DevSAT® a Development Ecosystem Platform for building synergy and alignment to increase impact

In many developing countries, despite all efforts, activities of the various stakeholders yield in general less impact than expected. It is increasingly being recognized that humanitarian aid, development and research projects are frequently being executed in isolation, even in a same territory, as illustrated in Figure 1a. The consequence is limited impact and loss of time and money. Therefore, to increase resilience and to realize the various existing development plans (e.g. national, regional, Sustainable Development Goals (SDGs)), stakeholders have to think and act differently. A first step is to exchange experiences and results between projects with common characteristics and seek options for mutual benefits (Fig. 1b). This serves at the same time capacity building, opening up and a change in mindset that sharing of information will lead to beneficial effects. The next step will then be the identification of options for synergy and alignment (S&A) of activities between projects with different characteristics (Fig. 1c). Sharing of data will support this process as it helps to determine what one seeks in a collaboration. Finally, all partners will increase their impact through new activities with added value to the ongoing projects of each organization, if needed in the form of a new project (Fig. 1d). Facilitating this process of creating S&A leads to a better integration of disciplines and cooperation between the various stakeholders. Consequently, triple impact (People, Planet, Prosperity) will sustainably increase.

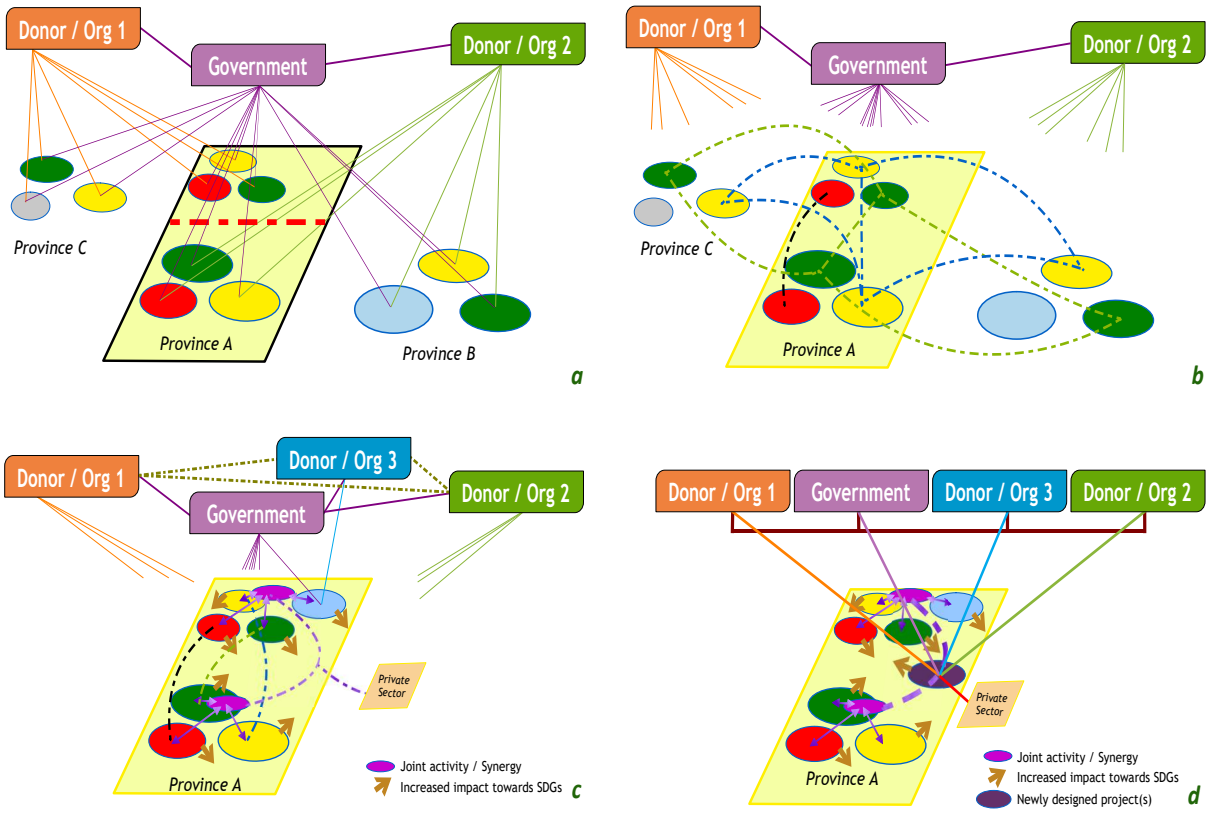


Figure 1. The actual situation without exchanges between the projects (a), and the three phases of linking projects to create added value: b) linking of same theme projects across provinces within a country, c) searching for synergy between projects of different themes, and d) creating increased impact through a new project or specific joint activities.

