

Transition to Sustainable Employment: Using Backcasting Technique for Designing Policies

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The article presents the experience and results of a research project that used the technique of backcasting. Backcasting is a preferred method in transition management – especially with regard to sustainability issues – as it facilitates the deliberation of complex socio-economic issues and enables participants to think freely outside the realms of present cognitive frames and still find adequate, future-oriented policy answers. In the case of this particular Hungarian backcasting experiment, a sustainable employment scenario was developed and policy recommendations were determined for reaching such a desired future. The article attempts to demonstrate that applying future-oriented methodological approaches can indeed lead to the design of feasible sustainability policies even when dealing with path-dependent systems burdened with lock-in effects.

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Introduction

Sustainability has become a widely used and popular term both in management and in policy studies. However, when it comes to devising and

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implementing feasible strategies and policies that lead to strong environmental and social sustainability, difficulties arise. This especially holds true when sustainability demands alternative visions that leave the realms of currently reigning paradigms. In recent years, debates have strongly resurfaced whether it is at all possible to approach sustainability within an economic, social and political system that places the idea of growth in the centre of attention. Many envision – including the present authors – that solutions to such complex issues can now only be handled by deliberating about suitable transition paths to alternative paradigms and institutional settings.

These alternatives must critically look at how we currently define human needs and especially the means and methods of trying to satisfy them. Economic success should be assessed by its contribution to the communities' normative definition of well-being and this will inevitably include values other than monetary ones. The idea of a steady-state or de-growth economy does not project the idea of a stationary state. In such an economy, the combination and ratio of the four value-producing capitals (natural, social, human, and man-made) would also be continuously changing, only well-being would rely more on the qualitative gratification and less on the quantitative expansion of material and energy-intensive transformations.

However, the question remains how to conceptualise the change towards such a sustainable economy and society? How the transition, or perhaps more precisely, the transformation could be managed? Are there theories and techniques available to guide the transition/transformation process? In the relevant literature, one of the approaches has been termed 'transition management.' Transition management (TM) attempts to determine policies that are able to facilitate such transformation under conditions of uncertainty, complexity, and need for continuous learning and adaptation. Backcasting is one of the techniques applied by TM. As opposed to extrapolation from the present to the future exercised in forecasting, backcasting starts with the establishment of a normative vision of the future and designs its way back to the present. Backcasting thus supposes that decisions made today do influence our prospects and hence provides opportunities in moving towards a desired future. Backcasting exercises are necessarily participatory and deliberative.

The article presents the experience and results of a research project funded by the Hungarian National Council for Sustainable Development that used the technique of backcasting in order to explore the issue of

sustainable employment. Backcasting is a preferred method in transition management – especially with regard to sustainability issues – as it facilitates the deliberation of complex socio-economic issues and enables participants to think freely outside the realms of present cognitive frames and still find adequate, future-oriented policy answers. In the case of this particular Hungarian backcasting experiment, a sustainable employment scenario was developed and policy recommendations were determined for reaching a desired future of sustainable employment in 2050.

The paper consists of three major parts. The first part presents the approach of transition management in tackling sustainability issues. The second section introduces the relevant literature on sustainable employment, while the last one summarises the experience gained from the Hungarian backcasting experiment on sustainable employment policies. Finally, some conclusions will be drawn.

Transition Management

Many social and natural scientist dealing with sustainability issues agree that in order to sustainably fulfil the needs of society among others for mobility, food, shelter, and clothing; it is insufficient to solely adjust the current systems (Grin et al. 2010). It is becoming indispensable to radically redefine the current systems and their functions or establish completely new ones. Hence, the issue of handling social and technological transformations that lead from one system to a radically different one has come to the forefront of scientific and public discussions (Kemp and Loorbach 2003). This experience would not be unique in the history of humankind as such transitions had taken place before but experience shows that no relevant stakeholder had been capable of forecasting, let alone influencing such major changes (Takács-Sánta 2008; Tenner 2011). However, transition management attempts to determine policies that are capable of facilitating such transformations. As neither the timescale, nor the direction of such transitions can be easily determined in advance, this ‘management’ differs slightly from its traditional meaning. Rather than directly trying to influence, it supports the handling of uncertainty; facilitates continuous learning and trial and error endeavours (Van der Meer, Visser, and Wilthagen 2005).

