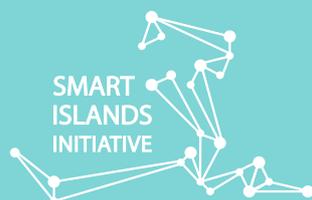


# Smart Islands Declaration

## New pathways for European Islands

to create smart,  
inclusive and thriving  
island societies for  
an innovative and  
sustainable Europe





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## Forward

### Who we are

We are **European island local and regional authorities and actors** representing our islands with the goal to promote the Smart Islands Initiative. The Smart Islands Initiative is a bottom-up effort spearheaded by island authorities and communities that communicates the need to tap the significant, yet largely unexploited **potential of islands** to function as laboratories for technological, social, environmental, economic and political innovation. The **Smart Islands Initiative** builds on years of collaboration between European islands and seeks to demonstrate that islands can host pilot projects and produce knowledge on smart and efficient resource and infrastructure management, which may be then transferred in mountainous, rural and generally geographically isolated areas but also scaled-up in big cities of continental Europe and beyond.

The Smart Islands Initiative is inspired by the European Commission's *Smart Cities and Communities* initiative, yet it goes one step further by extending the synergies beyond energy, transport and ICT to also include water and waste, directly addressing circularity in the economy. This **holistic approach** derives from **insularity**, the condition that forces island authorities to focus on how to ensure the optimal use and management of their resources and infrastructures, very often within island boundaries, in order to support sustainable and equitable economic development that fully taps into islands' local potential (geography, natural and human resources, products).

Ultimately the Smart Islands Initiative advocates in favor of a **place-based, transformative development agenda** that makes the most out of islands' competitive advantages, generates local growth and prosperity and contributes to **EU policy goals** in the fields of energy, climate mitigation and adaptation, innovation, circular economy, transport and mobility, blue growth, and the digital agenda. Against this backdrop, we think it is of utmost importance that **all stakeholders of the Quadruple Helix**, namely the public and private sector, academia and civil society join forces to become delivery agents of the Smart Islands Initiative.

### European and international policy context

The Smart Islands Initiative is the culmination of a series of activities including concrete financing opportunities for islands to promote sustainable energy planning and mature sustainable projects locally, opinions and resolutions by EU institutions highlighting the challenges as much as the potential of islands to usher into a low-carbon, sustainable development paradigm, establishment of European island networks (ISLENET) and more.

A key catalyst of islands' collaboration is the **Pact of Islands**, a political initiative with **117 EU island signatories**, similar to the **Covenant of Mayors**, yet focusing more on islands' intrinsic characteristics. The Pact of Islands enjoys the official recognition of the European institutions and engages island authorities across Europe to meet or go beyond the EU 2020 climate and energy targets by developing and implementing island Sustainable Energy Action Plans on their territories. A process of streamlining the Pact of Islands with the **new Covenant of Mayors for Climate and Energy** is currently taking place to ensure a harmonized and integrated approach to tackling climate change, building resilience and laying the foundations for sustainable and inclusive growth at local level in Europe. Furthermore, in the **Clean Energy for all Europeans package** the European Commission announces its intention to launch an initiative bringing together all islands to accelerate the clean energy transition on islands and ensure these provide secure, clean energy and energy-related transport to their citizens at affordable costs. Lastly, the historic **Paris Agreement** places special emphasis on the need to strengthen the role and capacity of local authorities to tackle climate change by reducing emissions, building resilience and establishing cooperation platforms at local, national and international levels. Put all these developments together, European islands are offered a unique opportunity to demonstrate worldwide their role and contribution to accelerating action towards a low-carbon, circular and sustainable model of development, one that respects the limits of island as much as global ecosystems and available natural resources.

## Islands in Europe

European islands have been experimenting with **new forms of sustainable living** for years, by putting in place innovative governance schemes to become more socially inclusive, trying out different business models for the provision of new services, introducing cutting-edge technologies to optimize the use of resources and infrastructures, educating their population and raising visitors' awareness around key sustainability issues. Through an often entrepreneurial discovery process, driven by the quest to respond to pressing, real-life challenges, islands have produced **best practices** on smart and sustainable local development, providing inspiration and motivation to other insular and mainland areas in Europe and globally.