The mission of the social enterprise Trimpact BV is to increase synergy and alignment of the various actors in the realization of development plans in developing countries. Trimpact provides a cloud based synergy and alignment tool and offers related services. Therefore, we developed the Ufahamu approach (*Insights* in Swahili), an approach based on the basic principle that one needs first to gain insights into the current situation, the needs, and the expected results in order to be able to steer the development process and obtain the required results and impact. Ufahamu's goals are: *1)* to improve the planning, execution and monitoring of integrated multidisciplinary activities based on synergy and alignment at various levels of scale, *2)* to increase efficiencies, and *3)* to increase triple impact.

Ufahamu in practice is a modular framework of three software tools: *a)* the Development Synergy and Alignment Tool (DevSAT®), *b)* the Planning, Monitoring and Reporting module (PMR), and *c)* the Interactive Theory of Change module (I-ToC). This new interactive software package has been developed using state-of-the-art technologies, including so-called 'graph-database' that are ideally suited to manage highly interconnected data (the same type of database was used to visualize and search through the millions of connections between persons and organisations in the Panama Papers).

DevSAT is a daily interactive multi-disciplinary development ecosystem platform that stimulates and assists all stakeholders (humanitarian aid, development and research organizations, donors, planners, entrepreneurs, etc.) to work together in an integrated way by:

a) Providing overviews: mapping and linking of SDGs and national plans at different levels of scale[1] with '*who does what, where, how, when for whom, and their outputs (deliverables) for and theirs inputs (needs) from third parties*' and contacting selected projects through email;
b) Gap and similarity analyses allowing prioritization and coordination of impact-oriented actions (i.e. new activities that add value to ongoing projects, cf. Figure 1d), and identification of potential exchange of services (e.g. capacity building, Open Data) and goods between projects and enterprises;
c) Identifying potential up-scaling zones using the results of old projects, taking stock of lessons learnt, and by providing options for collaboration with enterprises or ongoing projects.

The tool facilitates to describe both the needs of governmental institutions and the activities of various organisations (UN, NGO's, enterprises, etc.). The project activities are described in detail, and georeferenced to the lowest administrative unit required to perform S&A analyses at different levels of scale. The focus of these analyses is on 7 dimensions: SDGs and their targets, national plans, target groups, value chains, target landscape units, methodologies, and deliverables. Deliverables are outputs to the target groups of that activity, and impact accelerators to third parties because they can be the required input to increase the impact of the third parties' activities. For the analyses, different dashboards exist for the different users. In addition, activities can be filtered on the basis of e.g. territory, project status, implementing organization, funder, and main subject (i.e. OECD's DAC list). For the various thematic maps, distinctive markers have been created. DevSAT is continuously being improved in interaction with users, and recently new features have been added.

Below, we provide some examples of outputs of DevSAT related to food security. DevSAT is being used since fall 2016 in Burundi facilitated by the project *Projet d'Appui à la Productivité Agricole au Burundi* (PAPAB). The CTA/IFAD/PIPSO Project *'Promoting Nutritious Food Systems in the Pacific Islands'* mapped value chain stakeholders as baseline data in Fiji with DevSAT end 2018. An increasing number of organizations in different countries are using or planning to use DevSAT.

[1] Number and names of levels depend on the country: e.g. Burundi: national, province, commune, and colline; Kenya: national, county, sub-county, and ward.

The first step with DevSAT is providing overviews that are often requested by a number of stakeholders. Figure 2 illustrates the SDG-thematic map with the locations of activities with a focus on the SDG 2. The title of the activity is obtained by moving the pointer over the marker, and the basic information of an activity is revealed by clicking on the marker. Similar maps can be made for the other dimensions, and activities of enterprises. In the general activity map, a link allows to email directly that project.