Transition management is not only a theoretical background used merely in the academic field. From the beginning of the 21st century, the Dutch government has been using transition management methods to determine sustainable public functions (Kemp and Loorbach, 2003).

Most examples are available regarding the issues of energy, transport and mobility as they incorporate technological elements (like infrastructure or equipment); social patterns (such as habits or institutions) and cultural factors (like norms, values, rules or cognitive models). According to the theory of transition management, all these issues would have to be considered with equal weighing (Grin et al. 2010).

Backcasting

A deep and unsettling question, which is raised repeatedly in the course of human history, is what will happen in the future. Of course this is not (just) a philosophical question since it is closely connected to the question of what we should do today and how we should choose from a varying set of alternatives. Our vision of the future will determine how we act and make decisions not only at an individual but also at a social level. Consequently, it is essential to be reflexive on the issue how these ‘visions’ of future come into being and whether we can construct a different type of ‘vision’ effecting norms, decisions, and actions.

Backcasting is one of the methods in future studies which attempts to elaborate prospects for different levels of social organisation such as companies, cities and societies. Backcasting is part of a bigger category of methods called normative scenarios (Vergragt and Quist 2011, 748). The notion of normative scenarios stands for the idea that when one attempts to create a vision of the future there should be certain values and basic normative assumptions determining what a desirable future would look like. So, instead of attempting to decipher from a large pool of data what is the most likely future, normative scenario-building moves along a different path identifying acceptable and desirable futures instead (Robinson 2003). The distinguishing feature of backcasting is that it starts with a normative future vision and attempts to create links between these desirable conditions of the future and the present. Consequently, it works backwards by strategising and planning the necessary steps to achieve the given set of goals embedded in this future vision (Miola 2008).

Usually the end-point of the future vision falls between 25–50 years. The reason for this is twofold. Firstly, a longer timeframe is needed in order to create the necessary distance from the present and to allow for enough space for envisioning a qualitatively different future (Vergragt and Quist 2006; Vergragt and Quist 2011). Secondly, for most people the future they are able to imagine is constrained by their lifespan or that of their children’s (Robinson et al. 2011).

The question may arise why anyone would use backcasting when usually forecasting is available as an alternative and is seemingly a more exact and less ambiguous way to predict the future. The very fact that the expression of backcasting is generated by wordplay (substituting 'fore' with 'back') implies that the original idea was to create an approach fundamentally different from forecasting. While forecasting is a method based on the present extrapolating present conditions and trends to the future, backcasting has a reverse approach starting from the future and moving backwards to create a bridge between future and the present (Miola 2008).

However, there is not only a methodological issue being at stake here but also a different understanding of human agency and of the possibility of change.

Forecasting attempts to delineate the most likely future in order to help actors adjust their strategies, plans and decisions to this future. The keyword is *adjustment* here since it is presupposed that it is what actors could and should do at different levels of social organisation. Forecasting, therefore, is first and foremost preparing for the future. Backcasting has a different starting point since it allows for actors a certain space for manoeuvring as far as the future is concerned. Their role is more than just 'passively' adjusting to or suffering from the changes ahead. They can get into a constitutive relationship with the present circumstances thereby becoming active participants in forming future outcomes.

It should also be mentioned that forecasting works well and is really useful in simple environments where it is enough just to use a few variables and assume that the rest of the system remains constant. However, for complex systems forecasting is rarely enough. As Robinson (2003) argues, as our ability to predict the future is limited, it is a better solution to develop alternative scenarios with different outcomes rather than to predict its changes in a very quantitative and exact way. Moreover, many problems our societies face are often complex and call for a multi-levelled and multi-disciplinary (even trans-disciplinary) approach to tackle them (Robinson 2003). Such an issue is sustainability, as the next part of this paper on sustainable employment will show. However, it is easy to miscomprehend the function of backcasting when discussed together with the approach of forecasting. Backcasting is not a method to predict the 'true' or 'real' version of the future but to form it, or in other words, to create a constant dialogue between the desired conditions of the future and the present.

