

Luxembourg Strategy – SOC2050 Study

The desirability of a social transition towards more resilience

Context

Luxembourg Strategy is the foresight directorate of Luxembourg's ministry of the Economy. Created at the end of 2020, its primary objective is to conduct foresight studies (*études prospectives* or *Zukunftsstudien*), in order to help reinforce the coherence of governmental strategies and to support the transformation of the national economy towards more competitiveness and more resilience for the decades to come. In this way, it also deepens and extends the collaborative approach that started with the 2016 long-term strategic study on the *Third Industrial Revolution* (or TIR2050 study).

Luxembourg Strategy analyses the megatrends that make-up humanity and remake the planet. It examines their evolutions and their manifestations in Luxembourg. It also contributes to the comparative study of national, sector-specific strategies, currently in place or in preparation, that interact with these megatrends and the economy. The comparison aims to stimulate dialogue, the emergence of a common language and an efficient combination of the strategies' effects. Based on national experiences and with the support of internationally established experts, Luxembourg Strategy also seeks to produce scenarios for future economic development that may usefully inform the democratic debates and political decisions. Through conceptual analyses and physical quantification, it supports an integrated modelling of the economy conducted particularly by STATEC.

Study object

The SOC2050 study is a key part of Luxembourg Strategy's **foresight agenda**. Its intended results should substantiate the making of possible scenarios for economic transformation towards more competitiveness, resilience and sustainability by 2050.

Analytically, the study works within the literature on change management in the context of the *Great Acceleration*¹ and upon a widely shared sense that economies need to transform to remain competitive and resilient in the face of planetary boundary pressures, diminishing returns on investments, biodiversity losses and an avalanche of risks for civilisation.

These risks relate to the **megatrends** identified for Europe.² That includes the rise of inequalities, of indebtedness and economic insecurity, demographic ageing, cracks in social cohesion, individualism, the deterioration of mental well-being, the end of an era of cheap, abundant energy, the increase in certain raw material costs, the intensification of extreme weather hazards and their damage. It also includes changes in the nature of work and labour shortages, urbanisation and neoruralism, emerging forms of governance and a backlash against science, the digitalisation and datafication of human relations and productions, the influence of social networks and algorithms on decision-making processes, the challenge of globalisation, the shortening of supply chains and of international movements, the relocation of production...

Following IDDRI's suggestions regarding the conduct of **foresight studies**,³ the study in question here seeks to develop connections between the knowledge gained through human and social science and the technical and economic expertise that has traditionally served foresight. The study makes plain that the qualitative dimension of research results matters as much as the quantitative one and that not everything is compressible into a model. Early on, social questions should inform political debates on alternative pathways and on the conditions of their constructions. For instance, active reflection about social inequalities may help a change of perspective about the policies to adopt. The point is also to go beyond an understanding of the population through arithmetic averages and to represent more precisely the diversity of opportunities and limitations brought about by change.

¹ The Great Acceleration is the dramatic, continuous and roughly simultaneous surge in growth rate across a large range of measures of human activity, first recorded in mid-20th century and continuing to this day. In the era of Anthropocene, these measures are specifically those of humanity's impact on Earth's geology and its ecosystems. See 'The trajectory of the Anthropocene: The Great Acceleration', Stockholm Resilience center, 2004 and 2010, <https://www.stockholmresilience.org/publications/publications/2016-04-18-the-trajectory-of-the-anthropocene-the-great-acceleration.html>

² https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub_en#explore, <https://ec.europa.eu/assets/epsc/pages/espas/chapter1.html> & WEF, Global risk report 2022, <https://www.weforum.org/reports/the-global-risks-report-2021>

³ <https://www.iddri.org/fr/publications-et-evenements/etude/pour-une-meilleure-integration-des-dimensions-sociales-et-des>

The aim is to better understand the potential effects, positive and negative, of a few relevant megatrends on Luxembourg's society and how Luxembourg's society responds to them in return, thereby perhaps transforming adversity in an opportunity to develop resilience. From this, one may start to see how resilience is a product of collective capabilities.

