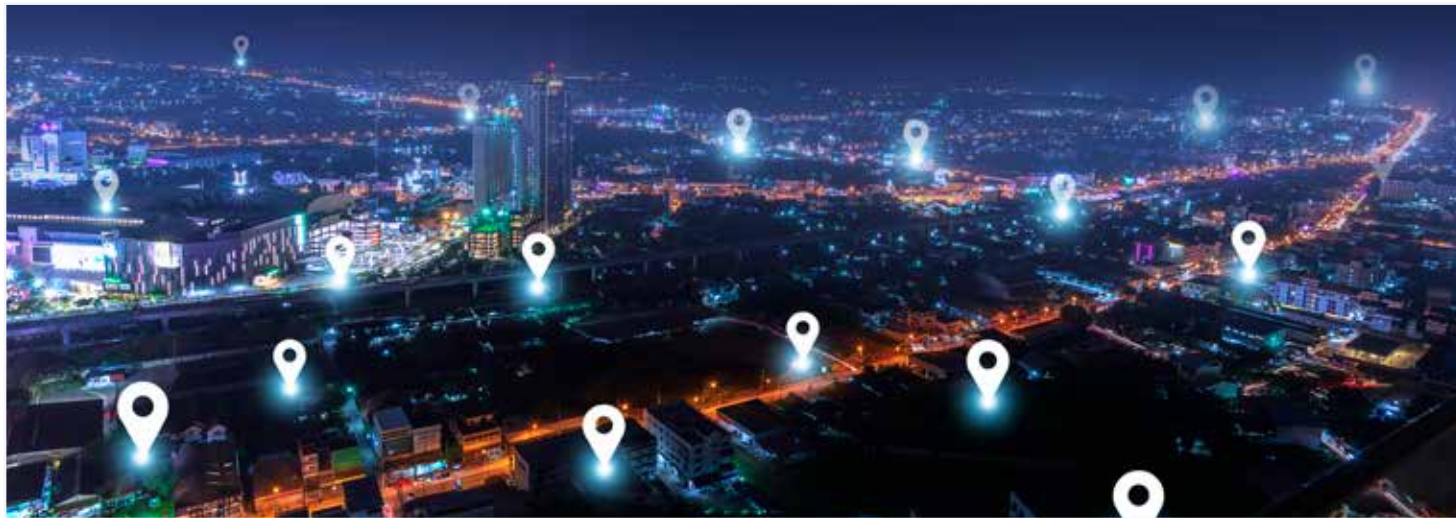# Yes to the Single Network, but Neutral!

Contribution by Dino Bortolotto, AssoProvider President

Let's clarify, first of all, the position of AssoProvider. We don't need a single network, which is, in fact, impossible, but rather a Neutral Operator that enables large and small Italian operators to compete, while not selling directly to the end customer. It's a need that, for 23 years, has come head-to-head with the spinning-off of the fixed network of Telecomitalia, and later TIM, with the creation of, first, Infratel, and, then, from an offshoot of Enel, of OpenFiber. The issue today is again

can see a vivid demonstration of "history teaches, but it has no pupils". A history told here. After years of attempts to transform the privatization of Italian TLC into a true liberalization, in 2006, following in the steps of the energy sector, and Enel with the spin-off of Terna, the idea of carrying out the same process also emerged in TLC, but it was immediately a turbulent issue that threatened to depose the so-called "Prodi 2" government.

overwhelmingly at the centre of political debate. Ever since 1997's liberalization, Italy has needed a TLC operator to act as an enabler and not an inhibitor of competition. AssoProvider has been, and is, ready to contribute to the debate and work towards the achievement of an objective that is incredibly useful to the community, as both Italian citizens and companies.

However, in general, looking back at these 23 years of Italian TLC, we

The issue led to the resignation of Marco Tronchetti Provera, from the top management of Telecomitalia, and of Angelo Rovati, advisor to Romano Prodi. The famous "Rovati Plan" had proposed, with the intervention of the state and the banking institution CDP, the unbundling of TelecomItalia's fixed network from the rest of the company, TIM, leaving the latter a *mobile* part, and making the fixed network substantially

REGULATIONS
Pillon Decree: A Confused and Ineffective Provision

The protection of minors, in relation to their relationship with the virtual world, is an extremely important issue. It is a highly topical issue that should be analysed and managed with intelligence, consideration and professionalism, but, above all, with an approach that transcends any instrumental use. It is, therefore, regrettable to note that the recent issuing of the decree, which invokes totally ineffective actions, delegating all responsibility to a single category of economic actors belonging to the very long chain of digital content use. The provision appears **confused and ineffective** and demonstrates profound "ignorance" with respect to several fundamental elements of the workings of this chain. It seems to totally ignore the structural separation existing between access/transport providers and device providers (those without which there would be no display of content). Indeed, one cannot simply ignore the vast plethora of existing device types (PCs, smartphones, tablets, televisions, etc.), nor any device of the by now imminent IoT that can provide visual interactions with the end user.

The confusion mentioned above, unfortunately, arises from the erroneous generalization of the old analogue television broadcasting

model, and from the behaviour of certain well-known mobile telephone operators. In this context, it happens that access to the internet is bound to the use of a smartphone (the one in which the SIM is inserted), and that the *mobile* phone contract (giving access) may also provide for the supply of the display device. Only within this specific commercial configuration of the provision of internet access, that is exclusively by mobile *operators*, is the device considered one, invariable over time, and bound to the supplier. In all other cases, it is only the end user who knows which and how many *devices* will be connected and used by him or her on the internet connection, and how these might change in time, without sharing the slightest information of changes in supply conditions with the connectivity provider.

The provision speaks of *the device* that should block access to con-

THE BATTLES OF ASSOPROVIDER
History of a Liberalization: Open Wi-Fi!

In an era we take for granted the freedoms we enjoy, we rarely reflect on the importance of taking a stand and aiming for the achievement of the goals we really care about. We often consider ourselves the "little fish", we find ourselves facing our challenges full of disillusionment, and we prefer to desert from the battle that stands between us and our goals. By doing so, we become even smaller fish than we consider ourselves to be, and we secure our place in some aquarium, wait-

ing for a benevolent hand, holding on to the hope that that hand will always remember us and come and feed us, just enough to guarantee our mere survival.

The role of "aquarium fish" has never acceptable to AssoProvider, which, instead, has always operated in the best interests of the professionals it represents, defining objectives and continuing to work toward their achievement. The determination of the AssoProvider board is known to many, and

has had real effects on the lives of all internet users on Italian soil, as in the case of the achievement of its greatest milestone, the liberalization of Wi-Fi in 2005.

The road has been long and not without its obstacles, but the desire of AssoProvider to achieve the liberalization of Wi-Fi, and to be able to exclaim "We did it!", proved to be evidently greater than all the fatigue it involved. And it is in this climate that, in 2005, the ingenuity of the then president

EDITORIAL
That final yard

Italy is where we were born, home to many of the greatest minds and most extraordinary artists of every kind, throughout history. But like all peoples, we have our vices and our virtues. We share both exhilarating highs and shocking lows. However, there is something in particular about the moment we are living that I think merits contemplating. In our modus vivendi, there is a sort of imperceptible and anomalous coincidence that seems to have been handed down over the centuries right up until the technological age in which we now live. And I think this relates to that **so-called final yard** ... to what I like to call the "Philosophy of the Final Yard". When it seems that everything is ready to go, there's always seems to be that last yard that prevents it from happening. To be clear, we are living a constant contradiction between the possibility of finally closing the gaps in our network and a state of paralysis that puts us in the condition of having to deal with that final yard that continually puts a spanner in the works. The **digital divide is still** an open wound, and our way of making progress is often erratic, so that despite all our digging ditches, laying pipes, passing cables and setting up control units, we always seem to fall short of that last yard that would actually see us close the gap. **OpenTLC** wants to be that final yard. It wants to be a platform for listening and sharing.

It wants to represent a paper challenge to the power of virtuality, impulsed by those who live and work in that magical world that sits between today and tomorrow. Can we leverage the network in order to network? Can we successfully bring together our experience and professionalism? Can we create a space, a container or a lab to study and tackle that final, so terribly important yard? Many of the shortcomings, which could be endlessly listed, necessarily intersect with the worlds of politics, society, economy and planning. Therefore, we want to try to find a middle ground between our history and our future, between past and modernity. The aim of the editorial staff of OpenTlc is thus to help forge a **"new renaissance"**, a forum capable of talking about artificial intelligence and 5G, but also of realizing that a microscopic virus has been enough to put the entire planet in crisis. Indeed, home automation and robotics seem to be sciences suddenly overshadowed by our inability to deal with an invisible enemy that only human research stands a chance of defeating, or so we hope in the not too distant future. Certainly, we wouldn't want to find ourselves one step from the discovery of a fix, but unable to make that last yard to the finish line. **We** can and we will be among those helping to bridge that gap, and make it successful. We will stand with the pioneers and the trailblazers, convinced as we are that enthusiasm and curiosity drive visions and events capable of changing the world. We will work to ensure that those looking for answers can find them, and those wanting to ask questions will find themselves able to do so. OpenTLC therefore aims to be a launchpad from which we can aspire **to finally closing the circle**. This is our commitment, since we love to dream, and we love to accept challenges!

Nazzareno Orlando
OpenTlc Managing Director

TELECOMMUNICATIONS

The State of and in Telecommunications

In its 20200 report, the last of the council chaired by Angelo Cardani, the Authority for Communications Guarantees (AGCOM) calculated the total value of the various markets of interest to be € 52.3 billion, down 2.8 % from the previous year. The telecommunications sector makes no exception, with the fixed network down 1.7%, *and mobile down* 13.1%, considering the period 2015-2019.

After the *boom* of the entire telecommunications and *dot.com* sector in the second half of the nineties, the last two decades have had a variable trend. And the lack of a strategic vision on the subject of the broadband and ultra-broadband network certainly has not helped. We are still affected by the worst privatization of the nineties of the past century, that of telecommunications. We are talking about Italy, of course, while, for example, China has registered an impetuous progress, so much so that its data aggregator, Alibaba, is at the top of the so-called *Over The Top* (from Google to Facebook, Twitter, Microsoft and Amazon).

In any case, the annual expenditure of Italian families in communication services is second only to that of the home. Despite timid steps forward in territorial coverage, through a plan of public tenders, the first won by a company born from the synergy between Enel and Cassa Depositi e Prestiti (Open Fiber), despite the controversy with Tim-Telecom, the connected population percentage has only increased ever so slightly. Only a fifth benefits from the *ultra-wide range*, with the digital divide coming to the fore during the pandemic, excluding many students from distance learning. We remain in 25th place in the European ranking. And last in terms of digital skills.

Emblematic is the case of Telecom, the former monopolist privatized in 1997, but badly so. Because, at the time, the priority was given over to Italy's adoption of the Euro, and, therefore, the need to generate cash. And then came takeovers, the absence of adequate policies, the progressive disinterest of governments. Now, belatedly, there's a desire to divide the network from services, by renationalising the former. It could have been done at the time, as proposed by various parties. But it is good that, finally, we are coming out of the liberal drunkenness, and taking a path of significant presence of the state at a crucial point of the democratic nervous fabric. If we arrive at a single company with prevalently public capital and the unification of Tim and Open Fiber, with the issuing of shares open to all interested operators, including local ones, we would have a positive example of a State innovator.

But let's take a step back, and try to better understand what has happened thus far. The deep origin of the aforementioned Italian backwardness and difficulties lies in the Manichean (and interested) choice pursued since the eighties in favour of generalist television over "cable", unlike in other already mediatically mature countries. This relates to Berlusconi, as is well known.

The Italian backwardness here, as elsewhere, has nothing to do with the qualities of individual researchers or groups of researchers, which are often able to find innovative solutions *"alone",* in Italy or abroad (via the so-called phenomenon of brain drain), in start-ups or in *software development.* It rather touches on the profound features of the development model, that needs to be completely revised. But the virus seems to have dealt the coup de grâce to the various "third ways".

Europe, meanwhile, is proceeding with directives and regulations still linked to the cultures of liberalization of the eighties and nineties that assume an infinite market. In reality, things have turned out to be more problematic. Cognitive capitalism is now based not only on physical networks, but also on the "clouds" of data aggregators. We are talking here about the

> *"The annual expenditure of Italian families in communication services is second only to that of the home"*

"owners" of the algorithms, the *Big Data* aggregators, Google and the like. The real powers of the contemporary landscape, bound to the world of finance, cross a similar frontier.

It would be alluring to have a common approach in Brussels in order to force the *Over The Top* to pay taxes adequately, to reinvest the income in youth employment, which represents, in such contexts, one of the real outstanding opportunities. And it would be particularly necessary to understand how the data that concerns us improperly belongs to the ownership sphere of the *Over The Top*. And we must add to the agenda a crucial chapter on the transparency of algorithms, the *mumbo* jumbo known almost exclusively by the oligarchs of the network.

