CHANGE

ENVISIONING **SUSTAINABLE FUTURES**

After exploring how to frame sustainability problems, it's time to look ahead. What kind of future do we want to create—and how do we get there?

This chapter is about **Change**. Not just reacting to problems, but imagining better futures and taking steps to make them real. It's about **vision**, adaptability, and creativity. It's about daring to think differently.

WHAT YOU'LL LEARN IN THIS FLIPBOOK?

By the end of this guide, you'll be able to:

•Envision preferred, expected, and alternative futures in the context of sustainability.

•Apply futures thinking and scenario planning to explore long-term impacts and possibilities.

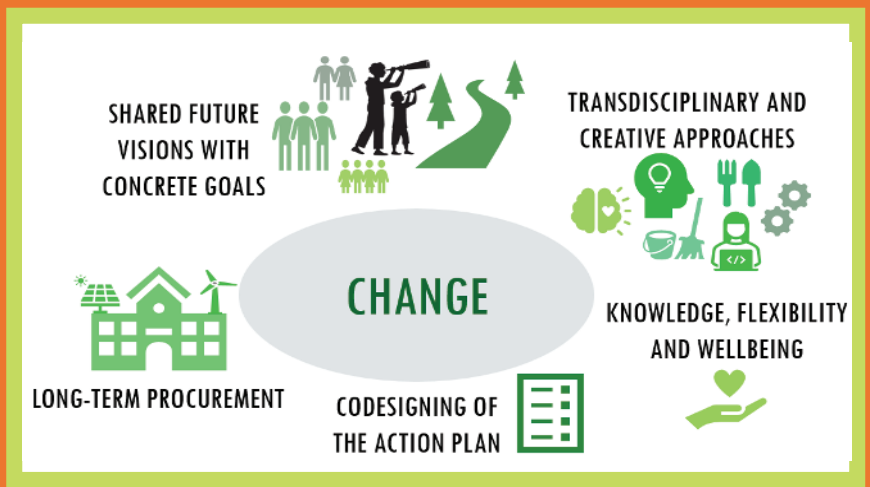
•Use creativity and imagination to design innovative, inclusive, and regenerative solutions.

•Understand how personal and collective choices shape the future of communities and the planet.

•Translate vision into action through strategic planning, participatory processes, and sustainable innovation.

THIS FLIPBOOK FOCUSES ON THE THIRD AREA OF THE ECF4CLIM ROADMAP:

CHANGE—AND IS GROUNDED IN THE GREENCOMP COMPETENCE AREA "ENVISIONING SUSTAINABLE FUTURES."




SO... READY TO IMAGINE WHAT'S POSSIBLE?
LET'S STEP INTO CHANGE
AND **CO-CREATE THE FUTURE WE WANT TO LIVE IN.**

WHY CHANGE MATTERS

In the face of climate change, biodiversity loss, and social inequality, it's easy to feel overwhelmed. Even adults often struggle to know what to do. But if we don't imagine something better, we risk repeating the same unsustainable patterns.

That's why this ECF4CLIM roadmap area is so important. It's about:

• Outlining possible future visions and how they can be translated into concrete goals within the school or university.

• Being flexible in the face of change without compromising well-being.

• Creatively designing novel solutions by leveraging transdisciplinary networks as a strength

MORE INFO

UNDERSTANDING THE FUTURES: EXPECTED, PREFERRED, AND ALTERNATIVE

When we talk about the future, we're not talking about one fixed path. There are many possible futures, and how we think about them shapes what we do today.

•**Expected futures** are what we think will happen if current trends continue. They're based on data, projections, and the assumption that things will stay the same. For example, if we keep consuming resources at the current rate, we can expect more pollution, more inequality, and more climate-related disasters.

•**Preferred futures** are what we hope to see. These are visions of a better world—one with clean energy, fair societies, and thriving ecosystems. They reflect our values and goals, and they guide our actions.

•**Alternative futures** are other possibilities that could emerge. They might be better or worse than expected, depending on how we respond to change. They help us explore trade-offs, risks, and opportunities.

WHAT'S YOUR PREFERRED FUTURE?
WHAT WOULD YOUR SCHOOL, CITY, OR PLANET LOOK LIKE IN 2050?

Futures Debate – 2050 in Focus

To deepen your understanding of how different futures influence the choices we make today, try this collaborative activity with your classmates and teachers:

Form three teams, each representing one type of future:
•Team Expected: What happens if current trends continue?
•Team Preferred: What does a sustainable, fair, and thriving future look like?
•Team Alternative: What surprising or disruptive future could emerge?

