Whole-school and whole-institution approaches to sustainability

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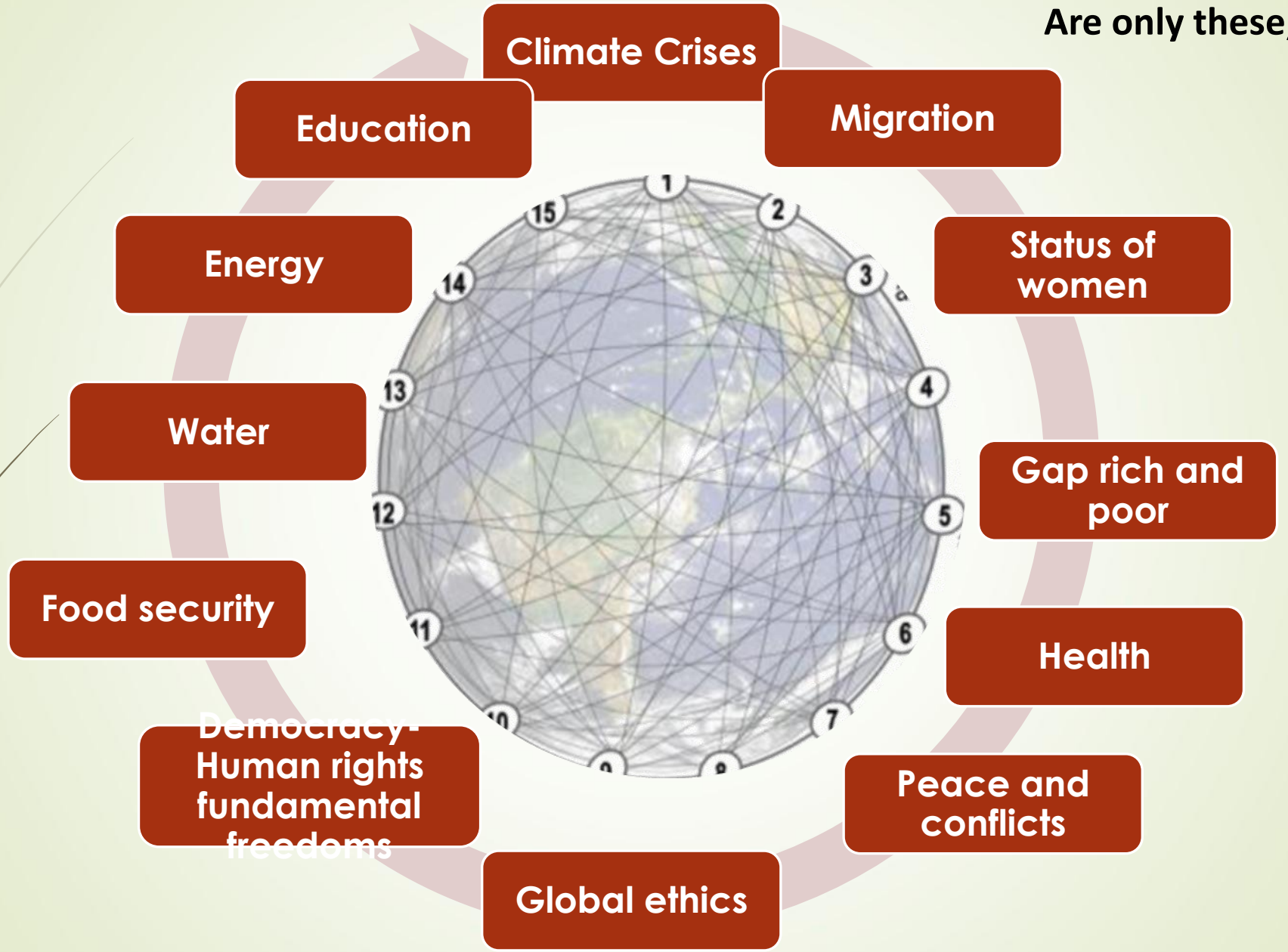
Some of the global challenges and emergencies that we are phasing through the years….

Are only these;



FROM MILLENIUM DEVELOPMENT GOALS TO SUSTAINABELE DEVELOPMENT GOALS 2030

The importance of the SDGs

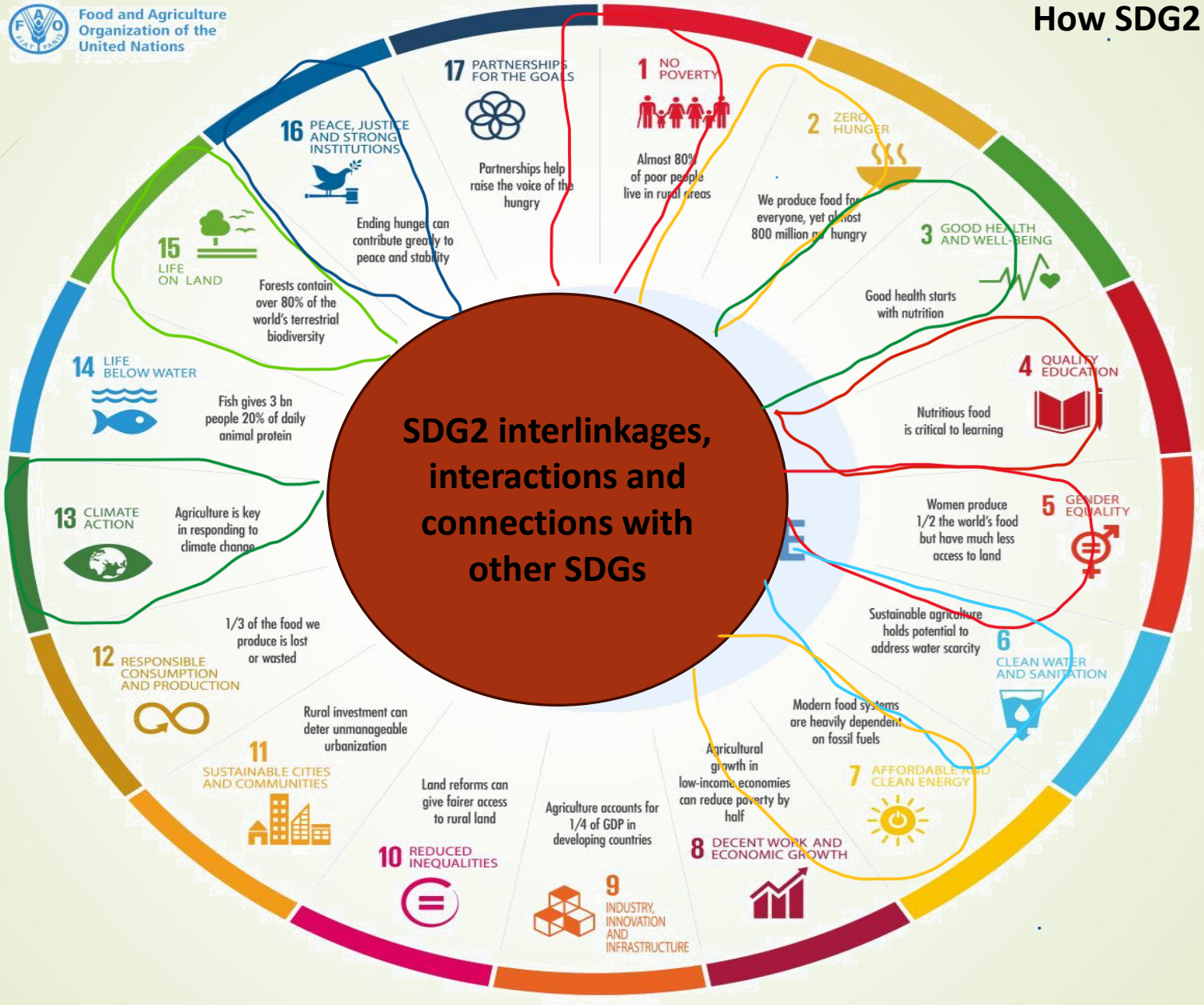
Unified and holistic view of social justice, environmental sustainability and economic growth (triptych SOCIETY-ECONOMY-ENVIRONMENT)

"There is no PLAN B beyond the goals of sustainability because there is no PLANET B"
(Ban Ki-moon 2016)"

Just an example with SDG2

How SDG2 connected with SDGs;

SDGs are not an alternative solution but is the only solution for creating a better, peaceful, healthy, just, prosperous planet



- **COMPLEXITY**
- **SYSTEMIC**
- **CONNECTIVITY**
- **HOLISTICALITY**

ACHIEVING SDGs WE NEED QUALITY EDUCATION = EFFECTIVE EDUCATION

Students' background

The school environment

The curriculum (content)

Teaching methods and techniques

Learning outcomes

How Educational Institutions can reorient their vision, mission, operations, teaching and learning to SDGs and ESD?