Vincenzo Vita

Pillon Decree: A Confused and Ineffective Provision

tent, but **then places a generic** obligation only **on access or** internet providers, who *know nothing* about that device, having not provided and having no obligation to provide it. On the other hand, there are international regulatory constraints that oblige the access provider to NOT hinder the freedom of the end user in any way in his choice of *devices,* not to mention that, even if the provider is able to impose a measure on the access device - with the legal provision not indicating, in any way, how this should happen, most likely because the legislator does not know if and how it can be achieved- it remains totally undefined how the access provider should classify content. Once again, the legislator, not knowing if and how this classification can be achieved, leaves it entirely up to the Internet Service Provider, making a huge mistake! Downstream of all these indeterminate **impositions, and devoid of any technical** feasibility, the legislator, in order to gain collective consent, leaves **the access provider alone** at the mercy of the economic retaliation of its end user. Consequently, the legislator, in addition to exposing the individual operator to a certain risk, ignores the fact that resistance to spurious requests permitted to the end user by this provision can change as the economic dimension of the operator changes, and lead **to a powerful distortion of competition** that clearly benefits larger operators. We are, therefore, facing not only utmost **ignorance of the elementary** mechanisms that regulate the functioning of the chain, but also the trivialization and mortification of the work of operators in the sector. We are forced to recognize **an evident prejudice** in favour of some possibilities that would be operational ground for only large operators, who would have the infinite capacity to absorb any additional costs relating to resistance to user actions and/or determined by any manipulation of contents (we also overlook any "observation of contents" that is not functional to its mere delivery, which is also prohibited by our constitution), because in the real world, we reiterate, unknown to the legislator, every manipulation, however small, produces a cost that weighs progressively heavier the fewer the number of users over which it can be spread. To make it clear, a cost X per 1000 users is economically more relevant than the same cost X per 1,000,000 users, and, therefore, there would be not only the economic damage caused to the supplier due to the increase in costs itself, but also a market distortion in favour of larger operators introduced according to the **different audience** across which the costs are shared. The surprising thing about some of these ethereal cham-

> *"The protection of minors, in relation to their relationship with the virtual world, is an extremely important issue"*

pions of rights is the carelessness with which they treat the rights of other honest citizens who are not committing any crime. They do so without caring for any of the consequences of what they propose *on the entire chain of stakeholders, and on the various* types of operators. To **conclude**, our hope is that the next time any decision is made about access and transport operators, the legislator on duty will have the decency and the intelligence to deal, in advance, not only exclusively with the usual big operators, but also with all the *stakeholders* present in local territories, in order to avoid damaging strategic players in a sector so delicate for the future of our nation. Continuing to operate as we are doing will not produce any real benefit for the collective. By reversing the course, with balance, the collective will be able to realize who is truly attentive to the needs of competition, and, therefore, of Italian SMEs, and who has no awareness of the facts and pays no attention.

Board of AssoProvider

KAOS

KAOS: administrative rights

by Marcello Cama

Kaos is the column in which I will try to highlight various short-circuits, whether institutional or technological, that are potential generators of situations that could lead, if they materialize, to effects contrary to those desired. They are personal reflections, in some cases paradoxical considerations, I would like to share with readers.

Let's start here.

An administrative right, such as the VoIP or WISP licence, is a tax paid for the provision of a public service offered by a public body, therefore relating to a service that the company or citizen can decide whether to use or not. In the case of a VoIP Provider, for example, it is the prerequisite to work in a legal manner, so it is a tax to "do business" and generate other taxes and contributions of higher value than the cost paid, such as VAT, IRAP and INPS contributions. It must be said that the amount is defined by state bodies, and, therefore, by ourselves who, through constitutional tools, elect the people meant to organize our lives and activities. Therefore, it should not be confused, as is often is the case in the moment of disbursement, with the so-called "bribes" or "kickbacks" that the criminal sphere and situations of corruption sometimes impose on companies

in order "to work". Let's take a concrete example of *Kaos*. A small company, with three employees and a turnover of less than half a million Euros, pays 600 Euros annually for an operator licence, for the sole pleasure of "*existing*", that is to say, being established. The same small company automatically generates chamber rights and INPS contributions, which we can estimate at around forty thousand Euros, and to which income taxes and value added tax must be added. It can therefore be estimated that the small company will pay the community as much as 60 to 80 thousand Euros each year, all the while contributing to the career

....

"A change of vision of doing business should ensure that those who produce something are rewarded accordingly, and not punished with taxes, or, even worse, with overly complex regulations"

development and maintenance of three families, and generating an amount of business equal to or less than turnover. Furthermore, if the WISP covers, with its "*doing business*",

the so-called "white areas", therefore *regarding market failure, it* would contribute, as the members of AssoProvider have always done, to the breaking down of the *digital divide* , and to making up for the shortcomings of the state. If our ISP or WISP were not to pay the annual contribution, its licence would be revoked, leading to its consequent failure, the aforementioned taxes would not be collected, and the community would have to pay three unemployment benefits for at least eighteen months, and make up for its absence in "white areas". Here lies the Kaos! Against the 600 Euros not collected, the community would have to assume damages that might even exceed 100,000 Euros per year. Paradoxically, criminals or corrupt public officials seem to take a broader view of the market, as they see there's no interest in "putting an end to" a company that is generator of income and therefore opportunities.

A change of vision of *doing business* should ensure that those who produce something are rewarded accordingly, and not punished with heavy taxes, or, even worse, with regulations that are overly complex and often "obstructive" to the development of a truly open TLC market. But, I don't want to delude myself. This is pure utopia.

Yes to the Single Network, but Neutral!

public. This plan, in the motivations that lead to its creation, evidently had a foundation, since, after 15 years, the spin-off of the fixed network and the Single Network have become instrumental for the functioning of Italian telecommunications, whether it be from the point of view of innovation, finance or effective competition.

And the debate in these 15 years, **from 2006 to today**, has seen AssoProvider as the only coherent defender of the idea behind the Rovati plan, as is easily verifiable in any Google search. The contents of the plan, of course, are no longer consistent with the progress of technologies, of fiber, 5G, etc., or with the change of ownership of the big Italian telcos. One thing, however, remains the same, and AssoProvider has always highlighted it over recent years: the liberalization in telecommunications has not worked, and will not work, until the right corrections are implemented by the state, both centrally and, above all, peripherally.

Corrections that, today, are profoundly different from those hypothesized in 2006, as, in the meantime, investments to create a TLC infrastructure have significantly reduced, setting in motion a large group of local operators able to create TLC infrastructures independently, such as FTTH optical fiber and not just FWA, without having to wait for monopolists or large investors.

This is why we believe it is opportune to highlight that, today, they are trying to push the idea that TLCs are entirely a natural monopoly, which is false, and that the network is an unrepeatable infrastructure, which is also false. If these two false premises are accepted uncritically, then it is clear that the only solution to the collective problem of the urgent digitalization of the country, in the presence of large economic realities that have not been able to achieve it in over 20 years, seems to be a unique *wholesale public* operator.

On the other hand, everyone forgets that, in 2020, by now, the true component of TLC, consisting of electronic switching, is highly replicable, being economically proportional to the actual users served. Therefore, all that is left among the elements of a potential natural monopoly or non-replicability are:

- The transmission medium (optical fiber);

- The cable duct, i.e. the civil works within which multiple transmission media can be successively co-located.

From this, it immediately follows that **even the transmission medium** is an economically proportional component that can vary with the number of users actually served. Thus, it can no longer be considered a non-replicable component.

At this point, the elements that might contribute to a natural monopoly or non-replicable structures are **EXCLUSIVELY the civil works to lay cable ducts** and **the buildings** or real estate units in which transmission media coming are concentrated (called NCPs according to Openfiber nomenclature), and, of these, only those ducts and NCPs in places where, due to a lack of available public land, it is not possible to build a second one, can be considered non-replicable. It should also be remembered that the geographical division into a plurality of operators has always been the basis of the concept of "*inter*" "*net*", and, consequently, what might not be replicable, if considered as a "national" unique whole, becomes perfectly replicable if thought of as thousands of *subnets* of independent cable ducts, all connected to each other. Therefore, if the state intends to set up a single *wholesale* operator, to avoid the waste of collective economic resources, this entity should create, and make available to any type of operator, ducts and NCPs of suitable dimensions in all places where no other operator local has already carried out these works, and, where they already existed, it should facilitate integrations that maximize their use by a large number of operators.

At the margins of this discussion is the important theme of the autonomy of the individual, which not only applies when the individual is a "consumer", but also when the individual is a "producer". The state should facilitate individuals who produce, especially if, instead of generating negative externalities (as happens with many big companies), they generate positive ones, as set out in Paragraph 2 of Article 3 of our beloved Constitution.

Only if the state *wholesale* operator is of assistance to local operator-producers can we attain maximum collective efficiency, and that is precisely why a political, commercial and technical dialogue is needed. No *wholesale* operator, public or private, will ever be of assistance to local operators if it is totally devoid of tools to constantly dialogue with them and thus avoid the dozens of structural errors that AssoProvider is observing, starting with effective hindering rather than facilitation of unbundled services.

Dino Bortolotto, AssoProvider President

Spazio LAB

Communications have become a strategic element in everyday life. For an association, for example, finding the right communicative balance means reaching its members widely, and, at the same time, acting as an independent sounding board for users of the provided services. AssoProvider is one of the most committed associations on the side of the battle to eliminate and go beyond the digital divide. Through a series of public events, AssoProvider aim has been to get its message across to an ever wider audience. AssoProvider has been increasingly committed to engaging official information bodies, continuously using all the means at its disposal to combine commercial needs with those aimed at promoting all the activities implemented by individual components. In essence, it has adopted the conditions for the best possible use of communications, deciding, for example, in 2017, to involve LabTv, a television broadcaster of which I am the sole director, in addition to being a member of the Association's Board of Directors. This choice allowed shareholders, on the one hand, to have at their disposal a tool capable of producing content that can be placed in any television broadcasting market, and, on the other hand, to be able to exploit the latest digital terrestrial technologies and associated social media. The choice also created the conditions for the birth of a Communications Department, which, for example, began to deal with the organization of events and their promotion through a new modern, dynamic in-house press office. The possibility of constant dialogue between members has also led the way for other original initiatives. Almost at the same time, indeed, several European projects aimed at the use of 5G in the television sector emerged, in addition to OpenTLC.

The choice of founding a newspaper in paper format may appear, especially to those immersed in purely virtual environments, to go against the trend, but we hope that this media "short circuit" will attract the attention of the media, and strengthen the image of the AssoProvider, promoting it, through television media and OpenTLC, to ever larger and more widespread audience. The intense activity built around LabTv has, indeed, far exceeded its boundaries of regional coverage, and has also stimulated a laboratory climate capable of making the life of the entire Association more lively and dynamic. Today, AssoProvider has, therefore, the majority of the means it needs for wielding efficient, effective, modern and professional communications. In these difficult times, as living conditions have changed, work of this type has built a network that is not indifferent to but rather aware and supportive of the building of a more organic and participatory community.

Antonella Oliviero - OpenTlC Editor

EXPERIENTIAL TOURISM
Factors at the Origins of Experiential Tourism

The most common definition identifies Experiential Tourism as a constantly growing global movement, capable of involving tourists in a series of unforgettable experiences with a strong personal impact. During such experiences, the tourist is not limited to getting to know the history and traditions of a place, but is completely immersed in them, in direct relationship with the host community. The connections generated by this type of approach must therefore necessarily engage the tourist on a physical, emotional, spiritual and intellectual level, in the context of well-defined market segmentation, in order to facilitate the "emotional circulation" that forms the basis of psycho-physical well-being.

The reasons for the success of the phenomenon of Experiential Tourism lie, first of all, in a simple and natural process, which has always continued to change our habits, and which is commonly referred to by the term "evolution". The technological development of the last 50 years has radically changed society. We can now communicate with the other side of the world in real time and with extreme ease, using a smartphone, personal computer or tablet, surfing the web, accessing tons of information in just a few seconds, and streaming songs, rather than having to go to a shop to buy a record. Nowadays, newlyweds can share their honeymoon snaps *directly* on social media, saving having to invite friends and relatives round when they're back, because everything, or almost everything,

has already been shown about the trip! Indeed, since the 1970s, western deindustrialisation and delocalization have inexorably changed the concept of value. Today, the value of a good or a service is recognized regardless of the ac-

tual cost of production, and it is not unusual to buy goods and services at prices considered disproportionate until just a few years ago. Thus, the modern consumer, and even more so the tourist, is constantly looking for emotion. Today, the value of an object or service lies in its ability to excite, that is, its emotional charge is the key to its success.
Giusi Carioto

NEW MARKETS
Adjectival Tourisms as a model for mapping the passions of tourists

Often, and erroneously, reference is made to Experiential Tourism as "niche tourism", with the intention of relegating it to less significant marketing realms, or identifying it as something only for the lucky few. In reality, this misleading reference differs from the true dimension of Experiential Tourism, which would be better indicated by the term

"Tourism of the Niches". Modern tourists simply book their travel experiences on the basis of their passions. Just as there are many human passions, there will be as many corresponding "niches". Traditional tourism market segmentations are poorly defined for the formulation of experiential tourism offerings. More attention should, therefore, be paid to the passions of the traveller by referring to

"Adjectival Tourisms", such as: *cultural tourism, heritage tourism, literary tourism, music tourism, pop-culture tourism, adventure tourism, extreme tourism, space tourism,*

"Modern tourists simply book their travel experiences on the basis of their passions"

archaeological tourism, atomic tourism, genealogy tourism, military heritage tourism, agritourism, rural tourism, esoteric tourism, and so on and so forth. The TEDTRIP team, made up of the writer of this article and Matteo Fici, AssoProvider Treasurer, has further developed this model in order to better respond to the needs of tourists by classifying the Adjectival Tourisms in segmentations and sub-segmentations, and, moreover, identifying a series of adaptations to European Community principles such as, among others, accessibility and eco-sustainability.
Giusi Carioto

TOURISM AND TECHNOLOGY
TGlobal and TEDTRIP: a technological breakthrough in the world of tourism

In the new era of Experiential Tourism, the tourist is animated by the desire to connect with the local host community in a way that stimulates the soul of the tourist in both physical and digital senses.

