

GENEVA 2050



**GENEVA 2050:
HOW DO YOU
WANT THE
FUTURE
TO LOOK?**

**SUMMARY REPORT
FOR THE 2019 SURVEY
SEPTEMBER 2020**

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Preface by the Council of State

How do the people of Geneva see their canton and region developing in the future? What are their hopes, expectations and concerns?

In 2019, the Geneva Council of State set out to find out by running a broad forecasting consultation with the population, the Canton administration and schools, as well as several groups of experts in different areas.

The times we are living in are indeed defined by major changes. These circumstances invite us to set our sights not only on current concerns, but also towards the challenges and solutions of tomorrow.

In the meantime, the COVID-19 pandemic has hit our country and knocked society sideways. The topics covered in the "Geneva 2050" consultation have become even more relevant and urgent in light of the crisis, with regards to health, inter-generational relationships, new ways of working and training, and even economic and environmental factors.

More than five thousand people gave their opinion on a wide variety of topics at workshops and in a public survey conducted in 2019. They fully embraced the forecasting process and were able to look ahead, sending the Council of State clear messages about their perceptions and aspirations.

The consultation also highlighted the population's commitment to a more sustainable Geneva: a Geneva better prepared for the challenges of tomorrow and a Geneva that is even more united and welcoming. The government, on the other hand, was invited to offer more public services and citizen consultations online.

In this sense, the "Geneva 2050" consultation is as much a promise as it is a result. The government is encouraged to break away from certainties and instead involve the main players and beneficiaries of the policies of tomorrow in their design. The canton's civil society and academic and business players are also invited to use the results of the consultation to enrich and widen the debate.

Now more than ever before, it is essential to engage in dialogue and bring about innovative solutions. Geneva will therefore have to become more resilient in the face of uncertainty and the risks that go with it.



Introduction to the process

Geneva 2050 is a forecasting process principally based on a public consultation whose goal is to devise possible or desirable scenarios for Geneva's future. The method uses forecasting tools and aims to include the idea of resilience in the canton's trajectory for the coming decades.

Forecasting is a discipline which looks at the evolution of society to make predictions. In Switzerland, forecasting initiatives have been carried out, in particular, by the Federal Chancellery and the Canton of Vaud. In the State of Geneva, a monitoring and forecasting introductory programme was put in place in 2015, which trained around fifty executives over two and a half years. In the speech inaugurating the 2018-2023 term of office, held at St. Peter's cathedral, the implementation of a forecasting process was announced, aimed at defining the Geneva citizens want to see in 2050.

The first part of the process consisted of determining the trends and questions that would then enable the various scenarios for the future to be devised. These elements were identified through 50 semi-structured individual interviews with state officials and representatives from businesses and not-for-profit organisations, and was concluded with a literature

review which provided food for thought. These findings made it possible to come up with four different potential scenarios for the future, drawing on the work of the University of Hawaii, a centre of excellence in forecasting.

The four scenarios were presented at a workshop aimed at determining what a desirable future looks like. Unlike the scenarios, this vision is specific to the Canton of Geneva and gives public action a central role. Bringing together representatives from the government, businesses and not-for-profit organisations, the workshop was completed by the results of a survey conducted on students and apprentices, which evaluated the plausibility and desirability of 50 claims about Geneva in 2050.

By the end of this first phase, four ambitions and twelve goals were defined and later validated by the Council of State in its first report dated June 2018.

Set up to ensure an interdisciplinary approach and deliver recommendations to government, the foundation of the "Geneva 2050" Forecasting Commission, marked the beginning of the second part of the process: the public consultation. This new phase was defined by the following stages:

1. 15 thematic workshops were scheduled from 22 March to 17 April 2019, bringing together specialists and the general public.
2. From 22 May to 28 July 2019, the consultation took the form of an anonymous questionnaire, accessible online and on paper, in French and English. In addition to multiple choice questions, the questionnaire included space to write comments which was largely used by the 4,911 respondents.
3. To complete the process, 50 classes, i.e. nearly 1,000 students mainly educated under the Department of Public Education (DIP), responded to an adapted version of the questionnaire in October 2019 (two classes from private schools also wanted to participate).

This approach was also part of the "one month, one right" programme, set up by the DIP for the 30th anniversary of the Convention on the Rights of the Child. With October dedicated to citizen participation, the Geneva 2050 questionnaire was adapted to submit to students aged 10 to 20. Each teacher introduced the topics to their students before asking them to

vote on the three topics they deemed most important. The classes were chosen such as to represent a sample of the Geneva school system.

The following pages give a summary of the responses to the questionnaire as well as the students' responses. Brief references to the workshops are made when considered necessary. The summary casts a general light on the population's expectations for the future of the canton. This deliverable is subject to change later down the line.

This document is intended for the general public, partners and members of the administration. Details relating to the analysis of the survey and the content of the process are available as digital appendices on the 2050.ge.ch website.

2015

2015
brainstorming began;
monitoring and forecasting
introductory programme

2018

June 2018
– the Council of State adopted
the first GENEVA 2050 report
– the St. Peter's speech inaugurating the 2018-2023
term included the consultation
– forecasting commission set up

2019

March – April 2019
workshops

June – July 2019
online survey

2020

October 2019
student consultation during
participation month

November 2020
Council of State publish
second report

What do Genevans dream about for their region? What are their hopes, expectations and concerns?

The Geneva Council of State decided to find out by running a large-scale forecasting consultation with the local population at the start of the 2018-23 term. The people involved commented on a wide variety of topics concerning living and working in Geneva in an online questionnaire, accessible from 22 May to 28 July 2019. A basic form about their wishes for the future was accompanied by an additional form on current conditions in Geneva.

To promote the consultation, a large-scale local communications campaign was organised in more than 30 places (universities, Geneva University Hospitals [HUG], markets, sports and cultural centres, etc.). The information was also shared by Geneva Municipalities (hard copies available at offices) and by the Canton's partners (SIG, FER, CCIG, CERN, etc.).

Almost 5,000 (4,911) people completed the basic questionnaire on the future, half of which were completed in 24 minutes or less. Just over 1,200 (1,235) people, or around 25% of respondents, filled in the additional questionnaire on the current situation. This second questionnaire took an additional 15 minutes.

The questionnaire was also available in English (3% of responses). Depending on whether they lived or worked in Geneva, most respondents were from the more densely populated urban centres, but there were also respondents from all Municipalities in the Canton, the neighbouring districts in the Canton of Vaud, the departments of Ain and Haute-Savoie in France, as well as the Cantons of Fribourg, Neuchâtel and Valais. 90% lived in the Canton of Geneva, and 94% of people in paid employment work in the canton.

It should be noted that the distribution of respondents among the Municipalities of the Canton of Geneva is very close to that of the population, according to official data from the Canton's statistics office (OCSTAT).

Promoting the Geneva 2050 consultation

Some categories were more represented than others in the consultation:

- Over 70s featured less than younger respondents.
- The response rate was higher among graduates and lower for people who had completed compulsory education.
- Staff at public organisations were over-represented compared to the private sector.

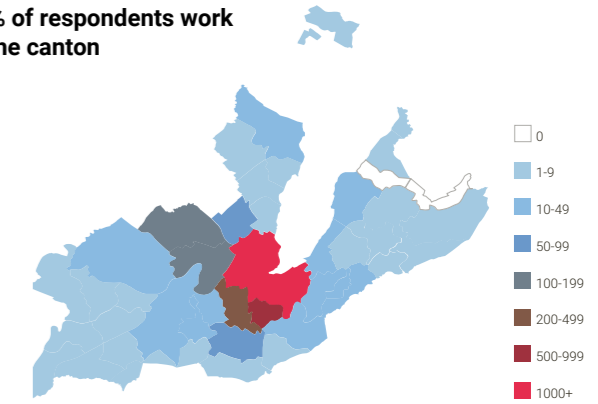
An additional analysis of respondent profiles conducted by the polling institute confirmed that the over-representation of public sector employees does not distort the survey results.

Given that participation in the consultation was voluntary, the people who took part are not representative of the entire Geneva population. For this reason, in our analysis, we have systematically measured differences in sex, age, education, professional activity, etc.

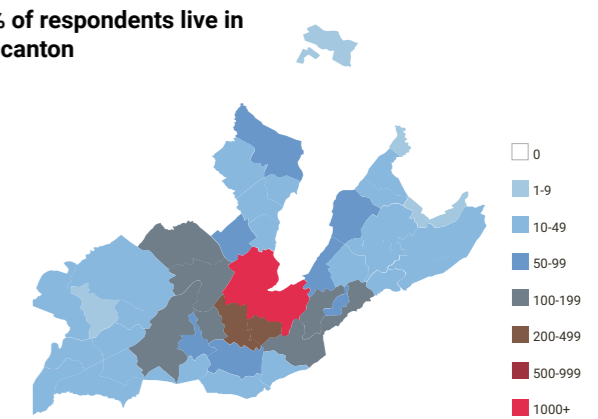
The enthusiasm of the survey participants was also evidenced by the 15,000 comments and suggestions that were made. We will give an overview of these comments later in this report.

When asked about their sense of identity, respondents defined themselves first and foremost as Swiss, Genevan and citizens of their municipality. Although present, the European ideas of "Greater Geneva", and other national identities were less represented. All in all, the population in the Geneva region relates to traditional political communities.

94% of respondents work in the canton



90% of respondents live in the canton



Promoting the Geneva 2050 consultation



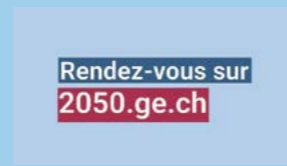
GENEVA 2050: Michèle Righetti



GENEVA 2050: Thierry Apothéloz



GENEVA 2050: Serge Dal Busco



GENEVA 2050 online survey



GENEVA 2050: Nathalie Fontanet



GENEVA 2050: Antonio Hodgers

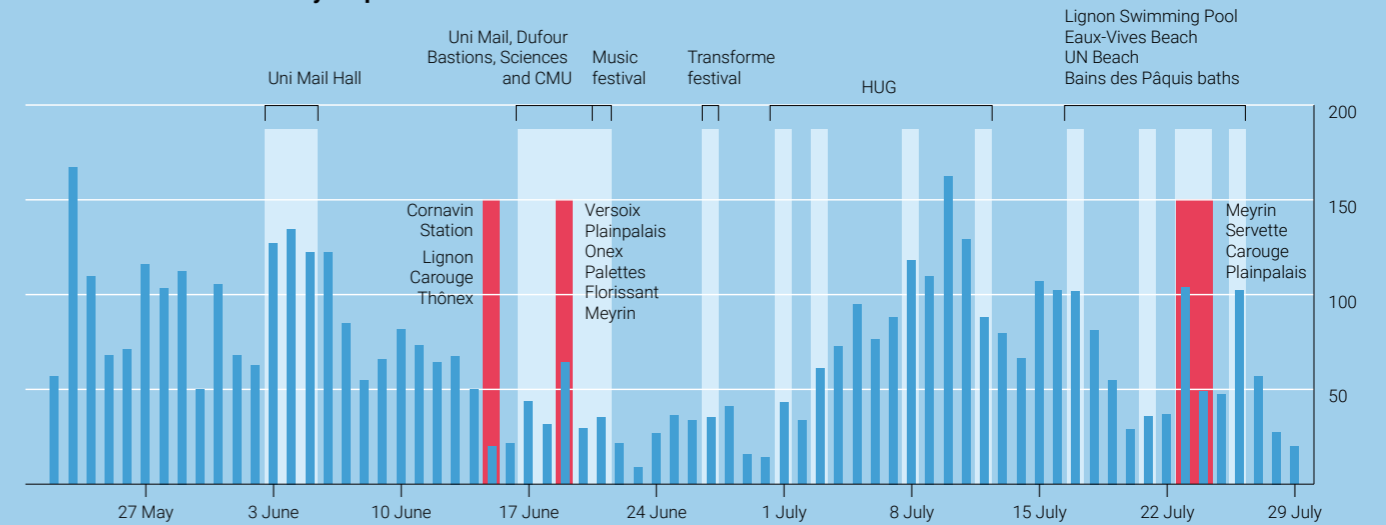


GENEVA 2050: Anne Emery-Torracinta



Workshops and discussions from 22 March to 17 April 2019

Public information and daily response rate





CONSULTATION ANALYSIS: KEY TOPICS



Only a minority are unhappy. Surprising, right?

The majority of people who participated in the online consultation (85%) are satisfied with life in Geneva. All populations brought up 4 areas of improvement: air and water quality (69% and 57%), green spaces (61%), architecture and town planning (58%), and stress and noise levels (55% and 57%). In addition, the many comments paint the picture of a veritable city of the future.

Defining the needs of each and every person

Air quality is the primary concern for everyone who completed the questionnaire. The other criteria vary significantly, however, according to age and education level. As such, concern for architecture and town planning increases with education level, while green spaces and leisure opportunities are more important for young people and those with less education. The importance of culture, leisure and sport decreases with age, whereas sensitivity to noise increases.

Integrating nature into the city

The comments in this first chapter paint a portrait of the ideal city. In its current form, the city's planning is perceived to be dull and the opposite of what an international metropolis like Geneva should be, namely colourful, ambitious and festive. Conversely, concrete, densification and encroachment of the countryside are undesirable. Many comments describe a greener city, one which integrates environmentalism into developments: building eco-friendly neighbourhoods and permaculture spaces, and planting vegetation on buildings, roofs and streets in terraces, flower planters and urban vegetable plots. To limit high temperatures in urban areas, trees should be prioritised to create green havens. One of the primary school classes in the "orientation cycle" (ages 8-12 years) came up with the idea of a seed library to raise awareness of environmental issues among the population. Others are calling for more housing to be built to cope with the shortage.

The perceived poor air quality is mainly attributed to road traffic, which should be reduced by promoting soft mobility. Various solutions are put forward, such as the introduction of city tolls, fines for polluting vehicles, a ban on some vehicles during pollution peaks and even free public transport. Some people are also concerned about water quality due to the impact of plastic waste and pesticides such as glyphosate.

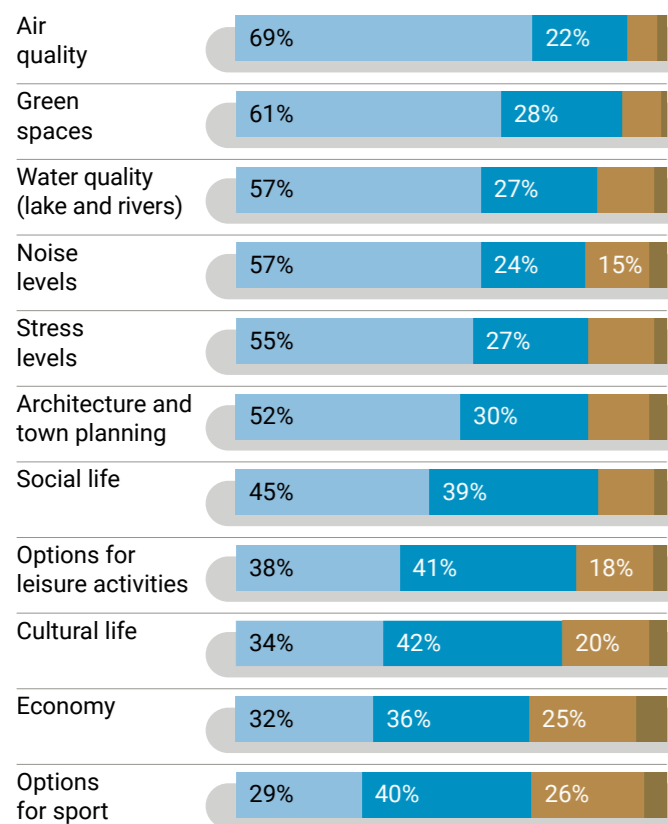
Including all of society

The economy should aim for qualitative growth based on social, environmental and local factors. Social life should be improved by creating spaces where people from all generations and backgrounds can meet, for example, Swiss people and expatriates. The balance between family and working life should be supported by introducing parental leave and increasing childcare spaces. Quality education is important to fight all forms of discrimination (such as racism, sexism,

LGBTIQ+ based hatred and disabilities). Finally, sport and culture should remain one of the strengths of Geneva's quality of life today: respondents to the consultation want the city's culture to be financially accessible to all and to offer alternative programmes which might interest all sections of the population.

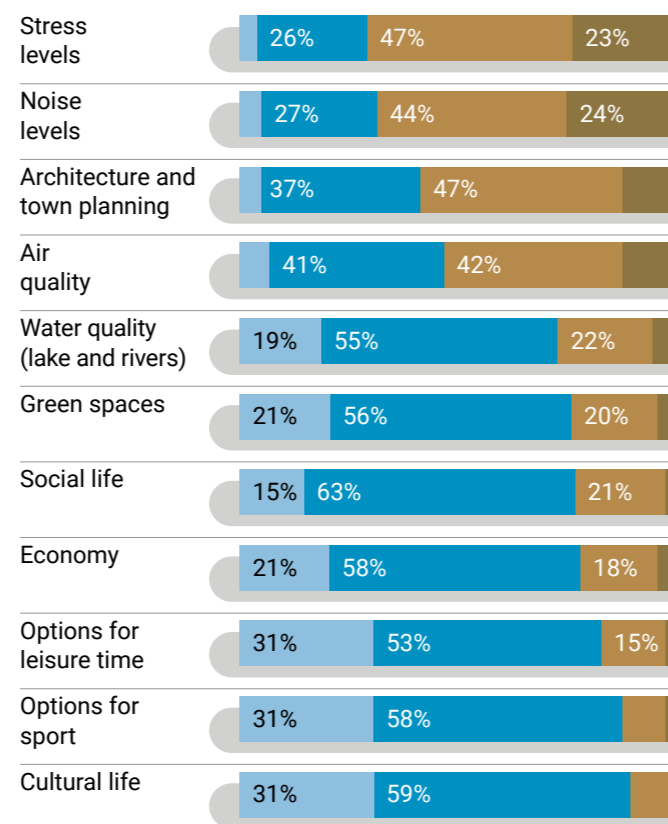
"Air quality is the primary concern"

In the future, should Geneva improve the following areas to create a better quality of life?



