



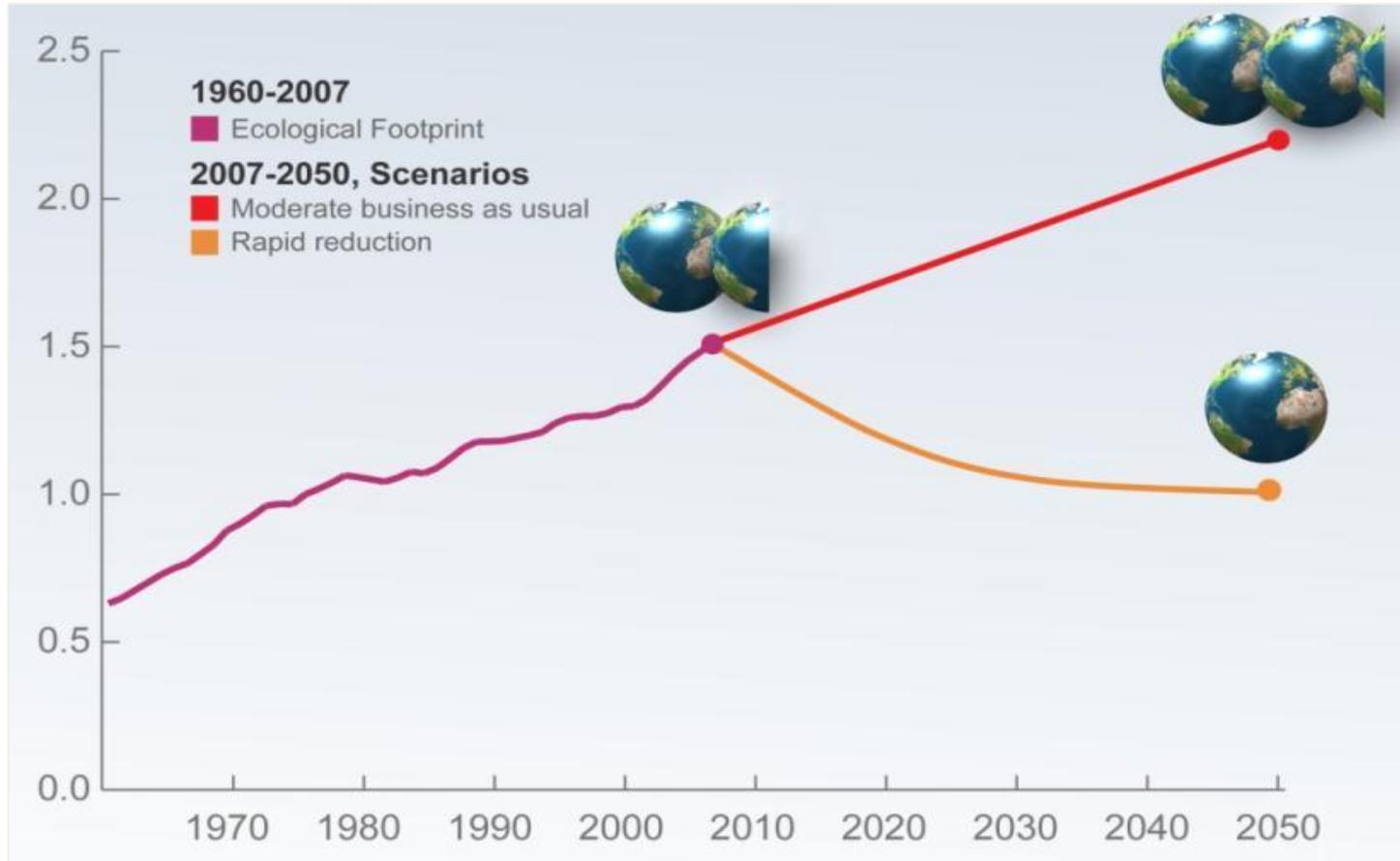
IL PROTOCOLLO ENVISION

Ing. Ugo Pannuti

Responsabile Settore Sostenibilità - ICMQ

**L'EOLICO MISURA LA SUA SOSTENIBILITÀ
Parco Eolico Alto Vastese (IR3 e IR4)
26 maggio 2021**

Consumo delle risorse



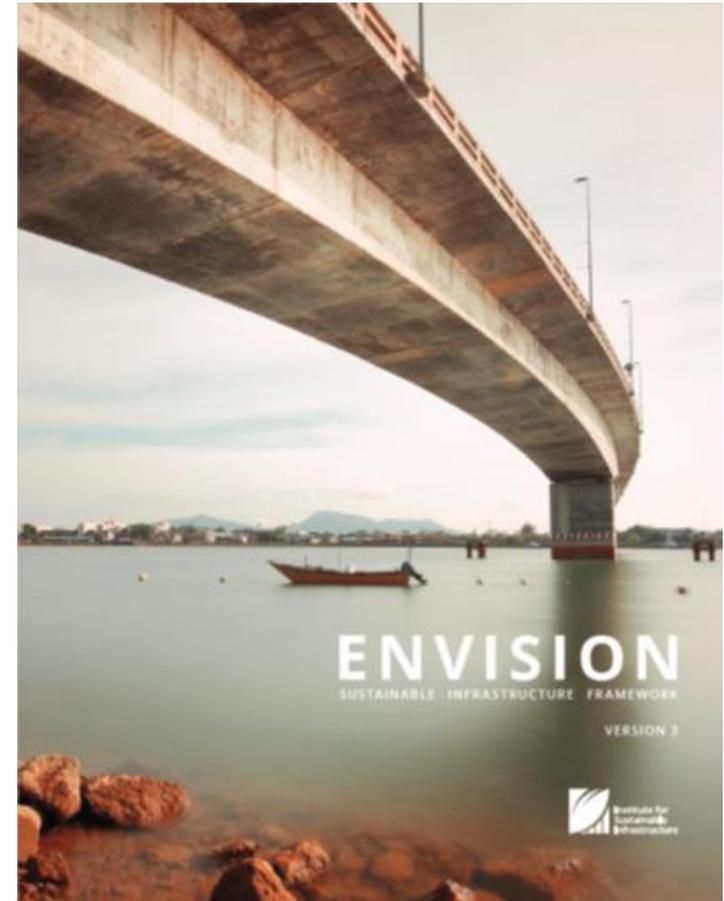
L'attuale trend porterà ad un consumo di risorse doppie rispetto a quelle disponibili. La sostenibilità ambientale deve estendersi a tutti gli elementi del costruito. Bisogna pensare globalmente

Sistema di certificazione Envision™



La collaborazione tra ISI ed il “Program for Sustainable Infrastructure” dell’Università di Harvard ha sviluppato il sistema di certificazione per infrastrutture Envision™.

Il sistema è stato progettato per essere applicato a tutti i tipi di infrastrutture.



La sostenibilità degli edifici in Italia

- Nel **2009**, con GBC Italia è iniziato l'utilizzo di Leed per gli edifici
- Ora ci sono **731 progetti tra registrati e certificati**
- In Italia è ora presente una buona **conoscenza della sostenibilità per gli edifici**
- Ci sono circa 230 Leed AP e Leed GA
- Iniziamo anche con le **infrastrutture**: oltre **200 ENV SP**

