

# Engineering for the transformation of society,

## *Telecommunications and ICT, key elements post-Covid19.*

"We can't go back to normality because normality was the problem." (\*)  
(\*) Anonymous

### **DECLARATION**

Engineering is the creative application of scientific principles to design or develop, build or operate, with full knowledge, structures, machines, apparatus, procedures, products, services and work, using them individually or in combination, to make the environment more comfortable and improve the well-being of society, while respecting the environment, the operating economy and the safety of users and the environment.

Without an engineering with human values and widespread we won't advance towards the universal wellbeing. We must already go through to the XXI century; we must start a new society.

COVID-19 is the test effort of our society. We do not yet have efficient treatments against the SARS-CoV-2 virus that causes COVID-19.

Without effective antivirals and without vaccines, for now, we can only rely on palliative treatments to help our immune system. Treatments that allow us to gain time while our researchers work on new drugs and vaccines. Preventive guidelines for hygiene, social distancing and lockdown are, for now, the only and classic actions that can help protect us from infection.

The socio-economic shutdown that this lockdown entails has put us in front of a harsh reality that is already having consequences. Thus, we can already find out that a few weeks of lockdown are causing an economic disaster like a war and a cession of freedoms typical of totalitarian regimes.

But, although there is a certain sense of social failure, we must not forget that we have some production and service infrastructures that are working quite well: the health system, the distribution of water and energy, telecommunications networks, food production and distribution (the primary sector), as well as logistics networks, among others, have shown that they know how to operate in these situations of stress and uncertainty.

At the individual level, this pandemic has relocated us to a natural reality that we had forgotten: nature is quite indomitable and the actions of each of us have an impact on society as a whole.

COVID-19 has also shown us that, to a certain extent, that using telecommunication networks and telematic applications, learning can be done outside the classroom, work meetings can be made through screens, business transactions can be done using networks and, in short, you can interact digitally and you can telework. All this leads us to reconsider our way of live, the focus of our future and, ultimately, the political and economic reorganization of our society.

This exceptional situation of need has accelerated the adoption of a series of practices and technological knowledge that have come to stay, but it has also highlighted a whole series of risks that we must know how to identify, assess and minimize looking forward, in areas such as transaction security, privacy and freedom, through the use of algorithms, big data and artificial intelligence.

Exceptional situations require exceptional solutions

### **WE PROPOSE TO THE SOCIETY**

1. To act with a long-term vision for the good of the whole humanity and for peace, with respect for human rights, the diversity of cultures, and the natural environment.
2. Fight for equal opportunities and gender equality everywhere.
3. Promote a mature, responsible and diverse society, a more educated society. Do what we can to increase collective knowledge, we will never be able to know everything, but we can always know more, and it is learning how sustained growth can be achieved.
4. Promote the specific actions needed to address the great challenges facing humanity: climate change, pandemics, and equitable distribution of resources and economic benefits.
5. Always act and manage with transparency, efficiency, respect and responsibility in the professional, business, social and environmental fields. Consider collaboration between people, companies and institutions as an enabler of the common good.
6. Share good practices and emulate the actions of those who best fit the principles and goals expressed here. Fiercely combat corruption and dishonest practices.
7. To promote Philosophy, Culture, Humanism and Knowledge based on Science and Technology as key elements in facing current and future challenges.
8. The recognition of the importance of enterprises and collective associations and entities in the functioning of society, the creation of jobs and social welfare.
9. To balance globalization with localization, collaborating and competing according to the principles expressed.
10. Not to collaborate with institutions, groups and States involved into programs, projects or actions that seriously attack the common good, sustainability and peace.