"Open Communities" of learning for SD

Think locally-Act Locally-Think Globally

Intergenerational Communication

Linking formal with non-formal Education (learning in EEC, communities, local trades etc)

Experiential and experimental learning

How Educational Institutions can reorient their vision, mission, operations, teaching and learning to SDGs and ESD?

Community Action

Synergies and join action with all the interested parties

Holistic, systemic and Interdisciplinary learning

Professional Development – Competencies (What, How and why we teach specific skills and competencies

Revision of contents of learning-Writing of multimodal interactive educational tools

How Educational Institutions can reorient their vision, mission, operations, teaching and learning to SDGs and ESD?

Project based and competence curricula, programs, courses

Long term plans

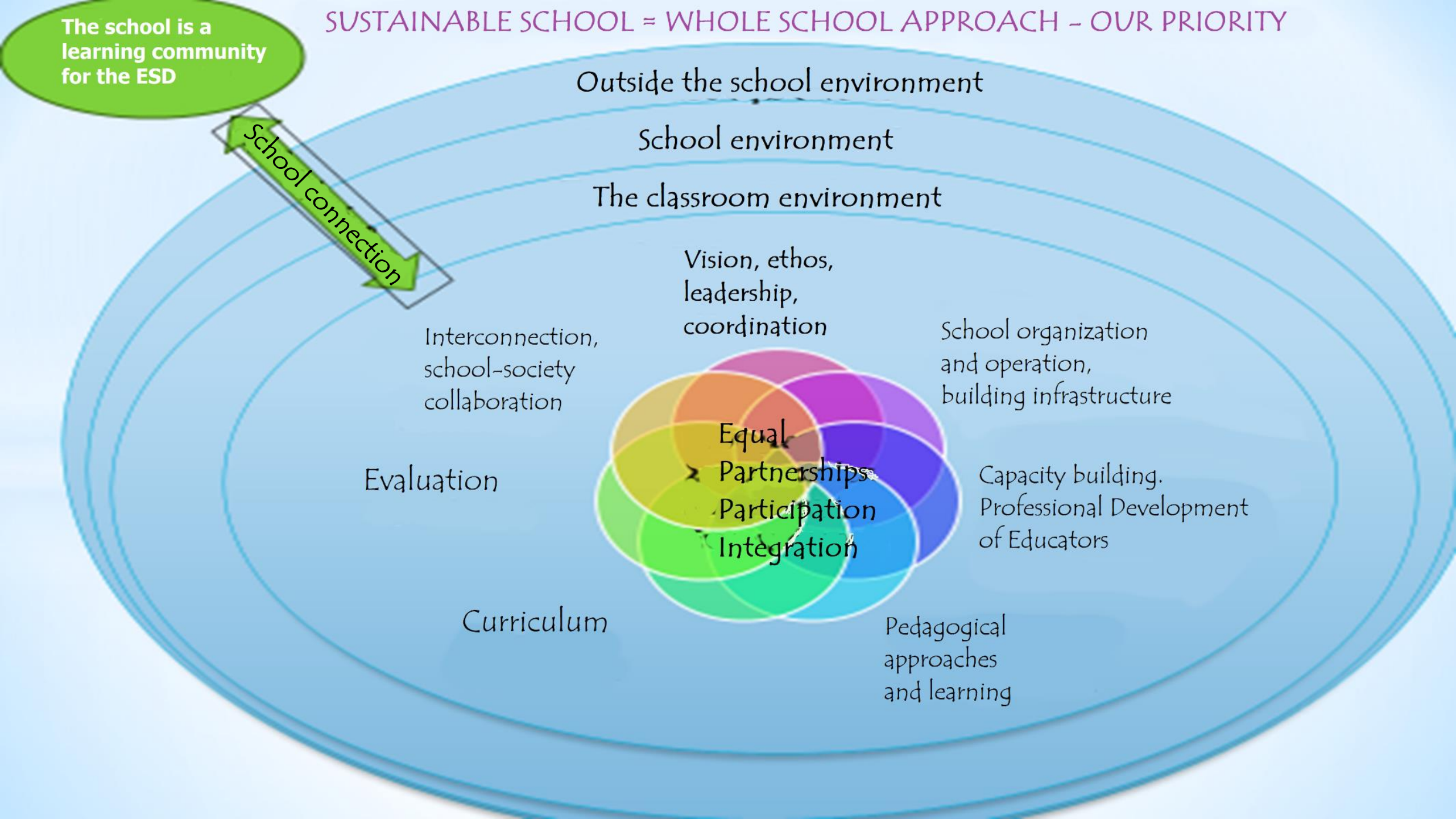
Monitoring and Evaluation- accreditation schemes

Empowering youth (decision making, accelerating actions for change)

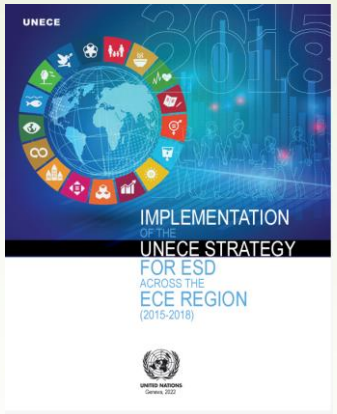
A value driven organization

(no-one is excluded-no-one leave behind)

SUSTAINABLE SCHOOL = WHOLE SCHOOL APPROACH – OUR PRIORITY



Methodology



Participation: 34 out of 56 ECE countries from 4 regions

EECCA: 8, EU/WEST: 21, SEE:4, WA:1

5 new countries!!

Data:

Quantitative and qualitative

Primary Source: National Implementation Reports.

9 issues, 17 indicators, 48 sub-indicators

Supplementary Sources

Analysis:

Both quantitative and qualitative

Issue

2: Promoting ESD at the formal, non-formal and informal levels

Indicator

2.3.: WIA on ESD

Sub-indicators

2.3.1. Adopted by institutions

2.3.2. Incentives

2.3.3. SD/ESD indicators

How is WIA/WSA on ESD understood across education levels?

EDUCATION LEVEL	WIA in ESD
Kindergarten, Primary, Secondary (ISCED 0 to 3)	• **ESD School Plans** (e.g. Austria, Finland, Cyprus, Germany, Slovenia, Latvia, Montenegro, Belarus, Kirgizstan) • **International education programs- i.e. ECO-Schools, UNESCO-ASP etc.** (e.g. Austria, Finland, Hungary, Estonia, Ireland, Slovenia, Croatia, Azerbaijan). • **Collaborations between school networks** (e.g. Austria, Switzerland) • **National quality frameworks** (e.g. Austria, Romania- in progress) • **Periodic performance reviews** (e.g. Austria, Slovenia, Greece, Belarus) • **Professional development on WIA** (e.g. Germany, Cyprus)
Post-secondary, pre-university (ISCED 4 & 5)	• **Periodic performance reviews** (e.g. Austria, Romania) • **Certification** (e.g. Finland) • **Funding for competency development** (e.g. Germany) • **Institution action plan** (e.g. Romania) • **Partnerships** (E.g. Romania)
Bachelor's, Master's, PhD. (ISCED 6 to 8)	• **Embedding WIA in the operational & education framework of universities** (e.g. Hungary, Switzerland, Cyprus) • **Performance agreements between Ministries and HEIs** (e.g. Austria) • **Action plans** (e.g. Finland, Estonia, Romania, Slovenia) • **Quality systems within HEIs** (e.g. Finland, Hungary-in progress) • **Faculty training on ESD** (e.g. Slovenia) • **Collaborations with stakeholders outside the HEIs** (NGOs, Businesses) (e.g. Cyprus)

What kinds of incentives are provided for WSA/WIA in ESD per education level?

