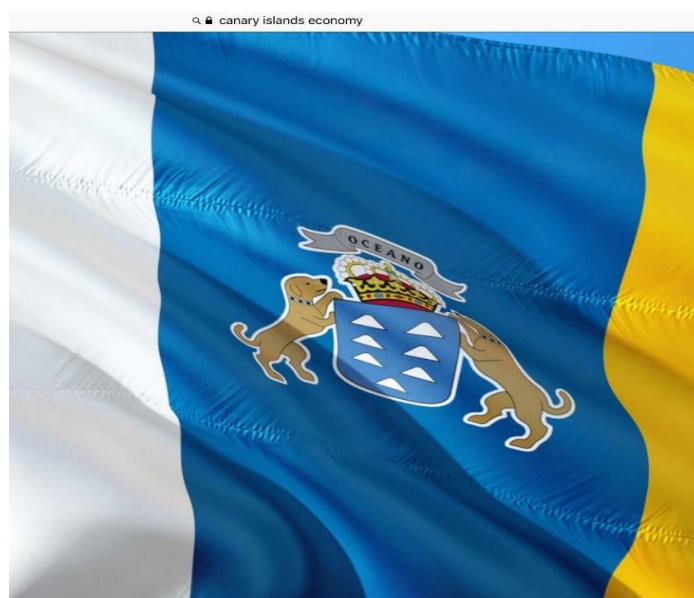


Automatic technical translation into SPANISH is given at the end
of this document

**La traducción técnica automática al ESPAÑOL se da al final de
este documento**



The Economic, Social and Societal Future of the Canary Islands -

brainstormed ideas for a future development

after the Corona Crisis in 2020 (Version 1.0 issued in August
2020. Update expected to the end of 2020)

Hint: A deepL -Translation, i.e. an automatic technical translation of the summary and the
main part of this paper into SPANISH is added at the very end after den Annexes

Pista: Una traducción deepL, es decir, una traducción técnica automática del resumen y la parte principal de este documento al ESPAÑOL se añade al final después de los anexos.

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Spanish translation of the main text (without Annexes) through deepL-Translation



The Economic, Social and Societal Future of the Canary Islands - brainstormed ideas for a future development after the Corona Crisis in 2020 (Version 1.0 in August 2020)

0. Summary for fast reading

This report is a living document, i.e. is continuously extended, as a compilation from inputs of members of an independent and neutral think tank, organised and moderated by the Humboldt Cosmos Multiversity, located in Tenerife. The purpose is to inspire political, societal, economic and knowledge decision makers in conceiving a future beneficial development of the islands, potentially serving as a model case in reviving regional economy e.g. of other islands not only in Spain.

The introduction of this reports outlines the dramatic economic scenario for the Canary Islands in the post Corona period, stating that the islands economy will no more be the same as before and that an unemployment rate up to 50% may be envisaged. Reason for such pessimism is that the economy of the islands is largely monostructured and mainly depending on tourism. Whereas in the past the maximisation of incoming tourist flows was the key instrument for the economic growth and wellbeing, in the future a much more diversified business structure is required.

So far, much intellectual energy is invested in the question, how the existing economical structures can serve for restarting, and naturally the discussion again concentrates on the revitalisation of tourism.

In an excursive section the authors start to paint an optimistic picture by discussing the historical myths of the Canary Islands thus opening the idea, that the islands are well suited for an utopic future giving their inhabitants the motivation and raising their courage to attract new types of visitors and building a new and more diversified structure of income generation. I.e. this paper does not address the immediate measures necessarily to be applied by the Governments / Cabildos, such as financial aids and tangible investments, rather recommends to start a longer term process aiming at a new economic structure based on ideas of the information & knowledge society as it emerges in our days.

Based on the natural advantages of the islands which first hand consists of liveable, attractive and healthy living conditions, the authors of this memorandum suggest to concentrate on three domains of inducing progress:

- Science and Education
- Virtual Business and Digitalisation
- Ecology and Health

These themes allow for submitting a series of related activities and professional affiliations. We also believe, that many other suggestions of the economic re-build currently under discussion such as new tourism, energy production and utilities, finance, agriculture, industry/industrialisation, transport and related infrastructures etc. can receive impulses from these three domains, i.e. will be beneficiaries of such concentration of forces on few gravity topics as well.

Once decisions are made to focus on the said domains and that financial investments are devoted for such strategy, recommendation is to re-brand the Canary Islands no more just to be a touristic hotspot attracting interesting people rather than to be “knowledge isnads” where new and intelligent services have their home.

The resources to be used and on which such renovation strategy will rely on are available and referred to in the Annexes: The Canary Islands in themselves are a microcosmos owing everything to organise new infrastructures and for trying out new business models. Thereby they also have the potential for serving as a model region demonstrating to other regions – likely islands - how to organise for a rebirth of an economy. In a way, the face which Cesar Manrique once had given to the islands as beyond their classical image, today can be designed by re-inventing the islands as place where god living, culture and knowledge business in an information society setting converges.

1. The starting point: A dramatic perspective

When this version of the report was edited, the message came through that in the US the decline in economy was as dramatic as 30% down in the current period. Although figures from Europe cannot be compared equally, the situation there is as well the worst since WWII: Economically strong countries like Germany or Austria tend to face a decline of up to 15%, Spain in total is said to converge to 20%.

The Canary Islands' economy – directly or indirectly – depends at ~ 80% on tourism and at > 90% of imports of goods from outside. In consequence the unemployment rate soon to be expected will raise to up to 50% which, in comparison to the last crisis around 2010, is tending to become double as worse as at that period. The effects have been rightly expressed by representatives of the Canary Islands Government by stating that the province will have to face a kind of “Great Famine” in the next years.

The key cause of this desperate situation in the view of those contributing to this paper is that over the last decades governments have missed to care about a more optimal distribution of business towards a diversified economy. The monostructural concentration on tourism naturally and materially now prevents from turning the islands short term towards a healthier combination of economic activities, i.e. the

forces to maintain the conventional business model likely will inhibit a radical change as would be an option. (This is also the reason why current efforts are directed on the discussion on how a future tourism can be designed, as e.g. discussed in an amazing extensive study made in early 2020 under the moderation of the university ULL:

<https://www.ull.es/portal/noticias/2020/libro-retos-turismo-covid-19/>).

If ever tourism will recover from its current crash in terms of numbers of tourists attracted to the islands, this predictively will take a decade or even more – and tourism for certain will no more be the same in quality as it has been before the Corona event, when the criteria of economic success were counted by the number of airlines attracted to adhere or the number and size of cruising ships anchoring in the ports of the islands. In our opinion, survival of the economy and thereby achieving reasonable or even higher living standards can only be achieved if the structure of the economy, as of the international transport connections and of the local infrastructure can be fundamentally changed.

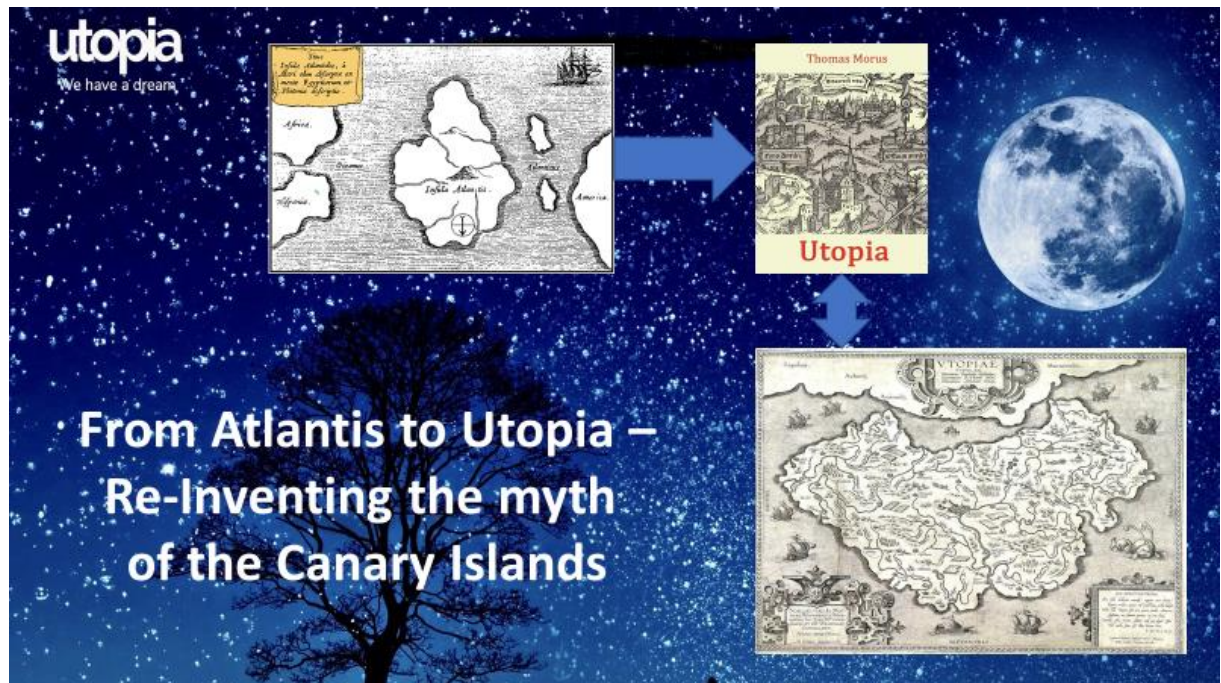
This report has been written as an independent, not contracted by any authority i.e. as a volunteer study and moderated and authored by the Humboldt Cosmos Multiversity (HCM), a think tank in the legal condition of an association under Spanish law, existing close to a decade in the Canary Islands with its main seat in Tenerife. Members and contributors to this study work of the HCM are both international and local “brains” who devoted their efforts in analysing the Canary Islands from on the beginning of the existence of the institute by a series of workshops. I.e. they are conaisseurs of the islands’ situation, in more depth in Tenerife.

The HCM is a spin-off of the New Club of Paris, an association the major objective of which is to give advice to political and economic decision makers worldwide on how develop a knowledge society. The foundation of the New Club of Paris (NCP) raches back to a High Level Expert Group established by the European Commission (EC) in 2004 the aim of which was (and still is) to give recommendations to the EC and associated institutions such as the European Investment Bank (EIB) how to set agendas in developing policies for the economic future of countries and regions.

The NCP for this purpose on invitation of hosting countries has run a series of Round Tables in Finland, Austria, Morocco, Malaysia and, in reduced versions in Serbia and a region in Germany neighbouring to France. These were not just debating events, rather the results were turned into recommendations which then were realised locally. The showcase became Finland where a series of ideas born in an NCP Round Table event had been turned into practice. In addition, the head of HCM and co-author of this document has managed and issued a study on how a country like Romania (as a model case) can develop towards becoming a knowledge country. In 2018 an international conference on Knowledge Cities and Regions has been attracted to Tenerife, on occasion of which an extensive study had been produced speculating about the Canary Islands to become a knowledge region. With other words: Sufficient pre-investment has already been made which can be offered as advisory to the Canary Islands Government and institutions having influence in the future development of the Province – if wanted. The New Club of Paris might be motivated as well to contribute to the discussion on how to orientate the Canary Islands for their

future, raising the mood that efforts for change, steered in the right direction, will be worthwhile and generate optimism.

2. Raising optimism by remembering the mythical (hi)story of the islands



Atlantis, a fiction island of ancient myths and aspirations was believed once to have been situated in the Atlantic west of the Hercules Portal guarding the Straits of Gibraltar. Naturally the fiction was and still is, that the Canary Islands are the remains of a once larger little continent said to have been Atlantis. In medieval times this picture of a terra incognita was transformed and used for different projections, not only to be an unknown geographical territory, rather than for the vision of a new and innocent model of an ideal society living on this island, virtually constituting a paradise on earth, designated as Utopia by medieval fiction author Thomas More (1478–1535, in Latin Thomas Morus). He designated this book becoming a bestseller in its subtitle as *Libellus vere aureus, nec minus salutaris quam festivus, de optimo rei publicae statu deque nova insula Utopia* - translated: *A little, true book, not less beneficial than enjoyable, about how things should be in the new island Utopia*. It is a work of fiction and socio-political satire, originally written in Latin and first time published in 1516. The book is a frame narrative primarily depicting a fictional island society and its religious, social, and political customs.

Since Thomas More, a utopia is an imagined community or society that possesses highly desirable or nearly perfect qualities for its citizens.

