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A New Strategy for Europe

It has become clear that Europe needs a new strategy that proactively pursues an ambitious "high road to competitiveness". The long-lasting financial crisis, problems in neighbouring countries and the handling of the situation in Greece have exacerbated the need for a consistent, longer-term strategy.

The four-year WWWforEurope programme undertook research on strategy and governance for Europe, specifically focusing on the goals of economic dynamics, social inclusion and ecological excellence. The final report contains two parts; the first is an overarching synthesis,[1] and the second outlines the results of different models and presents the research findings in the five research areas that provided inputs for the synthesis.[2]

Europe 2016: facing unprecedented challenges

The European project is a long-run success story. However, European integration has never been a smooth process. When the financial crisis quickly spread from the US to Europe in 2007-08 it uncovered unresolved governance issues and long-neglected public sector reforms. These also prevented an adequate response to new problems and opportunities arising from globalisation, technological change, demographics, the environment and – most recently – the so-called refugee crisis. Consequently, Europe today faces unprecedented social, economic and environmental challenges. The European project is not considered a success by a large portion of citizens, and political parties in many countries are calling for "less Europe" or even an exit from the European Union. This culminated in the UK's Brexit vote in June 2016.

The WWWforEurope strategy is based on a vision that sees Europe as part of a globalised world in 2050. The strategy

- defines three guiding reform principles,
- is based on seven drivers of change essential to socio-ecological transition, and
- carves out facilitators of reform, i.e. new processes and actors supporting the transition.

Vision for Europe: a dynamic, open region of high well-being

The long-lasting repercussions of the financial crisis, political turmoil in neighbouring countries, mass immigration from war-torn countries in the east and the south, the handling of the Greek crisis, and most recently the confusing Brexit fallout have prompted calls for action in opposing directions: either a re-nationalisation of policy or a more prominent role for European institutions. In light of these new challenges, it is again vital to convince member states and citizens that many problems can be better solved together. Reforms have to be guided by a comprehensive vision for the direction Europe should take, one that also inspires European citizens. What is needed is a new, reinvigorated European story.

For the overarching benchmark of European performance, we propose high and rising well-being in a sustainable environment. This involves a definitive change in the overall benchmark of success, shifting the focus from GDP growth to continually increasing well-being. Our vision for Europe 2050 could then read as follows:

By 2050 Europe will be a region with high social and environmental standards guaranteeing its citizens a high level of well-being. It will be a dynamic, open and pluralistic economic area. Unemployment will be low, inclusion high and income differences limited. Emissions and resource use will have declined to a level compatible

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1 K. Aiginger: New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition, Synthesis Report Part I, 2016.

2 H. Badinger, D. Bailey, L. De Propris, P. Huber, J. Janger, K. Kratena, H. Pitlik, T. Sauer, R. Thillaye, J. van den Bergh: New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition, Synthesis Report Part II, 2016.

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with environmental resilience, biodiversity protection and the mitigation of climate change. Energy, transport and housing infrastructure will be decarbonised, with Europe acting as the technology leader in sustainable technologies. Europe will learn from other regions and offer its improved model to neighbouring regions and the world at large.

Three strategic goals

Defining "well-being" as the overarching benchmark of performance for Europe is in line with the "Beyond GDP" approach, as underpinned by a broad economic literature. The notion of well-being calls for the simultaneous accomplishment of three strategic goals: economic dynamics, social inclusiveness and environmental sustainability.

- Economic dynamics include what is usually called "income dynamics". This specifically implies that an ever-increasing number of people benefit from the attainment of a broad set of economic achievements. An equally important component of dynamics is structural change and upward mobility (as opposed to the petrifaction of existing or inherited structures).

- Social inclusiveness implies that unemployment as well as income differences are low. Existing social, religious and ethnic conflicts as well as new social problems are addressed, preventing political polarisation. Life chances, education and capabilities are distributed more equitably, also with regard to gender; spreads in income and wealth are based on merit and limited to levels determined by democratically-based political decisions.

- Environmental sustainability demands that planetary boundaries be respected. Technological, behavioural and institutional changes lead to an absolute reduction of emissions and resource use. This gives poorer countries scope for economic development and poverty reduction.

Three guiding reform principles

The success of the strategy depends on three guiding principles.

Principle 1: Simultaneity between goals

The principle of simultaneity foresees that the three goals of economic dynamics, social inclusiveness and environmental sustainability be pursued in a systemic and comprehensive way, rather than separately. The principle of simultaneity represents a demanding but promising renunciation of the "silo approach", which addresses problems in isolation, resulting in high costs and low effectiveness. The three goals interrelate in a way that could lead to negative tradeoffs as well as positive synergies. WWWforEurope concludes that a carefully designed strategy that simultaneously addresses the three goals generates space for multiple dividends.