EDUCATION LEVEL	INCENTIVES
Kindergarten, Primary, Secondary (ISCED 0 to 3)	• **Resources, training materials** (e.g. Hungary, Estonia, Cyprus, Latvia, Malta, Switzerland, Belarus, Greece, Cyprus) • **Guidelines** (e.g. Andorra, Cyprus, Greece, Netherlands, Latvia, Romania, Malta, Slovenia, Switzerland, Russia) • **Funding** (e.g. Austria, Malta, Estonia, Switzerland, Croatia, Latvia, Cyprus) • **Certification for the school** (e.g. Finland) • **Networking opportunities/ dissemination & sharing of good practices** (e.g. Greece, Malta, Cyprus) • **Awards** (e.g. Austria, Cyprus, Germany, Greece, Malta, Switzerland) • **Teachers' &/or education leaders training** (e.g. Cyprus, Greece, Hungary) • **Mentoring/ assistance/ technical support** (e.g. Cyprus Hungary)
Post-secondary, pre-university (ISCED 4 & 5)	• **Mentoring for TVET** (e.g. Netherlands) • **Funding** (e.g. Latvia, Romania, Switzerland) • **Guidelines** (e.g. Romania)
Bachelor's, Master's, PhD. (ISCED 6 to 8)	• **Awards** (e.g. Austria, Switzerland) • **Networking opportunities** (e.g. Austria) • **Monitoring & classification system for institution** (e.g. Netherlands) • **Funding** (e.g. Latvia) • Accreditation (e.g. Latvia)

Main findings

- ESD implementation needs to be **longitudinal** in order to systematically apply WSA/WIA.
- WSA/WIA implementation **varies from country to country, depends on the national priorities** and the **educational level** that it is applied.
- **Organizational structure** of institutions impacted on how WSA/WIA is implemented.
- **Absence** of a universal system of **indicators** to assess the quality of WIA implementation.
- Differences among education levels regarding WSA/WIA implementation derive from **organizations' different orientations, visions, local contexts,** etc.
- Despite the progress on ESD WSA/WIA in formal education, **challenges remain** , while in **non-formal education, WIA seems to be limited**.

A NEW EUROPEAN BAUHAUS

EC POLICY RECCOMENDATIONS ON LEARNING FOR ENVIRONMENTAL SUSTAIANBILITY 2022

TRASNFORMING EDUCATION SUMMIT 2022

ESD THE KEY OF THE REGIONAL AND INTERNATIONAL POLICIES

WSA/ WIA AT THE CENTER OF THE POLICIES

THE EUROPEAN DECLARATION ON GLOBAL EDUCATION TO 2050

NEW IMPLEMENTATION FRAMEWORK OF THE UNECE STRATEGY ON ESD 2021-2030

(UNECE)

EDUCATION FOR SUSTAINABLE DEVELOPMENT: TOWARDS ACHIEVING THE SUSTAINABLE DEVELOPMENT GOALS"-ESD for 2030. (UNESCO)

Recommendation on education for peace and human rights, international understanding, co-operation, fundamental freedoms, global citizenship and sustainable development (1974 RESOLUTION)

ACTIION PLAN FOR ESD IN THE MED REGION 2030 (MIO, UfM, UNEP, UNECE/UNESCO)

UNECE ESD Implementation Framework 2021-2030 Strategic Goals for WIA

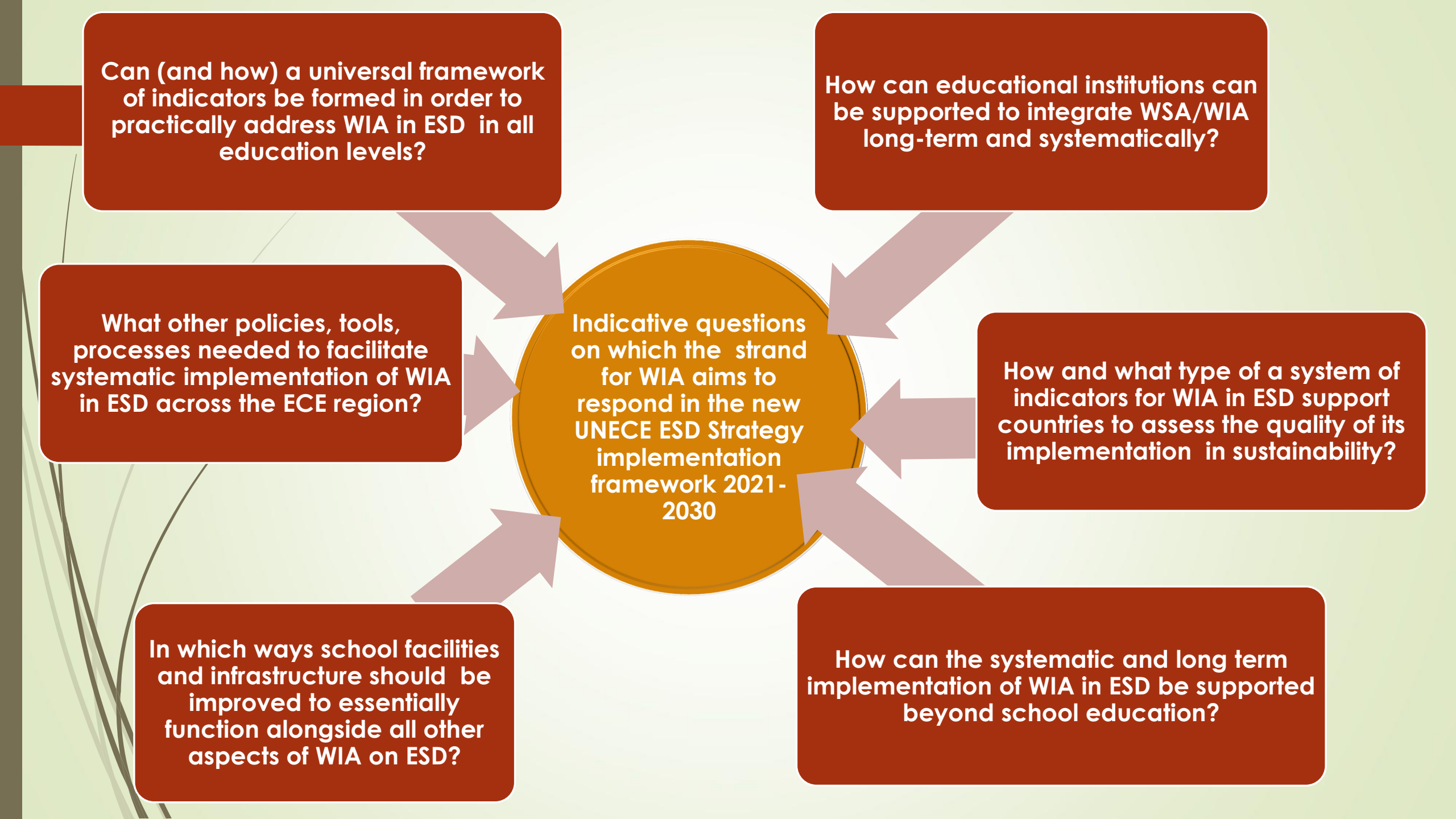
Each institution formal and non-formal reviews its own actions in the light of Learning, Programme; Governance Infrastructure; Relationships with Community and overall Society.

Frameworks that foster participatory approaches enhancing commitment, ownership and responsibility for promoting a WIA in ESD in diverse contexts.