It is no longer enough, in the digital world, for platforms to be designed merely for booking a tourist package. What is now needed is for them to be "relationship platforms", rich in content, and, sometimes, in part created by the tourist in order to satisfy the innate desire to share experiences. Effective relationship management is, therefore, central to the experiential tourism system, and deserves careful planning, followed up by adequate tools and methods for realizing the tourist experiences.

The TEDTRIP project puts all this into practice with a special training course dedicated to Travel Emotion Designers

(TEDs), providing them, under the motto of "Content is King", with a platform to effectively establish and manage the relationships between themselves and Experiential Tourists.

In this sense, the authors have developed the contents of the TEDTRIP Experiential Tourism course to analyse, first of all, the factors at the origin of the phenomenon, before continuing with the introduction of Adjectival Tourisms as a model for mapping the multitude of passions of tourists, identifying the motivations and the field of application of TEDTRIP and so-called social-tech, and, finally, presenting its concrete use at extra-hotel type facilities in the city of Palermo, Sicily.
Giulia Fici

TOURISM 2.0
The motivations behind the TEDTRIP methodology

As has been highlighted many times, the consumer/tourist has a new concept of value deriving from his relationship with communications and the use of new technologies. Tourist offers must, therefore, be able to intercept this value, and, in order to be successful, and, therefore, beat the competition, they must show a high emotional charge through cutting-edge tools able to satisfy the modern tourist's innate desire to inform themselves and share experiences.

The first step is to reconsider the tourist experience as a single, seamless process, not merely limited to the time spent at the destination. It is the task of the tour operator 2.0 to come up with tourist offers tailored to tourists, that inspire, inform and provide content and tools that allow them to identify the experiences best suited to their own nature, limiting the stress of the choice as much as possible, and the even more frustrating feeling of having made the wrong choice.

This is why AssoProvider and TGlobal, a service company owned by AssoProvider, decided to enter the world of tourism, a sector already widely known for technology pro-

It is the task of the tour operator 2.0 to come up with tourist offers tailored to tourists"

vision, in order to put its know-how at the service of *tourists*. In 2019, after several years of research and in-depth study of "experiential themes", the TEDTRIP project was finally **realized.** In addition to being a platform for experiential tourism promotion and sales across Italy, TEDTRIP also proposes itself as an active party in the training and support of Travel Emotion Designers (TEDs), key figures in the formulation of successful tourist experiences.

The choice of focusing on the creation of activities is dictated by the natural characteristics of the experiential model itself, whose strength lies in the activity taking place rather than in the where or when. This idea introduces the possibility, on the one hand, of

TEDTRIP
Social-tech, TEDTRIP's field of existence

TEDTRIP is a social *impact project*, and falls within the classification of *social-tech,* understood as the search for new products and services capable of offering technological solutions that respond to contemporary challenges in terms of integrated social, economic and environmental sustainability.

Social sustainability is embodied in the figure and modus operandi of the Travel Emotion Designer (TED), since natural candidates to fill such a role are identifiable in young people who love their local area and who wish to remain there, and, at the same time, contribute to its social, economic and occupational development. TEDs must be highly empathetic, and have excellent communications skills, so they can successfully interpret, convey, protect and value the essence of their local territory and its environmental and cultural heritage.

A particularly stimulating action, and, perhaps, also more delicate, is the promotion of intangible cultural heritage, understood as a mix of formal and popular culture, and of the stories of places, especially those lesser known aspects that are often found to be the most effective keys to really understanding the places. The TEDTRIP project, therefore, fits perfectly into the framework of the ABACUS project, targeting similar local youth talent and offering potential in terms of both employability and the enhancement of cultural skills.
Giulia Fici

With Atena, networking is now 4.0

How to constantly measure the QoE and QoS of IT services and anticipate any issues that may affect customer loyalty

If IT technicians were asked which part of their work they are most apprehensive about, most would surely bring up the lack of control over customer satisfaction.

Even with good KPIs (Key Performance Indicators) in terms of ticket numbers, management, and resolution time, there is always a minority of users who experience random, variable, and subtle degradation in quality, which is often reported in subjective ways. Paradoxically, the time spent solving these issues is enough to affect KPIs and, furthermore, the negative marketing caused by angry customers has more weight than the positive marketing from satisfied users (who are notoriously silent when everything goes right). Even when the cause of the degradation is outside of their control, network or service providers are still the ones to pay the price in terms of user satisfaction. All this negatively impacts **customer loyalty**.

Which technician wouldn't like to reduce the number of support calls? **To notice problems before the customer does or to drastically shorten the resolution time of subtle and poorly described issues?** To objectively pinpoint whether a problem can be ascribed to their own infrastructure or to external factors?

To answer these questions one must master the concept of **QoE: Quality of Experience**.

Oftentimes, the terms **QoE** and **QoS (Quality of Service)** are used interchangeably, but these concepts are in fact very different: **QoS** encompasses parameters such as "**Packet Loss**" (PL), "**Round Trip Time**" (RTT), etc., while **QoE** is the measure of the quality perceived by the user and is often measured with metrics such as "**Mean Opinion Score**" (MOS), a number from 0 to 5 that indicates the "average" opinion.

To understand the difference, consider the impact of a 2% PL on the opinion of a user when reading an online newspaper (minimal impact), when streaming a movie (medium impact), or when making a phone call (high impact). The same value of a QoS parameter has a dramatically different impact on QoE depending on the service. This is why simply monitoring QoS tells us little about the actual user experience.

A QoS parameter dropping by a few percentage points will likely go unnoticed by users and will not result in any support tickets. However, the moment this parameter drops enough to impact the user, urgent and hard to handle reports will flood in: "it's a little slow", "sometimes it goes out", etc. It immediately becomes necessary to identify an objective issue from subjective complaints—an issue that in many cases could have been noticed and resolved earlier and without pressure. This leads to dissatisfied customers, stressed support staff, and account managers constantly dealing with update requests on the part of the customers. These cases are now multiplying in these recent months due to the pandemic, which has caused a sharp increase in users working from home. Every day providers, IT managers, and system integrators respond to issues that are often outside of their control (e.g. caused by the user's device, the user's internal network, the upstream provider, etc.).

This does not mean that QoS is not important: on the contrary, QoS is the tool through which teletraffic engineers bring excellence to the user experience.

QoS and **QoE** are **closely related** and must **both be measured** in order **to maximize control over user satisfaction** and efficiency over assurance functions. To measure these vital parameters, it is not enough to rely on the usual monitoring techniques that extract hardware counters from the devices. An **E2E** (End to End) **QoS and QoE measurement approach** is required. As in the Industry 4.0 paradigm, this approach **preemptively spots even slight variations in QoE** before the user perceives them is required and allows technicians to begin to search for the cause in an organized way without pressure, to quickly and objectively pinpoint the user issue, and understand in which part of the E2E chain the degradation is occurring.

Furthermore, even when no issues are arising, the **constant measurement of QoS and QoE parameters establishes a solid data-driven base** with which to illustrate the effectiveness of undertaken initiatives and the corresponding results in terms of quality. This data may be used internally to support new initiatives or published for marketing purposes.

NetResults S.r.l (known as the manufacturer of the Kalliope® line of Unified Communications & Collaboration products) originates from a research group of the University of Pisa that for more than twenty years conducts scientific research in the field of QoE/S measurement. In 2010 NetResults began offering consultation services on these topics, and ATENA (**www.atenatesting.com**) is the result of this experience.

ATENA is a tool for the **active E2E measurement of QoE and QoS in IT services** (including OTT) and IP networks. Designed for providers, IT managers, and system integrators, it lets them to **proactively monitor QoE/S** for the purposes of anticipating issues before they affect the user while **preserving privacy**.

ATENA is based on automatic devices (called **ATENA-Bots**), which operate in an unattended manner and **emulate a typical user**, making phone calls, browsing the web, accessing email services, making file transfers, watching videos in streaming, making video conferences, etc. Aside from being an anti-churning tool, **ATENA can be a business opportunity** for anyone who wishes to offer QoE assessment to their customers in a time when the increase in users **working from home** means that **quality will become a binding obligation and the demand for QoE wil increase exponentially**.

NetResults S.r.l has prepared a series of free instructional webinars (the first is scheduled for November 2020) on the topic of QoE/S, ATENA, ITU/ETSI standards, and how this all can be both an anti-churning tool and a business opportunity.

Visit **www.atenatesting.com/webinar/** to discover how to participate in our webinars.

Francesco Oppedisano, CEO NetResults Srl

TLC AND RIGHTS

The open modem, between the right to access and the large oligopolies

The open modem is dead, long live the open modem.

The proclamation announcing the death of a king and the enthroning of a new king is analogous to what is happening in relation to modem freedom.

For many years, in Italy, you couldn't choose which modem to install in your home, the device was simply included in the various telephone operator plans.

The situation changed on the 1st of January 2019 under Resolution 348/18/CONS, by which the Authority for Communications Guarantees (AGCOM) decreed that users could use any modem they preferred, without being tied to the proprietary ones offered by telephone operators.

The Resolution immediately sparked a dispute between large fixed or fixed and mobile operators, on the one hand, and smaller operators, supported by certain equipment manufacturers and consumer protection associations, on the other.

The dispute has been fought among the halls of AGCOM, in the judicial settings of the Regional Administrative Court for Lazio and the Council of State, and before the CORECOM Regional Communications Committees, yet has still to come to a conclusion, since the largest of the Italian operators, Telecom Italia, has decided to challenge the sentence of the Regional Administrative Court, which it had partially surrendered to, once again before the Council of State.

Several large operators have preferred to withdraw their appeals and focus on new offers that take into account the parameters established by AGCOM in Resolution 348/18.

The judicial disputes are dragging on, more than anything else, in contemplation of existing contracts and instalments payable by consumers who had stipulated contracts pending the application of the disputed Resolution.

In any case, the AGCOM Resolution merely assumes the executive role of EU Regulation 2015/2120 of the European Parliament and of the Council of 25th November 2015, which introduced a new set of rules on net neutrality into *the European* legal system, as-

signing to national regulatory authorities with new roles in terms of regulations, supervision and *enforcement*, in order to guarantee the right of users to an open Internet (Articles 3, 4 and 5 of the Regulation).

According to the principle of net neutrality, internet access must be treated in a non-discriminatory manner, regardless of the content, application, service, terminal, sender or recipient.

National regulatory authorities are, therefore, required to promote the availability of internet access at quality levels in step with technological progress, and in a totally non-discriminatory manner.

To this end, they may impose technical quality-of-service requirements and other appropriate and necessary measures on electronic communications operators and internet access service providers.

The European Regulation, far from referring to which router should be used, assumes the concept of an open internet that is much more important than the technical concept of the apparatus itself, and establishes itself as the cultural provision underlying the new European Code of Electronic Communications, which must also be approved in Italy by the end of 2020.

A new open model concept, understood as the right to access the network, is looming on the horizon, and it will be the task of institutions to prevent one king from being unable to be replaced by another, and, thereby, frustrating the efforts to obtain an open internet.

Fulvio Sarzana di Sant'Ippolito
Sarzana e Associati law firm, Rome
www.lidis.it

WI-FI PIONEERS

History of a Liberalization: Open Wi-Fi!

In an era we take for granted the freedoms we enjoy, we rarely reflect on the importance of aiming for the achievement of the goals we really care about. We often consider ourselves the "little fish", we find ourselves facing our challenges full of disillusionment, and we prefer to desert from the battle. By doing so, we become even smaller fish than we consider ourselves to be, and we secure our place in some aquarium, waiting for a benevolent hand, holding on to the hope that that hand will always remember us and come and feed us, just enough to guarantee our mere survival.

The role of "aquarium fish" has never acceptable to AssoProvider, which has always operated in the best interests of who it represents, defining objectives and insisting on their achievement. The determination of the AssoProvider board has had real effects on the lives of all internet users in Italy, as in the case of the achievement of its greatest milestone, the liberalization of Wi-Fi in 2005.

The road has been long road and not without its obstacles, but the desire to liberalize Wi-Fi, and to exclaim "We did it!", proved to be evidently greater than the fatigue it involved. In this climate, in 2005, the ingenuity of the then president of AssoProvider, Matteo Fici (today treasurer), manifested itself in a noteworthy expedient. Under the pretext of wishing the Communications Minister, Mario Landolfi, well in his new job, on 27 April, Fici wrote to the minister, and used the opportunity to reiterate a theme dear to AssoProvider. Following is an extract from the letter:

"*Two years after the issuing of the regulation on the use of Wi-Fi for indoor hotspot applications (28/05/2003), the turning point has not yet been reached: the possibility of an outdoor application was, in fact, expressly prohibited in the Legislative Decree The consequent delay, in Italy, in approving a new regulation for wireless, for the last mile that exceeds the limits imposed by the aforementioned LD, and is finally consistent with the rest of Europe, remains a fact now two years from the authorization of the experimentation that immediately gave positive results, and on which rousing experiences were structured, according to the Agcom Communications Authority*". A decisive factor in the successful conclusion of this "battle" is to be attributed, moreover, to the widespread presence of AssoProvider members throughout Italy, including in Mondragone, the hometown of both Minister Landolfi and entrepreneur Nino Morrone, who accompanied Fici to meet the minister. Probably a greater attention to AssoProvider's motivations also resulted from this meeting. Once again, teamwork and determination constitute the trump card of the association. It is perhaps legitimate to ask: what if the minister had been from another city? Would the story have had another ending? No, there would have been some other member from there too.

