

This brief presents a summary of findings and recommendations presented in the report “Analysis of the Croatia Smart Specialization Strategy: Logical Framework, Instruments, and Indicator Results” (World Bank 2021). This report assesses the intervention logic of the Croatian Smart Specialization Strategy 2016–2020 (S3) policy framework. The analysis uses the Theory of Change approach, which is a methodology for developing the intervention logic, to assess the clarity of and logical connections between overall goals, specific goals, sectoral objectives, instruments, and indicators as defined in the S3. The purpose of the analysis is to identify opportunities to improve policy design, implementation, and monitoring, and thus enhance policy coherence and effectiveness.

WHAT ARE THE ELEMENTS OF THE S3 LOGICAL FRAMEWORK?

The intervention logic of the Croatian S3 is complex and implicit

The complexity of the S3 document and lack of an explicit model for the logical framework of the Strategy makes it difficult to identify all its elements, the connections between them, and the assumptions underlying those connections. No explicit Theory of Change was developed at the time of policy formulation, which may have obfuscated some gaps or overlaps in its intervention logic. The Theory of Change developed as part of the analysis (Figure 1) showcases the complexity of the underlying intervention logic, as well as some of its missing elements (in dotted lines).

The specialization perspective is integrated in the Croatian S3 to a limited extent

S3 policy consists of a combination of (a) horizontal policies aimed at raising competitiveness through research, development, and innovation (RDI) and (b) a vertical policy that prioritizes RDI investments in a limited set of priority areas. As such, the S3 approach requires objectives, instruments, and resources to be guided by a bottom-up process of consultations with academia and industry (that is, the entrepreneurial discovery process or EDP).

However, it is unclear how and to what extent the strategic objectives, instruments, and resources address the specific challenges identified within thematic and sub-thematic priority areas (TPAs and STPAs), as the diagnostic, challenges, goals, and instruments identified in the Strategy, all seem to address broad, horizontal issues.

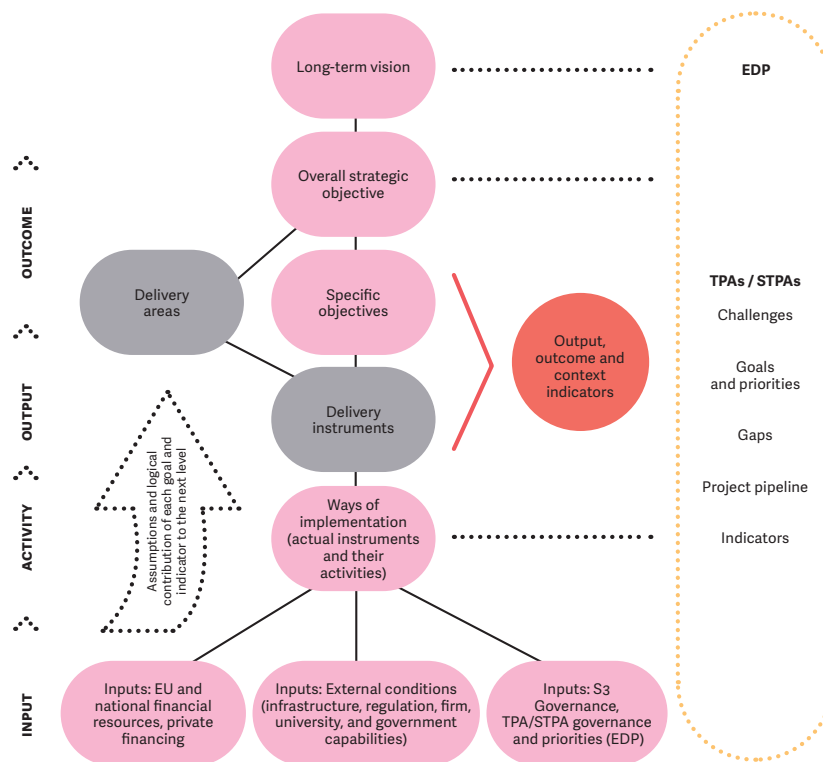
Objectives would benefit from further clarification in order to gauge the policy’s success