Explore:
Each team will create a short narrative or visual presentation of their future vision for your school, city, or planet in 2050. Consider:
•What drives this future? (e.g. technology, policy, behaviour)
•What are the risks, opportunities, and trade-offs?
•How do values and choices influence the outcome?

Goal:
Present your scenarios in a classroom debate. Discuss:
•Which future feels most realistic?
•Which one inspires the most hope or concern?
•What actions today could help move us toward the preferred future?

FUTURES LITERACY: **A SKILL FOR TRANSFORMATION**

Futures literacy is the ability to imagine, explore, and prepare for different futures. It helps us:

•Understand that the future is not predetermined

•Recognise uncertainty and complexity

•Use creativity and evidence to shape better outcomes

In a world facing climate change, pandemics, and social injustice, we need futures that inspire hope, not fear. We need to move beyond "business as usual" and imagine what's possible.

Futures Literacy: Learning a new skill for deep transformation

PLAY VIDEO

Real-Life Example: Two Paths to 2050

The Nature Conservancy (TNC) developed two scenarios for the future: one follows a "business as usual" trajectory, while the other outlines a "conservation pathway". The findings show that by 2050, it is possible to support both conservation and economic growth.

1.One where we continue with current practices, leading to environmental collapse and growing inequality.

Business as Usual

•Global temperatures increase by 3.2°C (5.6°F)
•Poor air quality impacts an additional 5 billion people
•84% of fisheries collapse
•Only 8% of the land is protected

2.Another where we radically change how we produce food, use energy, and share resources, leading to a healthier planet and more just societies

Conservation Pathway

•Global temperatures rise by 1.6°C (2.9°F)
•Poor air quality affects fewer than 1 billion additional people
•100% of fisheries are managed sustainably
•17% of land is protected

Some ECF4CLIM universities, such as one in Spain, are actively shaping the future they envision. After students monitored waste streams and collaborated on designing a new system, the faculty replaced individual desk bins with selective eco-points on each floor. The pilot proved so successful that the approach was adopted across the entire institution, transforming a single intervention into a university-wide policy shift.

Activity Box: Design Your Future

Task:
Create three short stories or drawings:
1.Your expected future (if nothing changes)
2.Your preferred future (what you want)
3.An alternative future (something surprising)

Explore:
•What are the key differences?
•What actions would lead to each future?
•What role do you play in shaping them?

Goal:
Share your stories with your class. Discuss what needs to change today to reach your preferred future.

The future isn't something that just happens—it's something we co-create. By imagining better futures, adapting to change, and exploring new ideas, we can move from fear to action, from uncertainty to hope.

Let's keep going. In the next chapter, we'll turn envisioned futures into reality.

SDG IMPACT

PLAY VIDEO

INFOGRAPHIC

PLANNING FOR THE FUTURE: SHORT, MEDIUM, AND LONG-TERM APPROACHES

Creating a sustainable future doesn't happen overnight. It requires action across different time horizons—each with its role to play.

• **Short-term approaches** focus on immediate actions. These are the quick wins—like organising a recycling campaign, switching to LED lights, or planting trees. They're important because they build momentum and show that change is possible. But they often don't address the deeper causes of unsustainability. In Spain — Tree-planting sessions with a follow-up nursery visit gave pupils hands-on skills and immediate visible results; without sustained care and space planning, however, the impact risks staying local and short-lived.

• **Medium-term approaches** look a few years ahead. These might include updating school infrastructure, integrating sustainability into the curriculum, or forming partnerships with local governments. They require more planning, resources, and collaboration—but they can lead to systemic change. In Finland — A cross-faculty Sustainability Transitions module (15 ECTS) was co-designed across disciplines and embedded in the university offer, laying a decades-long pathway so every graduate can negotiate complex transitions—a redesign of how students learn sustainability, not just a one-off course.

• **Long-term approaches** stretch decades into the future. These are bold visions—such as transitioning to a circular economy, achieving zero emissions, or redesigning how we live and learn. They demand imagination, commitment, and the courage to invest in outcomes we may not live to see. Long-term strategies often involve transformative change and require a willingness to act today for benefits that may only be realised by future generations. In Portugal — A planned sustainability hub (dedicated physical space for outreach, programming and digital signage) formalises a permanent platform for engagement and co-creation, anchoring cultural change that can persist across leadership cycles and and incoming cohorts.

What's one thing your school could do this year? What about in the next 10 years?

Scenario Thinking:
Exploring What Could Be

To plan for the future, we need to imagine it. That's where scenario development comes in.
Scenarios are not predictions—they're stories about what could happen, based on different assumptions.

They help us:
•Understand risks and opportunities
•Explore trade-offs
•Make better decisions today

Scenarios can be built using:
•Past events: What patterns have we seen before?
•Current signals of change: What trends are emerging now?
•Human-driven factors: How do our choices shape the future?