Principle 2: High-road ambition

At a strategic crossroads, the choice is often between two alternatives: a cost-driven strategy, in which the same actions are taken at lower cost, or a quality-driven strategy, in which one aims for a new path based on innovation and skill upgrading. We refer to the first option as a "low-road strategy" and the second as a "high-road strategy".[3] WWWforEurope strongly recommends that Europe must adopt a high-road strategy. On this road, economic dynamics are supported by structural change, improved skills and boosted innovation. Ambitious social and environmental standards support high and continually rising well-being. Only a high-road strategy offers a chance to develop an authentic, distinct model built on Europe's own preferences. If high-income countries pursue a low-cost approach, emerging economies can always retaliate. This would also cut incomes and undermine social and environmental goals in the richer countries, thus reducing well-being.

Principle 3: Two-stage implementation

A new strategy for Europe has to result in a new trajectory, but must also address existing disequilibria and imbalances. Transition therefore necessitates a two-stage strategy. In the first stage – the next ten to 20 years – policies will still have to focus on preventing new crises and solving inherited disequilibria (unemployment, debt, inequality). This is the ideal point in time at which to start rebuilding the infrastructure, so as to prepare for decarbonisation. Massive policy efforts and investments are required to redirect technologies and build a low-carbon infrastructure. These efforts will have a positive impact on economic dynamics and employment. At the same time, it is critical to reduce unemployment through skill upgrading while decreasing inequality.

Thus, at this stage, economic growth is required in order to reduce unemployment, debt and inequality. At the same time, measures to reduce inequality or enable decarbonisation can be used to increase consumption and

3 K. Aiginger: The high road: Europe must seize the potential of advanced manufacturing, EurActiv, 26 January 2016.

investment, thus contributing to solving the problem of low effective demand. This first stage of restarting economic dynamics should, however, by no means consist of a continuation of established policies. Solving inherited problems must be combined with massive investment in order to prepare for the second stage. We therefore label stage one "consolidation and reprogramming", with a strong emphasis on the latter.

Long-term forecasts for industrialised countries predict lower growth rates that continue to decline further along the time horizon. This may follow from the catching-up of emerging economies, the limits of the planet, the decreasing marginal utility of higher incomes or technology-based secular stagnation tendencies. If these predictions are correct, the highest priority in the second stage has to be to achieve higher levels of well-being (employment, housing, health) with low growth rates. We call this second stage "socio-ecological transition".

The seven drivers of change

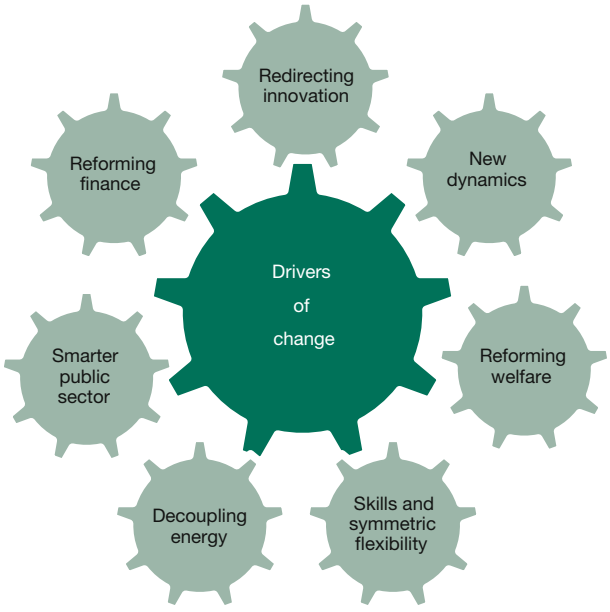
WWWforEurope has identified seven drivers of change which act as central levers for achieving the envisaged socio-ecological transition (see Figure 1). We now provide a very brief overview of six of these drivers, while the seventh driver – the role of the public sector and the lynchpin of all drivers of change elaborated in WWWforEurope – is discussed in more detail in the following section.

Innovation: boosting its power and redirecting its focus

Today, the focus of innovative activity is primarily to save labour. Rising labour productivity creates the potential for income increases but also makes high GDP growth rates a necessity: they have to be as high as the increase in labour productivity in order to stabilise employment. This is neither a future-oriented nor a socially inclusive and environmentally sustainable strategy. The game changer we propose is to redirect innovation towards energy and resource saving.