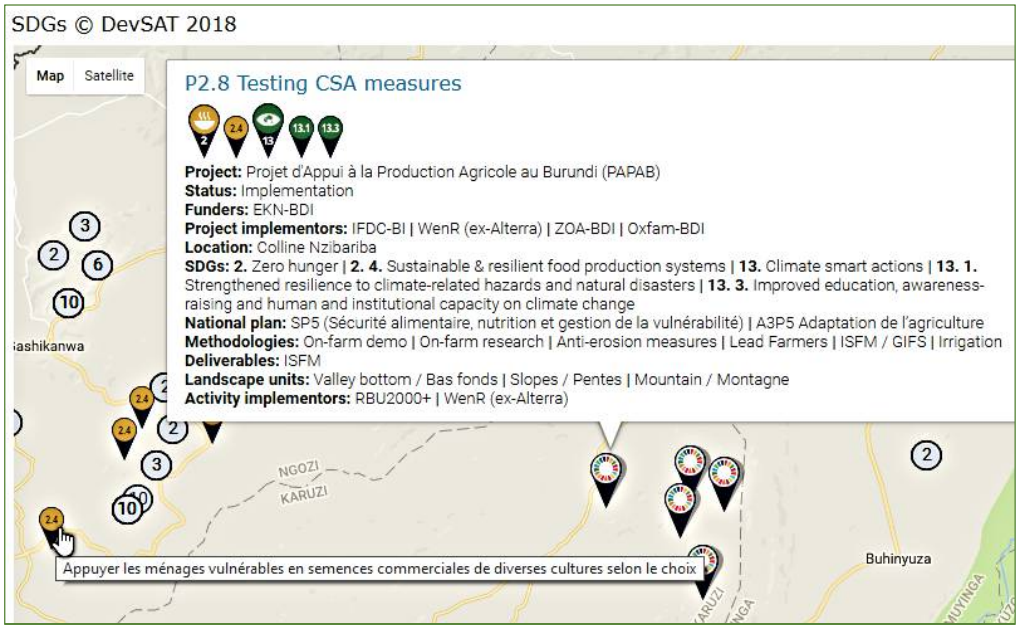


Figure 2. Screenshot of the SDG-thematic map with locations of project activities focussing on SDG 2 in Muyinga province, Burundi.

In case stakeholders want to increase alignment of actions, e.g. continuing with a methodology that follows another, results of the specific comparing analysis can provide insights where this can be done. For instance, when they want a follow-up for a project that worked with the poorest of the poor (humanitarian aid-oriented) by a project that build on these results and shift the aid towards multi-disciplinary development of smallholder farmers. Figure 3 provides an example of comparing two approaches: the Integrated Farm Plan (PIP) used by the PAPAB project that could be a next step, and builds on the results obtained by the Farm Field School (FFS) approach as used in FAO projects.

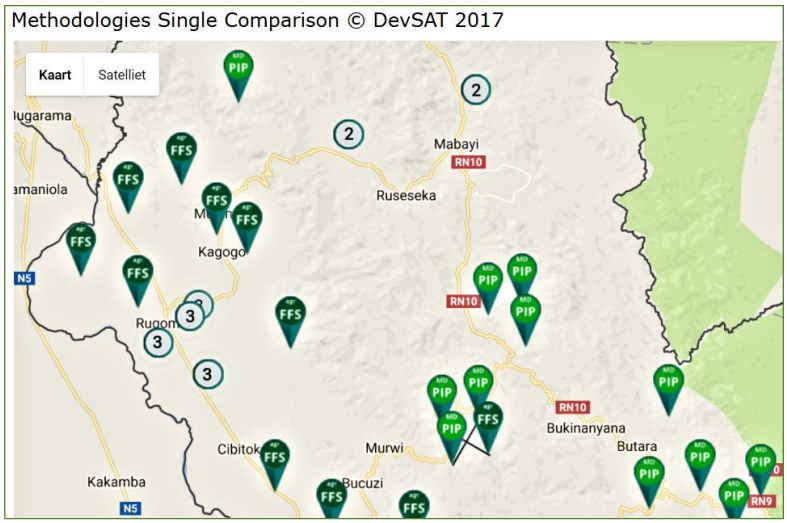


Figure 3. A map of activities with different methodologies in Cibitoke province, Burundi: PIP = Integrated Farm Plan (bright green marker), FFS = Farmer Field School.