Example:
If we continue burning fossil fuels, we can expect rising emissions and worsening climate impacts. But if we invest in clean energy and change our habits, we can imagine a very different future.

DID YOU KNOW

How humans disrupted a cycle essential to all life

Carbon cycles through Earth at a steady pace. Plants and microorganisms absorb carbon, which helps them grow. Animals and bacteria consume plants, exhale carbon into the atmosphere, and store some carbon underground when they die. And a similar process happens in the ocean. It's nearly a closed loop, although some plants and animals don't decay fast enough, so they turn into fossil fuel, which traps the carbon underground. But one animal started to dig up that carbon — and burn it.

PLAY VIDEO

THE ROLE OF INNOVATION AND IMAGINATION

Sustainable change isn't just about fixing problems—it's about rethinking how we live, learn, and interact. That's where sustainable innovation comes in.

It means:

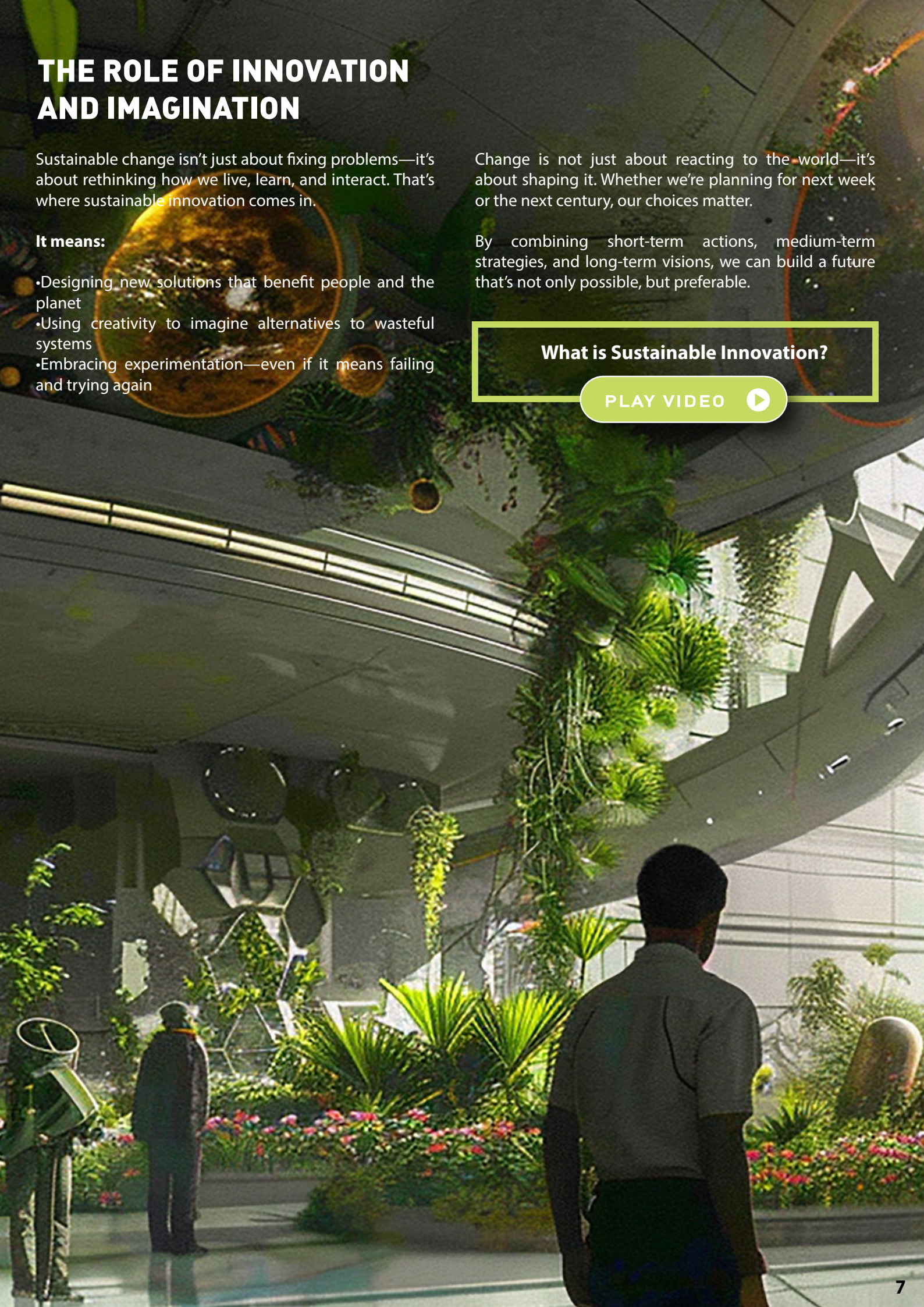
- Designing new solutions that benefit people and the planet
- Using creativity to imagine alternatives to wasteful systems
- Embracing experimentation—even if it means failing and trying again

