



IASP

International Association of Science Parks
and Areas of Innovation



CALL FOR CONTRIBUTIONS
Get a chance to speak at our upcoming:

36th IASP World Conference on Science Parks and Areas of Innovation

Nantes, France
24th - 27th September 2019

Introduction

Atlanpole will host the 36th IASP Annual World Conference on Science Parks and Areas of Innovation in September 2019.

The conference will bring together experts from STPs (Science and Technology Parks) and other AOIs (Areas of Innovation), innovation districts, technology-based incubators, academia, the public sector and business to discuss and debate in depth the latest trends in our industry's increasingly complex structures for professional innovation support.

To serve their companies and communities, STPs and other AOIs often collaborate and coordinate activities with different institutions and organisations, such as chambers of commerce, development and funding agencies, industry associations, networks, venture capital, etc. All of these institutions are welcome to make contributions to this conference.

Theme and Programme

The programme will be divided into a variety of sessions - retaining both the traditional plenary and parallel sessions on specific topics, as well as more innovative formats - to encourage a more dynamic knowledge exchange. All conference sessions will be related to the overall theme for the 2019 IASP World Conference which has been set as:

**The 4th Industrial Revolution: areas of innovation and science parks
as key boosters for a successful transition**

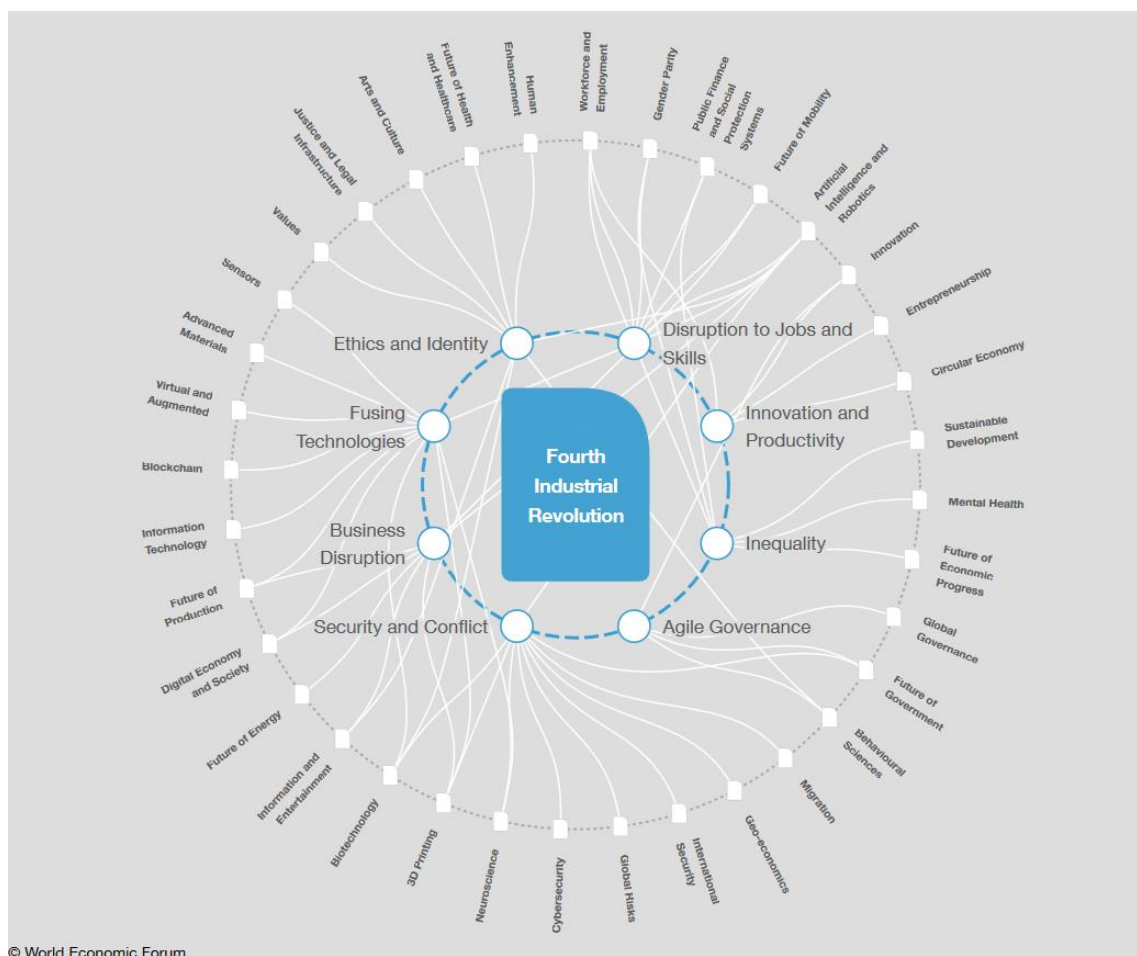


The 4th Industrial Revolution is defined by the convergence of digital technologies (big data, IoT, blockchain...), biotechnologies, and the physics of the infinitely small. The great promise of this fourth industrial revolution is to seduce consumers with unique and personalized products.

In addition to the technological aspects, this fourth industrial revolution affects different aspects of our modern societies, as new economic, social, political, and environmental challenges emerge through these new means of production.

Multi-disciplinary, at the crossroads of digital and all its applications and markets, connecting researchers, startups and large companies, IASP's "innovation hubs" are ideally placed to support this process. The fourth industrial revolution impacts all sectors, and science parks must ensure that its upheavals are sustainable for the economy and society as a whole.

Impacts of the 4th Industrial Revolution (World Economic Forum):



Sharing good practices and debating impacts of the 4th Industrial Revolution on our industry is what the 36th IASP World Conference proposes to address in these sessions.