Sustainable Employment

When the opportunity arose to apply backcasting in the Hungarian sustainable policy context, a sufficiently complex policy field with fundamental importance needed to be identified that incorporates the technological elements, social patterns and cultural factors and requires the deliberation of people with many different viewpoints. The choice fell on the topic of sustainable employment that is high on the public agenda in Hungary.

Sustainable employment as a phrase is relatively rarely discussed in the literature on alternative economics. Even environmental social scientists are divided on the issue whether an economic transformation into a more sustainable world would involve less or more work. Some academics believe that we maintain our current levels of consumption just to provide employment, hence only less work can lead us to a more environmentally conscious way of living (Schor 2005), while some believe that the 200 years of environmentally damaging economic activity would require significant human labour to clean up (Cato 2009).

The connection of sustainability and employment in the current literature is made along two paradigms. The first reflects the technologically optimistic scenario of ecological modernisation where new innovations will enable the current economy to reduce its adverse effects on the environment while, at the same time, producing new ‘green jobs’ in the growing ‘green economy.’ The second one is the ‘radical change paradigm’ that abandons the ideals of an economic and social system based on growth, consumer society and full employment and advocates fundamental changes in the way we define work and welfare (in this case in its sense of well-being) in order to achieve environmental and social sustainability.

ECOLOGICAL MODERNISATION

The greening of the economy that nowadays often appears in global, European and national strategies imply corresponding solutions to both the environmental and the employment crises. Ecological modernisation encourages investments into environmentally friendly technologies and developments that lead to greener production or low-emission consumption. This technological fix does not only reduce environmental damage per unit of production but also boosts economic growth and at least in its investment phase demands significant human labour. This concept is especially appealing to the current major economic players as it opens new markets as well as reduces operating costs (e. g. energy costs)

and can be easily reconciled with the current mindset. In the process of such greening of the economy, less environmental harm and more labour would also be supported through ecological tax reforms that produce a 'double-dividend' by making the use of scarce resources more expensive and labour cheaper (Kiss 2010).

However, such ecological modernisation only enhances eco-efficiency and leads to relative decoupling (decreased environmental strain per units of consumption) but does not involve reducing the overall scales of consumption. Absolute decoupling would only occur if the overall throughput of the economy would be decreased or, at least, maintained over time (Jackson 2009). Hence, strong environmental sustainability cannot be achieved by ecological modernisation alone and these solutions incorporate the risk of believing that we can go on business-as-usual without major changes in our ways of thinking and acting. Moreover, ecological modernisation attempts to address social sustainability only by boosting employment but not at all addressing the questions of social justice.

In terms of employment, the green economy is controversial. Green investments can lead to new 'green jobs' (Getzner 2002; McEvoy, Gibbs, and Longhurst 2000). However, the increase in employment occurs mainly in the investment phase and as the main driving motivation behind technological innovation is cost cutting, it is possible that their introduction will further reduce human labour demand in the long run. Another problem that may arise is that the capital intensity of these investments will be satisfied through cost reductions that are likely to occur by saving on labour costs.

Consequently, the concept of the green economy is only helpful as long as it is treated as a transitory phase with all its limitations acknowledged while the quest for solutions beyond current paradigms continues. Ecological modernisation is in line with mainstream economic concepts and hence subjugated to the necessity for ever-lasting economic growth failing to deal with the limits of the biosphere's supporting capacities, hence not achieving strong environmental sustainability. In terms of social sustainability, this paradigm fails to address the problems of unequal distribution and the widening of the social gap.

THE RADICAL CHANGE PARADIGM

Representatives of the radical change paradigm go beyond the boundaries of neoclassical economics and refuse to accept its definition of welfare solely in terms of levels of consumption; its characterisation of work

as purely paid labour and its seemingly problematic attachment to the ideal of full-employment. Their theories are based upon the idea that new foundations can be built through the redefinition of human needs and work. Mainstream employment theories and policies handle work purely in relation to income-generating activities. All unpaid efforts that people engage in – such as community work, household jobs, homecare, or self-actualisation activities – are now considered beyond the economic concept of employment. As Beck (2007, 75) asks in his book *The Brave New World of Work*, if we presume that the volume of income-generating jobs is in decline, what other leading concepts can take the central role of paid employment in society?

