



37th IASP World Conference on Science Parks and Areas of Innovation

Seville, Spain 6th - 9th October 2020

Introduction

PCT Cartuja will host the 37th IASP Annual World Conference on Science Parks and Areas of Innovation in October 2020.

The conference will bring together experts in developing and managing innovation ecosystems and their main components such as Science and Technology Parks (STPs), Areas of Innovation (AOIs), innovation districts and hubs, together with 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, these innovation ecosystems often collaborate and coordinate activities with different institutions and organisations, such as chambers of commerce, development and funding agencies, industry associations, networks, venture capital funds and of course with city policy makers. 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 dynamic knowledge exchange. All conference sessions will be related to the overall theme for the 2020 IASP World Conference which has been set as:

THE HUMAN FACTOR People, communities and their innovation ecosystems

All these areas of innovation (STPs, innovation districts, etc.) are created to provide the best location, facilities and environment for the new types of companies that the global knowledge economy has brought to life: companies who have innovation, technology, research and a constant use and application of knowledge and creativity in their DNA.

Knowledge and technology are created and developed by individuals working within systems, networks, and organisations. The knowledge economy means that knowledge has become the greatest asset for companies that want to compete in the global market, overtaking the preeminent role that machines, big facilities and a large but less-educated workforce had in the classic industrial economy. The role of educated and skilled individuals, whom we began to call knowledge workers or the creative class, has become more important than ever before. Talent, skills and personal creativity, which are features conducive to knowledge and its transformation into products, services and a new business culture, have become the main asset for companies, but also for society in general. Accordingly, the new spaces built for today's companies have to be designed with the needs and preferences of individuals in mind. In other words, to succeed in their mission innovation ecosystems cannot simply think of themselves as places for companies: more comprehensive and complex environments must be created to make them attractive to individuals as well.

At this conference, we want to gain deeper knowledge of the human factor in our industry. What are the strategic implications of adopting a human-centred philosophy? How does bearing individuals in mind as well as companies influence our hardware (landscaping, buildings, basic infrastructure...) and our software (networking, services, etc.)?

NEW! - Practitioner and academic papers

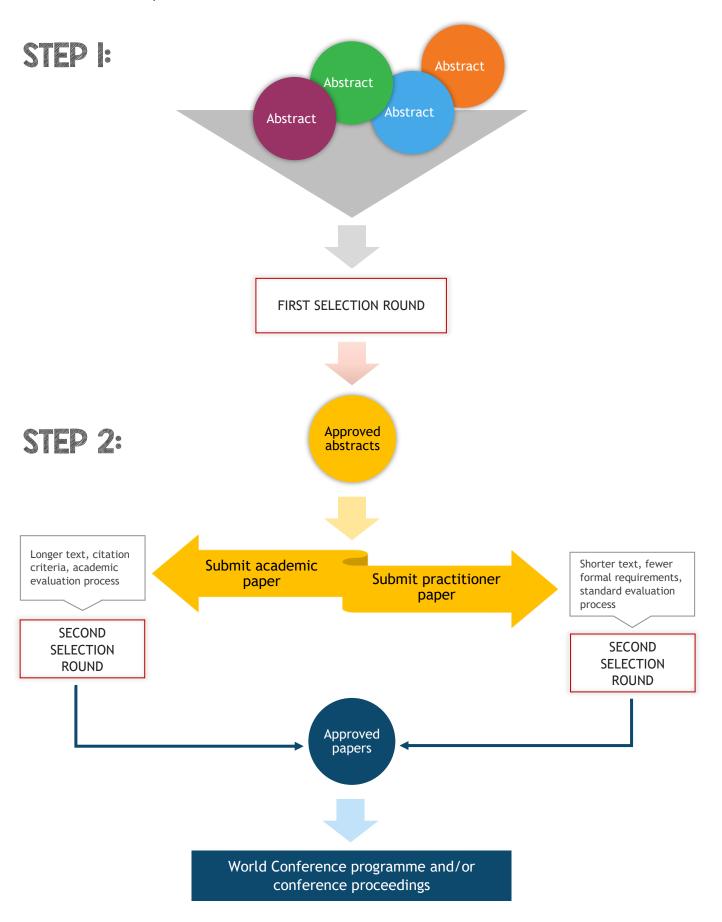
New for the 2020 conference, after the abstract selection round paper authors will have two options for submitting a paper, with different requirements specified for practitioners and for academics.