Redirecting innovation requires the simultaneous and consistent use of different instruments, such as carbon pricing or taxation, regulation, R&D incentives, refocusing public procurement, and reducing taxes on labour. Conditions for young, innovative, fast-growing firms in Europe should be improved, e.g. by creating a pan-European venture capital market and ensuring a stream of qualified researchers and graduates. Breakthrough scientific research should be fostered by making university funding more competitive and by adopting the tenure track model with flat hierarchies based on merit. Social

Figure 1
Seven drivers of change



Source: K. Aiginger: New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition, Synthesis Report Part I, 2016.

and environmental innovation should gain in relative importance compared to innovation that improves labour productivity.

Industrial and innovation policy will support boosting as well as redirecting innovation. Neither of these can be pursued in an isolated way any longer, but must be the result of systemic policies deriving synergies with environmental policy, trade surplus, regional policy and competition policy.[4]

Dynamics: reducing inequality and uncertainty while fostering investment

Private investment will recover if uncertainty about the future of Europe and administrative burdens decreases. Loans should be provided to small and young firms, along with new financing instruments. New types of pub-

4 K. Aiginger: The "greening" of industrial policy, headwinds and a possible symbiosis, WWWforEurope Policy Paper, No. 3, 2013; P. Aghion, D. Hemous, R. Veugelers: No green growth without innovation, Bruegel Policy Brief, No. 07/2009; D. Rodrik: Industrial policy: don't ask why, ask how, in: Middle East Development Journal, Vol. 1, No. 1, 2009, pp. 1-29; D. Bailey, L. De Propris, J. Janger: Industrial and innovation policy as drivers of change, WWWforEurope Deliverable, No. 9, 2015.

lic and private partnerships and the European Fund for Strategic Investment (EFSI) can boost investment. Europe needs a shift from physical to intangible investment as well as projects promoting social innovation. This could reduce unemployment, poverty and public debt in the short term, while enabling absolute reductions in the longer term. Keeping real wages in line with productivity growth can have a stabilising effect on consumption. The same holds for a reduction in income spread initiated through education reforms or a re-enforcement of the redistributive function of taxes and transfers.[5] The decarbonisation of infrastructure (traffic, housing, offices) requires investment, and boosting low-carbon infrastructure would help to decrease emissions in the medium to long term, while immediately stimulating investment. New buildings should not be allowed to use fossil energy (see Denmark), and new cars should not be allowed to use gasoline or diesel (Norway, California); this stimulates demand in the short run, reduces emissions in the long run and makes it possible for Europe to become a technology leader in decarbonisation.

Welfare: from *ex post* protection to social investment

The welfare system should adapt to new challenges (family disruption, longevity) and switch from a focus on social protection to a social investment approach. *Ex ante* training or activation should become more important relative to *ex post* financing of unemployment. Education, and particularly early education, is essential to creating equal opportunity as well as to limiting income differentials later in life. Lowering taxes on labour, specifically low-skilled labour, will increase chances of employment and re-employment. Migrants should be integrated into the labour market quickly through recognition of their qualifications without excessive red tape. Migrants and their offspring should be given full and effective access to schools, apprenticeships and training systems. Integrating a qualified and flexible group into the workforce will boost labour force dynamics, reduce public spending and mitigate political conflicts.

Employment: upgrading skills and implementing symmetric flexibility

Taxes on labour should be reduced, so as to lower the pressure on firms to increase labour productivity. In general, skills should be upgraded, and the matching of qualifications supplied and demanded by fostering apprenticeships, training and lifelong education should be improved. Symmetric flexibility that allows firms to adapt production to demand while allowing employees to adjust working hours to preferences and work-life balance should be promoted.[6] Migrants should be integrated into preschool education, schools and training, and the qualification they attained at home should be respected. Overtime compensation or preferential tax treatment should be cancelled; preferences for shortening working hours or work sharing should not be blocked. Preferential treatment of part-timers when applying or returning to full-time jobs should be introduced, and part-timers should be offered training opportunities.

Resources: decoupling energy from output

The subsidies for fossil energy should be eliminated quickly in the current period of low energy prices. Incentives for energy efficiency, renewable energy and innovation in technologies promoting decarbonisation has to be increased. Ambitious standards for housing, offices and transport should be set up and continuously raised, since investment today will determine emissions and resource use tomorrow. It should be ensured that the prices of fossil energy and CO_2 emissions continuously rise in order to signal the long-run trend of decarbonisation as well as to prevent rebound effects.[7] Declines in the price of oil, gas and coal should be smoothed through higher taxation, so as to disincentivise consumption. Price incentives have to be combined with regulation, procurement policies and behavioural changes. Innovation policy has to foster environmental innovations. Funds for energy and resource efficiency in emerging economies should be set up. Multinational firms should be required to use best technology in all subsidiaries and provide indicators for all plants in international trade and investment agreements.