In redefining work, we cannot surpass discussions on questioning the currently reigning paradigms of human needs. As Cruz, Stahel, and Max-Neef (2009) remark, consumption in the current economy has become an end in itself and has not only moved away from genuine needs but has also transformed them. As soon as it is accepted that human needs are finite and are of a significantly wider range that do not focus solely on monetised material needs, the effects of work itself on the well-being can also be rediscovered. Torgler (2011) in his empirical study of European countries finds that one of the main driving force behind the well-being of a person – besides the satisfaction with family and marital background – is work satisfaction. Relating to work, motivations like participation, understanding, creativity, self-actualisation, or affection appear alongside subsistence and security (Max-Neef 1992). Hence, it is possible to redefine work in light of these needs from a purely income-generating activity to something that adds to the well-being of the individual and the community. From here onwards, besides paid work, household activities or home farming can also become aspects of employment that fulfil subsistence and security. Community work or social deliberation activities can be linked to participation; the acceptance of learning and self-development as work to understanding; and activities ranging from gardening to music playing to creativity. If we add the need for affection to this, besides community work, child-rearing and elderly care can also be seen as an accepted work activity. The redefinition of work along these lines can make way for the recognition of new approaches within the radical change paradigm.

The cornerstone of environmental and social sustainability through the radical change paradigm is the unavoidable transformation of consumption and work patterns. Even though current employment theories

and policies avoid handling the interconnectedness of consumption and work, this perspective can give significant insights into achieving more sustainable employment. In mainstream economics, consumption and work are the two sides of the same coin: consumption is the yield (positive utility), while work is what we have to 'endure' in order to be rewarded (negative utility). However, they continuously reinforce each other, and we are not only working more in order to consume more but consume more once we have worked for it (Sanne 2002). Røpke (1999) explains that with the increase in labour productivity, employers – in line with the current economic rationale – have chosen to increase the wages of employees and produce more rather than provide more leisure time. This has meant that employees have got used to increasing levels of spending that demanded increasing time spent at the workplace. At the same time, in the appreciation of the workforce (i. e. in promotion and wage increases) time spent at the workplace (including 'natural' overtime) started to play a major role (Røpke 1999). In addition, Sanne (2002) mentions the 40-hour working week that by now for society has become the only recognised 'true employment' as one of the most significant drivers of consumption. However, if needs and values that present alternatives to monetary well-being are recognised, a cutback of consumption through the reduction of the working week may become widely acceptable (Sanne 2002; Schor 2005).

One of the tools to accommodate such radical changes is the introduction of the guaranteed basic income. One of the contemporary advocates of the basic income approach, Philippe Van Parijs believes that a transfer payment provided to every citizen in his/her own right regardless of one's employment or social status could, on the one hand, ensure basic subsistence for each individual enabling the redefinition of work and, on the other, would mean an end to the unemployment problem Europe faces (Van Parijs 2000). In mainstream economic theory, the only solution to unemployment is a boost in economic growth, which is now encountering numerous environmental and social limits. Consumption taxes would cover for the funding of such transfer payments in line with ecological taxation systems.

The redefinition of work, a stop to overconsumption, and a guaranteed basic income together would pave the way for a whole new concept of working in and for the community. Currently, working for the community is either done on an unpaid volunteering basis, or – like in the case of public work schemes or the social economy – is done under

subsistence pressure. In a society where diverse forms of work are recognised as employment, working for the community would become just one type of employment among many. Within the radical change paradigms, the different structures of the social economy could play significant roles. As Cato (2009) argues, cooperatives are organisations where one's self-actualisation and enhanced work motivation can really flourish as together with responsibilities, people share their abilities and values. The author takes this reasoning one step further, saying that if we considered business as part of the community, the issue of social responsibility, service levels, the quality of goods and the protection of the environment would just become the norm.