Utopia focuses on equality in economics, government and justice, though by no means exclusively, with the method and structure of proposed implementation varying based on ideology. According to Lyman Tower Sargent ("In Defense of Utopia", Research Article published in 2006

<https://doi.org/10.1177/0392192106062432>) there exist socialist, capitalist, monarchical, democratic, anarchist, ecological, feminist, patriarchal, egalitarian, hierarchical, racist, left-wing, right-wing, reformist, naturism, free love, nuclear family, extended family, gay, lesbian and many more utopias ...] .Utopianism – some scientists argue - is essential for the improvement of the human condition. Humboldt Cosmos Multiversity's ad hoc Think Tank on the future of the Canary Islands after the Corona Crisis deliberately chose the idea of a utopia in order to open minds and to import ideas from the citizens of the islands as well as from abroad in order to identify strategic prospects to be discussed widely in politics and society of the Canary Islands. Analysing the pros and cons of the islands as qualified by their natural resources, a common constant profile characteristics was re-discovered which is crucial for the definition of any concept recommendation: the geographical, geological and climate conditions governing the Canary Islands. They are the real assets on which any strategy for their future development will be based. This approach is distinct to strategies of regions not being limited in their extension and natural characteristics by the surrounding sea. Our think tank therefore has decided, to discuss the probable options of mainly the economic policies and initiatives for the islands to be compatible with their natural characteristics. We move even one step further in regarding the islands as trial and test places for new societal, political and technological inventions, following the development model of so called "Living Labs", a methodology promoted by the European Commission which involves future users from on the very beginning of a design process as co-designers.

3. HCM's reflections and recommendations on the future of the Canary Islands

From the analysis assembled by HCM over many years and the recent discussion conducted in 2020, the following recommendations emerged which HCM offers for further exchanges both in public as well as with authorities in politics, public administration as well as with associations/foundations representing the economic and commercial systems of the islands.

3.1 The islands need a new clear profile which can be internationally communicated and branded

The international recognition of the Canary Islands is that they are a number one resort for spending holidays, enjoying sun, sea, food and drinks. A minority also respects the islands as a territory privileged by its climate and landscapes, which offers a "background" picture good for visitors' guides. From a geopolitical perspective the islands also have the image as bridges to West Africa and South America. So far ok.

The big change in image must draft a profile which accentuates much more three aspects with intensity:

- Privileged climate and landscape: Eternal spring, good for health
- Geopolitical position between Europe, Africa and South America
- A knowledge and skills location, i.e. brains like to live and work there

In any case the islands must get rid of the image to be a holiday resort offering low quality / low price “party” tourism. Marketing must be rigorously profiled as high quality tourism (which, as a side issue, must not be expensive, but shall not motivate to attract the “wrong” people rather than visitors who have a high esteem for this special place).

In this course, the islands must much more intensively position institutions in its display windows demonstrating the future orientation, as are scientific institutes (e.g. ULL with all its “subsidiaries”, IAC, ITER, ITC, INTECH ...), start-up facilities, virtual meeting rooms (e.g. meetup, video exchange platforms) and co-working spaces, student’s assembly locations - as well as cultural hotspots as are theatres, orchestras, Auditorio, museums, ...)

3.2 A radical process towards diversification in the economic structure needs to be started by tomorrow

Government in co-creation and cooperation with the leading representatives of local business and industry not directly involved in tourism must develop concepts of motivating developments in building business in areas not directly associated with tourism, giving alternative business ideas the motivation to invest.

The vision of an other economy must be developed by leaving old tracks, opening minds for new developments, giving innovators of mostly young age a voice, e.g. by organising them professionally after the model of citizen fori.

This change in motivating for new business needs to be accompanied with new infrastructures. The conditions for this in terms of leading institutions and projects are already founded as pointed out in section 1, however this picture must be extended by strategic investments in high speed telecommunication making the islands unique for attracting teleworkers, piloting new telecom technologies as e.g. currently blockchain based services, fast public transport by a differentiated infrastructure consisting of fast speed railway connections completed by an efficient last mile and on-demand bus/taxi service offering access to even solitary places.

3.3 Although there exist several options, the change initiative must concentrate on few, maximum three sections in economy

No question that the required economic diversification reaches out to many sectors and domains of the economy. The insight gained both by experience and by scientific studies, however, is that a too broad scale of measures and actions would hamper success to build a sustainable economy. The argument can be demonstrated using a picture: In winter in places with a lot of snow, you may not blaze a trail if your snowplough is adjusted too broad, you much better cleave a way if you put it acute,

or, since in the Canary Islands we are living close to the sea, take the example of a ship with a much too broad bow which slows it down. Translated: Concentration on a few, sharp subjects provides better success than to try to initiate too many things at the same time.

Recommendation is that the Canary Islands for their economic recuperation should concentrate on maximum of three lead domains of economy, which may be specified in some abstract way so that a range of concrete business may be assembled under one of these few, i.e. three headlines.

- **Science and Education**

Islands without exploitable resources (other the renewable energy) the only real asset are the people living there is based on intellectual capital, also called knowledge capital. Knowledge creation is produced through science, be founded by basic research or consecutively directed through applied research.

It was an invention of the name givers of the HCM, the brothers Alexander and Wilhelm von Humboldt, that science made by research on the one side and education on the other side are closely linked together, say theory and practice go hand in hand.

Education, serving the increase of knowledge and skills, is the number one precondition for having the human potential available for inducing progress and competitiveness in preparing a future as discussed here.

Since the Canary islands after past experience with Erasmus programs are perceived to be a most attractive location for students, the islands may also aim at taking over the role UK had in the past, serving as the most attractive place of longing for higher level education. On vocational level an offer to be intensified shall be universities of cooperative education as exist in German speaking countries since decades and is considered as a key success factor for the performance of German industry.

Professional hands-on education in cooperation with industry and business for certain will raise the level of competence and resuming service qualities.

The ranking in education disciplines sought after are in IT, Computer Science, Media Design, Software Engineering, Electronic Engineering, physics, mathematics, medicine, medical services, human centered health services, nursing – and related professions are preferred.

It must be mentioned, that so called non formal disciplines as are sociology, philosophy or art shall not be underestimated: Even hardcore technical projects need inspirational and creative inputs. Hardware based industries as e.g. seeking for employees skilled in STEM (**S**cience, **T**echnology, **E**ngineering, **M**athematics) meanwhile learned, that creative impulses contribute to even disruptive new business by using **Art**, widening the key disciplines to **STEAM**.

- **Virtual business and digitalisation**

Looking to the big decisions made at the European Summit of heads of governments on finding ways to cope with the consequences of the Corona catastrophe one accent was set on investments in digitalisation and in virtualisation of economy.

Virtual business is independent from its localisation. Assuming that the telecommunication infrastructure is well developed and glass fiber networks offer broadband and high speed connection at main spots as e.g. on the level of bottom infrastructure can be coworking spaces, any informatics and media service can be instantiated at any place – worldwide.

Places like the Canary Islands exercise a strong impact on creative and productive young people - a subgroup of these may even be “nerds” – to carry out their profession such as computer programming or internet services design at such locations where they find best conditions in a combination of life quality combined with leisure offers and services, intellectual production, challenging tasks and all this in a spirit that those working in such fields find themselves in businesses which they consider to contribute to a better life of mankind in total.

Media art producers and film makers prefer a similar framework of productiveness. The intersection of classical film making and virtual life products, as might be computer games or streaming entertainment as well belong to this category of economical ventures of highest attractiveness to next generation intellectual workers.

Even in industry so far considered to be hardware and physical logistics bound, software and virtual services will play an increasing role. One prominent example is the development of so called “digital twins”. These are “copies” of real machinery and processes in digitized version, i.e. being represented by software and data thus making it possible that the operation and maintenance of machines up to complete industrial plants situated elsewhere on the planet is performed from a dislocated place as might be islands as are the Canary Islands.

Since a developed island such as Gran Canaria or Tenerife are “micro continents” operating like a complete country, they offer best conditions to serve as a test platform trying out new digital services before they may be launched for bigger territories. Best examples might be health or transport services, for which new operating systems and permanently upgraded software is needed worldwide. (One such special technology of current major interest serving as a typical might e.g. be Blockchain based solution).

What have the Canary Islands to do to develop an ecosystem as we outline here? Besides creating the infrastructure in terms of high speed internet connectivity, open and free working infrastructures as are coworking spaces and residence place as e.g. hotels to be re-profiled as locations of inspiration need to be developed and promoted. The “intellectual infrastructure” as exists by highly profiled, excellent and open institutes such as the universities (especially ULL), ITER, IAC, INTECH etc. have to be moved to the foreground and becoming part of a promotion campaign which the islands urgently need to present to the world that the islands are determined to re-define its profile as a place to be to combine working with life balance.

- **Ecology and health**

One of the most distinctive advantages of the Canary Islands, mainly demonstratable by in the smaller islands as are El Hierro, La Palma, La Graciosa etc. is the widely untouched nature within a most comfortable and healthy climate. It is well known that

the islands offer best living conditions for people with e.g. respiratory or rheumatic problems ...

The medical departments of the universities and their clinics do research and practice medical treatments on international level, as for science especially in domains of tropical diseases. So far this infrastructure in first instance serves local patients and permanent residents, but may well be extended to attract “customers” from larger catchment areas.

It should not be kept secret, that the private public sector in medical services would need an adequate improvement conforming to the standards which the university hospital already offer by today. Any campaign to market health services must be underlined by achieving and maintaining high level quality certification – both by medical and organisational standards. (One statistics to be observed is how many of the residents leave the islands in case they have some serious illness has to face, for treatment in their home country).

A living environment conforming to high level standards of an ecologically minded society and a correlated economy requires a series of measures well known everywhere as would be:

- Supply of energy generated from renewable sources. The islands own such sources in terms of solar, wind or sea tide exploitation with a potential to cover energy demand at 100%. In combination with new transport concepts, a most optimal energy balance system is possible to establish
- Less food imports and increased self supply in aliments.
- Transport and traffic infrastructures being organised in reduced usage of fuel driven cars and trucks, replaced by electric – or even better: hydrogen driven vehicles. An innovative overall infrastructure and traffic control will allow for a model case of an integrated transport system.

The islands due to their geographic and structural limitations are best suited for serving as a “Living Lab”, which is a test bed for trying out such new concepts involving the population in participative processes.

The intellectual capital available in the islands, combined with imported competences and entrepreneurial momenti is best funded for approaching a concerted strategy of change. It is for this reason that in 2018 the islands have been elected to be a most recognized knowledge region. Our advice in this respect is to profile the Canary Islands as prototypes of future prone Knowledge Islands, by this declaring that their future will rely on education, science, knowledge and the competence to combine the different dimensions of change in a most intelligent and engaged way.

4. Final remarks

The analysis and the subsequent recommendations are not complete in a strict sense. The authors are very clear about that a change process needs to include much more aspects, as will be the larger context on world scale, in the European dimension, but also as given (if not “prescribed”) by the central Spanish Government.

One experience made over the years is, that in the Canary Islands nothing on an initiative level, say intended bottom-up, is moved if it is not communicated and agreed before with the regional and in further line the national government. We think, that initiatives for change have to be conceptualized, authorized and submitted by – if possible independent - personalities strong enough to lobby new and unconventional ideas for change without asking for permission from any distant authority beforehand.

It is also clear that two major dimensions have not been addressed in this paper and would need some extra investigation and discussion:

- Regulations as exist by law and define governance influence must be observed by the responsible governments and their implementing subsidiaries, i.e. legal conditions to be taken into account. However, these conditions shall not impede any momentum of innovative change.
- Financial measures in all terms, say public and private funding or credit means for financing change projects, as well as a related discussion on the financial business as virtual business complementary to real economy issues as we explain in this document. The question to be discussed is on the role and impact of the financial institutions being partners in every innovative and unconventional change project

As is stated in the introduction of this little study: Our suggestions are one of several contributions aiming at re-profiling and re-orienting the Canary Islands and their role in a bigger scenery of a world after Covid-19. Our claim is that we strongly believe that the islands are better off to lead the grand change and not just to follow. The winner is always the one who takes the lead. Different from past experience the Canary Islands must take the courage to take that lead.

Appendices

The documentation on the referred discussion, started by an initial Virtual Conference having taken place first time on May 12th, 2020, from 17:30 - 19:30

(Section 2. is a draft report written by Günter Koch, Humboldt Cosmos Multiversity, Tenerife, and is pending for consolidation by the participants of this meeting)

Participants (in alphabetical order)

- Monika **Gonzalez-Koss**, Secretary of the HCM
- Elfi **Klumpp**, FESTO Didactics
- Günter **Koch**, President of the Humboldt Cosmos Multiversity (HCM)
- Maximo **Nägele**, Independent Consultant

- Ernesto **Pedera**, Vice Rector of the ULL
- Alfredo **Ramirez**, Researcher @ ULL
- José Manuel **Ramos**, Head of Wootpix
- Martin **Tavares**, Head of Klingele Embalajes Canarias S.A.
- Ricardo **Tavio**, Head of EVM
- Rodrigo **Trujillo**, Prof. @ ULL, Vice President of the HCM

Addressees interested, who could not attend, however having sent comments on occasion for the call for the meeting

- Francisco Amador **Moreira**, Prof. @ ULL

*"I am already involved in the following activities: **Ecocomedores de Canarias**, promoting service-learning at ULL, starting with a small project in one of my subjects. I realized I could make much more **fostering a real small project** where students could act by themselves than trying to make top-down initiatives.*

I am very disenchanted with politicians at the island and regional levels. I believe that any transformative action will have to come from the communities themselves and from small successful initiatives, and that it is not possible to convince those who do not want to use other policies to be used, but to support those who already have the sensitivity to want to apply them to carry it. I will be more useful in promoting the change of 30 students at this moment than occupying myself in preparing a report to convince someone who wants to apply the usual policies, also on this occasion, and favor the interest groups of always. I saw many reports lying down in a box and sleeping forever.