5 S. Ederer: Macroeconomic imbalances and institutional reforms in the EMU, WWWforEurope Policy Papers, No. 87, 2015.

6 T. Leoni: Welfare state adjustment to new social risks in the post-crisis scenario. A review with focus on the social investment perspective, WWWforEurope Working Paper, No. 89, 2015; OECD: In It Together: Why Less Inequality Benefits All, OECD Publishing, Paris 2015; A. Hemerijck: Two or three waves of welfare state transformation?, in: N. Morel, B. Palier, J. Palme (eds.): Towards a Social Investment Welfare State? Ideas, policies and challenges, Chicago 2012, Policy Press, pp. 33-60.

7 A. Schaffartzik, N. Eisenmenger, F. Krausmann, H. Weisz: Consumption based Material Flow Accounting, in: Journal of Industrial Ecology, Vol. 18, No. 1, 2014, pp. 102-112; M. Antal, J. van den Bergh: Macroeconomics, Financial Crisis and the Environment: Strategies for a Sustainability Transition, in: Environmental Innovation and Societal Transitions, No. 6, 2013, pp. 47-66; M. Fischer-Kowalski: Analyzing sustainability transitions as a shift between socio-metabolic regimes, in: Environmental Innovation and Societal Transitions, Vol. 1, No. 1, 2011, pp 152-159.

Financial sector: re-committing to the real sector and aligning to the needs of society

The Banking Union should be completed by establishing a common deposit guarantee scheme. Smart regulation with fewer details and broader goals should stabilise the financial sector. If banks still need public support, dividends and management bonuses paid in the last five years should be reclaimed. A financial transaction tax should be implemented, so as to reduce speculation and lower taxes on the real economy. Venture capital and crowd funding for innovative firms should be promoted. Investment that benefits society and the economy should be boosted through better information ("labelling" about the social and environmental impact of each portfolio).

A smarter public sector as a central driver of change

Public sector activity is one of the most important levers for promoting a socio-ecological transition. The size and potential steering capacity of the public sector are substantial in Europe. With an expenditure-to-GDP ratio of 48%,[8] almost half of the output of Europe's economies is re-allocated through the public sector. In addition to government expenditures and revenues, the public sector affects all sectors of the economy via legislation and regulation. Providing information and moral suasion are further non-monetary instruments. The most important expenditure categories are transfers to individuals or private households and firms, public investment, and consumption. Revenue-based instruments comprise taxes (including tax exemptions, which are indirect subsidies), fees and environmental certificates. Currently, the contribution of such a large sector to promoting inclusion (particularly in terms of reducing unemployment and curbing emissions) is rather disappointing.

EU member states' public sectors have evolved over centuries, and they are therefore highly traditionally organised and supervised. The public sector consists of various layers, from the local to the EU level, with blurred goals and overlapping institutions. If expenditures on future-oriented investment, social inclusiveness and environmental goals are to be increased, reforms of the public sector and cuts in other expenditures are essential. Making use of the public sector's potential for sustainable development is a crucial game changer, and perhaps the most important one. For almost all drivers of change highlighted in the WWWforEurope strategy, we find a pivotal role for the state and the public sector in designing and implementing policies.

The expenditure side

Government expenditures could support a new strategy for Europe on a broad basis. Infrastructure investment, whether it be infrastructure for public or private transportation, resource management, urban development or energy networks, has to pursue environmental and social goals. Government not only acts as the provider of public goods and services, but also sets standards (e.g. for the construction of residential and office buildings), thereby impacting the economy via public procurement.

A future-oriented social policy has to address new social risks that stem from domestic developments as well as globalisation. Education should foster individual capabilities, specifically by improving pre-school education, providing life-long learning and generally pursuing a precautionary strategy instead of granting compensation payments after the occurrence of social risks such as unemployment or sickness ("social investment approach").[9]

Subsidies should be shifted from securing low prices for fossil-based energy to supporting activities with positive dynamic externalities (e.g. R&D subsidies), which may increase benefits and decrease costs, including environmental and social costs, in the future.