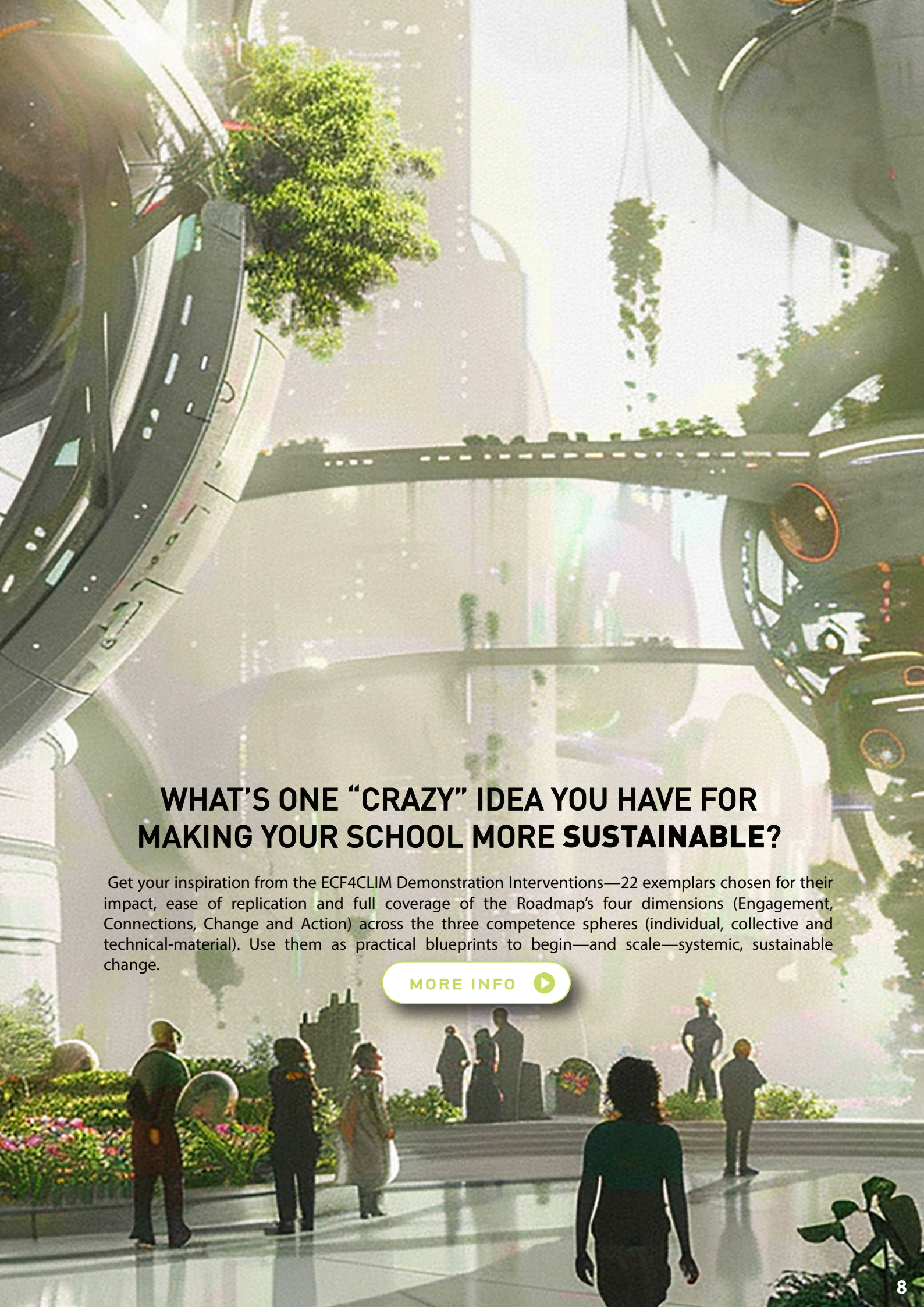
Change is not just about reacting to the world—it's about shaping it. Whether we're planning for next week or the next century, our choices matter.

By combining short-term actions, medium-term strategies, and long-term visions, we can build a future that's not only possible, but preferable.

What is Sustainable Innovation?

PLAY VIDEO





WHAT'S ONE "CRAZY" IDEA YOU HAVE FOR MAKING YOUR SCHOOL MORE **SUSTAINABLE**?