I am now more convinced than ever before that, as Eduardo Galeano, points "Mucha gente pequeña, en lugares pequeños, haciendo cosas pequeñas, puede cambiar el mundo".

In any case, I admire your insistence and courage and the way you appreciate this island, as well as your contributions to transform our economic model and ensure sustainability and wellbeing in the next years. I encourage you to continue and as much as I can I will try to be of help".

- Rafael **Rebolo**, Head of IAC:

"I am participating in a more focused panel or think tank which has elaborated some ideas and some interesting thoughts focused on the reactivation of the economy in the Canary Islands. This can be found in futurodecanarias.es"

- Pablo Redondo, Head of IACTEC

*"My opinion in brief: every social-economical system carries, inside its DNA, the seed of its future crisis; as much as every crisis brings with the solution for new systems to thrive. I think **remote work is the answer**, and we should do a great effort to try to **replace (part of the) tourists by employees working from here** for some time (weeks/months).*

*Two months ago nobody trusted remote work could be efficient, and now we have an extraordinary opportunity. I presume we all share this idea, it's quite straightforward. I believe we should **focus sharply on that topic** instead of opening a broader (certainly interesting) discussion. I am quite confident that IAC will support an initiative in this direction".*

Introduction by the moderator for stimulating the discussion

The Round Table reunion is purely volunteer and follows the idea, that (qualified) citizens of the Canary Islands may join for working on subjects of common public interest without needing an institutional mandate for this. Such citizens' movements exist elsewhere to the benefit of political decision making and has the potential to provide positive reformation impulses.

The "Humboldt Cosmos Multiversity" (HCM) acting as a neutral and independent think tank from on its foundation in 2012 constantly engaged in future-oriented discussions, it conceived ideas and evaluated their potential implementations on how to change the islands' economy from their monostructural model of an economy based at ~ 80% directly or indirectly on tourism (including transport, construction, ...). HCM would be pleased to engage in setting up and contribute to a now most needed initiative attracting leading brains from the islands and from the international scene to find best ways out of the coming crisis. If self confident, the Canary Islands could aim to serve as a model case for a complete re-structuring.

For many years HCM by its workshops suggested to intensify investments in intellectual capital for producing intangible goods on the islands, i.e. first hand products which can be easily exported by means of telecommunication. One scenario could be to attract "brain workers" at large numbers from all over the world, offering them a most liveable place for work in a most preferred geographical place as are the islands.

HCM does not claim to know better what serves best the islands' economies than the locals do. However, we believe to be in a position to attract knowledge experts having the potential to co-design a promising economic strategy beyond today's mono-structures which are heavily based on tourism, construction and transport.

The objective of the 1st virtual meeting is to decide, if the envisaged *Round Table* as suggested shall be installed for a limited period and aim to make productive suggestions to decisions makers in economy, associations and politics.

Agenda of the virtual meeting

1. Short **self introduction** of the participants including each one's expression of expectation (*all*)
2. Model for our cooperation: A qualified **Citizens' Council** (*Moderator*)
3. A short intro to the **rationale for taking initiative** (*Moderator*)
4. In case the Round Table shall be installed, questions to be discussed (*all*)
 - a) Suggestion on **who ideally else shall be invited to participate** in future rounds?
 - b) Shall **representatives of the Cabildos** be included from the beginning?
 - c) Who shall be **the addressees of the results** of our discussion? Which addressee is in a position **to turn our ideas into practice**?
5. **Scope and granularitiy of our suggestions** (*to be discussed by all*)
 - We will deliver general suggestions, however, addressing different economic branches more specifically
 - Only specific suggestions per economic domain
6. Conclusions and decision if to continue (*Moderator*)

Resume from the discussion

- **General impression:** Those participating actively in the discussion were split kind of 50:50 in an optimistic versus pessimistic perspective. All were clear that the upcoming crisis can be overcome only with optimism.

- **Imported versus “intellectual capital”** developed on spot

The general opinion is that the islands – Taken Tenerife as a reference case – must concentrate on finding ways out of the crisis for themselves. This means that any potential in people, money and energy engaging in the re-building of the islands’ economy after the Corona crisis must be present and engaged “on spot”.

This means that attracted and imported intellectual capital is seen as support, but not for “taking over” the local economy.
- **Geographical advantages**

The participants of our little think tank are well aware of the specific advantages of the islands as a preferred living space, which is one argument for attracting brains and workers to settle for supporting the local economic development.

The geographical position of the islands would make it attractive for industrial companies to settle with the perspective to serve (mainly) West African markets.
- **Key strategy: Education**

It was the unanimous opinion that education on all levels has to play a key role in the future development of the islands.

Whereas the universities – in Tenerife the ULL – are considered to play their important role on the high tertiary level, it was analysed that on the levels of vocational education the situation is deficient.

Taken the model of professional education in Continental Europe (mainly the German speaking countries) of a hierarchy based on professional education in practice completed by mandatory school courses, continued by then further vocational training towards courses to be taken in Universities of Applied Sciences, thus forming a continual hierarchy in mainly practical skills – a competence scheme which is not well established in the islands. I.e. recommendation is to do major investments in this domain.

(A reference example of how to implement such strategy has been worked out between FESTO Didactic and the HCM in initiating such process in schools with a target population of 13- 16 agers).
- **Branches with high potential** to be attracted / developed @ Canary Islands

The members of the 1st Round Table Session agreed on a vision of giving preferences to the following branches for a future development concentrating and making the economy of the islands more sustainable:

 - **Agriculture:** less imports, more home grown products and more diversified, i.e. getting rid of the “banana monoculture”
 - **Media Art industry,** first hand film and media production
 - **Innovative infrastructure technology:** balancing individual traffic (electric cars) on spot, versus the long distance transports by ships and airplanes
 - **Renewable energy:** production and storage on energy
 - **Immaterial goods production and exports** (via telecom)

- ...

- **Preliminary conclusion**

Since this meeting was constitutional, the analysis and ideas exchanged were not yet well consolidated.

It is clear enough that our think tank is / will compete with other similarly intended initiatives. This adding of innovative resources and ideas is regarded to be beneficial, i.e. our work results are expected to contribute to a larger momentum. needed for the islands

It could be well sensed that the trust in politics and political institutions for managing a bigger change is not great, i.e. the participants of this round are giving preference to entrepreneurial forces more than on public administration.

- In the final round the notion was discussed, to make **the islands to become “Knowledge Islands”**. If this concept finds majority, the further discussion rounds would be devoted in defining such idea and strategy. At the same time it was mentioned that Tenerife should kind of remember its historic strengths and partially shall “refer back to its roots” (e.g. less cheap, more high quality tourism).

A.2 Supporting material used for substantiating the discussion

- a) A study was produced in 2018 on occasion of the “Knowledge Cities World Summit” (KCWS) / “Most Admired Knowledge Cities” (MAKCi) Award, attempting to profile the Canary Islands as Knowledge Islands. (Full copy of this study is available through Rodrigo Trujillo).



Acknowledgment

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Finally, thanks to the World Capital Institute (WCI) for your enthusiasm in encouraging us to present our candidature.

Credits

This report has been coordinated and edited by:

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GBL INVESTSTRATEGY

This report is part of the candidature of Canary Islands to the Most Admired Knowledge City (MAKCI) Award 2018 and its use is restricted.

- b) See copy of article following, written in 2015, authored by G. Koch on how to potentially turning Tenerife into a “Knowledge Island”

Profiling Regions as Knowledge Regions – Model Cases for Tenerife

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Abstract

With the venue of the Knowledge Society subsequent instantiations such as Knowledge... Economy, ... Economics, ... Management, ... Worker, ... Capital, ... Nation, ... Region, ... City etc. entered a broader discussion, mainly conducted by philosophers, sociologists, economists and computer scientists. Today, knowledge became the prefix characterizing that the subject under discussion is based on more than just data or information: the aggregation, interrelation and correlation of information items in a larger semantic construct is perceived to be the formalized representation of what we may call knowledge.

A Knowledge Region therefore is formed by its well defined institutions, as well as persons making up the regional constitution, but it goes beyond the nomination of its elements. The challenge is to identify models which combine the different aspects of a “knowledge body” as e.g. once have been introduced through “Intellectual Capital Reporting” models as e.g. are presented in [1]. Such models applicable to municipalities have been invented and applied for different locations, some of which are addressed in this article as model cases. The question addressed especially in this paper is if and how such methodology may applied to the Canary Island of Tenerife as a model case for a “Knowledge Island”.

1. What is a Knowledge Region / City / Island...?

In a prospective publication A. Bounfour and L. Edvinson in 2005 with the title “Intellectual Capital for Communities Nations, Regions, and Cities” [2] collected a community of authors who argued on what may be understood as a knowledge region. In accordance to an existing award on the “Most Admired Knowledge Company” [3], F.J. Carrillo in his World Capital Institute (<http://www.worldcapitalinstitute.org/>) launched the “Most Admired Knowledge City Award” (MAKCi). The identification and evaluation of a “Knowledge City” was based on a model, which was introduced by F. Javier Carrillo and Blanca Garcia – see Fig. 1.

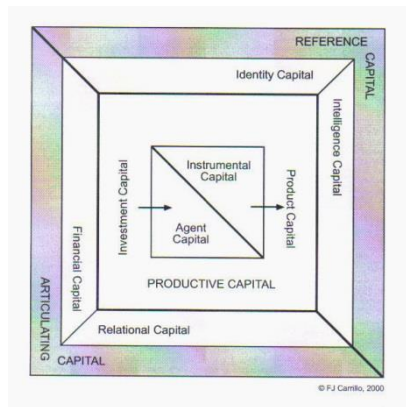


Fig.1 Model for MAKCi Award candidate evaluation

In the same course and around the same period, whole countries were considering to present themselves as “Knowledge Nations” describing this of their nature by means of Intellectual Capital Reports (ICR). One example is the IC Report of the State of Israel [4]. The “model” in most cases of these reports was given by the outline structure of the respective report. It was a narrative and discussion along different aspects of what can be considered to be constitutional for a knowledge municipality.

One driver in this discussion was and is the World Bank which not only created a sophisticated method and associated with it a ranking of what the “knowledge value” of a country is [5], thus providing arguments to nations on their strengths and weaknesses in their knowledge societal constitution.

In Europe at the beginning of this movement mainly two regional players engaged in the definition and identification of knowledge: Scandinavia and the Danube Region with Austria as a pioneer country. The today so called Austrian Institute of Technology (AIT) in 1999 headed by the author published its first ICR, which was communicated in public first time at an OECD conference in 2001 [6]. The model and method described there was picked up by a community in Germany [7] refining the “Austrian method” and applying it to both German companies, but also for profiling regions as knowledge regions. One example was exercised in the so called Ortenau region, which is a German municipality located in the triangle between Karlsruhe, Strasbourg and Freiburg [8].

The major set of reports on knowledge municipalities, however, was produced in the framework of the MAKCi Award (<http://www.worldcapitalinstitute.org/makci/makci-awards-most-admired-knowledge-city>).

2. A few cases of European Knowledge Regions / Knowledge Metropoles: Ortenau, Vienna, Romania, Kosice, Danube Region

The author of this paper was involved in a series of projects profiling regions as knowledge regions which, for the sake of this paper, may serve as references for identifying and constructing one specific approach to be taken for the special case of the island of Tenerife – and further islands as well.

a) The Ortenau Case [8]

Ortenau is a regional district in the German Federal State of Baden-Württemberg reaching close to France / Alsace, adjunct to the City of Strasbourg, and situated between the wider municipality of Karlsruhe in its North, one of the leading “high tech regions” of Germany with the Karlsruhe Institute of Technology (KIT) in its center, and , in the South, the area of the City of Freiburg, a historic township with a university more than 550 years old. The capital of the Ortenau region is a town called Offenburg with some 60.000 inhabitants.

Being “squeezed” between three heavy knowledge regions, the Ortenau region by its economic policy bodies decided to find a profile as a knowledge region situated “in between”. The approach taken was to apply the German version of the Austrian IC reporting model, which is denoted as “Wissensbilanz – Made in Germany”.