Expenditure structures at the national level should support future investment and transition, and changes are all-important at the EU level. Currently, the lion's share of EU expenditures consists of transfers preserving existing structures rather than contributing to a socio-ecological transition. This is particularly true for agricultural subsidies. A large portion of agricultural subsidies still support large-scale and environmentally unsustainable farming. Furthermore, unintended spillover effects occur, since many of the positive effects of the common agricultural policy do not support the sustainable development of rural areas, as initially intended.[10] Cohesion funds could be more intensively used to further environmentally sustainable public infrastructure, e.g. cross-

8 This ratio is 38% of GDP in the US and 43% in Japan.

9 T. Leoni, op. cit.; A. Hemerijck, op. cit.

10 B. Camaioni, R. Esposti, A. Lobianco, F. Pagliacci, F. Sotte: Looking for PeripheRurality, WWWforEurope Working Paper, No. 35, 2013; B. Camaioni, R. Esposti, F. Pagliacci, F. Sotte: How much rural is the CAP?, WWWforEurope Working Paper, No. 51, 2014; A. Bonfiglio, R. Esposti, F. Pagliacci, F. Sotte, B. Camaioni: Regional perspectives and distributional effects of European, regional policies, WWWforEurope Working Paper, No. 66, 2014.

border railways, electricity grids or broadband. The upcoming midterm review of the EU Multiannual Financial Framework (MFF) should focus on its contribution to the strategic goals defined for achieving a socio-ecological transition.

Although an ever larger share of the EU budget has been assigned to R&D over the years, this is still insufficient for reaching the Europe 2020 goals and generating top universities. It will also be important to channel a larger share of European R&D funds into environmentally and socially relevant research. The lack of expenditure aimed at sustainability goals and the aggravating fact that the system of own resources for funding the EU budget does not contain any sustainability-oriented financing sources should also be addressed in the MFF midterm review, scheduled for the end of 2016.[11]

The role of public procurement

Public expenditures on goods, services and remuneration for public employees account for around 20% of EU GDP, and today a large and increasing part of this is cross-border procurement.[12] The basic regulations in this field have been designed to foster competition, increase efficiency, reduce prices and cut costs. Over time, environmental and social goals have been added, thus striving for green procurement (reduced negative environmental impacts) and then sustainable procurement (balancing out economic, social and environmental goals). However, movement towards effectively accounting for environmental and social criteria in public procurement has been too slow.

One major change would be to adopt "life-cycle costing" criteria in public procurement, i.e. considering the full life cycles of products in the cost assessment of a tender instead of upfront costs. A second important change would be to use comprehensive costs (including social and environmental externalities) as a benchmark instead of narrow market valuations that exclude external costs.

By creating new markets, procurement policy can also be used to drive down costs in the private sector. For example, if all levels of government were to switch their transport and car fleets to highly efficient or electric cars, prices for this new technology would fall and infrastructure (such as charging stations) would be provided. Market creation for new technologies has been a success story in the telecoms sector, where it was supported by a procurement policy promoting the use of telecommunications in public-sector schools. Other markets have been created by the public sector for waste management, e-government, sharing systems, and energy standards for housing and offices.

Changes in the tax system – creating the right incentives

Governments are currently taxing the wrong activities:

- While labour should actually be made cheaper in order to support employment (particularly in the low-skilled segment), the bulk of public revenues are raised via labour-related taxes.

- While (fossil-based) energy should be made more expensive to reduce emissions, energy taxes are moderate and revenues have even somewhat declined since 2000. Additionally, environmentally harmful tax exemptions prevent the rise of renewable energy and cause substantial tax losses.[13]

- Though creating equal opportunity, particularly at the beginning of life, is both an important social and economic goal, inheritance taxes are currently rather moderate and losing relevance.

- Though income and wealth inequality is on the rise in many member states, taxes on wealth and inheritance, as well as taxes on high incomes, have been reduced in recent decades and profit-shifting has increased.

- While short-term financial transactions tend to destabilise the economy, the financial sector pays lower taxes than the real economy. There is no valued added tax for financial services, and transaction taxes are either limited to stock markets or, as in the majority of member states, non-existent.

WWWforEurope proposes a fundamental shift in tax structures to correct these counterproductive incentives in the tax systems of member states (see Figure 2).