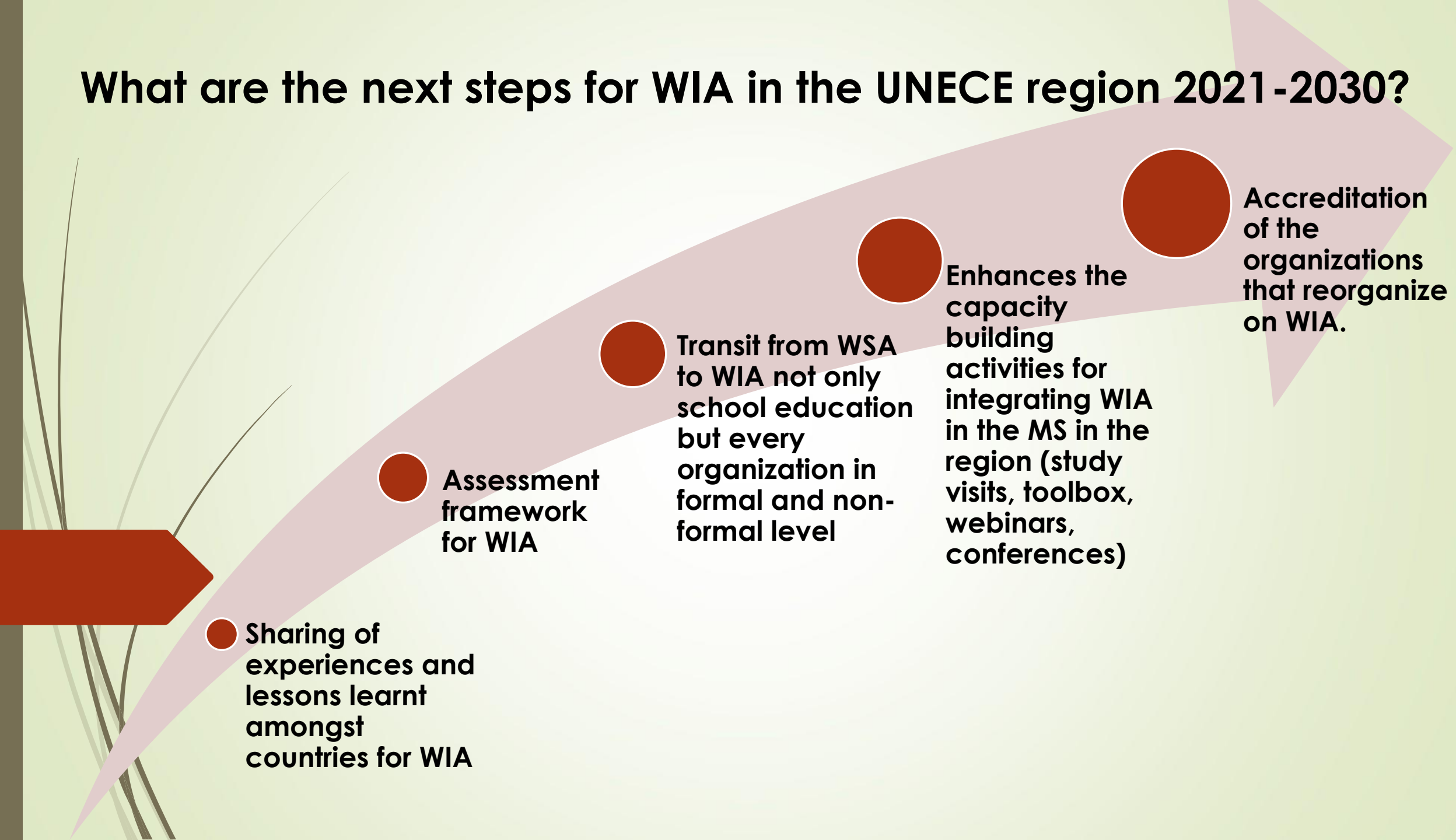
Tools and resources that facilitate stakeholders (particularly youth) and institutions to participate in a whole institution transformation.

Mobilize youth in the design of WIA plans to promote ESD in their respective institutions and adopt a leading role in reinforcing the focus on SDGs.

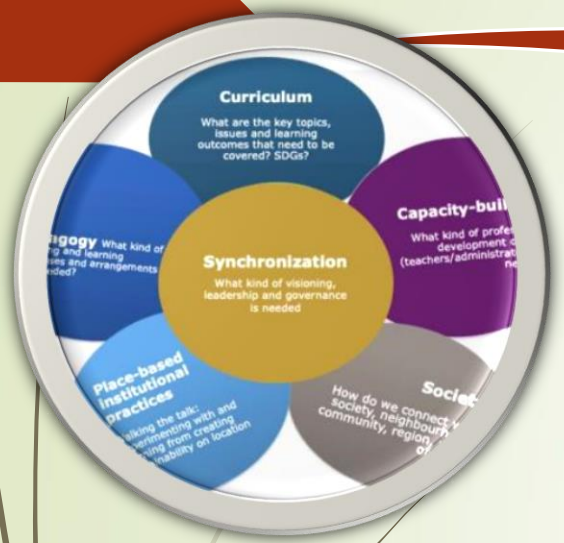
Strengthening of UNECE ESD SC synergies with organizations, mechanisms and networks (e.g. UNESCO, EU and WHO) that also develop policies for a WIA.


Can (and how) a universal framework of indicators be formed in order to practically address WIA in ESD in all education levels?
How can educational institutions can be supported to integrate WSA/WIA long-term and systematically?
What other policies, tools, processes needed to facilitate systematic implementation of WIA in ESD across the ECE region?
Indicative questions on which the strand for WIA aims to respond in the new UNECE ESD Strategy implementation framework 2021-2030
How and what type of a system of indicators for WIA in ESD support countries to assess the quality of its implementation in sustainability?
In which ways school facilities and infrastructure should be improved to essentially function alongside all other aspects of WIA on ESD?
How can the systematic and long term implementation of WIA in ESD be supported beyond school education?

What are the next steps for WIA in the UNECE region 2021-2030?



Work Plan Activities for WIA 2022-2025 in the UNECE Region



1) Create and promote a Whole Institution Framework based on areas of generic interest and shared experiences.
2) Develop a set of quality criteria for institutions seeking to adopt a WIA to help them identify what they have achieved; what they still need to work on; what obstacles they face and how to overcome them;
3) Tool box with ideas/examples/ that will facilitate institutions to become sustainable by following WIA.

What is also planned:

1. Side event for WIA in the framework of the 9th Ministerial Meeting (5-7 October).
2. Publication of the UNECE ESD Strategy Progress Report.
3. More visibility of the work of the UNECE regarding WIA in various fora also publications and papers
4. Organization of study visits on WIA in various countries
5. Revision of the indicators for WIA in the format reporting of the UNECE ESD Strategy.
6. Synergies and close collaboration with other regional mechanisms and organizations (UNESCO, EC, Caucasus conventions, ESD Med. Action Plan)

1st meeting of the expert group of the UNECE systemic framework of WSA/WIA in the framework (30-31st of October 2024)