Get your inspiration from the ECF4CLIM Demonstration Interventions—22 exemplars chosen for their impact, ease of replication and full coverage of the Roadmap's four dimensions (Engagement, Connections, Change and Action) across the three competence spheres (individual, collective and technical-material). Use them as practical blueprints to begin—and scale—systemic, sustainable change.

MORE INFO

FROM IMAGINATION TO IMPLEMENTATION

Shaving a vision is powerful—but turning that vision into reality requires planning, decision-making, and the courage to act in the face of uncertainty. This part of the journey is about strategic foresight: using tools and knowledge to shape the future we want, while preparing for the challenges we might face.

Decision-Making for Sustainable Development

Governments, schools, and communities all play a role in shaping sustainable futures. But how do we make decisions that are fair, effective, and future-proof?

One answer is impact assessment. These tools help us:

•Understand the likely effects of a project or policy
•Compare different options
•Involve the public in decision-making

There are several types:

•**Environmental Impact Assessments (EIA):** Evaluate how a project might affect the environment and society.
•**Regulatory Impact Assessments:** analyse the pros and cons of different policy choices.
•**Cost-Benefit Analyses:** Weigh the economic value of actions against their environmental and social costs.

These assessments don't just help governments—they can also guide schools and students in making smarter, more sustainable choices.

HUMAN INFLUENCE ON THE FUTURE

When we imagine the future, we must consider the human factor. Our behaviours—how we consume, travel, build, and govern—shape the trajectory of the planet.

•Economic growth, population trends, and technological innovation all influence what's possible.

•Human-driven changes can lead to both progress and problems: from renewable energy breakthroughs to biodiversity loss and pollution.

WHAT HUMAN CHOICES TODAY WILL HAVE THE BIGGEST IMPACT ON THE WORLD IN 50 YEARS?

SCENARIO PLANNING: NAVIGATING UNCERTAINTY

The future is uncertain—but that doesn't mean we can't prepare. Scenario planning helps us explore different possibilities and make better decisions. Scenarios are not predictions. They are stories about what could happen, based on different assumptions.

They help us:
•Identify risks and opportunities
•Understand trade-offs
•Choose actions that are resilient across different futures

For example, a school might explore:
•A scenario where energy prices rise sharply
•A scenario where new sustainability funding becomes available
•A scenario where climate-related events disrupt school operations

By thinking through these possibilities, schools can make smarter, more flexible plans.

Real-Life Example: Participatory Planning in Action

In the ECF4CLIM project, schools in Finland, Romania, Portugal and Spain used participatory methods to develop their sustainability visions. Students, teachers, and community members worked together to:

•Identify local challenges
•Explore future scenarios
•Design actions that were both ambitious and achievable

This collaborative approach helped ensure that everyone had a voice—and that the resulting plans were grounded in both science and lived experience.

What about you in your school?

MORE INFO

Activity Box: Map Your Future

Task:
Choose a sustainability issue (e.g., energy use, food systems, transportation).

Explore:
•What are the current trends?
•What human behaviours are influencing the issue?
•What scenarios could unfold in the next 10, 20, or 50 years?

Goal:
Create a visual map or timeline showing different possible futures. Identify which one is your preferred future—and what actions could help make it real.

In this video segment adapted from the International Institute for Sustainable Development, Inuit observers share how their traditional knowledge of weather patterns is being disrupted by unpredictable weather behaviours. A female Inuit elder explains how, in the past, women and girls were responsible for forecasting the weather for hunting trips using traditional knowledge. However, recent changes in climate have made it difficult to predict the weather and associated animal behaviours, which are affecting their subsistence lifestyle. This highlights the impact that climate change can have on traditional knowledge and ways of life.

PLAY VIDEO

COMPLEXITY AND RESILIENCE

Sustainability challenges sit within **complex socio-ecological systems**—webs of people, places, technologies and policies that interact in non-linear ways. That means:

- **Human–nature interactions** continually shape outcomes.
- **Feedback loops** can amplify or dampen change.
- **Small actions** can trigger unpredictable ripple effects across the system.

Because of this complexity, effective change work needs:

- **Multiple solutions** tailored to the context rather than one-size-fits-all fixes.
- **Flexible strategies** that learn and adapt as conditions shift.
- **Resilience**—the capacity to absorb shocks, reorganise, and keep moving forward.

What makes your school or community resilient? What could make it stronger?

