This brief summarizes the methods and findings of the *Competitiveness Reinforcement Initiative in Croatia*. The objective of the project was to help industry clusters in Croatia compete in global value chains. The World Bank conducted this project between 2016 and 2018 in collaboration with the Croatian Chamber of Economy—Center for Industrial Development. The project took place under a World Bank Reimbursable Advisory Services contract with the Croatian Ministry of Economy, Entrepreneurship and Crafts.
**Approach**

The project used a participative approach to encourage sustainability and strengthen impact. Value chain competitiveness reinforcement strategies of this nature require lasting effort and cannot flourish through stand-alone initiatives. Thus, the project was designed to empower the Croatian Ministry of Economy and Chamber of Economy to continue this work independently beyond the life of the project. To that end, a joint World Bank and Croatian team (the “joint team”) conducted the work together.

The project targeted 13 sectors and conducted three phases of managed public-private dialog for each. The target sectors corresponded to those Croatia had identified as “sub-thematic priority areas” in its smart specialization strategy for the EU. Each of the three phases consisted of both an analytical part and a firm engagement part. The joint team engaged intensively with firms to encourage them to take ownership of the changes needed to help them compete.

**Phase 1—Identification and challenges**

The objective of Phase 1 was to engage private sector firms and map their competitive positions. The joint team conducted 250 interviews with firm representatives to understand their concerns about their sectors, operational challenges, and regulatory environments. Phase 1 culminated in a public meeting for each sector. During the public meetings, firm representatives asked questions, shared their views, and aired their concerns.

**Phase 2—Guiding the strategy**

The objective of Phase 2 was to identify strategic options for the repositioning and growth of Croatian firms. At the core of this phase were a set of “strategic segmentation” analyses to find attractive business segments in each sector. (See below for a description of strategic segmentation.) Having identified strategic segments, the joint team mapped the ideal value chain for each. They then analyzed gaps between Croatia’s value chain activity and that of leading global clusters. Finally, the joint team validated their findings with the private sector. The following sections describe the analyses in more detail.

**Strategic Segmentation**

The joint team conducted a strategic segmentation analysis for each of the 13 target sectors. A “strategic segment” is defined in terms of both a solution and a market. Solutions are sets of related services and products that solve buyers’ problems. “Mobility” (meeting buyers’ needs to move around) is an example of a solution. Markets are distinct groups of buyers for solutions. “Urban buyers” (people who purchase solutions for use in urban areas) is an example of a market. Strategic segments fall at the intersection of markets, on the one hand, and solutions, on the other. (See Figure 1.) “Mobility solutions for customers in urban areas” is an example of a strategic segment.
Strategic segments continuously evolve. Both elements—solutions and markets—depend on trends in the sector. These trends relate to many variables, including global supply and demand, consumer preferences and expectations, technology, regulation, and firm structure. Firms may participate in many strategic segments within a sector, but they usually only compete well in a few.

Value Chain Gap Analysis

The joint team mapped value chains for each strategic segment. Strategic segments are “strategic” in that each has its own value chain. Each value chain calls for a unique strategy for firm entry, survival, and growth. To map the value chains, the joint team combined secondary research with interviews with advanced buyers and service providers.

In addition, the team benchmarked the activities of Croatian firms against those of global leaders. The benchmarking analysis drew from firm interviews, fieldwork, data analysis, and expert opinion. The analysis also incorporated the intensity of selected drivers of competitiveness for each activity:

- Capital intensity, as measured by investment cost,
- Labor intensity, as measured by number of staff,
- Knowledge intensity, as measured by years of training, and
- Natural resource intensity, as measured by input cost.

Validation

Through this approach, the joint team helped the private sector identify emerging strategic segments that could have strong potential for Croatian firms. The strategic segments with the most potential are those where Croatian firms have the greatest competitive advantage and thus the greatest opportunity for growth.