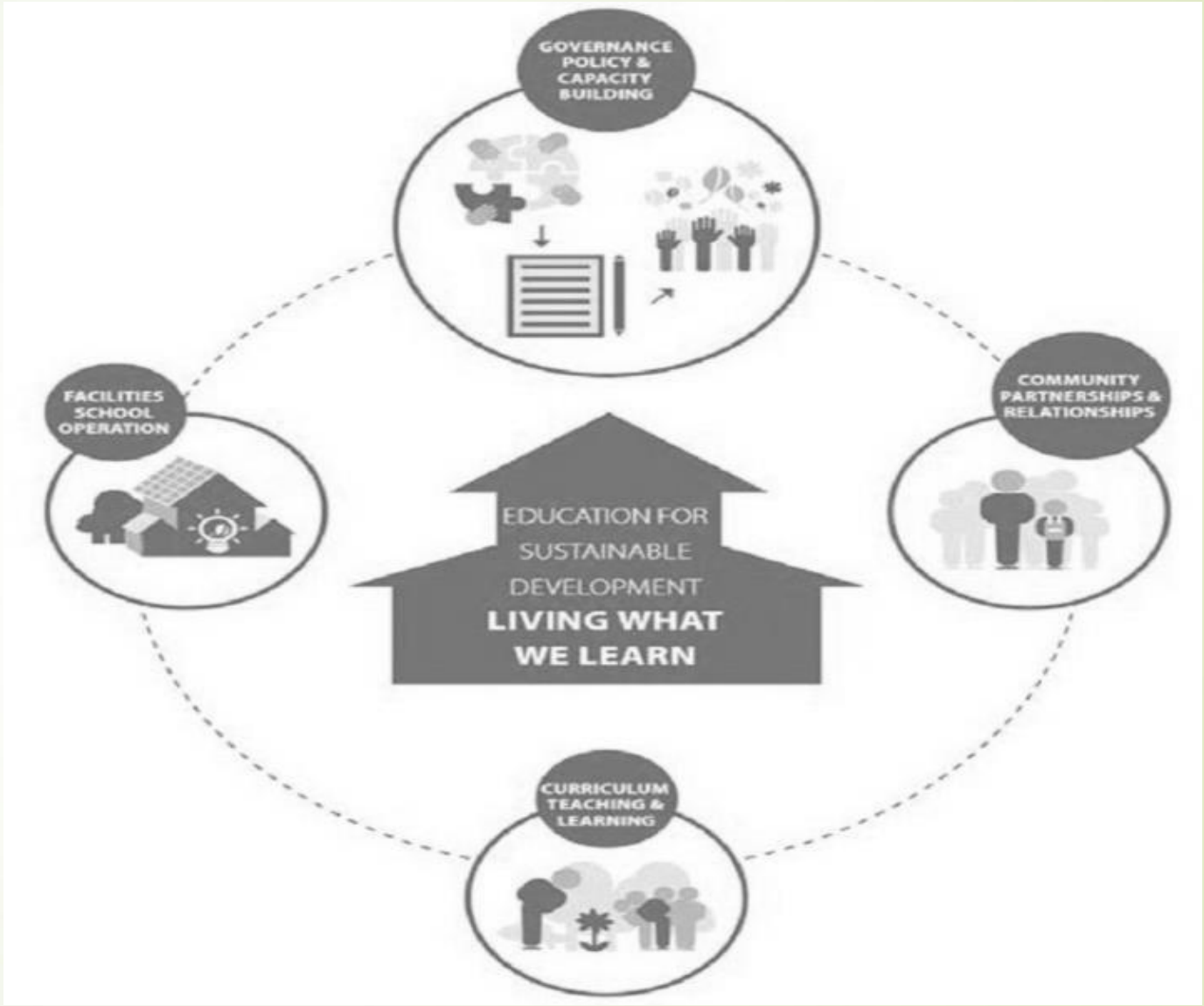
Expert group

Prof. Arjen Wals, Netherland-CHAIR OF THE EXPERT GROUP, Netherlands

Prof. Jan Cincera, Czech republic
Prof. Niklas Gericke, Sweden
Prof. Dafna Goldman, Israel
Prof. Mandy Singer-Brodowski, Germany
Vis. Ass. Prof. Aravella Zachariou, Cyprus
Researcher, Jorrit Holst, Germany
Coordinator, Judith Svedjan Klein, Norway

Leading countries: Cyprus and Netherlands
Closely linked with the WSA/WIA and toolkit
Supporting group for WSA/WIA framework

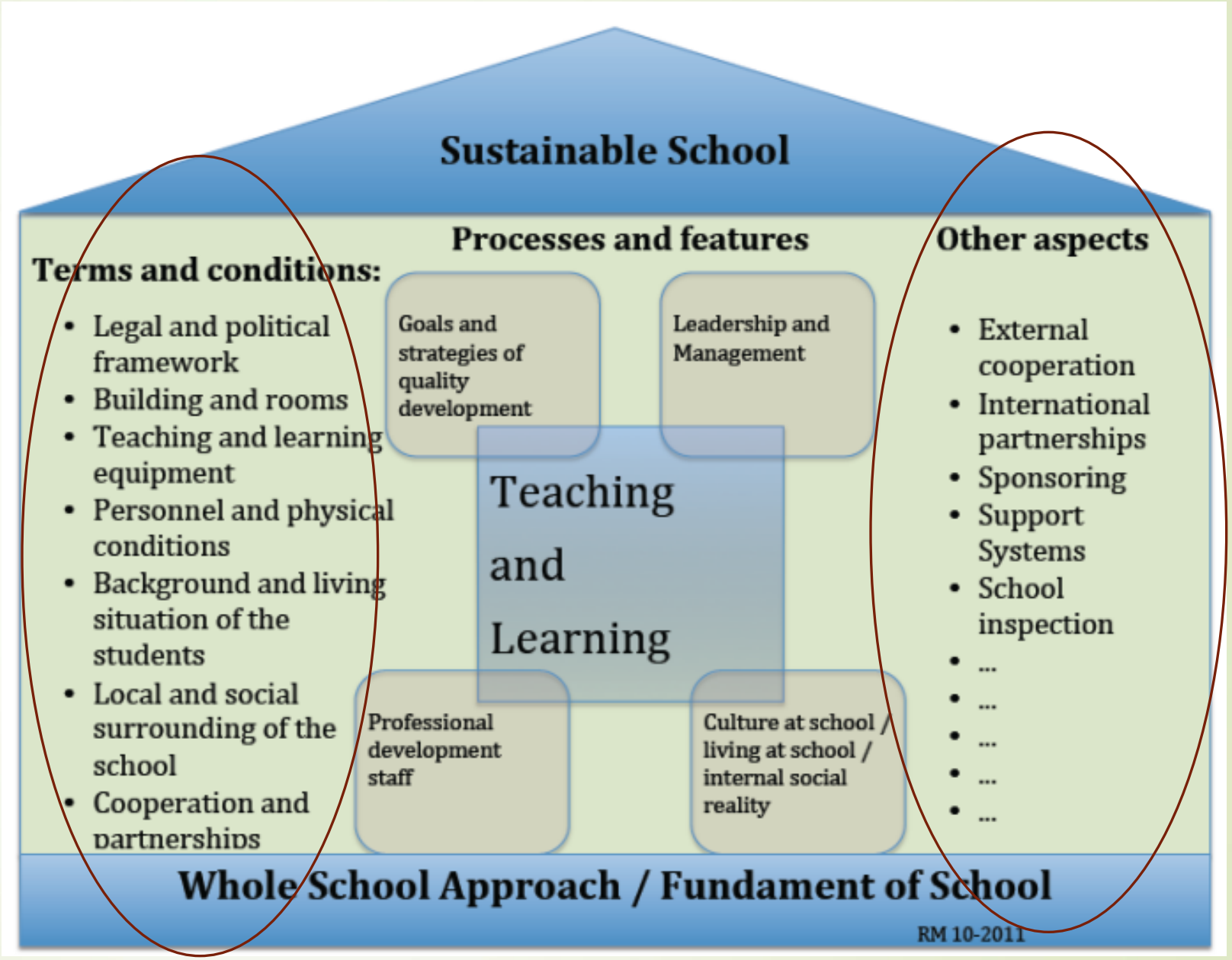
UNESCO MODEL FOR WSA



UNESCO 2014a: 89 in Rieckmann, Mindt and Gardiner 2017

MODEL OF SUSTAINABLE SCHOOL

Concentrates more on the circumstances in which a school can find itself. External factors (terms and conditions) and internal factors (processes and features) that can influence school life are acknowledged and considered.