The formulation of objectives contains terms that may be interpreted in a variety of ways, such as “quality of life,” “socio-economic development,” “competitiveness,” and similar, which makes it difficult to specify their practical meaning and assess the effectiveness of the policy. The specific meaning of the vision and objectives would be clearer if they were associated with indicators and baseline and target values. This would allow policymakers and stakeholders to measure the achievement of these concepts and evaluate the success of the S3.

The Croatian S3 references numerous existing strategies but does not clearly identify connections and complementarities with those strategies

The S3 refers to five strategies that contribute to the achievement of national RDI targets. These are the Strategy for Education, Science and Technology, the Strategy for Fostering Innovation, the Industrial Strategy, the Croatian Research and Innovation Infrastructures Roadmap, and the Strategy for Cluster Development. The strategies and their main objectives are briefly described, but the connections and complementarities with the S3 are not explicitly drawn out. Similarly, additional strategies are mentioned within sectoral analyses, but there is no explanation of how each sectoral strategy incorporates or builds upon existing strategies.

Figure 1 Original S3 intervention logic for Croatia (implicit Theory of Change)



Source: Staff elaboration based on Croatia Smart Specialization Strategy 2016-2020.
 Note: EDP = entrepreneurial discovery process; STPA = sub-thematic priority area; TPA = thematic priority area.

Instruments were originally defined in a complex set of layers, but their structure was streamlined during implementation

Instruments were originally organized into three levels: delivery areas, delivery instruments, and “ways of implementation” (which represent specific support schemes within one instrument). Further, the concept of delivery instruments was not defined and used consistently — sometimes delivery instruments are formulated and described as objectives, other times as transfer mechanisms, and yet other times as support for institutional capacity development and implementation of S3 governance structures. While the structure of instruments was streamlined during implementation, merging three layers of instruments into one, some inconsistencies remained.

Instruments devoted to strengthening institutional capabilities would benefit from clearer delineation from instruments that support the private sector or academia

S3 policy mix includes several Strategic Projects, beneficiaries of which are institutions involved in the S3 governance structure. In their current form, these “institutional instruments” are not differentiated from the more conventional “transfer mechanisms” and target the same specific objectives and delivery areas. As a result, their contribution to the achievement of specific objectives is less clear and more indirect compared to targeted support to the private and research sectors. It would thus be advisable to put them in a different category from direct transfers, incentives, and capacity building directed to beneficiaries in the private sector, academia, or civil society. They could, for example, be part of a separate specific objective dedicated to building institutional capacities. This would also more appropriately reflect the specific pathway of change that these instruments follow.

During implementation, the policy mix was expanded with additional instruments, but without providing a clear rationale for their inclusion

It is reasonable to assume that the exact structure of the delivery mechanisms was not entirely known at the time of S3 adoption, and that the policy mix should be modified or evolve during implementation, if deemed appropriate. As part of the revised S3 Action Plan 2019-2020, an overview of the instruments for the whole implementation period 2016-2020 is provided. This overview lists several programs that were designed later on and thus were not present among the original delivery instruments in the adopted S3 document. Some of the other instruments that are now included in the policy mix were originally classified as “additional funding sources.” Such instruments were not exclusively targeting the S3 TPAs but were expected to contribute to S3 objectives to a limited degree. However, some of the newly added instruments were already in place at the time of S3 adoption and were only introduced in the policy mix as part of the new Action Plan, but the rationale for doing so is not explicitly elaborated.

The connection between the TPA needs and policy instruments appears to be limited

While the sectoral analysis identifies RDI priorities for each STPA, the S3 does not explain how these priorities informed the selection of instruments and prioritization of TPAs within each specific objective, or the prioritization between different specific objectives. Moreover, the S3 policy mix does not include any instruments targeting specific TPAs, and RDI programs generally were open to all TPAs.