Once their abstract has been approved, non-academic practitioners may submit a shorter, more practical paper with fewer formal requirements, while academics are invited to submit longer, in-depth papers which will undergo a more exhaustive evaluation process.

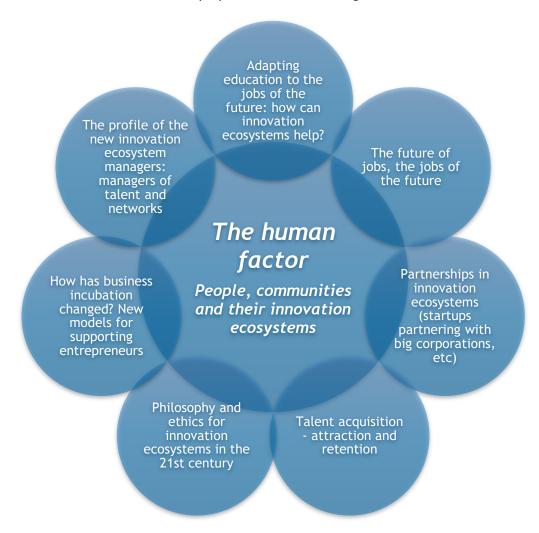
For technical specifications for abstract submission, please see page 10 - please note that at the abstracts stage there is no distinction between academics and practitioners, and all authors should submit a proposal following the same technical specifications.



The selection process in a nutshell:



Paper authors are invited to submit proposals for the following sessions:



DESCRIPTION OF SESSIONS:

(Listed in random order, and numbered for the sole purpose of easy reference when submitting the proposal. The type of sessions (plenary, parallel, workshop, etc) will be determined after the first round of review of all the contributions).

Session 1 - Adapting education to the jobs of the future: how can innovation ecosystems help?

Education will increasingly cross paths with innovation ecosystems as the world of work undergoes a major process of change in both content and form. Due to their unique characteristics, STPs/AOIs will continue to offer "jobs of the future". These jobs reflect the development of new forms of work, due to the emergence of new technologies and means of production, coupled with the desire to improve work-life balance.

STPs/AOIs and other innovation environments can also be key learning spaces for education, mainly for the tertiary level (universities and other higher education institutions). They are an essential part of the "knowledge triangle", an effort to integrate education, research and innovation as key drivers of a knowledge-based society. In traditional classrooms students learn the knowledge accumulated by humanity. In laboratories they experience how new knowledge is produced. And in STPs/AOIs the students can witness the complex process of transforming knowledge into tangible and intangible products that serve society's purposes.



This third learning space is invaluable, as innovative entrepreneurship consolidates itself as a key feature of the 21st century.

But education begins well before the university, and there are already interesting examples of science parks beginning to organise educational activities for younger students, from a relatively early age, to get them interested in innovation, technology and entrepreneurship, which is at the same time a way for STPs and AOIs to deepen their roots in civil society.

Session 2 - The future of jobs, the jobs of the future

The Future of Jobs Report of the World Economic Forum explains how technology is transforming the frontier between the work tasks performed by humans and those performed by machines and algorithms, changing global labour markets. Companies will need key locations to compete globally, and Science Parks and Areas of Innovation will need to review and rethink their strategies to attract, retain, create and help to grow companies in their ecosystems by providing the best talent and technology.

In this framework, there will be a change in the geography of production, distribution and value chains as: (1) companies will prioritize the availability of skilled local talent, influencing location decisions; (2) new human-machine frontiers will transform the workforce to new "augmented jobs"; (3) emerging in-demand roles will combine technological skills, but also leverage 'human' skills; (4) the workforce will require significant reskilling and upskilling in an agile and lifelong learning approach.

There are complex feedback loops between new technology, jobs and skills. New technologies can drive business growth, job creation and demand for specialist skills but they can also displace entire roles when certain tasks become obsolete or automated. Skills gaps—both among workers and among the leadership of organizations—can speed up the trends towards automation in some cases but can also pose barriers to the adoption of new technologies and therefore impede business growth.