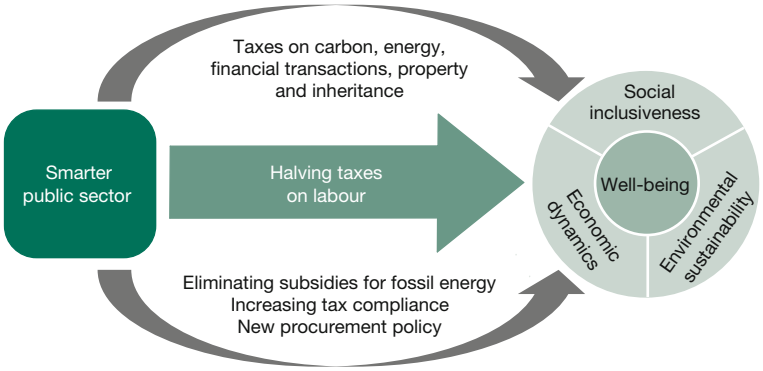
A sustainability-oriented tax system serving all three strategic goals would combat the phenomenon of tax

11 M. Schratzenstaller: The EU Own Resources System – Reform Needs and Options, in: Intereconomics, Vol. 48, No. 5, 2013, pp. 303-313; M. Schratzenstaller, A. Krenek, D. Nerudová, M. Dobranschi: EU Taxes as Genuine Own Resource to Finance the EU Budget – Pros, Cons and Sustainability-oriented Criteria to Evaluate Potential Tax Candidates, Fair Tax Working Paper, No. 3, 2016.

12 H. Handler: Strategic Public Procurement: An Overview, WWWforEurope Policy Papers, No. 28, 2015.

13 Eurostat: Taxation Trends in the European Union, Brussels 2014.

Figure 2
Smarter public sector – a sustainability-oriented tax shift



Source: K. Aiginger: New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition, Synthesis Report Part I, 2016.

avoidance through profit-shifting by multinational enterprises.[14] By strengthening international cooperation and the exchange of information, the proper enforcement of tax collection on high incomes and wealth could be improved. Effectively containing legal and illegal tax flight would make the tax system fairer. It would support equality goals and – since statutory tax rates for low and middle incomes could be reduced – would increase economic dynamics and employment. To obtain triple dividends, elements of green fiscal reform would have to be added. In particular, environmentally harmful tax exemptions should be eliminated, and effective minimum rates for environmental taxes should be introduced at the EU level. The introduction of EU-wide taxes – such as on carbon dioxide emissions or financial transactions – may also contribute to sustainability-oriented taxation. EU taxes used to finance part of the EU budget could replace national government contributions to the EU, allowing governments to reduce the tax burden on labour.[15]

Game-changing tax reform: an ambitious and a moderate variant

WWWforEurope has worked out a "back of the envelope" proposal that would reduce taxes on labour from the current level of 20% to just ten per cent of GDP.

Compensating tax revenues to the extent needed for a revenue-neutral halving of labour-related taxes could be achieved with the following ambitious measures:

- improving tax compliance for value added taxes and corporate income tax on the profits of multinationals would yield additional tax revenues of 1.6% of GDP,
- introducing a financial transaction tax – a tax rate of 0.05% on all financial transactions in a scenario of high tax avoidance and high elasticity of the tax base would yield tax revenues of 0.9% of GDP,
- increasing revenues from taxes on tobacco and alcohol consumption to the level of the three member states with the highest revenues from these taxes would yield additional tax revenues of 1.3% of GDP,
- doubling current environmental taxes would yield additional tax revenues of 2.4% of GDP,
- introducing a carbon tax – a tax rate of €100 per tonne of CO_2 would yield tax revenues of 2.0% of GDP,
- eliminating tax exemptions for fossil fuels would yield additional tax revenues of 0.2% of GDP,
- increasing revenues from real estate taxes to the level of the three member states with the highest revenues from these taxes would yield additional tax revenues of 1.1% of GDP,
- moderately increasing inheritance and gift taxes, thereby generating additional tax revenues of 0.1% of GDP,

14 M. Schratzenstaller: Sustainable Tax Policy Beyond the Tax Ratio for the EU as Core Element of a "Fiscal Union", Workshop, Proceedings No. 21, Toward a genuine Economic and Monetary Union, OeNB, 2015

15 M. Schratzenstaller, A. Krenek, D. Nerudová, M. Dobranschi, op. cit.

- introducing a very moderate tax on net wealth, thereby generating tax revenues of 0.4% of GDP.

This ambitious tax shift would require a considerable degree of supranational tax coordination in the form of minimum tax rates, such as an intense cross-border exchange of information and cooperation, tax harmonisation or the introduction of specific sustainability-improving taxes at the EU level, allowing a corresponding reduction of national tax burdens.