The IC report constitutes a meta model which can be used for different topics and questions, as are:

- What are the advantages in IC of the region, what are the immaterial advantages of the region?
- With given goals what are the most important impact factors to reach this goals?
- If we improve some elements of the intellectual capital of a region, what are possible improvements ?
- What is the intellectual capital *profile* of a region?
- In the cross impact matrix which will be developed in an IC reporting project: what are the best actions to take in order to improve the intellectual capital?
- There exist many approaches for regional development. Why is intellectual capital reporting an appropriate and good approach for regional development?

As in the Ortenau project the chosen method was “Wissensbilanz – Made in Germany”, the above questions find their answers as follows:

- The generated IC report provides an insight and intrinsic view of the region profiled.
- The IC report helps the participants from the regional institutions who engage in the development of such report to understand the complex cross-impact

relationships (represented in a so called Vester matrix) and reveals the elements which have the most influence in this system of regional interdependencies.

- Intellectual capital reporting (ICR) - as discussed - is a method requiring participation of officials, citizens and representatives of interest groups. To create an intellectual capital report for regions according to the chosen method requires relevant insider knowledge from local experts and interest groups. This is one guarantee for the later broader acceptance of the results.
- The intellectual capital (IC) report for regions is also a method for integrating divergent views. In addition, the IC report allows to integrate different complementary aspects in regional development. The recommendation resuming from the Ortenau case was to combine the IC report with information such as
 - regional statistical data
 - regional development plan/s and/or regional development program/s
 - ongoing regional activities intended to improve the wealth of the region

Intellectual Capital (IC) reporting for regions also allows to reflect the implicit complexity when dealing with regional development. Many concepts / models / methods of ICR may be well founded in a scientific sense, but most of them ignore the inherent complexity which often leads to questionable results and recommendations. By using and discussing the so called cross-impact matrix as one part of the applied method exposing cause-effect chains, participants of the workshops working out the IC report acquire a deep understanding of the dependencies of regional development and its impact elements.

Compared to other methods in regional development, the IC report for regions as was applied in the Ortenau project requires less time to end up with some profound and well arguable results. Depending on the availability of qualified participants in the workshops, an IC report can be completed within a period of two or three months.

A second argument for applying the “Wissensbilanz” reporting methodology to regions is that it includes cause-impact analysis and thereby offers the possibility to construct and analyze cause-effect chains. Applying this specific part of the method allows to generate useful predictions of potential outcomes of any proposed action which is effectively put into practice.

In summary and after the practical experience made by the Ortenau project team, IC reporting demonstrated a superior approach namely that its results can be perfectly used in order to manage the regional strategy planning processes.

The process of establishing an Intellectual capital report for regions

Intellectual Capital Reporting (ICR) according to the model of “Wissensbilanz - Made in Germany” is a process-based methodology. The core process is implemented through a series of workshops each with a specific, well selected variety of participants. These teams make use of the available collection of regional data (e.g. from the office of statistics) and identify the best indicators, many of them also being quantifiable.

Participants of an intellectual capital report for regions

As mentioned at the beginning of this section, the success of an intellectual capital reporting project for regions heavily relies on well planned workshops.

For practical reasons, in the initial phase a series of workshops with each up to 20 participants needs to be conceived. If there is sufficient time available or in case there are more participants interested in taking part, recommendation is to run different workshop series at the end of each the results of the different workshop groups shall be compared and converged.

The selection of possible participants depends on criteria such as:

- What shall be the key question / topic of the intellectual capital report?
- Who are the “customers” of the IC report or who are possible promoters?
- Who, for sure, will be available during the workshop period?
- Who has a solid and sustainable interest in participating in the workshop?

It is helpful and contributes to the validity of the results to have different perspectives represented in a regional IC report. Typical participants therefore would be:

- Members of regional development organizations
- Politicians which are responsible for the regional development
- Members of social and different political parties
- Participants from different education organizations (schools, universities, ...)
- Representatives from the economy of the main branches of the region
- Representatives from the church
- Representatives from tourism
- Representatives who deal with environmental issues

Associated with the invitation to the workshops a short introduction explaining the goal of the respective workshop must be given. In a best case an introductory event is recommended to take place in order to present the methodology and the purpose of the intellectual capital report in a condense and motivating way.

Such participative approach of developing a “picture of the future” for the Ortenau region lead to the effect that the results were well accepted not only by the participants, but also by external recipients of the findings. It goes without saying that the quality of the results depends on the competence of the participants in the workshops knowing about details w.r.t. their region. By experience, the outputs are of much higher quality and credibility than produced by many alternative methods.

Thus the results of the intellectual capital report allowed to derive a precise and concrete action plan the aim of which is to contribute to the future wealth development of the region – in economic and non-economic terms of intangible nature (such as satisfaction, happiness etc.).

An additional important side effect of intellectual capital reporting as was applied for the Ortenau region, which, at the beginning did not yet have had a vision or strategic plan of its own; through the working-out of an IC report they compiled a strategy for

their regional development. The conclusion is, that an IC report therefore can be well used as a tool for building a regional development strategy.

Matching the results from the workshop series with indicators from third sources in the Ortenau case allowed to combine soft factors as identified in the group sessions with hard statistical quantitative data.

b) The Vienna case [9]

Vienna follows knowledge-based strategies already for decades, not having explicitly named it that way. The current two basic strategies for profiling the *Vienna Knowledge City* are its “smart city strategy” and the “Research, Technology and Innovation Strategy”. In 2105, 650 years after the foundation of the Vienna University, Vienna redefines itself explicitly as a Knowledge City (“Wissensstadt”), substantiated by publications and specific ambitions.

The capability to enact this aim is demonstrated by the results achieved so far: Vienna has an excellent international ranking, such as by today:

- **"Smart Cities": Rank 1 world-wide** (followed by Toronto, Paris and New York); Source: Boyd Cohen, 2012, <http://www.fastcoexist.com/1679127/the-top-10-smart-cities-on-the-planet>
- **The World's Most Reputable Cities: Rank 1 world-wide**; Source: Reputation Institute / CityRepTrak, 2014, www.reputationinstitute.com
- **Quality of living: Rank 1 world-wide** (followed by Zürich and Auckland); Source: Mercer, Quality of Living Survey 2015, London, März 29015, <http://www.mercer.com/qualityofliving>
- **Most prosperous city: Rank 1**; UN-HABITAT report "State Of The World's Cities Report 2012/2013" ranks Vienna as the most prosperous city among 70 metropolies of the world. This ranking observes factors such as productivity, sustainability, quality of life, and infrastructure. Vienna has got top rankings in all categories and has therefore outperformed cities with an equally high quality of life such as Zurich, Toronto, and Brussels.
- **Best Cities for young people to live in: Rank 1 worldwide** (followed New York and Malta) Source: Best Cities for young people to live in, 2013, www.list25.com
- **International Congress and Conventions: Rank 3 world-wide in 2013**, (preceded by Paris und Madrid); before 2013, Vienna had Rank 1 for seven years! Source: ICCA (International Congress and Convention Association), <http://www.iccaworld.com>
- **European Green City Index 2009: Rank 4 in Europe** (after Copenhagen, Stockholm and Oslo). Analysed Categories: CO2 Emissions, Energy supply, Buildings, Transport, Water, Air Quality, Waste, Agriculture, environmental management. Source: European Green City Index 2009, Economist Intelligence Unit, <http://www.eiu.com>
- **The Travel & Tourism Competitiveness Index 2013: Austria ranks No. 3 world-wide** with Vienna as the main touristic attraction. Source: World Economic Forum, http://www3.weforum.org/docs/TTCR/2013/TTCR_OverallRankings_2013.pdf
- **Business Friendliness: Rank 5 worldwide** (after Dublin, Manchester, Wroclaw und San Jose). Source: Global Cities of the future 2014/15
- **Innovation Cities Index: Rank 6 worldwide** (after San Francisco, New York, London, Boston and Paris); Source: Innovation Cities Global Index 2014
- **Online Cities: Rank 5 worldwide**; Vienna after Berlin, Seoul, Barcelona and New

York. Source: [A Case Study of 31 informational World Cities](#) - University of Düsseldorf, Germany.

- Startup-Cities where entrepreneurs want to meet-up: **Rank 6 worldwide**; Vienna after Copenhagen, San Francisco, London, Berlin and New York; Source: [Startuptravels, 2014](#)
- Global Power Cities: **Rank 10 worldwide**. Source: [Global Power City Index](#) 2014, The Mori Memorial Foundation.

The lately published statement on the *Knowledge City Vienna* published by the city government in 2015 demonstrates, that *Knowledge* is regarded as an ecosystem including a broad range of institutions, relations, assets, responsibilities, infrastructures and more, that all have to cooperate and co-develop well. Therefore platforms for knowledge offerings and exchanges, science, business, culture and politics are key elements for the Viennese Knowledge Identity as proclaimed by the city administration.

The password of Vienna is „Co-Creativity“. This means, that companies, science institutions and many complementary knowledge partners work together and co-create their future with the clearly stated goal, to develop new products, technologies and their applications. This commitment is symbolized by qualified and well identifiable urban quarters such as the “Vienna Tech Gate”, the “Campus Vienna Biocenter”, the “Science Park Techbase”; the “Business and Research Centre” and the “Media Quarter Marx” are best examples of knowledge areas within Vienna.

The Vienna City Administration is following a strict participatory approach to co-create the future together with tenth of stakeholders and citizens. The process “Wien denkt Zukunft” (“Vienna Thinks Future”) is aimed at implementing the vision of a Smart City combined with a Knowledge City.

Independent from the public administration, the so called “Knowledge Partnership” was founded in Vienna in 2009 with strong participation of the New Club of Paris (NCP - www.new-club-of-paris.org) in the context of one of the several famous national NCP Round Tables, aiming to set the agenda for a national knowledge policy strategy. The “Knowledge Partnership” serves as a platform to connect the Knowledge City Stakeholders, to develop strategies and innovative actions, to innovate together and to recognize outstanding achievements.

Already in 2001, the Knowledge Management Academy (KMA) was founded in Vienna, a world-leading education and training organization with an international faculty (constituted by many members of the NCP), offering certification courses, trainings, in-house programs and conferences in Knowledge Management and Knowledge Policies in Vienna and in several countries of the globe. KMA supported the City of Vienna as well as the Federal Administration, plus the largest companies on spot, NGOs, Scientific Organisations as well as International Organisations like UN bodies such as IAEA and UNIDO in the build-up of their Knowledge Management. KMA as an individual player is the main catalyst and facilitator for the management of the Knowledge Partnership in Vienna.

Last but not least, the world-leading think-tank on the Knowledge Society, the New Club of Paris (NCP), has its formal headquarter in Vienna. Quite a number of

university lecturers affiliated with this international think tank organisation have their professional roots in Vienna, where some of them started their academic career e.g. at the Vienna University of Business and Economics.

Social cohesion and inclusiveness in Vienna are key objectives and achievements of the last 70 years of political work after World War 2. The uninterrupted social-democratic government of Vienna today provides comprehensive services for all stakeholders and groups in society, promoting equal rights and professional opportunities for all citizens. The city offers free access to education from kindergarten to university and supports students who cannot afford to study by their financial means. Free access to libraries, a broad spectrum of lectures, pedagogic offerings in museums, a tremendous diversity of courses and seminars make Vienna a paradise for everyone who is curious to learn. And, as a coronary: equal opportunities for women and men and special support and reduced prices for public services for children and retirees. Active integration of and collaboration with immigrants and creation of offers consisting of a growing number of services in numerous languages. The diversity of the public services provides to all talents an opportunity to develop and to find their appropriate spaces to grow.

Very important: every citizen has unrestrained access to the Health System.

The tax-system in Austria and Vienna is highly correlated to the individual income, i.e. people with low income pay a small to reasonable minor amount of tax.

Since 2009 the City implements an ambitious and comprehensive diversity program.

It is seen as a key achievement, that all (!) public services such as transportations and a wide range of media, etc. can be accessed or be used by people with disabilities.

Inclusiveness also means, that all the data, information and knowledge of the city administration are openly accessible (“Open Data”). In cooperation with other cities in Austria and with the Federal Prime Ministry, Vienna initiated “Open Government Data Austria”, which won the United Nations Public Service Award 2014 in the category „Improving the Delivery of Public Services“. (Remark: The Public Services Award was initiated in 2003 to recognize outstanding innovations and achievements in delivering public services. It is the most recognized international award for the public sector!).

c) The case of Romania

Studies on the special case of Romania have been sponsored by Romanian R&D Agency uefiscdi and resulted in two reports, one applying IC analysis to universities (already published in 2014 [10]) and one draft report co-authored by the author of this paper, so far existing as an internal document devoted to the identification of intellectual capital on regional level [11].