Board of AssoProvider

THE BATTLES OF ASSOPROVIDER

The judicial drama of Antonio Ruggiero, 2 years to dismantle a Telecom Italia accusation

On 4 August 2017, Antonio Ruggiero, the administrative secretary of AssoProvider, was met at home by four agents of the Italian finance police (GdF), notifying him of an ongoing investigation revolving around him. The crimes he was being investigated for were "illegal intrusion in computer databases" and "criminal impersonation", which could have cost him up to six years in prison. Shocked, Antonio read the papers presented by the Marshal of the GdF, but nowhere was it written what, exactly, he was supposed to have done: "It is as if someone told you that you are accused of murder, but doesn't tell you who you were meant to have murdered." From that day on, Antonio entered a Kafkaesque 12-month period of limbo, at the end of which he, finally, discovered that the accusation had come from Telecom SpA. Well, how did the story turn out? He himself tells the tale in this interview.

What happened after the notification of the ongoing investigation?
"I discovered that they had also appointed me an official lawyer. So I sent him an email to check if he had any more information than I had. To my surprise, he called me on my mobile phone just a few minutes after receiving the email, but the only things he could tell me were that he knew as much as I did, and that he could only access my

file once the investigation was over."
Meanwhile, the months passed, but still no news.
"In the meantime, I decided to talk about the matter to a lawyer friend of mine, Mario Ianulardo, from Nocera Inferiore, who, among other things, is an expert in crimes relating to telecommunications. I signed him on to defend me in February 2018, and, then, for another six months, I didn't hear anything from him either. On the 1st of September 2018, I was notified by the Local Police of my municipality of a convocation for a hearing of the Chamber Council to be held on the 30th of October at the Court of Salerno. So I discovered two things: one that my case had been transferred to the Court of Salerno due to its territorial jurisdiction, and, two, that the plaintiff who had reported me to the prosecutor was Telecom Italia SpA."
What were you accused of?
"It all started with an episode of the broadcast 'Report'. A journalist at the editorial office had some issues with their ADSL line, and reported the fault to their operator, which wasn't Telecom Italia. Almost immediately, they began to receive calls from call centre operators offering a move to Telecom Italia to resolve the connectivity problems. Following the episode of 'Report', two investigations were launched, one by

AGCOM and one by the Guarantor for the Protection of Personal Data, while Telecom Italia SpA started to search for the bad apples. It has never been understood why a gentleman named Mario Rossi (clearly an invented name) had reported the AssoProvider landline phone number via email to an official of Telecom Italia".
How was that possible?
"It was impossible! The AssoProvider number was and is a VoIP number, never used to call anyone, and equipped with an answering machine that redirects the voice messages it collects, via email, to the AssoProvider inbox. That's more, this VoIP line was assigned to me in my capacity as administrative secretary of the association, a role I have carried out since 1999."
The Public Prosecutor then filed for dismissal.
"My lawyer picked up a copy of my file from court, and we found out two things. The first was that the Public Prosecutor had filed for my case to be dismissed, having found no evidence against me in the case filed by Telecom Italia. And the second, that the lawyers of Telecom Italia had presented an opposition to the dismissal, asking for an additional investigation and even a search of the AssoProvider registered office in order to identify the VoIP line."
What happened at the Court of Appeal?

"The Public Prosecutor reiterated their request for dismissal, and I presented a written memorandum to the Preliminary Investigation Judge (GIP) with which I demonstrated that the VoIP line was in my name, under the use of AssoProvider, and had never been used to carry out calls, but always and only to receive them. The Judge decided to allow another four months of investigations at the request of Telecom Italia, and requested that Telecom Italia disclose the origin of the notification of the AssoProvider telephone number. After a few weeks, Telecom Italia's law firm materialized an email sent by Mr. Mario Rossi to an official of Telecom Italia and to the Public Prosecutor. All that remained was to send the finance police to the TLC company in Rome in order to ascertain, printouts in hand, and once and for all, that, from the AssoProvider number, there had never been a phone call to any assigned number from the supposed Mario Rossi's TLC company".
The story thus came to a happy ending.
"On the 23rd of May 2019, the Judge dismissed the investigations against me, find insufficient evidence to continue the proceedings, despite yet another appeal by the law firm of Telecom Italia SpA, persistently requesting a search of the AssoProvider registered office in order to verify the presence of a VoIP line".
Giancarlo Donadio

Cloudya, the Cloud PBX solution for service providers in as many as 15 European countries

Take advantage of an extraordinary business opportunity to integrate professional cloud telephony services to all Microsoft Teams customers

What is Nvoice for Microsoft Teams?
The combination of two communications platforms in a single offer: Microsoft Teams and NFON's Cloudya.
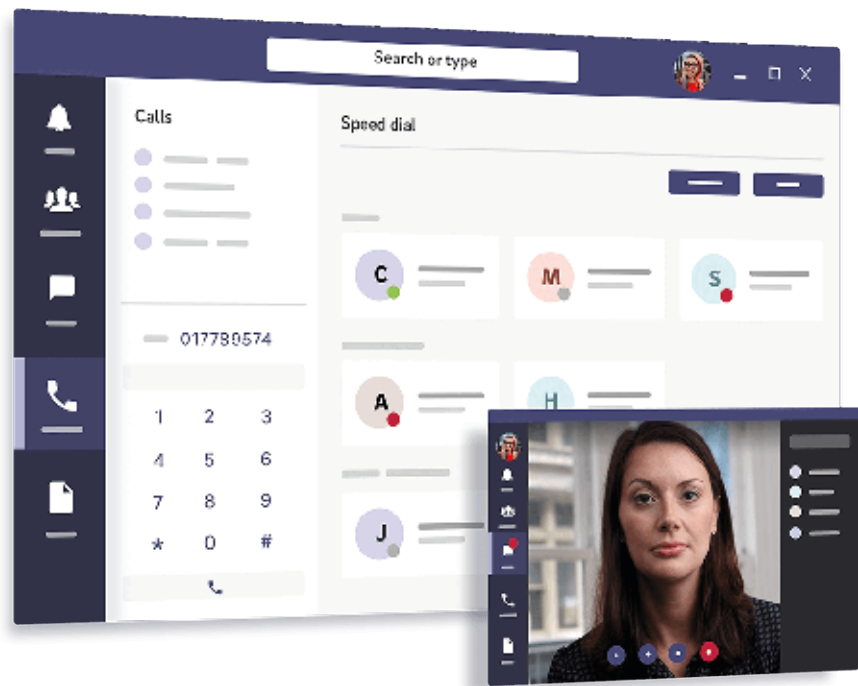
How does it work?
Nvoice for Microsoft Teams is a bolt-on service integrating NFON's **Cloudya telephone** services with a Voice over IP (VoIP) interface for the Microsoft Phone System. The latter uses Microsoft's Direct Routing to enable Microsoft Teams PSTN services.

This additional service is used as a telephone extension add-on, acting as a device for that same extension. This means that the Teams device can interact with NFON platform services via various interfaces, for a richer user experience.

Cloudya is NFON's always up-to-date cloud telephone system that includes all the functionality of a traditional switchboard (Voicemail, IVR, automatic call distribution, etc.) with all the advantages of a modern cloud telephone system, which can be integrated into IT systems and management software.

Technical requirements	Licensing requirements
Overview of prerequisites for an Office/Microsoft 365 Tenant ❯ The client must have a Microsoft Office 365 tenant and appropriate licences for the Microsoft Phone System. ❯ All technical requirements of Microsoft's current specifications and recommendations must be met. ❯ The installation of the Microsoft Teams Client on users' computers requires administrator permissions on the end users' PCs. ❯ Users using direct routing need the right Microsoft user licences.¬ ❯ To configure the FQDN SBC, you need to have Global Admin access for the Office/Microsoft 365 tenant. ❯ Thee Microsoft's Services Agreement must be accepted during the installation of the client.	The Nvoice product for Microsoft Teams can be used with any combination of the following plans: ❯ **Microsoft Licences:** Office 365 Enterprise Microsoft 365 Enterprise Office 365 Education Microsoft 365 Business ❯ **NFON licences:** Business Standard Business Premium Nhospitality ❯ Nvoice for MS Teams Bolt-On **NFON**, the only pan-European Cloud PBX provider, founded in 2007, in Munich, with over 400,000 users and 40,000 client companies in 15 countries.

AssoProvider and the territory
The launch of the Regional Offices project

"We want to be closer to telecommunications people and entrepreneurs, to understand their needs and come up with solutions", says Antonio Aprea, AssoProvider manager and coordinator for the regional sections, in just a few simple words emphasizing how the association of independent providers wants to increase its presence across Italy.

The creation of regional offices is aimed at strengthening the association's mission:
"Ever since it was founded, AssoProvider's goals have been to tackle the digital divide and facilitate the growth of business opportunities for independent operators. The best way to help local areas is to actually be present there, make your presence felt and give your support. From this need arises the idea of setting up regional offices, spaces open to telecommunications companies, but also to other companies in the technological sector, to develop new projects in the *digital* field and solve the problems of citizens in accessing the

"AssoProvider Campania is only the first site of a larger project that envisages the opening of spaces from the north right through to the south of the country"

internet and information."

How the regional offices operate
"The territorial offices of AssoProvider are peripheral structures, which, in agreement with the national management, will promote the association's initiatives at a local level, in order to increase their effectiveness and audience. We are working on the creation of a TLC information centre, where citizens, students, researchers and economic operators of the public administration can access correct information on the rules governing the use of collective assets for communication infrastructures, receive qualified assistance, and consult the SINFI databases that make up the infrastructure information system. Like any startup, the AssoProvider project started with a first experiment, the birth of its regional hub in Campania."

Where?
"In September last year, we launched our first regional headquarters in Torre del Greco, within the La Stecca incubator. We chose a *co-working* space in order to encourage cross-contamination and the sharing of knowledge. Covid-19 has slowed down the development of the project, but we are now organizing more events and training courses. At the site in Campania, AssoProvider has, at its disposal, various training rooms and many other services to facilitate access and engagement in proposed activities. So we aim to become an attractive pole for ISPs, not only in Campania, but also in neighbouring regions, who can easily reach us and learn more about our services."

Upcoming planned openings
"AssoProvider Campania is only the first site of a larger project that envisages the opening of spaces from the north right through to the south of the country. Since the beginning, we have seen great enthusiasm for the project from our members, who have informed us of various available spaces in their own municipalities. We will evaluate the proposals that have already arrived, and will arrive shortly, in order to understand which territories and initiatives are a priority for opening new offices". In summary, there are three goals that AssoProvider intends to achieve through local offices: :
1. Support for businesses
2. The dissemination of information and the promotion of new TLC technologies
3. Assistance and training
OpenTlc Editorial Staff

Marco Caldarazzo and his high-flying career

A record pioneer. Having cultivated a passion for IT from a very early age, Marco Caldarazzo has been able to build three companies that have been ahead of their time, such as Nocable SpA, which, in the early 2000s, became the first operator to be authorized to use shared frequencies. The very first company he founded was GNC, an acronym for Global Network Communication, an IT services company that participated in the startup of Wind and then joined its network. It was then the advent of Wi-Fi that led to a turning point in his entrepreneurial career. With the establishment of Nocable SpA, he rode the wave of opportunity of the then novel technology by introducing Wi-Fi to events in Milan. "They looked at me like I was a Martian", he recalls. These were intense years for Marco, who, with his company, collaborated with the Ugo Bordoni Foundation on the 2003 drafting of the Gasparri Law for the liberalization of Wi-Fi frequencies. Nocable brought great satisfactions, such as when the brand became a Moto GP World Championship sponsor for Aprilia, then led by the late Marco Simoncelli, or when it just missed out on being bought by a Dubai fund manager. Then the desire to do something else led him to leave Nocable and found Airlan, his third and current company. "We started experimenting with a video surveillance system", Caldarazzo says, "using Wimax technology. Then, from there, we moved on to offering connectivity in digital divided neighbourhoods in the municipality of Ercolano". Today, his company is bringing connectivity to private individuals in the municipality of Torre del Greco, right up to the edge of the Sorrentine Peninsula. "The Internet is still a right for us," concludes the entrepreneur, "though the Internet has changed a lot over the years. From an instrument of freedom, it has become an instrument of control". Info: **www.airlan.it**

LoRaWan is the future of independent providers
When he talks about LoRaWan, his eyes light up. "For independent operators, it is an extraordinary market opportunity", explains Marco Caldarazzo, head of the LoraWan project for AssoProvider. **LoRaWan** is an ideal wireless telecommunications network to support Internet of Things technologies. "We are talking about a market of over 25 billion sensors

for this technology," continues Caldarazzo, "which is open, consumes little, and has low implementation costs."
Industry, agriculture, home automation, logistics, there are many areas in which, thanks to technology, independent operators will be able to build services. And then there's all the smart-city spin-offs. Consider the usefulness of LoRaWan for public administrations, from the control of public lighting to smart electricity grids, advanced fire warning systems in wooded areas, and sensors to measure pollution in the atmosphere. "The technology represents an alternative, especially for many colleagues who are starting to feel the pressure of wireless operators attacking the market. The bottleneck, however, is still bureaucracy, as Italy hasn't yet implemented the decision of the European Commission on the harmonization of the radio spectrum for the Internet of Things in the 868-876 MHz and 915-921 MHz bands. It's only a matter of time," concludes Caldarazzo, "and we at AssoProvider are studying and experimenting with technology in order to be ready". *OpenTlc Editorial Staff*