Both in terms of environmental and social sustainability, the issue of local production and consumption going hand-in-hand with the reinforcement of local communities comes to the forefront. Eco-localism focuses on the locally available capital (including environmental, social, physical, financial and human) and encourages its use towards self-sustenance. This economic vision with its conservation of local resources for long-term purposes as opposed to the current short-term profit-maximisation tendencies is significantly closer to the Aristotelian concept of *oikonomia* (Curtis 2003). Similarly to eco-localism, bioregionalism envisions the operations of the economy on a 'local production – local consumption' basis but while eco-localism does not define what 'local' is, bioregionalism states that political and economic boundaries should respect the boundaries of ecosystems. Bioregional visions accept only two levels of governance: bioregional and global. On the bioregional level, decisions are taken by participative, deliberative means. The trading of knowledge, ideas, culture, certain services and locally unavailable raw materials would happen also on a global basis and the import of goods would also be possible but local goods would have a significant comparative advantage (Grey, 2007). Even though there is no extensive research on the employment effects of eco-localism or bioregionalism, some assumptions can be made. Local production and consumption would facilitate the utilisation of local labour while reducing unemployment, and the negative environmental and social effects of mobility and migration. There is some experience to such local employment initiatives all over the world in the form of LETS (Local Exchange and Trading Systems).

The radical change literature on sustainable employment – sceptical to the ideals of full employment and boundless globalisation of markets – focuses on reinventing the conceptual framework of employment. By

broadening the range of human needs and the recognised forms of labour, work is redefined in a global network of local economies. Employment no longer means solely paid work but activities that serve the purposes of the well-being of the community and the self-fulfilment of the individual are also acknowledged.

The Results of the Hungarian Backcasting Experiment

The Hungarian backcasting experiment provided us with some insights on how the normative vision created by the participants overlap with the theories raised in the academic literature. When selecting the participants to the workshop, the organisers opted for an approach that targeted the involvement of 'experts' in the field of employment. This limited the randomness of the selection process as they had to be selected from a pool of experts known to the researchers on the basis of their background in employment, and their geographical location. The homogeneity of the group ensured that the exercise remained intense, problem focussed and it clearly simplified the process as it required less time and costs from the participants. The main criteria for recruitment were suitability and willingness to take part in an exercise working on the science-policy interface on a voluntary basis. The 16 participants came from varied backgrounds and from different sectors (four each from academic, business, civil, and public administration), equally from the capital and the countryside representing both the East and the West of Hungary facing different employment problems. It was ensured that there would be a representative of the Roma community as well as someone from an NGO assisting people living with disabilities in finding employment. We realise that the results of the backcasting experiment reflect only the views of those people present at the workshop, but they nonetheless give valuable insights to how sustainable employment can be conceived.

The following synopsis of the vision is the result of qualitative data analysis. The analysis used was a combination of meaning-condensation; categorisation and meaning-interpretation (Kvale 1996). The discussions during the workshop were recorded and notes were taken by two researchers. The participants themselves organised their conclusions on flipcharts and sheets and the results were photographed. After the workshop, the notes were crosschecked with the recordings and together with the photographed written results organised into a database where they were broken up into pieces that reflected different notions. These were then sorted into 13 different categories (such as definition of work; com-

munity; role of the state, etc.) and labelled with 43 topics (for example working time; work ethics; the relationship of individuals to the community; trust; etc.). After labelling, the notes were regrouped into different topics and a synopsis was written on the basis of the content of these groups. Hence, this synopsis reflects the notions discussed by the participants but in the words of the researchers.

REDEFINITION OF WORK

The participants found the redefinition of work crucial in their vision for sustainable employment. According to their vision, work in Hungary in 2050 is not merely a tool for basic subsistence but also a ‘source of well-being.’ Work does not consist only of a paid job and does not only exist in institutionalised forms. As work is no longer just a struggle for survival, people have an internal motivation to do what they do skilfully. They can be proud of their jobs independent of their status or scope of activities. Work is meaningful and useful in many different segments of life. People’s needs go beyond the physical focus and spiritual needs prompt the existence of new types of work activities. The satisfaction of needs is ‘healthy,’ putting a stop to patterns of overconsumption. Work motivation changes accordingly: prime motivation is no longer subsistence but self-actualisation, self-development and the feeling of social usefulness. As one of the participants phrased, ‘work is happy self-actualisation in a socially beneficial manner.’ Such redefinition of work stipulates the broadening of the different employment forms. In Hungary of the 2050s, employment is not purely part of the market economy as people also do work that are ‘not necessarily monetised.’ One can engage flexibly in many different work activities, in many different legal forms and hence retains more control over one’s life. The non-monetised forms of employment such as barter or LETS become legally acknowledged. Learning is a recognised form of employment. Work is performed predominantly locally, or even from home but so-called ‘office café’ solutions also exist where people can work outside their homes. Technology supports this type of evolution as it transforms most arduous and monotonous work and ‘there is nobody digging trenches in 2050.’ However, if someone performs such demanding jobs, society fully appreciates them.