A less ambitious, more moderate approach, which could be implemented in the short run based on less supranational tax coordination, would be to reduce labour taxes by around a third, from 20% to 13.3% of GDP. The tax revenues of about seven per cent of GDP required to compensate for the resulting revenue loss could be generated through a less ambitious effort to reduce tax evasion and less ambitious taxation of financial transactions, CO_2 emissions, and tobacco and alcohol, as well as a lower tax increase on real estate and inheritance, without a wealth tax. Increasing environmental taxes and removing subsidies for fossil energy should remain ambitious, so as to foster decarbonisation.

The potential of tax shifts to boost well-being in all its dimensions is substantial and would generate double dividends and even – based on the assumptions one uses – triple dividends by simultaneously contributing to economic dynamics, social inclusiveness and environmental sustainability.[16]

To summarise, meta-analyses using parameters from different model simulations carried out in this project indicate that an ambitious tax shift would increase employment by five per cent in the short run (2020) and ten per cent in the long run (2050). Emissions of greenhouse gases would be reduced by 65% in the long run. These calculations are based on a shift from labour taxes to environmental taxes and assume that other countries will not increase taxes on emissions. This leads to a marginally negative effect on European GDP growth (between 0.2% and 0.3% annually). If countries or regions outside the EU increase taxes at least to some extent, the European GDP will also rise relative to the no-change scenario. Triple dividends would also occur if environmental taxes were levied to a larger extent on consumption, rather than production.

Economic dynamics are strengthened by stimulating employment through the reduction of labour taxes, particularly for low and middle-income groups, which are especially tax sensitive. Targeting labour tax cuts for lower and middle incomes is also important from the perspective of social inclusiveness. Particularly when such a labour tax cut also includes tax relief for the very low incomes not liable for taxation, this can help cushion the potentially regressive effects associated with certain – though by far not all – environmental taxes. Social inclusiveness is further improved by this radical tax shift, as a result of higher taxes on inheritance and wealth. In addition, by restricting tax avoidance, especially that undertaken by large multinational corporations, the (perceived) fairness of the overall tax system increases. Higher taxes on tobacco and alcohol consumption, which may foster public health, can be seen as a contribution to social inclusiveness, but they also strengthen economic dynamics. Finally, increasing environmental taxes and restricting tax exemptions on fossil fuel use can improve environmental sustainability, while – if embedded into an "eco-social" structural tax shift – also stimulating innovation and employment.

Of course, the list of potential well-being-oriented tax measures underlying our "back of the envelope" calculations is not exhaustive. Further candidates are taxes on unhealthy food and beverages (e.g. a tax on fat or sugar), taxes on kerosene use or flight tickets,[17] and adequate taxation of the profits and emissions of the shipping industry (which enjoys tax privileges that are only to an extent covered by the available estimates for tax exemptions on fossil fuels). Table 1 contains the potential substitutes for the labour tax cut for the ambitious as well as moderate variants. Table 2 reports the tax structures in the EU before and after the tax shift in the suggested variants.

All of these analyses illustrate that well-being and the principle of simultaneity are closely intertwined with the public sector, as this is where policies and instrument mixes are designed, implemented and monitored. The public sector has the possibility and the means to create synergies and thereby generate multiple dividends. As former US Treasury Secretary Lawrence Summers argues:

> ... tax burdens on workers around the world are over a trillion dollars greater than they would be if we had a proper system of international co-ordination that

16 K. Kratena: Thematic report: Macroeconomic models including specifically social and environmental aspects, WWWforEurope, Deliverable, No. 8, 2015.

17 See for a European flight ticket tax: A. Krenek, M. Schratzenstaller: Sustainability-oriented EU Taxes: The Example of a European Flight Ticket Tax, Fair Tax Working Paper, No. 1, 2016.

Table 1
Substitutes for labour tax cuts
in % of EU GDP

Compensation	Ambitious	Moderate
Fighting value added tax fraud and profit-shifting	1.6	1.2
Introduction of financial transaction tax	0.9	0.5
Increase in taxes on tobacco and alcohol consumption	1.3	0.9
Increase in environmental taxes	2.4	2.4
Introduction of CO_2 tax	2.0	1.0
Elimination of tax exemptions for fossil fuel use	0.2	0.2
Increase in real estate tax	1.1	0.5
Increase in inheritance and gift tax	0.1	-
Introduction of net wealth tax	0.4	-
Total compensating increase	10.0	6.8

Source: K. Aiginger: New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition, Synthesis Report Part I, 2016.

identified capital income and prevented a race to the bottom.[18]

Implementation strategy

While the seven drivers of change can ensure a successful transition, it is far from clear whether the strategy will be implemented, given the European experience of good strategies and poor delivery. We therefore also indicate – based on our analysis of past reforms – how reforms should be designed in order to reduce reform resistance. Reform partners should be invited and reforms can be made effective by addressing specific needs and sectoral approaches. Reform resistance can be mitigated by bundling reforms and partially compensating the losers. Progress has to be monitored for all three goals and their impact on well-being. Indicators for success should be "nowcast", if they are available in real-time (as is done for GDP, the benchmark of success being substituted by well-being).[19] These facilitators of change are decisive in increasing the probability that a new strategy will be implemented and be successful.