Transforming passion into business
The experience of Stefano Gaffi

Jnos, Baycom, TstHost. What's this? You say. Yet, for those who, today, find themselves managing a company that deals with broadband connectivity via radio (WISP), these were the first experimentations and testing grounds to rise to the challenge of bringing internet to where it had hitherto seemed impossible.
For Stefano Gaffi, whose story is reported below, these programs for making radio connections between PCs were his laboratory. It all began in 1990, when a Swedish telecommunications company called Unisource installed a line from Stockholm to Milan. Shortly thereafter, the Bolognese DS-NET would be connected to this, and the internet node of City On Line S.r.l. would connect a 64Kbps line down to La Spezia.
Stefano, a very young partner, mounted an antenna on the La Spezia headquarters in the square of Piazzale Kennedy, installed a packet repeater node on a nearby mountain powered by solar cells, and, voilà, there was a connection to the internet via radio from his home 20 km away, at the crazy "speed" of 1200bps. The world was right there on his PC terminal. It was a sensation like being the first man on the moon, even if the first to connect, to be precise, were the technicians of the National Electronic Computing Center (CNUCE) in Pisa, which he himself had attended as an engineering student, years earlier.
From here to asking the question "Why not via radio?" was short enough of a step to anticipate and accelerate the time to realization. At the beginning of 2000, law decrees started appearing. That was year zero in Italy for connectivity via WISP. Even though many had anticipated the trend, because, in almost all of our companies, there was always a radio amateur with the skills to play with these technologies.
The first devices to be used were recovered from home or fetched from abroad and ran on modified software. Finally, we were off! And after proving that it was possible and it worked, here came the companies. Just one more piece was missing, authorizations. There were many doubts. "Here, they won't let us!" "I heard about a law firm, called Sarzana.", "Well, it's close to us (Sarzana was also a town 15 km from our company headquarters)", "No! His name's Sarzana, he's not from Sarzana. Call him!" It was a mission those first days, not a job. A game that just got out of hand and involved you! An estate agent in the area where the newly founded company had begun to operate had not been able to hold back his enthusiasm "Guys, you don't realize what you have done!" The feeling of working and doing something useful for your land, it was priceless!
Compared to those pioneering times, today, everything has changed, from those first amazed and devoted customers to now's ever more demanding customers, as is right. The magic has given way to professionalism.
Stefano Gaffi, Founding Partner of Wi-Fi Communication S.r.l.

Digital Divide: a new solution by TP-Link tailored designed for ISP

TP-Link presents Agile Solution: the router range with management software, designed to meet the needs of local Internet Service Providers.

In Italy, due to the conformation of the territory, there are still many areas not served by major providers and limited to ADSL lines. The 2018 AGCOM report shows that copper connections still represent 58% of the total.

With digitalization process accelerating and with the increase of demand of high-performance connection to ensure the continuity of any activity, local Providers are at the forefront of fighting the phenomenon of the Digital Divide and bringing broadband connection to areas not reached from the infrastructures of the major Providers. However, the costs of installation and technical support may be high, leading to a consequent increase in service costs for the customer.

To overcome these problems TP-Link has introduced **Agile Solution**, a range of Routers optimized for use by ISPs. The management software, launched last fall with the implementation of **Agile Config** features, is enriched with new features with **Agile ACS** and is available on an increasing number of models in the TP-Link range.

In fact, the company, global provider of reliable networking devices and accessories, in the last year has invested in strengthening the Business Unit dedicated to the development of products designed for Service Providers, with particular reference to the local ones.

"Agile Solution was created to provide a simple and competitive tool to the WISPs present on the Italian territory, whose contribution is fundamental in the fight against the Digital Divide - an action that we are also supporting through our association with Assoprovider. Today more than ever it is essential to bring a quality connection to the users in those areas of the Italian territory not provided by the major Service Providers. The Agile Solution Software is a tool that can represent a great added value for local providers, as it allows to reduce the configuration and management time of the installed routers, and gives the possibility to act remotely on the devices, for example to provide technical support, launch updates or perform network diagnostics, significantly reducing the costs of technical intervention. " - explains Diego Han, Country Manager of TP-Link Italy.

Many advantages also for the user
TP-Link Agile Solution allows the user to enjoy immediate and effective technical support. **Agile ACS** allows the Provider to remotely manage customers' routers, carrying out technical interventions such as firmware upgrades, performance tests, uploads or configuration changes and device reboots, thus optimizing the service and reducing management costs. The ability to monitor the status of the customer's network also makes it possible to minimize the troubleshooting time and reduce the time for support, thus increasing users' satisfaction level.

Features & Products
Agile Solution distinguish by a simple and intuitive management interface. In addition to offering a clear overview of the installed devices, it allows you to filter products according to specific criteria and perform massive actions remotely. For example, you can start a firmware update or apply a customized configuration to a specific group of products quickly and easily. The ability to batch install a static or dynamic pre-configuration, which can be recovered in the event of a reset, is also very useful.
Agile Solution is available on a selection of products from the TP-Link range.

The most popular models in the range are:

• **Archer VR1210v** VoIP Wi-Fi AC1200 Modem Router with supervectoring 35b profile

• **Archer VR1200v** VoIP Wi-Fi AC1200 Modem Router

• **TL-WR850N** Wi-Fi N300 Router

Tra le novità troviamo il modem router **VC420-G3v** e i router della gamma Archer come **Archer C6** e **Archer C20**.

The entire range is available on the website
https://service-provider.tp-link.com/it/

Contacts
To request the Agile Solution Software, you need to register on TP-Link Agile 4ISP portal (https://agile.tp-link. com/it/) where you can activate the licenses and download all the resources.

To become a TP-Link Partner, for technical advice or a personalized quotation, you can contact TP-Link Italia by email: **smb.support.it@tp-link.com.**

Founded in 1996, TP-Link is a global provider of reliable networking devices and accessories, involved in all aspects of everyday life. The company is consistently ranked by analyst firm IDC as the No. 1 provider of Wi-Fi devices*, supplying distribution to more than 170 countries and serving billions of people worldwide. With a proven heritage of stability, performance and value, TP-Link has curated a portfolio of products that meet the networking needs of all individuals. Now, as the connected lifestyle continues to evolve, the company is expanding today to exceed the demands of tomorrow.
According to latest published IDC Worldwide Quarterly WLAN Tracker Report, Q2 2018 Final Release

Digitalization process in Italy: TP-Link as partner for innovation

Efficient, reliable and secure solutions with Cloud management for Business Networks: all the details in the interview to Diego Han, country manager of TP-Link Italy

Covid-19 emergency highlighted some lack of infrastructure in Italy, resulted one of the most underdeveloped country among European nations in theme of digital innovation.
Among the 28 countries that make up the old continent, **Italy is in 24th place** in the DESI 2019 score, the indicator of the European Commission that measures the level of implementation of the Digital Agenda of all Member States. Furthermore, according to Istat 2018 data, **one in four Italian families does not have access to broadband at home.**
An essential contribution to bridging the gap with other countries and restarting with strenght comes from networking companies such as **TP-Link**, leader in providing wireless solutions.
In fact, in addition to offering a wide range of devices designed for home connectivity and perfect for Smart Working and distance learning, the company has been providing **professional wireless solutions** for years, offering all the necessary know-how and all-in-one products **to achieve the digital modernization of Italian companies quickly and at competitive costs.**
TP-Link Omada SDN: all the advantages of a unified network with Cloud management
Omada SDN is the professional solution by TP-Link capable of offering solid and reliable connectivity to structures of all types and sizes, with simple and advantageous management both in terms of time and management costs. The product range includes Wi-Fi 5 and Wi-Fi 6 **Access Points, Switches and Gateways**, which create a software defined network in which all devices are managed by a single centralized platform with **Cloud access**.

"With this solution, we aim to simplify network management and contribute to the creation of even more efficient wireless and networking infrastructures" - explains Diego Han, Country Manager of TP-Link Italy - *"The application scenarios are many: from classic installations in offices and companies to structures dedicated to hospitality - such as hotels, beach establishments and wellness centers where it is possible to take advantage of authentication via hotspots and of mesh technology - up to the Scholastic Institutes, which today more than ever are experiencing a moment of digital transformation. Finally, we also remember the Healthcare Structures, which are increasingly adopting digital tools such as digital medical records and services such as remote medical assistance. Because of this we have studied a complete and versatile solution, in order to meet the needs of System Integrators and respond effectively to the specific characteristics of the installation."*
Cloud management allows remote access to all the devices that make up the network, control of the entire infrastructure, to act in time if technical intervention is required and to view statistics relating to data traffic. Depending on the needs and characteristics of

the network, you can choose among 3 different kinds of Controller:
• **Hybrid-Cloud Software Controller >** management till 1.500 devices
• **Hybrid-Cloud Hardware Controller >** management till 500 devices
• **Cloud-based Controller Full-Cloud >** management of an unlimited number of devices *(coming soon)*

Many structures, both public and private, have chosen TP-Link as an innovation partner. On the company website it is possible to consult the success stories of projects carried out by TP-Link certified partners: https://www.tp-link.com/it/case-study/
"Training and pre-sales and post-sales support are an aspect we care a lot about. Our Partners can refer to our team both for support in the design phase and during the configuration of our professional products, which - I want to remember - enjoy a lifetime warranty. We have already started the courses dedicated to the new Omada SDN solution, with the introductory webinar held in July and available online within our Partner Program. We are now carrying on a rich training program and free certification courses dedicated to our partners, while from a commercial point of view incentives and demo kits have been run "- concludes Diego Han.

ADVANCED FEATURES FOR BUSINESS PROJECTS

1. UNIFIED CLOUD MANAGEMENT
Access Point, Switch and Gateway Management from a single interface with Cloud access, from any place and at any time.

2. COMPLETE NETWORK ANALYSIS
Network status real-time view, with immediate access to all crucial information. Control of network usage and traffic distribution, with key data tracking for better business results.

3. WI-FI IDEAL FOR HIGH DENSITY ENVIRONMENTS
Access Points equipped with enterprise chipsets, dedicated antennas, advanced RF functions, automatic channel selection and power regulation, for high capacity in high density environments.

4. VERSATILE SOLUTION FOR BUSINESS APPLICATIONS
Omada solution meets the needs of professional-level connectivity and allows the application of the most innovative network technologies such as Wi-Fi Mesh, the WPA3 security protocol, the possibility of creating Guest Networks with access via a customized Captive Portal and others advanced functions needed in different application scenarios.

SMARTWORKING AND WORK

Smartworking is progress that will change the organizational model of work

Working from home and Italian legislation on smartworking

The great Coronavirus pandemic has forced millions of Italians to work from home, bringing the term *'smartworking' enter into everyday language.* In reality, what most people have done is *homeworking*, because the former has characteristics well defined by legislation, first of all, by a contract that identifies methods and times. *In our country, however, the first agile working projects preceded entry into force of Law 81/2017.* Large companies, banking and insurance groups decided to start experimenting with it despite the legislative vacuum, referring, for its governance, to specific trade union agreements. In the absence of legislation on the subject, however, important aspects remained to be clarified at the

"Actual results are judged, not merely the time spent in the office. Technology is a facilitator for the adoption of smartworking, thanks to the dissemination of measurement software"

time, such as the monitoring of employees, and issues of health and safety in the event of an accident involving an "agile worker".

It was a cultural leap for management.
If, from the regulatory point of view, a gap hasbeen filled, what obstacles remain to the spread of *contractualized* smartworking? First of all, a strong investment in *"change management"* is needed. It's a cultural leap in all respects within the company organization, where managers and executives still find it difficult to accept this model, deeming physical proximity to workers strictly necessary. Instead, it should be a question of understanding how innovative, positive and empowering the model can be, based on more autonomous relationships, managed at a distance, and based on specific goals to be achieved. Actual results are judged, not merely the time spent in the

office. In this, technology is a facilitator for the adoption of smartworking, thanks to the dissemination of software for measuring *key* performance indicators.

Emotional leadership
Without a doubt, the aforementioned aspects need managers able to develop a certain emotional intelligence capable of communicating corporate culture and based on individual and responsible leadership. *Indeed, today, a leader is a person who knows how to emotionally lead a group towards individual and corporate goals.* Addition, this leader must have the ability to create other leaders, or responsible collaborators that will make coherent choices for the degree of supervision in that moment. In this sense, **Adriano Olivetti's** intuitions remain, to this day, exemplary of an enlightened managerial figure.

The role of technology
Another element that is emerging, and likely to cause a revolution analogous to one generated by the explosion of the internet twenty years ago, is the set of technologies including augmented reality, virtual spaces, artificial intelligence, IoT and r robotics. *So, what can we expect for the future, given that technology is a lever of smartworking?* We are likely to go beyond simple connections, for a remote work experience on another level from reality. Here, we're talking about being present in the office, though not in a physical sense.