Grafico 2 – Numero di progetti LEED registrati in Italia suddiviso per anni

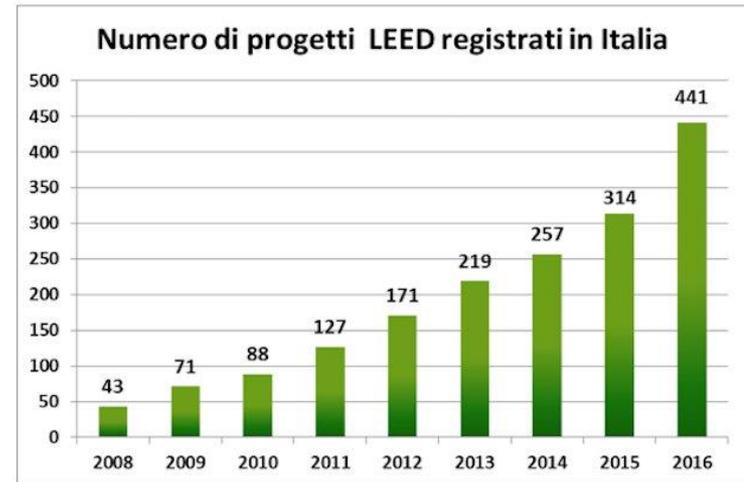
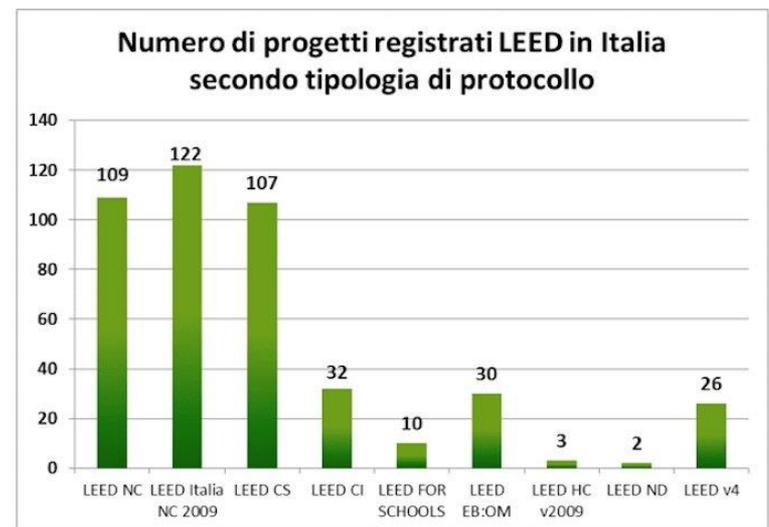


Grafico 1 - Numero di progetti LEED secondo la famiglia di protocollo



Parallelismo: Envision e LEED



Tutti i tipi di **infrastrutture**

Focus su **integrazione e convenienza**

Edifici e opere annesse

Focus su **Performance**

Le infrastrutture sono caratterizzate da risorse e vincoli di molteplici enti e stakeholders, con diversi obiettivi, esigenze e fondi.

Envision valuta la sostenibilità dell'infrastruttura dell'ambiente dal punto di vista sociale (comunità), economico (efficienza) e ambientale (ecosistema).

Alla domanda:

STIAMO FACENDO IL PROGETTO BENE?

Si aggiunge:

STIAMO FACENDO IL PROGETTO GIUSTO?

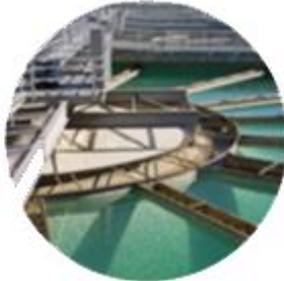


Quali tipi di infrastrutture?



ENERGIA

- Geotermico
- Idroelettrico
- Nucleare
- Carbone
- Gas Naturale
- Petrolio
- Eolico
- Solare
- Biomasse



ACQUA

- Distribuzione Acqua Potabile
- Raccolta e Conservazione
- Riutilizzo
- Trattamento Acque meteoriche
- Controllo Inondazioni



RIFIUTI

- Rifiuti Solidi
- Riciclo
- Rifiuti Pericolosi
- Raccolta e Gestione



TRASPORTI

- Aeroporti
- Strade
- Autostrade
- Mobilità Dolce
- Ferrovie
- Trasporto Pubblico
- Porti
- Canali