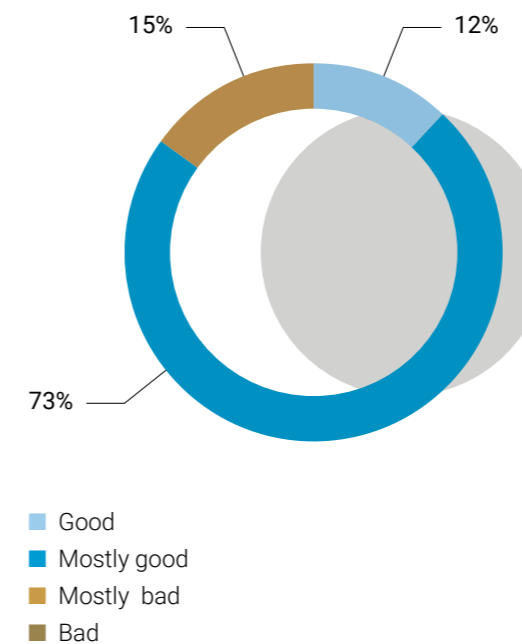
■ Yes ■ Mostly yes ■ Mostly no ■ No

What do you think of life in Geneva?



■ Good ■ Mostly good ■ Mostly bad ■ Bad

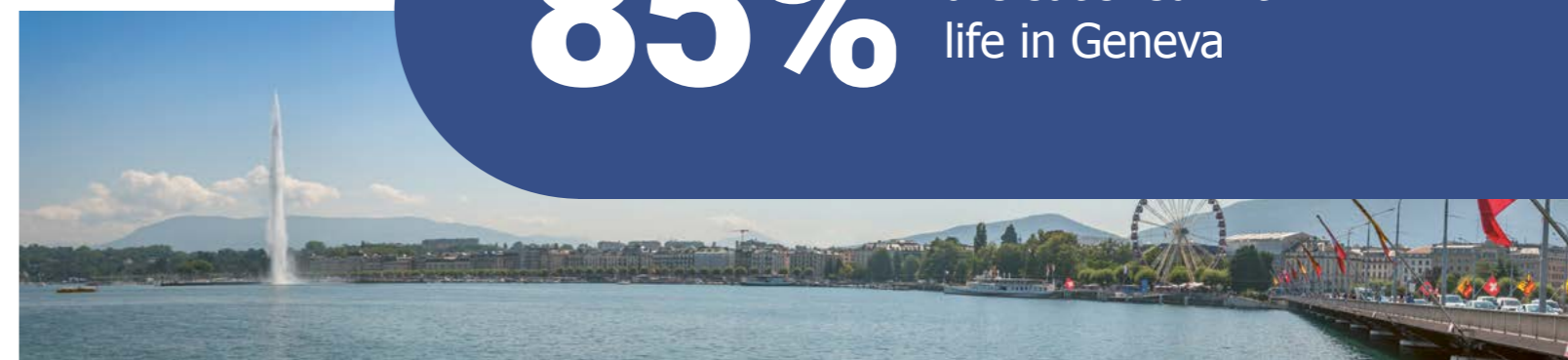
What do you think of life in Geneva?



■ Good ■ Mostly good ■ Mostly bad ■ Bad

What lessons can be learned from the Covid-19 crisis? Issues relating to food, short supply chains and promoting local products have great potential for change at regional level (+20% local consumption during the crisis).

85% are satisfied with life in Geneva



It's a figure that makes an impression: 75% of consultation participants are willing to do more to fight climate change. Some individual actions mentioned are consumption habits like moving away from disposable items and buying local. Looking to the future, respondents say that they are against single-use plastics, while they are in favour of imposing restrictions on companies and changing the way we eat. Some respondents even believe that degrowth is necessary.

Changing consumer habits

The workshop on sustainable economy noted three possible ways of reducing humans' impact on the planet: population decline, a decrease in consumption or drastic improvements to technology. These solutions come up regularly in the questionnaire comments. Respondents mention their attempts to reduce waste or find new uses for it, their expectations of government decisions, and their support for local production. For example: "Setting quotas for imported products (no strawberries in January because they will later be in season here, but on the other hand, maintaining access to products that are not

grown here)." The responses to this topic in particular revealed significant intergenerational differences. People over 65 say that they are less inclined to change their diet and switch to renewable energy, while those under 30, women, people with children and part-time employees are, on average, prepared to make more of an effort.

Training new generations

The primary school classes looking into this topic would like lessons on respecting the planet and more organic products used in their school meals. They also, however, turn to technology with ideas like installing energy meters to raise awareness about consumption and solar panels in all schools. For primary school classes in the orientation cycle, the solutions move away from students' daily lives to take a wider view: reducing plastic and favouring recycled materials, implementing restrictive laws and free public transport. Upper-secondary classes (ages 15-19 years) demand 100% renewable energy by as early as 2040, while recognising that, above all, a change in mentality is needed: getting into the habit of cycling from an

early age and banning vehicles from the city centre, with car parks on the outskirts of the city. Students also came up with a law to make it a requirement to install enough solar panels on every new building to generate all its energy independently. These classes ended on an uncompromising note: "No choice. No electricity other than green. Build wind turbines. Save the trees!"

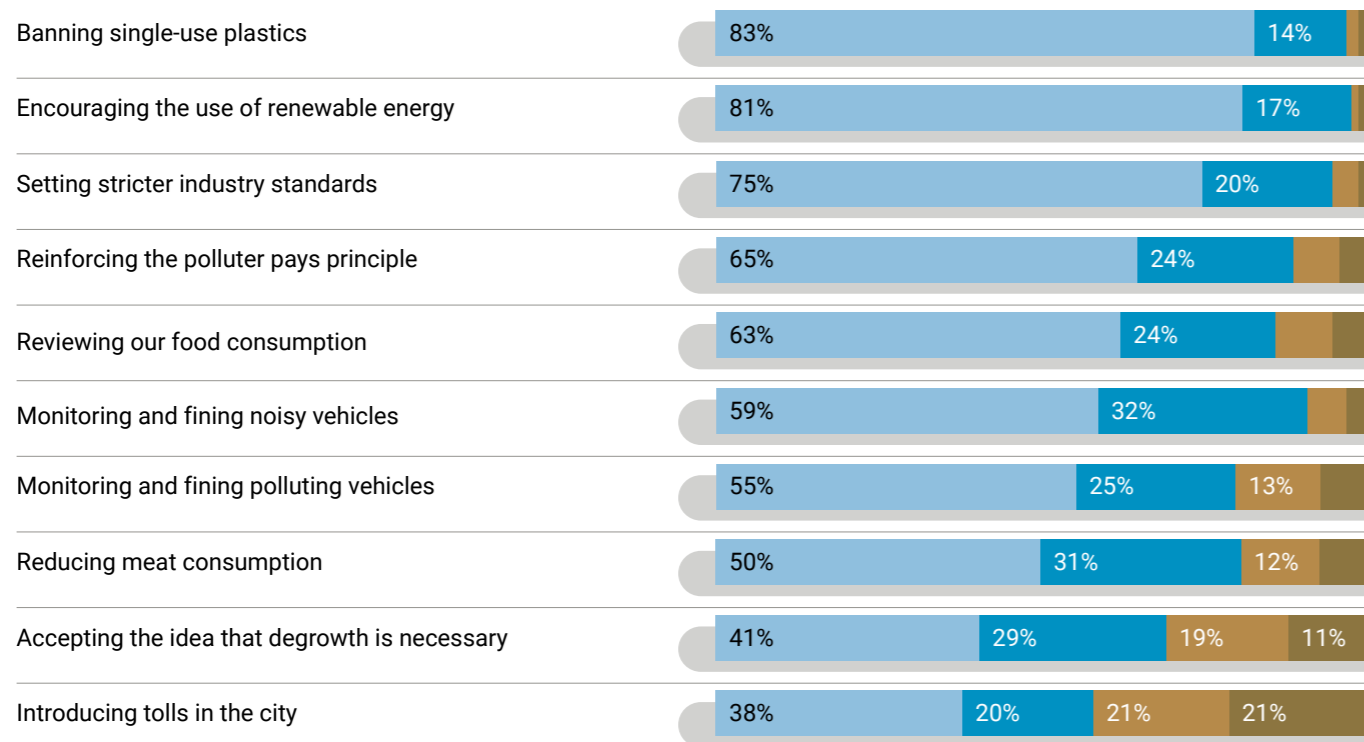
Anticipating change

The closing event for the 13 workshops spoke broadly about the links between environmental issues and political power. Several speakers placed a great deal of emphasis on the state's role in public education. According to some estimates, by 2050, Geneva's climate will be similar to that of Lecce, Puglia (Italy) today. By considering biodiversity as an infrastructure in much the same way as the road network, the government will be able to protect it and support its development. Climate change is global, unpredictable, often invisible, and there is a time lag between actions and their consequences. We must therefore anticipate these consequences and make an effort

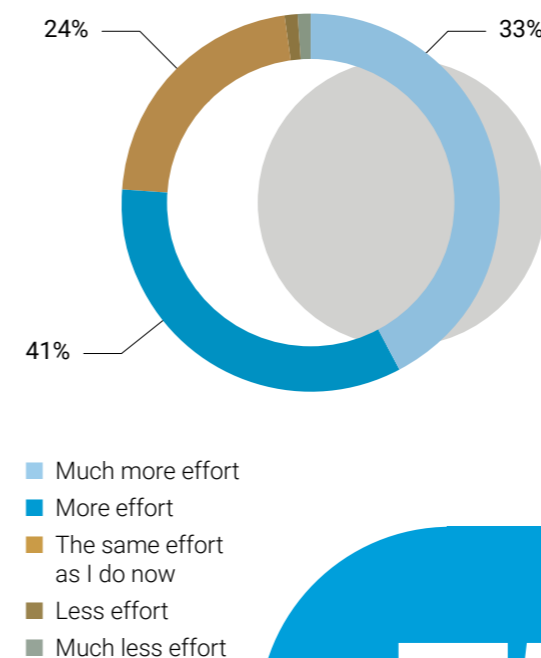
even if the damage is not yet felt. Faced with these challenges, some respondents believe that the government should call on scientists, who have the necessary knowledge to define actions to be taken over the long term.

"By 2050, Geneva's climate will be similar to that of Puglia, Italy"

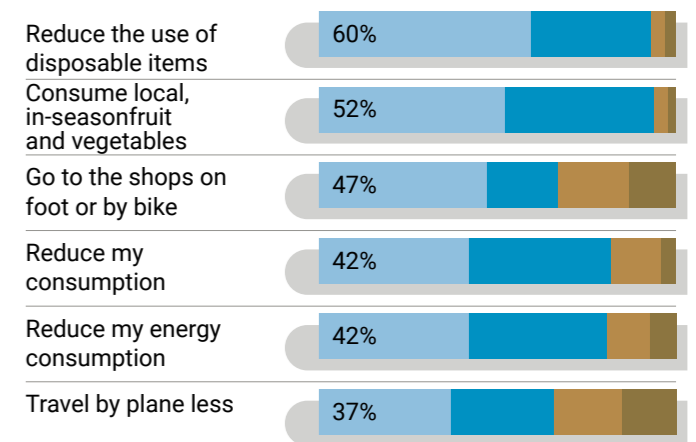
In the future, do you think the following actions should be a priority?



In the future, what efforts will you make to fight climate change?



What do you currently do to fight climate change?



■ Yes
■ Mostly yes
■ Mostly no
■ No



What lessons can be learned from the Covid-19 crisis? The crisis has completely changed our behaviour (remote working, buying local, no travel, etc.), causing a decrease in car traffic of up to 87%. This has had measurable effects on the environment and air quality (-35% to -50% nitrogen dioxide in Geneva).

75%

of respondents are willing to make more effort to protect the climate in the future



More city in the country, and more country in the city

All four land planning proposals were well received. The people who took part in the consultation want, in this order, more cooperatives (89%), more protected farmland (88%), as well as an increase in the number of people owning their own homes (72%) and an increase in social housing (65%).

Taking those in the middle into account

The actions expected from government are in line with the four proposals: cooperatives, farmland, access to property and social housing. The desire for diverse housing is also highlighted. Comments frequently refer to the situation of the middle class who are too well-off to benefit from social housing, yet too poor to consider home ownership. One respondent summarises: "Unregulated rents remain far too expensive in Geneva. Access to decent, affordable housing (whatever the trend) remains a critical area for improvement in Geneva." The management of housing stock is often criticised, with greater state control over estate agents desired.

Making buildings accessible to all

The accessibility of all buildings, whether existing or planned, should also be improved. The online consultation highlighted a need to improve people with disability's access to the world of work (83%), as well as access to buildings (70%), transport (67%) and cultural and sports activities (63%). These measures all involve making appropriate adjustments. The respondents of the questionnaire are optimistic about this area, with 76% believing that access for people with reduced mobility will be better in the future than it is now.

Controlling densification and rent

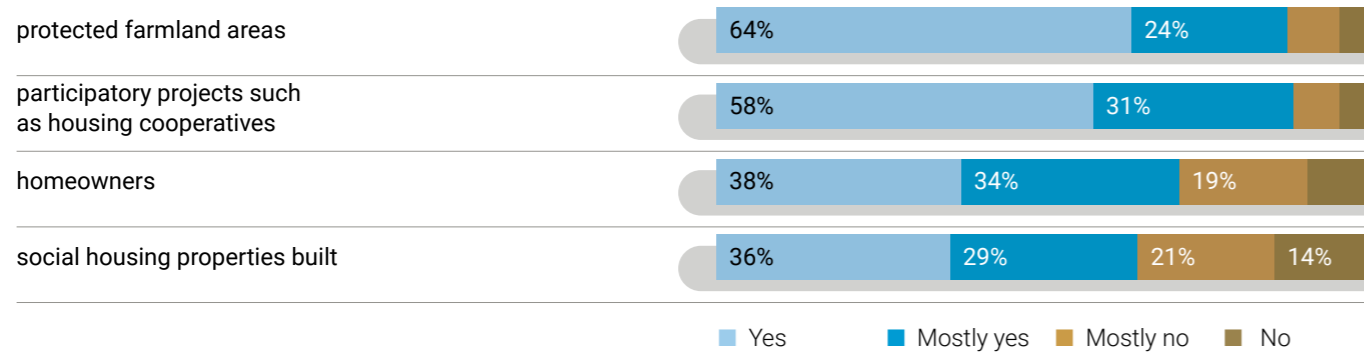
Many of the comments refer to the balance between public green spaces on the one hand, and areas with buildings or buildings planned on the other. Green spaces are in high demand and should under no circumstances be reduced in this equation. The proportion of green spaces should, conversely, be maintained and, if possible, increased by 2050. One respondent summarises: "The city centre should not be packed full. Construction should be quality-based, respecting the heritage of both buildings and nature."

agents from renting out properties at inflated prices (defined as twice the value of the property at most) and use 2% of all profits to fund adding floors to existing buildings. Meanwhile, private housing projects with high environmental value would be rewarded with a premium. The prospect of building new neighbourhoods is a source of apprehension among some of the respondents.

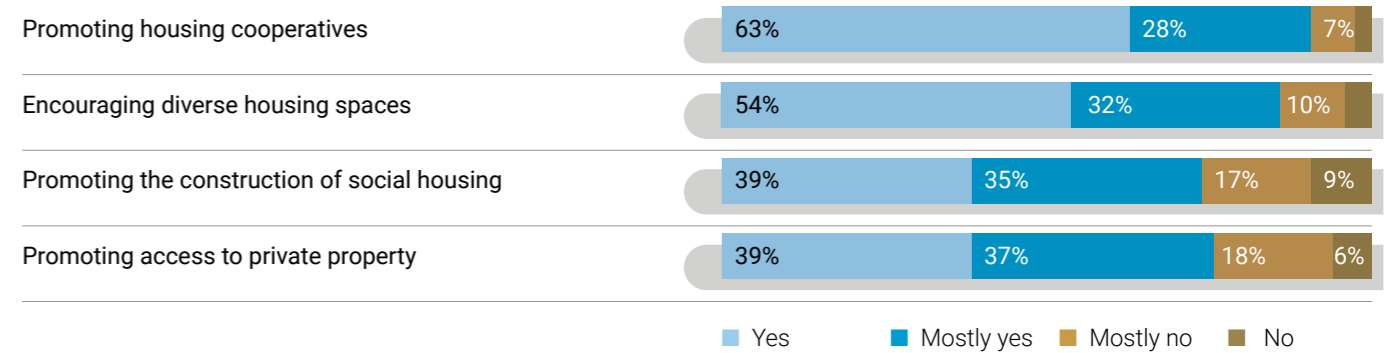
"Finding a balance between green spaces and homes"

Upper-secondary students who chose to contribute to the topic of development worked on adding floors to existing buildings, which was perceived as a good compromise between the city's geographical expansion and the preservation of green spaces. However, this approach should respect the diversity and the architecture that already exists. According to the same group of students, the government should also prevent estate

In the future, do you think the city should increase the number of...?



In the future, should Geneva improve the following areas to create a better quality of life?



What lessons can be learned from the Covid-19 crisis? Confinement has shown the importance of open, adjustable spaces to reconcile both family life and private life. The population has expressed increased awareness of the importance of their general environment (housing; quality of public and green spaces).

90% are in favour of more housing cooperatives



Mobilising for a new kind of mobility?

Consultation respondents were asked about the means of transport they use to get to work and how satisfied they are with it. Cyclists are the most satisfied (75%), followed by pedestrians (69%) and people who use public transport (61%). Only 42% of car drivers enjoy their daily journey.