Conclusion

The European project – a decades-long success story of creating welfare, keeping peace and integrating a formerly divided continent – is facing unprecedented challenges. Europe is suffering from a sluggish economy lacking confidence and innovative power, resulting in high unemployment and debt. Political divides between North and South, as well as old and new, are widening, and the vision of increased integration is losing its appeal. At the same time, Europe is being confronted with a bundle of complex societal and environmental challenges, ranging from climate change to ageing populations, the repercussions of globalisation and the growing stream of refugees from war-torn neighbouring regions.

WWWforEurope has developed a comprehensive strategy to set Europe on a path to a socio-ecological transition. The strategy begins by renouncing the long-established concept of using GDP growth figures as the benchmark for economic and societal progress. In contrast, it sets "well-being in a sustainable environment" as the optimal benchmark for economic performance and social progress. The strategy is guided by three basic principles – simultaneity of goals, high-road ambition and a two-stage implementation – that should allow all three potentially conflicting goals to be achieved simultaneously, despite existing imbalances and challenges in Europe.

Table 2
Tax structure in the EU – before and after a radical tax shift
in % of GDP

Taxes EU28	2012	After tax shift	
		Ambitious	Moderate
Labour taxes (total)	20.1	10.1	13.3
Capital taxes excluding property taxes	5.9	6.7	6.5
Corporation tax	2.6	3.4	3.2
Other capital taxes	3.3	3.3	3.3
Property taxes	2.3	4.8	3.3
Taxes on real estate	1.5	2.6	2.0
Other property taxes[1]	0.8	2.2[2]	1.3[2]
Indirect taxes	11.1	17.7	16.1
VAT	7.1	7.9	7.7
Tobacco and alcohol	0.9	2.2	1.8
Environmental taxes	2.4	7.0[3]	6.0[3]
Other indirect taxes	0.6	0.6	0.6
Total taxation	39.4	39.4	39.4

[1] Including net wealth tax and inheritance and gift tax. [2] Including financial transaction tax. [3] For the sake of simplicity, the additional revenues from eliminating tax exemptions on fossil fuel use are added to the revenues from environmental taxes, although they will partly increase labour taxes, taxes on the income of corporations and other indirect taxes.

Source: K. Aiginger: New Dynamics for Europe: Reaping the Benefits of Socio-ecological Transition, Synthesis Report Part I, 2016.

18 L. Summers: Voters deserve responsible nationalism not reflex globalism, Financial Times, 10 July 2016.
19 J. van den Bergh: Green Agrowth as a Third Option: Removing the GDP-Growth Constraint on Human Progress, WWWforEurope Policy Paper, No. 19, 2015.

The new strategy for Europe proposes seven game-changing policy drivers. First, boost innovation while redirecting its focus from labour saving to resource saving, so as to enable a strong reduction of emissions and make Europe the technology leader in energy efficiency and renewables. Second, stimulate demand by boosting consumption via a reduction of income spread, while stimulating investment by providing the infrastructure for decarbonisation. Third, shift the welfare system from *ex post* protection after a problem has occurred to *ex ante* investment in capabilities, so as to reduce the probability of unemployment and consequently high social expenditures. Fourth, specifically upgrade the skills of less-qualified segments of the work force and provide symmetric flexibility, based on which firms can adapt labour input according to cyclical demand and employees can adapt labour input according to work-life balance and individual need. Fifth, eliminate subsidies for fossil energy and provide incentives for reducing the set-up costs of new, efficient technologies and renewables in a circular economy, so as to decouple energy and material input from output and output growth. Sixth, use the public sector as a major game changer, implementing a better structure of taxes and expenditures, procurement, and regulation. Seventh, recommit the financial sector to the real economy and align it with the needs of society.

Given the European track record of sound strategies and poor delivery, WWWforEurope defines "facilitators of change", which could make success more likely this time. These include bringing new agents on board, from young people to civil society to migrants, and monitoring the socio-economic transition of Europe to the "first beyond-GDP economy".