MAIN THEME
The 4th Industrial Revolution: areas of innovation and science parks as key boosters for a successful transition

TRACK 1	TRACK 2	TRACK 3
PLENARY 1 - The 4 th Industrial Revolution: Impact on STPs & AOIs	PLENARY 2 - The 4 th Industrial Revolution: impact on people and society	PLENARY 3 - The technologies of the 4 th Industrial Revolution
PARALLEL 1 - Opportunities and risks for STPs and AOIs	PARALLEL 2 - The 4 th Industrial Revolution in developing countries	PARALLEL 3 - Technology 1
PARALLEL 4 - Governance and organisational challenges	PARALLEL 5 - Focus on SMEs	PARALLEL 6 - Technology 2
PARALLEL 7 - Strategic and cultural changes	PARALLEL 8 - The new divides	PARALLEL 9 - Technology 3
PARALLEL 10 - Analysis of our competitors	PARALLEL 11 - STPs and the ethics in the 4 th Industrial Revolution	PARALLEL 12 - Technology 4

Paper authors are invited to submit proposals for the sessions listed below:

TRACK 1

Plenary session 1 - The 4th Industrial Revolution: Impact on STPs & AOIs

The fusion of technologies, the increasing acceleration of innovation processes and the disappearance of the previously clear borderlines between the physical, digital and biological domains are undeniable indicators of the truly revolutionary nature of today's technological development. Inevitably, such developments generate social, institutional and presumably, too, psychological changes of which we are just scratching the surface.

Businesses too are receiving a colossal impact: the new ones have to make sure that they are born fully equipped to serve these new brave and uncharted waters, whereas the existing ones have to change many of their ways and do it soon, to stay in the competition.

Of course, organisations whose function is to support businesses, as are STPs and AOIs, must understand what is going on and redesign themselves (their strategies, their services, their organisational architecture, their facilities...), to remain as relevant as they have been until now. The changes we are witnessing are massive and so are the changes ahead.

In this session, we want to gain knowledge about the implications of the 4th Industrial Revolution and the impact this will have on STPs and AOIs at all levels.

How can we continue supporting our resident companies and the businesses in our areas of influence? What must we change?

Should STPs envisage new designs of their spaces and facilities? To what end? Do 4th Industrial Revolution companies have new requirements in terms of infrastructures and facilities where they wish to locate?

Do the features of the 4th Industrial Revolution demand different types of organisations? How should the organisational schemes of STPs and AOIs change?