One of the study's output is a report on the desirability of a social transition towards more resilience. Conceptually, the study relies on a working definition of *resilience* that will have to be refined over the course of research. Here are a few words to append some thoughts on the notion: inclusiveness, well-being, social justice, carbon neutrality, preserved biodiversity and availability of essential resources and materials...⁴

The study will also take into account the work of Luxembourg Strategy and particularly that about the social desirability of change. The study consist in two phases, one focused on preparation and diagnosis and another dedicated to the analysis.

Research phases

Phase 1. Methodological preparation & initial diagnosis:

- In the context of Luxembourg's current society and economy, given the availability of existing data and bearing in mind the objectives to develop future scenarios and inform an integrated modelling of the economy, what would be an appropriate method to apply for the present study?
- Which methodological limitations and difficulties to access evidence would one have to address prior to conducting the analysis? How could one overcome these challenges?
- Where do major uncertainties lie? What are critical variables to consider?
- How could one integrate the results of a study of conducts focused on qualitative values into a modelling of economic-physical measures?
- What megatrends are particularly relevant for Luxembourg's society and economy in its greater regional context?⁵
- Which scenarios for the long-term social development of Luxembourg and the Greater Region currently exist?
- Which scenarios for the evolution of climate, material resources and biodiversity may one usefully retain? (Specifically, that may include an understanding of the evolution of rainfall, of temperatures, of risks and vulnerabilities or of the availability of raw materials...).
- Considering the various definitions in circulation, how may one define social and/or economic resilience?⁶
- What learning may one derive from the EU's social taxonomy? How may one put it to concrete application?

Phase 2: Analysis of drivers of change and roadblocks

- What **conceptions of change** are there? What trends for mid- and long-term evolutions of values, representations and practices may one identify?
- Depending on types of changes, kinds of desirability and demographic data (age, gender, level of educational and place of residence), what is the current **acceptance, desirability or propensity for change**?
- What influencing factors (sociological, behavioural, cultural, psychological...) support or restrain changes in ways of living? What kind of incentives are there to drive away **energy, material and soil intensive behaviours**? How is it possible to reduce individual energy and resource consumption effectively?
- **Why is there consumption at all** (beyond actual needs)? (Is that a matter of social competition, a search for recognition or for a sense of fittingness, an immediate gratification or an emotional reassurance?) '*Consumption is in no way an ethics of recognition. It gives an illusion by making one desire addictive things thereby luring one into a regime of permanent frustration*' (Fleury, 2020)

⁴ See Luxembourg Strategy's publication *Resilience, Sustainability & Competitiveness* in the ministry's *Competitiveness & Resilience* annual report 2021, <https://odc.gouvernement.lu/fr/publications/rapport-etude-analyse/perspectives-politique-economique/ppe-037.html>

⁵ See *Mégatendances* Ministère de l'Économie, P. Thielen, Laurent Pütz, 2019 ; *Luxembourg en 2050*, Pascale Junker, juin 2020

(https://drive.google.com/file/d/13vx43GnYw6ys4fHPoKlOyKL_iZ2xPgb3/view?usp=drivesdk); The major future economic challenges, by Olivier Blanchard and Jean Tirole, juin 2021 (<https://www.strategie.gouv.fr/english-articles/major-future-economic-challenges-olivier-blanchard-and-jean-tirole>)

⁶ See for instance Luxembourg's high council for sustainable development for which resilience is the ability to question the limits of a system, a way to evaluate the response to a shock. On that perspective, resilience offers an opportunity to apprehend change and improve a situation. See also the EU commission's understanding of the notion as it is displayed in the *EU resilience dashboards*, Strategic Foresight Unit, European commission, Nov. 2021