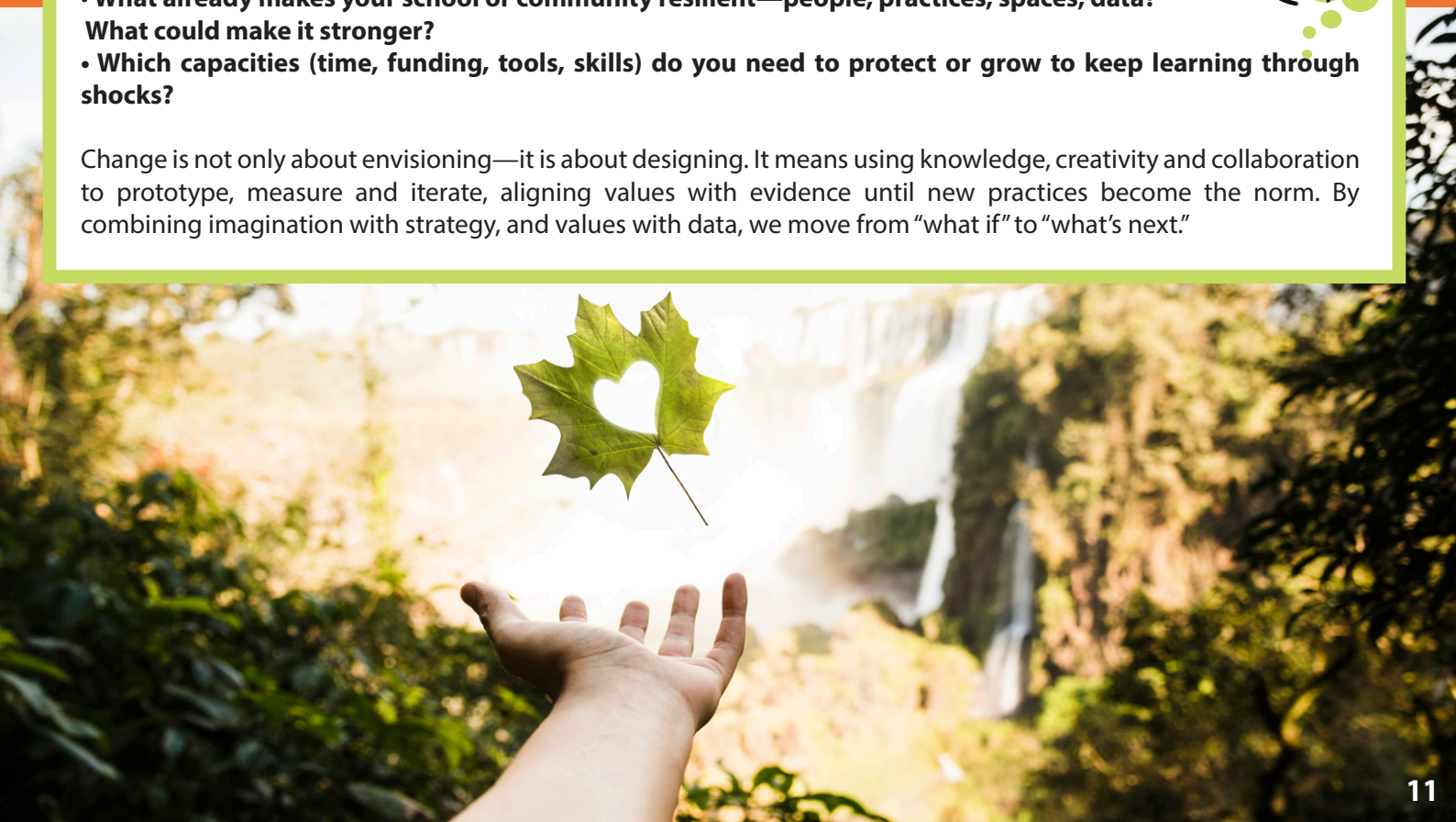
Resilient change is easier to sustain when schools intentionally build **resources for change**—time, funding, tools and human capacity—and treat improvement as a cycle of testing, evidence, reflection and iteration. It also helps to work across the ECF4CLIM Roadmap's **three competence spheres** at once:

- **Individual** (agency, skills, critical reflection),
- **Collective** (shared rules, co-governance, partnerships), and
- **Technical-material** (infrastructure, data systems, procurement).

To stay steady in uncertainty, design for **time-layers of action**: quick wins that build momentum, medium-term upgrades that embed new routines, and long-term bets that reshape how we learn and live. Planning across these **short-, medium-, and long-term horizons** turns vision into practical pathways for systemic change

- **What already makes your school or community resilient—people, practices, spaces, data? What could make it stronger?**
- **Which capacities (time, funding, tools, skills) do you need to protect or grow to keep learning through shocks?**

Change is not only about envisioning—it is about designing. It means using knowledge, creativity and collaboration to prototype, measure and iterate, aligning values with evidence until new practices become the norm. By combining imagination with strategy, and values with data, we move from "what if" to "what's next."



