

# Paradigm shift?

## *The Automotive Industry in Transition*



### Call for papers 27<sup>th</sup>Gerpisa International Colloquium

11-14 June 2019

ENS Paris-Saclay, Cachan, Paris

#### Organizers:

GéryDeffontaines (ENS-Paris-Saclay, Gerpisa)

Tommaso Pardi (IDHES-ENS Paris-Saclay, Gerpisa)

#### Program Committee:

Bruce Belzowski, Alex Covarrubias, GéryDeffontaines, Adriana Marotti, Giuseppe Giulio Calabrese, Roberto Marx, Thomas Klier, Tommaso Pardi, Tommaso Pardi, Martin Krzywdzinski, Jorge Carrillo-Viveros, Sigfrido Ramirez, Mike Smitka

**Deadline extended for abstracts / proposals : April 7th, 2019**

**Deadline for submitting the papers (IJATMan special issue and young author's prize): May 15<sup>th</sup>, 2019**

Submission online: <http://gerpisa.org/en/node/5175>

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 27<sup>th</sup> 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?***

The notion of a paradigm has been used by evolutionary economics to characterise technological change as a localised and collective social process, based on shared cognitive frames, developing along technological trajectories associated with the progressive realization of the innovative opportunities underlying each paradigm. But paradigms have also been associated with shifts in cultural beliefs, as they change expectations, choices, regulations and behaviour.

***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? What about the current paradigm of ICE powered, privately owned and human driven cars: is it crumbling? Is it receding? Is it even in crisis? If many argue that it is fundamentally unsustainable for environmental, social and cultural reasons, its resilience also needs to be addressed and explained.***

Consumers' behaviour also suggests that the transition can be controversial in particular concerning its degree of social inclusivity. As new plug-in vehicles and connected cars can only be afforded by the most affluent households in the richest countries, the average owners of the average cars are blamed and sanctioned by new environmental regulations. The recent social movement of the "yellow jackets" in France can be interpreted as one of the first manifestations of mass consumers' resistance against the new paradigm.

***Taking into account this emerging social divide in old and new mobilities, how could one overcome consumer resistance? Are there more democratic and socially inclusive solutions to address the environmental transition in automobility? How***

***can social inclusivity be integrated in the design of new mobility solutions? And if so, why have we not seen that yet?***

Shifts between and within technological paradigms have also been historically associated with changes in the power balance between national systems of innovations, industries and companies. This seems to be again the case: China is driving the electrification wave; Silicon Valley's digital companies push forward the autonomous and connected vehicle; Germany backs up the "premiumisation" of cars as a way to group all these new technologies and preserve its position of main exporter of high-end products; and Japan carries on its own specific trajectory towards greening technologies built on hybrids and fuel cells.

***But it is still very much unclear how this technological race towards EVs and AVs will 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?***

Some of the key questions concern the position of the "global south", as most of these technologies appear to be developed and controlled by the "global north".

***How are these technological transformations affecting global value chains? Do they create new opportunities for technological 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?***

A paradigm shift is also looming over work and labour as the further digitalisation of manufacturing is threatening hundred of thousands of jobs, both in the auto industry as well as in the economy in general. The future of work and employment does not look particularly bright on the labour side of the automotive industry. The old paradigm of corporatist employment relationships that governed "national champions" in the automobile industry during the Fordist "golden age" is at best in a protracted crisis and at worst coming to its end. The automotive industries that have been evolving in emerging countries have followed different paths, but none of them seems to lead to a new sustainable social paradigm. Despite strong economic upgrading in most of these industries, social upgrading is not really following, and when it does it concerns only a small minority of core workers in OEM factories, while very low paid, precarious and even in some cases informal work is spreading at the lower end of the supply chains or even in the core factories of this sector once characterized by well-paid and stable jobs.

***Are there alternatives to this race to the bottom? Are there examples or exceptions that open up new and different perspectives? What could trade unions do to address these issues? Shouldn't employers also be concerned by the growing tensions that arise from the bottom of their supply chains and sometimes threaten their economic viability? And how do new digital technologies play out in this context? Do concepts***

*such as “Industrie 4.0”, “advanced manufacturing” or “Made in China 2025” provide for a sustainable future of work and employment in the automotive industry and beyond? And what kind of changes are these new technologies triggering at the shop-floor level?*

The impact of the new paradigm in the making on work and employment can also be analysed by looking at the digital disruptors, and at the ways they put people to work in the framework of what has been called the “platform economy”.

*Uber drivers, Deliveroo riders, crowdsourcing engineers and coders, AI clickworkers... what are their employment and working conditions? How do they organize and mobilize to negotiate better ones? What are their skills, their expectations and their career patterns, if there are any? How can trade unions and public regulations deal with these new types of workers? Are we witnessing the emergence of a new digital working class or are these new jobs mostly occupied by individuals who are in-between jobs or who seek part-time second jobs?*

We are calling for empirical and/or conceptual studies focusing on all the above questions in connection with the idea of a paradigm shift in the global automotive industry. All levels of analysis and types of research objects are welcome: from OEMs, global and local suppliers, distributors, dealers to new digital entrants, battery makers, transport, energy and service companies; from global value chains and national industries, to governments, public authorities and public regulations; from workers and trade unions to consumers and users. Papers developing historical perspectives on all these issues are also welcome: for instance, how does this paradigm shift compare with previous ones? How can studies regarding the “future of work” enlighten current research about digital manufacturing revolutions? How do histories of past technology adoption, both successful and unsuccessful, compare with the current development of both EVs and AVs?