**We consider** islands to be **living labs** that can offer important lessons on multiple policy fronts, including energy, transport, circular economy, multi-level governance and ICT and for different geographies – cities and towns, rural and mountainous areas. This is due to the fact that islands themselves are faced with **different challenges** as a result of variations in their size, distance from the mainland, population density, legal status and level of fiscal and political devolution. Despite their differences though, islands are shaped by **insularity**, a structural, ever-present condition of geographic discontinuity with a series of implications including energy dependency – particularly on fossil fuels – high transportation costs, limited economic diversification, but also unique ecosystems, enhanced levels of social capital, strong sense of identity and belonging. We believe that this set of pluralistic characteristics is in fact conducive to the emergence of **local development paradigms** on islands that optimally combine environmental, social, economic and technological solutions underpinned by the premise of smart, integrated and inclusive natural resources and infrastructures management.

**We understand** that to be able to capture islands' potential to transform into smart and thriving economies, we will have to be creative and apply **systems thinking** in order to identify and realize synergies between the different cutting-edge technologies as they become available. Even more so, we ought to do this in a **socially inclusive** way, ensuring the active engagement of our authorities, citizens, entrepreneurs and researchers.

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## New Pathways for Islands

### We, the representatives of European islands

**Define** a Smart Island as an insular territory that embarks on a climate resilient pathway, combining climate change mitigation and adaptation efforts, in order to create sustainable local economic development and a high quality of life for the local population by implementing smart and integrated solutions to the management of infrastructures, natural resources and the environment as a whole, supported by the use of ICT, all while promoting the use of innovative and socially inclusive governance and financing schemes.

**Conceive** the Smart Islands Initiative as one that builds on islands' experience to evolve as distinct ecosystems over time, striking a balance between the dynamics of their population, resource availability and economic activities. With this in mind, we commit to capitalize on our extensive experience in devising and implementing innovative and sustainable solutions at local level, supported by sustainable long term infrastructure planning (energy, transport, waste, water) allowing islands to become drivers and delivery agents of Europe's transition into a low-carbon, inclusive and sustainable economy.

## **We want to become smart, inclusive and thriving societies and to this end we will:**

- 1. Take action** to mitigate and adapt to climate change and build resilience at local level
- 2. Trigger** the uptake of smart technologies to ensure the optimal management and use of our resources and infrastructures
- 3. Move away from** fossil fuels by tapping our significant renewables and energy efficiency potential
- 4. Introduce** sustainable island mobility including electric mobility
- 5. Reduce** water scarcity by applying non-conventional and smart water resources management
- 6. Become** zero-waste territories by moving to a circular economy
- 7. Preserve** our distinctive natural and cultural capital
- 8. Diversify** our economies by exploiting the intrinsic characteristics of our islands to create new and innovative jobs locally
- 9. Strengthen** social inclusion, education and citizens' empowerment
- 10. Encourage** the shift towards alternative, yearlong, sustainable and responsible tourism, inland, coastal and maritime

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## Smart management of resources and infrastructures

### Energy

**We will tap into** our significant renewable energy sources including solar, wind, tidal, ocean, wave, and geothermal potential and lead CO<sub>2</sub> emissions reduction efforts to become increasingly energy independent, minimizing fuel imports and subsequent costs and allowing the emergence of new business models favouring decentralized energy production and consumption and the rise of islanders as prosumers.

**We will increase** the energy efficiency of our building stock (electricity, heating and cooling) and infrastructures (e.g. street lighting, pumping stations), also within protected historic districts, to reduce subsequent CO<sub>2</sub> emissions, through the integration of innovative technologies and practices and the adoption of near zero-cost actions by islanders and visitors, triggering a shift to more responsible energy consumption patterns and more resilient infrastructures overall.

**We will prioritize** the use of biomass as renewable fuel for heating, cooling and transport and consider energy crops as an alternative to regular crops in islands with significant agricultural production.

**We will promote** small islands in particular as test-beds for cutting-edge, sustainable energy technologies, including smart grids, storage and demand-response and by doing so make the operation of electrical grids more flexible, ensure increased penetration of renewables, improve the quality of life of the local population and provide useful insights on how these technologies can be transferred in other islands and geographically isolated territories and scaled up in big cities of continental Europe.

