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# The evolution of VET systems as a combination of economic, social and educational aims. The case of Swiss VET

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#### RESEARCH ARTICLE

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#### **ABSTRACT**

Vocational education and training (VET) systems around the world serve many aims, the most important of which can be grouped into three main aims: economic, social and educational aims. These different aims find their roots in different socio-cultural and economic contexts and their importance in the functioning of the systems evolves according to the times. Our contribution proposes a reflection on the centrality of the notion of aims in order to better understand and describe the functioning of VET systems. By adopting an exploratory approach based on discourse analysis, we will show the interest in using this notion to build a theoretical framework that facilitates international comparisons between VET systems and also the description of their evolution from the past to the future. To exemplify the relevance of this exploratory approach, the contribution will propose a description of the evolution of the Swiss VET system from 1880 up to 2030, based on the articulation of economic, social and educational aims.

#### **KEYWORDS**

vocational education and training, comparison, aims, VET systems, evolution, Swiss case

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# INTRODUCTION

Vocational and educational training (VET) systems serve multiple aims, which find their roots in socio-cultural and economic contexts and evolve according to the times.

Depending on the country or the period in question, these VET systems have been charged with responding to different and constantly evolving challenges. The responses to these challenges have determined concrete choices at the level of public policies, structures and organizations. A close look at the different aims pursued by VET systems offers an interesting perspective for a better understanding of their evolution and of their specificities.

By adopting an exploratory approach, we will show the interest in referring to the notion of aim in order to build a theoretical framework that facilitates international comparisons between VET systems and also the description of their evolution from the past to the future.

In order to develop this theoretical framework, we will reduce the multiplicity of the aims pursued by the different systems to three general orders of aims: economic policy aims, i.e. providing qualified labor for businesses and thus supporting economic growth; social policy aims, i.e. helping individuals to integrate into the labor market and society and thus contributing to the reduction of social inequalities; education policy aims, i.e. complementing compulsory school education and opening up the possibility of pursuing learning and training at higher levels.

Our contribution will begin with a theoretical analysis of the notion of "aim" and of the way in which its contours can be drawn from the sources available to researchers. As an example, we will then focus on the evolution of the Swiss VET system. The analysis of the Swiss case will enable us to clarify our theoretical and methodological approach, while providing a concrete example of the articulation of different aims and their historical evolution. In the conclusion, we will open up the discussion by evaluating the interest of the approach proposed here and by calling for new and more in-depth research.

# SYNCHRONIC AND DIACHRONIC COMPARISON<sup>1</sup>

A reflection on the past and future evolution of VET systems raises the problem of defining which aspects will be at the center of the diachronic comparison between different stages of the same system. Such a reflection, if it is to go beyond mere chronology, must be able to refer to solid theoretical foundations enabling the selection of relevant aspects of the functioning of VET systems. A similar problem arises in reflections on the synchronic comparison of VET systems at the international level. Indeed, the synchronic comparison and the diachronic analysis of VET systems raise similar theoretical and methodological issues. The central question of synchronic comparison, "what criteria should be chosen for the comparison between two countries?", changes in a diachronic perspective into the question "what criteria should be chosen to describe the different stages of the evolution of a VET system?".

<sup>&</sup>lt;sup>1</sup>We adopt here the terminology of historical linguistics, which distinguishes *synchronic* comparison, which studies contemporary stages of two or more languages, from *diachronic* comparison, which is concerned with the evolutionary changes of languages in different epochs.



The basic problem is fundamentally the same. Firstly, it is necessary to be able to define an ideal level of generalization, which both ensures continuity (whether between two countries or two periods) and reveals variations. As Olivier Giraud (2003) points out, the further into detail the analysis chooses to go in the different systems, the more precise it will be, but it runs the risk of losing this continuity and concluding to the incomparability of different systems. On the other hand, the choice of very general categories of analysis makes it easy to cover all the cases studied, but then these categories "run the risk of becoming abstractions, hardly faithful to the reality of the cases analyzed" (Giraud, 2003, p. 351) and ultimately becoming uninteresting from a theoretical point of view.

