



# Green and digital change powered by innovation

The role of innovation ecosystems

27-30 September  
Cartuja Science and  
Technology Park



## Call for Contributions

### Introduction

Cartuja Science and Technology Park in Seville (Spain), will host the 39<sup>th</sup> IASP World Conference on Science Parks and Areas of Innovation in September 2022.

The conference will bring together experts in developing and managing the different components that form innovation ecosystems, such as [Science and Technology Parks \(STPs\)](#), [Areas of Innovation \(AOIs\)](#), innovation districts and hubs, together with technology-based incubators, accelerators, universities and other institutions and organisations that work to support innovation and sustainable economic development in their cities and regions.

To serve their companies and communities, all these innovation-centred projects work closely with city policy makers and a broad range of other public and private partners, such as development and funding agencies, industry associations, chambers of commerce, consultants and developers of innovation spaces, networks, venture capital funds and many more.

Alongside STP and AOI managers, all of these entities and innovation professionals in general are welcome to make contributions to this conference, where we will debate the latest trends in our industry's increasingly complex structures for professional innovation support.

### 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 2022 IASP World Conference, which has been set as:

## ***Green and digital change powered by innovation*** *The role of innovation ecosystems*

Climate change is one of the greatest threats facing the world today, and innovation ecosystems have a leading role to play in consolidating global efforts to combat this threat through innovative green and digital technologies.

Science parks and areas of innovation are spaces where new thinking builds solutions to solve current challenges. With climate change, there are an abundance of challenges to meet, and digital technologies play a central role in the energy systems of the future, as well as in the development of data-driven climate solutions, monitoring systems, models for behavioural change and much more, helping us move towards a carbon neutral future.

The innovative companies that thrive in science parks and areas of innovation demonstrate the role new emerging tech can play in mitigating and adapting to climate change, such as increased energy efficiency in consumer products and in industry, climate predictions or material optimization. Today STPs are actively implementing the UN Sustainable Development Goals, just like decades ago they were pioneers in environmental awareness and led the way towards designing environmentally-friendly spaces, setting rules and limits to the kinds of activities that could be allowed in them. This is the norm today, or at least it should be, but now we need to go further: eco-awareness and prioritising policies and actions that enhance sustainability cannot remain limited to the design of spaces and the construction of premises. They must permeate the private sphere and shape the behaviour of companies and individuals.

There must be a general mobilisation of efforts and resources in key focus areas, including energy efficient artificial intelligence solutions; work to help cities become greener and more digital; smart buildings technologies to increase energy efficiency; smart and sustainable mobility systems; sustainable cloud and blockchain infrastructure; low power hardware technologies, and of course, support to green tech and digital startups and SMEs.

This conference will explore the myriad ways in which innovation ecosystems and their key players can and do support green and digital change across sectors, and the new methods they will deploy to do so in the future.

Authors are invited to submit paper proposals and a 1-minute video summary for the sessions listed below.

#### **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 review of all the contributions.*

*The following session descriptions are not a definitive or exhaustive list of topics for discussion, and different angles or topics related to the session themes are highly welcome. Please indicate which session you see as the best fit for your paper when submitting.*

### **Session 1. Green and digital change – Promoting cultural and behavioural changes in society**

For a complete green and digital change to happen, cultural and behavioural changes in society are essential. We, as a society, need to re-order our priorities and change our daily habits, putting sustainability above our individual interests. How can STPs, AOIs and their companies help facilitate these changes?

What role can they play in introducing new green & digital values and solutions into general society? Can they help make people fall in love with green and digital at the personal micro-choice level? Should they?

Change powered by technology and digitalization is much more common in strong innovation ecosystems, and residents and other stakeholders are easier to influence when promoting changes, because change is inseparable from innovation. How can STPs and AOIs take advantage of this "experience in change"?

This session could include discussion of how STPs/AOIs can increase awareness and take up of digital tools and tech solutions which will make a positive impact. AOIs and innovation districts are closely engaged with local citizens; can they leverage this connection to drive earlier adoption? New management models that can also help spur green and digital change could also be explored in this session, along with the role of STPs and AOIs in evidence-based policy making, via setting metrics, gathering evidence of social impact and providing options to policy makers.

## **Session 2. Driving sustainable mobility: new solutions for urban transportation**

In their capacity as connectors of research, business, the public sector and wider society, STPs/AOIs can play a key role fostering the development of new, sustainable and more integrated mobility solutions.

Research indicates that private car journeys currently represent just over half of all trips made in major cities, but will sink to 46% by 2030, while trips made on public transport, bicycle or on foot will all rise to reach a combined 49% of city journeys over the same period, creating a global "tipping point" towards sustainable travel.

In this session, we invite contributions exploring initiatives in STPs/AOIs around the world to research and develop these new transport solutions at a local and regional level. Authors are welcome to explore topics such as electric and autonomous vehicles, the integration of intermodal transport systems, green public transport initiatives, STPs and AOIs as testbeds for new mobility solutions, micro mobility roll outs and new bike lanes, and other green transport modes relying on renewable energy sources.