The joint team then validated their analyses with Croatian firms themselves. The joint team first vetted the analysis in strategy group meetings with key firms in the sector. Then, the joint team held a second set of public meetings to present findings to a wider group of private sector stakeholders. In these meetings, the private sector themselves identified emerging strategic segments to target and ways to improve their value chain performance.
Strategic Segments

Below, we briefly describe the strategic segments that the analysis revealed as having the greatest potential for Croatia. For each strategic segment, we note global trends and explain how Croatia could develop its competitiveness in the strategic segment.

**STPA 1: Opportunities for Networked and intelligent pharmaceuticals for “wellness” and “beyond the pill”**

In pharmaceuticals and related industries, Croatian firms will find it increasingly difficult to compete on ‘pills’ and generic products unless they integrate products with personalized healthcare and remote-monitoring technologies. This integration of pharmaceuticals with services and technologies helps differentiate products and capture more value in the market.

In the consumer-facing “wellness” strategic segment, buyers expect producers to integrate medicinal and emotional benefits in product packaging and marketing. They will also expect the opportunity to experiment with products in retail sales channels.

For Croatian companies to embrace these opportunities, they need to link into newer GVCs and embrace the integration of services and products. Croatia could support this shift through targeted catalytic initiatives—for example, connecting Croatia’s outlying populations via remote healthcare.

**STPA 2: Opportunities for Outcome-based healthcare**

In advanced outcome-based healthcare segments, insurers are reimbursing providers on the outcomes they deliver for their patients. Outcome-based reimbursements create better incentives for health services firms to effectively treat the growing population of patients with chronic diseases.

Opportunities for Croatia may lie in cultivating a private health sector focused on outcomes. Firms in this sector could compete for new patients in private insurance pools. Competitiveness will be determined by the quality of outcomes firms deliver for “chronic needs” patients.

**STPA 3: Opportunities for “Want-driven” personalized nutrition**

In the “want-driven” personalized nutrition strategic segment, firms determine consumers’ specific nutrition-related goals before recommending solutions. Firms using this personalized approach then sell recurring subscriptions offering nutritional counseling, supplements, and regular meal plans.

Opportunities for Croatia may lie in developing a set of firms with the capacity to diagnose and deliver personalized nutritional solutions. Such solutions would mix nutritional counseling, supplements, and meal plans. They would be available on a subscription basis to European markets.
STPA 4: Opportunities for “Community-scale” energy islands

In the “community-scale” energy islands segment, firms create electrical “microgrids” for buildings or small communities. These microgrids can run independently from the main power grid. Microgrids reflect a new reality of “distributed energy,” where consumers or businesses may be both sellers and buyers of energy.

Opportunities for Croatia may lie in harnessing the country’s capacities in energy technology to combine the component systems of microgrids. Croatian firms could then deliver integrated solutions to customers.

STPA 5: Opportunities for smart waste management

The “smart waste management” segment offers opportunities for Croatian industries, using data and connected devices to optimize waste management. This requires integrated solutions, a network of relationships between firms and municipalities, shared standards between firms, and ease of use for buyers.

Opportunities for Croatian firms could be strengthened by: the development of sensor technology and the integration of IoT-based technologies into a subscription-based services for the management of waste. Investment in skills and R&D to mature such technologies and capacities could help Croatia’s firms compete more effectively.

STPA 6: Opportunities for “Personal urban mobility”

The “personal urban mobility” strategic segment is concerned with transporting small groups of people over short distances in urban areas. This segment is undergoing a sea change as innovative technologies and business models revolutionize how people move around cities.

Opportunity in the “personal urban mobility” strategic segment lies in aligning auto parts manufacturers with trends disrupting the sector. Some auto parts will disappear from the market entirely. Others will undergo shifts in buyer demand due to the changing uses of urban vehicles.

STPA 6: Opportunities for “Personal rapid transit”

The “personal rapid transit” strategic segment is based on new modes of urban transport. These innovations, such as automated people movers, are supplementing traditional urban rail transport (such as rapid transit and commuter rail).

