**What to do when success comes faster than expected?**

**The story of the 5x2 initiative to promote scientific excellence in Israel**

The “5x2 Initiative” was launched in 2013, with the goal of creating a collaborative process to promote excellence in the fields of science, technology, engineering, and mathematics (STEM) education in Israel. The initiative convened over a hundred relevant organizations from the non-profit, public service, and business sectors, who formed a special partnership with the Ministry of Education. The initiative attained impressive achievements in a shorter timespan than expected. Three years after the initiative was launched, it seemed that their goal, as described in their common agenda, was close to being reached. This created momentum and enthusiasm but also raised substantive, strategic questions about the initiative’s future. This article briefly describes how the initiative contended with the challenges inherent in rapid success, and emphasizes the role of the backbone organization in driving change.

**Rethinking direction and path following changes in the national graph**

The first years of the 5x2 Initiative were fueled by a sense of urgency, primarily resulting from the sharp decline in the number of students taking the matriculation examination in mathematics at the five-unit level (the highest level in Israel). This indicated a deterioration in high school students’ mathematics education and in the general level of scientific literacy. It was recognized that this could directly impact the high-tech industry, which is one of Israel’s major sectors and an integral part of its identity as a “start-up nation.”

The initiative’s clear, focused goal is reflected in its name: it refers to doubling, over the course of ten years, the number of students who complete five units of mathematics. This was a highly ambitious target, but as early as 2016 there was a clear upward trend in the number of students taking mathematics exams at the five-unit level. It seemed that the goal would be achieved sooner than expected. This success was facilitated by the full participation of the Ministry of Education, the sense of urgency expressed in public discourse, and the fact that almost all of the key stakeholders joined the initiative’s network of partners, collaborating to achieve the common goal.

However, these achievements raised a question about the initiative’s future direction, and moreover, about its necessity. At the same time, it was impossible to ignore the positive feedback during those years; there was a sense that this was a valuable, unique framework for cross-sectoral collaborative action. Furthermore, the broader goal of achieving system-wide excellence in STEM education in Israel had not yet been fully realized. In light of this, the backbone organization initiated a process of reevaluation, led by the steering committee.

**From national-scale success to local-scale action**

In September 2016, just three years after the initiative began, a strategic targeting process was launched, with all partners in the network participating. The goals of the initiative were eventually redefined as achieving excellence in science education in order to create a general culture of excellence, and promoting equity in Israeli society (the following diagram shows the goals before and after the strategic planning process). Accordingly, it was decided that the initiative would focus on two channels of action that would expand and deepen existing achievements. The first is to direct efforts towards Israel’s social and geographical periphery. The second is to concentrate on students in middle school. These two decisions significantly shifted the initiative’s activities. Prior to this, the initiative had worked with the Ministry of Education at the national level, without targeting certain populations.

Analysis of achievement data revealed that most of the change had occurred among students from advantaged populations. There were acute discrepancies based on socioeconomic background, and between Hebrew-speaking and Arabic-speaking students, which led to the decision to focus on targeted efforts in the periphery. This decision was also supported by the idea that excellence in science education can be a key to reducing gaps and creating equal opportunities. In so doing, the initiative redefined its added value, highlighting its importance in the broader ecosystem of scientific excellence and general education in Israel.

Following this revised focus, an inter-sectoral team was established. They noted the critical role of local authorities in leading processes to promote excellence in STEM education. Therefore, it was decided to examine the feasibility of establishing collective impact initiatives in three local authorities in southern Israel, which would serve as a model for action in other local authorities. The backbone organization of the initiative, Sheatufim, oversaw the planning year. This included establishing an agenda, defining common goals, and establishing mechanisms for collaborative action (appointing a local director of excellence, a steering committee, etc.) for each local authority. At the same time, the Ministry of Education established a national program for promoting STEM excellence in the peripheral regions, which focuses on working with the local authorities. In this way, recommendations made by the initiative’s committee led to a change in the Ministry of Education’s approach, since the Ministry’s work is usually conducted directly with schools. In fact, Sheatufim’s transition to supervising the local authorities’ work in the periphery, including training Ministry of Education project managers, shifted its work and significantly expanded its role as the backbone organization beyond what had been determined in the original model.

The decision to focus on middle school also resulted from analysis of the achievement data, which indicated that large gaps in students’ knowledge of mathematics and science are already in place by the time they reach high school. As with the decision to focus on the periphery, this decision led to a change in the initiative’s direction, which until then had invested most of its efforts on high school students. Another inter-sectoral team was created, composed of members from the network of partners. This team was tasked with defining the problem in a systemic way and offering directions for action that would lead to long-term change and strengthen the infrastructure for younger students.

**Looking ahead towards a redefinition of the common mission**

 Three years later, it is apparent that 2019 is another pivotal point for this initiative. In addition to the ongoing work that accompanies the process, as described above, it must be taken into account that 2019 is an election year, which has already led to a change of leadership in the Ministry of Education. Moreover, the enthusiasm that the partners felt from the initial rapid achievement of the goals has waned. There has been a marked decrease in the sense of urgency that inspired the process. Some key partners have even suggested moving on to the next challenge, and identifying new goals and metrics. In light of this request, it is important to recall that the initiative’s stated goal that “by 2025, Israel will be among the fifteen leading countries in the world in the quality of STEM education” is still relevant and has not yet been fulfilled. The backbone organization brought this perspective into the common discourse of the initiative. Further, with sensitivity and determination they initiated a reassessment, in the framework of the steering committee, of the common goals and vision.

This process has now reached advanced stages, and many important questions are being raised, such as: How is it possible, within the framework of the initiative, to maintain the achievements that have already been attained? Should the revised goal be as focused and clear as the previous one, or would it be better to take the opportunity to expand the scope of its impact? Does the revised goal affect the process and relationships in such a way that requires reorganization of the partner network, including some veteran partners leaving the initiative and new ones joining it? What should be the composition of the steering committee, in light of the expected changes? The most important question, based on past experience, seems to be: How can it be ensured that the initiative, with its revised mission, diminishes social gaps rather than widens them, through broad activity conducted at the national level?

The answers to these questions are unclear. However, there is no doubt that in the coming year the 5x2 Initiative will shift and new decisions will be made that will affect the direction of its activities.