WORK EMBEDDED IN COMMUNITIES

Participants envisage the Hungarian society in 2050 where the role of communities is of rising importance and builds on values of coopera-

tion, trust, and solidarity. Community ties of individuals are strong and communal events are frequent. The network of trust is operational and trust itself is treated as a prime social asset. Community plays two different roles in employment. On the one hand, community provides a framework and motivation to work, on the other hand, work serves community purposes. As 'people cannot have their work appreciated in larger spaces and large societies,' society operates as a network of many smaller communities. Hence, both working in the community and working for the community becomes important.

NON-PROFIT AND FOR-PROFIT ORGANISING OF WORK

The participants envision the economic actors of 2050 not merely for-profit or non-profit organisations. For-profit actors are sensitised (or coerced) being environmentally and socially responsible organisations that build these aspects into their everyday decision-making and represent unambiguous community values. Management culture embraces empowerment, where employees have certain degrees of self-determination. Bonuses include solutions that facilitate the new, diverse types of employment such as sabbaticals or work-time allowances for volunteering activities. Consultations with workers' associations are based on trust and dialogue, where both parties are present as partners. In case of inevitable downsizing, outplacement services are provided on a wide basis to employees. Different co-ownership schemes for workers are common, cooperatives are rediscovered and many work in the predominantly non-profit social economy. However, as in the for-profit sector social responsibility becomes the norm, at the same time corporate governance becomes widespread among non-profit organisations. Hence, non-profit approaches are built into the operations of for-profit companies, while non-profit organisations internalise the essentials of economic operations.

TECHNOLOGICAL OPTIMISM

Participants revealed outstanding technological optimism. 'In 2050 technologies will be widely accessible that we have no knowledge of today.' Even though in 2050 less work is available due to technological advances, this does not imply higher unemployment but rather more opportunities for redefining work. Technology supports flexible working arrangements, improvements in quality of living, substitution of arduous and monotonous jobs, equal access to work and public services and partici-

pative decision-making. The wide-ranging research and development activities do not only cover technological advancement but also social innovations. While not questioning technological advances at all, much emphasis is also laid on the preservation of traditional cultural values, and the safeguarding of those who work with traditional technologies. (However, this preservation should not at all mean separated reserves.) This way, besides modern technology, traditional knowledge has a legitimised role in society.

EDUCATION AND TRAINING

Participants envisage a knowledge-based Hungarian society in 2050. Hence, education and training in many different forms play an outstanding role in all ages. In case of children, the frontal, class-based school system is replaced by education that respects individual talents, is tailor-made, and involves parental guidance as well. Young people have the chance to try themselves in different jobs and get experience under protected circumstances. Adults train themselves regularly but not necessarily in formal institutions. Both formal and informal education and self-development is acknowledged and regarded as standard part of working life. Due to this development, a number of career changes in a person's life are considered the norm.

WORK AND ENVIRONMENT

When discussing environmental aspects in sustainable employment, the participants of the backcasting workshop were present more like lay people as they had more expertise on employment than ecological issues. Nonetheless their commitment towards environmental sustainability was apparent throughout the workshop. According to their vision, in 2050 individuals as well as economic actors are environmentally conscious both due to their inner values as well as due to the regulatory environment. Environmentally friendly workplaces involve energy efficiency as well as aspects of occupational health, including ergonomic perspectives and the increased consciousness of the detrimental effects of work overload. The ecological aspects are taken seriously especially in the agricultural sector, that builds a lot more on human labour than chemicals. Hence, more people are employed in agriculture. (The recurring theme of agriculture during the backcasting workshop was likely to be due to the participants' desire for access to safe and healthy food as lot of discussions revolved around the need for adequate food production and labelling.) In 2050,

the redefinition of work implies a rise in the appreciation of human skills and labour and this leads to 'mending things rather than scrapping' as 'we do not ditch other people's work.' The new approaches to working lives also enable people to take more responsibility for and better care of their own environment.