Developing multimodal mobility

Respondents use more than one means of transport: walking (92%), public transport (85%), train (71%) and car (70%) are the most frequently mentioned. For work, respondents also cycle (14%) or use an electric bicycle (7%); for leisure, they travel by plane (75%). In the medium and long term, the challenge will be to strengthen alternative means to car travel to meet carbon neutrality goals.

Encouraging the use of public transport

The new Léman Express commuter rail network has raised high expectations. Serving more than 80% of inhabitants and jobs in the canton, over 60% of people who responded to the consultation were already planning to use the infrastructure (85% for leisure, 52% for work). With regards to strengthening

coordination between the rail service and urbanisation, respondents are especially sensitive to travel time and densification of the service, and to a lesser extent to feeder services to the train stations and an increase in station services. The attractiveness of public transport is primarily determined by how direct the route is, along with fares and frequency.

Making cycling safe

A second workshop focused on cycling, with two main issues emerging as priorities: infrastructure development (at riskier points such as crossroads; continuous cycle paths) and training (courses for beginners of all ages; raising awareness among different means of transport). The responses to the questionnaire confirmed these proposals, with 87% saying that safe cycling infrastructure would encourage them to travel by bike, followed by secure bike sheds close to their workplace.

The comments supported these claims: people often do not travel by bicycle because they are afraid for their safety or because their bicycle has been stolen or damaged when locked outside in the past.

The comments cite examples of cities that are pioneers in soft mobility (e.g. Copenhagen, Amsterdam, etc.) and suggest all kinds of ideas for the short term: in particular distributing bike helmets and having free repair spaces across the canton.

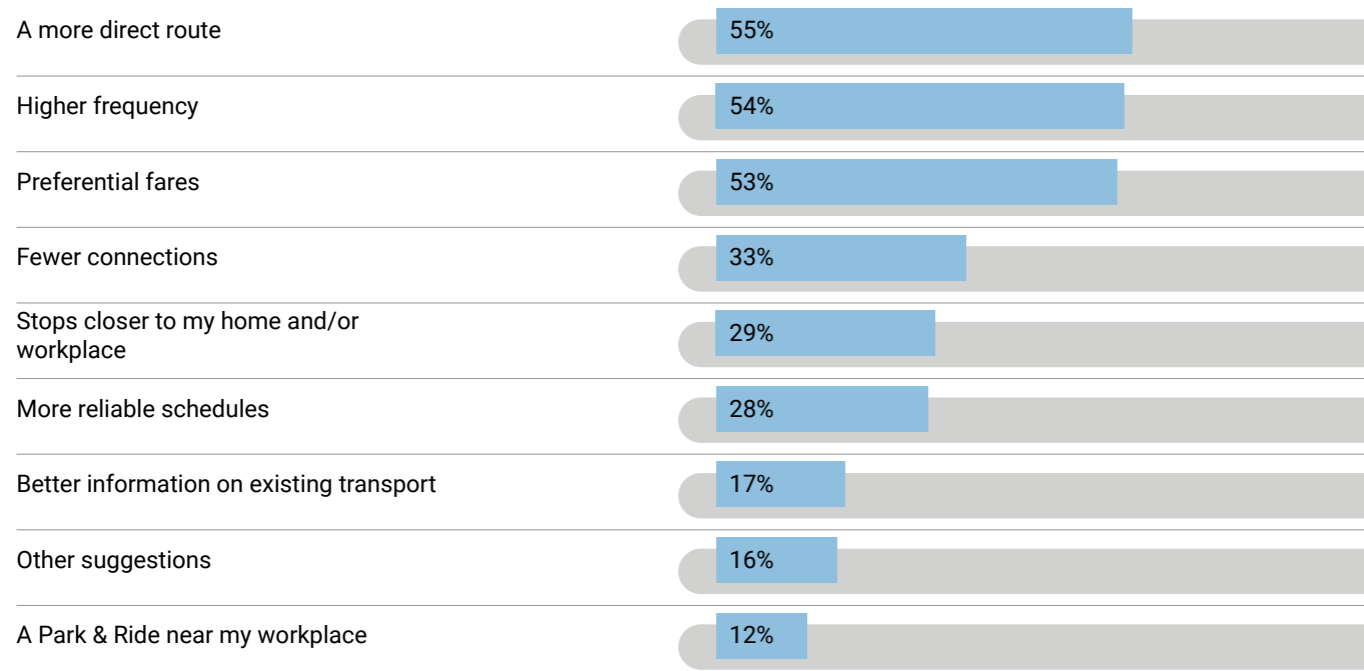
Getting imaginative and improving flow

In the long term, however, electric vehicles only represent a temporary solution (polluting batteries also need to be recharged). In general, changes to means of transport should be anticipated, by developing driverless vehicles, hydrogen engines, and increasing the use of cargo bikes which need wider cycle paths. In addition, new practices - especially related to remote working - will cause our needs to change.

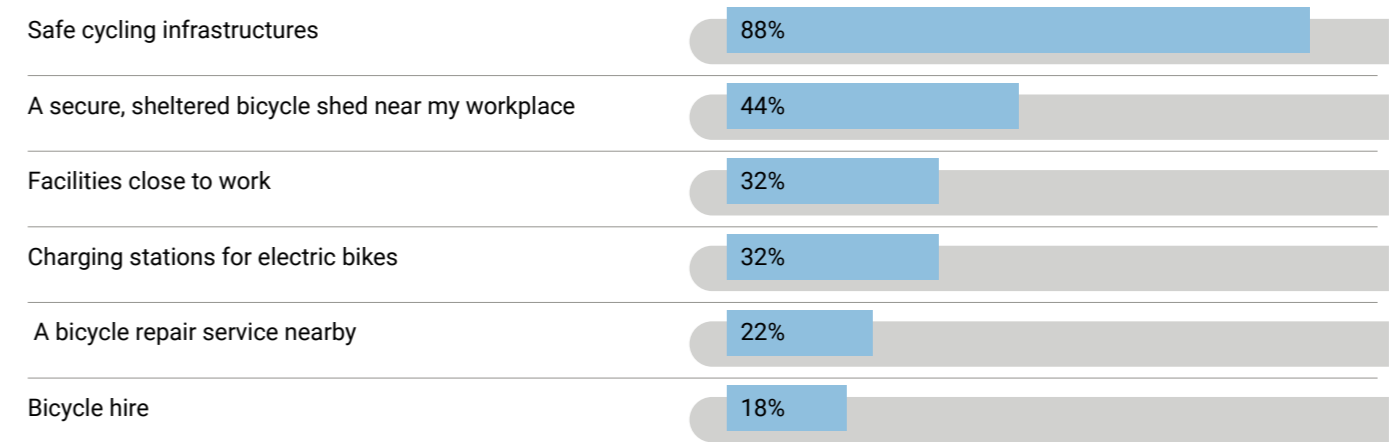
Using technology to develop transport was mentioned in particular by primary classes in the orientation cycle, who came up with zip lines and underground networks to expand public transport. Artificial intelligence would also be used to facilitate the flow of traffic and improve comfort. But above all, as is the case for the majority of older people, pupils in these classes want more greenery rather than roads, not to mention more life, such as having shops on every street corner to encourage walking.

“Towards multimodal mobility that respects the environment”

Which proposals would encourage you to use public transport more?



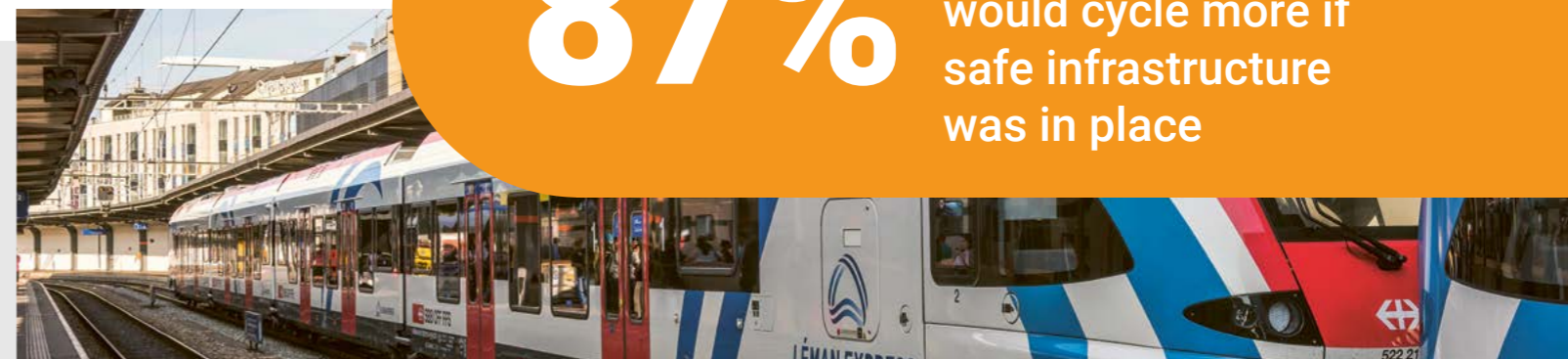
Which proposals would encourage you to travel by bike more?



What lessons can be learned from the Covid-19 crisis? Authorities quickly implemented specific arrangements to promote cycling (+22% cyclists, +42% bike rentals) and walking. The health emergency made it possible to speed up procedures. Remote working has also allowed the flow of commuters to be adjusted.

87%

of respondents A Park & Ride near my workplace would cycle more if safe infrastructure was in place



The majority of respondents (84%) believe that advances in medicine will improve their health, but only one in two believe that this will be happen regardless of income.

Identifying risk factors

83% of people who answered the questionnaire believe that the environment, above all else, will have an impact on their health in the future. Nevertheless, current medical advice only estimates this figure to be 20%. This shows a difference between the way people perceive their health and their actual health, which is mainly influenced by personal and social factors (40-50%) such as support networks, socio-economic status and individual behaviour.

Changing the face of ageing

A specific workshop was held on the numerous challenges posed by an ageing population. Various measures can reduce the risk of isolation by working on the city's social fabric: bringing in "older people's committees" and intergenerational housing (over 50% of respondents are in favour of this).

Encouraging mobility is also essential, since better mobility increases activity rate and thus social interactions. In one of the comments, a respondent describes a mixed space: "combining a childcare centre, a medical service or sheltered housing, green spaces, vegetable plots, pets or a small farm, etc. in one place." Broadly, both the image of ageing and the dependence linked to it should be turned on its head.

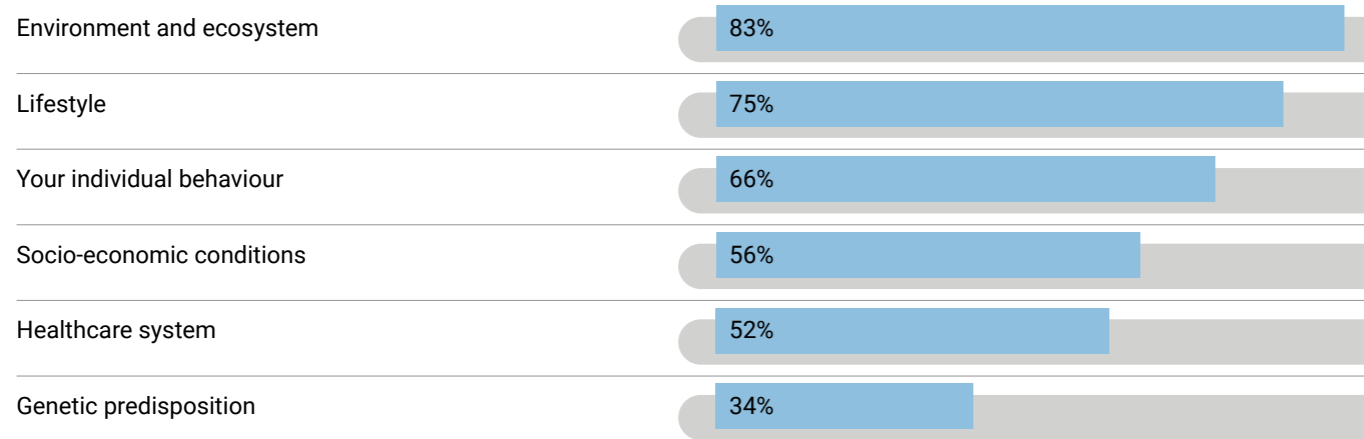
Supporting caregivers

The responses to the consultation paint a picture of solidarity: more than 7 out of 10 people believe that financial aid should be shared fairly between young people and older people. For the latter, 65% believe that medical costs should be borne mainly or partially by the state, with the same for financial assistance (58%), which should nevertheless take into account the income (92%) and assets (72%) of the person being supported, but not of those of their relatives (23%). With regard to young people, one respondent notes that assistance "must absolutely be accompanied by a work integration programme if the person is experiencing social breakdown."

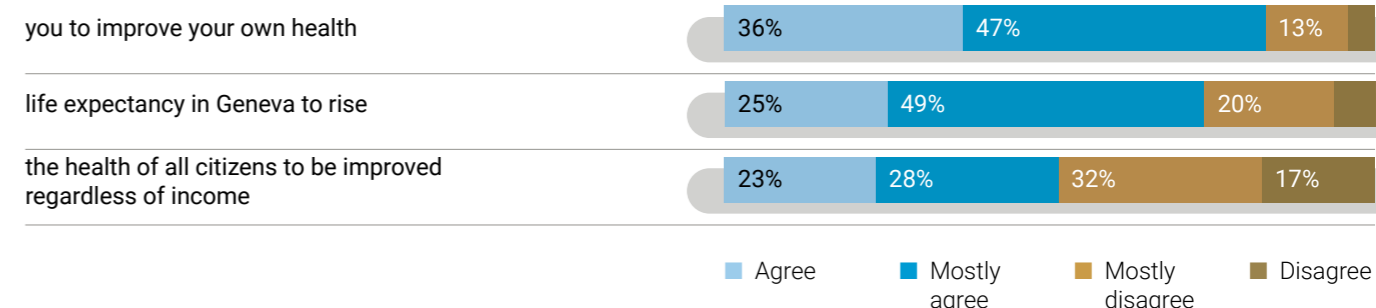
The question of pay for those caring for an elderly or disabled relative is the subject of many comments: 81% believe that this group should receive financial compensation. The idea of a universal basic income is not far off and could, in the words of one respondent, "encourage local volunteering, recognise men's and women's roles in the home, and help the underprivileged." Finally, the comments mention free public health insurance, or insurance that is proportionate to salary, which would give equal value to every person's health.

"Ageing poses countless challenges"

What do you think are the main factors that will influence your health in the future?



In the future, do you think that advances in medicine will enable...



What lessons can be learned from the Covid-19 crisis?
The crisis has shown how resilient the health system is, while highlighting vulnerable areas: social isolation among the elderly, weakening of professions where remote working is not possible, and risk of poverty around access to basic resources (namely food, housing and care). The efforts of various volunteering projects were quickly strengthened.

83%

83% feel that the environment is the main determining factor in their health



A digital and human Geneva

It is widely recognised that Geneva must adapt to the technological changes that are transforming the public, private and professional spheres. More than 80% of people who responded to the consultation want to participate more widely in public life online (for example, administrative procedures, citizen consultation and, to a lesser extent, voting). Confidence that technology will improve health and wellbeing is mixed.

Targeting the use of AI

One in two people believe that artificial intelligence is a threat, especially to jobs. This fear is even expressed by the youngest respondents, from elementary school onwards: humans should keep the upper hand on machines. One respondent gave a more moderate view: "Many jobs will be affected, but that doesn't mean more jobs won't be created." For the other half of respondents, AI is seen first and foremost as an asset,

especially for health and wellbeing. The opinion of older and more optimistic students aligns with this view: AI, if used well, should make it possible to spend less time doing thankless tasks so that more time can be devoted to others.

Developing public services online

A clear picture emerged concerning online administration: 9 out of 10 people consult cantonal or municipal websites, and a large majority would like more public services to be available online (83% in favour of administrative procedures online, 82% in favour of public services and 81% in favour of citizen consultations). The services respondents would like to see were provided in the comments (school enrolments, childcare services, school meals and car services) as well as specific actions for certain groups (e.g. including older people and preventing the use of social networks at school, which is also desired by students themselves). All sections of the

population and all generations associate, however, personal data protection with fears that should be taken seriously: more than 80% of people would not be prepared to give up their data for a free service.