How about the ethical dimension of the 4th Industrial Revolution? In the past decades, STPs already embraced important aspects that can be seen as having a significant ethical component, for instance, they excluded contaminating activities and demanded their resident companies to comply with rules for the protection of the environment, even before such rules became common currency and were enforced by laws. The 4th Industrial Revolution has huge ethical implications, how should STPs and AOIs deal with this important issue? Should new ethical codes be incorporated to the requisites that STPs have for admitting companies and activities? Is it enough to abide by the existing rules or should they have a living role in these issues.

How will the 4th Industrial Revolution impact STP and AOI strategies in terms of their specialization? Besides having STPs oriented to particular technologies, can we expect that parks will also follow other lines of specialisation such as some focusing on B2C companies that are selling their products to the end users, while others would specialise in B2B businesses?

Equally important is to have papers describing the problems that would emerge by failing to recognize and prepare for the tsunami that is coming. How ready are we?

Describe how a region, community, AOI or STP could benchmark or measure its level of preparedness to effectively respond and compete in the new economic order being framed by the 4th Industrial Revolution. What are the key metrics that an area could use to measure its future readiness on a relative scale? Understanding an area's level or condition of preparedness will be a precursor to knowing what responses are required to maintain viability and relevance in the future.

Parallel session 1: Opportunities and Risks for STPs and AOIs

It is no secret that the fourth Industrial Revolution has massive implications at all levels. The speed at which these changes occur, combined with their acceleration, can be seen as an ominous threat, but also as a fantastic opportunity. Additionally, as always happens in the face of such colossal forces, people develop uncertainties and occasionally overly high hopes. A rational analysis, leaving aside pathological fears or metaphysical optimisms, is more necessary now than ever before. Mapping the many opportunities that the 4th Industrial Revolution may generate is what we would like to hear about in this session.

The new opportunities will surely be very diverse: new types of customers and companies, the use of many new technologies for the actual management of the park, redesigning the organisational strategy and the business model of parks and Areas of Innovation following the changes that the 4th Industrial Revolution will bring about. We are looking for papers mapping

out the various new directions that are appearing for STPs as a consequence of the changes introduced by the 4th Industrial Revolution.

Parallel session 4: Governance and Organisational Challenges

How can STPs and AOs change their governance structures to deal more efficiently with the 4th Industrial Revolution? Are the typical governance structures currently functioning to meet the new needs? How is the private sector getting increasingly involved in building and managing new STPs?

Can STPs and AOs contribute to the full understanding of the new phenomena? Should the profile of STP managers undergo significant changes? How about our main stakeholders: are they ready for the 4th Industrial Revolution?

Parallel session 7: Strategic and Cultural Changes

What strategic decisions are necessary for STPs and AOs to deal with the 4th Industrial Revolution? Are there new strategies being developed? How are they different from the ones we know so far?

It is widely accepted that the 4th Industrial Revolution is forcing businesses (and also public administrations and institutions) to be more and more customer centred, rather than just technology centred. This is not intrinsically new per se, but this trend is experiencing an exponential increase and so one may wonder if STPs/AOs should follow this same trend. Should STPs and AOs still consider their resident companies and incubatees as their sole customers? How about our customers' customers? That is, the end user, the people; are they also becoming important targets for STPs and AOs, if so how can STPs support their companies to better serve their own customers?

Parallel session 10: Analysis of our competitors

Considering that STPs and AOs can be seen as business support projects, aiming at facilitating the creation of new companies and the competitiveness of the existing ones and of raising the overall attractiveness of their cities and regions, who will be their main competitors within the new 4th Industrial Revolution? Are they other types of projects, spaces, facilities that can be perceived as better endowed to support the 4th Industrial Revolution companies? Considering the increasingly high technological sophistication of companies, which are our strong points and weaknesses vis-à-vis potential competitors? Which could be the points of friction as well as the potential synergies between STPs/AOs and their new competitors?