GLOBAL AND LOCAL

The issue of global vs. local continuously resurfaced in the discussions. Anti-global sentiments did not occur and the concept of the global economy and global society were not questioned once. However, according to their vision, in 2050 globalisation is more of a global network of local economies and societies, where local production and consumption, and hence local employment play a significant role. This does not at all imply that there is any limitation on goods and services imported from the global arena, only that local products and services enjoy certain advantages. Employees are also free to choose whether they work locally or globally (as this adds to the desired diversity of working arrangements) but the pressure on mobility eases. Individuals may have strong ties to a locality but this rather indicates solidarity with a given community than the lack of mobility. (On the necessity of mobility participants were divided.)

DEMOCRACY AND THE ROLE OF STATE

During discussions a vision of the Hungarian state in 2050 also crystallised. The participants envisage that in 2050, Hungary is a democracy but significantly more decentralised both in terms of decision-making and financial resources than today. Even though participative or deliberative democracy as a term never occurred during discussions, the topic of a state where individual, community, and state responsibilities are clearly distinguished and decisions are taken on the levels where responsibility lies often appeared. Moreover, the link between the citizens and the 'central' state is only indirect as there are a wide range of institutions with different authorities. The redistributive task of the central state still remains important as it ensures through the guaranteed basic income the basic subsistence of citizens. The role of the public employment service changes as it no longer deals with the administration of unemployment benefits and the assistance of the unemployed (as due to basic income this concept becomes outdated) but more with the tailor-made supporting and brokering services for all employees.

ECOLOGICAL MODERNISATION AND RADICAL CHANGE MIXED

It is clear from the above, that the participants' vision for sustainable employment in Hungary in 2050 contains mixed elements of the ecological modernisation and radical change paradigms described in the previous chapter. Their vision also abandons the ideal of full employment and makes way for a life where people are free to work not because they are forced by their subsistence but because work is an activity that serves the well-being of both their community and their own. Well-being was defined not only in material terms but also in terms of self-development; self-fulfilment; sufficient time for nurturing family and community relationships and access to a healthy environment. This approach would also enrich the forms of employment and dispose of the idea that employment generally means a 40-hour paid labour week. Even though participants supported the idea of localised employment through the encouragement of local production and consumption patterns, the varied nature of employment would also cover the open opportunities for globalised employment and labour mobility. The issue of globalisation appears in the vision as an aggregate of local networks, where localism weighs more than today but does not mean detachment or impassability.

POLICY TOOLS

During the workshop, backcasted policy tools that serve this normative vision were also identified. These policy tools concentrate around five major objectives.

The first group of policy tools serve the objective that work done beyond the economic sphere (such as community, family, self-development) should get recognition in order to provide people with the choice to work in many different employment forms doing diverse, meaningful and acclaimed jobs. This implies that the legal and social system should embrace and encourage employment forms besides paid labour (such as self-employment, household employment, LETS, barter, and all atypical employment forms). Local employment should be supported but barriers to global employment should also be eased at the same time, leaving the individuals the option to decide. In order to achieve these objectives, the policy tools identified in the backcasting experiment focus on the abolishment of administrative obstacles; introduction of new legislative frameworks for those elements that are currently not available; communication campaigns and financial incentives. It is this group of measures that in-

clude the suggestion on the introduction of the guaranteed basic income that facilitates the redefinition of work.

The second group of policy measures aims at supporting non-profit organisations to become an integrated part of the economy, while at the same time encouraging for-profit companies to take on board social values in order to ensure that people work in an environment that is based on cooperation and trust and embraces true social dialogue. This can be achieved through awareness-raising campaigns and financial incentives. These tools could lead to better cooperation and more solidarity in both sectors but only if trust is established. Social trust can be built up by first introducing trust building elements into public administration, for example by encouraging real participative social dialogue. In addition to positive measures, the participants recommend that later on certain legal sanctions can also play a role especially in the case of the for-profit companies.