Managers of Today's innovation ecosystems will need to find strategies with policy-makers, regulators and educators to play a fundamental role in helping companies by providing the best pools of talent and technology, but also in helping both young and mature people to adjust and find jobs in the fast-changing future landscape of work.

Session 3 - Partnerships in innovation ecosystems (startups partnering with big corporations, etc)

Corporate silos, enterprise complexity, (middle) management complacency, sticky mainstream corporate beliefs, risk adversity of large hierarchies, the slow pace of innovation in large companies and the like are the main subjects of management literature and talk. Corporate leaders come back from their study tours to the mythical Silicon Valley full of adrenalin and concepts, only to face an insurmountable resistance by the organisations they have often created themselves. The "not invented here syndrome" is still strong. Many corporate approaches can be observed in addressing partnerships: buying small start-ups wishing to get technology and their best staff; creating corporate venture organisations to build up a strategic portfolio of innovations; creating topical accelerators together with leading organizers of this fast-growing craft; engaging technology scouts; designing technology days for small companies; etc.

Big corporations take many different approaches to be part of innovation ecosystems. A lot of money is at stake, and it takes a great deal of resources to structure this fuzzy environment.

On the other side of the difficult partnership equation are startups, daring company founders and a plethora of hopefully disruptive innovations. They represent the willpower, skill, energy, determination, technological mastery and attractive visions that inspire people to reject attractive corporate offers, to leave promising careers and risk their time and probably smaller personal funds to create something new, and hopefully wealth as well. The two could



not be more different. They differ in financial and personal resources, culture, plannability, regulations, hierarchies and perhaps most importantly, their sense of urgency.

STPs and AOIs can play an important role in bridging these differences and initiating partnerships between these unequal potential partners. We observe an increasing portfolio of tools, most of which require new skills in our organisations. They ask for entrepreneurial experience, industry-specific know-how, financial understanding of the vulnerability of startups and the cool arithmetic of corporates, but most of all the ability to link people of different cultures and the skill to understand and manage their differing expectations.

New ideas, startups and technologies are everywhere and configure a landscape of amazing activity, and of course new urban spaces are being occupied by these phenomena. The challenge for STPs and AOIs is to maintain their personality and role within this new landscape. How can they attract both, startups and corporates? How can they be fluent in both their languages? How can they maintain their platforms and spaces as meeting points where they "match, chat and date"?

What mechanisms can innovation ecosystems develop to secure the fruitful communication of these two crucial but different actors? Things like mentorship programmes, open innovation encounters, B2B meetings, investing opportunity workshops are among the many that come to mind, but there can be many others. In this session we would like to explore both the complexities and features of this situation that we have described, in order to understand better the intricacies and problems implied, but also the actual solutions that STPs and other innovation players are implementing or should implement in the future.

Session 4 - Talent acquisition - attraction and retention

For an STP or AOI, talent does not only mean individuals with strong STEM competencies. It includes the wide range of high-level skills that make up an effective innovation ecosystem:

- Researchers and technical staff in relevant scientific and engineering disciplines
- Professionals involved with the processes of innovation, from intellectual property
 management, through deal-makers and entrepreneurs, to highly competent managers
 in the principal commercial disciplines who have the skills and networks to develop
 and grow tech-based companies.

The attraction of talent in all these skill areas requires that a region should offer most of the following features:

- The clear presence of "2nd Job" employment opportunities. Talented individuals want to see that if they choose to come and stay that they can develop a career across more than one organisation.
- There are relevant job opportunities for partners and family members of those being attracted
- The "quality of life" factors of the region cover many of the features that talented individuals might well see as important to them as an individual. These might include:
 - An attractive local environment including both a lively city / metropolitan dimension and a good natural environment with accessible outdoor amenities.
 - Good working environments whether within a city-scape or campus-style setting.
 - Good schools for existing or future offspring.
 - Opportunities to indulge personal cultural interests such as: music, theatre, cinema, sport, the arts etc.



STPs and AOIs may find it difficult to influence many of the above features directly, but if they are well networked with municipal authorities, universities and a regional development agency they may be able to influence public programmes that can lead to the improvement of quality of life aspects of the region that might be limiting its ability to attract talent.