This call for papers is organized in five sub-themes of research that structure our ongoing international programme on “The new frontiers of the global automotive industry”.

**1. Embedding the automobile in societal contexts: a new mobility paradigm?**  
(Bruce Belzowski, Alex Covarrubias, Adriana Marotti)

**Key topics:** new mobilities and new eco-system architectures; the role of old and new actors and of public policies and regulations in their shaping; new business models for mobility providers; consumer and user behaviour; endorsement, acceptance or resistance towards new mobilities;

**2. New technologies: electrification, digitalization and beyond**(Giuseppe Giulio Calabrese, Roberto Marx)

**Key topics:** EVs, AVs, connected cars and their related technologies and innovations; their conception, production and distribution; alternatives technologies (biofuel, NGV, etc.);

**3. Productive models and strategies, new and traditional players: between incremental and disruptive innovation**(Thomas Klier, Tommaso Pardi)

**Key topics:** company trajectories (OEMS, global and national suppliers, new entrants etc.); profit strategies and product policies; productive organizations; product architectures; organizations and governance; global and regional value chains; platform economy;

**4. Employment and labour relations: between segmentation and convergence**(Tommaso Pardi, Martin Krzywdzinski, Jorge Carrillo-Viveros)

**Key topics:** impact of new technologies on work and employment; working conditions; upskilling – deskilling; training; organizing labour; restructuring; autonomy and control at work; decent work; work and labour in platform economies;

**5. Public policies – national and regional clusters: between global value chains and national systems of innovation**(Sigfrido Ramirez, Mike Smitka)

**Key topics:** industrial policies; innovation policies; economic, functional and social upgrading (downgrading); environmental policies; transnational, national and cities' regulations; trade policies, FTAs and neo-protectionism;

We also draw your attention to the special issue of the international journal IJATM that will be based on a selection of the best papers presented during the colloquium, including the winner of the young author's prize (see separate paragraph below).

### Guidelines

In order to submit a proposal, please click the dedicated link below the chosen theme. Proposals should range between 500 and 1,000 words. They should present the outline of the research question (**purpose**), the methodology (**design**), the main results (**findings**) and their **practical implications**.

Instructions on how to submit final articles will be sent by email following the proposal acceptance. Final articles should range between 5,000-7,000 words (excluding figures, tables and references) in order to be considered for the IJATM special issue. High-quality articles which exceed 7,000 words will be also considered.

## IJATM special issue

The International Journal of Automotive Technology and Management (IJATM) published by Inderscience each year publishes a special issue based on a selection of the most relevant papers presented during the GERPISA yearly colloquium. One or two papers from young authors will also be published in this special issue. An evaluation committee, composed of members of the GERPISA's international steering committee, will assess the papers during the colloquium (young authors and others).

The criteria of the assessment are based on the relevance of the topic inquired, the presentation and the accuracy of the results, the quality of the methodological work, and the review of the literature. A variety of work in the field of social sciences (history, management, economics, sociology, geography, political science, etc.) dealing with automobile industry is welcome.

After the decision of the GERPISA's steering committee, the selected papers will be refereed through a double-blind process, and then published in a special issue of the International Journal of Automotive Technology and Management. We are looking forward to reading your papers and attending your presentations.

Aside from the special issue derived from the Congress, the IJATM is launching a thematic **special issue dedicated to the impact of environmental standards in firms' strategies and public policies in the automobile sector**. Papers related to this topic might mention that they opt for their publication in the special issue coordinated by Sigfrido Ramírez Pérez (Scientific Board of GERPISA). The special issue is scheduled for 2020.

## Gerpisa Young Author Prize

The Young Author's Prize of GERPISA, consisting of the publication of the winning paper in a special issue of IJATM and a 1500 € reward, aims at recognizing the work of young researchers on topics related to the automobile industry, encouraging them to develop their enquiries on automobile industry.

### Requirements to submit a paper proposal for the young author's prize:

1. Master, Ph.D. students, post-doc, etc. (no full-time associate professor, professor or researcher) needs to be less than 37 years old (papers co-authored with a senior researcher will be assessed only for master and doctoral students);
2. Paper based on the analysis (whether theoretical, methodological, or empirical) of the automobile industry (topics have to cover one of the five themes of the colloquium);
3. Presentation of the paper by the young author during the 27th international colloquium, Paris, 12th of June – 14th of June 2019;

4. Submission online (for one of the 5 above-mentioned themes, specifying that the papers are for the prize), and email (name, date of birth, nationality, status, University, topic, abstract) to Giuseppe Calabrese ([giuseppe.giulio.calabrese@ircres.cnr.it](mailto:giuseppe.giulio.calabrese@ircres.cnr.it)), and Tommaso Pardi ([tommaso.pardi@ens-cachan.fr](mailto:tommaso.pardi@ens-cachan.fr)) **before April, 7<sup>th</sup>, 2019 for the proposal and May, 15<sup>th</sup> 2019 for the final paper.**