**We will exploit** existing synergies between sustainable energy and waste, water and transport sectors, underscoring islands' potential to emerge as laboratories for the development of integrated solutions including the production of renewable energy from waste, the use of excess renewable power in shipping and electric vehicles and use of renewable energy for water desalination purposes.

### Transport

**We will change** our modal split towards sustainable transport modes including new ways of using the car (car-sharing, car-pooling), promoting walking and cycling (trails restoration, bike-sharing) and optimizing the design of multi-modal hubs and terminals, towards boosting the sustainable growth of key sectors, i.e. yearlong tourism, logistics, commerce, agriculture and fishing.

**We will realize** existing synergies between transport and energy, by promoting ferries using alternative fuels such as LNG or hydrogen, balancing intermittent power from renewable energy through cold ironing, promoting electro-mobility, integrating electric vehicles and ferries into islands' smart electric grids ensuring increased penetration of renewable energy at local level and minimizing the use of fossil fuels.

**We will introduce** island hopping infrastructure in islands close to the mainland or island archipelagos in particular, using small-scale electric vessels and/or vessels fueled by LNG, methane or hydrogen that can also operate on automatic pilot to reduce environmental and transportation costs and bring tangible benefits to island communities and local markets.

**We will promote** intelligent transport management and information systems with a view to improving the quality of service provision and help with monitoring and mitigating pollution levels resulting from transport, especially in islands' ports and urban centers.

## Water

**We will encourage** non-conventional water resources management through grey water recycling and rain water harvesting coupled with the introduction of smart technologies for efficient water network upgrading in order to reduce water losses, realise projects on water energy nexus, minimize costs and effectively tackle water scarcity on islands, also exacerbated by climate change.

**We will deploy**, in anhydrous islands in particular and where it is proved cost-effective, water desalination plants that run on renewable energy and are energy efficient. **We will raise awareness** among the population on the qualities and need for responsible use of desalinated water.

**We will promote** the integrated management of our inland water resources, also by making use of traditional sustainable water management practices, in order to improve the quality and availability of freshwater, ensure the long-term health of aquifers and ultimately support the revival of sustainable island-scale agriculture that offers local products of high added value and quality.

**We will make use of** innovative approaches and tools such as the Ecosystem-based Adaptation and Integrated Coastal Zone Management to ensure the good environmental status of our marine and inland waters, crucial for livelihoods and human well-being and islands' overall resilience.

**We will raise awareness** on the need to shift to more responsible consumption patterns and thus turn economic activities on islands such as tourism and agriculture more sustainable, enhance ecosystems' resilience and build successful branding strategies, targeting the ever-growing market of responsible and sustainable tourism.

## Waste

**We will pursue** the transition towards zero-waste territories by adopting a circular economy development model through the strengthening of local value chains.

**We will put in place** smart waste management at island level consisting of small-scale decentralized infrastructure for collecting, sorting, reusing and recycling and adopt innovative technologies including ICT, so as to move away from traditional waste management techniques, improve environmental quality and create jobs locally.

**We will investigate** the possibility of promoting, especially in small island archipelagos, the management of waste centrally, on the island that is bigger in size and can support the operation of such a facility, thus creating economies of scale.

**We will introduce** incentives for waste producers, in order to reduce mixed waste and increase recycling rates.

**We will support** targeted awareness-raising activities on sustainable consumption targeting islanders, including households and the business sector, and visitors, in order to address increased waste generation during peak tourism season.

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## Enabling Factors

### Governance

**We will work closely with** the European Commission in promoting the clean energy transition on islands and to this end we will **(a)** develop island local sustainable and integrated plans that maximize synergies between infrastructures, i.e. energy, transport, waste, water **(b)** promote close collaboration between islands, regulatory and financial institutions in sharing best practice with regards to applying proper financial and regulatory tools and best available technologies. **We underscore** the need for a long-term framework promoting and supporting scalable projects with funding and technical assistance to accelerate the clean energy transition on islands.

**We will make use of** the Integrated Territorial Investment and Community-Led Local Development tools provided under Cohesion Policy to make public interventions more efficient and tailored to local conditions, also in alignment with private sector activities.