These weak connections can be attributed to the delay in establishing the sectoral S3 governance structures, primarily the Thematic Innovation Platforms, given that they were the designated mechanisms for EDP continuation following the S3 adoption. Nevertheless, the Platforms were eventually established and made operational, and they should have been utilized so that the vision, goals, instruments, and resource prioritization in the S3 could be informed and guided by sectoral requirements at each level, thereby increasing the strategy's coherence and impact. In practice, however, this was realized to a very limited extent.

The logical connections between output, outcome, and context indicators are incomplete and are not clearly explained

The S3 presents a hierarchy between output, outcome, and context indicators, which are grouped according to instrument and specific objective. However, the logical connections or pathways of change between different levels of objectives are not always clear. Each instrument is associated with at least one output and outcome indicator, but there is no elaboration of the assumptions regarding how each output contributes to the achievement of outcomes. Further, context indicators are only associated with some instruments, and TPA-level context indicators are not linked to any particular instrument.

Additionally, no intermediate targets or milestones are set in the S3 document. Process and shorter-run indicators could be associated with the activities of the instruments underlying the policy or to early work that stems from S3. In that case, output indicators would reflect aggregate results of instruments. Having this data would allow identifying problems early on and taking corrective actions if needed.

The monitoring framework underwent certain changes during implementation, but there is still scope for improvement, particularly related to target setting and TPAs

Initially, output and outcome indicators were defined at the level of delivery instruments and were associated with baseline and target values. The plan was to also collect output indicators at the TPA level, but this materialized only for some instruments and some indicators. The resulting lack of data makes it difficult to identify implementation bottlenecks within TPAs.

During implementation, the monitoring framework was revised: some indicators were dropped, others were amended, and others were added. The revised monitoring framework includes definitions for indicators, which is an improvement compared to the initial setup, but omits targets for indicators, which is a setback. Intermediate indicators and milestones are also lacking, although they could be useful for taking timely action and corrective measures, where appropriate.

ACTIONS FOR UPGRADING THE S3 INTERVENTION LOGIC

Priority Area 1. Intervention logic and objectives

- **Develop an explicit intervention logic for the S3** – an explicit Theory of Change developed for the strategy would help avoid any overlaps or missing links in the intervention logic;
- **Strengthen the link between the overall intervention logic and the TPA-level logic** – an explicit Theory of Change should be developed for each TPA based on sectoral diagnostics, demonstrating the connection between TPA-level logic and overall logic at each level (objectives, instruments, and inputs);
- **Improve the clarity of vision and objectives** – to assess whether the objective of the strategy was met, the vision and objectives should be clarified by providing definitions of key terms and associating them with indicators; and
- **Enhance the integration of S3 with other national strategies** – the S3 should elaborate in more detail its complementarities and connections with other existing national and sectoral strategies.

Priority Area 2. Policy mix and instruments

- **Clearly define instrument** – by streamlining instrument categories and taking a consistent approach to defining instruments;
- **Separate institutional instruments from transfer mechanisms** – instruments dedicated to support institutional capacities for RDI policy and governance should be separate from instruments to support the private and research sectors;
- **Clearly justify and document changes in the policy mix** – changes to the policy mix should be elaborated, listing the underlying factors they are based on, such as the experience of implementation, outputs of the EDP process, or other reasons; and
- **Strengthen the connection between instruments and TPA needs** – sectoral vision, goals and project pipeline should guide the selection of instruments, including their design or redesign, prioritization, and overall funding allocation.

Priority Area 3. Monitoring and evaluation

- **Build a coherent and consistent M&E system** – connections between indicators at different policy levels should be improved, indicators should be standardized, process indicators and milestones should be introduced, and quantitative impact evaluations should be planned for selected instruments; and
- **Introduce measuring and tracking indicators at the TPA level** – additional TPA-level indicators should be introduced, standardized indicators across the policy mix should be disaggregated by TPA and any other priority dimensions that can assist in identifying bottlenecks at the sectoral level.