- What is the effect of the asymmetry between wealthy and less wealthy members of society in their responsibilities for resource consumption and discharges/emissions on the ability of society as a whole to embrace sobriety and balance with available resource? (Emphasis here should be on high-carbon lifestyles and practices.)
- What are influencing factors and incentives to improve the **physical, mental and psychological abilities** in people to face disruptions from material, climate, energetic, health or ecological crises?
- What is it that **digitalisation and internet**⁷ do to society's ability to change, to work, to business and public governance? How to stimulate reasoning, make **judgments more objective**, and prevent the narrowing of curiosity and the spreading of conformity biases through social media, fake news or post-truth? What are the consequences of a dependence on 'instant and unearned praises' on people's behaviours? How to instigate an 'appetite for truth' (Klein, 2020) or to curb the economy of an 'instant consumer narcissism' (Fleury, 2020)?
- What kind of **information** is required to accompany change? What are the limits to learning? (For instant, how significant is 'strategic ignorance', 'junk science' or 'undone science', the devaluation of parents and teachers in their educational roles to the point of their replacement by corporations – the GAFAM – or by machines – algorithms?) How and how far are access to knowledge, readiness to change attitudes and innovation related? Is it worthwhile to illustrate the effects of behavioural change on the achievement of some form of resilience?
- How does the perception of **time** influence the ability to adapt and/or restrain one's behaviour to preserve resources in a liveable world for the generations to come? (How influential are the acceleration of ways of living, fluid schedules, remote working, time-saving accounts, unpaid time or volunteer work, intergenerational trade-offs, discount rates, the loss of meaning for the consequences of one's actions on future generations or the crumbling of intergenerational transmission and selflessness – given that this is a necessary condition for sustainability?)
- How to make society more resilient in the face of crises? What kind of anticipatory mechanisms, preventive actions and empowerment, enabling or learning measures would be commendable to advance **social resilience** and society's ability to change?
- What kind of disposition, factors or incentives can stimulate the ability to **adapt** extreme weather events and disasters?
- What type of **governance** is desirable to drive transitions effectively in a context of crises? How does it work to transform institutions, cognitive and social systems so that they do not reproduce the carbon- and material-intensive systems they created?⁸
- What **trajectories** (scenarios) of social change are imaginable for the short (2025), medium (2030) and long term (2050)?

Method

The research work may usefully start from reference publications and data at a national, greater regional, European and international level (see a list of selected references below that would have to be completed). Focus shall be on analysing and deriving implications for the particular case of the economy and industry of Luxembourg and its functional area within the Greater Region. The study may establish linkages with Luxembourg Strategy's other study projects and publications and in particular, with its study conducted in parallel about the physical vulnerability of the national economy.

Among all the proven methods in social and cognitive sciences for studying values, representations and conducts, both individual and collective, as much as society's fittingness for change, it will matter to choose the most relevant ones in the context of Luxembourg and the Greater Region. Every time possible, it will also be critical to draw linkages with both their economies and their industries.

One may offer a selection of items, which contenders will have to confirm and arrange based on their methods of choice:

- Delineating the scope of the study (unit of analysis, variables, kinds of hazards, cases of sectors and geographies to study, priority themes and limitations – and, negatively, what should remain outside the study's scope?)
- Reviewing the literature, methods and databases
- Analysing in details those among the significant aspects or major uncertainties that are less well-known
- Exploiting the data generated by recent, micro-level behavioural studies along with the results of Luxembourg Strategy's Delphi survey (planned for 2022-2023)

⁷ France Stratégie, *Le monde de l'Internet des objets : des dynamiques à maîtriser*, Feb. 2021, <https://www.strategie.gouv.fr/publications/monde-de-linternet-objets-dynamiques-maitriser>

⁸ Stoddard et al (2021), *Three decades of climate mitigation: why haven't we bend the curve*

- Conducting interviews, focus groups, sample or large-scale surveys or online consultations about the population's own experience of resilience
- Identifying the relevant mega- or deep-set trends, loud signals or tipping points
- Selecting social hypotheses and visions to consider (e.g. techno-centrism, frugality, resilience or else...) as much as the number and type of scenarios to retain
- Explaining the results, prioritising and exposing them in narrative and graphical forms

List of selected elements that are potentially stimulating or hindering social change towards more resilience:

- Behavioural innovations
- Anticipatory public governance based on science and facts
- Mental well-being and capital⁹
- Future literacy and risk culture
- Service functionality and shared economies
- Circular, repairing and low-tech economies
- Knowledge economy
- Valued intergenerational transmissions (of expertise, techniques and virtues that served societies well in the past...); circularity of competence
- Care economy
- Social and solidarity economy, collective management firms, collaborative work, mission-based enterprises, not-for-profit businesses...
- Digital economy
- Modernised role of commons, data for good, creative commons (?)
- Revised conception of property
- Urban farming, ecological reconstruction, regenerative economy
- Well-being, meaning-seeking, mission-craving – looking for a fulfilling or satisfying professional life (see *Sinn-Ökonomie*, 'the value of toil', 'bullshit jobs' and "quality jobs"...))
- Revised human relations (from assisted to assisting people, from patients to agents)
- Frugality and sobriety
- Technocentrism, technicism and petro-masculinity
- Degrees of social complexity (from more or less complex social arrangements); simple, self-sustaining, technical, manual or digital societies?
- Fiscal & redistribution policies
- ...