The retention of talent will also be influenced by these features. However, for one category of highly educated talent, local students and recent graduates, other special programmes need to be devised to keep them in the area. Activities such as planned and managed paid internship opportunities and project placements for students in their penultimate and final year where they can deploy their knowledge for the first time and secure interest from prospective employers. Apprenticeship programmes, whether state or locally financed, are also a valuable way of "locking-in" emerging local talent. STPs, AOIs and innovation districts are well positioned to play a role in defining, establishing or even managing programmes of this type with the support of the local university or universities.

We expect contributions to help us understand better all these talent attraction/retention related issues: what can innovation ecosystems do in this regard? What is their contribution to their cities and regions in talent attraction? What are the main challenges for their managers when it comes to talent? Examples of good practices and innovative solutions are also welcome in this session.

Session 5 - Philosophy and ethics for innovation ecosystems in the 21st century

Technological development is not only the driving force of the world economy, but has become a central historical and cultural force. Even without following the theory of determinism, it can be said that science and technology decisively condition the shape and evolution of contemporary societies and have increasingly important and lasting effects on people's lives. Recent advances in information and communication technologies (ICT) have introduced us to what the Oxonian philosopher Luciano Floridi has called hyperhistory - the era in which our global existence depends entirely on the proper functioning of these technologies. Although this can be seen as a somewhat peremptory assertion, it is worth taking it into consideration.

Artificial Intelligence is developing dramatically and is extending its application to areas that until now seemed unthinkable, threatening to end a large number of professions and jobs. No one knows for sure if new jobs can be created quickly enough to replace those that are lost. No less surprising are the advances that are being made in biotechnology. We are not only redesigning living beings, particularly bacteria, to obtain a great diversity of products that were very scarce or difficult to obtain (medicines, biofuels, food, etc.), but the perspective of applying biotechnology itself to the human being is now open.

The objective is to cure diseases that up to now resisted treatment, but also to extend human life in a significant way. Regenerative medicine and genomic medicine are two fields in which great progress is expected. These are some of the aspects that constitute the backbone of so-called transhumanism. All this raises many ethical, social and political problems that we ought to discuss without further delay, and, in fact, the debate has already begun.

We welcome contributions that address these philosophical/ethical aspects of the mission and the job of STPs and AOIs. Why should we be concerned with these matters? How will they impact or affect our industry? What should our contribution be to the better advancement of the new ethical thinking derived from this new technological revolution? After all, we could say that philosophy is too important to be left only to philosophers. How concerned and hands on should we be in these matters? To what extent can STPs and AOIs act as 'spokesperson' for the community of innovation and technology-based companies?



Session 6 - How has business incubation changed? New models for supporting entrepreneurs

Incubation of innovative startup companies has been part of the service portfolio of science parks, areas of innovation, innovation districts from the beginning of their existence. The aim of these services is to increase the success rate of high-risk ventures that have limited recourses, but strong technology-related products or services with global breakthrough potential. Startups represent the new economy, showing how innovation and technology can be quickly scaled, completely changing the everyday life of millions and millions of people. To stay ahead of the competition, countries and regions must work with the startup community to provide the best possible output for the economy. Science parks and areas of innovation have a significant role in this mission.

Business incubation and methodologies to support startups have changed over time, with programmes shaped according to the changing needs of startups and entrepreneurs. Recent years have seen the launch of many effective programmes, including long-term incubation, 24-48-hour hackathons, acceleration programmes, development sprints etc, with many of them now implemented in combination. Reaching the perfect balance between the expectations of startup entrepreneurs and incubation programmes is considered to be the number one challenge of STPs and AOIs in the upcoming years.

Startups are dependent on funding and investments, and many STPs and AOIs are integrating funding schemes into their support services. Success stories provide valuable learning across our network, to address questions such as: should incubators have their own fund? Should the fund be public or private capital? At what growth stage could STPs and AOIs provide investment opportunities, and how could this be integrated into incubation programmes?

Many STPs and AOIs have specific focus areas, relevant for their local economy and stakeholders, which are reflected across the toolboxes and services that they provide. Focus areas are often set for startup incubation too, and only specific companies are incubated. Focusing helps to keep the best specific competencies and know-how in-house for the incubators and also provides established service tracks for startups. In the future, having a specific focus may become harder as companies grow increasingly interdisciplinary. We see more and more integrated solutions, combining hardware and software for complex and meaningful products or services. This presents STPs and AOIs with a new challenge - how to distinguish the business sectors where the most value is being created. Should incubators really have specific focus areas? Is narrowing down sectors beneficial for startups or are they in need of more general business support?