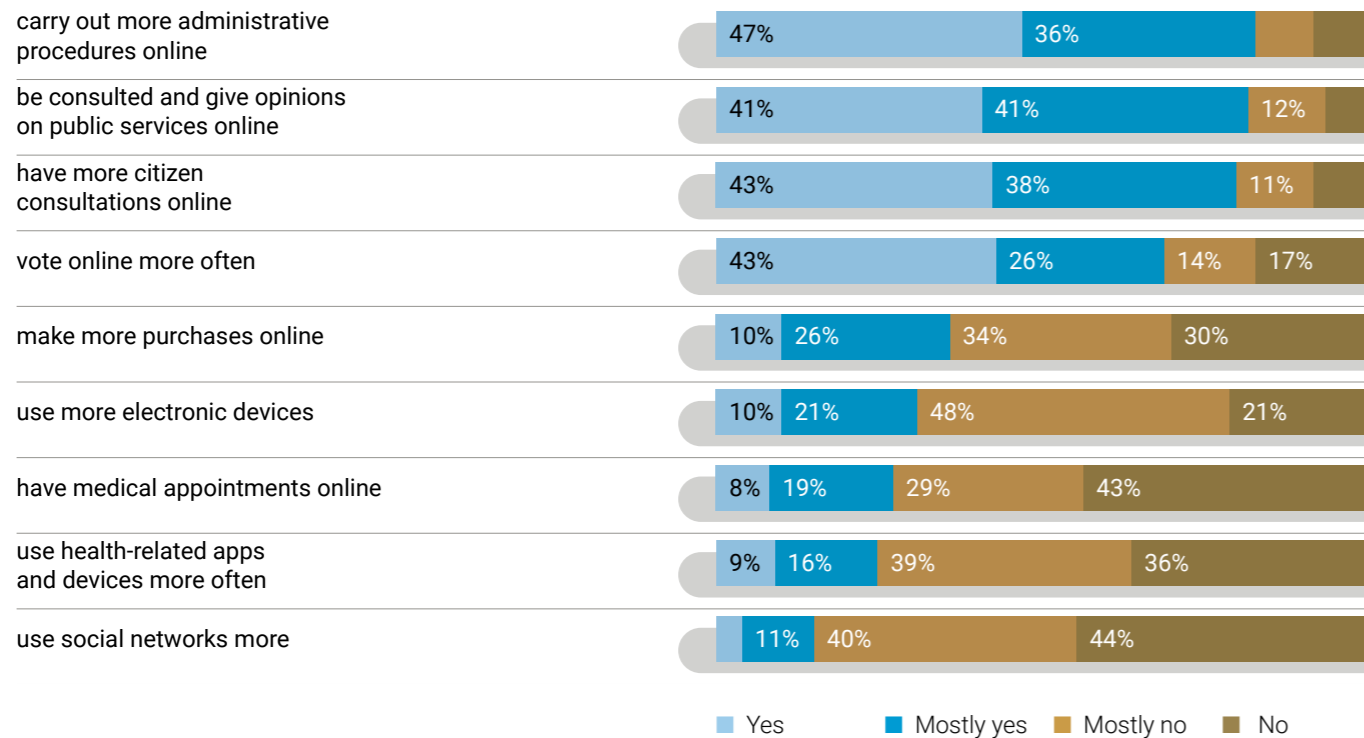
Making use of technology

Despite high energy costs, technology is also seen as a way to "change the world", especially by students. Technology should therefore bring people together (using virtual reality glasses), develop their knowledge and creativity (through online courses) and fight climate change. One upper-secondary class even suggested installing solar panels in pavements to capture light energy from both public and private lighting and then transform it into electricity. Technology should therefore be chosen for its usefulness, avoiding a "gadget" mindset. Unless, as suggested by primary school classes, we go back to

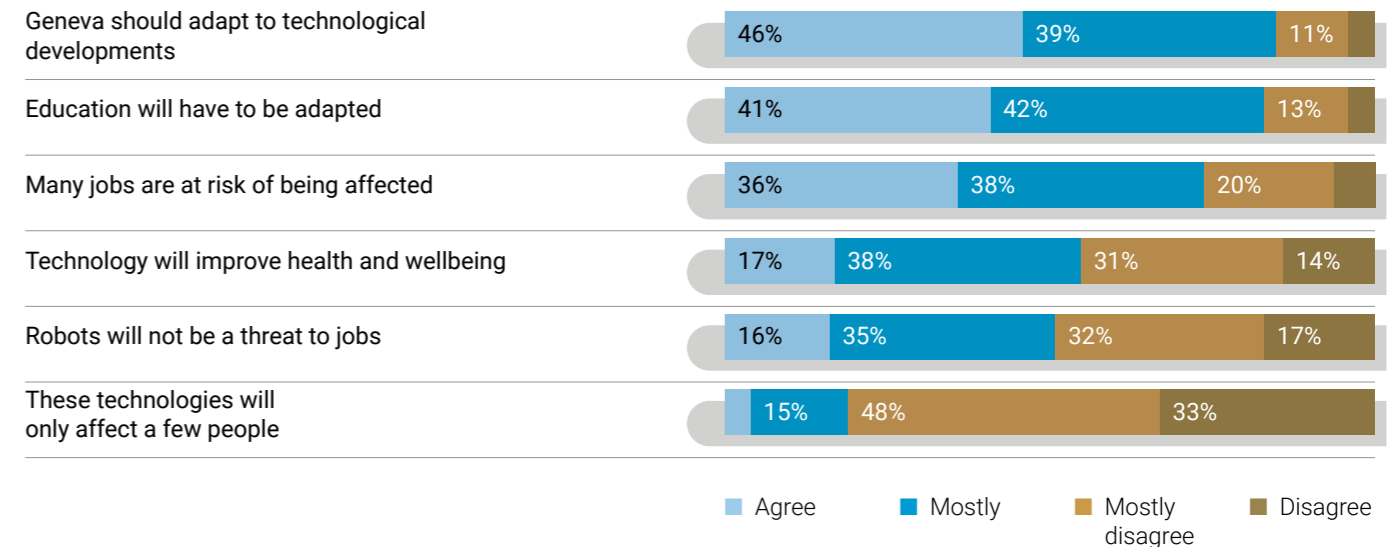
low-tech, a set of technologies that are simple and represent economic value.

"Humans should keep the upper hand on machines"

Digitisation: in the future, would you like to...?



The challenge of information technology and artificial intelligence



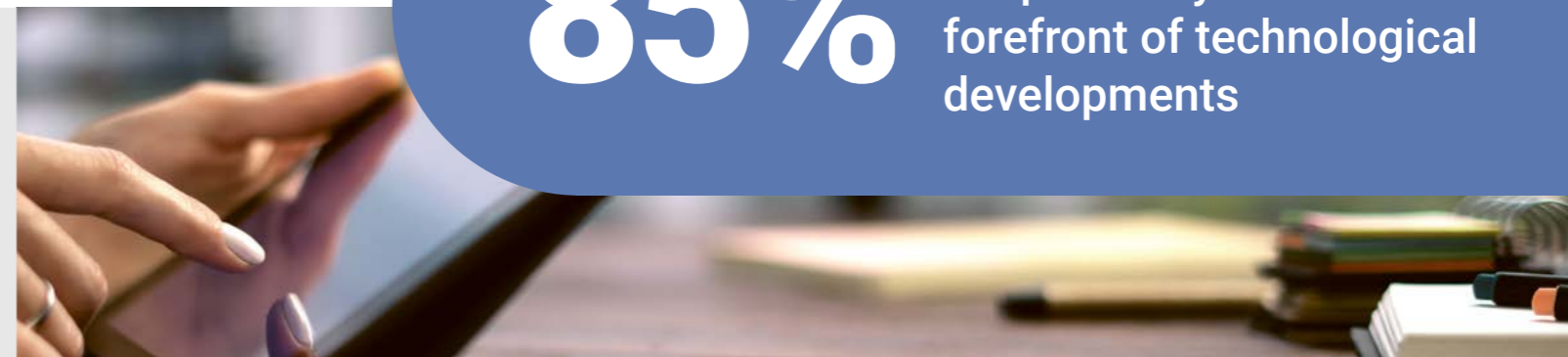
85%

think that Geneva should adapt to stay at the forefront of technological developments



What lessons can be learned from the Covid-19 crisis?

The crisis has highlighted the need for digital services in all sectors of society. Digital technology has made it possible to protect part of the economy and meet basic needs. However, its ecological footprint is still growing and energy saving objectives are crucial.



Straddling freedom and risk in the workplace of the future

Eight out of ten people who responded to the consultation are satisfied with their current job, as well as the hours and tools available to them. However, more than one in four believe that they do not receive enough support, and more than one in three are dissatisfied with their private and professional life balance. Remote working is seen as both an opportunity and a threat to this balance.

Regulating remote working

Not all professions are able to ensure flexibility at work: 75% of people would like more flexible schedules but in 40% of cases this simply cannot be achieved. The same is true for remote working. The comments provided examples of professions (for example, social work, medicine and music) where human interaction is essential and remote working not an option. Other comments stressed the importance of personal relationships in the world of work, even when it would be possible to work from home. Finally, many people fear the negative

impact of remote working on their private life, saying that if these practices were to become widespread, they should be accompanied by suitable legislation. One comment explains: "The right to disconnect outside working hours should be officially recognised." Generally speaking, the majority believe that neither legislation (61%), nor preventive health practices (62%), nor protection against unemployment (66%) have adapted to changes in the world of work.

Changing our vision of work itself

Though the questionnaire focused primarily on flexibility at work, the upper-secondary classes who worked on the topic addressed two further ideas: basic income and horizontal professional hierarchies. In the former, work is no longer seen as a means of earning a living, detached from pleasure and personal fulfilment.

A basic income would not mean stopping work, but rather choosing activities that would allow people to devote themselves to others or find personal fulfilment. Technology will also make it possible to do away with a number of menial tasks. The second idea seems obvious to younger generations, who can contact whoever they want, whenever they want. Hierarchies no longer exist. The future they imagine is not composed of employees, but instead of consultants and entrepreneurs.

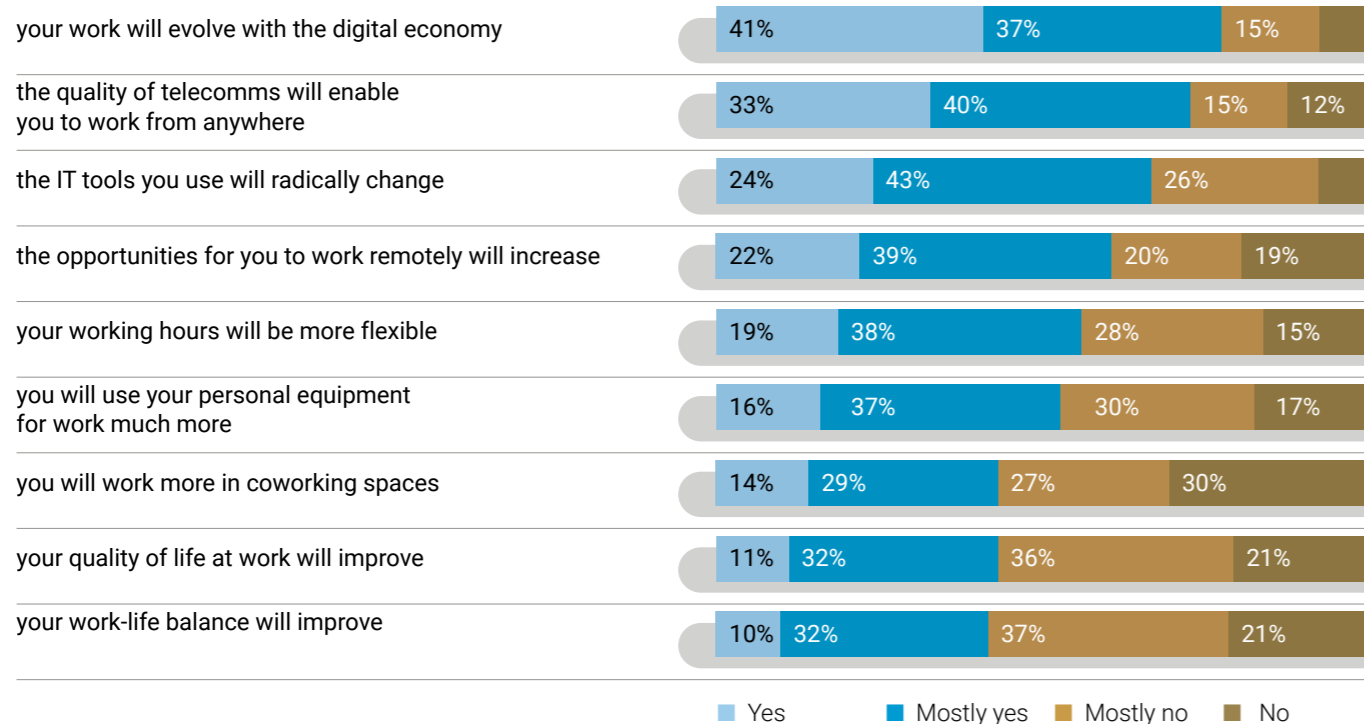
Anticipating needs

The workshop dedicated to the professions of tomorrow gives weight to the class discussions. By 2030, it is estimated that one in two young people will have created their own job and will retrain on average 7 times over the course of their lives. Skills that can be transferred to other fields will be the most in demand, as will systemic analysis, which requires interacting with others to identify a problem. Though machines already

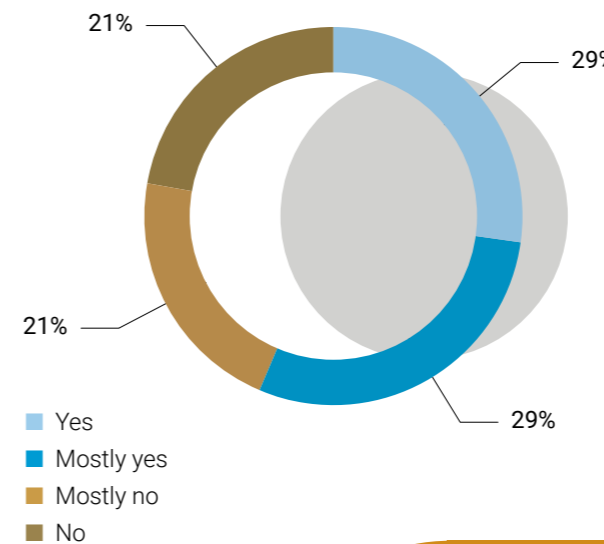
outdo us in terms of logical intelligence, the same cannot be said for interpersonal intelligence, which should reassure the 70% of respondents who fear that their profession will change or disappear with digital developments. The workshop showed that tomorrow's professions will firstly be built on today's trends: changes therefore need to be anticipated and appropriate continuing education offered. One of many examples are hydrogen trucks which, if they become widely used, will not require anything like the same skills as those taught to apprentices today. Mechanics will become electrical engineers, provided that the change has been anticipated.

"Remote working: yes, but...?"

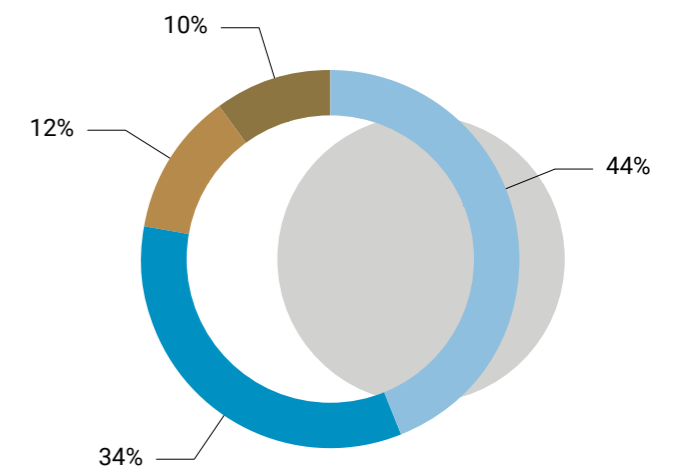
In the future, do you think that...?



Would you like to work remotely more often in future?



In the future, would you like more flexibility around your working hours?

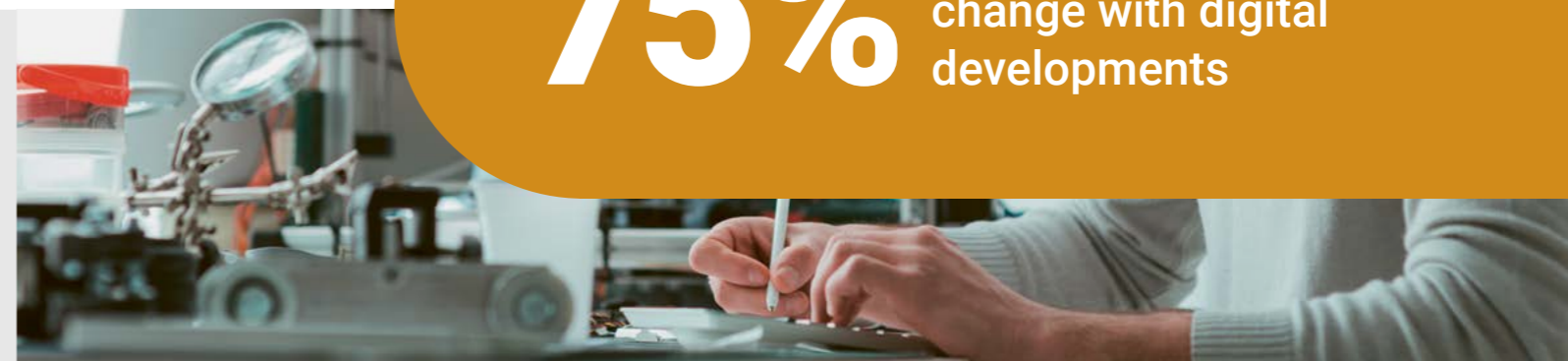


75% think their work will change with digital developments



What lessons can be learned from the Covid-19 crisis?

The crisis sharply anticipated certain trends which had long been announced: remote working, flexible hours, and digital resilience by promoting a cultural transformation in the world of work. However, economic, social and gender disparities may have played a different role in views on remote working.



Over 95% of people who responded to the consultation think that everyone should access training throughout their lives: a strong statement relating to the development of continuing education. State schools, on the other hand, are seen to be good quality by three quarters of respondents, though with the caveat that changes are necessary.

Rethinking school subjects

Respondents want schools of the future to focus more on skills (90%) and to be tailored to individual students (72%), although these wishes decrease with education level. Schools should also include new technologies (85%) both as teaching tools and as a taught subject. The comments mention ideas such as social skills, solidarity and non-violent communication, and ask inspiration to be drawn from Nordic education systems (Denmark, Finland) and private teaching methods (Montessori, Steiner). This comes back to the definition of what the workshop on the professions of the future called "invariables": schools of tomorrow will probably no longer need

word processing courses, but they might need to teach emotional intelligence. One respondent elaborates: "The schools of tomorrow should teach critical thinking, how to decipher the media and marketing, as well as psychology and communication, such as to make the youth of tomorrow less sensitive to consumerism and better able to clearly express their opinions, objections and affinities."