The report [11] is the result of a series of workshops having taken place in Bucharest headlined “Mutual Learning Workshop” on *Intellectual Capital Reporting – International Practicew.r.t Universities, regions and nations* and was arranged and organized by uefiscdi. The philosophy of this report is represented in Fig. 2. Its authors claim, that their contributions cover both the historic and the current discussion in IC Reporting. They also elaborate that there exists not yet a consolidate

“theory” as a foundation of “ Intellectual Capital”, first hand understood as a complement to traditional capital theories as exist in economy and economics.

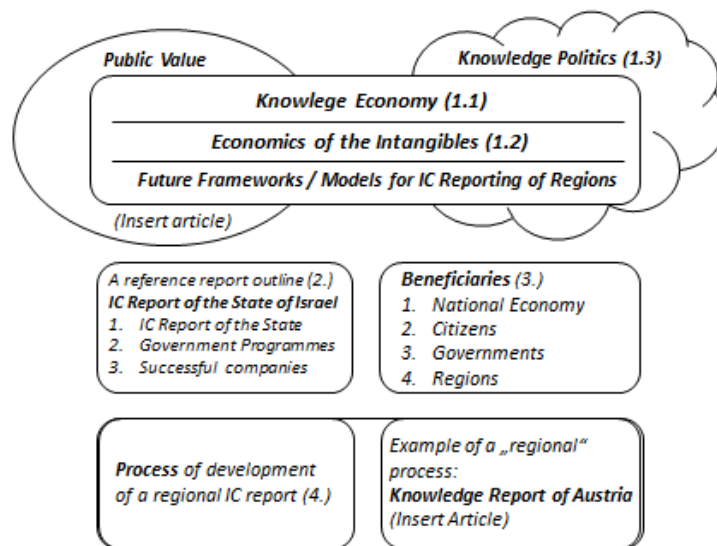


Fig 2.. Structure of this Blue Print report as emerged during work (Ref. numbers refer to chapters in the report [11])

This insight is confirmed by the fact, that the authors discuss several options of framework models for IC reporting, trying to reflect the latest development in national IC reporting and mapping them into compound new framework models. This discussion is not concluded in suggesting one specific model for a future Romanian IC Report, but provides sufficient background to take such decision once Romania would go for an own national and/or regional IC Report and with this decision to design an adapted model of its own.

In order to give a concrete example what the format, structure and content of an IC report on national level can be, the authors of the report [11] suggest to adapt the model of the IC Report which was developed by and for the State of Israel as a reference report. The rough structure derived from this model report for a Romanian IC Report would be

1. An IC analysis, i.e. an identification of the "state of knowledge" and the competitive knowledge advantages of Rumania, mainly using data from trusted sources as World Bank, OECD, World Economic Forum, IMD's Yearbook or NIC data (as was published by C. Lin, P. Stahle and L. Edvinsson). On national level, as much as available data as e.g. form the office of statistics or from research results as published by the uefscdi members C. Holeab and A. Curaj in 2013.
2. A survey on government programmes, usually in support of R&D, technology development, funding of science and in support of universities, which contribute to an IC / knowledge (political) strategy of the country. In the case of Romania, this would be fed by the uefscdi agency and ministries in charge of science, research and education.

3. Presentations of examples of successful companies and company clusters, thus demonstrating, how a national knowledge policy potentially resumes in concrete instantiations of competitive advantage. This presumes that knowledge politics transformed into knowledge policy decisions then is translated into a concrete IC strategy and into subsequent actions implementing such strategy.

The author wants to point out, that in IC reporting the underlying, abstract framework models may be independent from the size and level of the subject and scope to be IC-analyzed, but in practice no “one size (i.e. one concrete model) fits it all”.

Conclusion for Romania

A national IC report as conceived for Romania has a different structure, size and data basis than a regional IC report. Its construction and production will be a combination of “top down analysis” and compilations from “bottom up” - analyzed results.

In contrast, a regional IC Report as was the case in the Ortenau project (see 2.1) is a bottom-up compilation resulting in or soliciting a regional development strategy, worked out in a participatory process, involving citizens, interest groups and members of the regional innovation networks and clusters, knowledgeable in regional specialties and foundations, thus representing the “genetics” of the region to be IC analyzed.

This division between top-down for the national report and bottom-up for regional instantiations motivated the authors of the report [11] to explain how such bottom-up development of an IC report on regional level works in practice. By experience, the main benefit of organizing a process bottom-up - structured in workshops and well defined steps - is that the respective region (or city) going through this process will convergently find its “strategic picture” plus the subsequent implementation steps directed for the further beneficial development of the region (or municipality).

The reference framework model which is used in all contributions referring to practical application of IC reporting is the quasi “standard model”, as was “invented” in the late 1990ies in Austria for its largest R&D organization (then called Austrian Research Centers – today Austrian Institute of Technology (AIT)) and then further applied in larger numbers of cases in Germany (“Wissensbilanz – Made in Germany” [7]). This model suggests to structure an IC analysis and IC report along four dimensions:

1. Vision, mission and strategy
2. The potential and resources to turn strategy into results, i.e. the intangible capital structured into human, relational and structural capital
3. The key processes to be implemented and to be managed for achieving strategic goals.
4. Outputs, outcomes and impacts.

In (strategic) knowledge management and IC reporting a multitude of methods have been introduced in the discussion. The authors of [11] do not favor apodictically one model only, however, over many years of working with such methods in practice, they came to the insight, that the basic scheme of four dimensions of the framework provides a meta model which has the potential to integrate several complementary

methods and aspects known from theories and models in management since long, as already described in [1].

d) The Kosice case: Key concern is to convince companies to embark on IC methodologies

When this paper is written, the “Kosice Case” is still under development under the direction of the European Leonardo da Vinci project LEGEND [12], carried out by four partners, a Slovakian coordinating consultancy firm, an expert company in Intellectual Capital (IC) Analysis from Germany, a University of Applied Science in Austria with deep experience in applying IC Reporting and a team in charge for the economic development in the Kosice region. Kosice is the second largest city in Slovakia and the capital of the Slovakian “IT Valley”. The major target groups in the LEGEND project are small and medium-sized companies (SMEs) and their educational counterparts, so called Higher Educational Institutions (HEIs) in first instance universities.

LEGEND is the acronym for "Leveraging knowledge for sustainable innovation and growth" and, as its main objective proclaims, aims at contributing to the increased use of knowledge by Slovak and Kosice IT Valley based SMEs in order to enhance their sustainable growth and potential and generation of innovation. One of the key concerns of the project specifically is to transfer Intellectual Capital (IC) methodologies to SMEs and their partners, especially to the corresponding Higher Education Institutions (HEIs). Results of LEGEND will be used as specific training and reporting tools in the local context, with the aim to contribute to increased competitiveness of SMEs and their partners mainly involved in research and development. The project also aims to overcome the weak interrelations between the labor market and the system of Vocational Education and Training (VET) for Slovak SMEs.

In order to convince the Slovakian SMEs to adopt IC methodologies, experience made in Germany and Austria serve as key arguments as follows:

An IC report on an organisation's Intellectual Capital combines indicator based numbers with narratives and visualizations, which, in practice, can have two major functions:

- complement management information (internal management function);
- complement the financial statement (external reporting function).

The main idea behind IC Reporting for companies is the differentiation that financial information informs about the past performance of the enterprise but tells little to nothing about its future potential. The future potential of an enterprise lies not only within its financial capital, but at more than 50% - some experts from the auditing community claim up to 75% - in its Intellectual Capital. Creating transparency about the enterprise's IC will enable it to manage its intangible resources better than before, to increase its staff's confidence and motivation as well as imparting greater certainty to investors and other stakeholders about its future earning potential.

An IC Report particularly helps to overcome the differences in knowledge of entrepreneurs on the one side and financiers on the other side (constituting “information asymmetries”) by providing key points and associated narratives which demonstrate that an SME looking for financial support...

- ... understands its technologies and areas of expertise – its skills, competencies and capabilities;
- ... understands its areas of competitive advantage, its intellectual property (IP) and the technical standards related to its products, processes and markets;
- ... understands its customer's needs, wants, aspirations and the value that its products and services are able to deliver to them;
- ... understands its markets and how to access them;
- ... has a credible strategy for getting its products and services to market, profitably, despite local or even global competition;
- ... has a credible strategy for managing the overall sequence of activities needed to succeed (e.g. value chain positioning and operation management);
- ... is able to substantiate the assumptions used in the preparation of financial projections and is able to provide a flow of information to lenders and investors to keep them informed on how the business is progressing.

Although Intellectual Capital Reporting has been applied first hand in around thousand cases in German-speaking SMEs by the method called “Wissensbilanz – Made in Germany” [7], it has remained an exclusive method in comparison to others, e.g. the Balanced Scorecard (BSC) approach. The reason after the author's experience is simple: BSC translates the different (in total: four major) dimensions of a company's strategy into concrete and quantitative forecast objectives given to each responsible manager as a scorecard to be fulfilled, whereas IC reporting and conduct requires a more self-responsible intelligent interpretation in the following dimensions:

- market-environmental and competition influential factors,
- the classic, self-conducted dialogue w.r.t. vision – mission – strategy of a company,
- the potential in human, relational and structural capital which a company has at hand,
- the key processes and their optimization – a business which is so common today, that large parts of processes are delegated into software running the company in its clerical dimensions, however, the strategic steering still remains with the managers,
- finally and as an integral part, the presentation of financial results, however, as an equivalent in completion of the non-financial outcomes and impacts which also define the future-proneness of a company.

For large companies of > 1.000 employees, studies say that the time investment required to produce an IC report is less than 0,001% of the total work time. Although there is no empiric or scientific proof to allow extrapolation to smaller scales, reducing the number of employees of a company as low as down to 10, i.e. by a factor of 100, this should keep the reporting effort lower than 1%, which conforms to practical experience made in ICR projects. The gain on the other side of the balance sheet is argued to be 5% in cost reduction, which is made by factors such as

- easier and more effective communication because of better understanding of responsibilities and decision processes,

- less time spent searching and finding, mainly because employees amongst themselves know better who knows what or who has best access to information needed,
- avoiding redundancies mainly w.r.t. meetings, also better preparation, better allocations of responsibilities and better control of follow-ups,
- reducing “underground communication” and gossip, because everybody has a clear picture of the company’s strategy, policies and rationale of decisions.

Of course, the disclosure of previously hidden “secrets” in an organization in the course of an IC Reporting project may raise tensions and even cause “explosions” between certain people with problematic relationships. The experience which the consultants and moderators in IC Reporting projects have gained so far is that in such cases the ICR-project serves as a catalyst for necessary changes. These changes would otherwise be initiated by other triggers usually becoming effective too late to prevent conflicts or with even destructive effects. The rational methodological approach given by IC Reporting can avoid or at least smooth such issues.

To introduce IC Reporting a company needs some extra motivation (just as if one wants to start a “diet” or to exercise a new regime etc.). Compared to other methods for improving competitiveness it requires a deep understanding of the concept of values beyond material values. Due to this abstract condition, this method is more “luxurious” than “hand-crafted” methods such as Balanced Scorecard.

The Kosice project as its main result produced a series of educational material for mainly SMEs which can be accessed via LEGEND’s home page

(<http://project-legend.eu/category/publications/project-outcomes/>)

e) The Danube Region [13]

The area covered by the *EU Strategy for the Danube Region* (EUSDR) stretches from the Black Forest (Germany / Baden-Württemberg) to the Black Sea (Romania-Ukraine-Moldova) and is home to some 115 million inhabitants. “Official” Member States in this group therefore are: Germany, Austria, Hungary, Czech Republic, Slovak Republic, Slovenia, Bulgaria, Romania and Croatia (as of 1.7. 2013). So called Accession Countries belonging to this group are: Serbia, Bosnia and Herzegovina and Montenegro. Finally, neighboring countries being included in the considerations and consultations are: Moldova and Ukraine.

The Danube Region Strategy which is a top-down strategy addresses a wide range of issues; these are divided among **4 pillars** and **11 priority areas** (see chart). Each priority area is managed by 2 Priority Area Coordinators (PACs).



The **Priority Area Coordinators (PACs)** ensure the implementation of the Action Plan by agreeing on planning, with targets, indicators and timetables, and by making sure there is effective cooperation between project promoters, programmes and funding sources. They also provide technical assistance and advice. The coordinators work in consultation with the Commission, and relevant EU agencies and national/regional bodies.

In the pillar “Building Prosperity” one of three priorities besides “Competitiveness” and “People and Skills” is “Knowledge Society”, which is the domain the author addresses with the project on “National IC for Romania” [11]- see 2.3.

Priority Area 07 "To develop the Knowledge Society (research, education and ICT)" which for our project is of major importance is coordinated by Slovakia and Serbia, with the involvement of a wide network of key players.