LIFESTYLES AND THEIR IMPACT

Some lifestyles have a profound and negative impact on sustainability. The choices we make every day—what we eat, how we travel, what we buy—can either support or undermine our vision for a better future.
Here are a few key areas where change matters:

•**Diet:** Animal agriculture is a major source of greenhouse gas emissions, deforestation, and water pollution. Shifting toward a more plant-based diet can significantly reduce your environmental footprint.

•**Transportation:** Cars and planes are major polluters. Walking, biking, or using public transport are more sustainable—and often healthier—alternatives.

•**Energy Use:** Fossil fuels are still the dominant energy source in many places. Switching to renewables like solar or wind, and reducing energy consumption, are essential steps.

•**Consumer Choices:** Every product has a footprint. Choosing items that are durable, repairable, and ethically made supports a circular economy.

•**Waste:** Reducing single-use plastics, composting, and recycling are simple but powerful ways to cut down on pollution and resource use.

Why beef is the worst food for the climate?

Avoiding high-emission foods can have a bigger climate impact than any other consumption change

PLAY VIDEO

Every day we make choices in our lives that affect the environment. The video aims to empower consumers to become better-informed and to consume sustainably.

PLAY VIDEO

IS FAST FASHION DESTROYING OUR PLANET?

There are some things we do in our daily lives that are known to harm the environment, like using too much electricity or throwing away plastic after using it once. But when it comes to clothing, we might not realize that it can also have a big impact on the environment. Fast fashion brands like H&M, Zara, and Forever 21 make clothes quickly and cheaply, but this way of producing clothes is bad for the environment. It creates a lot of waste and pollution.

PLAY VIDEO

10 EVERYDAY SUSTAINABLE LIVING SWAPS

UnSchool has partnered with the United Nations Environment Programme (UNEP) to create the Anatomy of Action, which is a set of simple and practical lifestyle swaps that anyone can adopt to live a more sustainable life. The team at UnSchool has gone through many options and selected 10 easy and relevant swaps that, if adopted by many people, can help shift the economy towards a more sustainable future

PLAY VIDEO

WHICH OF YOUR DAILY HABITS HAS THE BIGGEST ENVIRONMENTAL IMPACT?

WHAT'S ONE CHANGE YOU COULD MAKE?

Activity Box: Your Lifestyle Audit

Task: Track your habits for one week in the following areas:
•Food
•Transport
•Energy use
•Purchases
•Waste

Explore:
•What patterns do you notice?
•What surprised you?
•What's one habit you could change?

Goal: Create a personal sustainability pledge. Share it with your class and revisit it in a month.

Tip: Use the **ECF4CLIM Footprint** calculator to help you on the way!

The Anthropocene reminds us that we are not just passengers on this planet—we are drivers. Our choices shape the future, not just for ourselves, but for generations to come.
Envisioning sustainable futures means imagining what's possible, understanding what's at stake, and committing to action. It means aligning our values with our behaviors, and our dreams with our decisions.

CIRCULAR ECONOMY: RETHINKING PROGRESS

To build a sustainable future, we must move beyond the traditional "take-make-dispose" model of consumption. The circular economy offers a new way forward—one that designs waste out of the system, keeps materials in use, and regenerates natural systems.
A circular economy is not just about recycling. It's about reimagining how we design, produce, and use everything—from food and fashion to buildings and electronics.

Re-Thinking Progress' explores how, through a change in perspective, we can redesign the way our economy works - designing products that can be 'made to be made again' and powering the system with renewable energy. It questions whether, with creativity and innovation, we can build a restorative economy.

PLAY VIDEO

CORE CONCEPTS OF THE CIRCULAR ECONOMY

•Resource Efficiency:
Use fewer raw materials and extract more value from what we already have. This means designing products that last longer, are easier to repair, and can be reused or remanufactured.

•Closed Loops:
Instead of throwing things away, we keep materials circulating in the economy. This includes composting food waste, recycling metals, and designing packaging that can be reused.

•Regenerative Systems:
Go beyond sustainability to regeneration—restoring ecosystems, rebuilding soil health, and enhancing biodiversity.

•Collaborative Governance:
Involve everyone—governments, businesses, communities, and individuals—in designing and managing circular systems.

•Business Model Innovation:
Shift from ownership to access.
Think product-as-a-service, sharing platforms, and take-back schemes.

•Social Innovation:
Create new ways of living and working that support circular values—like repair cafés, tool libraries, and community composting.

•Digital Technologies:
Use tools like blockchain, IoT, and data analytics to track materials, optimise resource flows, and support transparency.