PROPOSED APPROACH TO DEVELOPING TPA-LEVEL INTERVENTION LOGIC

Sector Diagnostics

1. Determine sector's strategic value or role in achieving S3 vision or other priorities (e.g., by producing new workforce, driving economic growth, improving governance, etc.).

2. Assess key sector-specific constraints preventing the sector from maximizing its strategic value (e.g., poor research infrastructure, weak governance, limited financing availability); rank the constraints based on set criteria that enable prioritization of actions and allocation of resources.

3. Landscape sector-specific opportunities for growth that the sector can tap (e.g., growing demand for certain innovative products in domestic or foreign markets, comparative advantage, improved trade terms, availability of regional or national resources for certain priority activities, collaboration opportunities).

4. Identify key sectoral strengths to leverage its existing competencies and "competitive-edge factors" toward delivering its strategic value.

Strategic Planning

1. Establish sectoral vision and mission to align sectoral priorities to achieve its strategic value towards S3; reach a common agreement (with academia, public, private, and civil sectors) on where the sector wants to be in 10–15 or 20 years (e.g., growth, share in GDP, export market size, job creation, improving competitiveness ranking, etc.).

2. Develop sectoral theory of change (ToC) that hypothesizes "change pathways" necessary to achieve the vision/mission; the process can begin by identifying

(a) *key outcomes* that must be achieved to get to the vision/mission (e.g., for export growth, the objectives could be "increased internationalization of innovative products"); (b) *outputs* that any intervention must produce to achieve set outcomes (e.g., increased participation of firms in international fairs, internationalization strategy developed, engagement with foreign firms to discuss potential business partnerships); and (c) *activities* that can most effectively and efficiently result in such outputs (e.g., financial support for

firms to participate in international fairs, advisory support to conduct market research, etc.).

3. Construct a sectoral strategy by further defining and refining the change pathways that are most actionable and effective in achieving the vision and producing the strategic value for S3, the outcome-level elements can be re-defined as "sectoral objectives," different pathways that help to achieve those objectives can be considered "sectoral pillars," and activities can be seen as potential intervention areas or "programs."

4. Develop a results framework (RF) that assigns indicators for key elements of the sectoral strategy to enable monitoring and evaluation of the changes envisioned by the ToC; set targets and milestones based on the expected timeframe for realizing the change and allocation of resources; recommend (and establish, where possible) mechanisms for programs to report on the indicators on a periodic basis.

Operationalization

1. Review and revise the preliminary draft of the sectoral strategy with broad set of stakeholders who are critical for operationalizing the strategy; build ownership from the start by incorporating relevant feedback from different actors; enhance the quality of the content and strategy logic by engaging technical experts from academia and sector specialists.

2. Undertake official processes to finalize the strategy.

3. Designate an official governance mechanism for oversight, decision-making, lobbying, and guiding the operationalization of the sectoral strategy.