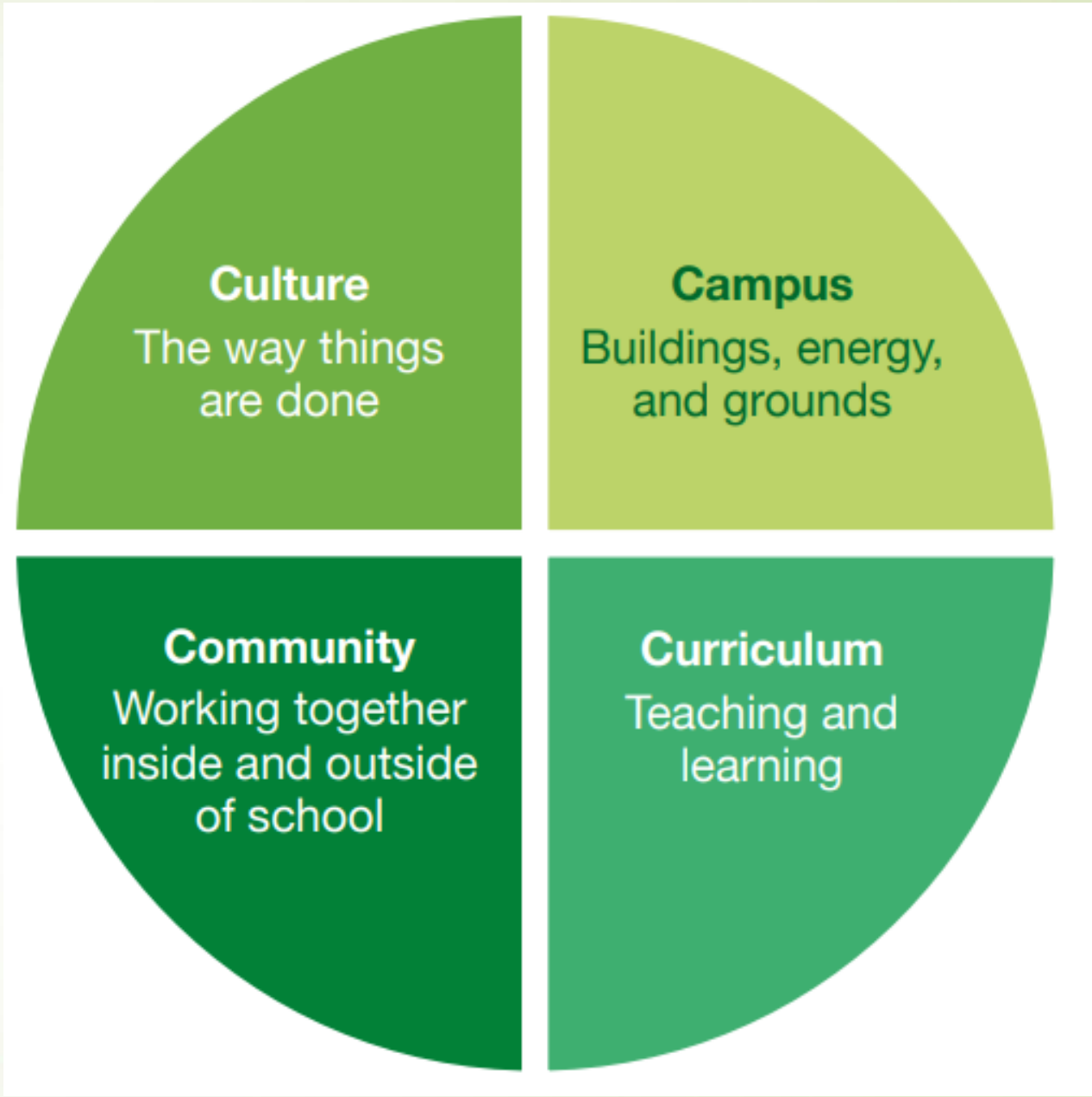


Mathar 2013, p. 5

THE FOUR Cs MODEL

It provides a framework for WSA where environmental sustainability, encompasses all aspects of school life, learning and management.

School culture includes how things are done, throughout all levels of a school organization, and reflects the school's vision and values