TRACK 2

Plenary session 2 - The 4th Industrial Revolution: impact on people and society

Every Industrial Revolution has had winners and losers. Nesta has argued that the emphasis on technology-led innovation in our current industrial revolution has actually exacerbated social inequality, and presents a compelling case for a more inclusive approach to innovation. Of course, other institutions and researchers argue that poverty has been significantly reduced worldwide, notwithstanding existing inequalities, thanks to globalisation and technologies. At the same time, the spectre of large swathes of jobs being lost to automation and digitalisation in our lifetime is all too real for many regions in the world, with associated impact on communities, regions and societies.

At the heart of this theme is an assumption: that STPs and AOIs exist to assist the growth of companies which are developing products and services that improve quality of life for people and for civil society: in health, the environment, transport and the like.

If this assumption is correct, if we are all about positive impact on society, the question we need to ask ourselves is what is the role of STPs and AOIs regarding the impact of the 4th Industrial Revolution on people and society?

This theme is looking for actionable insights into the following questions - how can STPs and AOIs:

- Help their regions understand the threats and the opportunities of Industry 4.0 and put action plans into place
- Work with their companies to help them adapt at pace to the new paradigms
- Position SMEs as crucial solution providers in this new paradigm
- Act as beacons for new industries and new jobs
- Unleash talent from unexpected areas
- Raise aspirations and inspire people to see the possibilities in an industrial revolution
- Empower communities to drive their own future and work closely with companies to develop solutions that meet their needs
- Support new education schemes to prepare the next generation for these relentless changes.

Parallel session 2: The Fourth Industrial Revolution in Developing Countries

Technological advances associated with the 4th Industrial Revolution will likely give rise to many opportunities for economic and social development. However these advances also involve important risks, which have special significance in developing countries. Some of these risks, identified by the World Economic Forum may include (but are not limited to), worsening unemployment, increased inequality of wealth, and bias embedded in Artificial Intelligence that may not sufficiently reflect the context and needs of developing countries.

The problem may be that governments in developing countries are not giving these risks serious attention. The role of STPs and AOIs and of their resident companies to address these risks and provide solutions is essential.

Parallel session 5: Focus on SMEs

For some time now, SMEs have been pushed to the side, while startups and of course, the hottest multinationals have occupied most of the attention. However, SMEs remain central actors in all world economies and are of the highest importance for STPs and AOIs. How will the 4th Industrial Revolution impact SMEs specifically? How can STPs and AOIs support the necessary transition of our SMEs? Is there an ideal mix of the companies located in STPs and AOIs according to their size? How will STPs and AOIs enhance the right evolution of companies through their successive stages of development (startup, scaleup, SME, big company...)?

Parallel session 8: The New Divides

Like any other big change, the 4th Industrial Revolution will likely produce losers and left behinds next to the winners. These “losers” can have a very negative impact in cities and regions. Do STPs and AOIs also produce losers? Which are our losers, and how can STPs and AOIs reduce the negative impact of this phenomenon in their cities and regions? What are the different risks on the horizon?

Parallel session 11: STPs and their ethics in the 4th Industrial Revolution

It is beyond question that more than ever before the advances of the 4th Industrial Revolution are confronting us with unparalleled ethical problems that cannot be neglected. Most of these ethical challenges are in everybody's mind but there are others still invisible or very vaguely outlined.

An IASP World Conference is an unmatched platform to engage in discussions about these topics which would allow us not only to deepen our understanding of many of these issues but also to learn how these ethical challenges may be seen differently in different parts of the world.

This is where philosophy acquires an enormous practical value that can also cast light on many of the problems that STP and AOI managers will have to face vis-à-vis the new challenges of the 4th Industrial Revolution. How global are ethics? Should STPs and AOIs take into their hands the setting of rules based upon ethical considerations, or should these be left exclusively in the hands of governments? What sort of ethical dilemmas will STP and AOI managers likely encounter in the near future? What activities can be accepted, which businesses should not be allowed into our STPs and AOIs...?

