labor Conflicts in the Joint Ventures of VW and Toyota in China

##### Session n°: 9

Room : **Amphi Fortunato**

Chair : VINCENT FRIGANT, Université de Bordeaux

- ANA VALERIA CARNEIRO-DIAS  
From modularity to agile project management: an essay on methods and practices from IT to automobile industries
- GIUSEPPE GIULIO CALABRESE  
Women and cars joys and sorrows? Female directors and firm performance in the Italian supply chain
- TIMO GÜNTNER, JOSIP JOVIC & HEIKE PROFF  
Use of Market Opportunities in Aging Societies – the example of advanced driver assistant systems

# Thursday

## 13th of June, 2019

08:30 – 09:00

### Coffee & late admission

09:00 – 10:30

### ▶ Parallel sessions

#### Session n°: 10

Theme 2

Room : **Amphi Marie Curie**

Chair : HUA WANG, KEDGE Business School

- MARIA JULIANA FORERO  
Electric vehicles charge optimization for the electric system, taking into account drivers behavior
- PAAL BREVIK WANGSNES, STEEF PROST PROOST & KENNETH LØVOLD RØDSETH.  
Coordinated energy and transport policies for electromobility: The case of Norway
- ALEXANDRE FAURE & SOICHIRO MINAMI  
Urban transport policy for promotion of electric vehicles in France

#### Session n°: 11

Theme 5

Room : **Satie**

Chair : MARTIN KRZYWDZINSKI, WZB

- FRANCESCO GARIBALDO  
Marchionne's legacy
- DAVIDE BUBBICO, DANIELE DI NUNZIO & GIULIANO FERRUCCI  
Working conditions in the FCA, CNH and Magneti Marelli plants: a survey questionnaire
- JEAN-CHRISTOPHE SCILLEN  
The theory of social exchange, a new explanatory paradigm of perceptions relating to the closure of automotive factories : a historical analysis of Renault Billancourt and (1989) and PSA Aulnay (2012)

#### Session n°: 12

Theme 3

Room : **Amphi Fortunato**

Chair : ADRIANA MAROTTI DE MELLO, University of São Paulo

- ELISABETH SVENNEVIK  
Crossing pathways: Personal urban mobility analysis
- GANDIA, R. M., OLIVEIRA J. R., ANTONIALI F., PATRÍCIO L. B., YUTAKA J. Y., NICOLAÏ I., OLIVEIRA, I.R.C.  
Casual Carpooling as a Strategy to Implement Mobility-as-a-Service (MaaS) in a Developing Country

- BRUNO FAIVRE D'ARCIER & YVELINE LECLER  
Round-Trip and One-Way car-sharing in France and Japan: Conditions for markets take-off

10:30 – 11:00

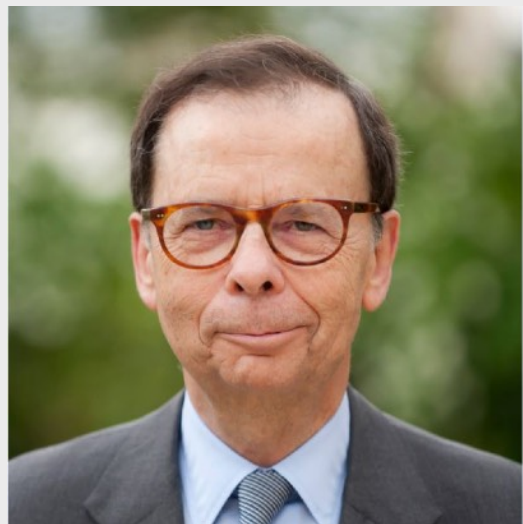
### Coffee break

11:00 – 12:30

### ▶ Plenary session II. An experienced eye on the future of the car industry

**Chair :** TOMMASO PARDI, CNRS-IDHES, GERPISA  
**Keynote speaker:**

**LOUIS SCHWEITZER**, FORMER CEO OF RENAULT (1992-2005)



12:30 – 14:00

### Lunch

# Thursday

## 13th of June, 2019

14:00 – 15:30

### ▶ Parallel sessions

#### Session n°: 13

Room : **Amphi Marie Curie**

Chair : MICHAEL SMITKA, Washington and Lee University

- HOLGER BUNGSCHKE  
Worlds Apart? Domestic and Global Strategies of Japanese Automobile Manufactures for Spreading Ecological Cars
- TAKEFUMI MOKUDAI  
In search of strategic flexibility in shifting towards electrification: A comparative analysis of Toyota and Nissan from a real options reasoning perspective
- THÉODORE DE CAMPAGNEULLES, CHRISTOPHE MIDLER, & RÉMI MANIAK  
From product to service offering: the OEM's transition to mobility services