## **Session 3. Green design and infrastructure of science parks and areas of innovation**

This session will explore the design and infrastructure of STPs/AOIs themselves, and how they can lead the way implementing green and digital best practices. What strategies can STPs/AOIs adopt to become low carbon/carbon neutral sites? How can they plan operations in a cluster so that all activities become zero waste?

This session could include discussion, case studies and best practice examples of green architecture, design and construction within the physical environment of STPs/AOIs, and the role of climate resilient infrastructure to mitigate climate risks and ensure the provision of reliable services.

## Session 4. Energy performance: Positive Energy Districts

As connectors of stakeholders across communities, cities and regions, innovation ecosystems have a key role to play in large-scale energy projects that rely on collaboration and cooperation, and which contribute to SDG 7, affordable and clean energy.

Positive energy districts (PEDs), also known as net zero communities or zero carbon energy districts, are energy-efficient and energy-flexible urban areas that produce at least as much energy on an annual basis as they consume. They require interaction and integration between buildings, the users and the regional energy producers, mobility and ICT systems to provide low-carbon solutions that will benefit both neighbourhoods and citizens.

PEDs could play a big role in peak shaving, load balancing and increasing self-consumption of renewables, but to be successful they need the involvement and collaboration of multiple stakeholders such as city authorities, real estate planners, investors, innovators and citizens. How can AOs and STPs help engage and work with multiple stakeholders to create such districts? Can they work as conveners and facilitators to get the process in motion?

## Session 5. Innovation ecosystems and the circular economy

STPs & AOs are ideally placed to help businesses work together to optimize the use of resources, in terms of sustainability and circular economy. Waste from one company can provide the raw material or energy for another via industrial symbiosis, offering economic benefits as well as contributing to sustainable development: analysis of their resident companies' processes allows STPs/AOs to become test-beds for these approaches in defined ecosystems. This session will explore the role of innovation ecosystems in building a zero-waste circular economy within their organisations, innovation communities and in society as a whole, working to ensure sustainable consumption and production patterns in line with SDG 12.

## Session 6. Driving smart city development

Smart Sustainable Cities are associated with the use of digital technologies for energy efficiency, improved mobility and better quality of life indicators, as well as in making a location highly attractive to talent and foreign investments. This session will explore the key role STPs/AOs can play in implementing and strengthening smart city initiatives and other actions to drive SDG 11, enabling economies of scale, connecting key stakeholders from companies, government, academia and wider society, offering quality spaces and driving a continuous flow of innovation into the city.

## Session 7. Green & digital startups and scaleups

A greener society needs greener companies. How can STPs, AOs and incubators promote the creation and consolidation of greener and more sustainable startups that are likely to scale? Are there niche areas where innovation ecosystems can build incubator and accelerator programmes to support emerging green & digital technologies and needs?

This and other company-oriented questions on how to better support entrepreneurs in driving green and digital change are welcomed for this session.

### **Session 8. Future-proof jobs and skills training for the digital transition**

Skills are key for sustainable competitiveness, resilience and ensuring social fairness for all. Businesses need workers with the skills required to master the green and digital transitions, and people need to be able to get the right education and training to thrive.

Having the right skills for strategic sectors to perform and for individuals to navigate through life is essential. The pandemic has accentuated the need for digital skills: at least 85% of jobs require some level of digital ability, while only 56% of adults had at least basic digital skills in 2019. What role can innovation ecosystems play to improve this? How can the different actors of innovation ecosystems work together to ensure a pool of future talent for their companies, and quality jobs in their communities?

### **Session 9. Building digital capacity: STPs and AOs supporting digitalisation**

Strengthening digital infrastructure helps companies to become smarter, better meet customer needs and stay competitive. How can STPs & AOs support increased digitalisation in their companies, and promote constant digital improvement of both their resident companies and their cities & regions?

How can they seize and maintain a leading role on digital ideas, developments, products, and services, for the creation of stakeholders' value, while fostering talent capture and retention?

### **Session 10. Best practices in resident companies: cross-sector highlights**

Authors are invited to share best practices from resident companies across a range of different sectors, from the smallest startups to the biggest multinationals, universities and research organisations.

What does green and digital best practice look like in different industries (life sciences vs new materials; ICT vs engineering)? Are there different trends in best practice in large organisations and small organisations? How about the global picture and examples of international collaborations that foster green and digital change at a broader level? Can STPs & AOs work as fast tracks for innovation-based companies to collaborate globally, facilitating support and connections in peer communities around the world?

### **Session 11. STPs/AOs and their ethics in the green and digital revolutions**

The advances of the Green and Digital Revolutions are confronting us with ethical questions that can't be ignored, even though some are still little noticed or very vaguely outlined. We want to

take the opportunity to contrast global perspectives on some of these ethical challenges and how they may be seen differently in different parts of the world.