The EUSDR strategy, as has been documented from its beginning, made a series of suggestions on how develop the profile of a Knowledge (Society) Region. One typical action which demonstrates such commitment is *“To strengthen cooperation among universities and research facilities and to upgrade research and education outcomes by focusing on unique selling points”*. This means that universities and research institutes in the Danube Region are motivated to engage in stronger cooperation in various fields, such as analyzing existing education and research programmes in the Region and developing joint programmes of common interest, mobility schemes for students and researchers, common research projects, exchange of best practices (e.g. in implementing the Bologna process), or developing innovative education programmes for target groups new to universities (e.g. life long learning programmes for older citizens). Future cooperation should build on existing programmes, such as the EU programmes Erasmus and Erasmus Mundus, Leonardo da Vinci or the Jean Monnet Programme and make best use of existing structures like the Danube Rector's Conference.

Thus, on an action level, a series of initiatives have been triggered since 2011, however, no definition of what a “Knowledge Region” is or shall be so far has been given. The New Club of Paris (www.new-club-of-paris.org) as a competence body in the development of knowledge economy (and Knowledge Society) has taken a series of attempts in order to find and apply methods of characterizing regions and nations as “knowledge regions”; and, this paper aims to contribute to this discussion

The author considers the approaches taken by the Romanian uefsedi agency as well as by the LEGEND project to initiate the development of a National Intellectual Capital Report as two ideal approaches combining top-down and bottom-up strategies for finding the one important identity dimension also for the whole Danube Region i.e. for a large scale knowledge region. Romania and the Slovak Republic – besides Austria and maybe Serbia – are candidates to act as the pioneering regions for developing such extended profile.

3. Potential of Tenerife as a model case for a Knowledge Island

The Humboldt Cosmos Multiversity (HCM) as a Think Tank located in the Canary Island of Tenerife on several occasions addressed the question, if and how this island could be a model region, a kind of a “study lab”, to give it the profile of a “Knowledge Island”. Several studies

on the geopolitical role of the island have been made and reported [14], however, so far, no IC profile has been developed. This chapter of this paper is conceived as a suggestion how to approach such analysis.

The starting point for Tenerife is to first analyze its structural capital as one dimension of an IC Report. A first attempt in this direction was given in a presentation on occasion of the opening of a HCM conference [15]. The aspects of interest are

- The geopolitical positioning of the Canary Islands and Tenerife in specific
- The institutions being existing nodes in the innovation system of the island on which its further development as a knowledge island can be built.

The geopolitical positioning is illustrated in Fig. 3.

This positioning shows a specialty which makes the Canary Islands (and Tenerife) very specific. Their definitional dimensions are

- *geographical*: close to the African continent (~ 180 km +)
- *political*: belonging to the European Union, being part of the Kingdom of Spain. In European Commission's terminology, the Canary Islands are denoted as an "Ultraperipheral Region" of the EU.
- *Ethnical and cultural*: strong bindings to South / Latin America. Symbolically the famous research voyage of A. v. Humboldt to South America started from Tenerife, where he started his first research excursions. Historically, more emigrants of the Canary Islands went to South America than to the Spanish mainland. Some of them founded their own settlements (e.g. "Little Tenerife"). Today many descendants form those emigrants e.g. from Venezuela re-immigrate back to the islands.



Fig 3: The geopolitical positioning of the Canary Islands and Tenerife in specific

Concentrating on Tenerife the key institutions forming the key structural elements of the knowledge infrastructure are presented in Fig. 4.

Elements of Tenerife's „Intellectual Capital (Infra-)Structure“



Fig. 4 Institutions being nodes in the innovation system forming the IC structure of Tenerife

As in other regions, the cooperation between these institutions is still in its infancy. This observation is quite common in places, where the question on best positioning and competitive advantage (if this term ever may be applied to scientific institutions) is not yet sorted out.

By evidence (not formally proven), the island of Tenerife concentrates its intellectual capital in the following competence domains:

- *medical and biomedical research* (e.g. through its CIBICAN institute being part of the local university ULL)
- *astrophysical research* and research services as through its international “Instituto de Astrofísica de Canarias” (IAC) which also is the platform organization of a large telescope field situated on a high geographical level, covering a broad series of astrophysical projects of highest quality (each managed and largely financed by the home nations of the telescopes),
- *oceanography* which, due to the geographical position of the island in the mid of the Atlantic, is a natural opportunity for marine research. The Spanish Oceanography Institute (IEO) associated with the Canary Islands Oceanographic Centre has its lab facilities on the island. Their field of activity is the study of the sea and its resources.
- *Energy farming*, which results from the natural advantage of the “island of eternal spring” receiving a lot of sun, as well as being served with constant winds as an effect from its geographical position within the sea.

Since an island has the characteristics of being a well delimited territory with a structure and an infrastructure in itself, it is an ideal subject to become an experimental platform as a whole system. For this reason, profiling such island by means of an IC analysis (and report) is a natural and thrilling challenge.

4. A further future perspective: A network of Knowledge Islands

Islands, especially smaller islands, have their own natural profile given by their geography, their position and thereby logistical challenges and economic as well as their special climatic conditions.

The idea of looking at islands as *knowledge islands* in a first instance was invented in a project conducted by members of the New Club of Paris (mentioned in several instances of this paper) when they studied the history of Dubrovnik (in former times called Ragusa) in the South of Croatia, reported amongst several sources in [16]. Since the coast of Croatia, the Adria, is crowded with hundreds of islands, one of those participants attending the Ragusa workshops declared one of the islands where he was refurbishing a hotel with an advanced technical ICT infrastructure to be a “knowledge island” (which, at best case, it was by the fact that the technological foundations existed at that time in the early years of our century).

The conceptual idea to look at an island as a kind of “living lab” – as was mentioned for the case of Tenerife before – generated the idea to perceive such island as an ideal case study for a “knowledge community”. In fiction literature – think of Daniel Defoe’s Robinson’s island, Thomas Morus’ Utopia, Atlantis sunk in the sea or the tales about Caribbean or Pacific treasure islands etc. – islands preferably play frequently the role of a mysterious projection of human fantasies. In the case of Utopia, such island was designed by its author for an idealized society being different from the real existing ones with all their deficits. Why not to conceive islands prototypes for hosting a Knowledge Society?

In the course of several intellectual events taking place under the auspices of the Humboldt Cosmos Multiversity, communication was built between representatives of islands such as Malta, Puerto Rico, Hawaii, Tenerife, ... demonstrating interest in creating communication between their islands under the brand title of “Knowledge Islands”.

This paper closes by putting this concept in the picture of a worldwide knowledge society as a framework for future work on the subjects discussed, likely hosted by the Humboldt Cosmos Multiversity, which, in itself, is an emerging node in a network of knowledge communities.

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FIN

A.3. Special Reports from student from the University of Applied Sciences in Kempten,


Germany, on specific subjects of interest w.r.t. the future of the Canary Islands

2017

Excursion 2017

Periphery as a Hub – The Canaries & Africa

A Documentation of the M.A. Global Business Development Student's
Excursion to Tenerife
28.11 – 02.12.2017
by Alexander Hempel



The Global Business Development Master fundamentally deals with innovations and company development in an international context. Under this motto stood the excursion of the students to Tenerife.

2018



**University Kempten
Institute for the Industrialization of
Africa**

09th November 2018

2019

University of Applied Sciences Kempten

M.A. Global Business Development

Circular Economy

A Model for the Canaries?

Course: International Relations

Lecturer: Prof. Dr. Andreas Müller

GBD Class WS 2019/2020

Submission date: December 16, 2019

- Traducción realizada con la versión gratuita del traductor

www.DeepL.com/Translator -

El futuro económico, social y societal de las Islas Canarias - ideas de lluvia de ideas para un desarrollo futuro después de la Crisis de la Corona en 2020

(Versión 1.0 en agosto de 2020)

0. Resumen para una lectura rápida

Este informe es un documento vivo, es decir, se amplía continuamente, como una compilación de las aportaciones de los miembros de un grupo de reflexión independiente y neutral, organizado y moderado por la Multiversidad del Cosmos de Humboldt, situado en Tenerife. El propósito es inspirar a los responsables de la toma de decisiones políticas, sociales, económicas y de conocimiento para concebir un futuro desarrollo beneficioso de las islas, sirviendo potencialmente como un caso modelo en la reactivación de la economía regional, por ejemplo, de otras islas no sólo de España.

En la introducción de este informe se esboza el dramático escenario económico de las Islas Canarias en el período posterior a la Corona, afirmando que la economía de las islas ya no será la misma que antes y que se puede prever una tasa de desempleo de hasta el 50%. La razón de tal pesimismo es que la economía de las islas está en gran parte mono-estructurada y depende principalmente del turismo. Mientras que en el pasado la maximización de los flujos turísticos entrantes era el instrumento clave para el crecimiento económico y el bienestar, en el futuro se requiere una estructura empresarial mucho más diversificada.

Hasta ahora, se ha invertido mucha energía intelectual en la cuestión de cómo las estructuras económicas existentes pueden servir para la reanudación y, naturalmente, la discusión se centra de nuevo en la revitalización del turismo.

En una sección excursionista los autores empiezan a pintar un cuadro optimista discutiendo los mitos históricos de las Islas Canarias, abriendo así la idea, de que las islas están bien preparadas para un futuro utópico dando a sus habitantes la motivación y el coraje para atraer nuevos tipos de visitantes y construir una nueva y más diversificada estructura de generación de ingresos. Es decir, este documento no aborda las medidas inmediatas que necesariamente deben aplicar los Gobiernos / Cabildos, como las ayudas financieras y las inversiones tangibles, sino que

recomienda iniciar un proceso a más largo plazo que apunte a una nueva estructura económica basada en las ideas de la sociedad de la información y el conocimiento tal y como surge en nuestros días.

Basándose en las ventajas naturales de las islas, que consisten, de primera mano, en unas condiciones de vida habitables, atractivas y saludables, los autores de este memorando sugieren concentrarse en tres ámbitos para inducir el progreso:

- Ciencia y Educación
- Negocios virtuales y digitalización
- Ecología y Salud

Estos temas permiten presentar una serie de actividades y afiliaciones profesionales relacionadas. También creemos que muchas otras sugerencias de la reconstrucción económica que se están debatiendo actualmente, como el nuevo turismo, la producción de energía y los servicios públicos, las finanzas, la agricultura, la industria/industrialización, el transporte y las infraestructuras relacionadas, etc., pueden recibir impulsos de estos tres ámbitos, es decir, que también se beneficiarán de esa concentración de fuerzas en pocos temas de gravedad.

Una vez que se decida centrarse en dichos dominios y que se dediquen inversiones financieras a dicha estrategia, se recomienda cambiar la imagen de las Islas Canarias para que dejen de ser un punto turístico que atrae a gente interesante y dejen de ser "isletas de conocimiento" en las que tienen cabida los nuevos servicios inteligentes.

Los recursos que se utilizarán y en los que se basará esa estrategia de renovación están disponibles y se mencionan en los anexos: Las Islas Canarias son en sí mismas un microcosmos que debe todo a la organización de nuevas infraestructuras y a la experimentación de nuevos modelos de negocio. Por lo tanto, también tienen el potencial de servir como una región modelo que demuestre a otras regiones - probablemente islas- cómo organizarse para el renacimiento de una economía. En cierto modo, el rostro que César Manrique dio en su día a las islas como algo más allá de su imagen clásica, puede diseñarse hoy reinventando las islas como lugar donde convergen la vida de dios, la cultura y el negocio del conocimiento en un entorno de sociedad de la información.

1. El punto de partida: Una perspectiva dramática

Cuando esta versión del informe fue editada, el mensaje llegó a través de que en los EE.UU. el declive de la economía fue tan dramático como el 30% en el período actual. Aunque las cifras de Europa no pueden ser comparadas de igual manera, la situación allí es también la peor desde la Segunda Guerra Mundial: Los países económicamente fuertes como Alemania o Austria tienden a enfrentar un declive de hasta el 15%, se dice que España en total converge al 20%.

La economía de las Islas Canarias - directa o indirectamente - depende en ~ 80% del turismo y en > 90% de las importaciones de bienes del exterior. En consecuencia, la tasa de desempleo que se espera pronto se elevará hasta el 50% que, en comparación con la última crisis alrededor de 2010, tiende a ser el doble de lo que era en ese período. Los efectos han sido expresados con razón por los

representantes del Gobierno de Canarias al afirmar que la provincia tendrá que hacer frente a una especie de "Gran Hambruna" en los próximos años.