#### Session n°: 14

Room : **Satie**

Chair : ELSIE CHARRON, CNRS

- GUENDALINA ANZOLIN, ANTONIO ANDREONI & ANTONELLO ZANFEI  
Racing with (or without) the machine: Robot adoption and FDI driven transformation in the automotive industry
- HYUNG JE JO & MARTIN KRZYWDZINSKI  
Skill Formation Strategies. A Comparison of Two MNCs' Overseas Factories in Central Eastern Europe
- JORGE CARRETO SANGINÉS, MARGHERITA RUSSO & ANNAMARIA SIMONAZZI  
The impact of digital transformation in the automotive supply chain in Mexico

#### Session n°: 15

Room : **Fortunato**

Chair : ROBERTO MARX, University of São Paulo

- AI NISHIMURA  
Mobility and Space Utilization: Regulations Concerning Transportation in Urban Development Plans
- BEATRIZ GOMES RODRIGUES, LIDYANE STEPHANE DA SILVA BARROS & PRYSCILLA APARECIDA VAZ DE OLIVEIRA  
Public transport integration: a proposal for a single transit fare in Rio Janeiro city
- SOICHIRO MINAMI, HIGASHI, HIDETADA & TETSUO AKIYAMA  
The Growth of Ridesharing Service in Japan from viewpoint of relation with Institution, Regulation and Technology

15:30 – 16:00

### Coffee break

16:00 – 17:30

### ▶ Parallel sessions

#### Session n°: 16

Room : **Amphi Marie-Curie**

Chair : YANNICK PEREZ, Centrale Supélec

- Marc Alochét & Christophe Midler  
How is the emerging e-traction value chain shaped by EV scale-up?
- HUA WANG & CHUANJUAN WU  
Analyzing Supply Chain Complexity and Agility in Building EVs in China
- WEI ZHAO  
Constructing a Value Chain from below: Emergence of NEV Battery Manufacturing and Advanced Cluster Policy in the Pearl River Delta, China

#### Session n°: 17

Room : **Satie**

Chair : BRUNO JETIN, University of Brunei Darussalam

- EMILIO BARALDI & PAULO C. KAMINSKI  
The recall and how the lessons learned can be used
- KRIENGKRAI TECHAKANONT, HOMKLIN TASSANEE & THANA PHAMARANON  
Where have all old cars gone?: Roles of the informal sector in treating the end-of-life vehicles in Thailand
- SO SASAKI & YUTAKA ASAZUMA  
Automobile Market Analysis in Myanmar

#### Session n°: 18

Room : **Amphi Fortunato**

Chair : YVELINE LECLER, Université de Lyon, Sciences Po

- PHILIPPE BYOSIERE  
Multiple-faceted mixed blessings of “delivering” people and goods in the platform economy: Comparing implications and challenges between Japan and the EU Low Countries.
- HIDETADA HIGASHI & SOICHIRO MINAMI  
The Architecture of Mobility as a Service (MaaS): Dichotomy of Global Platform and Local Integration
- MATHILDE ABEL  
From Uber to local commuting platform: digital platforms at the center of a “theoretical representation crisis”, case study of the mobility sector in France



# Friday

## 14th of June, 2019

**08:30 – 09:00**

### Coffee & late admission

**09:00 – 10:30**

### ▶ Parallel sessions

#### Session n°: 19

Room : **Amphi Marie-Curie**

Chair : GÉRY DEFFONTAINES, GERPISA

- BRUNA HABIB CAVAZZA, THAIS ASSIS DE SOUZA, ANDRÉ LUIZ ZAMBALDE  
Innovation Radar for Disruptive Technology Insertion: The Case of Autonomous Vehicles in Brazil and France
- GIULIA MARCOCCHIA  
The alignment process toward autonomous connected mobility ecosystem structuring. Lessons learnt on the incumbents' side
- GREG MORDUE  
Will Ethics-Based Challenges and the Failure of Policy Makers to Intervene Ultimately Derail the Proliferation of High Level Autonomous Vehicles?