Secondly, the comparison must be able to refer to the "right" criteria. The diversity of VET systems at the international level does not make the task any easier. Among many others, Ursula Renold (2020) points out that "it is difficult to define VET programs or VET systems as a transnational category. These systems are too different with regard to the social constructs of concepts and are most likely founded on different political economy concepts" (p. 33). The only possible solution is "to reduce the complexity of VET", but to do so and to develop a kind of "transnational concept so that comparisons have a valid foundation" (p. 33), "it is necessary to develop a theoretical and methodological concept that helps to identify comparable functions in VET processes" (p. 37). In other words, this essential work of reducing complexity must be based on solid and explicit theoretical foundations that can offer broad and relevant categories.

The notion of aim that we are putting at the center of our reflection is a response to the need for a theoretical and methodological concept that can enable us to identify "comparable functions" in different systems. Formulated differently, the notion of aim allows us to designate what Dubar et al. (2003) call "common problems", problems, stakes, questions "with which all members and institutions would be confronted, and which would have given rise, historically, to different answers according to the diverse and contingent configuration of the actors involved" (p. 61. cf. also Gally, 2011).

Furthermore, the notion of aim offers a perspective on "common problems" for all VET systems because all are faced with the question of why, for what purpose, a VET system should be founded, maintained, or further developed. It offers us an interesting level of generalization ensuring both continuity between different VET policies and the possibility of highlighting variations. It is a notion which allows a global description of the main issues at stake in VET systems and, as we will see, can refer to a theoretical framework, based on academic publications as well as on policy papers, which confirms its relevance. And finally, it is a notion that has been at the center of public debate from the end of the 19th century to the present day.

# THE DIFFERENT AIMS OF VET

The topic of the aims the VET aims is already being discussed by experts in the field at the international level. However, even if everyone agrees on its importance, this issue is only rarely the focus of systematic analyses. A shared discourse on aims is also struggling to emerge and the formulations of "central aims" still remain relatively disparate, both in terms of their level of generalization and the theoretical framework which they refer to.

Moreover, the debate at international level has not yet fully explored the possibilities of using this notion in a comparative perspective. This article therefore aims to contribute to clarifying



and reinforcing the notion of aim as a key to understand the functioning of VET systems and to use this notion in a synchronic and diachronic comparative dimension.

The centrality of the notion of aim in explaining of the functioning of VET systems emerges in the writings of many authors. Reflecting on the conditions under which cooperation initiatives in the field of VET and the "transfer" of characteristics of the German system to other countries are possible, Dieter Euler (2013) stresses the importance of a good understanding of the key characteristics of this system before undertaking any initiatives. In this perspective, Euler proposes a list of eleven characteristics to describe the functioning of the German system. The first characteristic refers to the aims of the German VET system, which Euler groups into three categories: (1) economic performance; (2) social integration; (3) individual development (Euler, 2013, p. 8). These three categories refer respectively to economic, social and education policy aims (2013, p. 15).

A similar ternary formulation can be found in Jäger, Maurer and Fässler (2016). Like Dieter Euler, the three authors stress the importance of the articulation between three different goals in the functioning of a VET system:

"VET is caught between economic (productivity, quality, growth, locational advantage), social (education, social balance, integration) and individual (income, mobility, career) aims. VET thus has an economic policy, an education policy and a social policy dimension." (p. 55)

Tackling this issue through a broader reflection on the "purposes, traditions and prospects" of VET, Stephen Billett (2011) proposes a more differentiated analysis, highlighting the complexity and diversity of the aims, or in Billett's terminology "purposes", that a system will put at the center of its organization. Billett also stresses the importance of a closer look at these purposes in order to understand the logic and the structures of VET systems.

"That is, these purposes shape the nature of what is intended to be achieved to the provision of vocational education, how teachers and others implement it and how and for what purposes individuals engage with it." (p. 175)

Stephen Billett then proposes five orders of purposes that are to be found to different degrees in most VET systems:

"i) cultural reproduction, remaking and transformation of occupational practices; (ii) economic efficiency; (iii) societal continuity; (iv) individuals' fitness for particular occupations and readiness to engage in work life and (v) individual progression and continuity." (p. 145)

The political economy approach focused on VET system governance also brings the question of aims to forefront, essentially identifying two general aims: an economic and a social aim (cf. Busemeyer & Trampusch, 2019). In this perspective Giuliano Bonoli and Patrick Emmenegger (2020) propose a model which considers these two aims as two poles of a continuum and which underlines how VET policies must be able to find a balance between them, that is between "economic objectives (strengthening a country's competitiveness by providing a well-trained workforce) and social objectives (making sure that young people have access to good quality training regardless of their abilities)" (p. 2). Even though this approach reduces the range of aims considered, it has the merit of underlining the balance that must be found by VET policies between these two aims as well as the different positions that political and economic actors may pursue defending or refusing a shift in this balance.