PAESAGGIO

- Public Realm
- Parchi
- Servizi Ecosistemici

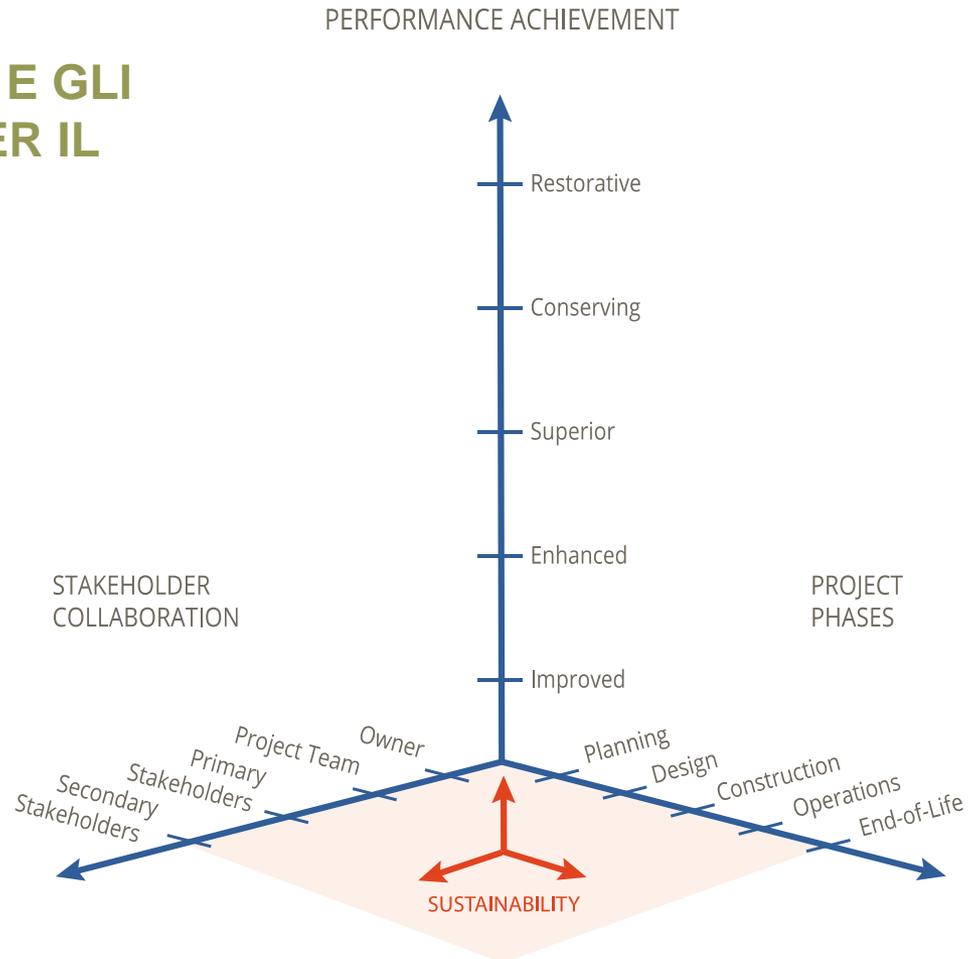


INFORMAZIONE

- Telecomunicazioni
- Internet
- Satelliti
- Centri dati
- Stazioni di monitoraggio