The demand and supply analysis of deliverables is a next step in determining options for S&A between implementing organizations. Results of the matching exist in two ways: *a) 'Other assist us'*: how can deliverables of others contribute to increase the impact of the DevSAT user's project, and *b) 'We assist others'*: how can user's activities support the activities of others. The table with the matches is used for mapping (Figure 4). In addition, this list allows to identify the key stakeholders for a given subject. Figure 4 can be used to choose the closest demanding or supplying activity, and start interacting for mutual benefits. It also shows that a project activity can be beneficial to a larger group then only the target group of that activity. A practical example of using this analysis, is a project that could get their seeds in the neighbouring province, versus in the past they had to go to the other side of Burundi.

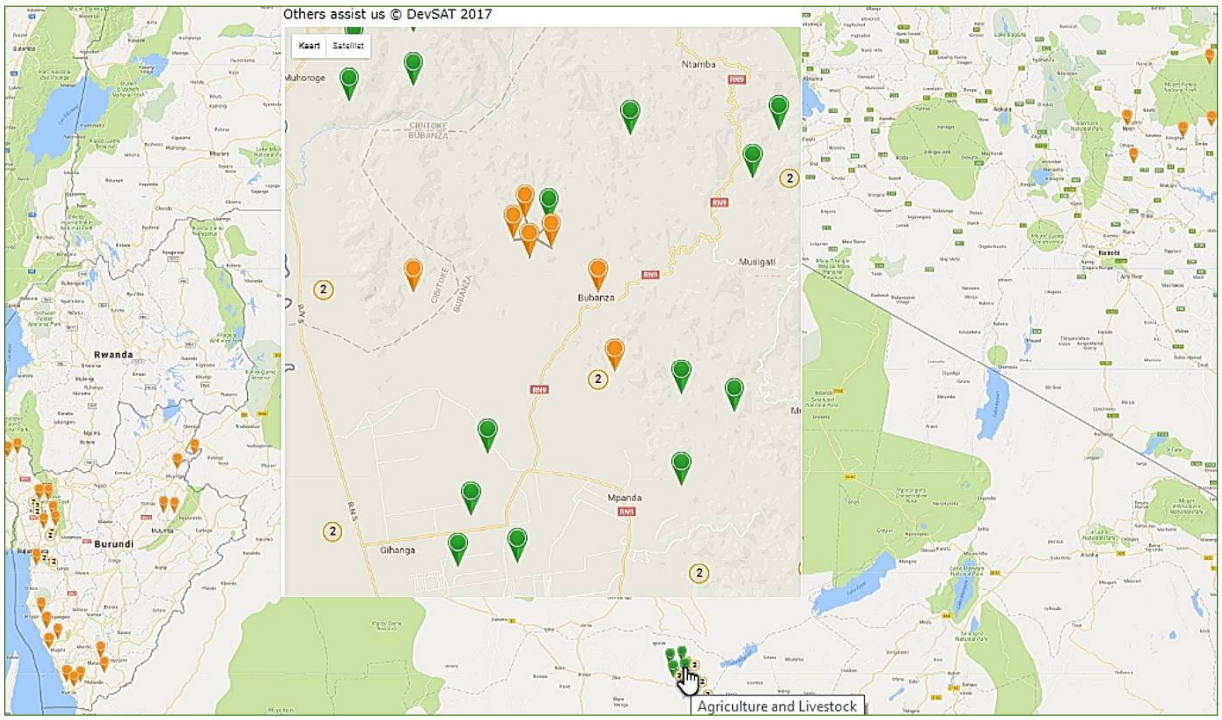


Figure 4. Locations of activities (green marker) that can provide the required inputs of another activity (orange marker) at different levels of scale: within the East African sub-region and within a province (Burundi).

The S&A analysis can be further deepened using the Similarity Index (SI), i.e. to indicate the similarity in terms of the seven dimensions between the reference project and other projects (cf. Fig.1b). In this way, the potential up-scaling zones of that reference project can be identified. If reported, lessons learnt can also be compared. The higher the SI-value, the higher the chance that results can successfully be transferred and up-scaled. As an example, as part of the *Promoting Nutritious Food Systems in the Pacific Islands* project, Figure 5 shows the locations of activities having the highest potential (light green markers) to use the results of the activity with the dark green marker. In case one seeks complementarity, then activities with a yellow marker could be a good starting point to talk to. The locations where the different lessons were learnt can also be mapped as illustrated in Figure 6.