Another interesting study where the importance of the notion of aim emerges is that carried out within the framework of the CEDEFOP project, The changing nature and role of vocational education and training in Europe. Even though the notion does not appear as central in this theoretical framework, it nevertheless emerges several times as a relevant analytical key. Firstly, the CEDEFOP experts propose a "multi-perspective conceptual framework for VET" (2017, p. 30) which offers an analytical model facilitating the description of the functioning of VET systems at European level. In this model, the notion of aim emerges in the "socio-economic perspective" under the dimensions "Focus/Purpose" (Dimension 16) and "Context of Justification" (Dimension 17). More precisely, under the designation "Focus/ Purpose", we find the purposes inherent to entering the world of work (16.1), preparing to remain in the world of work throughout life (16.2) and assisting the integration into a professional community (16.3). Under the designation "Context of Justification", we find the following aims: "Securing supply of skilled labor" (17.1); "Innovation and economic growth" (17.2); "Individual progression" (17.3); "Work readiness & smooth transition to work" (17.4); "Equity and inclusion" (17.5) (cf. CEDEFOP, 2017, p. 46-47). Secondly, the CEDEFOP experts published a concluding report on the totality of their project in 2020, where a list of 6 "reasons typically used to support the provision of VET" is proposed to European national experts who must judge their relevance in their national context at this moment and in 15 years' time, in 2035.

The CEDEFOP experts selected the following aims:

- to prepare students for working life in a specific occupation or occupational field
- to combat youth unemployment and/or foster economic growth
- to provide students with the basics to engage in further education
- to promote social inclusion and cohesion
- to foster personal growth and fulfilment
- to prepare students to participate fully in society and to become active citizens (Cf. CEDEFOP, 2020, p. 174, ff.)

Without going back over the results of this consultation, what interests us here is, firstly, the proposal of a series of aims to cover all the tasks assigned to VET in Europe. Secondly, the fact that the notion of aim is used here with a comparative perspective, both synchronic and diachronic.

This brief presentation of some current thinking on the issue of VET aims enables us to highlight the centrality of the notion of aim for understanding the functioning of VET systems, as well as showing us the possibility of applying it in different ways by adopting different levels of generalization. Finally, it offers us concrete examples of "sets of aims" referring to theoretical frameworks specific to the various authors. The following paragraphs will try to reduce the complexity of the field by referring to three orders of aims: economic policy, social policy and educational policy aims. This ternary formulation, which takes up the positions of Euler (2013) and Jäger et al. (2016) offers us an interesting level of generalization, which makes it easier to build a theoretical framework for synchronic or diachronic international comparison. Bearing this in mind, we are conscious of the blurred boundaries between these orders. In the following section of our contribution, we will describe these three aims more precisely and will then return to the whole complexity and multiplicity of them.



The identification of the different aims will be based on a discourse analysis approach<sup>2</sup>. This approach focuses on the arguments and positions as they emerge from the discourses pronounced at a given moment on a specific theme. More precisely, we will first focus on the explicit formulations of aims as they may emerge in the arguments and positions of the various actors active in the public debates on VET (politicians, experts in the field, civil servants, journalists, etc.). These arguments and positions shape the public debate, influence VET policies and, at least in part, find a concrete realization in measures and structures adopted in the institutional processes of each country. At the same time, these concrete measures and structures can also be considered in the historical analysis as indicators, or traces, that allow us to track back to arguments and positions developed in the public debate.

# ECONOMIC, SOCIAL AND EDUCATION POLICY AIMS

# Economic policy aims

One of the primary reasons for the establishment of most current VET systems is undoubtedly economic policy aims. Under this order of aims, we will group together aims directly related to a) the development of the national economy (promoting growth, increasing productivity, monitoring innovations and general technical progress); b) the provision of skilled labor for companies (provision of specific skills for specific occupations in demand on the labor market, responding to the need for a qualified workforce on the part of companies); c) ensuring at an individual level an adequate income and sufficient employability throughout working life (reducing unemployment, facilitating professional mobility, increasing the income of skilled individuals).

