

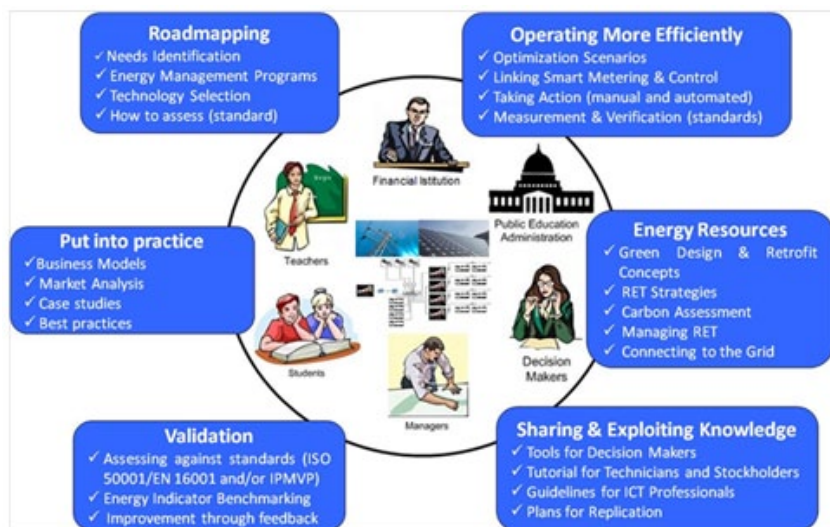
Energy Management is a key factor for accelerating the process of moving towards a low-carbon economy with near-zero or energy-positive buildings. In this context, the **subset of schools** is an *opportunity* for the Community, because buildings produce a huge impact: more than 22% of European's population goes to school every day, with more than 107 million students and more than 3 million faculty, staff and administrators, and public expenditure equivalent to 4.9 % of GDP (compared with 7.2 % for healthcare).

In schools, much of our time is spent and schools interest everyone: they are organized and they offer high replication potential, they give rise to knowledge, they train the future managers and next generations, they create awareness, they tax our resources, they contribute to global warming.

But, **Energy Management in school** building domain is still a *concern*, since European building stocks are rather ancient and schools are built to simply meet codes. School buildings mostly belong to State's property and Public Administrations. As averaged conditions, they have poor HVAC and lighting systems and they requires expensive maintenance.

VERYSchool is a result-oriented project focused on Pilot demonstration and validation actions, with the **Energy Action Navigator (EAN)** at the core of its development. **EAN** is a decision-making tool, integrating hardware and software mature technologies (i.e. already in the market), with the main objective to drive the whole chain of *Stakeholders* in the definition of an **Energy Management Programme** according to **ISO 50001** International Standard and *Users* in the execution of an effective **Energy Management System** for schools, both at local (building context) and territorial levels.

EAN is a roadmap on how to bring ICT solutions, with cutting edge technologies and action management, that match the specific needs of schools.



VERYSchool's methodology is a step forward in facilitating the implementation and practical assessment of norms and regulations (EPBD and Country restrictive norms). Policymakers and stockholders will accelerate the process of **Energy Performance Assessments** on how to identify action management for energy efficiency measures in schools, while students and teachers would be encouraged to get involved through educational programmes and "innovation deployment".

Consortium Partner



Consortium EU-Dimension



VERYSchool Pilot Sites



Contact

Alfio Galatà
agalata@aess-modena.it
 Project Management & Development

VERYSchool addresses a fundamental understanding of ISO 50001 international standard and a business process template for systematic **EMP**, specifying the requirements for establishing, implementing, maintaining and improving an **EnMS** in the form of a more efficient and sustainable energy.

Actors involved with schools energy management have different roles and responsibilities within the local hierarchy and decision-making processes.

The Energy Action Navigator:

drives all Users to answer questions such as:

- “How can I save more energy at my school?”
- “How do I get everybody working together on energy?”
- “How do I establish an “ISO 50001 way-of-working” for my school?”