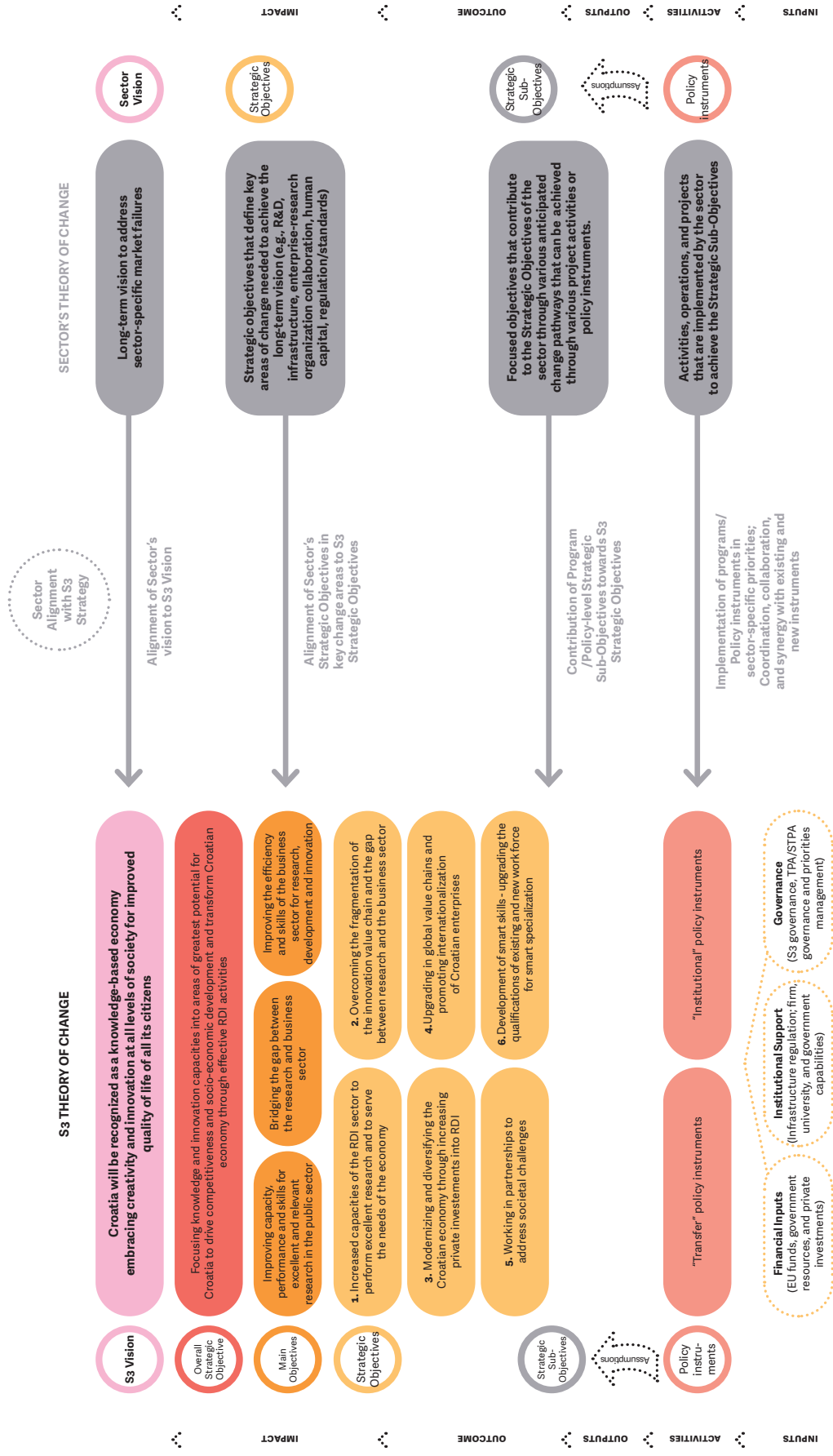
4. Develop operational tools and materials for program managers to operationalize the strategy.

5. Continuously monitor and course-correct the sectoral strategy, by setting a periodic timeframe to review the progress on the results framework (including review of the trends, milestones achievement, and variance from the target), assess

the assumptions and risks anticipated in the ToC, and identify course corrections or new programming that improve the trajectory towards the vision.

Source: Staff elaboration.


A PROPOSED THEORY OF CHANGE FOR TPAS/STPAS AND THEIR LINK TO THE OVERALL S3



Source: Staff elaboration.



WORLD BANK GROUP

Croatia Country Office
Radnička cesta 80/IX, Zagreb
Tel: +385 (0)1 2357 222
www.worldbank.org/croatia
 WorldBankCroatia