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THE DIGITAL STRATEGY IN SICILY

By Gaetano Armao, Vice-President and Economy Councillor of Sicily's regional Council – Member of EU Committee of Regions. Speech delivered on 8 October 2019 at Brussels Committee of Regions for the #EURegionsweek.

> "The digital insurrection was an instinctive move, a sharp mental twist, the reaction to a shock, the 1990's shock. It was an intuition: getting far from that ruinous civilization through the escape route discovered in the first computer science labs." A. Baricco, The Game, Einaudi, 2018.

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1. The digital strategy is a great opportunity for the progress of Sicily, of Sicilian companies, public administrations and citizens, to reach an inclusive, intelligent and sustainable growth. Its objective is to optimize the potential use of information and communication technologies and promote innovation, economic growth and competitiveness.

Digital citizenship is one of the main pillars within Sicilian digital Strategy, to give people and companies the opportunity to access data, documents and services using information and communication technologies, without moving physically and go to public offices. It can also contribute to realize an open administration and an exchange and reuse of data.

To be active and included in the future society, Sicilian people and Sicilylocated companies must be able to use material and immaterial digital instruments and learn the specialized skills included in this Strategy.

In this perspective, digital innovation may become an investment for regional public



offices and an effective basis for their structural reform.

A digital market within a digital society, an investment on knowledge to realize a more sustainable development based on social inclusion.

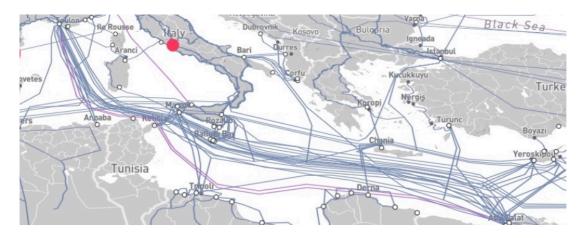
The so-called *Knowledge-based Society* represents a new frontier for the implementation of social rights and the growth of companies located in less developed, marginal or insular regions, like Sicily.

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- 2. The social and economic gap dividing Sicily from other Italian regions implies also a "digital divide" of its system of information and communication technologies. One of the Digital Strategy objective is to improve technological abilities, interoperability and social inclusion by implementing a quicker and cheaper access to information and communication network. This Strategy aims at realizing not only ITC investments, but also an integrated system combining national and European financial opportunities with local existing technological infrastructures, regional innovation potentials and a stronger interconnection with more central regions. Sicily's central location in the Mediterranean has given it throughout the centuries a unique importance and a topic role in historical events. Now it is included into the world internet routes and may have again the same central role. The Sicilians will have a great opportunity and profit from this new challenge to access new investments, improve local resources and have a real economic progress for their region.
- 2. It has been a strategical choice for the regional government to consider information technologies and *"digital transformation*" as crucial sectors for Sicily's economic growth and then plan a specific support to digital innovation and regional smart specialization strategy.

The "*digital transformation*" refers to the changes in the activities of most people and the whole society due to the increasing use of digital equipment, integrated, for example, in the industry process, as well as new technologies like big data, robotics, smart vehicles, tri-dimensional printing (3D), *block-chain* technology and Internet of Things (IoT). This transformation is a part of a wider European strategy to promote innovation and a resilient, inclusive and sustainable growth.





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Modernization and digitalization in public services for citizens and companies, with a special reference to online services like *e-Government and e-Health*, can make the public administration more efficient, on the leading example of the wide system of European public offices.

3. *Sicilian Digital Agenda* was radically modified and approved last year; in 2018 the financial expenditure grew considerably, compared to the previous year, and 75 million were allocated to provide 142 Sicilian municipalities with a ultra-wide band connection.

In 2022 Sicily will be equipped with both wide-band (30 Mbit/s) and ultra-wide band (100Mbit/s) connections and, thanks to its central position, will be included into an extraordinary system of *backbones landing points* and connected to the pivotal submarine cables in Southern Europe. It will have the largest digital network in the Mediterranean area and a European level *Data Center* with a software for *disaster recovery* and *cloud computing*.

The Data Centre will be built in Palermo at the Brancaccio industrial district and former ASI headquarters, whose building has already been acquired by the Region, using the considerable Digital Strategy financial resources as well

as the national PON Legality financial support, managed by the Italian Ministry for Internal Affairs.

The relevance of the centre, being designed at the moment, in the field of public administration cyber-security has been recognized by the Ministry, proposing it for the role of National Strategic Hub (*Polo strategico nazionale - PSN*).