In the sources available to researchers, these aims appear explicitly in the writings of politicians or actors in the field. However, it is also possible to infer them from a series of characteristics of the system, reflecting choices that emphasize economic aims. We will also be able to extrapolate these aims by considering:

- the role of the economic sector (companies and professional associations) in the governance (who decides?)
- the role of the economic sector in the provision of VET (who trains?)
- the share of the funding of the system (who pays?)
- the nature of the contents transmitted in VET (balance between general and vocational contents)<sup>3</sup>
- the places where these contents are transmitted (time spent in school or in the work environment)
- the status of the young people involved in VET programs (students or workers)

If economic policy aims are probably the primary reason for the development of VET systems, such aims also had to be consistent with other aims: social and educational.

<sup>&</sup>lt;sup>3</sup>These first four points reflect the four "neuralgic points of contention" identified by Busemeyer & Trampusch, 2012, p. 21.



<sup>&</sup>lt;sup>2</sup>Discourse analysis in the sense of Keller, 2011, Landwehr, 2009.

## Social policy aims

The social aims of VET refers to the intention to use VET as a social policy tool. On the one hand, in order to help the largest possible number of (young) people to get the best possible qualifications and to integrate the world of work and society without difficulty, and, on the other hand, to contribute to reducing inequalities and discrimination on the labor market. Sociopolitical stabilization, social inclusion and social cohesion, reduction of poverty, fostering integration for migrants or promoting gender equality are also considered to be expressions of this order of aims.

As is the case for economic aims, in parallel to texts explicitly evoking social policy aims of VET, we will also be able to extrapolate these aims by considering:

- the extent of regulation concerning working and training conditions (work/training conditions, wages, controls, etc.)
- the existence of programs contents aimed at increasing the social integration of young people
- the existence of curricula adapted for low-profile young people
- the existence of measures that concern young people with problems of integration or school performance (special support programs, advising, coaching. . .)
- the existence of measures fostering VET in groups of people with a low level of education; with learning difficulties (levelling out disadvantages); with financial problems
- the existence of measures fostering equality in VET (countering discrimination against social groups like women or migrants)
- the existence of special programs for specific groups (ex-soldiers, refugees, prisoners...)

# **Education policy aims**

Educational aims refer to the intention to use VET to transmit to individuals not only technical competencies but also to participate in the general educational development of (young) persons and to contribute to their personal growth and fulfillment as well as their becoming responsible citizens (this last makes it sometimes difficult to distinguish these aims from social aims). The elements that can be ascribed to these aims range from measures to complete obligatory school education to the presence of general knowledge contents aimed at fostering personal culture and lifelong learning. The integration of VET in the general education system and opportunities to pursue learning or training at tertiary level are measures that can be linked to educational aims. The presence of sports classes in VET programs also reflects the desire to offer the best conditions for the physical and psychological development of young people.

As for the two previous orders of aims, we will also be able to extrapolate educational aims by considering:

- the integration of the VET system with the general educational system
- VET certificates as a key for entering in tertiary educational programs, both vocational and general
- the existence of "hybrid certificates", vocational and general certification such as a vocational baccalaureate
- VET as a constitutive part of compulsory education (for example, the obligation to attend a school or training program at upper secondary level up to the age of 18)



- the existence of contents intended to complete compulsory education
- the existence of general knowledge and civic contents
- the existence of sports classes

The frequency and the argumentative importance of these aims in the public debates on VET, as well as the development of particular measures or dispositions, give us an idea of the role that a particular order of aims may have played in the historical development of a VET national system. We can thus speak of greater or lesser importance of this or that aim in the evolution of the system and we can underline how its importance may vary over time. In the following paragraph will propose, as an example of our approach, an analysis of the evolution of the Swiss VET system from 1880 up to 2030 based on the articulation of these three aims.