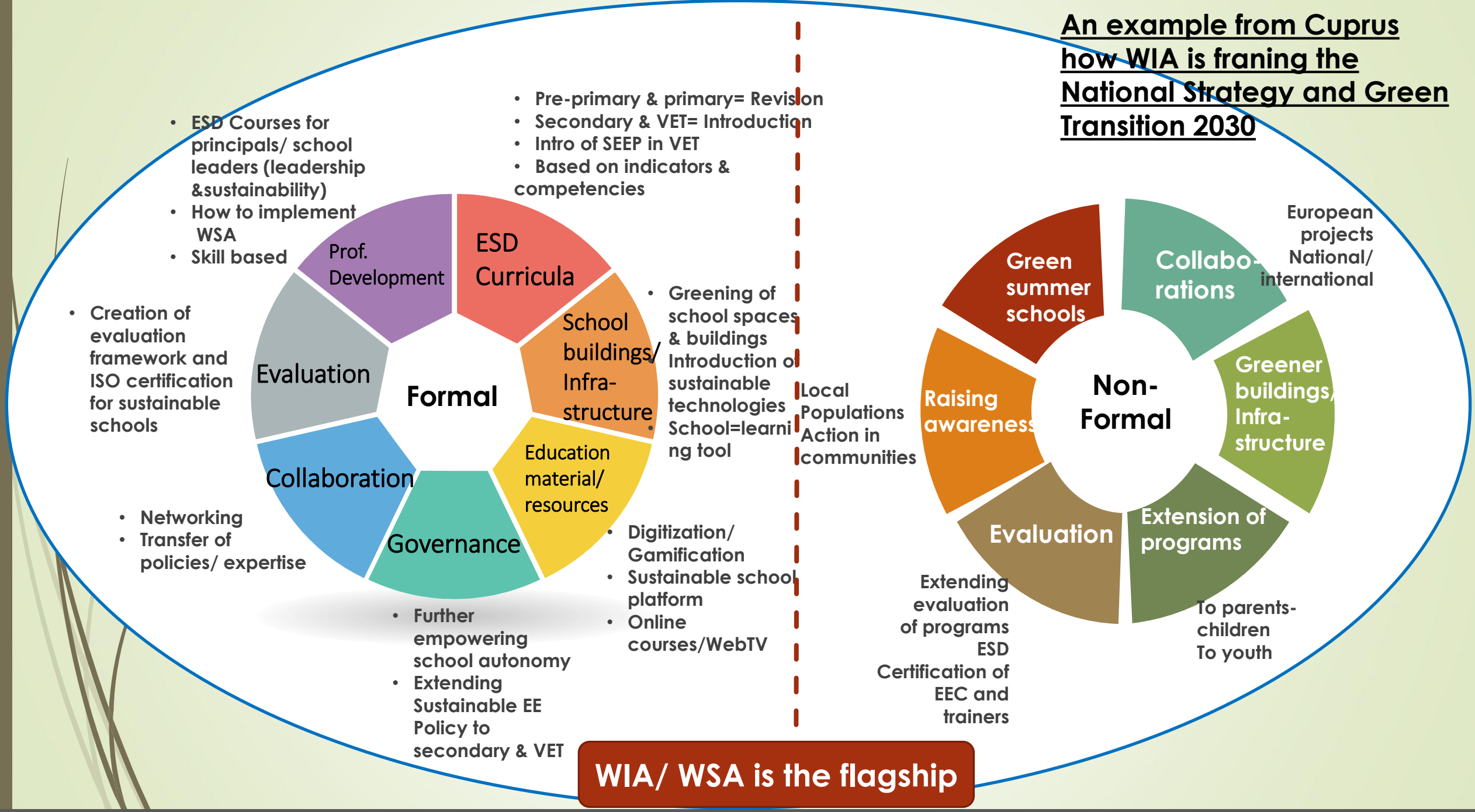


NAEE, 2021

THE FLOWER MODEL

Wals & Mathie, 2022

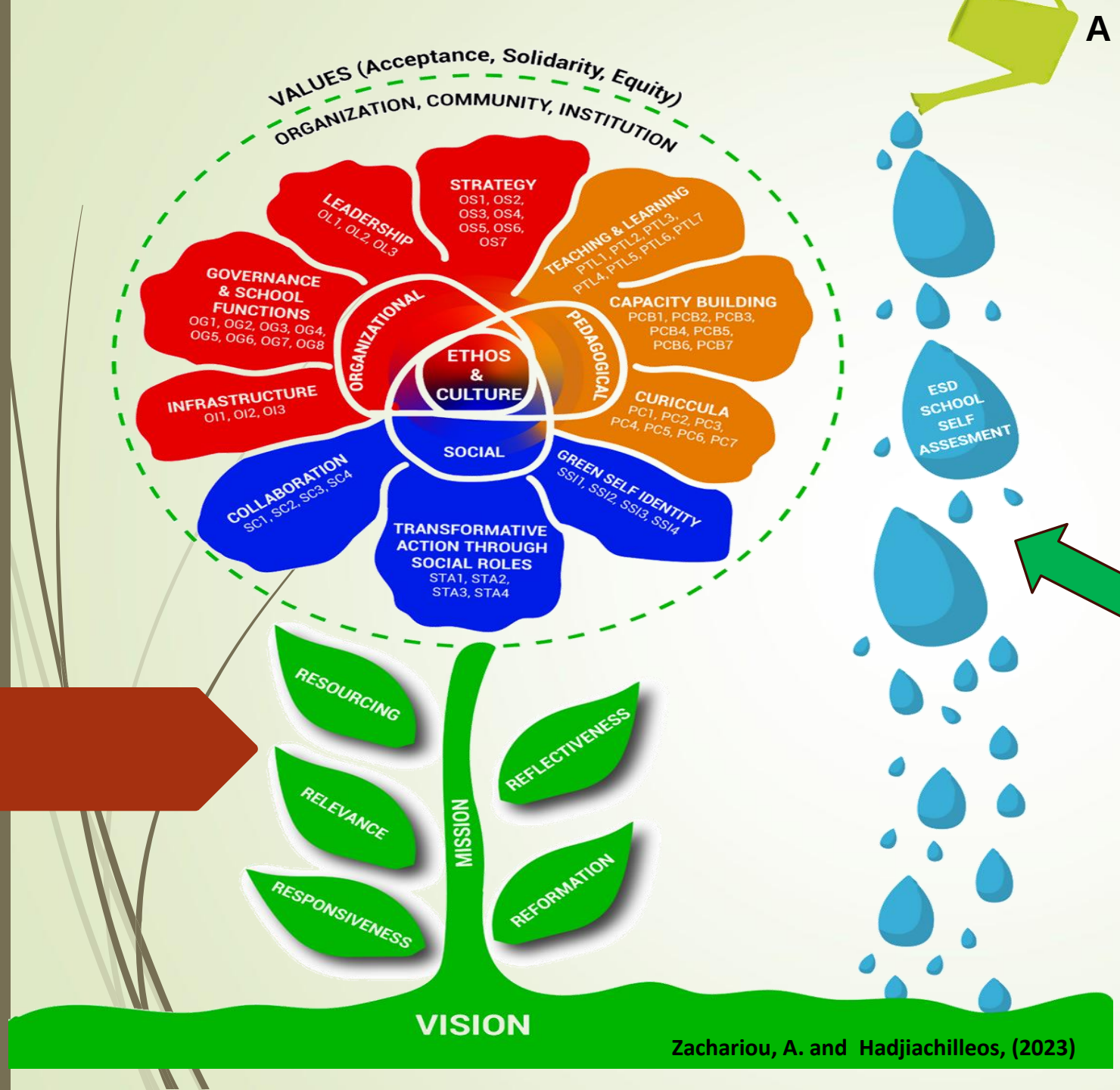
An example from Cuprus how WIA is framing the National Strategy and Green Transition 2030



WIA/ WSA is the flagship

A new systemic framework for WSA/WIA and ESD

SUSEDI PROJECT



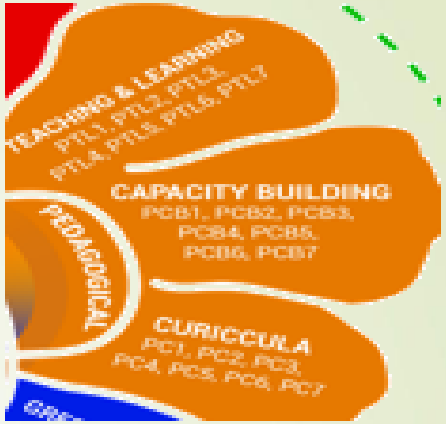
Zachariou, A. and Hadjiachilleos, (2023)

CYPRUS NEW SYSTEMIC FRAMEWORK ON WHOLE SCHOOL/INSTITUTION APPROACH

Launching September 2025

Qualitative and Quantitate Indicators
Accreditation Scale
External Evaluation
Important Motives

SOCIAL (S)	SC	Collaboration	STA	Transformative action through social roles	SSI	Green self-identity
	SC1	Among school stakeholders	STA1	Responsibility for promoting sustainability in the community	SSI1	Developing strong sense of self-worth
	SC2	Among school and local community	STA2	Active role of students for school functioning	SSI2	Clear understanding of meaningful roles in society
	SC3	Among school and labor market	STA3	Students as leaders in school operations	SSI3	Connection of one's self with place and space
	SC4	Established networking mechanisms	STA4	Educating to manage socio-environmental issues and transform society	SSI4	Connection of one's self with the nature



ORGANIZATIONAL (O)	O	Infrastructure	OG	Governance & school functions	OL	Leadership	OS	Strategy
	OI1	Creating & mobilizing sustainability on location	OG1	Taylor-made administrative tasks	OL1	Youth leaders	OS1	Adjustability
	OI2	Outdoor spaces as classrooms	OG2	Policy formation	OL2	Participatory decision making	OS2	Facilitates collaborations
	OI3	Building local energy sources	OG3	Monitoring mechanisms	OL3	Role models	OS3	Commits teachers to engage in ESD
			OG4	Coordination mechanisms			OS4	Integrates non-formal education
			OG5	Networking mechanisms			OS5	Promotes accountability as to how ESD-related WIA is implemented
			OG6	Top-down support			OS6	Alignment with Agenda 2030
			OG7	Allocated time for ESD-related actions			OS7	School action plans

PEDAGOGICAL (P)	Curricula (PC)		Capacity building (PCB)		Teaching and learning (PTL)	
	PC1	Interdisciplinary, horizontal, coherent	PCB1	Employability	PTL1	Formal & non-formal
	PC2	SDGs integration	PCB2	Scaling of skills (different sets and levels) i.e. Teachers, school leaders, ESD coordinators	PTL2	Connection to labour market
	PC3	Skills for the future	PCB3	Monitoring	PTL3	Student-led
	PC4	Localized/ adaptable	PCB4	Mentoring	PTL4	Promotes awareness of changes on the planet and impact on human life
	PC5	Promotes critical thinking	PCB5	Facilitating teachers' integration in community-Shaping of social identity of professional	PTL5	Practical, hands-on experiences
	PC6	Extracurricular ESD activities	PCB6	Sustainability of school actions through time	PTL6	PTL6 Alternative learning processes
	PC7	ICT	PCB7	Recognition of work	PTL7	PTL7 Multimodal learning environments

ESD CURRICULA TRNAFORMATION REVISIONS-CHANGES

FROM PRE-PRIMARY TO SECONDARY

Applied in a unified Way

Accreditation scheme for sustainable school through WIA in Cyprus

Qualitative and Quantitate Indicators
Accreditation Scale
External Evaluation
Important Motives

Collaboration between:

- Cyprus Ministry of Education, Sport and Youth- Unit for Education for the Environment and Sustainable Development
- Cyprus Accreditation Agency
- MMC and other 11 European Organizations participating in the EU-funded SUSEDI project

Accreditation framework:

- Level of accreditation is structured around milestones (15%, 25%, 50%. 75%...)
- Benchmarks or milestones are analyzed into key performance indicators (KPIs)
- KPIs are measured through specific actions
- Indicative activities to meet milestones (cross-cutting) are also described

Each accreditation level comes with a diagnosis of what is required of the school to move to the next level

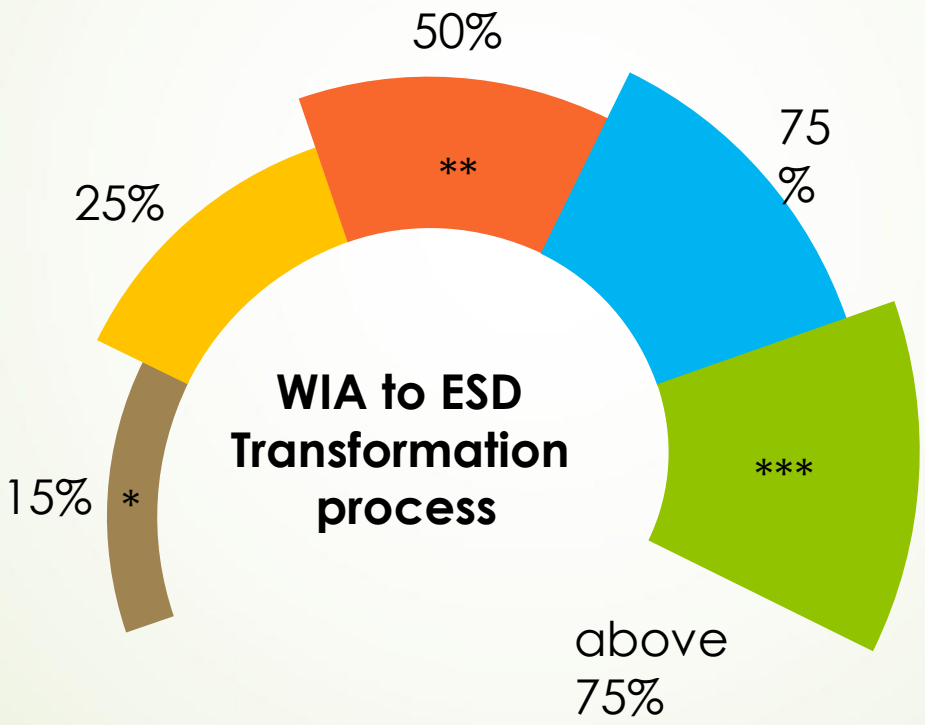
Motives related to school needs/ challenges

WIA to ESD [suggestion] Progress Levels

Integration (50%)
Sustainability practices are being integrated across the three pillars. There's a growing commitment to embedding sustainability in institutional processes.