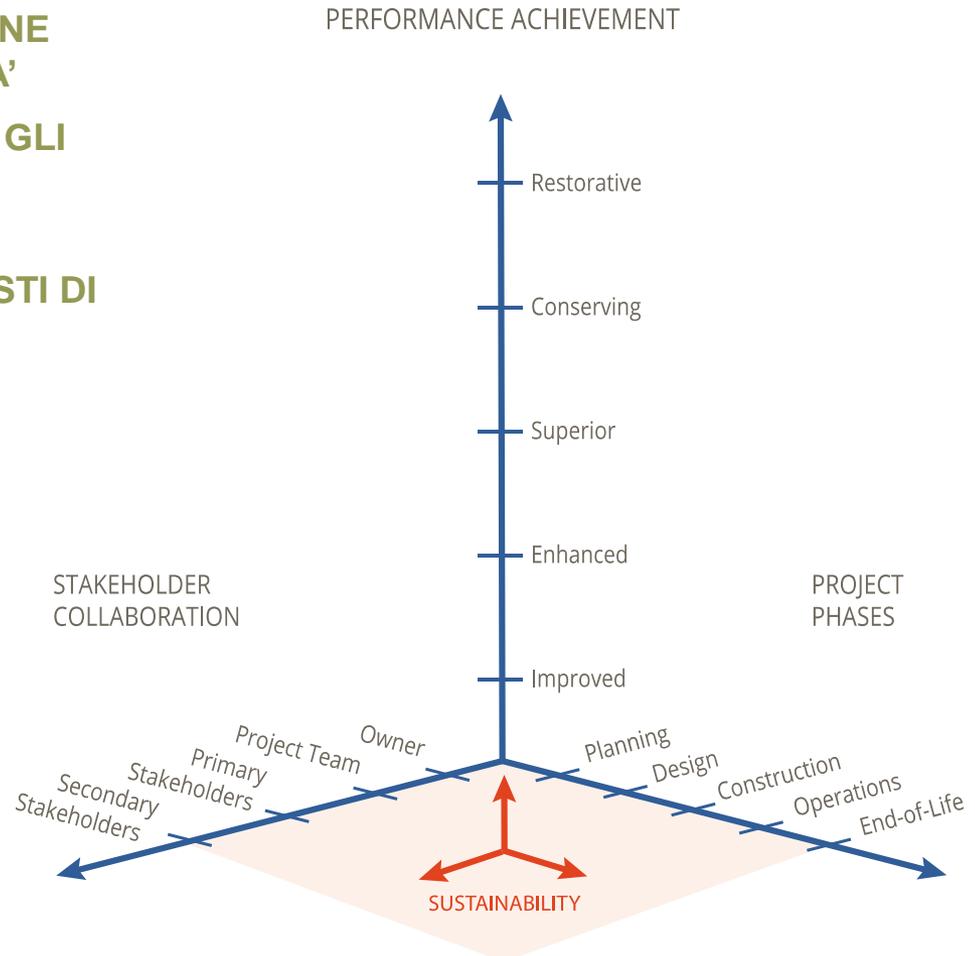
Obiettivi di Envision

- **AUMENTARE LE OPPORTUNITA' E GLI OBIETTIVI DA CONSIDERARE PER IL MIGLIORAMENTO DELLE PERFORMANCE**
- **ESTENDERE LA VITA UTILE DEL PROGETTO**
- **VALUTARE GLI IMPATTI DEI CAMBIAMENTI CLIMATICI E DEL CONTORNO**
- **FOCUS SU CONVENIENZA E INTEGRAZIONE NEL SISTEMA INFRASTRUTTURALE**
- **PREMIARE L'INNOVAZIONE**



Vantaggi di Envision per il progetto

- **INDIRIZZA IL PROGETTO VERSO UNA GESTIONE PIANIFICATA E CONSENTE UNA VALIDAZIONE TERZA DEL CONTENUTO DI SOSTENIBILITA'**
- **ENFATIZZA E CONSENTE DI VALORIZZARE GLI ASPETTI DI GESTIONE E MANUTENZIONE DELL'INFRASTRUTTURA**
- **CONSENTE UN EFFICIENTAMENTO DEI COSTI DI GESTIONE DELL'INFRASTRUTTURA**
- **ANTICIPA E STRUTTURA IL DIALOGO CON IL TERRITORIO E GLI STAKEHOLDERS E CHIARISCE I RUOLI OPERATIVI**
- **PREDISPONE ALL'INNOVAZIONE**



I Benefici

Fornisce obiettivi e soluzioni circa la sostenibilità del progetto nei confronti di:

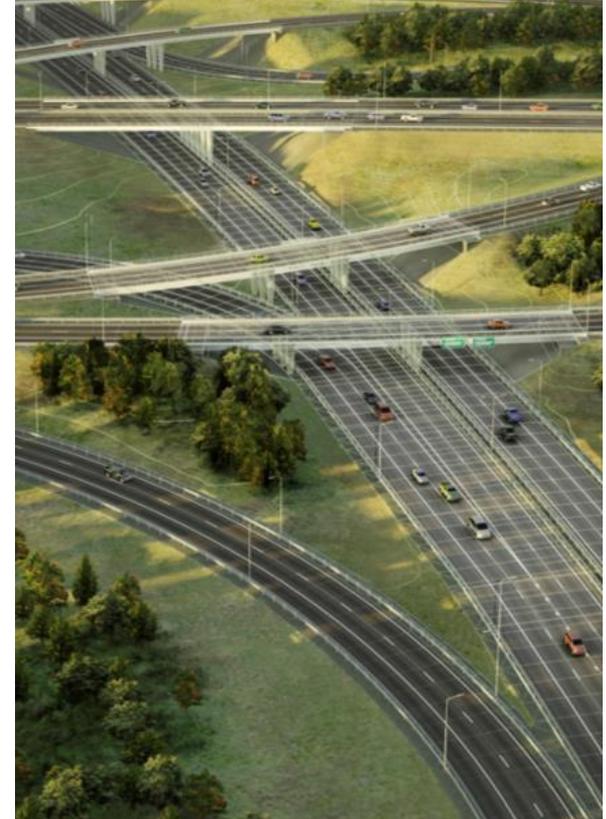
- **Benessere della comunità**
- **Uso delle risorse e dell'energia**
- **Impatto sull'ambiente e sul mondo naturale**
- **Clima e rischi connessi ai cambiamenti climatici**