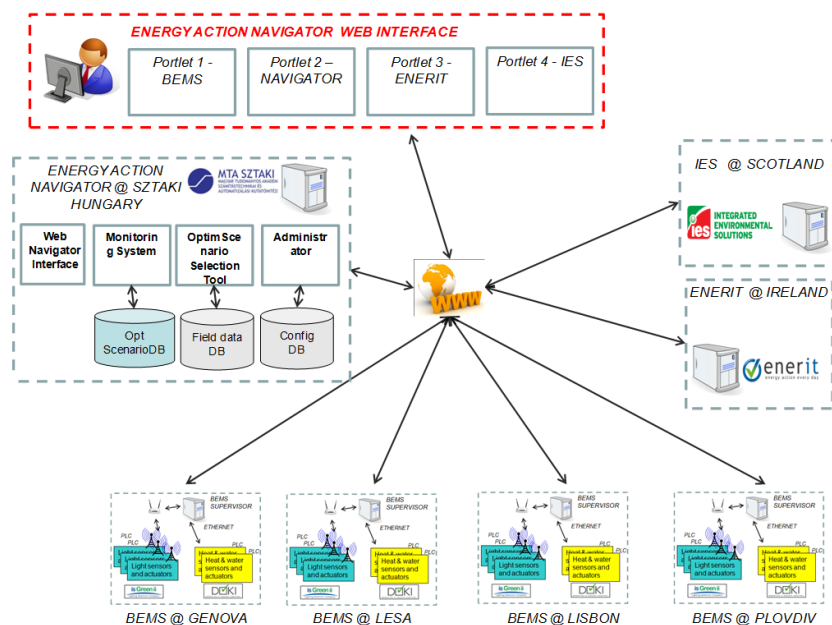
provide guide and governance, to get:

- starting to organise an energy management program,
- knowing how to operate on the current scenario,
- semi-automated and self-auditing web based tool with many actions to act upon,
- real-time indications for implementing action management and optimized scenarios, distinguishing the effective measures from the not-effective ones.

makes available tools and communication mechanisms, with the ability to:

- assign tasks and to track them
- provide feedback on actions complete and suggestions
- create alerts of problems and organize fast-time response interventions
- take reminders of action past due
- share data for decision making, program assessment, and incentives
- override or to adjust settings and optimisation strategies
- request feedback about any certain aspect

Integrated concept and level of services



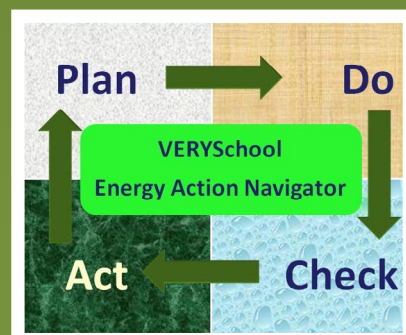
Education and Awareness Campaigns and a **Value Action Plan** will facilitate the use of **VERYSchool** as a model for implementing smart energy management solutions and mature and consolidated innovative ICT components for the European School environment: buildings, technologies, management, people, decision-making, business cases, learning.

Energy Management System (EnMS)



EAN performances in **VERYSchool** will be based on the Deming cycle **PDCA** (**Plan** > **Do** > **Check** > **Act**) for ongoing improvement. PDCA is utilised in **VERYSchool** as a term and overarching methodology, to:

- review the results,
- allocate new goals for overwhelming those originally planned.



MANAGERIAL

- Plan:**
- Policy/Goal/Targets
 - Resources
- Do:**
- Training
 - Communication
 - Control equipment systems & processes
- Check:**
- Corrective/Preventive actions
 - Internal audit
- Act:**
- Managerial review

TECHNICAL

- Plan:**
- Energy Data Management
 - Assessments
- Do:**
- Energy sources
 - Automated control
 - Action Management
 - Verifications
- Check:**
- Monitoring
 - Significant Energy Uses
 - Benchmarks & Indicators
- Act:**
- System Performances
 - Saving Opportunities