Sicilian Digital Strategy's budget is the second among European regional programmes, and the European Commission has also granted a 55 million Euro additional contribution, thanks to its positive in-progress evaluation of the project.

The Presidents of Sicilia and Liguria Regions, Musumeci and Toti, have agreed to continue the collaboration between their offices (the Sicilian Regional Authority for technological innovation) and their in-house societies (*Sicilia digitale S.p.a.* and *Liguria digitale S.p.a.*).

After a general agreement, they are going to sign an official Protocol to plan new synergies for this project between the above mentioned regional offices.



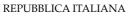
EU invests in Next Generation Internet connections in Sicily and improved rail transport in Slovakia



The Commission has just adopted two projects co-financed by Cohesion Policy funds in Italy and in Slovakia, to the sum of almost EUR 190 million. To start with, the European Regional Development Fund (ERDF) is investing almost EUR 55 million to build the infrastructures necessary to deploy broadband across black spots in Sicily as part of a Next Generation Network (NGN). This project affects 142 municipalities, that is to say more than 2.3 million inhabitants.

*This will not only bring broadband to Sicilian households, it will also create new economic opportunities, more accessible public services and a new doorway to the world," observed Commissioner for Regional Policy, Corina Cretu.

This project aims to give the region almost complete broadband (> 30 Mbps) coverage. It will also enable superfast broadband (> 100 Mbps) connections for certain users in the region with greater connectivity demands, such as small- and medium-sized enterprises. This project, financed by the EU, is part of Italy's national plan to deploy broadband on a Next Generation Network. The project is expected to be completed by 2020. Over the 2014-2020 period, almost EUR 2 billion of European funds are being invested in digital infrastructures and services in Italy. In addition, the Cohesion Fund will invest EUR 134.5



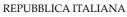


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In the framework of a three-year plan, the regional Council has approved the 2019 agenda, the that is the Digital Agenda implementing part, which will realize new services for citizens, companies and public administrations integrated with those offered by market carriers.

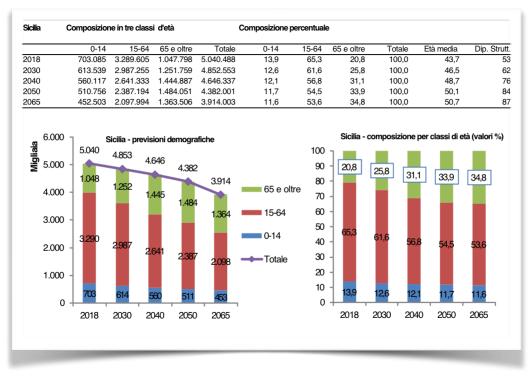
The Digital Agenda and the Plan have allocated about 80 million Euro for information services and immaterial infrastructures, divided into 30 million Euro for *E-health* and 50 million Euro for *E-government*, *E-culture* and *E-justice* services.

- 4. It must be observed that Sicily has not profited enough from these third industrial revolution opportunities, which have now become the nonrenounceable mainstream. This is the cause of present serious economic crisis in Sicily, after a period of surreptitious employment of people hired in public offices or public-managed societies as an alternative to private jobs, often creating non-permanent employment. The present crisis is producing a dramatic resumption of emigration, which is greatly different from post-2nd world war emigration, because it concerns now mostly highschool or University graduated young people. Without a serious engagement of the national government to change the present course, the resident population of Sicily will be reduced in 2030 to 4.852.553 inhabitants compared to the current 5.040.488. The age composition will note a decrease in the incidence of 0-14 population from 13.9% to 12.6% (-5.536), while 15-64 population will decrease from 65.3% to 61.5% (-302 350). Over 65 people will represent 25.8% of the population, compared to the current 20.8% (+203.961). The average age will increase from present 43.7 to 46.5 and the SDI Structural Dependence Index (the ratio of nonworking population, aged 0-14 or over 65, to working population aged 15-64) will increase from present 53% to 61%. Consequently, there will be 8 more Sicilians applying for welfare services (mainly for the elderly) compared to the present 53 out of 100 still working, who will have to afford the surplus costs. In 2050 the number of elderly people will reach its peak (far more than half the number of productive population) and in 2065 the population will decrease to less than 4,000,000 people.
- Tab. 1 Previsioni demografiche per la Sicilia (scenario mediano)





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Fonte: elaborazione su dati Istat; https://www.istat.it/it/archivio/214228

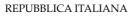
5. The Digital Agenda can and must represent an extraordinary opportunity for the progress and development of our large region, whose economy cannot be based only on tourism and culture good revenues: it must be the "winning move" that can offer Sicilian companies a chance to be competitive and overcome the obstacles due to insularity and great distance from richer markets.