## A CASE STUDY: VET AIMS IN SWISS VET SYSTEM FROM 1880 TO 2030

We will now focus on the evolution of Swiss VET from 1880 to 2030 in order to identify the main aims around which the Swiss system is built as well as the evolution of these aims over a period of around 150 years<sup>4</sup>. What we are proposing is an exploratory study motivated by the idea that a meticulous examination of these aims can provide us with an interesting key to understanding the evolution of a system and subsequently open up the way to compare it with other countries.

We have chosen to focus on one sole case because of the need to better define the notion of aim and, above all, to extrapolate it from a series of clues that are available to historical research. More specifically, our approach will focus on the analysis of written sources on the subject of VET published between 1880 and 2020 (laws, messages, reports, press, specialized publications, scientific publications), which we will analyze, as mentioned above, from a discourse analysis perspective. This approach allows us to identify the main aims that emerge from the public debate on VET in the 140 years under consideration, to specify their contours and to show their evolution. The sources at our disposal allow us to describe with precision the evolution of these aims up to the present day. In addition, we will be able to look into the future by analyzing documents related to the "Vision 2030" initiative, launched in 2016 by the State Secretariat of Education Research and Innovation (SERI), which proposes a series of future perspectives for Swiss VET<sup>5</sup>.

The Swiss VET system was established in its current institutional form around 1900 with the first legal measures at cantonal and federal level to co-ordinate, regulate and monitor apprenticeship and VET in general (Bonoli, 2012; Gonon, 2002). Debate about the aims of VET has been present from the very beginning of its history. With different formulations and different issues at stake, we can affirm that VET has always been torn between economic, social and educational aims. The importance of the debates around these aims in reading the history of VET has already been pointed out by several authors who note the tension between economic

<sup>&</sup>lt;sup>5</sup>See the webpages: https://www.sbfi.admin.ch/sbfi/de/home/bildung/berufsbildungssteuerung-und-politik/projekte-und-initiativen/berufsbildung-2030.html. (accessed on 12.02.2022)



<sup>&</sup>lt;sup>4</sup>For this analysis, we were able to benefit from research we have carried out as part of various projects on the history and development of Swiss VET, in particular the current project: "Federal framework and cantonal differences in the evolution of the Swiss VET system. The key period between 1950 and 1970", funded by the Swiss national science foundation - SNSF (PN- 00019\_179203).

and social aims (cf. Berner & Ritter, 2011; Bonoli, 2015; Gonon, 2002). For their part, Berner, Gonon, and Ritter (2011) also mention an articulation between three main economic, social and pedagogical issues (cf. 2011, p, 1), which prefigures the ternary model proposed here.

On the basis of these works and of a renewed analysis of our sources, we can describe the evolution of these three aims over time, underlining their different roles and impacts on the evolution of the Swiss VET system. In order to simplify this, we will focus on six important moments (we could call them "critical junctures") in the evolution of the Swiss VET system (cf. Gonon, 2018) and examine the role and the importance of the three aims within them.

The six moments are:

- 1880: beginning of the institutionalization process of VET
- 1930: first federal law, establishing a national VET system
- 1963: second federal law, during a period of economic boom
- 1978: third law, during a period of lower growth and rapid changes in the world of work, with a shift from industrial activities to service activities
- 2002: current law resulting from a period of economic stagnation with the appearance of high rates of unemployment, especially among young people
- 2030: current reflections on the future of the Swiss VET system within the framework of the initiative "Vision 2030".

Figure 1 offers us a graphic illustration of the evolution of the three aims in Switzerland from 1880 to 2030. The three curves are based on an interpretative evaluation of the argumentative weight of the three aims in the debate of the time<sup>6</sup>. The goal of such a representation is the visualization of the gradual change of the importance of these different aims in the public debates.

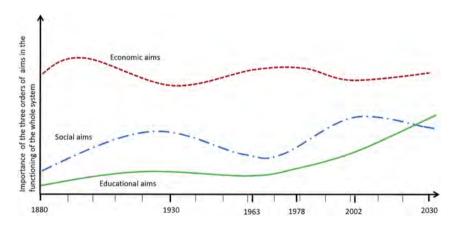


Fig. 1. Graphic illustration: Evolution of the three order of aims in the Swiss VET system

<sup>&</sup>lt;sup>6</sup>The three curves are thus not the result of a quantitative calculation. The discourse analysis approach does not permit a direct quantification, because the mere frequency of a word (while being significant) cannot be used to deduce directly its discursive importance in the public debate: very often what is evident for everybody and the values on which everyone agrees appear less often in the discourses than do controversial notions, even though their importance for understanding public debate as a whole is major.