Examples of aspects to consider when thinking about governance:

Changes in the nature of public service, popular referendum, 'citizen rapporteurs' of legislative initiatives, mayors and municipality governance or algorithmic governance. Distinguishing the governance of the Greater Region from that of Luxembourg's functional area (considering bioregionalisms?)...

Study steps and timeline

The study will last 1 year (over 2022-2023) starting as early as possible in 2022. It consists of three phases:

- Phase 1: 3 months
- Phase 2: 6 months

⁹ Mental capital: a person's cognitive and emotional resources. It includes their cognitive ability, how flexible and efficient they are at learning, and their "emotional intelligence", such as their social skills and resilience in the face of stress. It therefore conditions how well an individual is able to contribute effectively to society, and to experience a high personal quality of life.

Mental wellbeing: This is a dynamic state, in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community. It advances when an individual is able to fulfill their personal and social goals and achieve a sense of purpose in society. Mental Capital Report, UK, 2008

Luxembourg Strategy will set up a steering committee to provide guidance. A kick-off meeting will take place at the beginning of each phase gathering the steering committee and key stakeholders. A feedback meeting will take place at the end of each phase. The final report will integrate the comments made by the various stakeholders.

Research output

- Two intermediary reports (one at the end of each phase)
- One final report

Appendices

- A. Selected bibliographic references & resources
- B. Excerpt from UK's 2008 Mental Capital and Well-Being Report
- C. Illustration of climate denial attitudes

A. Selected bibliographic references & resources:

Indicative list of databases, normative frameworks and studies:

- Ministry of the Economy and other relevant ministries (in relation to the topics of labour, circular, social and solidarity economies, education, training, culture, agriculture, consumption or energy...)
- STATEC and STATEC Research (particularly in relation to their initiatives on well-being)
- Observatory of Competitiveness, ministry of Economy (and also the 2021 *Competitiveness & Resilience report*)¹⁰
- *Haut Comité pour l'Industrie*, ministry of the Economy
- Luxinnovation
- Luxembourg Institute of Socio-Economic Research (LISER), Centre of Behavioural & Experimental Economics
- University of Luxembourg, Department of Behavioural and Cognitive Science
- University of Luxembourg, Department of Humanities (including Prof. Poirier's work within the *European Values Study*)
- Behavioural studies from other Luxembourg-based institutions (including the *mouvement écologique*, ATOZ, EIB...)
- Other to be suggested and defined over the course of the study

Selected references

National references

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- Strategy for a circular economy, ministry of the Economy, 2021
- *Ons Wirtschaft vu muer*, research & innovation strategy, ministry of the Economy, 2021
- Luxembourg's Industry Strategy, Fedil, 2021
- *Usine du future 2040*, draft strategy, ministry of the Economy, 2021
- *Plans directeurs sectoriels*, ministry of Energy and Land Planning, 2021 (particularly the plans for business parks & transport)
- *Bilan de compétitivité & résilience*, ministry of the Economy, 2021
- *Mégatendances*, Pierre Thielen & Laurent Pütz, ministry of the Economy, 2019
- *Le Luxembourg en 2050*, Pascale Junker, 2020 (and particularly the Chapter on *social diagnosis*)
- *Mégatendances & Résilience*, Luxembourg Strategy Seminar, 16.07.2021 (questionnaire & presentation)
- *Stratégie nationale d'adaptation au changement climatique 2018-2023*, ministry of the Environment, Climate & Sustainable Development, 2018
- Luxembourg Risk mapping, ministry of the Interior & ministry of Energy and Land Planning, 2020