In 2014, **Facebook** acquired the headset company Oculus and we are just now coming to see the reasons behind this operation by the most famous social network in projects such as *Spaces*, renamed **Facebook Horizon in 2019.** The new world of social media is now accessible thanks to headsets like Rift, combined with the creation of an avatar from your own profile. The application, in addition to allowing you to meet virtually with other users, allows you to view 360° videos, make 3D calls and browse documents Now, it would be a great shame if Mark Zuckerberg kept developing innovations just to sell more advertising space. But, as far as we are concerned, it is natural to

wonder how this technology could be exploited in the business world. Already airplane pilots and ship captains are being trained using VR technology, but there could also be benefits for our corporate and professional lives. Think of the advanced support we could give for manual work, with a headcam and Oculus enabling a remote assistant to guide another live operator at *distance*. We could *brainstorm* in a virtual meeting room while we are somewhere

else, or virtually visit the offices of a foreign branch with our avatar. If this were realizable in the future, how many trips would you save by not needing to transport employees from one location to another? Face-to-face collaboration would still be there, the only difference being that no travel would be needed to make it happen. In addition to saving travel expenses, there's also the *green* aspect of contributing to reductions in CO2 emissions. Faced with these scenarios, it is clear that public investment in digital infrastructures in all geographical areas is necessary in order to overcome the *digital divide* that is still causing great disparities in access to technologies that promise to define the economic and social future of companies, educational and training institutes and people.

SMARTWORKING AND TECHNOLOGY

The role of technology in smart working

Technology, one of the levers of smartworking

Are there corporate technological barriers to the *spread of smartworking*? There are no great difficulties when it comes to young people, as they quickly learn new tools, and more and more **digital natives are entering the job market**. Though traditional companies often buy advanced technological solutions and then provide them to employees without training, thus losing the opportunity to exploit their full potential. Therefore, technological barriers are often a consequence of cultural ones that prevent decision-makers from implementing *smartworking* for their workers. When the management is not technologically minded, it's a challenge to imagine how to make remote work effective.

"Currently, the most advanced tools for smartworking are cloud communication and collaboration platforms"

Tools for remote teamwork
The pandemic has forced many Italian companies to try out remote working as an experiment dictated by current *events. Some were relatively well-prepared, and just extended smartworking* to more employees. For others, it was a new experience and they needed to improvise, but were determined to make it work. The available technology supports *remote working*, but attention must be paid to the kind of tools used. Indeed, accessing company data from the outside requires adequate software. For example, the *free* version of Skype is not ideal. Among other things, it is one of the most commonly *hacked platforms, and, with reference to the EU General Data Protection Regulation,*

we cannot know exactly where the servers are located. Therefore, it is better to have solutions licensed to the purchasing company, with contracts that clearly stipulate data control and confidentiality terms, and even better if hosted by proprietary servers. Even **WhatsApp** *is not advisable, because data security cannot be guaranteed. Then, for video conferencing, there* has been a boom *in the use* of apps such **as Zoom and Hangouts, as** well as **Microsoft Teams** for collaborative chat.

Unified Communication and Collaboration Platforms

Currently, the most advanced tools for *smartworking* are cloud communication and collaboration platforms. Going well beyond that traditional imagery of entering a company and seeing a reception and then telephones in every

office, they make up a market with considerable growth prospects. *However, the digital divide has slowed down adoption of the cloud in Italy*, precisely at the moment when, following in the footsteps of the internet revolution, it *is* today's most important technological leap forward. Thus we come to talk about so-called *Unified Communication and Collaboration* (UCC) software, which, in a single dashboard, *can replace all the tools* we use on a daily basis, such as **Skype** for instant messaging, **Zoom** for video conferencing, Google Calendar, other messaging apps, the telephone, and so on. Therefore improvements in the network would allow this service to respond to the need for more effective corporate communications. *In a market that depends on speed, the process is optimized by unifying two infrastructures, that of the telecommunications network and that of technology in general*. Here the problem of the *digital divide* is an obstacle to aligning business processes and better fluidity of communications, since email should now be considered as obsolete as sending a registered letter at the post office.

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*Francesco Sani is a freelance journalist and has a Master's degree in Sociology. *He is a member of the editorial board of the magazine* Firenze Urban Lifestyle, *and Managing Editor for Smart Working, the official organ of Smart Working Day.*

by Francesco Sani and Samuel Lo Gioco

SMARTWORKING AND MOBILITY

Urban living, new talents and digital infrastructures: the social and economic impact of smartworking

Advantages for mobility and rethinking the utility of city centres and outskirts

We live in cities designed for cars, and use them to make the majority of our urban trips. Yet, within six kilometres, it has been shown that it is not the most convenient means of transport. Over the years, major urban centres have focused decision-making on the optimization of spaces and personnel, in line with an urban concept that has been with us since the last century, which has seen the concentration of services in city centres, and of production industries in outlying areas. Satellite cities have then developed with thousands of daily commuters. Recent investments in public mobility have partially alleviated the problem, but it is **only smartworking that can help significantly reduce traffic pollution**. Already a few years ago, Ricardo Semler, the enlightened CEO of the Brazilian multinational SEMCO, decided to revolutionize his company by allowing workers to decide on a way of working not necessarily linked to physical presence on premises, asking the questions, *"Why we have built these large offices, for you or for our own ego? Why spend hours and hours* *of your time getting here? Why commit Human Resources to run after our employees? We've got 5,000 …"*.

The reorganization of workspaces
In this paradigm shift, the workstation becomes flexible, and no longer assigned to a single individual but often shared. *The workplace is no longer identifiable with "my desk"*, and the layout of the new offices must be designed to allow you to move easily from one space to another, depending on the activity you need to perform. This so-called *"Activity based working"* has led, in Italy, to a rethinking of the management of real estate assets, in order to optimize necessary square metres, and, at the same time, create more open and attractive places for talented workers. With the generational change bringing Millennials and Generation Z into the world of work, interesting scenarios are now emerging for companies.

Generational change: our new Millennial and Generation Z colleagues Numerically speaking, in the near future, those born between 1985 and 2000 will make up at least one third of the employed. This will not only create a more heterogeneous environment by age, which is natural, but it will also empower talents who can handle technology in a way that was unthinkable for all previous generations. Knowing how to exploit cutting-edge technology, apps and social networks on a daily basis also in the professional field will not be without repercussions. Probably we will speak more of "integration" and "contamination" between our private and work lives in relation to today's so-called "work-life balance". It's not only for the new generations, however. *Smartworking* is already, for everyone, an incredible tool for reconciling family and work, and digital infrastructures are becoming indispensable for those wanting to work "anywhere". Indeed, talents no longer need to be physically present on site. A quick connection can allow them to operate effectively while continuing to live on an island or in a town in the mountains.

From the private to the public sector, how applicable is smartworking in Italy?

Current data on the spread of smartworking in Italy and Europe

Eurostat released data on the spread of *smartworking* in the European Union in February, just a month before the *lockdown began*. The lockdown forced as many as 8 million Italians to work from home, but up to that moment employees in agile work contracts in our country had been only 3.6% of the total. This is far from the 14% in the Netherlands and 13% in Finland, but also from the average in the 27 member states, at approximately 6%. According to estimates by the Polytechnic University of Milan's Observatory, workers who **"enjoy flexibility and autonomy in the choice of work times and places"**, thanks to digital tools, were as few as 570,000 in 2019. However, this is 20% more than in 2018, so the trend is good, but the numbers are still small for such an advanced economy like ours. Coming out of the lockdown, there were as many

"The spread of smartworking in Italy has marked a cultural transition in which we have understood that the responsibility of employees beyond hierarchies can be put to good use"

as 554,754 more. Italian National Institute of Statistics (ISTAT) data tell us that, to date, there are 23.4 million workers in Italy, of which 18.1 million employees and 5.3 million self-employed. Out of the total number of workers, by statistical analysis, those who have jobs where *smartworking* could be used are estimated to be around 8.3 million, a good target for improving Italy's numbers in Europe!

Cultural problems hindering its application
The involuntary experimentation of remote working, as a result of Covid-19, even though unplanned for, led to some interesting discoveries for us. The first is that even without the *over-the-shoulder daily supervision of bosses, organizations have continued to exist and operate*. The second is that where managers *have not created a relationship* of collaboration and trust, they have risked completely going off the radar of their employees, leaving them feeling neglected and uninformed. These findings seem to suggest that subordination is not a necessary ingredient, but rather a choice maintained for the sake of tradition. So, in the work of the future, how can organizations remain focused if people are working in an ever increasingly "fluid" manner? *Organizations are now called on to become containers of opportunities for the growth, relationships and development of people*. Only those capable of giving a professional and personal sense to their collaborations with employees will be able to guarantee lasting relationships.

Advantages for the Public Administration
The spread of *smartworking* in Italy has marked a cultural

transition in which we have understood that the responsibility of employees beyond hierarchies can be put to good use. The question is, therefore, whether agile work is an answer to the long-standing ambition of simplifying and speeding up the bureaucratic machine. However, since the introduction of the so-called Madia Law, the target of having a minimum of 10% of public administration staff *smartworking has still not been achieved*. **Transitioning from working from orders to project work needs a lot of effort in the sector to focus more on content and less on procedures**. Not a small cultural change, considering that management is still largely formed by old-fashioned jurists. Moreover, with hiring blocked for many years, the figure of the bureaucrat has not been revived, preventing young people from becoming part of the state machine, and bringing with them new cultural baggage and a greater familiarity with digital tools. Reorganizing work around goals and projects is, therefore, a major change in the way managers think about work, not only in the private sector, but particularly in the public sector. This also needs to go hand in hand with investments in new technologies that allow the digitization of services that guarantee the efficiency of remote personnel. During the *lockdown*, the main issue that emerged was the scarceness of IT tools

and know-how. For the public sector, concerning equipment in particular, a common problem was not having the same equipment available at home as in the office, in addition to not having adequate domestic spaces. Regarding connectivity, on the other hand, employees did not always have adequate access to guarantee rapid transfers of data and processes, causing a more or less effective document production according to network circumstances, and, therefore, evidencing the problem of the *digital divide*. So, summarizing, the main issues that remain are: autonomy, responsibility and digital training.

Considering all of the above, the P.A. cannot miss this opportunity, as there are many implications. Of these, two are essential. **The first is the implementation of processes in a telematic** form, which can be activated remotely, without the need to present documents and go personally into the office. **The second is work** -life balance, and, therefore, the releasing of work from time constraints that simply do not guarantee the demanded efficiency. That is to say that, even in public administrations, individual employees can have goals that do not need a predetermined number of hours in the office in order to be achieved, but rather a quality of work that also makes time for the other things in life. In this way, it's certain that bureaucracy would improve.

SMARTWORKING & TERRITORY

Networking and territorial imbalances: An opportunity for rural areas?

One of the most significant transformations of our daily lives induced by the pandemic has been the reorganization of many work activities via networking. Companies and public administrations forced to close their offices have continued to operate from our homes interconnected by digital platforms. It has been a great opportunity to think about expanding the use of the network production model. This debate then incidentally intersected with another topical issue, the growing demographic imbalance between metropolitan and rural areas. Between 1950 and 2007, the percentage of the world's population living in urban areas rose from 33% to 50%, and is predicted to reach just under 70% in 2030. Our country has *seen* a trend similar to the global one, suggesting worrying future scenarios, particularly for the rural areas of southern Italy, already characterized by a centuries-old demographic haemorrhage. Well, when the Covid emergency revealed that a significant portion of the work that drives our production systems can be conducted through mere virtual interactions, it was only natural to ask whether the supervening inessentiality of the physical proxim-

ity of the workforce was not depriving the city-based model of spatial organization of its reason for being. Why live in congested, noisy, polluted places, if we can choose to live in pleasant, peaceful and healthy rural villages, and reach our "place" of work by simply clicking on the icon of *Teams* or *Meet*? Perhaps the time has come forcommunities "scattered" in space, rather than crowded together in dystopian anthills?
In fact, itis not an original hypothesis. Twenty years ago, when ICTs were already showing their potential for transforming the productive system, there was no shortage of thosewho imagined that the spread of networking would make the urban model obsolete. However, subsequent developments had disproved such projections. The reason why, despite improvements in technologies capable of "fragmenting" productive organizations and scattering them in space, populations continue to centralize is unclear, but it is probable that the phenomenon has a lot to do with the forces unleashed by the opening of national markets to global competition.
Although large-scale trade gave a great im-

petus to the urban phenomenon, as long as it represented a small share of world production, cities maintained a very close relationship with the neighbouring countryside, on which they depended for the supply of primary goods. But the progressive liberalization of trade has, crucially, connected the well-being of the populations of each country to the ability to successfully compete with other national production systems, and the competitive pressure has induced governments to invest heavily in communications infrastructures to shorten the distance with global markets. The recent expansion of cities is, therefore, likely to be linked to the increasing centrality of their role as the strategic hubs of the networks through which goods travel.
The relationship between the city and the province has been profoundly altered. Metropolises increasingly connected with other metropolises rather than with neighbouring territories have, in the long run, discovered the convenience of stocking up on primary goods from very distant locations, thus breaking the historical bond with those neighbouring territories. At that point, the

role of the outlying areas in the eyes of the ruling classes quickly changed. Reducing them to locations for polluting production and waste storage and dismantling the provision of public services was a natural conditioned reaction to this new international division of labour. And the more this subordination to the interests of the cities was accentuated, the more rural areas became prey to decay, favouring the propensity of more inhabitants to move out.
Therefore, the repercussions on the territorial structure of productive reorganization made possible by networking are not at all straightforward. As long as the network is bound to a development model based on the intensification of international trade, the powerful forces that tend to strengthen the connections between metropolises will continue to exclude rural areas from development. It is therefore useless to expect rural areas to be saved by digital technologies without thinking about how to break the historical reliance on globalization.
Prof. Salvatore D'Acunto - Univ. Vanvitelli, Dr. Natasha Quadrano

CIO CLUB ITALY

From tomorrow, lockdown for everyone!