#### Session n°: 20

Room : **Satie**

Chair : BOLESŁAW DOMANSKI, Jagiellonian University

- TOSHIYUKI BABA  
How Brazilian international competitiveness changed after the Inovar-Auto policy: comparison of the international competitiveness of auto-parts in Brazil with other countries
- MARTIN SCHROEDER  
Emerging country newcomer supply chain formation: the case of Vinfast
- RAPHAEL DA LIMA  
Interfirms Governance in the automotive sector: a case study in southern Rio de Janeiro

#### Session n°: 21

Room : **Fortunato**

Chair : TAKAHIRO FUJIMOTO, University of Tokyo

- MARC ALOCHET & CHRISTOPHE MIDLER  
EV Scale Up, from Product Modularity to Mobility Versatility
- BRUNO JETIN  
Who will control the electric car market?
- SERGIO MUNIZ, BRUCE BELZOWSKI, JANGHWAN ZHU, JACKLYN SHIN, RODRIGO FERREIRA  
Automakers' Electric Vehicle Platform Strategies and its Impacts on Battery Package Design and Thermal Management System

**10:30 – 11:00**

### Coffee break

**11:00 – 12:30**

### ▶ Parallel sessions

#### Session n°: 22

Room : **Amphi Marie Curie**

Chair : MARC ALOCHET, Ecole Polytechnique

- GÓMEZ MAÑAS & ADRIÁN PABLO  
How cities' actors prepare for the possible arrival of autonomous vehicles. A study about the Paris metropolis.
- T. A SOUZA, B. H CAVAZZA., R. M GANDIA., J. Y SUGANO, & I. NICOLAÏ  
Autonomous vehicles as an emergent innovation: governance through the lens of the quadruple helix
- SYLVIE MIRA-BONNARDEL & DANIELE ATTIAS  
Autonomous vehicle for flexible public transportation systems: towards a shared on demand mobility

#### Session n°: 23

Room : **Satie**

Chair : BERNARD JULLIEN, Université de Bordeaux

- XIAOXIANG DENG  
Problematisation and Politicization of Technical Indicator Tools: A Case Study of Used Car Restriction Policy In China
- T. FUKUDA  
Public Policies and Ethnic Entrepreneurs Dealing Used Cars and Car Parts from Japan to the Global Market: Focusing on Pakistani and South Asian Transnational Migrants
- KATSUNORI OKAMOTO & YUTAKA ASAZUMA  
Influence on used cars trade from Japan, which is brought about by port promotion policies : Case of Fushiki-Toyama Port and Kobe Port

#### Session n°: 24

Room : **Amphi Fortunato**

Chair : THOMAS KLIER, Federal Reserve Bank of Chicago

- BRENDAN SWEENEY & MORDUE GREG  
The Categorization and Assessment of Industrial Policy: Automotive Policy in the Semiperiphery
- BOLESŁAW DOMANSKI, KRZYSZTOF GWOSDZ & AGNIESZKA SWIGOST  
Evolution of public policies towards automotive industry in Poland
- TAKATOSHI MURAYAMA & SHINYA ORIHASHI  
Challenges of the less developing region of automobile industry in Japan: A case of the Japanese Tohoku

# Friday 14th of June, 2019

14:00 – 15:30

## ▶ Parallel sessions

### Session n°: 25

Room : **Amphi Marie-Curie**

Chair : GÉRY DEFFONTAINES, GERPISA

- JEEHOON KI  
Comparison of Autonomous Vehicle Policy Among France, Japan, and Korea: An Analysis through the Lens of Sectoral Innovation System
- B. H. CAVAZZA, T. A. SOUZA, R. M. GANDIA, A. L. ZAMBALDE, I. NICOLAÏ & A. M. NETO  
Critical Success Factors for the insertion of Autonomous Vehicles as a Product Service System in a country
- FABIO ANTONIALLI  
International Benchmark on Experimentations with Autonomous Shuttles for Collective Transport

