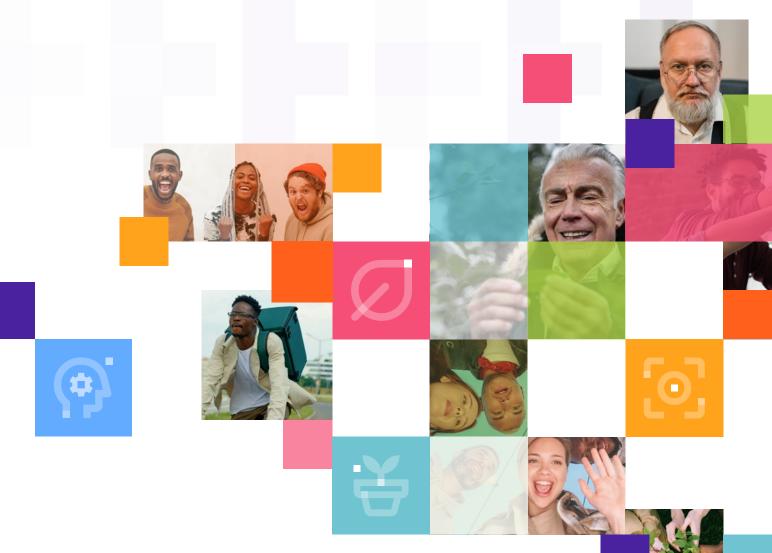


Multifutures SUSTAINABLE, RESILIENT AND FAIR EUROPE



'Beyond Growth' debate

Four inspiring futures for welfare and sustainability in Europe



The report 'Manning and analysis of alternative growth paradigms' 1, part of the Horizon Europe project

e international 'Beyond Growth' debate.

osals in this debate can be represented by four main storylines, r the titles 'Green Growth', 'Mission Economy', 'Post Growth' and

er not only in their position towards economic growth, but wards direct or indirect governmental steering, and in their views behaviours, norms and values.

Top-down



OMY

government, e.g. Al, CCS, nuclear, H₂, solar, wind. Technology targets to be realised as part of 'societal missions'.

POST GROWTH

Social goals to be realised next to environmental goals: Reduced working week, minimising income differences within countries, financial transfers from North to South. Nudged behavioural changes in diets, transpor and consumption. Consumption tax with reduced taxes on labour.

GREEN GROWTH

Internalisation of externalities in market prices with aim to achieve absolute decoupling.

GREAT MINDSHIFT

A decentralised world with municipalities as a driver, large diversity within and between countries, local self-sufficiency and limited trade.

Voluntary behavioural changes in diets, transport, consumption. Local innovation by small-scale startups is promoted.



Bottom-up

Fig.1 Main storylines for sustainable welfare following from the Beyond Growth debate

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Change of norms and values

The storylines also differ in various other features, such as view towards technological innovation and redistribution of wealth.

Furthermore, they can be distinguished by some characterising policies that play an important role in each separate storyline.

	GREEN GROWTH	MISSION ECONOMY	POST GROWTH	GREAT MINDSHIFT
Guiding principles (goals)	Internalisation of externalities in market prices with the aim to achieve decoupling for climate goals or all planetary boundaries	Direct technology choices and governmental action to achieve climate goals or planetary boundaries	Strong norms, values and behavioural policies to achieve planetary boundaries combined with national and international (North/South) redistribution policies	Strong norms, values and behavioural shifts to achieve planetary boundaries, with a focus on stimulating own initiative. Focus on bottom-up technological Innovation, decentralisation, self-sufficiency, local governance and economies
Key scaling actor	Market parties determine the direction of innovation after Government has set market borders to internalise externalities	Government chooses technologies to achieve planetary boundaries and develops detailed implementation plans (direct regulation)	Government sets direct regulation for norms, values and behavioural shift, determines macroeconomic reform policies (reduced working hours, North-South redistribution)	Enlightened entrepreneurs and citizens determine bottom-up innovation directions, decentralised policy making within countries
Position towards GDP	GDP growth is required to finance environmental measures	GDP growth is required to finance technological innovation for societal missions	GDP growth or degrowth is the result of achieving planetary boundaries and social goals	GDP growth or degrowth is the result of achieving planetary boundaries and self-sufficiency goals
Norms, values and behavioural change	Current norms and values are not influenced by policy making. Limited/ no behavioural change policies	Current norms and values are hardly influenced by policy making. Limited behavioural change policies	Changing current norms, values and behaviours towards more ecocentric views with strong governmental policies is considered a prerequisite for achieving planetary and social targets	Changing current norms, values and behaviours towards more ecocentric views and a focus on self-sufficiency is considered a prerequisite for achieving planetary and social targets

