Special Session (SS10) on:
Regions and cities at the edge of the new technological era

Organizers:

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The aim and scope:

The advent of the new 4.0 technologies such as artificial intelligence, intelligent robotics, analytics, just to name a few, are at the core of the present technological revolution, which opens the way to a pervasive transformation and, potentially, radical impacts on the economy and the society.

The debate on the socio-economic impacts of such transformations highlights how the new technological trends can generate opposite effects. The impact on productivity and growth are, generally, expected to be positive. However, concerns exist about the substitution effect of these technologies with respect to labour and the risks of the so-called technological unemployment because of "functions – and tasks within functions – at risk of automation" (Autor and Dorn, 2013; Arntz et al., 2016). Moreover, worries are raising about the increase of polarisation effects in labour markets as well as across firms, leading to increasing spatial inequalities.

Regional and urban studies have, so far, somewhat neglected the economic mechanisms enabling regions and cities to exploit the opportunities opened by the new technologies and to mitigate their social costs in terms of restructuring of labour markets, widening social and spatial inequalities, even if with some notable exceptions (Autor and Dorn, 2013; Gregory et al., 2016; OECD, 2018).

The present special session is aimed at promoting the discussion on these issues from a regional and urban perspective. The session aims at gathering papers offering conceptual contributions and empirical cross-country and within-country analyses on:

- the role of cities and regions in the development of 4.0 technologies (e.g. artificial intelligence, intelligent robotics, analytics);
- the role of cities and regions in the adoption of 4.0 technologies (e.g. artificial intelligence, intelligent robotics, analytics);
- the identification of regions and cities more likely to be exposed to the present technological transformation;
- the identification of regions and cities more likely to benefit and more likely to suffer from the diffusion of 4.0 technologies (e.g. artificial intelligence, intelligent robotics, analytics);

- the identification and measurement of the impacts of technological transformations on urban and regional economic performance, on employment and unemployment levels and on the structure of the labour markets.

Given the strong content relation to the congress theme, RSAI2020 represents an ideal setting to broaden knowledge and bring fresh evidence on the topics addressed by this special session.

References

Arntz M., Gregory T., Zierhan U. (2016) "The risk of automation for jobs in OECD countries: A comparative analysis", *OECD Social, Employment and Migration Working Papers* No 189

Autor D. and Dorn D. (2013) "The growth of low-skill service jobs and the polarization of the US labor market" *American Economic Review* 103(5): 1153-1597

Gregory T., Salomons A., Zierahn U. (2016) "Racing with or against the machine? Evidence from Europe" ZEW Discussion Paper 16-053

OECD (2018) *Job creation and local economic development: Preparing for the future of work*, OECD Publishing, Paris

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