How global are ethics? Are there local ethics? Should STPs and AOIs take it into their hands to set rules based upon ethical considerations, or should this be left exclusively in the hands of governments? What sort of ethical dilemmas will STP and AOI managers likely encounter soon? What activities can be accepted, which businesses should not be allowed into our STPs and AOIs?

## Session 12. Green and digital change through collaboration: STPs and AOIs as connectors

No one individual or organisation can fight climate change alone: the road ahead requires strong, strategic coalitions of stakeholders working jointly and co-creating to bring about value in a way that a single actor cannot achieve alone.

Can such coalitions be orchestrated or stimulated by STP/AOI managers? Can they help identify and engage key players across industries and sectors that facilitate co-creation and action? Networked STPs/AOIs are already actors of transnational collaboration in the green and digital transformation: can they also act as drivers to speed up the transformation from a linear to a circular economy on a global scale? We invite authors to submit paper proposals exploring what they are already doing to advance SDG 17, strengthening global partnerships for sustainable development, and what more they can still do in the future.

*\*\*\*\* See below for the technical specifications on how to submit your contribution \*\*\*\**

# TECHNICAL SPECIFICATIONS

## How to submit your paper and video

Submission to speak at IASP 2022 is open to everyone. Authors do not need to be members of IASP, and participation from a variety of organisations and sectors is welcomed. Submissions consist of a short paper and a video summary.

### Submission rules:

**Please read carefully the rules below before submitting your paper.**

- Papers can only be submitted online through the official conference website
- Authors are required to submit the following per paper:
  - 1. Executive Summary:**

Each paper should begin with an Executive Summary of no more than 150 words.
  - 2. Paper:**

The total length of each paper should have a minimum of 1,500 and a maximum of 3,000 words (plus tables, graphs or illustrations). Figure and tables should be attached in the designated box. Only jpg format images are permitted. All notes and references should be as footers at the bottom of the text body field.
  - 3. 1m video:**

All papers should be accompanied by a 1-minute video presenting the executive summary. If you have multiple authors, the video should be recorded by the person who would speak at the conference. This video will form part of the evaluation process and may also be used in conference promotional material.

Professional recording is not required; speakers should feel free to record on Zoom or similar platforms or on a smartphone. If recording with a smartphone, always film with the phone held horizontally, around 1.5 metres away from the speaker so that most of your upper body is in the frame and use the main camera. Please contact IASP if you have any questions about the video.

Authors are required to upload the **video link only**.

- Word or PDF papers are not accepted. You are required to fill in the online submission form with title, main author, co-author(s), presenter and respective affiliation(s)
- Use single line spacing in the text, tables and figures
- TITLE: Capitalise the entire title. Spell out words. Do not use abbreviations.
- Maximum number of characters permitted for the title: 200
- Authors must select 1 of the 12 available sessions for which they wish to submit their papers.

- The author is responsible for the submission of the paper according to the instructions and in the deadline. Please double check your grammar and word count before submission

Acknowledgement of receipt of your submission will be sent to your e-mail address immediately upon submission. If you do not receive the e-mail, your submission was not completed, and your paper needs to be re-submitted. Please note that acknowledgement of receipt of your paper submission does not mean that your paper is accepted by the Steering Committee of the IASP World Conference.

**Language:**

The official language of the Conference is English. All papers and videos must be written and presented in high-standard English.

**Deadline and submission:**

The submission must be made **by 8<sup>th</sup> April 2022** through the online submission system that will be available at [www.iaspworldconference.com](http://www.iaspworldconference.com) from January onwards. Only papers and videos submitted via the online submission system will be considered.

**Selection of papers:**

Papers will be evaluated by the conference Steering Committee. The Committee 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. The Steering Committee reserves the right to adjust the tentative sessions and decide which session a paper is assigned to. Authors will be notified after 6<sup>th</sup> June 2022 of whether their paper has been selected for inclusion in the 39<sup>th</sup> IASP World Conference on Science Parks and Areas of Innovation.

**The contributions will be evaluated according to the following criteria:**

- The relevance of the paper to the session for which it is intended
- The clarity and effectiveness of argument
- The scope of the analysis and the level of generalisation
- The originality of the topic and/or approach
- The proficiency of the English language

Given the limited number of speaking opportunities at the conference, some of the 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.

If selected for presentation or publication, the main author will also benefit from a discounted registration fee to attend the conference.

Selected papers should NOT be read verbatim to the audience; instead, the most important aspects that the author wishes to highlight should be presented, leaving a substantial part of the allotted time for questions and comments from the audience and discussion of the proffered conclusions.

Depending on the session format for which the paper is approved, visual aids such as Power Point can be used. Further details and guidance related to the conference session and/or proceedings will follow after the paper review.

## Submission Timeline

Submission of papers and videos

8<sup>th</sup> April 2022

Notification to authors

6<sup>th</sup> June 2022 onwards

## Other information

Conference dates: 27-30 September 2022. Follow updates at <https://iaspworldconference.com/>

For any questions related to your paper submission please contact the Organising Secretariat at [iasp2022sevilla@aimgroup.eu](mailto:iasp2022sevilla@aimgroup.eu).

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