(This table continues on the next page...)

MISSION GREEN POST GREAT ECONOMY GROWTH GROWTH MINDSHIFT Technological Technological Technological Technological Technological innovation is innovation is innovation is innovation is innovation strongly stimulated strongly stimulated with a stimulated with a stimulated by direct with general, clear preference for clear preference for technology-neutral governmental local, small scale local, small scale financial instruments technologies and technologies and technology choices public/citizen public/citizen and instruments ownership ownership No North/South No North/South Redistribution Strong North/South Local governments wealth redistribution. wealth redistribution. redistribution redistribute wealth of wealth policies and within their own areas Within countries Within countries there is limited there is limited redistribution wealth redistribution wealth redistribution policies within countries Characterising Market creation for National · Strong norms, • Strong norms, planetary governmental values and values and **Policies** boundaries, ETS missions, direct behavioural behavioural change policies like market systems regulation to change policies achieve missions based on voluntary Open markets, Progressive nudging rather globalisation consumption tax than enforcement International and General Niche innovation technological national policies innovation policies redistribution Strong policies Net zero carbon decentralisation Working time and local reduction policies, self-sufficiency basic income, policies, transition inclusion of towns informal sectors Zero fossil, reducing (care) in economy extraction policies, · Zero fossil use, resource caps reducing extraction policies, Citizen resource caps participation Cultural and Citizen participation indigenous rights, rights for nature

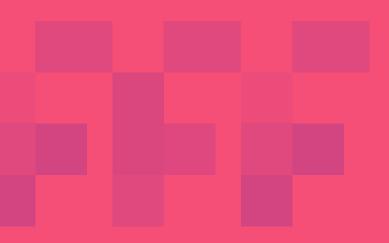
Table 1. Key features of the Multifutures storylines

Green Growth storyline

In the Green Growth storyline, the government sees the market as the main vehicle for transition towards a sustainable world. Internalising environmental externalities in market prices is the key mechanism for setting the borders to market actions in such a way that it provides the right incentives for realising environmental goals. Most probable sustainability goals to be set in the Green Growth storyline are the current climate change goals leading to a maximum of 1.5 degrees climate change. However, also more ambitious sustainability goals aiming to meet the Rockstrom planetary targets (Steffen, 2015)2 could be imagined in this storyline. The goals are formulated in a market based way, e.g., 'decarbonising' rather than 'de-fossilising'. Market based instruments are also seen as the key way to realise these targets, in particular trading systems like the current EU Emissions Trading Scheme for greenhouse gas emissions. These would be developed also for the other (non-climate) planetary

boundaries suggested by Rockstrom (ibid.) if a planetary boundaries goal was to be formulated. Another key policy instrument in this storyline is generic support for technological innovation, stimulating such innovation in general without making choices between technologies. In this storyline, GDP growth is seen as necessary to finance the realisation of sustainability and other societal targets and is a key indicator for the success of governmental policies.