La causa principal de esta situación desesperada, en opinión de los que han contribuido a este documento, es que en los últimos decenios los gobiernos no se han preocupado por una distribución más óptima de los negocios hacia una economía diversificada. La concentración monoestructural en el turismo impide ahora, de manera natural y material, que las islas se conviertan a corto plazo en una combinación más saludable de actividades económicas, es decir, las fuerzas para mantener el modelo comercial convencional probablemente inhibirán un cambio radical como sería una opción. (Esta es también la razón por la que los esfuerzos actuales se dirigen al debate sobre cómo se puede diseñar un turismo futuro, como por ejemplo, se discute en un asombroso y extenso estudio realizado a principios de 2020 bajo la moderación de la universidad ULL:

<https://www.ull.es/portal/noticias/2020/libro-retos-turismo-covid-19/>).

Si alguna vez el turismo se recupera de su actual caída en términos de número de turistas atraídos a las islas, es previsible que esto lleve una década o incluso más, y el turismo, con seguridad, no será ya de la misma calidad que antes del evento de Corona, cuando los criterios de éxito económico se contaban por el número de aerolíneas atraídas a adherirse o el número y tamaño de los cruceros que anclaban en los puertos de las islas. En nuestra opinión, la supervivencia de la economía y, por consiguiente, el logro de niveles de vida razonables o incluso más altos sólo puede lograrse si se modifica fundamentalmente la estructura de la economía, así como de las conexiones de transporte internacional y de la infraestructura local.

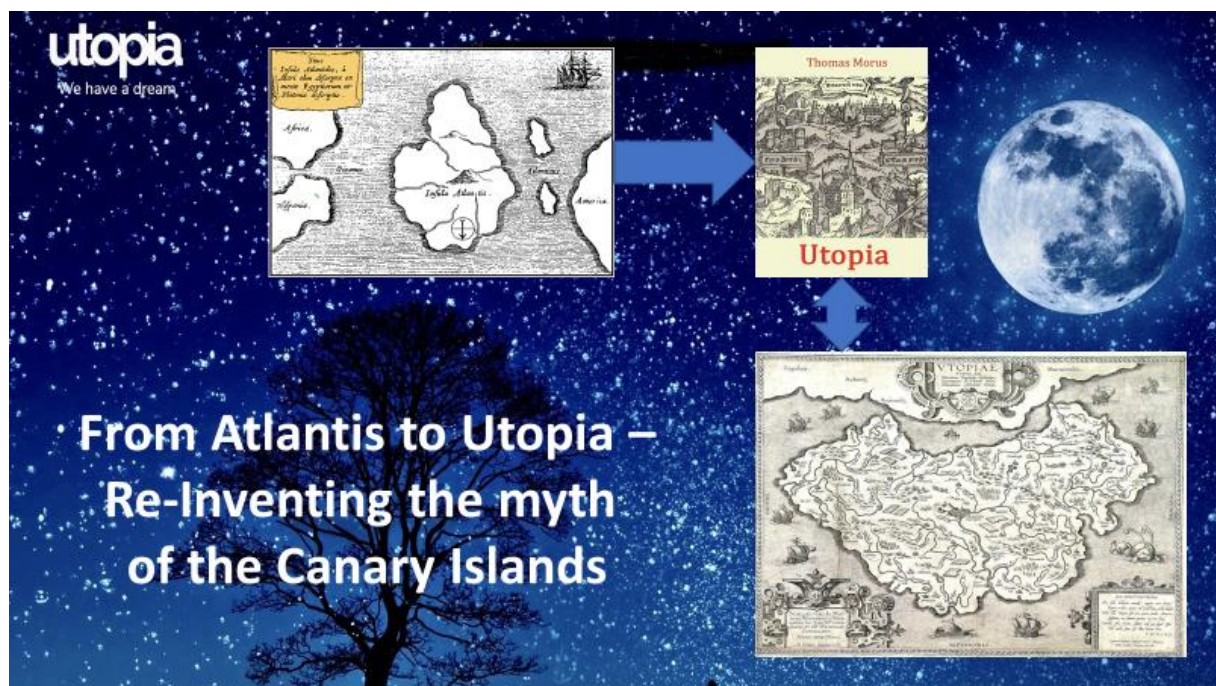
Este informe ha sido escrito como un estudio independiente, no contratado por ninguna autoridad, es decir, como un estudio voluntario y moderado y escrito por la *Humboldt Cosmos Multiversity* (HCM), un think tank en la condición jurídica de una asociación de derecho español, existente desde hace casi una década en las Islas Canarias con sede principal en Tenerife. Los miembros y colaboradores de este trabajo de estudio de la HCM son "cerebros" tanto internacionales como locales que dedicaron sus esfuerzos a analizar las Islas Canarias desde el principio de la existencia del instituto mediante una serie de talleres. Es decir, son conocedores de la situación de las islas, con mayor profundidad en Tenerife.

El HCM es un spin-off del *Nuevo Club de París*, una asociación cuyo principal objetivo es asesorar a los responsables políticos y económicos de todo el mundo sobre cómo desarrollar una sociedad del conocimiento. La fundación del Nuevo Club de París (NCP) se remonta a un Grupo de Expertos de Alto Nivel establecido por la Comisión Europea (CE) en 2004, cuyo objetivo era (y sigue siendo) dar recomendaciones a la CE e instituciones asociadas como el Banco Europeo de Inversiones (BEI) sobre cómo establecer programas en la elaboración de políticas para el futuro económico de los países y regiones.

Con ese fin, el PNC, por invitación de los países anfitriones, ha organizado una serie de mesas redondas en Finlandia, Austria, Marruecos, Malasia y, en versiones reducidas, en Serbia y una región de Alemania vecina a Francia. No se trataba sólo de eventos de debate, sino que los resultados se convirtieron en recomendaciones que luego se realizaron a nivel local. La vitrina se convirtió en Finlandia, donde una

serie de ideas nacidas en un evento de la Mesa Redonda del PNC se habían convertido en realidad. Además, el jefe de HCM y coautor de este documento ha gestionado y publicado un estudio sobre cómo un país como Rumania (como caso modelo) puede evolucionar para convertirse en un país del conocimiento. En 2018 se ha atraído a Tenerife una conferencia internacional sobre Ciudades y Regiones del Conocimiento, con motivo de la cual se ha elaborado un amplio estudio en el que se especula sobre la posibilidad de que Canarias se convierta en una región del conocimiento. Con otras palabras: Ya se ha realizado una preinversión suficiente que puede ofrecerse como asesoramiento al Gobierno de Canarias y a las instituciones que influyen en el futuro desarrollo de la Provincia - si así se desea. El Nuevo Club de París también podría estar motivado para contribuir a la discusión sobre cómo orientar a las Islas Canarias para su futuro, elevando el ánimo de que los esfuerzos por el cambio, se dirigen en la dirección correcta, valdrán la pena y generarán optimismo.

2. Aumentar el optimismo recordando la mítica (hi-)historia de las islas



Se cree que la Atlántida, una isla de ficción de antiguos mitos y aspiraciones, estuvo una vez situada en el Atlántico al oeste del Portal de Hércules que vigila el Estrecho de Gibraltar. Naturalmente, la ficción era y sigue siendo que las Islas Canarias son los restos de un pequeño continente una vez más grande que se dice que fue la Atlántida. En la época medieval esta imagen de una terra incognita se transformó y se utilizó para diferentes proyecciones, no sólo para ser un territorio geográfico desconocido, sino para la visión de un nuevo e inocente modelo de una sociedad ideal que vive en esta isla, que prácticamente constituye un paraíso en la tierra, designada como Utopía por el autor de ficción medieval Tomás Moro (1478-1535, en latín Tomás Moro). Él designó este libro convirtiéndose en un bestseller en su subtítulo como *Libellus vere aureus, nec minus salutaris quam festivus, de optimo rei publicae statu deque nova insula Utopia* - traducido: Un pequeño y verdadero libro, no menos beneficioso que agradable, sobre cómo deberían ser las cosas en la nueva isla Utopía. Es una obra de ficción y sátira sociopolítica, escrita originalmente

en latín y publicada por primera vez en 1516. El libro es una narración marco que describe principalmente una sociedad isleña ficticia y sus costumbres religiosas, sociales y políticas.

Desde Tomás Moro, una utopía es una comunidad o sociedad imaginaria que posee cualidades altamente deseables o casi perfectas para sus ciudadanos.

La utopía se centra en la igualdad en la economía, el gobierno y la justicia, aunque de ninguna manera de forma exclusiva, con el método y la estructura de la aplicación propuesta que varía en función de la ideología. Según Lyman Tower Sargent ("In Defense of Utopia", Artículo de investigación publicado en 2006

<https://doi.org/10.1177/0392192106062432>) existen utopías socialistas, capitalistas, monárquicas, democráticas, anarquistas, ecológicas, feministas, patriarcales, igualitarias, jerárquicas, racistas, de izquierdas, de derechas, reformistas, naturistas, de amor libre, familia nuclear, familia extendida, gays, lesbianas y muchas más...] ...] La utopía - argumentan algunos científicos - es esencial para la mejora de la condición humana.

El grupo de reflexión ad hoc de Humboldt Cosmos Multiversity sobre el futuro de las Islas Canarias tras la crisis de la Corona eligió deliberadamente la idea de la utopía para abrir las mentes e importar ideas de los ciudadanos de las islas, así como del extranjero, para identificar perspectivas estratégicas que se debatirán ampliamente en la política y la sociedad de las Islas Canarias. Analizando los pros y los contras de las islas calificadas por sus recursos naturales, se redescubrió una característica común de perfil constante que es crucial para la definición de cualquier recomendación conceptual: las condiciones geográficas, geológicas y climáticas que rigen en Canarias. Son los verdaderos activos en los que se basará cualquier estrategia para su desarrollo futuro. Este enfoque es distinto de las estrategias de las regiones que no están limitadas en su extensión y características naturales por el mar circundante.

Nuestro grupo de reflexión ha decidido, por tanto, discutir las probables opciones de las políticas e iniciativas económicas principalmente para que las islas sean compatibles con sus características naturales. Damos incluso un paso más en la consideración de las islas como lugares de ensayo y prueba de nuevos inventos sociales, políticos y tecnológicos, siguiendo el modelo de desarrollo de los llamados "Living Labs", una metodología promovida por la Comisión Europea que involucra a los futuros usuarios desde el principio de un proceso de diseño como co-diseñadores.

3. Reflexiones y recomendaciones del HCM sobre el futuro de las Islas Canarias

Del análisis reunido por el HCM a lo largo de muchos años y del reciente debate celebrado en 2020, surgieron las siguientes recomendaciones que el HCM ofrece para futuros intercambios tanto en público como con autoridades políticas, administración pública y con asociaciones/fundaciones que representan los sistemas económicos y comerciales de las islas.

3.1 Las islas necesitan un nuevo perfil claro que pueda ser comunicado internacionalmente y marcado

El reconocimiento internacional de las Islas Canarias es que son el número uno en vacaciones, disfrutando del sol, el mar, la comida y las bebidas. Una minoría también respeta las islas como un territorio privilegiado por su clima y sus paisajes, lo que ofrece una imagen de "fondo" buena para los guías de visitantes. Desde una perspectiva geopolítica, las islas también tienen la imagen de ser puentes hacia el África occidental y América del Sur. Hasta ahora bien.

El gran cambio de imagen debe trazar un perfil que acentúe mucho más tres aspectos con intencionalidad:

- Clima y paisaje privilegiados: Primavera eterna, buena para la salud
- Posición geopolítica entre Europa, África y América del Sur
- Un lugar de conocimientos y habilidades, es decir, a los cerebros les gusta vivir y trabajar allí

En cualquier caso, las islas deben deshacerse de la imagen de ser un centro de vacaciones que ofrece turismo de "fiesta" de baja calidad y bajo precio. El marketing debe ser rigurosamente perfilado como turismo de alta calidad (que, como tema secundario, no debe ser caro, pero no debe motivar a atraer a las personas "equivocadas" en lugar de los visitantes que tienen una alta estima por este lugar especial).

En este curso, las islas deben posicionar mucho más intensamente en sus vitrinas instituciones que demuestren la orientación futura, como son los institutos científicos (por ejemplo, ULL con todas sus "filiales", IAC, ITER, ITC, INTECH ...), instalaciones de puesta en marcha, salas de reuniones virtuales (por ejemplo, reuniones, plataformas de intercambio de vídeo) y espacios de trabajo conjunto, lugares de reunión de estudiantes - así como lugares de interés cultural como son los teatros, orquestas, Auditorio, museos, ...)

3.2 Un proceso radical hacia la diversificación de la estructura económica debe iniciarse para el día de mañana

El gobierno, en colaboración y cooperación con los principales representantes de las empresas y la industria locales que no participan directamente en el turismo, debe desarrollar conceptos para motivar el desarrollo de la construcción de negocios en áreas no asociadas directamente con el turismo, dando a las ideas de negocios alternativos la motivación para invertir.

La visión de otra economía debe desarrollarse dejando viejas pistas, abriendo las mentes a nuevos desarrollos, dando voz a los innovadores de la mayoría de los jóvenes, por ejemplo, organizándolos profesionalmente según el modelo de fori ciudadano.