**We will reinforce** social inclusion through citizen empowerment and broad stakeholder engagement by focusing on participatory planning as well as participatory implementation, so as to ensure proper realization of projects and strategies and foster local ownership.

**We will tap into** our rich traditional knowledge and culture of collaboration to nurture social innovation and bottom-up governance initiatives.

### Information and Communication Technologies

**We will ensure** the uptake of smart and sustainable technologies in our islands, allowing for a more efficient and inclusive management and use of our natural resources and infrastructures.

**We will improve** the provision of digital services in our islands, in order to create new opportunities for citizens and businesses, boost the growth of innovative SMEs and start-ups and facilitate access to markets and sources of funding.

**We will tackle** the digital divide in island societies and strive to provide all citizens with equal access to information and digital services.

**We will incorporate** ICT tools in our policy- and decision-making processes to make these more participatory and inclusive.

### Economy

**We will build on** our tradition of enhanced social capital to nurture innovative forms of collective financing such as cooperatives, crowd-funding, crowd-lending and public-private-people partnerships.

**We will diversify** our economic activities to foster the creation of sustainable local jobs, overturn the population decline and ageing and transform our islands into territories where people can live and prosper.

**We will cooperate** by sharing best practice and aggregating projects to unlock financing opportunities.

**We will maximize** the synergies between the primary, secondary and tertiary sectors (tourism in particular), so as to create new integrated local value chains, cultivate entrepreneurship, establish conditions for small-scale investment and support employment, particularly among the youth.

**We will unleash** our Blue Growth potential by establishing strategic partnerships with market actors and academia, in order to promote islands as blue labs for testing and piloting innovative services, products and tools, particularly in the fields of biotechnology, renewable energy, coastal tourism, marine conservation and more.

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## To support and accelerate this transition

### We invite national governments and the European Union

**To create** targeted funding and technical assistance programmes for the deployment of pilot integrated projects on islands combining all available instruments (ESIF, Horizon 2020, EFSI, COSME, EaSI, LIFE etc.).

**To advise** financial institutions to provide support for small-scale investments with a significant impact on the local level and offer security schemes and loan guarantee funds for community based investment.

**To put in place** a regulatory framework that fully exploits islands' comparative advantages, simplifies bureaucratic procedures and reduces transaction costs for small and medium-scale investments, provided that local participation and acceptance is enhanced as a means of guaranteeing proper realization of innovative sustainable projects on islands.

**To strengthen** multi-level governance so as to ensure island local conditions are reflected in regional and national policy plans and efficient collaboration between the different administrative levels as well as public and private stakeholders is enhanced.

**To recognize** the contribution of the Smart Islands Initiative in a number of key policy priorities including Jobs, Growth and Investment, the Energy Union, the Digital Market and the Circular Economy; and to this end consider the Smart Islands Initiative in the preparation of the next multi-annual framework put in place after 2020.

### We invite the Quadruple Helix stakeholders

**To support** the implementation of the Smart Islands Initiative by **calling upon**:

- **The business sector** to deploy cutting-edge technologies on islands for the realization of projects that will give substantial boost to local sustainable growth.
- **The academic community** to treat islands as living labs for interdisciplinary research and innovation.
- **Civil society** to work towards strengthening islands' social capital and entrepreneurial spirit through the set-up of platforms of participation and collaboration helping build a consensus-based, socially inclusive vision of islands' future in a globalized world.

### We resolve

**To further** mature the Smart Islands Initiative by hosting the **Smart Islands Forum** on an annual basis as a collaborative, networking and knowledge-sharing space for European island governmental, administrative and community representatives, followed by the **Smart Islands Conference**, an opportunity for stakeholders to come together, exchange views and propose concrete measures for putting the Smart Islands Initiative into effect.

**To explore** the possibility of setting up a **Smart Islands Platform** that assists island authorities and actors in establishing strategic partnerships with industry, academia and civil society to develop solutions for islands' infrastructure and natural resources management that are sustainable, integrated, transferable and scalable and by doing so respond to the quest for stepping-up R&D and coordinating investments in pilot and larger projects, whilst improving the quality of life on islands and inspiring mainland EU.