Last but not least, it is a well-known fact that the human factor is absolutely crucial when it comes to efficiently running incubators and business incubation programmes. Choosing which projects to accept and support has to do with the technologies to be used, the markets to be addressed and other variables, but mainly has to do with entrepreneurs. Their profile, their mindset, their motivations, etc. Having the capacity to adequately evaluate their profiles and understand their needs is absolutely crucial. Moreover, parks, areas of innovation and their business incubators should also be concerned with continuously enhancing the entrepreneurship culture in their cities and regions. We welcome contributions that will expand our collective knowledge about the new models of business incubation, success stories and create a better understanding of all these aspects within our industry.

Session 7 - The profile of the new innovation ecosystem managers: managers of talent and networks

The role of STP/AOI managers has been changing as the role and functions of innovation ecosystems have changed, brought about by new models of STPs, the emergence of AOIs and innovation districts, technological changes, and new dimensions of the world of work. Whereas in the past, STP/AOI managers were largely concerned with infrastructure development and in attracting anchor tenants, as well as the relationships between business, academia and government, this has changed.



Today, the STP/AOI manager operates in a very competitive environment, which demands that the STP is appropriately resourced to be able to service the needs of both internal and external stakeholders. In the case of internal stakeholders this is largely their own board, management and staff as well as tenants in the park, while external stakeholders include business, government, civil society, academia, international organisations, and entrepreneurs.

Much of the interaction between the innovation ecosystem and its stakeholders has also moved to the internet through various forms of social media. Given the reduction in distance that technology has brought about, the role of the STP/AOI manager has also shifted to demand different types of skills for effective management of a growing network of stakeholders and interest groups.

Today's managers have to place more emphasis than ever before on the type of talent and resources they bring into their organisations. These resources have to support the STP/AOI manager and in some cases drive change in the better management of networks and stakeholders.

In emerging markets, there is also a shift in population demographics, with the population becoming significantly younger, thus demanding better understanding of the way young people work and perceive opportunity. In most of these economies, there is also high youth unemployment, which requires that the new STP/AOI managers develop strategies to foster entrepreneurial talent. It is important for today's manager to appreciate that their staff are the organisation's biggest asset, delivery mechanism and indeed its promoters or marketers. Accordingly, managers should be good at identifying, recruiting, and nurturing talent.

We are looking for contributions that will help us to discuss in greater depth what type of management mindsets and skills are now best for the new innovation ecosystems. This will include discussion of the competences of managers within our industry today, what skills or type of education are required, but also what their position within the governance architecture of science parks and areas of innovation should be? What level of decision-making is now required and desirable? What are the obstacles that STPs, AOIs and innovation might meet when they need to recruit new talent for the top management positions?



TECHNICAL SPECIFICATIONS AND SELECTION PROCESS

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.

Anyone interested in presenting a paper at the conference must first submit an 800-1,200 word abstract to the Steering Committee Secretariat. Submissions should be made through the online system that will be made available on the IASP website (www.iasp.ws/My-Submissions) from 14th October onwards.

All abstracts must be in English.

We expect abstracts to summarise the topic they will deal with, the main conclusions or lessons to be presented and the methodology that will be used in the paper, indicating if it is the result of some research, field work, lessons from own experience, or findings from professional literature.

Authors will be notified by 20th January as to whether or not their abstract has been selected for the next step in the paper selection process and will receive further technical specifications on how to submit their full paper for either the academic or practitioner review process (see page 3).

The authors whose abstracts have been selected will need to submit their complete papers (academic or practitioner) no later than 20th April 2020. Only those authors whose abstracts are approved may submit a full paper for review.

The evaluation 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 2020 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 our innovation community as a whole.

Important deadlines

Submission of abstracts	20 th November 2019
Notification to authors	20 th January 2020
Submission of full papers	20 th April 2020
Notification to authors	10 th June 2020
Conference dates	6 th - 9 th October 2020

Steering Committee Secretariat

For more information about the Call for Contributions process for the conference, please contact 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.iasp2020sevilla.com) or email Eva Martín (emartin@pctcartuja.es).