MORE THAN JUST SDG 12

While the circular economy directly supports Sustainable Development Goal 12 (Responsible Consumption and Production), its benefits ripple across many other goals:

•**SDG 13:** Climate Action—by reducing emissions from production and waste

•**SDG 6:** Clean Water—by minimizing pollution and improving water efficiency

•**SDG 8:** Decent Work—by creating green jobs in repair, remanufacturing, and recycling

•**SDG 11:** Sustainable Cities—by designing urban systems that are efficient, clean, and inclusive

What would your school look like if it were designed as a circular system?

Activity Box: Design a Circular School

Task: Use the ECF4CLIM environmental tools to assess one area of your school (e.g., waste, energy, food systems)

Explore:
•What are the current practices?
•Where are the biggest inefficiencies or waste points?
•What circular strategies could be introduced?

Goal: Create a proposal for a circular redesign of that system. Include data from the tools, a timeline, and a plan for engaging the school community.

Are you ready for the challenge?

By combining the vision of a circular economy with the practical support of ECF4CLIM tools, schools can become living laboratories for sustainability—places where students don't just learn about the future, but help build it.

CONSTRAINTS AND ENABLERS OF CHANGE

READING VISIONING THROUGH THE LENS OF CHANGE

Creating a shared vision for a sustainable future is rarely straightforward. It often challenges routines, assumptions, incentives, and power structures. These tensions are not signs of failure—they are signs that transformation is underway and the beginning of meaningful change. This Roadmap area helps us understand that visioning is not a one-off event, but a dynamic, iterative process that prepares the ground for real transformation and, ultimately, for ACTION.

INDIVIDUAL COMPETENCES

Constraints:

- A lack of understanding of why visioning matters can lead to disengagement or passive participation.
- Individuals may feel creatively blocked or unsure how to imagine alternatives, especially when faced with uncertainty.
- Resistance to creative or unfamiliar practices can limit participation and innovation.
- People may not recognise their personal role or agency in shaping the future, leading to a sense of powerlessness.

Enablers:

- Strengthening intra- and interpersonal competences—such as empathy, reflection, and communication—can unlock new ways of thinking and acting.
- Embracing the idea that "the future is in our common hands" fosters a sense of shared responsibility and agency.
- Encouraging creative thinking through art, storytelling, design, and scenario planning makes visioning more accessible and engaging.
- A willingness to act, experiment, and learn from small-scale pilots builds momentum and confidence, turning vision into practical steps for change.

COLLECTIVE COMPETENCES

Constraints:

- Without a structured, inclusive process, collective visioning may not happen at all, or may fail to gain traction.
- A culture of blame, indifference, or fear can stifle innovation, collaboration, and risk-taking.
- Emotional aspects—such as eco-anxiety, grief, or fatigue—are often overlooked, even though they deeply affect motivation and engagement.
- Many curricula and institutional routines still lack space for imagining sustainable futures and planning for change.

Enablers:

- A collective visioning process led by school leadership or community facilitators can create structure, continuity, and shared purpose.
- Making room for emotions and creativity helps people connect personally to the future and to each other.
- A positive, caring atmosphere and a strong sense of community support engagement and resilience.
- Focusing on sustainable wellbeing—not just environmental metrics—makes the vision more holistic, human-centred, and motivating.
- Establishing feedback rituals and evidence-based reflection (such as regular reviews, show-and-tell sessions, or scenario workshops) turns visioning into a living, adaptive process.

TECHNICAL-MATERIAL COMPETENCES

Constraints:

- Limited financial or material resources can make it difficult to implement new ideas or sustain momentum.
- Outdated or inadequate infrastructure may restrict what is possible, and procurement practices may lock in unsustainable routines.
- A lack of knowledge about circular economy principles or innovative solutions can prevent action and limit ambition.

Enablers:

- Innovations—from green technologies to social enterprises—can unlock fresh possibilities and inspire action.
- Adaptable equipment, modular systems, and flexible spaces make it easier to evolve over time and respond to changing needs.
- Access to knowledge about high-impact strategies, practical playbooks, and real-world exemplars helps schools and communities focus their efforts where they matter most.
- Simple monitoring tools and evidence routines support learning, scaling, and continuous improvement.

Change is not just about imagining possibilities—it is about challenging the present reality, noticing the friction between what is and what could be, and using that tension as fuel for transformation. The Roadmap emphasises that change becomes a powerful force when individuals feel empowered, communities come together, and systems are designed to support innovation and learning.

NOW THAT WE HAVE EXPLORED THE AREA OF CHANGE, IT IS TIME TO MAKE IT REAL.

LET'S MOVE TO THE LAST ECF4CLIM AREA:
ACTION – MAKING TRANSFORMATION HAPPEN.

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