A multi-scale gap analysis of the needs of the various stakeholders allows the planning and prioritisation of activities within a territory. The needs are expressed in terms of the above mentioned 7 dimensions by planners at a given administrative level (e.g. province) while taking into account the needs defined at lower and higher levels of scale (i.e. national and commune). Subsequently, the match with existing activities is provided in terms of subject and location as exact, narrower or broader. Table 1 presents an example for SDG 2 in Rumonge Province, Burundi. When subject and location of an activity

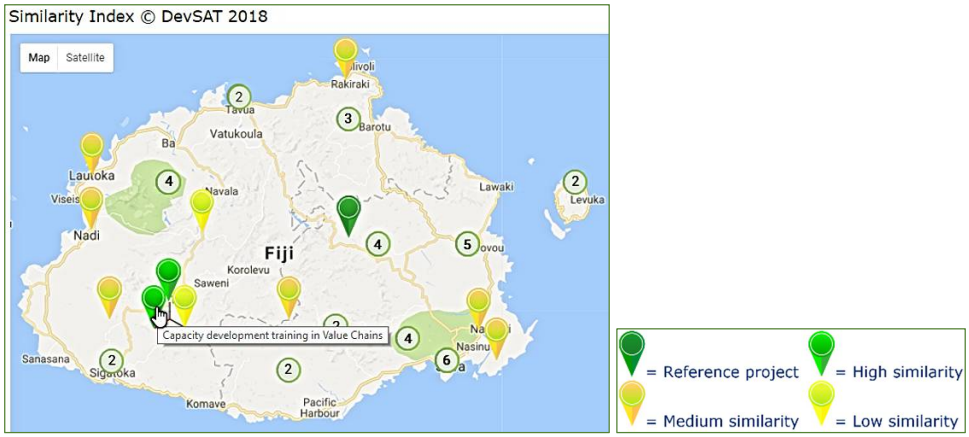
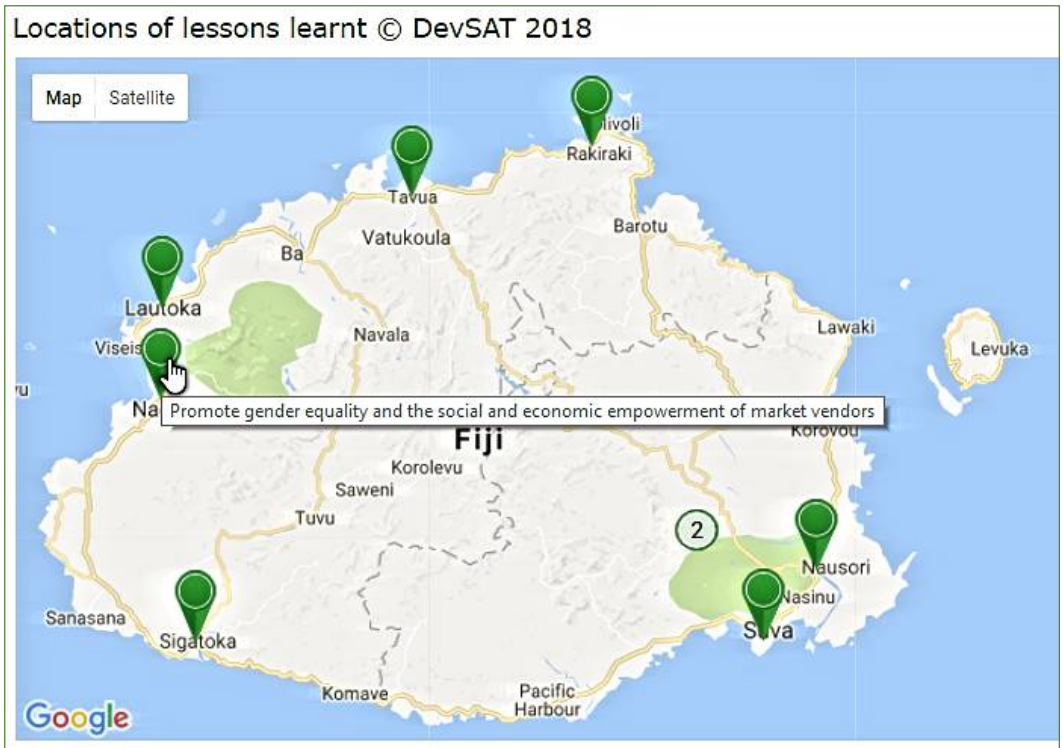


Figure 5. Locations of project activities with a varied similarity compared to the reference project in Fiji.