### **WE ASK TO PUBLIC AND PRIVATE INSTITUTIONS**

1. To recognize that society is not prepared to overcome the great challenges facing humanity, that social structures, goals, budgets, indicators and mindsets are not adequate.
2. To promote a new economy based on sustainability, proximity and equity, in development rather than growth, and to ensure the participation of all in economic and social benefits.
3. To undertake that the Green Deal against Climate Change and Digitization must be the basic strategies for the economic reconstruction of the Post-Covid 19 new society.
4. To redefine economic and social structures, integrating the radical change that occurs in the role of work, with the explosion of non-contact work and the diversification of new labour relations, and promote the necessary personal skills.
5. To promote public and private institutions and organizations adjusted to the needs of society, based on transparency and efficiency in the management of resources, reducing political interference at all levels of the administration, with a system of selection and promotion of staff by capability, knowledge, experience and merits, and decision-making based on scientific and technical advice and criteria, not only economic or class interest.
6. To redefine work as an element of inclusion and social promotion, in addition to implementing a universal basic income as the base line of minimum subsistence without generating social or territorial exclusions and give a cooperative social purpose to the aid for the unemployed.
7. To promote two key sectors: health and education, which are the basis of quality, efficiency, productivity, and social equity, increasing levels of investment and efficiency based on adequate organization and good management.
8. To promote and participate in a healthcare and public health strategy at European level, with common planning of hospital systems, the implementation of a common market for medicines as well as medical and health instruments, and a coordinated, common policy of research, study, control and management of pandemics.

9. To promote that universities, academies, think tanks and research centres (public and private) are open and efficient, and put the critical spirit and the culture of service to the society before other interests, and where international merits are the basis for its assessment.
10. To promote truthful, transparent and neutral media.
11. To increase public investment in R&D, innovation, universities, and knowledge centres, and encourage private investment in these areas.
12. To significantly reduce budgets related to the purchase of weapons and increase budgets that drive innovation or collaboration for universal peace or well-being.
13. To innovate in urban and interurban mobility systems, and improve the efficiency of public transport by enhancing individual transport systems, redesigning public spaces, transport lines and motor vehicles.
14. To redefine housing policy, both in the affordability of households and in their design, with flexible and open spaces.
15. To design the city as a space for cultural and economic exchange, and evolve towards the concept of an open city, enabling opportunities for citizens to develop a creative project of life.

#### **WE REQUIRE TO CATALAN/SPANISH PUBLIC INSTITUTIONS**

1. Rationalize the tax system, with equitable taxes, without distinction of people, local or multinational companies, or institutions.
2. Legislative simplification and to adapt the legality to the reality of the current society, based on clear criteria and demanding accountability to civil servants, enterprises and citizens, in a way that an excess of regulation does not lead to being it systematically breached.
3. Intensification of e-government, adapting the structures of representation and management to the current technological reality, and facilitating citizens' participation in decision-making (consultations).
4. Innovate in the administrative public function and focus e-government towards service to society through civil service responsibility and not towards control. More transparency and a posteriori accountability is needed than the current excessive a priori control.
5. Demand accountability of public managers linked to the social results and the efficacy of their decisions and actions and the efficiency in the management of resources and not the formalism in contracting goods and services.

#### **THE CATALAN TELECOMMUNICATION ENGINEERING ASSOCIATION AND ITS ASSOCIATED MEMBERS COMMIT THEMSELVES TO:**

1. Promote Science and Engineering for peace, cultural diversity, equal rights, solidarity, and the well-being for all, within the framework of Human Rights.
2. Apply Science and Engineering based on their human, ethical, scientific and technical values, for a just and sustainable world.
3. Encourage the leadership of professionals for the common good, reflection and critical analysis, with transparency and social responsibility.
4. Promote Open innovation and collaborative projects between the different actors in society.
5. Promote equality of opportunity and gender. To stimulate the STEAM vocations - Science, Technology, Engineering, Art & Mathematics.
6. Participate in debates and actions on policies for the relaunch of the Post-COVID 19 Society in the national, state, and European context, with the aim of moving towards a sustainable economy, which faces the challenge of reversing the climate change and to build new economic and social structures and systems, including a more robust public health system, using knowledge and digital transformation as levers.

7. Analyse the policies, proposals, or actions of social, economic, or political institutions that have a significant local or global impact on the relaunch of the Post-COVID 19 Society.
8. Alert the society about policies or actions that put at risk the relaunch of a Post-COVID 19 Society more sustainable, more just and socially responsible.
9. Propose policies, actions and projects that facilitate the transition to the Post-COVID 19 Society, as well as giving public support and dissemination, when necessary, to best practices and significant projects.
10. Not to collaborate with institutions, groups and States involved into programs, projects or actions that seriously attack the common good, sustainability and peace.

**Catalan Association of Telecommunications Engineering**  
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**World Telecommunications Day**