The Green Growth storyline imagines a future society as largely based on current behaviours, norms and values. Individual behavioural freedom is a key aspect in such a society, in which the government should try to influence or limit as little as possible. Redistribution of wealth within countries might be pursued but it is overall seen as less important and sometimes even as detrimental to efficient innovation. Redistribution of wealth on a global scale is hardly or not at all addressed.





Mission Economy storyline

In the Mission Economy storyline, the government formulates societal 'moonshot' missions in which ambitious goals are set for societal issues that the government considers in need to be urgently solved. One such goal could be 'solving climate change', but a formulation in terms of 'staying within planetary boundaries' would also be possible. Once the goal of such a mission is formulated, the government would also develop very detailed plans to realise the goal. This also includes governmental choices regarding the kind of technological innovation to be pursued, e.g., industrial policy involving a-priori selection of the specific technologies to be stimulated.

'Decarbonising' rather than 'de-fossilising' seems likely in a Mission Economy, like in Green Growth. The government uses a mix of direct regulation and market based instruments to achieve its goals, and closely monitors and enforces progress toward these goals. GDP growth is seen as a prerequisite to achieve the missions' goals. A future society is seen as largely based on current behaviours, norms and values, without many limitations to individual freedoms. Substantial redistribution of wealth within or between countries do not seem likely as goals in a Mission Economy.





Post Growth storyline

In the Post Growth storyline, there is a strong focus on the direct steering role of the government regarding environmental and social goals for reaching societal welfare. A 'wellbeing' dashboard of indicators and accompanying budgets are developed for this purpose. Environmental goals are likely to be based on intensified efforts towards staying within all planetary boundaries rather than to reach climate change targets only. What is considered to be a 'just' redistribution of wealth within and between countries is an essential part of the social goals in the Post Growth storyline. Economic growth, or not, is seen as a subordinate outcome of striving for these environmental and social goals. Hence, structural changes in society that might lead to strong economic decline in some sectors are seen as justified. This might include de-fossilising, leading to a quick phase out of fossil industry, and phasing out of other industries that are considered to be too polluting. Nudging and facilitating change of current norms, values and behaviours by the government is seen as an essential precondition for successful sustainability policies. A progressive 'consumption tax', taxing the consumption of goods and services based on their environmental performance, is an important instrument here, which might be accompanied by a reduction of taxes on labour as compensation. Other important structural changes in society are a basic income for all, a drastically shortened working week, and the inclusion of voluntary care work in the economic system. Technological innovation is seen as important, but should be pursued on an open-access basis. The democratic system would be reformed to include more public participation in decision making, e.g. by local and national citizen councils that would co-decide together with policy makers on key policy issues. Probably also the financial system would be reformed to reduce profits in the monetary - not directly material asset based - economy.





Great Mindshift storyline

In the Great Mindshift storyline, national governments reform themselves to give more executive power to decentral authorities, e.g., municipalities. The focus of the economy shifts to local self-sufficiency and autonomy, with the development of 'Transition Towns' as a guiding principle. Ambitious environmental and social targets are pursued by local authorities, with GDP figures as a subordinate outcome of policies towards these targets. Planetary boundaries are likely to be set, with zero fossil, reduced extraction and resource caps as likely policies.

Norms and values change are strongly stimulated, however with a focus on nudging rather than on enforcement. Local niche entrepreneurs and enlightened citizens as bottom-up frontrunners lead the way towards these norms and values change. Bottom-up participation of citizens in policy making is a key aspect of the Great Mindshift storyline. Indigenous knowledge and rights, as well as rights for nature are strongly valued. Furthermore, redistribution of wealth on a local level, as well as global redistribution between poorer and richer communities are important.







The four storylines will be further worked out in the Multifutures project so that their impacts on society can be analysed by a suite of prominent macro-economic, integrated assessment and behavioural models.

This will result in recommendations for European EU Member State policy makers aiming to steer on a broad set of indicators for sustainable welfare in Europe and worldwide.

The full report is available on Research & Publications I MultiFutures.



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