Relaxing structures

Less than 10% of people who responded to the consultation thought that distance learning was a good idea. For primary schools, a results-based à la carte schedule is favoured, with a focus on sport, culture and creativity. For upper-secondary, respondents support education up to the age of 20, but with a reduced schedule and courses available online. Depending on the sector, respondents also favour partnerships with companies which would allow apprenticeships as well as mentoring programmes with older students to be organised. While these options are mostly welcome, the older the

respondents, the more the choice of pathway can be perceived as stigmatising.

Primary school pupils pointed out that digital technology enables the pace of learning to be adapted to each student. This observation supports the result of the workshop "The School Without Walls", which highlighted two major changes. The first is the transformation of the teacher-student relationship, as students can now easily access other sources of knowledge. The second follows on from the first: teachers offer education tailored to each student's level, with technology enabling students to advance and teachers to rethink their teaching methods. The consequences of this are clear: teacher training needs to be adapted and study plans made more flexible.

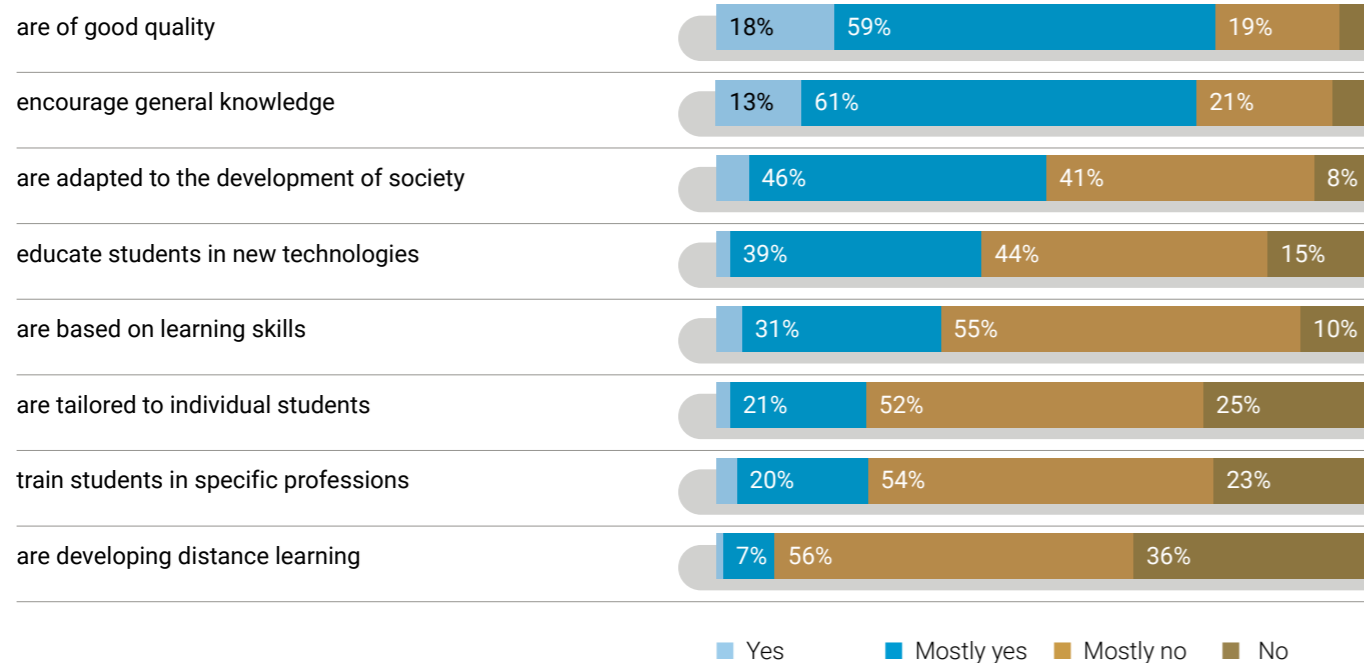
Expanding continuing education

But education doesn't end there: 7 out of 10 people say they would like more continuing education. According to the International Labour Organisation, the concept of lifelong

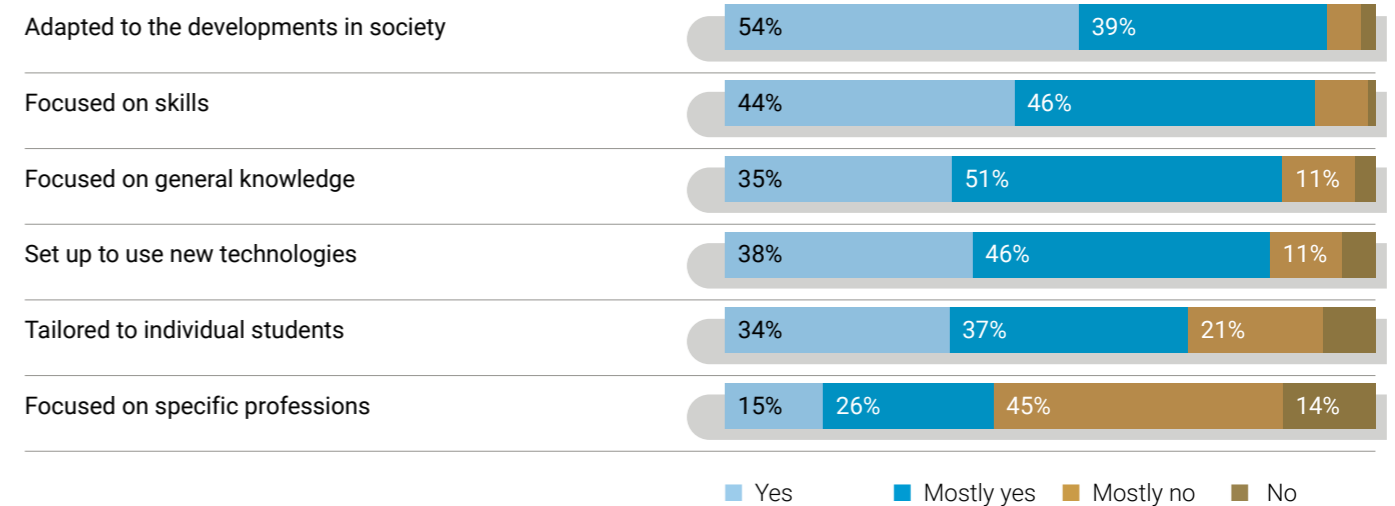
learning should be backed by financial support and retraining facilities. As one comment suggests, responsibility for this should be shared: "Compulsory continuing education should be funded by employers. It shouldn't be that unemployment insurance takes on the bulk of this task. People who are in work should also be able to access training."

"Adapt teacher training"

In your opinion, state schools today...



What kind of schools would you like to see in the future?



What lessons can be learned from the Covid-19 crisis? Distance learning has turned out to be very mixed, particularly in terms of the amount of time spent doing schoolwork each week. These differences reflect the various inequalities in living conditions for students and families, access to distance learning and therefore learning conditions.

95%

think that everybody should be trained throughout their lifetime



Looking to new growth factors

The majority of people who responded to the consultation want Geneva to give off an image of a sustainable, diversified and innovative economy based on local skills. The results differ somewhat between genders and generations, however. Women place more emphasis on a sustainable, local economy, while innovation takes precedence for men. Young people largely favour sustainability.

Defining economic attractiveness

All eight measures proposed to strengthen the canton's economic attractiveness were perceived as positive by the majority. In the lead are supporting the emergence of talent (92%) and developing innovation hubs (90%) and infrastructure (85%), while maintaining high living standards seems to be a less determining factor (75%). The least popular measure is developing a basic income, although this is still supported by over 60% of respondents and comes up frequently in the comments. However, there are considerable differences between these situations: women, younger or less educated people

and single parents place more importance on job stability and social benefits.

Building a sustainable economy

The question of maintaining living standards is part of a debate which was central to the workshop entitled "Sustainable Economy and Finance". For some people, the term "sustainable finance" is an oxymoron. For others, every area, including the economy, must start taking sustainability into account. It seems that the people who responded to the questionnaire side with the latter argument and are prepared to take certain actions: promoting sustainable products and services (92%) and asking banks for sustainable investment solutions (78%). Again, women are most prepared to adopt these behaviours, and are joined, this time, by graduates and people aged 30-45.

Nevertheless, an economy's capacity to develop sustainably can only be measured when we identify what is it that makes it sustainable. The Canton of Geneva monitors the rate and

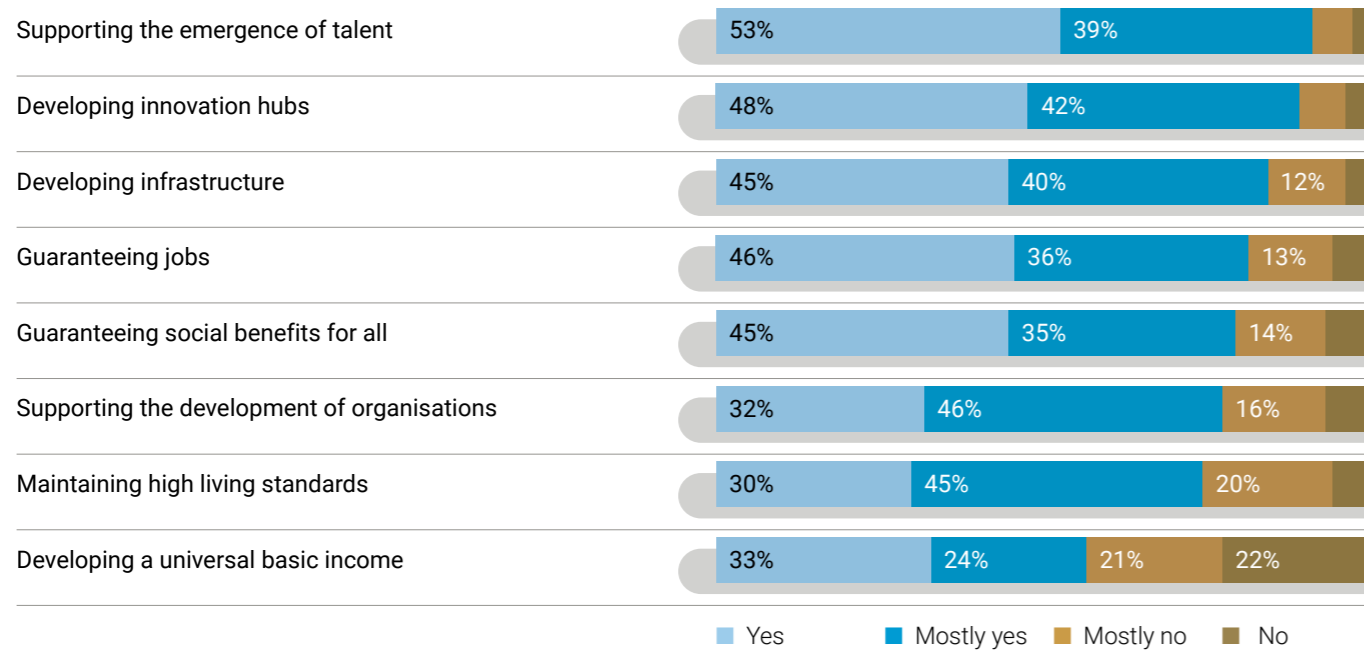
total number of jobs in the area; a healthy economic situation is defined by the number of people who contribute to the economy. Studies are underway to identify other sustainability factors, based in particular on the 17 sustainable development goals set out by the UN.

Supporting local networks

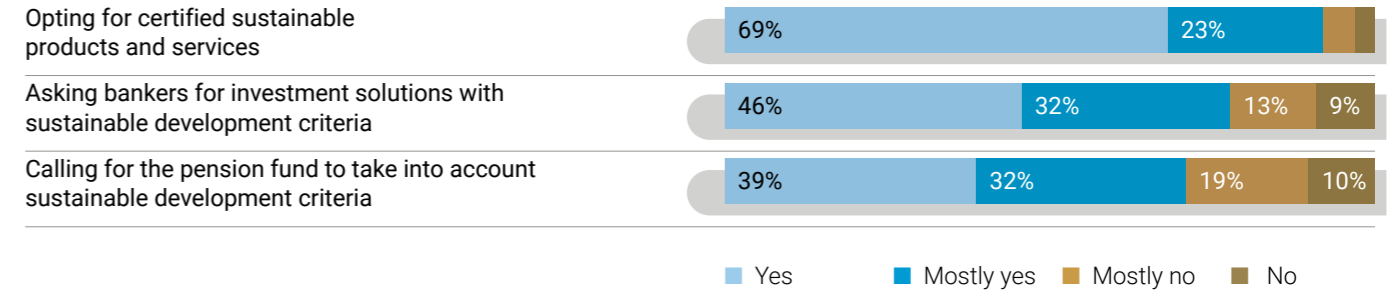
Other ideas were put forward in the comments, such as making it a requirement for companies with high profits to reinvest in the local economy. Upper-secondary classes also spoke up on this subject, declaring themselves against tax optimisation and in favour of a local economy which could use the "Léman" currency. Discussed during the workshop, this local currency, some people argue, would promote local networks and prevent money from being invested in speculative activities. Above all, the comments reveal a feeling of growing inequalities and a desire to move away from capitalism.

"A feeling of growing inequalities"

Which actions could be taken to strengthen the canton's economic attractiveness?



In the future, what kind of actions would you be prepared to take to favour a sustainable economy?



85%

are in favour of supporting the emergence of talent, innovation and infrastructure



What lessons can be learned from the Covid-19 crisis?

As stressed by the International Labour Office (ILO), the number of jobs destroyed by the crisis will be huge – as will the number of those created, potentially. This presupposes a proactive approach when it comes to vocational training, along with a proactive policy on unemployment and retraining to strengthen the resilience of businesses.



Can protection and freedom always be reconciled?

Safety came up in all the topics contained in this consultation, but respondents' main concern was walking safely in public spaces (77%) and not fearing the loss of their home (75%). On average, women are more concerned (+10% for their safety in the street, +13% for housing, +15% for employment). Video surveillance arouses mixed reactions.

Making public spaces safe

When it comes to job security, the comments are nuanced. Beyond fears of redundancy, some people point out that professional mobility is normal. One person notes that "the most important thing is not to have job security, but rather to have a system that promotes career changes for everyone, and financial and moral support for individuals who have just lost their jobs." Feeling safe in public spaces, on the other hand, is a concern for all. The solutions ranged from raising awareness about racism, sexism, LGBTIQ+ based hatred and antisocial behaviour to strengthening police presence and social cohesion. The primary pupils choosing to give their thoughts on the topic mention the importance of feeling safe on a daily basis, as well as the importance of "learning to

say no". At upper-secondary level, these concerns become more global and are, for example, linked to the fight against terrorism.

Protecting privacy

The connection between technology and safety is a hotly debated topic, particularly when it comes to video surveillance. Only 20% of people say they are in favour of installing more cameras, while 22% are mostly in favour. This almost mirrors the 25% who are against and 32% who are mostly against. However, positive opinions drop by 50% among people with higher education, and criticism of cameras often comes up in the comments. Cameras are seen as an invasion of privacy, an obstacle to freedom, and do not necessarily give people the feeling of being more protected. "We are not living in a George Orwell novel," one respondent emphasised.

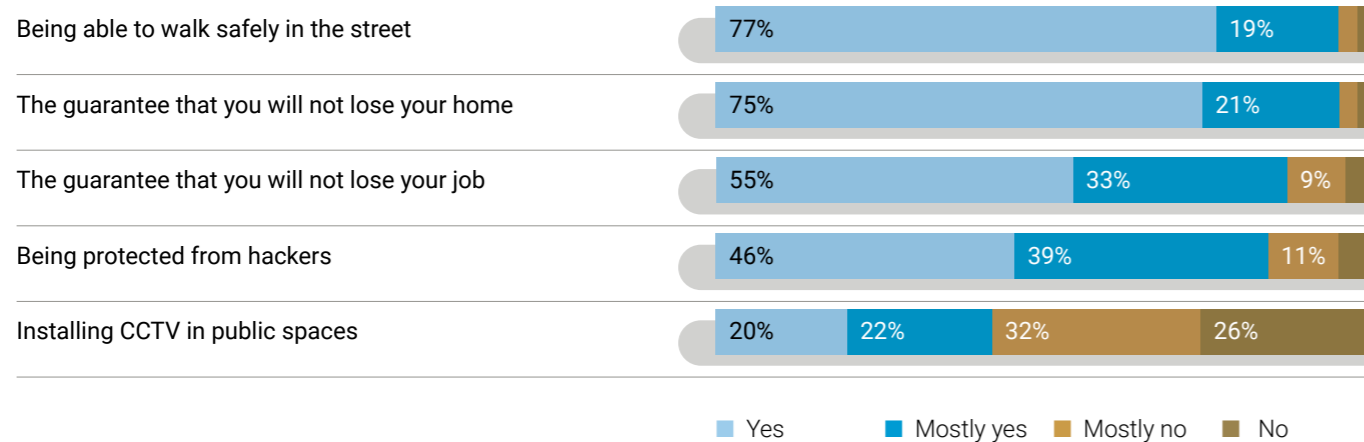
With age, students become more critical of safety issues related to technology.