Activation (25%)
Activating initial sustainability strategies, starting to engage staff, students, and stakeholders in sustainability initiatives.

Foundation (15%)
Lay the foundation for sustainability efforts by defining the vision and initiating the actions.



Embedding (75%)
Sustainability is fully embedded in most aspects of the institution's operations, governance, and pedagogy, setting the stage for achieving WIA to ESD.

WIA to ESD (Above 75%)
At this stage are sustainability leaders, serving as role models and setting benchmarks for others, demonstrate innovative practices and continuous improvement in their sustainability journey.

[example of accreditation framework] For the pedagogical pillar – Interdisciplinary, horizontal, coherent (PC1)

Interdisciplinary, horizontal, coherent (PC1)	Foundation (15%)	Activation (25%)	Integration (50%)	Embedding (75%)	WIA to ESD (Above 75%)
Benchmarks (milestones)	1.Introduce sustainability topics in selected subjects or training programs.	1.Address sustainability through multiple subjects or training programs (horizontal integration). 2.Introduce thematic days on sustainability.	1.Ensure continuous integration of sustainability topics across all major subjects or training programs. 2.Create interdisciplinary thematic days and projects on sustainability across different grade levels or different expertise.	1.Embed sustainability as a core theme across the curriculum and grade levels or training programs. 2.Establish a formal framework for interdisciplinary and grade-level collaboration on sustainability topics. 3.Systematically evaluate sustainability integration across the curriculum.	1.EI leads in interdisciplinary, sustainability-focused curricula recognized at national and/or international levels. 2.Publish results or case studies on interdisciplinary sustainability curricula and projects. 3.Serve as a mentor or resource center for other EIs on interdisciplinary sustainability curricula.
KPIs	1.Number and/or percentage of subjects or training programs where sustainability issues are addressed.	1.Number and/or percentage of subjects or training programs where sustainability issues are addressed. 2.Number of thematic days on sustainability.	1.Number and/or percentage of subjects or training programs where sustainability issues are addressed. 2.Number of interdisciplinary projects involving different grade levels or different expertise.	1.Number and/or percentage of subjects or training programs where sustainability issues are addressed. 2.Number of interdisciplinary projects involving different grade levels or different expertise. 3.Number of evaluations conducted on sustainability integration.	1.Recognition for interdisciplinary sustainability curricula. 2.Number of publications or case studies on sustainability curricula. 3.Number of EIs mentored or trained on sustainability curricula.
Metrics	1.Sustainability is addressed in at least 1–2 subjects or training programs.	1.Sustainability is addressed in at least 3–4 subjects or training programs. 2.At least 1 thematic day per year dedicated to sustainability issues.	1.At least 50% of core subjects address sustainability issues or training programs on a regular basis (e.g., at least once a week). 2.At least two interdisciplinary projects per year involving different grade levels and subjects	1.At least 75% of subjects or training programs include sustainability-related topics regularly. 2.At least two interdisciplinary projects per year involving different grade levels and subjects or training programs. 3.At least one annual evaluation of how sustainability is integrated into the curricula.	1.At least one national or international recognition or award for sustainability curricula. 2.At least one case study or publication on interdisciplinary sustainability projects. 3.At least two other EIs mentored or trained on integrating sustainability into their curricula.

[example of accreditation framework] For the pedagogical pillar – Interdisciplinary, horizontal, coherent (PC1)

Interdisciplinary, horizontal, coherent (PC1)	Foundation (15%)	Activation (25%)	Integration (50%)	Embedding (75%)	WIA to ESD (Above 75%)
Indicative activities to meet milestones (cross-cutting)	1.Choose 1–2 subjects or training programs where sustainability can be naturally integrated. 2.Develop basic lesson plans, training programs or learning activities that address a sustainability issue. 3.Hold short awareness sessions for educators to explain how sustainability topics can be integrated into their subjects or training programs.	1.Develop interdisciplinary lessons that connect sustainability topics across subjects or training programs. 2.Organize thematic days focusing on a specific sustainability issue, involving all grade levels and multiple subjects or different expertise on training programs. Include activities such as projects, exhibitions, or presentations. 3.Encourage educator collaboration to create projects that involve different subjects or training programs on thematic days.	1.Conduct a curriculum mapping exercise to identify where sustainability topics can be integrated across all major subjects or training programs. 2.Develop projects that involve multiple subjects and grade levels or training programs. 3.Provide training for educators on how to collaborate across subjects or training programs and incorporate sustainability topics systematically into their teaching.	1.Establish the framework for cross-grade learning where students from different grades work together on sustainability projects. 2.Develop a formal curriculum framework that ensures sustainability is integrated into the learning outcomes for all subjects or training programs. 3.Create EI-wide sustainability projects that require participation.	1.Apply for national or international awards for innovative sustainability education (e.g., UNESCO recognition for education in sustainable development). 2.Publish case studies or organize conferences where the EI shares its interdisciplinary sustainability curriculum practices with other schools. 3.Participate in a mentorship program where the EI helps other EIs develop sustainability curricula. This can include workshops, webinars, and sharing of curriculum materials.

[example of assessment tool] For the pedagogical pillar – Interdisciplinary, horizontal, coherent (PC1)

Curricula		Indicators
Interdisciplinary, horizontal, coherent	1.	a. When examining a sustainability-related issue at school, do you address it through the context of different subject curricula? ☐ Y ☐No b. Through which learning contexts (i.e. subjects, curricula) are sustainability issues addressed? Tick accordingly ○ Language arts ☐ Yes ☐No ○ Mathematics ☐ Yes ☐No ○ Arts and crafts ☐ Yes ☐No ○ Sciences ☐ Yes ☐No ○ English as a second language ☐ Yes ☐No ○ P.E. ☐ Yes ☐No ○ ESD ☐ Yes ☐No c. Provide …… examples (i.e. identify the subject(s) and the how the sustainability issue is examined through those subject(s)):
	2.	On average, how many times per week/trimester do you address sustainability issues in the following subjects per classroom: Language arts Mathematics Arts and crafts Sciences English as a foreign language P.E. Other
	3.	a. How many thematic days do you have per trimester, devoted to issues related to sustainability? …… b. Provide an example of a thematic day organized by your school.
	4.	Provide an example demonstrating different actions and/or activities implemented across grade levels for the examination of a spec sustainability issue (i.e. pollution, forest, water etc.): • Sustainability issue: …… • Identify different actions and activities implemented across 3 different grade levels:

Can Whole School Approach transform schools to sustainability?

- Structural transformation and the entrance of sustainable development into schools' operational structures or infrastructure
- Internal factors (institutional culture, strategic agency, relationships and power on campus).
- External factors (funding/regulative bodies, networks).
- Focus on organizational learning and change processes than consider the benefit for students.
- Decision-making processes, leadership strategies, and strategic planning dynamics

Can Whole School Approach transform schools to sustainability;

Some important things that we should consider for WSA/WIA and Sustainability

Can Whole School Approach transform schools to sustainability;

SOME FINAL THOUGHTS

It's not a Utopia

Can be a reality

Can lead to change if we take into account that WSA to sustainability is like a DNA It's unique to each institution that is applied

WSA/WIA leads to changes in school life and is related with the culture of the school. It's not an approach-it's the essence of education –WSA/WIA = Quality education

Whole-school and whole-institution approaches to sustainability

THANKS!!!

Dr. Aravella Zachariou
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