Sicilian Digital Agenda is included in the framework of European digital transformation measures. Accordingly, it is important to profit from the opportunities offered by *Digital Europe programme*, proposed by the European Commission within the Digital Single Market Strategy. It plans to invest 9.2 billion Euro over the period 2021-2027, to improve international competitiveness and strategic digital abilities in the EU in the areas of artificial intelligence, cyber security, high performance computing and digital excellence.

The Programme is composed of 5 areas of intervention:

- the European strategy for super-computers,
- the European approach to artificial intelligence,
- the group of measures for cyber security and digital skills,

- the promotion of a larger use of digital technologies in the economy and society.





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A modernization of public administrations and services through digital technologies seems to be crucially important, since it can reduce the administrative duties for companies and citizens and simplify their relations with public administrations, as well as stimulating more efficiency and a higher quality of public services and more spread and traceable mechanisms for social control.

The European Committee of Regions has recently approved a European Commission proposal to adopt a Digital Europe Programme 2021-2027, establishing for the first time a single reference framework for all European programmes about research, innovation and digitalization in the European economy and society.

The digital revolution is deeply influencing many economic activities and transforming everyday life, in the next years it is supposed to increase at a rate seven times higher than the other economic sectors, thanks to the use of interconnected devices and artificial intelligence (AI). Therefore Europe must get the best from the digital process to foster the development of its economy.

It has been rightly observed at the World Economic Forum that the enlarging growth of start-up enterprises can be a key factor for EU growth.

The number of initial public offers (admissions to Stock exchange listing) for technology-connected companies with a market capitalization of less than 1 billion USD has increased by 120% in the last five years.

Europe is the largest and worthiest single digital market, employing the highest number of researchers. Although it shows a lower level of new technology integration compared to the United States, it has a leading position in the field of smart robotics and smart technologies, which will soon produce more modern and complex technologies to be used in the supply and production chains of the manufacturing industry.

The Forum report, moreover, notices that "the large European public administrations, usually considered as an obstacle other than a support to innovation, may have a relevant role if they adopt and experiment directly the new technologies."

With reference to the DESI index (*Digital Economy and Society Index*), calculated by the European Commission in 2018, Italy is placed at the last place with other countries and Sicily among the last regions.

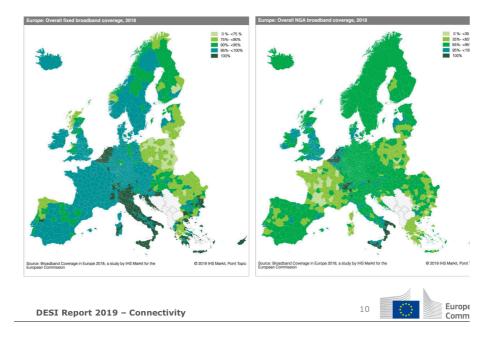
One of the Sicilian Digital Strategy priorities is to improve the system of digital connectivity all over the region, to fulfil by 2025 the objectives planned for European gigabit society, that is giving families and social and economic operators in urban areas the opportunity to use a connection of not less than 100 megabit per second (Mbit/s), as well as providing a 24h 5G coverage over the main transport routes.

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Overall fixed broadband and NGA broadband coverage by region.

Investing in the implementation of advanced high-capacity digital connections like 5G networks, as planned in Digital Europe programme, is necessary to make digital technologies and services available all over Europe, while broadband connections can have a determinant role to offer innovative and competitive digital services. Telecommunication network interoperability should be guaranteed using public funds to connect the less covered areas (white and grey) and so prevent the risk to increase the digital gap even more.

Moreover, the DESI shows that various coverage connections have been improved, but there are still strong differences among the Member States.

98% of European citizens can access a fixed broadband connection, 80% of European families have a fast broadband coverage (minimum speed 30 Mbit/s) and 58% a high-speed connection (minimum speed 100 Mbit/s). Mobile 4G networks reach on average 91% of the EU population, 75% of families have subscribed for a fixed broadband connection and one third of all families have a 30 Mbit/s minimum connection speed.