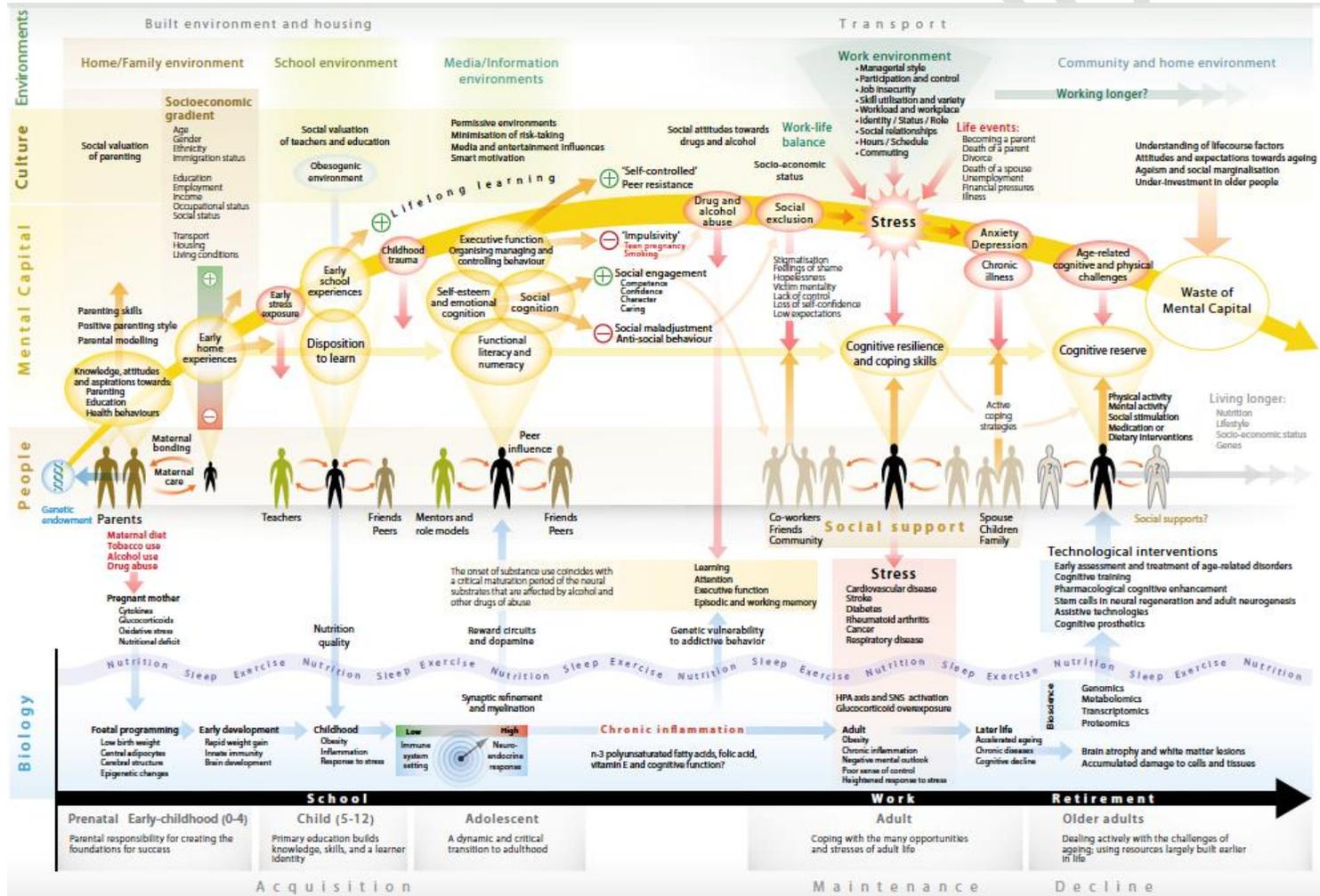
¹⁰ <https://odc.gouvernement.lu/fr/publications/rapport-etude-analyse/perspectives-politique-economique/ppe-037.html>

- Statutes and laws on national risk protection
- NEXUS, university of Luxembourg, 2021 (scenarios)
- Luxembourg in Transition, ministry of Energy and Land Planning, 2021 (scenarios)