### Session n°: 26

Room : **Satie**

Chair : HOLGER BUNGSCHKE, School for International Studies, Kwansai Gakuin University

- MARCOS DE C. MARQUES & FLAVIA CONSONI  
Governance and Policies to Foster Low Emission Vehicles in China, EUA and Japan
- SAMUEL KLEBANER  
Managing regulations: the integration of the air pollutant emissions limits in the car manufacturers economic activities
- YUTAKA ASAZUMA, K. OKAMOTO & K. TOGAWA  
Current Status and Problems of Japanese Automobile Recycling System

### Session n°: 27

Room : **Amphi Fortunato**

Chair : SIGFRIDO RAMIREZ, Max Planck Institute for European Legal History Frankfurt

- ARNULFO ARTEAGA-GARCÍA, AURORA MARCIAL-FLORES & SAMUEL ORTIZ-VELÁSQUEZ  
China in the automotive industry in Mexico: perspectives and challenges in the transition from NAFTA to USMCA
- AURORA MARCIAL-FLORES  
From NAFTA to USMCA: conditions and challenges of automotive financing in Mexico.
- GIULIO CASTELLANOS & CLOTILDE HERNÁNDEZ GARNICA  
Implications of the USMCA of November 2018 in the automotive industry installed in Mexico.

15:30 – 16:00

## Coffee break

16:00 – 18:00

Room : **Amphi Marie Curie**

## ▶ Plenary session III. From the new frontiers to the new worlds of the automotive industry: the problem of disruption



**SIGFRIDO RAMIREZ**  
RESEARCHER AT THE  
MAX PLANCK INSTITUTE

**TOMMASO PARDI,**  
DIRECTOR OF GERPISA

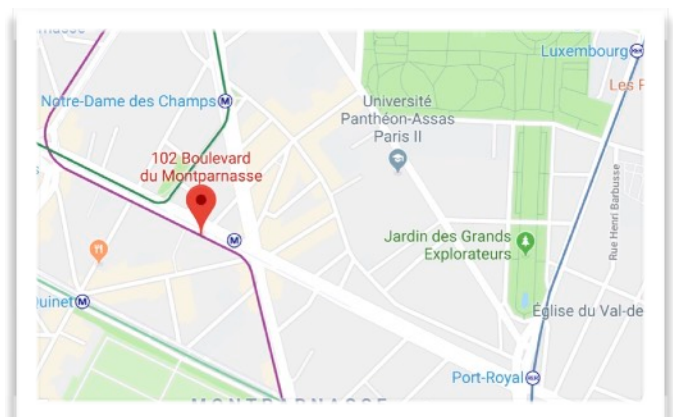
20:00

## Gala Dinner

### Restaurant LA COUPOLE

102, Bld du Montparnasse  
75014 Paris

RER Port-Royal / Metro Vavin / Metro Notre-Dame des Champs



# GIS GERPISA

## Groupement d'Intérêt Scientifique

### Ecole Normale Supérieure de Paris-Saclay



#### **MEF (Ministère de l'Économie et des Finances)**

Julien TOGNOLA – Chef du service de l'Industrie à la DGE

Emmanuel CLAUSE – Chargé de mission Innovation/transport

#### **MTES (Ministère de la Transition Ecologique et Solidaire)**

Serge BOSSINI – Directeur de la recherche et de l'innovation

Arantxa JULIEN - Chargé de Mission Réseaux Mobilité et Modes de Vie



*Comité des Constructeurs Français d'Automobiles*

#### **CCFA**

Christian PEUGEOT – Président du CCFA

Pierre-Louis DEBAR – Directeur économie, statistiques et transports du CCFA



#### **FIEV**

Claude CHAM – Président de la FIEV

Franck FONTANESI – Directeur économie et statistiques de la FIEV



#### **ENS Paris-Saclay**

Pierre-Paul ZALIO – Président de l'Ecole Normale Supérieure de Paris-Saclay



● Welcome area Gerpisa International Colloquium (D'Alembert building, first floor, Amphi Marie Curie)

 cole  
normale  
sup rieure  
paris-saclay

universit   
PARIS-SACLAY

Maison des  
Sciences de  
l'Homme