Favorisce il coinvolgimento degli stakeholder

Giustifica e struttura il decision-making

Permette un migliore controllo e trasparenza delle fasi operative e riduce i tempi di 'accettazione' dell'impatto

Favorisce l'informazione e il consenso dell'opinione pubblica



I Crediti di Envision



Quality Of Life
14 Credits



Leadership
12 Credits



Resource Allocation
14 Credits



Natural World
14 Credits



Climate and Resilience
10 Credits

WELLBEING

- QL1.1 Improve Community Quality of Life
- QL1.2 Enhance Public Health & Safety
- QL1.3 Improve Construction Safety
- QL1.4 Minimize Noise & Vibration
- QL1.5 Minimize Light Pollution
- QL1.6 Minimize Construction Impacts

MOBILITY

- QL2.1 Improve Community Mobility & Access
- QL2.2 Encourage Sustainable Transportation
- QL2.3 Improve Access & Wayfinding

COMMUNITY

- QL2.1 Advance Equity & Social Justice
- QL2.2 Preserve Historic & Cultural Resources
- QL2.3 Enhance Views & Local Character
- QL2.4 Enhance Public Space & Amenities

QL0.0 Innovate or Exceed Credit Requirements

COLLABORATION

- LD1.1 Provide Effective Leadership & Commitment
- LD1.2 Foster Collaboration & Teamwork
- LD1.3 Provide for Stakeholder Involvement
- LD1.4 Pursue Byproduct Synergies

PLANNING

- LD2.1 Establish a Sustainability Management Plan
- LD2.2 Plan for Sustainable Communities
- LD2.3 Plan for Long-Term Monitoring & Maintenance
- LD2.4 Plan for End-of-Life

ECONOMY

- LD3.1 Stimulate Economic Prosperity & Development
- LD3.2 Develop Local Skills & Capabilities
- LD3.3 Conduct a Life-Cycle Economic Evaluation
- LD0.0 Innovate or Exceed Credit Requirements

MATERIALS

- RA1.1 Support Sustainable Procurement Practices
- RA1.2 Use Recycled Materials
- RA1.3 Reduce Operational Waste
- RA1.4 Reduce Construction Waste
- RA1.5 Balance Earthwork On Site

ENERGY

- RA2.1 Reduce Operational Energy Consumption
- RA2.2 Reduce Construction Energy Consumption
- RA2.3 Use Renewable Energy
- RA2.4 Commission & Monitor Energy Systems

WATER

- RA3.1 Preserve Water Resources
- RA3.2 Reduce Operational Water Consumption
- RA3.3 Reduce Construction Water Consumption
- RA3.4 Monitor Water Systems

RA0.0 Innovate or Exceed Credit Requirements

SITING

- NW1.1 Preserve Sites of High Ecological Value
- NW1.2 Provide Wetland & Surface Water Buffers
- NW1.3 Preserve Prime Farmland
- NW1.4 Preserve Undeveloped Land

CONSERVATION

- NW2.1 Reclaim Brownfields
- NW2.2 Manage Stormwater
- NW2.3 Reduce Pesticide & Fertilizer Impacts
- NW2.4 Protect Surface & Groundwater Quality

ECOLOGY

- NW3.1 Enhance Functional Habitats
- NW3.2 Enhance Wetland & Surface Water Functions
- NW3.3 Maintain Floodplain Functions
- NW3.4 Control Invasive Species
- NW3.5 Protect Soil Health