Our sources show that, at the end of the 19th century, economic aims were preponderant while educational aims were almost absent (Gonon, 2002). Social aims were already present as a heritage of the guild regime, where apprenticeship was intended not only to transmit technical competencies, but also to integrate young adults in the guilds and in society (cf. Krebs, 1933; Savoy, 1910).

Towards the end of the 19th century, the predominance of economic aims gradually diminished due to the growing importance of other aims, but they remain the main aims throughout the history of Swiss education. At this time, the social aims would grow in importance, on the one hand, thanks to the regulation of apprenticeship conditions gradually introduced from 1890 at the cantonal level and then confirmed in 1930 at the federal level. These regulations were intended to ensure acceptable working and training conditions for young apprentices. On the other hand, in relation to the desire to resolve the "social question" through the development of a model of VET which would integrate not only technical training (mainly in companies) but also civic education (mainly in schools) (cf. Bonoli, 2015; Gonon, 2002).

In the years after the Second World War, these social issues lost importance. We are in a period of economic boom during which working and learning conditions gradually improve without the necessity for extended state intervention. Thus, the "social question" decreased in significance as a challenge for VET. However, new social aims gradually took shape, replacing the desire for socio-political stabilization of society with the promotion of social mobility, a purpose that would strongly characterize the further development of the Swiss system (Bonoli, 2015).

Around the 1990s, Switzerland went through a period of economic crisis that had a major impact on VET. Youth unemployment increased and it became more difficult for young people to find an apprenticeship position (Dubs, 2006). During the preparation of the law of 2002, the topics of access to apprenticeships for all young people and VET as a key to social mobility were at the center of political and public debates (Dubs, 2006). The social aims were thus of some importance at this moment.

In these last two decades, the situation of access to apprenticeships has been able to find a better balance and social aims seem to have diminished in importance. At least, this is what emerges from the debate launched by the "Vision 2030" where there is a relative absence of social issues.

Finally, from 1880 on, we witness to the appearance and the development of educational aims connected to VET. Even if at the beginning of the twentieth century this dimension did not play a predominant role, the actors involved in VET soon agreed to include in the vocational curricula contents complementing primary school education and ensuring good social integration of young people (languages, mathematics, technical drawing, but also civic education, history, geography, etc.) (Gonon, 2008).

Educational aims will gradually become more and more important. The curricula will become more complex with general knowledge contents, hours at school will gradually increase, sports classes will be introduced, and apprentices, from being "young workers", will gradually become "learners" (Bonoli, 2017). A decisive step in the evolution of educational aims was taken in the 1990s with the introduction of the Vocational Baccalaureate, the formal integration of VET into the Swiss education system, and the establishment of gateways allowing those with VET certificates to continue from VET to general education (Gonon, 2018). The importance of these aims is confirmed in "Vision 2030", where emphasis is placed on the permeability of the system and the possibility of pursuing education at tertiary level.



# CONCLUSION

The setting presented here offers a way to reduce the complexity of VET systems, by stating transnational categories opening the door to both synchronic and diachronic comparison. The three orders of aims at the center of our approach propose an interesting level of generalization and a relevant theoretical framework for analyzing and comparing VET systems. Furthermore, focusing on the analysis of the aims as they emerge from the public debates, allow to identify and explain nation-specific pathways or policies.

However, we are aware of the still very exploratory nature of our approach. While our contribution shows the potentialities of such an approach, theoretical and methodological questions remain open. Firstly, the definition of the three orders of aims and the indicators that make it possible to find them in the sources available to researchers deserve more indepth discussion within the scientific community. Secondly, our approach has been limited to proposing a diachronic comparative approach focused on a single national system. It would be necessary to open this perspective to comparisons with other national systems. This would probably require a further adjustment of the definition of the three aims and the relative indicators. At this level, we can see one of the main interests of our approach: to open the way to a diachronic international comparison, which can highlight the differences in the evolution of national systems based on a theoretical framework that makes it possible to describe the evolutionary dynamics and that allows a large number of national systems to be embraced. It is in these two directions that our future research in this field will develop.

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