Protecting data

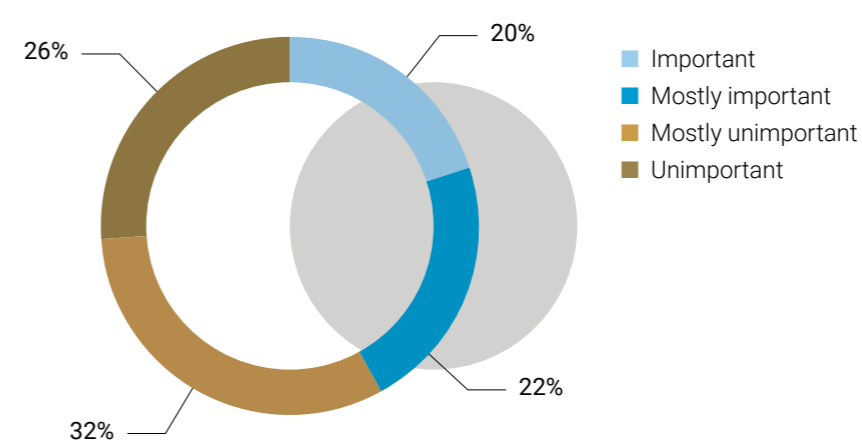
Younger students still perceive technology to be an asset for safety, sometimes combining it with other topics, such as electric cars for the police force and biodegradable radars. This trend is reversed, however, among upper-secondary students, who are mainly concerned with the protection of their digital data. In the questionnaire, only people aged over 65 share this concern, but the need to combat hacking often comes up in the comments. The role of the state is, however, considered peripheral or even trivial, focusing more on awareness raising and education rather than state control. Unless, as one person describes, the government does a lot of groundwork: "To be protected from hackers, the government needs to think ahead when it comes to the widespread use and dissemination of technologies, the Internet of Things and artificial intelligence. It needs to take into account big data but also real, useful needs because hackers will always be one step ahead."

"Feeling safe in public spaces: a concern for all"

Are the points below important for you to feel safe in the future?



Video surveillance in public spaces



What lessons can be learned from the Covid-19 crisis? **Virtual spaces for dialogue can now be part of the means for dealing with future crises. Questions around the security of these platforms are essential.**

75%

feel that their future safety is linked to security outdoors and to their homes



The results are almost identical for sport and culture: 7 out of 10 people consider these two activities to be factors of social cohesion; 6 out of 10 feel that this will still be the case in 2050. Almost 3 in 10 even think that these activities will be even more important to social cohesion in the future.

Combining health with pleasure

In terms of cultural outings, nearly a quarter of those who responded to the consultation consider themselves regular audience members. The figures for sport are very similar, with 3 out of 10 people stating that they are sporty or regularly take part in sport activities. In both domains, around 4 out of 10 people say they occasionally take part in culture or sport activities, bringing the total number of people to 7 out of 10. The main reason given for being interested in culture is enjoyment (86%), followed by personal development (66%). When it comes to sport, the idea of keeping fit is most important (80%), followed by personal wellbeing (77%), with enjoyment only in third position (74%). Education level plays a role, however:

the most educated people are also the most regular visitors to cultural events and the people who enjoy it most. For sport, on the other hand, graduates state the need to keep fit more than people who left school after compulsory education: for the latter group, sport represents enjoyment above all else.

Favouring encounters

Places for culture and sport are also meeting places. Although this aspect is highlighted less by the average respondent (41% for culture, 37% for sport), it is selected more by single people who see the activities as opportunities to meet new people. Other disparities concerning participation in culture and sport are mainly linked to age: more people under 30 consider culture to be a factor of social cohesion, state enjoyment to be the main reason for taking part and claim to be either occasional or regular audience members. The same is true of sport, with 71% of people under 30 considering sport to be a factor of

social cohesion compared to 57% of over 65s. Fewer women than men say they regularly take part in sport or culture.

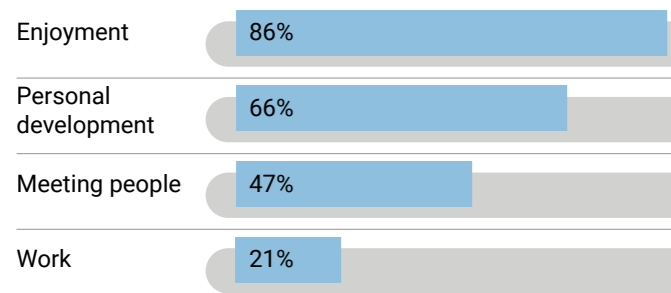
Offering accessible activities

The comments enabled respondents to express their wishes for the future, regardless of the questions asked in the online questionnaire. Respondents express a desire for culture that is popular, alternative, inclusive and non-elitist. In terms of sport, respondents want infrastructure development. The upper-secondary class discussions follow the same pattern: sport that is accessible to all, regardless of income or disability. The ideas mentioned include, notably, free classes for older people in the parks in summer, walking trails in the city, classes included in health insurance and denying subsidies to clubs with no female team because "all sports should be treated the same for men and women." Activities that sit halfway between culture, sport and environmentalism would also be highly appreciated: "Offering free country walks with guides

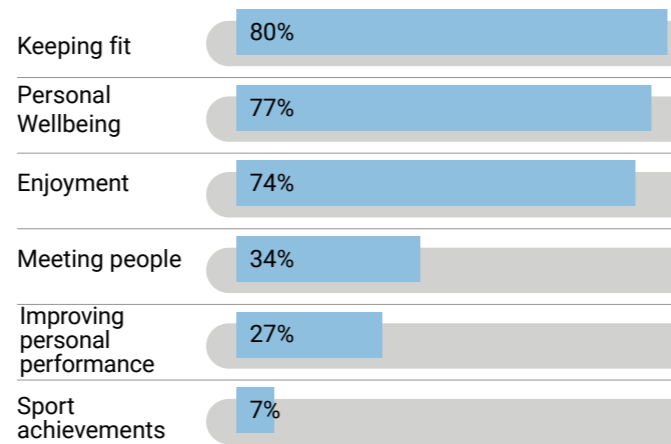
who can share details about the animals, trees, grains, etc. would inspire people to get moving and take an interest in nature." In the same vein, "sport in pleasant, natural, communal spaces could be encouraged (lakes, mountains and forests) to create social connections, look after people's health and raise more awareness about nature." In all the comments, a common vision seems to emerge: encouraging culture and sport, whether through major events, health insurance or by publishing a walking guide.

"Places for culture and sport are also meeting places"

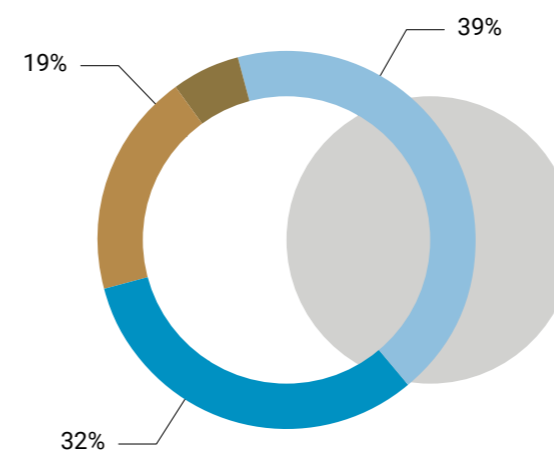
Long-term goals for engaging with culture



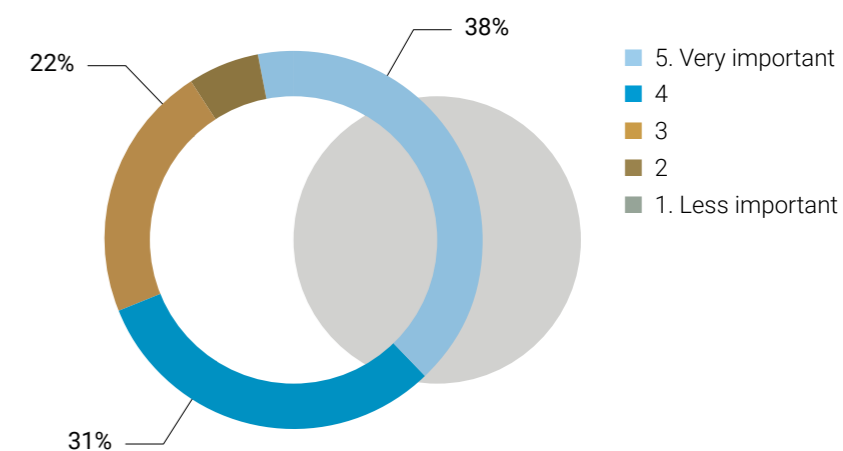
Long-term goals for engaging with sport



Is culture an important factor in social cohesion?



Is sport an important factor in social cohesion?



70% think that culture is a factor in social cohesion



What lessons can be learned from the Covid-19 crisis?
In the middle of the crisis, the lack of travel imposed by semi-confinement resulted in relaxation and leisure activities moving to spaces in the immediate vicinity of people's homes.



Hand in hand for the common good?

At the end of the questionnaire, the people who responded to the consultation were asked about their confidence in the institutions and organisations that will build the Geneva of tomorrow. More than 96% state their confidence in the Canton and Municipalities, followed closely, in order, by local associations and foundations, the Swiss Confederation and SMEs.

Differentiating influences

There is significant disparity among respondents in terms of their confidence in future players. Women and under 45s are more assertive in their support for the Canton, the City and associations. The role of the legal system is more important to over 65s, under 30s, women, and people who are educated up to compulsory schooling. Multinational companies are seen to be more important by people who are less educated

(41% compared to an average of 31%) while the UN's position is considered to matter more to under 30s (31% compared to an average of 24%). In contrast, the role of the European Union comes last for all sections of the population.

The Swiss Confederation (57%) plays a major role for more than half of respondents, as do local associations and foundations (58%). Around 4 out of 10 people want small and medium-sized enterprises (44%), as well as political parties, clubs and churches (40%), to contribute significantly to Geneva's development; this figure is slightly lower for the legal system (37%).

Strengthening local partnerships

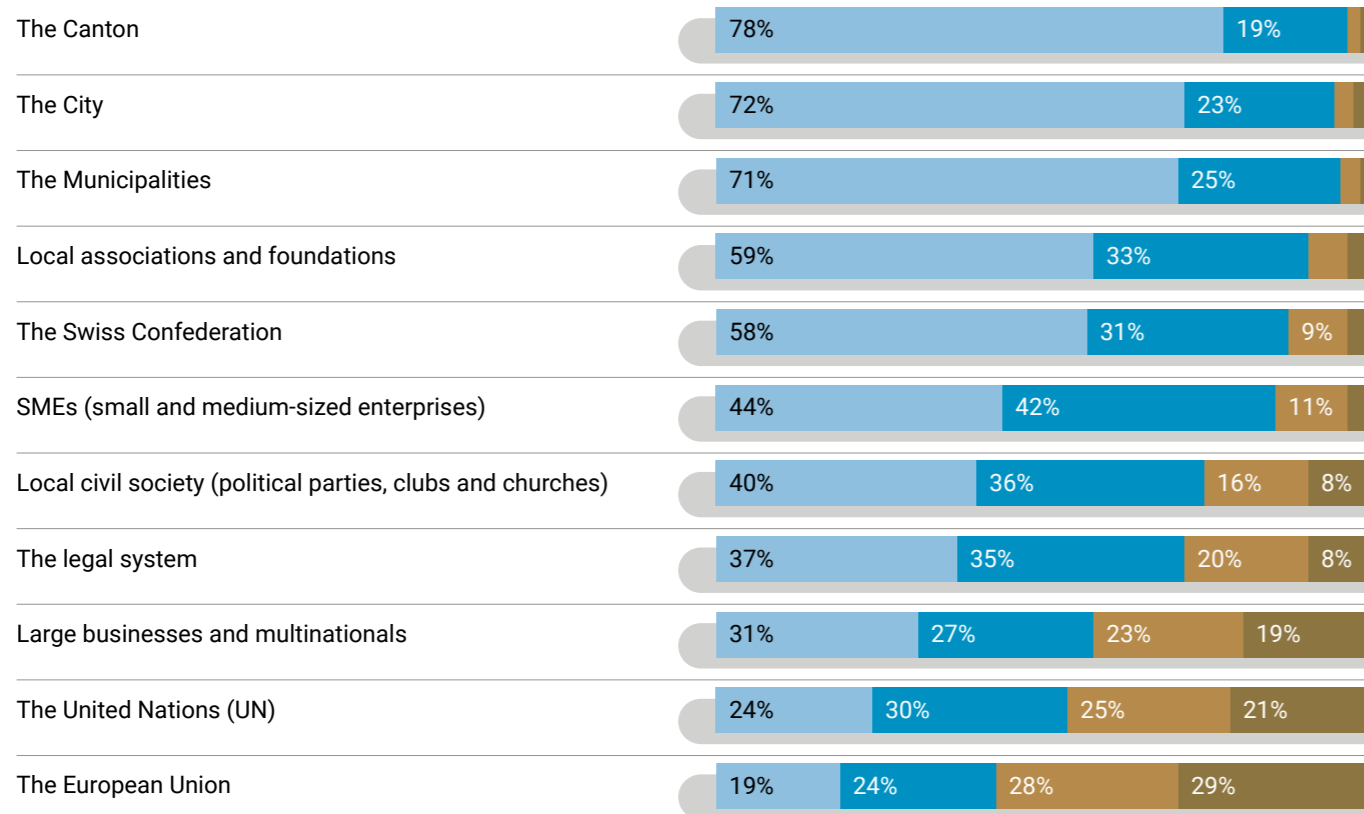
Despite mostly positive responses on the online questionnaire, many people used the comments to express a lack of confidence in both the City or the Canton. Multinationals are also the subject of various criticisms and should, in the words of one respondent, "play their part because they have a decisive impact on economic and social life. Since they bring with them values, they must act ethically and contribute more to training and education programmes." The other trend in the comments relates to local or glocal networks (strengthening local networks without neglecting global exchanges). "I hope that the way Geneva develops will be decided by the people who live here: local businesses who know about the living conditions." "We have to bear in mind that local businesses will always have a better reason to invest in Geneva than others."

Adding other players to the discussion

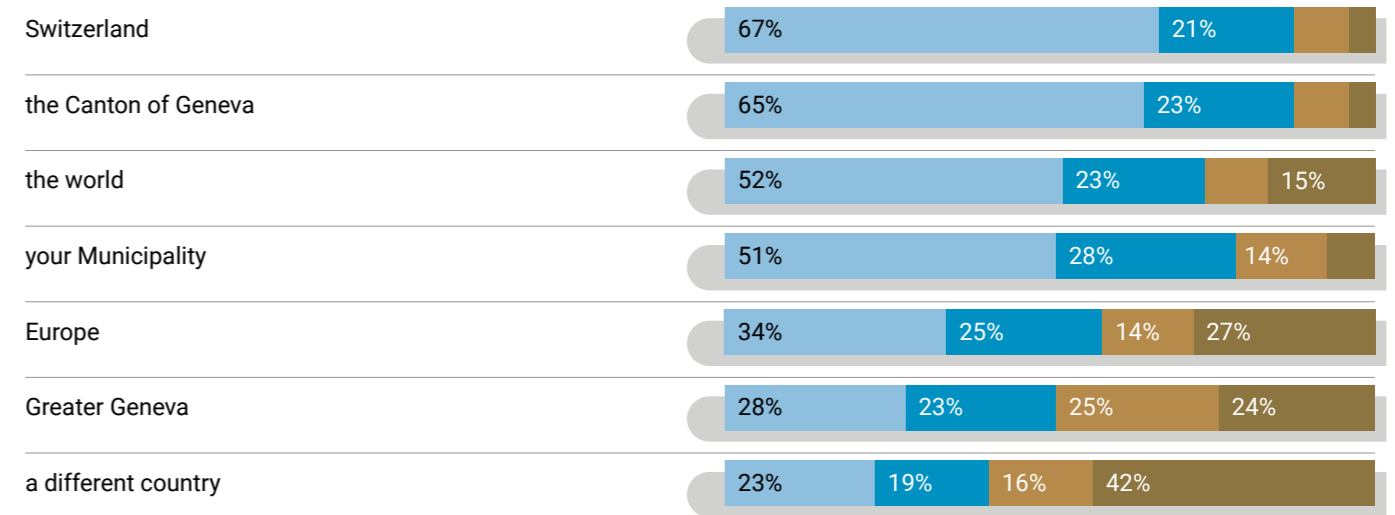
The comments also mention other players that did not appear in the consultation proposals, but which are likely to contribute to Geneva's development: hautes écoles, universities and polytechnics, for example.

"There are significant disparities among respondents"

Do you want the following players to contribute to Geneva's development in the future?



Do you consider yourself a citizen of...?



■ Yes
■ Mostly yes
■ Mostly no
■ No



What lessons can be learned from the Covid-19 crisis? Governance trends may turn to principles around taking precautions and increased risk management. Decision-making by public authorities would be strengthened to better prepare for both the medium and long term.

70%

want the Canton and Municipalities to contribute to the development of Geneva





GENEVA IN THE TIME OF COVID-19



Building resilience post-Covid 19: First steps

Resilience can be defined as the ability of a system to continue operating under unexpected conditions. In March 2020, the Covid-19 pandemic disrupted people's habits and brought practices which were less common to the fore – like remote working and distance learning – but it also exacerbated pre-existing social inequalities. The pandemic re-dealt the cards when it came to mobility, and raised even greater questions about the future of our climate.

A historic halt to mobility

Confinement put a net stop to the growing mobility seen in recent decades, but it also shifted modes of transport back from collective to individual. Travelling on foot or by bicycle exploded, but equally, some public transport users turned to their cars. In the short and medium term, mobility needs and practices will be influenced by whether certain trends continue and grow (remote working, changing location of leisure activities, etc.). With regard to sustainability objectives, it therefore seems essential to give strong guidance around new behaviours when it comes to mobility which could be sustainable after this crisis.

Alongside mobility, the crisis has been accompanied by an awareness of noise pollution levels, stress, the importance of housing and the environment. There is a growing desire for wider planted pavements, cycle paths and terraces for restaurants: all moving away from dependence on motorised transport. At work, questions are being asked as to whether we are moving towards a decline in open spaces and even office buildings in general, which would be an opportunity to densify city centres and avoid urban sprawl.