Este cambio en la motivación de las nuevas empresas debe ir acompañado de nuevas infraestructuras. Las condiciones para ello, en términos de instituciones y proyectos líderes, ya están fundadas como se ha señalado en la sección 1, sin embargo, este panorama debe ampliarse con inversiones estratégicas en telecomunicaciones de alta velocidad que hagan de las islas un lugar único para

atraer a los teletrabajadores, pilotando nuevas tecnologías de telecomunicaciones como, por ejemplo, los actuales servicios basados en cadenas de bloques, el transporte público rápido mediante una infraestructura diferenciada que consista en conexiones ferroviarias de alta velocidad completadas por un eficiente último kilómetro y un servicio de autobús/taxi a petición que ofrezca acceso incluso a lugares solitarios.

3.3 Aunque existen varias opciones, la iniciativa de cambio debe concentrarse en pocas y máximas tres secciones de la economía

No cabe duda de que la diversificación económica necesaria se extiende a muchos sectores y dominios de la economía. Sin embargo, la idea que se desprende tanto de la experiencia como de los estudios científicos es que una escala demasiado amplia de medidas y acciones obstaculizaría el éxito de la construcción de una economía sostenible. El argumento puede demostrarse mediante una imagen: En invierno, en lugares con mucha nieve, es posible que no se abra un sendero si el quitanieves está ajustado demasiado ancho, es mucho mejor que se abra un camino si se lo pone agudo, o, como en las Islas Canarias estamos viviendo cerca del mar, tomemos el ejemplo de un barco con una proa demasiado ancha que lo frena. Traducido: Concentrarse en unos pocos y agudos temas proporciona un mejor éxito que tratar de iniciar demasiadas cosas al mismo tiempo.

Se recomienda que las Islas Canarias para su recuperación económica se concentren en un máximo de tres dominios principales de la economía, los cuales pueden ser especificados de alguna manera abstracta para que una serie de negocios concretos puedan ser reunidos bajo uno de estos pocos, es decir, tres titulares.

- Ciencia y educación

Las islas sin recursos explotables (otras la energía renovable) el único activo real son las personas que viven allí se basa en el capital intelectual, también llamado capital de conocimiento. La creación de conocimiento se produce a través de la ciencia, se fundamenta en la investigación básica o se dirige consecutivamente a través de la investigación aplicada.

Fue una invención de los dadores de nombre del HCM, los hermanos Alexander y Wilhelm von Humboldt, que la ciencia hecha por la investigación por un lado y la educación por el otro lado están estrechamente vinculadas, dicen que la teoría y la práctica van de la mano.

La educación, al servicio del aumento de los conocimientos y las aptitudes, es la condición previa número uno para disponer del potencial humano para inducir el progreso y la competitividad en la preparación de un futuro como el que se examina aquí.

Dado que las Islas Canarias, tras la experiencia pasada con los programas Erasmus, se perciben como un lugar muy atractivo para los estudiantes, las islas también pueden aspirar a asumir el papel que tuvo el Reino Unido en el pasado, sirviendo como el lugar más atractivo de anhelo de una educación de nivel superior. En el nivel profesional, una oferta que se intensificará serán las universidades de

educación cooperativa como las que existen en los países de habla alemana desde hace décadas y que se consideran un factor clave de éxito para el rendimiento de la industria alemana.

La educación profesional práctica en cooperación con la industria y el comercio, por cierto, elevará el nivel de competencia y la calidad del servicio.

La clasificación en las disciplinas educativas que se buscan son en TI, Informática, Diseño de Medios, Ingeniería de Software, Ingeniería Electrónica, física, matemáticas, medicina, servicios médicos, servicios de salud centrados en el ser humano, enfermería - y se prefieren las profesiones relacionadas.

Hay que mencionar que no se deben subestimar las llamadas disciplinas no formales como son la sociología, la filosofía o el arte: Incluso los proyectos técnicos más exigentes necesitan aportaciones inspiradoras y creativas. Las industrias basadas en el hardware, como por ejemplo la búsqueda de empleados cualificados en STEM (**S**cience, **T**echnology, **E**ngineering, **M**athematics = Ciencia, Tecnología, Ingeniería, Matemáticas) mientras tanto aprendieron, que los impulsos creativos contribuyen incluso a perturbar los nuevos negocios mediante el uso del **Arte**, ampliando las disciplinas clave a STEAM.

- Negocio virtual y digitalización

En vista de las grandes decisiones tomadas en la Cumbre Europea de manos de los gobiernos para encontrar formas de hacer frente a las consecuencias de la catástrofe de la Corona, se puso el acento en las inversiones en la digitalización y en la virtualización de la economía.

El negocio virtual es independiente de su localización. Suponiendo que la infraestructura de telecomunicaciones esté bien desarrollada y que las redes de fibra de vidrio ofrezcan banda ancha y conexión de alta velocidad en los puntos principales, como por ejemplo a nivel de la infraestructura de fondo pueden ser espacios de trabajo conjunto, cualquier servicio informático y de medios de comunicación puede ser instanciado en cualquier lugar - en todo el mundo.

Lugares como las Islas Canarias ejercen un fuerte impacto en los jóvenes creativos y productivos - un subgrupo de éstos puede incluso ser "nerds" - para llevar a cabo su profesión como programadores informáticos o diseñadores de servicios de Internet en tales lugares donde encuentran las mejores condiciones en una combinación de calidad de vida combinada con ofertas de ocio y servicios, producción intelectual, tareas desafiantes y todo esto en un espíritu que los que trabajan en tales campos se encuentran en empresas que consideran que contribuyen a una vida mejor de la humanidad en total.

Los productores de arte de los medios de comunicación y los cineastas prefieren un marco similar de productividad. La intersección de la realización de películas clásicas y los productos de la vida virtual, como pueden ser los juegos de ordenador o el entretenimiento en flujo también pertenecen a esta categoría de empresas económicas de mayor atractivo para los trabajadores intelectuales de la próxima generación.

Incluso en la industria considerada hasta ahora como vinculada al hardware y la logística física, el software y los servicios virtuales desempeñarán un papel cada vez más importante. Un ejemplo destacado es el desarrollo de los llamados "gemelos digitales". Se trata de "copias" de maquinaria y procesos reales en versión digitalizada, entre otras cosas, representadas por programas informáticos y datos, lo que hace posible que el funcionamiento y el mantenimiento de máquinas hasta plantas industriales completas situadas en otros lugares del planeta se realice desde un lugar dislocado, como podrían ser las islas, como las Canarias.

Dado que una isla desarrollada como Gran Canaria o Tenerife son "microcontinentes" que funcionan como un país completo, ofrecen las mejores condiciones para servir de plataforma de prueba para probar nuevos servicios digitales antes de que puedan ser lanzados para territorios más grandes. Los mejores ejemplos podrían ser los servicios de salud o de transporte, para los que se necesitan nuevos sistemas operativos y programas informáticos permanentemente actualizados en todo el mundo. (Una de esas tecnologías especiales de gran interés actual que sirve de ejemplo podría ser una solución basada en Blockchain).

¿Qué tienen que hacer las Islas Canarias para desarrollar un ecosistema como el que describimos aquí? Además de crear la infraestructura en términos de conectividad a Internet de alta velocidad, es necesario desarrollar y promover infraestructuras de trabajo abiertas y gratuitas, así como espacios de trabajo y residencia como, por ejemplo, hoteles que se redefinirán como lugares de inspiración. La "infraestructura intelectual" que existe en los institutos de alto perfil, excelentes y abiertos como las universidades (especialmente la ULL), el ITER, el IAC, el INTECH, etc., debe pasar a primer plano y formar parte de una campaña de promoción que las islas necesitan urgentemente para presentar al mundo que las islas están decididas a redefinir su perfil como lugar en el que combinar el trabajo con el equilibrio de la vida.

- Ecología y salud

Una de las ventajas más distintivas de las Islas Canarias, principalmente demostrable por las islas más pequeñas como son El Hierro, La Palma, La Graciosa, etc. es la naturaleza intacta dentro de un clima más cómodo y saludable. Es bien sabido que las islas ofrecen las mejores condiciones de vida para las personas con, por ejemplo, problemas respiratorios o reumáticos ...

Los departamentos médicos de las universidades y sus clínicas realizan investigaciones y practican tratamientos médicos a nivel internacional, así como para la ciencia, especialmente en los ámbitos de las enfermedades tropicales. Hasta ahora esta infraestructura sirve en primera instancia a los pacientes locales y a los residentes permanentes, pero bien podría ampliarse para atraer "clientes" de zonas de captación más grandes.

No debe mantenerse en secreto que el sector público privado en los servicios médicos necesitaría una mejora adecuada que se ajuste a las normas que el hospital universitario ya ofrece en la actualidad. Toda campaña de comercialización de los servicios de salud debe subrayarse mediante el logro y el mantenimiento de una certificación de calidad de alto nivel, tanto en lo que respecta a las normas

médicas como a las organizativas. (Una estadística que debe observarse es el número de residentes que abandonan las islas en caso de que tengan que hacer frente a alguna enfermedad grave, para recibir tratamiento en su país de origen).

Un entorno de vida que se ajuste a las normas de alto nivel de una sociedad con mentalidad ecológica y una economía correlacionada requiere una serie de medidas bien conocidas en todas partes, como sería el caso:

- Suministro de energía generada a partir de fuentes renovables. Las islas poseen tales fuentes en términos de explotación solar, eólica o de mareas marinas con un potencial para cubrir la demanda de energía al 100%. En combinación con los nuevos conceptos de transporte, es posible establecer un sistema de balance energético más óptimo
- Menos importaciones de alimentos y mayor autoabastecimiento en alimentos.
- Infraestructuras de transporte y tráfico organizadas en la reducción del uso de coches y camiones impulsados por combustible, sustituidos por vehículos eléctricos - o incluso mejor: vehículos impulsados por hidrógeno. Una infraestructura general innovadora y el control del tráfico permitirán un caso modelo de un sistema de transporte integrado.

Las islas, debido a sus limitaciones geográficas y estructurales, son las más adecuadas para servir de "laboratorio viviente", que es un banco de pruebas para ensayar esos nuevos conceptos involucrando a la población en procesos participativos.

El capital intelectual disponible en las islas, combinado con las competencias importadas y el ímpetu empresarial, es el que mejor se financia para abordar una estrategia concertada de cambio. Por ello, en 2018 las islas han sido elegidas para ser una región de conocimiento más reconocida. Nuestro consejo a este respecto es perfilar a las Islas Canarias como prototipos de futuras Islas del Conocimiento, declarando así que su futuro se basará en la educación, la ciencia, el conocimiento y la competencia para combinar las diferentes dimensiones del cambio de la manera más inteligente y comprometida.

4. Observaciones finales

El análisis y las recomendaciones subsiguientes no son completos en sentido estricto. Los autores tienen muy claro que un proceso de cambio debe incluir muchos más aspectos, como será el contexto más amplio a escala mundial, en la dimensión europea, pero también como se da (si no está "prescrito") por el Gobierno central español.

Una experiencia hecha a lo largo de los años es que en las Islas Canarias nada a nivel de iniciativa, digamos de fondo, se mueve si no se comunica y acuerda antes con el gobierno regional y en mayor línea con el nacional. Pensamos que las iniciativas de cambio tienen que ser conceptualizadas, autorizadas y presentadas por personalidades - si es posible independientes - lo suficientemente fuertes como para ejercer presión sobre ideas nuevas y poco convencionales de cambio sin pedir previamente permiso a ninguna autoridad distante.

También es evidente que en este documento no se han abordado dos dimensiones importantes y que se necesitaría una investigación y un debate adicionales:

- Los reglamentos existentes por ley y que definen la influencia de la gobernanza deben ser observados por los gobiernos responsables y sus filiales de ejecución, es decir, las condiciones legales que deben tenerse en cuenta. Sin embargo, esas condiciones no impedirán ningún impulso de cambio innovador.
- Medidas financieras en todos los términos, por ejemplo, financiación pública y privada o medios de crédito para financiar proyectos de cambio, así como un debate relacionado con el negocio financiero como negocio virtual complementario a las cuestiones de la economía real, como explicamos en este documento. La cuestión que se examinará es el papel y el impacto de las instituciones financieras como socios en todo proyecto de cambio innovador y no convencional

Como se indica en la introducción de este pequeño estudio: Nuestras sugerencias son una de las varias contribuciones que apuntan a redefinir y reorientar las Islas Canarias y su papel en un escenario más grande de un mundo después de Covid-19. Nuestra afirmación es que creemos firmemente que las islas están mejor para liderar el gran cambio y no sólo para seguirlo. El ganador es siempre el que toma la delantera. A diferencia de experiencias pasadas, las Islas Canarias deben tener el coraje de tomar ese liderazgo.

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