The high-speed connection is spreading twice as much as two years ago and can reach now 15% of families, but it is still under the 2020 planned target of





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50% . The rural areas are still the most difficult to reach, 8% of families have no fixed connection coverage and 53% no access to new generation technologies like NGA (*Next Generation Access*).

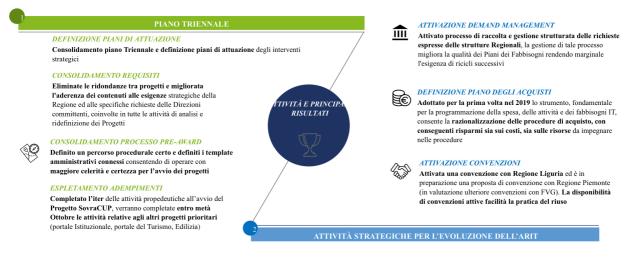
6. The ultra-wide band Plan for Sicily, therefore, is being implemented very fast (in 2018 142 municipalities were equipped with fibre optics, 90 building sites are still open and 15 more have completed their work).

Sicilian Digital Agenda and 2019 Transition Plan to Digital Innovation are being implemented on the basis of a "digital first" model, to boost digital economy by granting fiscal incentives to start-up companies and above all building a large Data Centre in the Palermo district of Brancaccio. As mentioned

Agenda Digitale

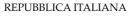
Attività e principali risultati ottenuti

A partire da maggio 2019, Deloitte, oltre alle **attività relative all'attuazione del Piano Triennale**, sta portando avanti **attività di rilevanza strategica per l'evoluzione dell'ARIT** verso il ruolo di Program Management Office Regionale a supporto del Piano Triennale per la Trasformazione Digitale



above, it will be established in the former ASI headquarters, whose building has already been acquired by the Region; the allocated resources are over 20 mill. Euro, including 7 mill. Euro financed under the national PON Legality programme (first example in Italy of a financial support for this kind of infrastructure).

Finally, another crucial matter is the creation of a *Competence Center* in Sicily, as prescribed in 2017 national financial law (Law n.232 of 11 Dec. 2016, art.1, p.115), where it is defined as "a highly-specialized reference institution based on a public-private partnership, whose objective is to promote and realize the projects of applied research, technogical transfer or advanced technology training included in the national Industry plan 4.0".



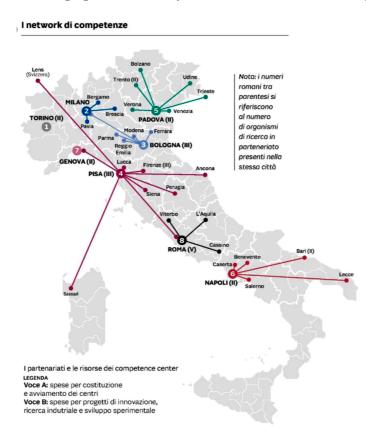


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It seems discriminating that in the whole Southern Italy, counting 34% of the Italian population, has been established only one of these Centres, with serious negative consequences on a more balanced allocation of infrastructure resources and a more balanced industrial development, increasing the deep existing gap among Italian regions.

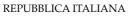
It seems useful, with regards to this, to remind that the Bank of Italy Governor in his recent *Final considerations* has mentioned the technological deficit in Southern regions as one of the main causes of North-South economic gap, observing that "in Southern Italy the almost 2.5 % added value of digital economy is over three points lower than in North-Central areas".

Moreover, in Southern islands no Centre of this kind exists, although Sicily has 8,5% of the Italian population; only in Catania there is a *Digital Innovation*



Hub included in a big network, introducing enterprises into Industry 4.0 world.

Increasing the North-South digital gap in Italy would mean also to decrease the value of the relevant investments made to improve the wide and ultra-wide band networks in Southern regions. So the Sicilian Councillor for Economy, representing the regional government, has officially requested to the Ministry for the Economic development an additional 10 mill. Euro allocation of funds to create other *Competence Centres* in the Southern and insular regions, since only one out of 8 has been built in the South and none in the islands.





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With the aim to make Sicily a more innovative and modern region, as so far illustrated, we have already started to implement a specific political and administrative strategy, that we intend to carry out completely as quick as possible.

The 2019 I-*Com Broadband Index* (IBI) has shown that Sicily, for the second year, has reached the best performance for ultra-wide band coverage among all Italian regions, followed by Puglia and Lazio, connecting 90% of the island. This confirms that the realization of Digital Agenda in Sicily has followed so far the right direction for a real digitalization process and a really effective use of European resources.