This lack of mobility was largely offset by activities going digital. The first surveys conducted among employers showed that, while the organisations were not necessarily ready, the infrastructure was. But this vast digital expansion poses two problems: the first related to data protection and dependence on GAFAM solutions; the second environmental. Digital infrastructures are highly polluting, and the problems of incompatibility with certain types of equipment go against sustainability efforts. This should be a key requirement in establishing the degree to which digital activities are a priority.

The combination of technology and a lack of mobility have made it possible to significantly extend the practice of remote working, especially in the tertiary sector.

Pre-Covid-19 studies show an increase in productivity linked to remote working, but also the need to define a framework to avoid issues around privacy, especially for employees with young children. These findings were confirmed during the pandemic and it will now be a question of setting the ideal levels of remote

working – in the knowledge that companies with a workforce where 25% live across the border must also pay social security contributions in France.

When it comes to training, 91.5% of teachers used the digital tools offered by the Department of Public Education, Training and Youth, where only 16% had done so regularly in the past. Common challenges were reported by students, parents and teachers (organising their day and training from home and helping their children), as were fears about the future of their academic career.

A concept of global health

The pandemic has brought to light some weaknesses, particularly dependence on external sources for basic necessities. Two seemingly opposed trends were observed: the development of e-commerce and local shops. From the perspective of resilience, the promotion of local products has immense potential for growth. While previous economic crises were speculative bubbles, causing a global but gradual effect when they burst, the Covid-19 crisis had an immediate effect, but one which varied according to the sector (more marked in events, culture, hotels and restaurants, tourism, personal services and household budgeting). While Switzerland performed well when it came to healthcare (in terms of access and quality of care), the crisis has revealed an extreme precariousness which affects the fringes of the population who are not covered by the social security system: self-employed people not covered by the loss of earnings compensation scheme (APG) such as taxi drivers, sex workers and people in an unofficial situation.

Alongside this, those who receive food parcels (5,500 households or 14,000 people) also often have problems with debt, health, lack of housing space and loneliness. While the crisis has exacerbated inequalities, it has also shown that our tolerance for inequalities is diminishing: for example, by showing that the most essential jobs are generally not those which are most valued, both in terms of income and social recognition.

Doctors also point to the risk of a "second pandemic": diseases stemming from the degradation of environments and lifestyles. This is why the concept of "global health" should be recognised, acknowledging the interdependence between the health of humans and that of the planet.

A crisis for health and for the climate

In Switzerland, greenhouse gas emissions decreased by around 30% during confinement compared to 2019, mainly due to a decrease in motorised travel. Although significant, this reduction is insufficient with regard to the canton of Geneva's climate objectives (-60% of greenhouse gas emissions by 2030 compared to 1990, with carbon neutrality by 2050) and emphasises the need for sustainable structural changes. Since the start of the crisis, many scientists have drawn attention to the decisive nature of "crisis exit" strategies and the risk of a traditional economic recovery, to the detriment of a recovery which is compatible with climate issues.

Although some measures taken during the pandemic might be similar to those required by the climate emergency, there are considerable differences between the two crises: their timing, their tangibility, the degree of awareness of the dangers and their modes of governance.

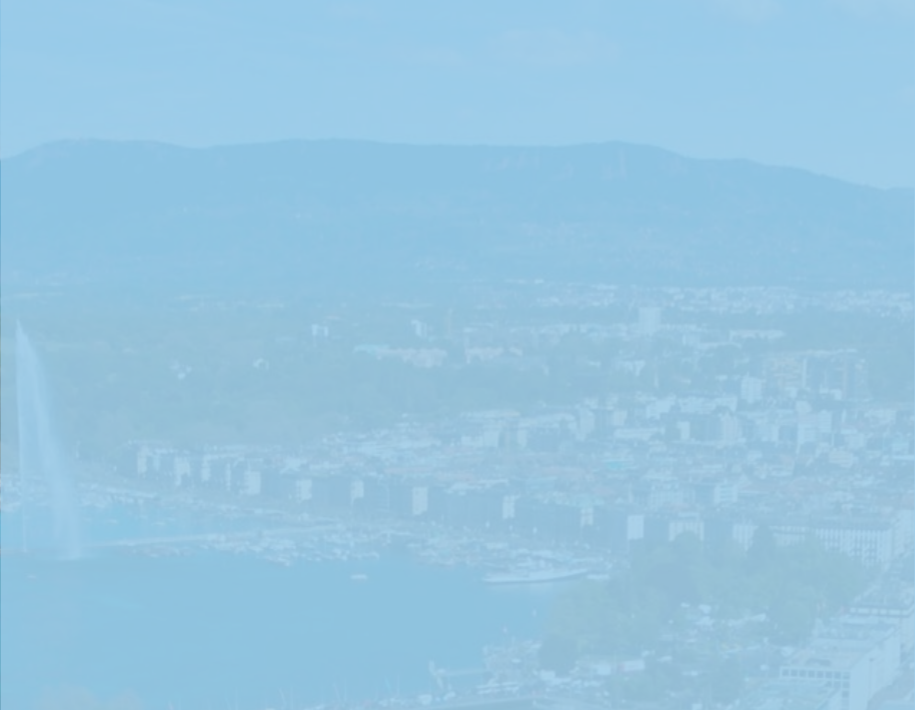
For emergency climate measures to be accepted by citizens, the population will need to be on board. Solutions could include setting up a Geneva citizen forum on the climate emergency, a scientific climate advisory board (using the model of the Covid-19 task force), new climate projects and climate-compatible laws, and even creating a "climate emergency project" label to speed up procedures. The example of cycle paths has shown that, in exceptional circumstances, it is possible to implement some arrangements more quickly. As yet, however, there are no such provisions for the climate.

The health crisis is not over, and in the short term it will make the implementation of strategies that support the ecological transition more complex. Over the coming months and years, it is therefore essential that we take measures which realign our lifestyles.

From the perspective of the transition, our focus should be on adopting virtuous travel behaviours, changing the location of leisure and consumer activities, and an increase in the resilience of the local area.

As for healthcare, lessons can also be learned from the crisis, even with ORCA regulation on how to set up an organisation in the event of a disaster. At the institutional level in the medium and long term, it is necessary to reflect on how to be better prepared in the event of a pandemic and lasting crisis.





**PUTTING IT IN
PERSPECTIVE**



Young people's view of the canton's future

To complete the public consultation, 50 school classes – or nearly 1,000 students aged between 10 and 20 years old – responded to an adapted version of the questionnaire in October 2019:

- 48¹ classes educated under the Department of Public Education (DIP) were chosen to provide a cross-section of the Geneva school system according to the following criteria: education level, primary/secondary, pathways, types of institution (urban/rural, REP/non-REP [priority education network], specialised);
- plus 2 private school primary classes who also wanted to participate.

This initiative was part of the “one month, one right” programme, set up by the DIP to mark the 30th anniversary of the Convention on the Rights of the Child, with the month of October dedicated to citizen participation. The Geneva 2050 questionnaire was transformed into an interactive teaching programme led by teachers, called “What kind of future do you want for Geneva?”. The aim was to introduce all the topics to students and ask them to vote on the three topics they considered most important. From their choices, students then reflected on the ideas and projects they wanted to see implemented in the future.

The students were thereby able to participate in the large-scale Geneva 2050 consultation. They had the opportunity to express their opinion on subjects that concern them directly and to take on the many facets of citizen issues with a view to preparing them “to participate in the country’s economic, political, civic, cultural and social life by strengthening their sense of responsibility, discernment abilities and independent judgement.” (art. 10 LIP)

A summary of this consultation is set out below. Organised according to the topics chosen and education level to highlight the differing expectations in each age group, it also highlights the fact that students’ choices of topics often overlapped: for example, new technologies combined with climate preservation, mobility, safety and education. School also comes up in a number of primary school comments.

Primary school summary

New technologies

The place of humans remains at the heart of concerns around technology, with support for preserving and developing jobs in the age of automation. Perceptions of the role of technology vary, with some pupils wanting to limit the role it plays, while others wanting to integrate it from as early as primary school.

Expectations are high with regards to digital education and new technologies.

Climate and energy

Schools must continue to set an example by educating pupils about issues related to the climate and energy. To this end, pupils want to carry on with lessons on how to respect the planet from primary school age. One suggestion was to rank schools by how “eco-friendly” they are, which might encourage schools to take actions, such as installing solar panels and opting for organic ingredients in school kitchens. Alternative means of transport also win the vote of most pupils, such as cycle paths and public transport.

Safety

Expectations for improving safety vary significantly and relate to travel (soft mobility), electronic surveillance, combatting harassment and reinforcing protection.

Orientation cycle summary (ages 12-15 years)

Quality of life

These pupils came up with a wide variety of suggestions moving towards sustainable development, such as creating a seed library, introducing more skate parks with special supervision (for example by volunteer instructors and the retired) and encouraging meetings between people of different generations. Pupils are also concerned about living conditions for older people and house prices. With regards to the environment, pupils want more restrictive measures for recycling and renewable energy, as well as measures to promote the planting of green areas in the city and encourage free public transport.

School and training

In the future, digital technology could help pupils who are struggling, as well as help schools to better understand and differentiate between each pupil’s pace of learning (for example through the use of tablets and digital textbooks). Schools could also adopt more flexible, adjustable timetables which allow for greater autonomy, creativity and more space for sport and other activities. Pupils would like to have the “right to vote” on the way projects are developed in connection to their school.

Safety

Pupils can feel unsafe. They see safety as a basic right, both during the day and at night, and support new systems being installed to help us live better together.

Upper-secondary summary (ages 15-19 years)

Quality of life

Students want to move in the direction of sustainable development in various ways, for example by installing enough solar panels on each newly constructed building, introducing new regulations for existing buildings and promoting the circular economy by introducing a local currency.

New technologies

Students note that automation and artificial intelligence are advancing rapidly. Far from dreading this, they believe it to be a unique opportunity that should be embraced to develop a different kind of society that has more space for social life. The use of digital devices (such as tablets in the classroom) and the integration of educational platforms for distance learning are tools that could give students more independence. There was also a desire for IT lessons to start in primary school, and even for pupils to learn how to develop their creativity using IT.

Work and professions

Students want the professions they choose to contribute to their personal fulfilment. Some students say that work is just a means of earning a living that lacks enjoyment, rather than a form of personal fulfilment. Providing a universal income could liberate people from this approach to life.

In summary

The different comments from teaching staff on this consultation lead us to believe that the programme gave rise to many debates among students and multifaceted discussions in the classroom. The allocated time was even deemed insufficient to develop all of the discussions on several occasions. Overall, students felt invested in the future of their canton. This first consultation on the future with young people represents an opportunity for further collaboration such as to encourage the youth of today to become engaged citizens of tomorrow.

Topics



Workshops and the concerns raised

How will we get about in 2050? What are the trends in housing, resources, ecosystems and living conditions? Will dematerialisation and automation replace humans? What will social action look like in 2050? How can we fight discrimination and inequality? What will schools look like in 2050? What are the views of public authorities and citizens? 15 workshops and debates were organised for the public to compare opinions. This is not an exhaustive list, but rather key points and illustrative examples aimed at showing the major trends that already exist in Geneva and around the world. With the topics being so vast, discussions focused on key elements. Meetings mainly took place at the “3DD Consultation Space”, dedicated to the city of tomorrow and facilitating participatory approaches. The “Espace Entreprise” team of apprentices followed and supported the project team.

Living better together

The first event of the Geneva 2050 programme was hosted by the Hospice Général and took place as a workshop-debate centred on four questions: will we live better together in Geneva in 2050? What are the three major issues that need our attention over the next thirty years? What are the three main risks that could jeopardise the way we live together? What are the three main forces that currently support the way we live together? Social cohesion is also about integrating marginalised groups into society. There are four basic dimensions to help everyone find their place in our highly diverse society: economic (through everyone’s participation in the production and consumption of goods and services), social (through the social connections that individuals form among themselves), governance (which manifests itself through voting and voluntary work, for example) and cultural (which develops around common values shared by the whole of society). Today’s issues are no longer the same as those of the past.

The idea is to help people without discriminating against them. This may require a more individualised, almost case-by-case, approach to best meet the needs of each person.

The place of older people and the challenge of ageing

The place of older people and the challenge of ageing are major social and financial issues. How will we live in 2050 with regards to the risk of isolation and the dynamics of social participation? With increased life expectancy and improved living conditions, this is an area that will affect the entire population. By 2040, the number of people aged 65 and above could increase by around 64%. Crucial issues for older people are their social involvement, the ways they participate in and contribute to society, their place in social relationships, but also the risks of isolation and loneliness they face. This is therefore an important concern and suitable solutions need to be found to address it. The figures show that the majority of people (55%) are independent when they reach the end of their lives. However, our social and health system is mainly geared towards dependent people, who are ultimately in the minority (45%). The system and services as they stand must therefore be adapted to develop programmes which help people who are frail but relatively independent to prevent them from reaching a place where they become dependent. Part of the key lies in the transition between the 3rd and 4th ages. One approach could be to provide better support to caregivers who enable many older people to continue living at home. Awareness raising campaigns should also be rolled out, and intergenerational relationships and solidarity should be developed and promoted. Not only does this prevent older people from falling into social isolation, but it enables young people to benefit from the wealth of experience and lived experience of their elders.

New modes of citizen participation

Participatory budgeting, public consultations, new ways of social interaction... Does digital keep its promises when it comes to these new modes of participation? Many public and private players have tested new, digital based ways of participation in recent years. These approaches, which combine open innovation and co-creation, now appear to be around for the long term. At a time when the Canton of Geneva has just successfully consulted the population on its digital policy, followed by its future, it is interesting to look at the challenges and opportunities that present themselves in this area. On the day of its 27th conference, Genève Lab shed light on a topic that concerns both the region’s citizens, businesspeople and the public sector in equal measure.

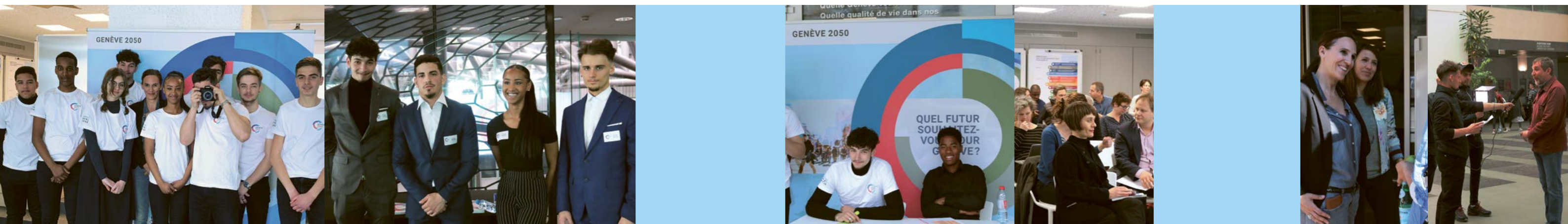
A school without walls

No desks, no classes, no grades, no timetables... What will the schools of the future look like? To face the challenges of 2050, reforms are needed today. The emergence of digital, dropping out of school and different teaching methods are all important issues that will have a significant impact on the education of tomorrow. In the future, education will have to be personalised to students’ needs and abilities and aligned with future challenges. Schooling in 2050 poses questions about teacher training. How should teachers be trained so that they can take advantage of technological advances and meet the needs of students? The challenge is great, but one thing is certain: the education of tomorrow will have to rethink the relationship between teaching staff and students. Artificial intelligence presents opportunities, but teachers and students should keep it at arm’s length: the human should not be forgotten. As a result, teachers will not disappear, but their role will evolve and social interactions will be different.

Mobility in the future

According to trends forecast by the Swiss Confederation, between 2010 and 2040, the number of people travelling by train in Switzerland is set to increase by 51%. The number of cyclists is expected to increase by 32% and drivers by 18%. Over the same period, freight transport by rail will increase by 45% and 33% by road. Mobility challenges are therefore considerable if the country is to meet carbon neutrality goals, which will require both investment and changes in behaviour. It will also be a matter of significantly revising multimodal travel and drastically reducing the volume of road traffic to meet the challenges posed by the ecological transition.

The arrival of driverless vehicles will involve completely rethinking many areas. There is a need to reconsider town and country planning to meet the needs of these new means of transport. The networks and new infrastructure for these vehicles will also need to be considered. Finally, legislative frameworks must also be updated since a number of major changes are to be expected. To best prepare for these, the Confederation has launched a large-scale research programme on driverless travel, enabling new knowledge to be acquired and favourable conditions to be created for when the time comes; that is, from the year 2040. By then, the new transport system will be integrated, safety will be improved and productivity increased. experts argue that the concept of sharing should take precedence over the concept of possession. For the Swiss railways (CFF), for example, this (r)evolution involves the smartrail 4.0 programme which will increase network capacity by more than 30% without having to build new infrastructure. Through the Léman 2030 project, the extension of Cornavin station will double capacity between Geneva and Lausanne. This is a major step forward, but it will not be enough.



The challenge is also to bring about a change in behaviour by encouraging the use of public transport, soft mobility and car sharing. This is a crucial challenge as climate change accelerates and the point of no return draws near. The prospects for mobility in the future are interesting as there are great opportunities for development. In addition, other advances such as remote working will reduce the duration and number of trips, and ultimately the overall pollution caused by mobility. Finally, the use of green energies such as wind, hydroelectricity and biomass will help reduce greenhouse gas emissions.

Stopping violence and discrimination

How will actions taken by public authorities evolve to promote equality and fight against gender-based discrimination and all forms of violence? We must promote and enforce existing laws, such as the Federal Law to Assist Victims of Crime (LAVI) which came into force in 1993, and the Equality Law (LEg) which came into force in 1996 to deal exclusively with equality in the workplace. As these laws are not well known, neither of them are currently used very much. Awareness must therefore be raised to ensure they are applied more frequently. At the international level, a framework is also in place to support and protect the work of equality offices, comprised of two main international conventions:

- The Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), which was signed by Switzerland in 1987 and ratified ten years later. Today, 188 countries around the world have ratified the Convention.
- The Council of Europe Convention on preventing and combating violence against women and domestic violence (known as the Istanbul Convention), which entered into force in Switzerland on 1 April 2018.