With this phrase, many CIOs and members of **CIO CLUB ITALY** have had to face the situation, common to everyone, of looking for tools and sometimes innovative solutions to guarantee business continuity and allow everyone to smartwork in their own companies.
As president and founder of **CIO CLUB ITALY**, I have very vivid memories of this period and of how, by collaborating with each other, we were able to face this new way of working, which has long been normal for many IT sector managers but has strongly impacted the daily activities of other colleagues. The collaboration, or rather sharing of information, was facilitated by belonging to the **CIO CLUB** and overcoming of "professional jealousies" in favour of inclusion and exchange.
In this short article, we will share the experiences of some of our members with OpenTLC readers.

"Personally, I considered this terrible period a good test bed for collaboration tools, as it forced colleagues less accustomed to innovation to use them, and was favoured by the launch, a few months prior, of Microsoft Teams. For all other needs, such as VPNs, Virtual Switchboards and web-based management software, it was an opportunity to make better use of the investments already made."
Carlo Iuliano of Easytech Closure SpA

"Our infrastructure is organized to provide multicloud and on-premises IT. Colleagues who requested smartworking had access to several services, such as HR, email and intranet, directly via their browsers. However, it was and it still is an extraordinary situation, which we weren't ready for. Therefore, where necessary, for those who didn't have a work laptop, we allowed the use of home PCs connected via VPN to the company network. At the same time, to guarantee information security and data protection, we disseminated various good practices for the use of corporate assets while smartworking. Through the dashboards of our IT security system, we monitored the use of VPNs, malware at-

tacks and the release of security updates on third-party OS' and applications. We periodically conduct short meetings with the IT team to discuss the performance of the service, highlight critical issues and seek solutions. Transparent and effective communications with colleagues and the team, regardless of the technology adopted, is the best approach to protect security and reduce the risk of IT incidents."
Giuliano Liguori of CTP Napoli

"The information system of ASIA Napoli is based on an on-premise infrastructure and public cloud. Since we provide public utility services relating to environmental hygiene, during the COVID-19 emergency, we implemented a plan to guarantee the continuity of services 24 hours a day. Smartworking was active for management roles, but, in this emergency situation, it was also extended to all colleagues requesting it. Their laptops and PCs, after verifying the security requirements, were enabled so that all company roles could work remotely.
The company is spread out over 30 offices in the Municipality of Naples, and, for this reason, in order to prevent the spread of the virus, work meetings are held centrally at the offices of the General Management, with the use of Hangouts Meet, Skype and Webex.
To cope with the epidemiological crisis, a project for the conversion of presence detection tools was launched, in order to transform a biometric hand contact recognition system into a new detection system equipped with a remote sensor."

Edoardo De Crescenzo, ASIA Napoli
"ARPAC has strongly accelerated towards smartworking, in order to promote agile working methods in all cases where the nature of the services provided by the agency makes it plausible and possible.
Our IT department, despite limited resources, reacted immediately and effectively to the emergency in terms of design, management and implementation. In just 10 days, the remote access platform of all main IT systems was designed and made

operational.
Today, almost 80% of our employees are in a position to take advantage of smartworking, thus limiting the office presence to a minimum number of resources useful for the coordination of activities (management) or the continuity of services that cannot be provided remotely.
Cloud and Bring Your Own Device *(BYOD)* policies proved to be the most efficient way to make most staff operational in a short time, and avoid new hardware investments. Factors facilitating the process included:
• Previous teleworking projects, even if carried out with minimal percentages of the personnel (from 3 to 10%);
• Smartworking experiments previously placed on standby;
• The acceleration of a digital transformation policy aimed at productivity benefits and a better quality of work-life balance.
The services were designed to keep usual working practices as unaltered as possible, thus reducing the resistance to change via a change management approach.
The infrastructure consists of a hybrid cloud, with part of the servers on-premises and hosted at the ARPAC data centre, and others in the Microsoft Azure cloud, with Active Directory orchestrating, or coordinating, all the activities.
Bruno Citarella, Arpac Campania

The day began with leaving the house mask in tow. Looking at myself in the mirror of the lift, I felt like a character from one of those post apocalyptic video games in which just moving around is already dangerous in itself. The commute to work, usually 20 minutes, was reduced to around 7 minutes, due to the lack of traffic. Almost always a CIO of the CIO CLUB board, Pasquale De Martino, CIO of Marald SpA, accompanied me for what I called my "virtual morning coffee". At the headquarters there were only three of us, as the other seventy colleagues had now been smart working for six weeks. My presence was motivated by potential IT infrastructure needs, such as on premises servers, and there was also a colleague from the sales office and the manager for the newly

created "CosiComodo" project.
Working in an office was sometimes alienating, but with video calls and the heavier workload, the time fly by.
To make life easier for our customers during the lockdown, we activated three new online sales channels, facilitating purchases, or "shopping", on multiple platforms.
The daily impact of COVID-19, working and going out normally every day, might have seemed almost irrelevant. However, the pandemic led to the loss of a dear friend and colleague, Pino Grimaldi, the head of the Marketing and Strategic Design office, who defined the format of the Sole365 chain. He was 72, and was one of the most outstanding people I have ever met in my life.
Pasquale Testa, CIO of Sole365, Founder and President of CIO CLUB ITALY

CIO Club Italy is an association of IT professionals eager to share knowledge and experiences, for work or for passion. It brings together the initiatives of over 400 Chief Information Officers (CIOs) and IT Managers across all the Italian regions.
The CIO Club promotes digital innovation as a fundamental lever for the growth of companies.
In order to improve the already highly qualified professional profile of members, the community is constantly looking for new solutions and application methodologies.
The Linkedin page, with over 1100 subscribers, is, in fact, the largest community of national IT Managers. During the lockdown, the CIO Club organized over 30 online events.
For more information visit the official website: www.cioclubitalia.it

ONGOING PROJECTS

The ITS Foundation for Sustainable Mobility
Interview with Matteo Fici

Matteo Fici, a physicist from Palermo, has been one of the pillars of AssoProvider since its establishment, and is the current treasurer and head of the association's production diversification programs. He has always been convinced of the indissoluble role of ICT mobility, and was the promoter, in 2017, of the InfoMobPMO project, clarifying the role of the foundation in the field of sustainable mobility.

What does the project consist of?
"It's an ITS foundation for the creation of courses and the promotion of research in the field of sustainable mobility."

"What is an ITS?"
"An ITS is a Post Diploma Technical Specialization Course, administered according to the participation foundation organizational model, in collaboration with companies, universities and local authorities involved in the schools and training system".

Did you have any interest and participa-

"Thanks to ITS, AssoProvider enters the Italian sustainable mobility field through the front door".

tion from entities other than AssoProvider in carrying out the project?
"Certainly. An important **Technical Industrial Institute in Palermo,** ARCES, a well-known Sicilian higher education institute, the University of Palermo, the Metropolitan City of Palermo, the Municipality of Terrasini, and eleven partner companies have joined **our foundation.** The companies **involved in the project** represent the entire transport chain. They offer the opportunity to develop innovation processes and professional careers based on higher technical skills."

What are the aims of the foundation's partners?
"All the partners have the ambition of transforming urban and extra-urban mobility into *smart mobility*, that is convenient travel by innovative and sustainable public transport, using vehicles with a high ecological impact. Furthermore, it will be necessary to work on regulating access to historic centres in favour of greater livability and the adoption of advanced infomo-

bility solutions to manage the movement of people and goods in the territory of the **Metropolitan City of Palermo** , which incorporates 82 Municipalities, and as many as 1.2 million inhabitants. It is an opportunity of primary importance in the Italian training and innovation landscape, as the expression of a new strategy that combines education, training and work with Industry 4.0 policies.

The overall aim is to contribute to improving the transport chain and to strengthening the integration of multimodal transport to and from Sicily through specialist training in the *Smart & Sustainable Mobility sector.*

The ITS, therefore, aims to create professionals who can find their place in varied contexts, with ample attention given to ICT technologies that can enable all *kinds of innovative mobility* management. AssoProvider can, therefore, develop best practices in Sicily that can then be immediately exported throughout the national territory."

How is all this financed?
"The initial activity of the ITS, which has now completed the complicated process of obtaining of legal personality and training accreditation, has been financed via Notice 14/2017 of the Sicilian Region, with a European Social Fund contribution, for the selection of training **courses for the achievement of a higher technical diploma, at European Qualifications Framework** (EQF) Level 5, from Higher Technical Institutes with excellence in technological specialization. Thanks to ITS, AssoProvider enters the Italian sustainable mobility field through the front door".

AssoProvider on the road to Sustainable Mobility

"AssoProvider is not only connectivity. This is the message we are committed to getting across. It is precisely the sector of modern and sustainable mobility, which makes use of cutting-edge ICT technologies to constantly innovate", continues Fici. "Consider the navigators now integrated in all mobile phones, which use GPS

chips together with road maps."
The example of ICT technologies applied to integrated mobile phone navigators is part of the present. For the future, work is already being done on the development of technologies capable of benefiting not only the individual, but the entire community and the environment.
"The future", explains Fici, "is self-driving vehicles, but not only. There are many less publicized applications being developed in the sustainable mobility sector, and confirming the global need to live and move in the name of sustainability."

The term sustainable **mobility** indicates

modes of travel that can reduce the environmental, social and economic impact generated by private vehicles. Modes, therefore, capable of reducing not only air and noise pollution, but also road congestion, accidents, the deterioration of urban areas, land use and travel costs. All factors that greatly affect the psychophysical well-being of human beings.
The EU is working with all Member States to develop sustainable mobility policies, with the goal of improving the quality of life especially in cities by promoting active mobility solutions, such as walking and cycling, supported by use of apps that make information on sustainable mobility easily accessible to all citizens.
"These technologies," concludes Fici, "if properly developed, take on a key role in progress towards sustainable mobility, manifesting themselves as driving forces in the field of sustainability education, since education forms the basis of every cultural renewal."
Giulia Fici and Giusi Carioto

ONGOING PROJECTS

Legacoop and AssoProvider relaunch local development connectivity projects

Community cooperatives are an instrument through which citizens can become protagonists of the change happening in their own territory, of sustainable and participatory local development. These experiences are multiplying throughout Italy, but it is in rural, mountain areas that they are expressing their full potential. In disadvantaged places, at risk of depopulation, where public administrations withdraw and the market doesn't reach, citizens are often left alone to react to the decline that is happening in challenging and often beautiful territories. In such contexts, some have decided to unite, to take action to relaunch their territory, to give their community an opportunity and a future.
Local shops are reopened, shared services are invented, such as mobility, postal services and the delivery of groceries, medicines and newspapers, and the community is opened up to tourists. Sustainability projects are launched, involving the recovery of indigenous crops, energy communities and the circular economy, all managed and implemented by citizens associated in a cooperative form, combining democratic participation with entrepreneurial efficiency. The choice is that of an entrepreneurial tool that does not extract value from the territory, but rather generates it, with and for the benefit of the community itself. The part-

nering of Legacoop and AssoProvider stems from the work that both do in rural areas. We have taken up the idea and models of the historic energy cooperatives, in which citizens are both owners and users of the infrastructure, and applied it to the digital network. A third of the Italian territory has not yet been reached by fast connection networks, excluding millions of people from accessing information and both public and private digital services. Many are precluded from smartworking or welfare tools, even the simple entertainment of streaming platforms. There are plans for the digitalization of the country, but it's taking a long time, too long, and many of the town will be already depopulated and abandoned.
An article in Il Sole24ore, dated 23/9/2015, and entitled "How much is the digital GDP generated by broadband worth?", goes, *"A study by the World Bank suggested developing broadband supply and demand together. It's an idea that Italy has made its own only very recently, with the ultra-broadband government plan. The World Bank cites a study by McKinsey, according to which a 10% increase in broadband penetration among households would produce an increase in a nation's GDP of between 0.1 and 1.4%. Booz & Company found that a 10% increase in broadband penetration would lead to a 1.5% growth in work productivity over the follow-*

ing five years.
Considering that Italian broadband penetration is among the lowest ranked in Europe, therefore far from the values of Western Europe, perhaps this estimate could actually be considered valid for us."
For years, complaints about the need to invest in connectivity, from us, but also from many local authorities and municipal associations, have highlighted the excessive slowness that has split Italy into two, between urban and rural areas, and sanctioned the abandonment of small towns.