Title	Description	Date	Learnt in projects
Healthy nutrition education most effective and biggest share of population reached through the school system	Schools provide the most effective and efficient way to reach large portions of the population to reduce prevalence overweight and obese among adolescents.	2014-11-30	• Health and Nutrition
Policy planning most effective when all stakeholders are included	Progress has been made in all Pacific Islands countries to improve effective and timely communications between local authorities and market vendors and most councils are now having monthly meetings with the market vendor association executives to address and resolve market vendors' complaints and issues. The inclusion of representatives of the Suva Market Vendors' Association Executive Committee in the monthly meetings of the Suva City Council is an example of best practice in this regard.	2014-11-30	• Markets for change (M4C)

Figure 6. Map of the locations of the projects in Fiji where lessons learnt (as specified in the listing) were obtained.

are conform the needs, there are two green boxes (last row); when one is different, the information is presented in an orange box (either as narrow or broader). For instance, in Rumonge province, SDG target 2.3 is only addressed, leaving thus the needs for the other SDG targets uncovered. Similarly, the table shows that the project PROPA-O covers only one commune (orange box), while the province would like to see the whole province covered. As such this overview can assist stakeholders to define next steps (e.g. an integrated territory-targeted project) while making use of existing activities (synergy and alignment), local knowledge (data and lessons learnt) and available technologies.

Table 1. An example of the matching of SDG 2 needs in the province Rumonge in Burundi. Green = exact match; Orange = partial match (broader or narrower) in terms of subject and location.

GIF coverage Country BI > Province Rumonge

- 2. Zero hunger

		Match		Subject		Location	
Project	Activity	Subject	Location	Broader	Narrower	Broader	Narrower
Integrated Seed Sector Development (ISSD) - Burundi	Assurer une couverture nationale des entreprises semencières		*		○ 2. Zero hunger > 2.3. Agricultural productivity and incomes of small-scale food producers doubled		
Integrated Seed Sector Development (ISSD; part TW)	Accompagner les producteurs en sélection positive	*				○ Country BI	
Integrated Seed Sector Development (ISSD; part TW)	Formation des producteurs en sélection positive	*				○ Country BI	
Integrated Seed Sector Development (ISSD; part TW)	Installation et suivi des champs de démonstration	*				○ Country BI	
PROPA-O	Aménagement des marrais de Gatakwa				○ 2. Zero hunger > 2.3. Agricultural productivity and incomes of small-scale food producers doubled		○ Country BI > Province Rumonge Rumonge > Colline Kanenge
Projet d'Appui à la Production Agricole au Burundi (PAPAB)	P01.1 Amélioration des opérations de distribution des engrais	*	*				

Finally, using DevSAT allows implementing organizations (projects) and enterprises to increase their visibility, e.g. by making visible what products and services they can share with other projects or enterprises, and how they contribute to the implementation of SDGs and National Plans. In return, the projects and enterprises can search for local knowledge, products, and experiences from other organizations to enhance their performance and create impact.

Compared to other tools (e.g. AidData, DevInfo, d-portal, AIDmonitor and ORS) that are predominantly focussing on reporting results and financial flows, DevSAT is a development planning and execution tool. DevSAT has added values due to the following features: *a)* being an interactive tool for all stakeholders at different levels of scale, *b)* mapping of activities of projects and enterprises, and in terms of their six dimensions using three types of geographical information (roads, terrain, and satellite images), *c)* inclusion of national plans, and SDGs and their targets, *d)* linking of national plans to SDGs, *e)* identification of potential interactions between activities to increase impact, *f)* identification of potential upscaling zones, *g*) capturing lessons learnt, *h)* identification of options pour alignment of actions, and *i)* multi-scale gap analysis of planned and ongoing activities for a given territory.

In conclusion, DevSAT is a tool that can assist a group of stakeholders to use the same information for their respective needs, while integrating the various disciplines, and work in synergy and alignment towards common goals.

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