To combat discrimination and violence based on sex, sexual orientation, gender identity, gender expression and intersexuality, and better protect the targets of this violence, the almost non-existent legal foundations in this area need to be strengthened. Changing the legal framework, however, is not enough. We must also improve representation, deconstruct stereotypes and change behaviour. This involves in-depth awareness raising and education from an early age and in all areas. Important levers for moving the situation forwards include: adopting inclusive language that understands, recognises and values the diversity of genders and family structures; supporting women's access to positions of responsibility; supporting the balance between family and working life; and promoting a more balanced representation of women and men across training courses and professions. To achieve this, however, it is necessary to work as a network, and this requires investment from society as a whole.

Regarding equality in the world of work, the Office for the Promotion of Equality and Prevention of Violence (BPEV) has developed several tools for companies. In the Canton of Geneva administration, the promotion of equality is also on the agenda, with an action plan comprising 27 measures relating to 5 areas of intervention, which has been validated by the Council of State. Promoting equality in politics is also a goal. To achieve this, the BPEV offers training to women who want to engage in politics, but also for female candidates and female elected officials. A new sexual harassment awareness workshop has been offered to deputies of the Grand Council. Strengthening and supporting the rights of lesbian, gay, bi, trans* and intersex (LGBTI) people is also a priority issue. Finally, each year, domestic violence prevention campaigns are carried out (especially visible in the city's transport networks). The BPEV, in collaboration with the Canton of Geneva statistics

office (OCSTAT), produces an annual report for the Domestic Violence Observatory.

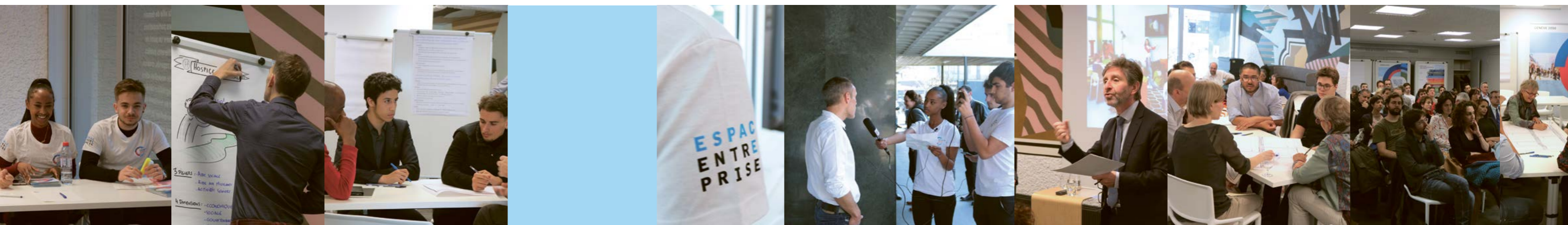
These statistics are a tool for steering public policies in the prevention and management of violence. Future challenges will include educating children. Educational tools have been prepared by the equality offices at the Swiss French level, such as the School of Equality. To promote a more egalitarian society and fight violence, we must act at the individual, collective and institutional level by taking coherent and long-lasting actions.

Sustainable economy and finance

Concern for the environment has perhaps never been as strong as it is today among the Swiss population. There is a steady stream of climate protests and Switzerland's inhabitants have many expectations. The environment has become one of their main concerns. The evolution involves changes to behaviour, approaches and economic activity. The debate on sustainable economics and finance highlights the population's demand for change. A new paradigm is emerging with interesting development opportunities, enabling the economic model to be reconsidered and credible alternatives designed. The green economy is currently still marginal, but in the future it will grow in importance and become an established major sector. All players will be involved in accelerating the transition, acting at their level and having a tangible impact on the choices made by the economic sector. There is still a long way to go to achieve this, and everyone will be involved. Businesses are in favour of change but expect public authorities to have a clear strategy in place that can be transposed to the private sector. The State should set an example and invest in concrete projects.

Environmental democracy and sustainability

By 2100, Geneva's climate will be similar to that of southern Italy. According to the IPCC, rapid and radical changes to all aspects of society are required to limit climate change to 1.5 degrees by 2030. While this would minimise the impact of climate change on the planet, we would need to reduce global carbon dioxide emissions by 45% (on 2010) by 2030. To date, 41% of Geneva's carbon footprint is caused by mobility, 24% by housing, 18% by food, 12% by businesses, 4% by construction and 2% by waste. The government needs to set the example and bring stakeholders together to find solutions.



Putting the Geneva 2050 results into perspective with public policy indicators

The results collected throughout the various steps of the “Geneva 2050” consultation paint a picture of the issues respondents perceive for the future of our canton. Translating these issues into concrete goals and actions requires constant observation of the development of the main trends, as formulated by the public policy indicators the government adopted for the 2018-2023 term of office. This system of global indicators covers the major topics addressed by “Geneva 2050” and can be adapted following a more detailed analysis of the results. A brief introduction can be found below.

Ten indicators are dedicated to monitoring the goals of the Council of State's legislative programme. These indicators will monitor the changes made in various public policies and, if necessary, planning will be adapted to support the evolutions observed. These data will be updated every three years by the canton. Aggregating and monitoring the indicators will enable a desirable scenario to be reached by 2050 and conditions for resilience be defined.

On the one hand the indicators therefore serve to identify and measure the progress made in achieving goals; on the other, they make sure public policies are comprised of coordinated actions. The indicators were chosen from a collaboration between departments, with support from the Canton

statistics office (OCSTAT). Each indicator is described in detail in an “indicator sheet” available on the Geneva 2050 website.

Aiming for carbon neutrality

The Canton's climate plan will soon be adapted. Its new goals will comply with the Paris Agreement and thus meet the recommendations set by the IPCC. The aim is to reduce greenhouse gas emissions by 60% by 2030 and achieve carbon neutrality by 2050.

Making the transition to a 2000-watt society

This indicator measures the evolution of primary energy consumption per inhabitant of the canton of Geneva across all fields, i.e. energy linked to the production of heat, electricity consumption, transportation of goods, and the people and energy used to produce and transport goods and services consumed by Genevans.

Increasing the share of inhabitants and jobs within 300 and 500 metres of a public transport stop

Monitoring this indicator will show the share of the population and jobs served by public transport. Projections about the future network will also be made to anticipate future improvements. The goal is to increase the proportion of people and jobs served.

Reducing time spent on daily travel

This indicator summarises the effects of measures such as land development (the city of short distances), the improvement of the commercial speed of public transport and even traffic flow, as well as “demobility” measures aimed

at reducing the number of trips (through remote working, coworking, digitisation, etc.).

Measuring demographic changes

Demographic projections are based on estimates published in 2016, covering the period 2016-2040 and extended up to 2050 by the Canton's statistics office (OCSTAT).

Adapting the level and quality of employment

This indicator draws a line between employability and current employment conditions in Geneva. The first step is to measure the total number of jobs and the employment rate, and to favour the creation of value in these jobs. These measures enable public policies to be adapted.

Increasing the rate of upper-secondary qualifications up to the age of 25

This indicator focuses on the education process in Switzerland and therefore on students who are educated in the country. The goal for Geneva is for 95% of upper-secondary students to take their exams (the most recent figure stands at 84.5% for 2016).

Increasing online services

The digitisation of administration aims to optimise processes among the population, the economy and State services, as well as within government using information communication technologies (ICT). The indicator relates to the share of the population that uses the internet to contact public administrations to conduct administrative procedures.

Reducing life expectancy gaps across the population

The goal is to reduce the gap in life expectancy between women of Swiss nationality (+7.6 years) and women of foreign nationality to 6 years; similarly, the aim is to reduce the gap in life expectancy between men born with good health of Swiss nationality (+4.9 years) and men of foreign nationality to 3.5 years.

Evaluating the evolution in the median gross annual income of taxpayers taxed at the ordinary rate and the evolution for low-income taxpayers changes in the distribution of income (and for low-income taxpayers) is an important indicator for observing social inequalities, analysing the way they develop and describing their impact on social cohesion and growth. This indicator also enables a regional analysis of inequalities (particularly by municipalities) to be made.



Implementing the changes required to prepare for the future

How do we want the future to look?

The aspects perceived and desired by respondents participating in the "Geneva 2050" consultation provide interesting indications about various factors concerning the future of our canton.

One way of illustrating these results is to contrast them using different scenarios. Academic research and projects carried out in partnership with the Geneva School of Business Administration (HEG) as part of the process have shown that possible future scenarios naturally tend to fall into four types of narratives: "continuation", "limitation", "collapse" and "transformation".

The results of the public consultation show that a large majority of respondents are aware that profound changes are needed. It is clear that respondents want to anticipate future transformations to achieve the goals they desire when it comes to inhabitants' quality of life. Nonetheless, there is still a question mark over the pace and intensity required to break away from the current system. The forecast emerging for 2050 indicates that, since technological and societal advances are seemingly within reach, the path to achieving long-term goals could be found today. As a result, the emerging "transformation" scenario enables us to collectively devise new levers and cooperate in ways that are both unprecedented and tangible at all levels of society.

It is therefore useful, as part of this forecasting process, to compare the results of the consultation with the scientific recommendations that highlight the need for profound changes to take place. This scientific research, outlined particularly in the report by the Intergovernmental Panel on Climate Change (IPCC), emphasises the need for rapid change. Approved on 24 September 2019 by the 195 member governments, the latest IPCC report presents "new evidence underlining the benefits of keeping global warming as low as possible, in line with the target that governments set for themselves in the 2015 Paris Agreement."

At the same time, these explicit scientific findings are accompanied by large-scale movements among the population, particularly on the issue of climate change and social justice. These movements illustrate citizens' desire to be more involved in the decisions that affect their future.

At its core, the vision of a desirable future is resolutely based on an interdisciplinary approach that considers all the public policies at the heart of concerns, consequently implying a change in State actions.

Resilience as a new societal project?

To tackle current and future changes, it seems essential that Geneva should become more resilient; that is to say, able to successfully cope with shocks and their consequent changes, and adapt and develop in a positive way. Above all, it is a question of gradually involving the canton and its partners to grow in the way they work, think and even design projects. Building a resilient canton must be based on an "integrated" approach, where every policy and infrastructure is considered in the way they interact with each other.

The approach made it possible to address the canton's development forecasts as a whole. Ultimately, it is about being able to intervene, in a coordinated and strategic manner, in order to meet the Confederation's expectations by 2050.

What impact will the health crisis have on our practices and behaviour?

The 2020 health crisis linked to the new coronavirus presents an unprecedented challenge on us all. Health risks will remain a major concern for a long time. Will we live differently in the future? Some studies indicate that crises can constitute an opportunity for change for organisations and the population. How, then, can these changes be made for the common good? The current situation forces us to think about the possibility of making society and the economy more resilient in the face of such shocks, as well as how to manage crises of any nature.

Participants in the Geneva 2050 forecasting process repeatedly referred to the need to make major changes to our behaviour, such as to make a real changes and move towards new ways of living (e.g. schooling, remote working, reduced travel, etc.). Changes are clearly possible.

While it will take time to obtain a detailed analysis of the situation, it is clear that the context of the current health emergency is already providing lessons and opportunities on how to better manage environmental, economic and social issues, particularly in the way they link together to accelerate the ecological transition. This situation could both trigger and accelerate a profound change in our societies.

Afterword

What will happen in Geneva between now and 2050? The Geneva 2050 process gives several keys to understanding the future, enabling the Forecasting Commission to identify some major trends and put together several future scenarios, including the one below.

Already tested by the health crisis that has been affecting us since March 2020, this forecast is bound to evolve and be enriched by the developments that will come.

The decades 2020-2040 will see a significant advance in artificial intelligence, digitisation and automation in all fields. This will have major repercussions across society: certain jobs will disappear, but new professions that we cannot yet fathom will be created. Schools and continuing education for adults will adapt, becoming key players in the transition, enabling young people and employees to be retrained in new skills and jobs for the sectors concerned.

On the other hand, challenges linked to reducing and taxing CO₂, along with developing transport and the local economy, will prompt certain production processes to be located locally once again, which will create new jobs in Geneva.

Innovative and diversified, the local economy will become more important, founding itself in particular on the circular and sharing economy. The distinction between hand-crafted and industrial production will become blurred, for example, 3D printers will enable small companies to meet a wide variety of demands in real time.

For its part, the Geneva government will complete the digitisation of its services, which will be fully available online, while introducing more agile working methods internally. This will reduce working space and use of its offices while improving its services to the population.

The goals of the canton's energy policy will be revised upwards and several new measures will facilitate the transition to more sustainable solutions. Solar and geothermal energy will develop well, supported by new distribution networks.

At the same time, the energy renovation of buildings will bear fruit, and the construction of the PAV district and other new "2,000 watt" neighbourhoods will push Geneva towards its goal of making 100% of its energy consumption renewable by 2050.

In transport, 3rd generation clean fuels will be developed, helping maintain individual mobility, although this will be just

one element in the range of flexible, needs-based transport that will be available. The internal combustion engine will have declined in favour of electric engines and other more sustainable engine technologies. Artificial intelligence will also enable driverless means of transport to be coordinated and the learning systems of connected objects to be managed.

Geneva's society will thus gradually manage to reduce its ecological and carbon footprint.

However, the health crisis of 2020 and its aftermath have highlighted the fragility of social cohesion and the need to build a more resilient society when faced with all types of changes and crises.

This is accompanied by a movement towards a more inclusive society committed to equality, in particular with regard to supporting gender equality, combatting racism, respecting sexual orientation and including people of all generations and people with disabilities. There are many challenges, but innovative and integrative solutions will emerge from strong collaboration among civil society, public stakeholders and companies.

More broadly, the people of Geneva's desire to live well will become a defining issue of these times. Depending on individual sensitivities, this will mostly be expressed by consuming more responsibly, returning to greater spirituality, opting for quality local food and finding a better balance between work, leisure and personal development.

From 2040, the use of data will underpin all public policies as well as the canton's economy. This will promote the emergence of efficient solutions that will meet the needs of all. As a result, the protection of personal data and the provision of reliable and transparent public data has become a central issue.

To keep people at the heart of considerations, an ongoing participatory dialogue between the State, the population and other stakeholders in the canton will enable public projects and policies to be adapted to closely meet the situation and needs of the time.

More generally, when facing multiple global challenges, International Geneva will remain a privileged place of governance and multilateral dialogue between countries, cities, international organisations and academic and private players.

At the regional level, Geneva will reaffirm its central position in a cross-border urban area that has developed to count more

than one and a half million inhabitants. The attractiveness of the canton will nevertheless put the area under pressure. Challenges, particularly in terms of planning and mobility, will be in proportion to these developments. Fortunately, the forecast has enabled the Canton to anticipate infrastructure needs up to 2050.

In the 21st century, developments in urban planning and the diversification of architecture will better take into account the population's evolving expectations by meeting demands for high quality, specifically integrating our natural and construction heritage, as well as new Smart City services.

Multimodal journeys will be optimised using algorithms to serve integrated public and private transport which will be stronger at the local, national and international levels.

Smart factories will enable production to be aligned as closely as possible to demand, drastically reducing the waste that is synonymous with mass production. The transportation of goods will be increased, but will comprise smaller quantities that will go directly from the local place of production to customers, in turn lowering the energy bill.

This new urban, metropolitan era will be accompanied by significant rail developments which will supply a large part of the new districts' travel needs at the canton and regional levels.

Moreover, by 2040-2050, the extension of Geneva Cornavin station and the new railway lines will complete the mobility networks of Greater Geneva, in line with the land developments planned across the canton. This will improve travel and reduce the pressure on existing transport networks.

This adjustment will meet the major mobility challenges facing Greater Geneva, which offers significant scope for developing public transport. It will also help achieve the mobility goals of the whole country, by ensuring traffic flow within urban areas, and between the latter and peripheral regions.

In terms of Geneva's population in 2050, demographic changes will result in a much larger proportion of older people in society. This will pose significant challenges to intergenerational balance: the job market will be under pressure from a decrease in the number of young people entering the workforce, while the funding balance in the pension system will pose major challenges.

Care services for vulnerable people, especially the elderly, will improve significantly. Co-living and systems based on proximity and solidarity will be supported and put forward by individuals and civil society, as well as by businesses and public players.

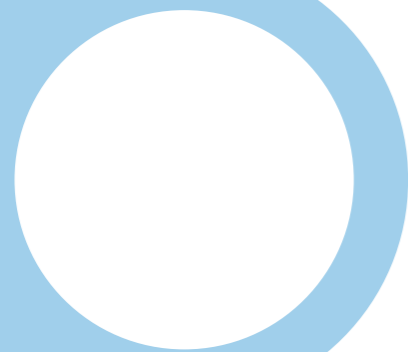
More broadly, environmental and energy transitions will develop around four main areas: reducing carbon emissions, adapting to climate change, valuing natural resources and biodiversity, and protecting populations from external risks and pollution.

As of 2020 forecasting is one of the Council of State's standard tools and in 2050 it will naturally launch the next phase: "Geneva 2100"!

The College of Secretary-Generals of the Canton is in charge of the overall management of the Geneva 2050 process. It approves all strategic decisions presented by the Commission, as well as the annual reports outlining the work that will be submitted to the Council of State for examination.

The Commission includes representatives from all departments (presidential department, infrastructure department, land department, social cohesion department, finance department, public education department, department of economic development, department of safety, employment and health). The process is jointly run by the infrastructure department and land department.

The Council of State would like to thank all contributors to this project, institutional, academic, not-for-profit and private partners, as well as our representatives who took part in the initiative.



**The detailed results
are available online!**

Follow the project!

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