The third group of measures aims at keeping the detrimental effects of work and the environment at a minimum level. The notion of sustainable employment must include that neither the work environment, nor other elements of employment (e. g. overwork, stress) lead to any damages of health. The proposed measures in this category include both awareness-raising and strong legislation to ensure healthy and environmentally friendly working environments, proper work-life balance, and food safety.

The fourth group of policy measures aims at providing opportunities for people to realise and develop their own potentials both in education and training and on-the-job. These measures establish a knowledge-based society that can only be achieved through an education system that facilitates self-development at any age. This includes the introduction of new, innovative forms of learning and new types of learning infrastructure. Life-long learning can be encouraged by legally acknowledging training as employment.

The policy measures in the fifth group serve to establish the role of technology in supporting sustainable employment by encouraging targeted technological and social innovations through financial incentives. They include a wide-range of potential applications from the introduction of trust-building, participatory community decision-making; through boosting the creative industry, until facilitating equal access to employment, locations and services. This group also included policy instruments that prevent the disappearance of traditional professions.

Conclusions

Even though throughout the Hungarian backcasting experiment, numerous conclusions could be identified in how to improve the methodology of backcasting, it demonstrated that this transition management technique is indeed capable of facilitating out-of-box thinking even regarding highly complex issues such as sustainable employment. It has also become clear that feasible sustainability policies can be designed even when dealing with path-dependent systems burdened with lock-in effects. As for the methodological considerations, two main lessons were drawn from the experiences of the backcasting process.

Firstly, it became clear that much more time is needed for the orientation phase in which the participants can get into a mindset where they can devise and think about alternative realities. While for children this ‘mental shift’ between the reality and alternative realities happens automatically and without effort, most adults learnt to restrict the rich associations of their thoughts to be able to focus more effectively on their tasks at hand (Gopnik 2011). Hence, more time and careful planning is needed to loosen these mental boundaries to be able to aid participants to leave the problems of the present behind and to focus on the possible desired future.

Secondly, our methodology was based on a thematic approach where participants discussed different aspects of a sustainable future of employment (namely, individual, community, environmental, and technological aspects). Even though this approach revealed many facets of the issue, they remained relatively independent from each other in the scenario building exercise. To be able to harness the rich connections and complex interrelationships between social, technological and environmental components in creating the vision of a future society, we shall seek a different, probably more systematic or network-based approach. This would allow for a more encompassing view on society as a whole while at the same time this modified approach could help to disclose how different parts of a system or network mutually constitute, stabilise, and feedback onto each other respectively.

We realise that the composition of the group poses some limitations on generalising the results as they were well-educated people who reflect on employment issues on a daily basis. It would therefore be of a high significance to run this experiment with different groups, consisting of people from different backgrounds and age groups. However, we believe

that the views of the participants emerge from a wider understanding of how employment could and should become more socially and environmentally sustainable and the results can nonetheless constitute a valuable contribution to the dialogue on sustainable employment.

The vision established during the two-day workshop bear certain resemblance to those ideas that are present in the alternative economic literature described in the section on the radical change paradigm. Common ground is that the current definition of work and the employment policies that rely on the notion of full employment are outdated. This crosstalk between the literature and the solutions identified by the participants may be due to a number of reasons. One can be that the reasons behind the economic, environmental, and social crises are perceived similarly and as soon as people are given the opportunity – like in the backcasting workshop – to distance themselves from the complexity of current problems, break-out strategies start to bear resemblances. It is also possible that mainstream paradigms are already so challenged that alternatives that are currently labelled alternative no longer seem unattainable. This seems to be underpinned by the fact that the foundations of many elements in the vision had already been laid. The social economy currently also presents an alternative to those crowded out of the labour market; a number of non-monetised local exchange and trading networks exist; and the legal base for a number of atypical employment forms had been developed. One of the main obstacles of the flourishing of these solutions is that the economic and political system still holds on to certain presuppositions. The rejection or, at least, the questioning of these assumptions could pave the way for a wider use of already existing patterns that enable a better harmonisation of ecological and employment interests and visions.

Transition management techniques such as backcasting can support such approaches. If such methods were to be used more widely, decision-makers could be assisted in facing legitimate and implementable policy options outside the realms of mainstream solutions.

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