Opportunities in Croatia may lie in aligning the activities of rail parts manufacturers with trends disrupting the sector. Some rail parts will disappear from the market entirely. Others will undergo shifts in buyer demands due to the changing uses of urban transit.
STPA 7: Opportunities for “Short-sea” transport

“Short-sea” transportation refers to transporting passengers or goods short distances in coastal waters. It includes coastal trade, such as transferring freight from sea shipping to other modes of transport and last-mile transport on inland waterways.

These “short-sea” strategic segments present opportunities for Croatia due to its coastal geography. They also provide a manageable testbed for innovations such as green shipping and smart shipping.

STPA 8: Opportunities for “Collaborative transport”

In the emerging “collaborative transport” strategic segment, vehicles will interact with “everything.” They will interact with one another and with diverse types of infrastructure within and alongside the road or available by wireless communication. Through these interactions, the vehicles can share data about location, speed, direction, road conditions, traffic, weather, and much else.

For Croatian firms, opportunities lie in designing innovative applications that take advantage of the advances in this strategic segment’s emerging “vehicle-to-everything” technology.

STPA 9: Opportunities for Integrated and customized cybersecurity solutions for “regulated civilian markets”

In “regulated civilian markets” for integrated and customized cybersecurity solutions, firms develop innovative solutions for highly-regulated civilian industries. (Medicine and finance are examples of such industries, where standards are high and buyers are willing to pay more for cybersecurity solutions.) The solutions, which are patented and aimed at a global market, are positioned for sustainable competitive advantage.

Croatian cybersecurity firms can enter this strategic segment by finding unserved market demands. They may arise from new regulatory requirements, shifting customer needs, or new cyber threats.

STPA 10: Opportunities for “Private integrated security” solutions

In the “private integrated security” strategic segment, firms sell integrated systems of defense dual-use products and services for private sector use. An integrated solution might include a protective suit with a service that monitors its performance and the condition of the user. It might then make automatic adjustments, schedule replacements, or sound a warning under different circumstances.

Opportunities in this segment for Croatian firms may lie in comprehensive safety solutions that incorporate a mix of elements. The mix could include transport, communications, and products such as personal protective equipment. Authorities can harness such integration to respond to large-scale disasters.
STPA 11: Opportunities for “Preventive detection in urban areas”

In the “Preventive detection in urban areas” strategic segment, firms focus on preventive safety solutions in densely-populated areas. These areas demand advanced preventive security to protect large civilian populations. Croatia provides a fertile environment to pilot these, to protect mass tourism sites and music festivals.

Opportunities for Croatian firms lie in areas that public security forces previously served. Huge increases in demand—and innovative software and hardware solutions—have led to outsourcing such functions to private companies.

STPA 11: Opportunities for “Land remediation”

Firms in the “Land Remediation” strategic segment prepare contaminated land for reuse, unleashing its potential for future redevelopment. Land treatment in this segment often means using advanced technologies to decontaminate soil in place, and would build on Croatian firms’ expertise in detecting and resolving landmine areas.

Opportunities for Croatian firms could lie in any area where property values are rising or where the environmental contamination is the highest. However, increasing knowledge about and skills with advanced remediation technologies and processes will be crucial to entering these markets.

STPA 12: Opportunities for “Fresh convenience” food products

Firms in the “fresh convenience” strategic segment provide ready-to-eat or easy-to-prepare meals of fresh ingredients. Consumers are increasingly willing to pay more for convenient fresh food.

Opportunities for Croatia may lie in harnessing the country’s access to high-value European urban markets. Croatian firms would need to develop the research capacity to know what foods are in demand in those markets. They would also need to build the capacity to reliably deliver fresh foods on time.

STPA 13: Opportunities for “Customized wooden interiors”

Firms that design, manufacture, and install “customized wooden interiors” in unique spaces capture higher margins than those that mass produce wooden furniture. Demand for these services stems from high-value commercial buyers (like luxury hotels and retail stores) expanding across the globe.

Hotels, restaurants, and retail outlets in European capitals could be desirable clients for Croatian wood manufacturing firms. However, the firms would need to develop new capacities to serve this market. The necessary capacities include the ability to adaptively design solutions in-house, make custom wood cuts, and deploy an on-site installation workforce.
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