"We have taken up the idea and models of the historic energy cooperatives, in which citizens are both owners and users of the infrastructure"

During the lockdown, the massive use of *smartworking* and teleworking, in addition to distance learning, video calls and TV marathons, exacerbated a problem that for many was only marginal, and which has now exploded into everyone's homes, because we have all realized the importance of fast connections, without which none of the aforementioned activities would have been

possible. In rural areas, millions of people were excluded from work, entertainment and training activities, demonstrating that the problem is very much of today. The mainstream story of recent months tells us to go back to more human rhythms, to leave cities behind not only for the holidays, but to move and repopulate the small municipalities of marginal areas, leveraging the opportunities offered by *smartworking*. It's too bad that hardly anyone has highlighted the impossibility of this idea, because the absence of fast connections heavily impacts the possibility of moving work activities to such places. Even inventing new services becomes impossible without access to the latest tools.
OpenTlc Editorial Staff

Legacoop and AssoProvider relaunch local development connectivity projects: Digital infrastructures are essential for creating job opportunities, education, welfare and innovative services that make places attractive again, offering concrete opportunities for re-population and revitalization, making our cities more sustainable and mending territorial and economic divides.

ASSOPROVIDER FOR LEGALITY

Eunomia Short Film Fundraising

Collegamento Campano Contro Le Camorre, or "Connection Campano Against the Camorre (Criminal Organizations)", has its headquarters at Villa Fernandes, an asset confiscated from the Camorra in Portici (NA), and has local offices in Casal di Principe, San Cipriano d'Aversa, Casagiove, Vitulazio and Benevento. We are committed to volunteering on five fronts: *1) for a community free from mafias, corruption and bad politics; 2) responsible citizenship training; 3) tackling complex issues of poverty; 4) peace, non-violence, mediation, a multicultural society and the conviviality of differences; 5) prisoner outreach*. These five axes are accompanied by two beacons: *1) care and quality of human relations; 2) sowing seeds for the social economy*. In this sense, we are committed to the promotion of a participatory *model shared with* people affected by criminal violence, with the poor, and with the various facets of local communities. It is a commitment developed in a network with institutions, schools, universities, churches, associations and volunteers.

Of course, we welcome the socially disadvantaged, and there are many bills we pay for electricity, gas, water, telephone. However, we also support *sharing*, *reporting*, *planning* demanding justice and the affirmation of fundamental rights. This context gave rise to the idea for the short film **Eunomia**, *A Revolution of Hope*. The story is about Alberto, a young entrepreneur who was the victim of attempted extortion and corruption, who found, thanks to the help of Renato, a coordinator of an association committed to fighting illegality, the courage to denounce the facts. The goal is to raise awareness of the culture of legality, of the pursuit of justice and of the values of civil coexistence. But not all the work comes without cost. There's travel, equipment rental, accommodation and meals to be paid for. With the help of AssoProvider and OpenTLC, I am here asking for fundraising to help realize the project. We're hoping to reach a figure of € 20,000.

Will you give us a hand? You can send your contribution by bank transfer to "*Collegamento Campano contro le camorre per la legalità e la nonviolenza G.Francios*i", **IBAN IT77N0514240090C-C1271124340,**indicating the motivation:
"*Cortometraggio" (Short Film)*.
Thank you!
Leandro Limoccia
President of Collegamento Contro Le Camorre and the provincial coordination committee of Libera Napoli

ASSOPROVIDER AND THE TERRITORIES

Municipal Honorary Members of AssoProvider

Stimulating dialogue with public administrations is in the nature of our association.
Dialogue at all levels, engaging national, regional and local institutions. The monitoring of general digitalization and that of our users is, objectively, the product.
For several years, in addition to our work interests, we have been committed to being vehicles of knowledge in order to break down the cognitive digital divide, a pre-condition for the cancellation of the structural one.

Our agreement with Legacoop, signed in February 2018, has enriched AssoProvider's mission by adding into the mix technology transfer to community cooperatives for the creation of proprietary fiber optic networks.

The project has, therefore equipped itself with an additional tool for combating the economic, housing and social desertification of those remote and peripheral areas of Italian provinces.

The latest AssoProvider initiative is to welcome Italian municipalities as honorary members, in order to share technical, regulatory and legislative knowledge with them, especially those with fewer resources, and assist them in becoming "digital-ready".
It has only been a few months since the Municipality of Torrioni (AV) became a laboratory of this initiative, but we have not limited ourselves to providing technical and legislative support. Delving into the specific needs of the municipality, we have realized that we can go further, and, with the TEDTRIP project spoken about in a

dedicated column of the first issue of OpenTLC, expand the collaboration also in terms of experiential tourism.
Mayor Dr. Anna Oliviero, interviewed by OpenTLC, highlighted how this collaboration with the association allows a small community to benefit from freely provided professional skills that the limited municipal budget would not otherwise allow. The intervention, which began a few months ago, and is currently in progress, focuses on solving several critical issues, such as the digital literacy of municipal employees, and recommendations for alternative open source and free tools for better use of basic information technology, and has extended to more complex problems.

In this context, the Vice President of AssoProvider and the Project Manager, Dr. G.B. Frontera invited the local technical offices to carry out a census of reusable underground resources for the laying of optical fiber and the assignation of conduits for "primary urbanization".
Finally, the intervention extended to other issues such as an assessment of how to organize cooperatives of citizens to create their own fiber networks via a cooperative TLC model, and, last but not least, as already mentioned, implementing the TEDTRIP experiential tourism project.
OpenTlc Editorial Staff

CONTINUED FROM THE OTHER PAGES

History of a Liberalization: Open Wi-Fi!

of AssoProvider, Matteo Fici (today treasurer), manifested itself in a noteworthy expedient. Under the pretext of wishing the Communications Minister, Mario Landolfi, well in his new job, on 27 April 2005, Fici wrote to the minister, and used the opportunity to reiterate a theme dear to AssoProvider. Following is an extract from the letter addressed to the minister:
"*Two years after the issuing of the regulation on the use of Wi-Fi for indoor hotspot applications (28 May 2003), the turning point has not yet been reached: the possibility of an outdoor application was, in fact, expressly prohibited in the Legislative Decree The consequent delay, in Italy, in approving a new regulation for wireless, for the last mile that exceeds the limits imposed by the aforementioned LD, and is finally consistent with the rest of Europe, remains a fact now two years from the authorization of the experimentation that immediately gave positive results, and on which rousing experiences were structured, according to*

the AGCOM Communications Authority". A decisive factor in the successful conclusion of this "battle" for the liberalization of Wi-Fi is to be attributed, moreover, to the widespread presence over the territory of AssoProvider companies. AssoProvider members are present throughout Italy, including Mondragone, the city that gave birth to Minister Landolfi, and to the entrepreneur Nino Morrone, who accompanied Fici to meet the minister. Probably a greater attention to AssoProvider's motivations also resulted from this meeting. Once again, teamwork and determination constitute the trump card of the Internet Provider Association. It is perhaps legitimate to ask: what if the minister had been from another city? Would the story have had another ending? No, AssoProvider would have had some other member from or from near to that other city.
Giusi Carioto

tedtrip

de-seasoning the offer, and, on the other, of creating opportunities for tourism development in lesser known places.
Operating in the tourism activity sector has also proved to be an excellent choice from an economic point of view. The global market for tourism activities accounts for as much as 10% of the entire tourism sector, equating to 168 billion Euros, and a market in Italy alone of approximately 1 billion Euros. Italian Experiential Tourism operators still cannot respond exhaustively to the needs of tourists, as the sales of their experiences continue to tend to be limited to the main online travel agents (OTAs), travel agencies and tradi-

tional tour operators. Therefore, the maximum value of the content of experiences that could be obtained with the use of specific techniques such as Storytelling and Visual Storytelling has, thus far, not been fully expressed. And this is where the experience of the TEDTRIP team comes in.
Giusi Carioto

DIGITAL MARKETING

E-commerce for the digital relaunch of small and medium-sized enterprises

Coronavirus has evoked an economic tragedy for Italian companies, especially those micro, small and medium-sized enterprises that have had to deal with new ways of doing **business and maintaining commercial relationships**. However, the health pandemic **has also shed new** light on online sales opportunities and the implementation of innovation and **digitalization for businesses**. It is becoming more and more convenient to sell online, and, for many users, the cultural barrier of online shopping has definitively evaporated. E-commerce **has become a popular** concept, especially during and after the lockdown, with shops closed and the need to keep businesses alive. Creating an *e-commerce is a* simple process. In just a few days, you can create a website with a set of products. If necessary, the range of products on sale and the target or reference market can be easily expanded. In 2020, only 12% of Italian companies were using e-commerce, of which 79% were in the consumer sector. Therefore, there is a lot of potential in not only in B2C but also in B2B online sales. 76% of *e-commerce* users have made purchases via *mobile* phone over the last year in Italy, compared with a European average of 64%. After the Coronavirus pandemic, developments in consumer habits will have changed completely, and customers will be more used to new types of services and relationships with companies. For e-commerce operators, this *is -the time* to not get left behind. Some companies have already adapted their business model to cope with the emergency. And these Italian companies will be able to count on a new wealth of experience to be exploited when the full reopening begins. The *retail* and logistics sectors are on the eve of a revolution, where the digital world will once again play a predominant role.

In many cases, online consumers prefer to buy directly than go through intermediaries. This is possible through the integration of e-commerce with the company's operations, with the potential of becoming more competitive. Indeed, the B2B e-commerce channel can intercept a larger number of companies and customers, and open up the possibility of foreign trade. By managing everything online, a B2B e-commerce system can also lead to a reduction in management times and costs. E-commerce is quickly gaining ground among experts in new media and social networks, given their increasingly frequent use of marketing tools, facilitating, among other things, enhanced interactions between companies, users and loyal customers. However, many small and, indeed, large public bodies have remained behind with the times, and, in the midst of the health emergency, several authoritative institutional websites became inaccessible for days due to the increased numbers of users. And not just public bodies. The **e-commerce** food sector was ill-prepared for the boom in trade between March and April. There were many cases of e-commerce sites becoming extremely slow or even inaccessible. For several days, some websites, such as *Carrefour*, became impractical to use every time users tried to add a product to their cart, while other sites had so much demand that they had to spread deliveries over various weeks. Therefore, it is essential to compose a road-map for the positioning your business, and understand how to direct it towards sectors favoured by the crisis today and over the coming months. For example, if, yesterday, your **business was catering**, today, you might **need to look** into the **delivery** of ready meals and the integration of your business processes with apps. **All these elements have a common root: the need for an internet network and broadband throughout the territory, especially in peripheral areas that are also producers of excellent food and agricultural products.** Such massive and rapid innovation needs support services and skills. The overabundance of stimuli and offers from the market, however, does not simplify the lives of entrepreneurs, who have make a quick decision and the right decision, at a time when every Euro invested counts much more than in the past. The role of associations, business networks and internationalization and digital export experts in guiding businesses is, therefore, extremely important in these unprecedented and uncertain times. In order to rethink your company structure and production organization, with technological processes, the business 4.0 approach, blockchain technology and finance, business management and organizational innovation, there's a world of ideas that you can apply to your business.

Domenico Letizia - Journalist and geo-economic analyst

ASSOPROVIDER
Associazione Provider Indipendenti

AssoProvider is an independent association of internet service providers (ISPs), dealing not only in connectivity but also the development of projects that create added value, such as web services, telephony, cybersecurity, SEO, and so on. Established in July 1999, **AssoProvider** aims to counterbalance the logic of power and market dominance of large operators. Indeed, to date, it is the most representative association in numerical and geographical terms of Italian internet service providers. The dominance of large operators has led to a financial and, in some cases, legislative imbalance that has penalized small and medium ISPs that have been installing FTTH and building Wi-Fi networks, often in geographical areas ignored by the market. With over 230 current members specialized in internet services and connectivity, **AssoProvider** aims to encourage the development of "internet inside" projects that help to bridge the technological gap separating Italy from other more advanced nations, transforming members into protagonists in breaking down the structural and cognitive Digital Divide. Always at the forefront of events large and small, AssoProvider has successfully defended and continues to defend sector rights by supporting legal action and claims in relation to the Communications Authority, the Council of State, the Competition and Market Authority (AGCM), and the Authority for Communications Guarantees (AGCOM), and obtaining acknowledgement of such claims, and, often, conviction of the counterpart Member companies are distributed throughout the country, and, collectively, have over 900,000 customers.

Having demonstrated over twenty years of commitment to political and social issues, such as "Privacy" and "The Internet and Minors", the association was the sole promoter of the liberalization of Wi-Fi and the abolition of administrative rights in Italy. AssoProvider is also involved in promoting economic activities in the sector by proposing common projects and other tools for its members. For such purpose, the company TGlobal Srl was created, which is 20% owned by the association and 80% owned by 36 individual ISPs. **AssoProvider** has participated in the development of the European e-content project named **"GEORAMA"**, promoting tourism in mountain resorts with the use of third generation connectivity services, and in the **Octopus** project for the roll-out of 5G in rural areas, as well as continuously promoting a range of similar initiatives involving local communities and small municipalities. The association's statute, and other information, are available on the official website: www.assoprovider.it. In addition to all the information on the association's activities, the website features an online membership request form.

2002	2004	2005	2007	2013	2014	2016	2018	2019	2020
Approvazione Legge n.59	Blocco del "Decreto Urbani"	AGCOM A351 del 2005 WiFi Outdoor	Autenticazione indiretta degli utenti WiFi	Cancellazione del Patentino Installatori	Apertura mercato TLC	SPID	APRO 18 Dal WiFi al 5G BlockChain e GDPR	APRO19 AP-CAMPANIA BlockChain Comune di Napoli	OPENTLC RIVISTA DI ASSOPROVIDER