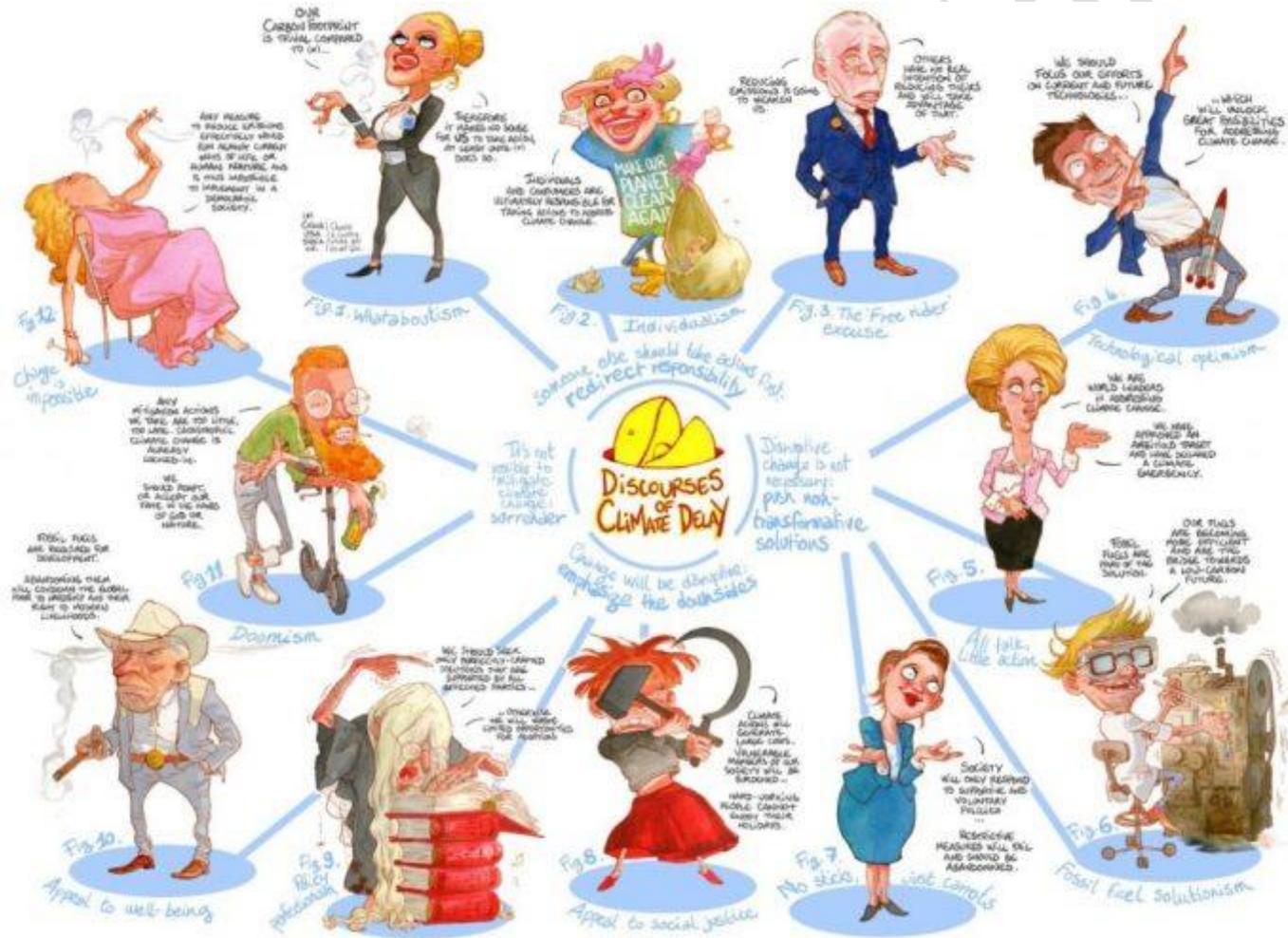
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- IPCC Sixth Assessment Report (particularly WG2 Adaptation, February 2022 & WG3 Mitigation, March 2022)
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B. Foresight Mental Capital & Wellbeing Project: Making the most of ourselves in the 21st century,
Excerpt from the project's final report – EXECUTIVE SUMMARY, pp.50/52, The Government Office for Science, London, 2008.



C. Illustration of climate denial attitudes



Source : Léonard Chemineau (<https://www.leolinne.com/?portfolio=discourses-of-climate-delay>).