TRACK 3

Plenary session 3: The technologies of the 4th Industrial Revolution

STPs, AOIs and their managing teams have to deal with companies in many different sectors, even if their parks happen to be strongly specialized, but nobody can be an expert in every field. Therefore, we think that our world conferences are great opportunities for STP professionals to receive fresh and qualified information on the latest developments of the most important technology fields. In particular, and given that the fourth Industrial Revolution is defined as the convergence of digital, life and physical technologies, it is crucial to gain an accurate understanding of the technologies resulting from such convergence. Digital has introduced a number of new technologies that had never been thought of before. The convergence of biotechnology with the digital world also offers incredible new possibilities. The advances in material sciences have seen the growth of the physics of the infinitely small - what has become the field of nanotechnology - and this has already started to affect society.

We are looking for contributions that will explain and demonstrate, in an accessible way to non-specialists, the latest news about the technologies that are deemed most promising and having the greatest impact in the world. We want to underline again that the majority of the audience will be STP and AOI professionals. Many of them are indeed people with a solid scientific or technical background, but they will be interested in hearing about technology fields in which they may not be great experts; on the other hand, many STP professionals come from the domain of management, economics, sociology, etc. and are less familiar with pure scientific language. Contributions for this track will have to take this into account and focus on explaining the most relevant aspects of the new technologies especially from their business point of view: how and under what form will these technologies be brought to the market? What are the main challenges that businesses will face to go from the research to the commercialization stage in these different technologies? What sort of services would benefit businesses involved in these new technological developments? What will be the foreseeable impact of these technologies on people and societies? Another important dimension is, of course, understanding the ethical implications of all these new technologies.

We invite authors to send proposals about any technology or technological field they deem relevant for this conference, nevertheless here are a few indications of the technologies that seem to attract more interest within the STP and AOI community worldwide.

Suggestions:

- Environmental technologies: air, water, biological diversity, recycling.
- Food and agriculture.
- Personalised medicine and Health for the Future
- Mobility and transportation: self-driving vehicles
- Internet of Things
- AI and machine learning
- Advanced manufacturing, Factory of the Future, Robotics...
- ...

Depending on the technologies discussed in the paper proposals that we receive, the Steering Committee will distribute papers into different parallel sessions, as per the overview on page 3.

TECHNICAL SPECIFICATIONS

Submission of abstracts (paper proposals) is open to everyone. Authors do not need to be members of IASP, and participation from a variety of organisations and sectors is welcomed.

Proposals to present contributions at this IASP World Conference in 2019 will undergo the review process below. Selections will be made according to the paper's content and its ability to address the topics and themes outlined above. The conference organisers will aim to include papers from the broadest possible range of expertise and perspectives.

Selection of Abstracts

Anyone interested in presenting a paper at the conference must first submit an 800-1200 word abstract to the Steering Committee Secretariat. Submissions should be made through the online system that will be made available on the conference website (www.iasp2019nantes.com) from 10th September onwards.

All abstracts must be in English.

Abstracts will be evaluated by the Conference Steering Committee and review panel. The authors will be notified by 20th December 2018 as to whether or not their abstract has been selected for the next step in the paper selection process (full paper for review).

The authors whose abstracts have been selected will need to submit their complete papers no later than 10th April 2019. Only those authors whose abstracts are approved may submit a full paper for review.

Selection of Full Papers

Full papers will be evaluated by the Conference Steering Committee and review panel. The panel will select the final papers that best contribute to the theme and desired discussion at the conference based on the clarity and relevance of their argument. Authors will be notified by 10th June 2019 as to whether their full paper has been selected for inclusion in the conference programme.

Given the limited number of speaking opportunities at the conference, some of the full papers that are approved by the review panel may not be allotted time for an oral presentation at the conference, but may be included in the conference proceedings - a digital publication widely read by conference delegates and the Science Park community as a whole.

Important deadlines

Submission of abstracts	8 th November 2018
Notification to authors	20 th December 2018
Submission of full papers	10 th April 2019
Notification to authors	10 th June 2019
Conference dates	24 th - 27 th September 2019

Steering Committee Secretariat

For more information about the Call for Contributions process for the conference, please contact Ebba Lund or Francesca Antoniazzi at papers@iasp.ws.

Conference Secretariat

For more information about the conference and the city of Nantes, please visit the conference website (www.iasp2019nantes.com) or email Lucile Dauguet (dauguet@atlanpole.fr).