NW0.0 Innovate or Exceed Credit Requirements

EMISSIONS

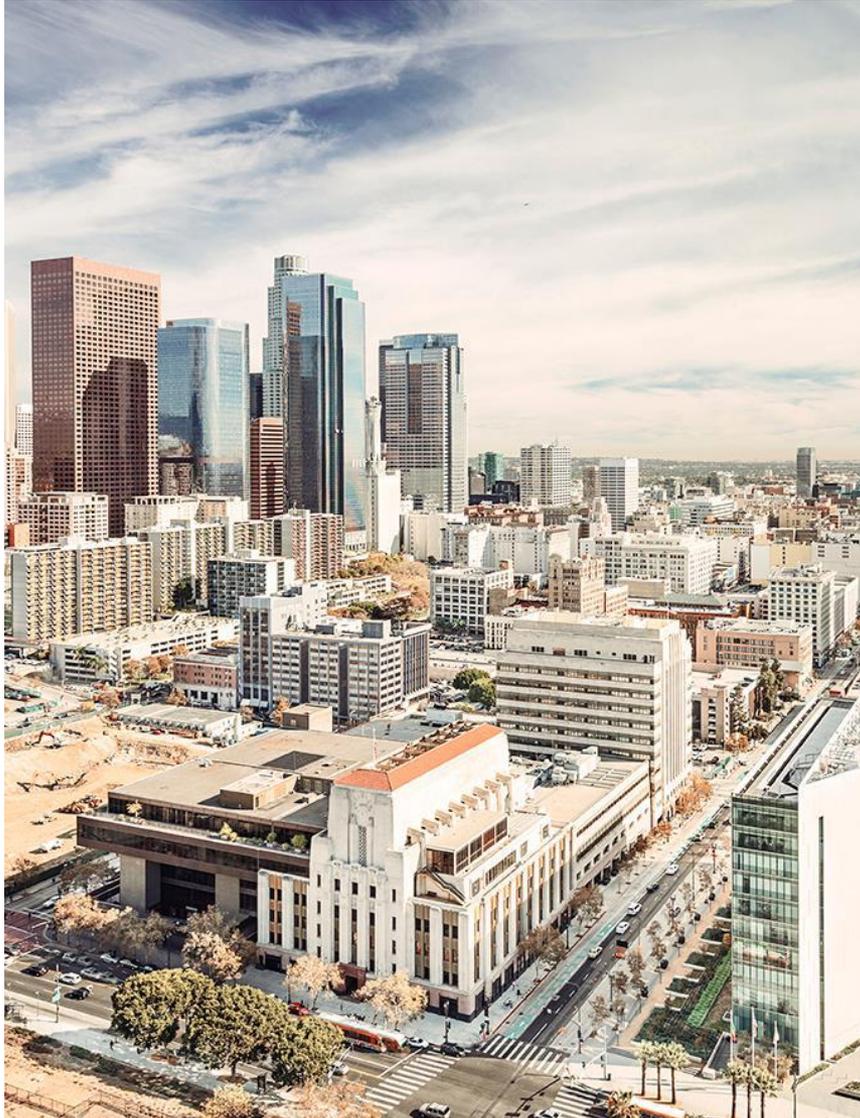
- CR1.1 Reduce Net Embodied Carbon
- CR1.2 Reduce Greenhouse Gas Emissions
- CR1.3 Reduce Air Pollutant Emissions

RESILIENCE

- CR2.1 Avoid Unsuitable Development
- CR2.2 Assess Climate Change Vulnerability
- CR2.3 Evaluate Risk & Resilience
- CR2.4 Establish Resilience Goals and Strategies
- CR2.5 Maximize Resilience
- CR2.6 Improve Infrastructure Integration

CR0.0 Innovate or Exceed Credit Requirements

QUALITY OF LIFE



Wellbeing

Mobility

Community

- Migliorare la crescita e lo sviluppo sostenibile delle comunità e degli aspetti funzionali correlati
- Migliorare il benessere e le modalità di trasporto alternative
- Preservare le risorse storiche, culturali, naturali
- Allineamento con gli obiettivi degli stakeholder e della comunità

LEADERSHIP



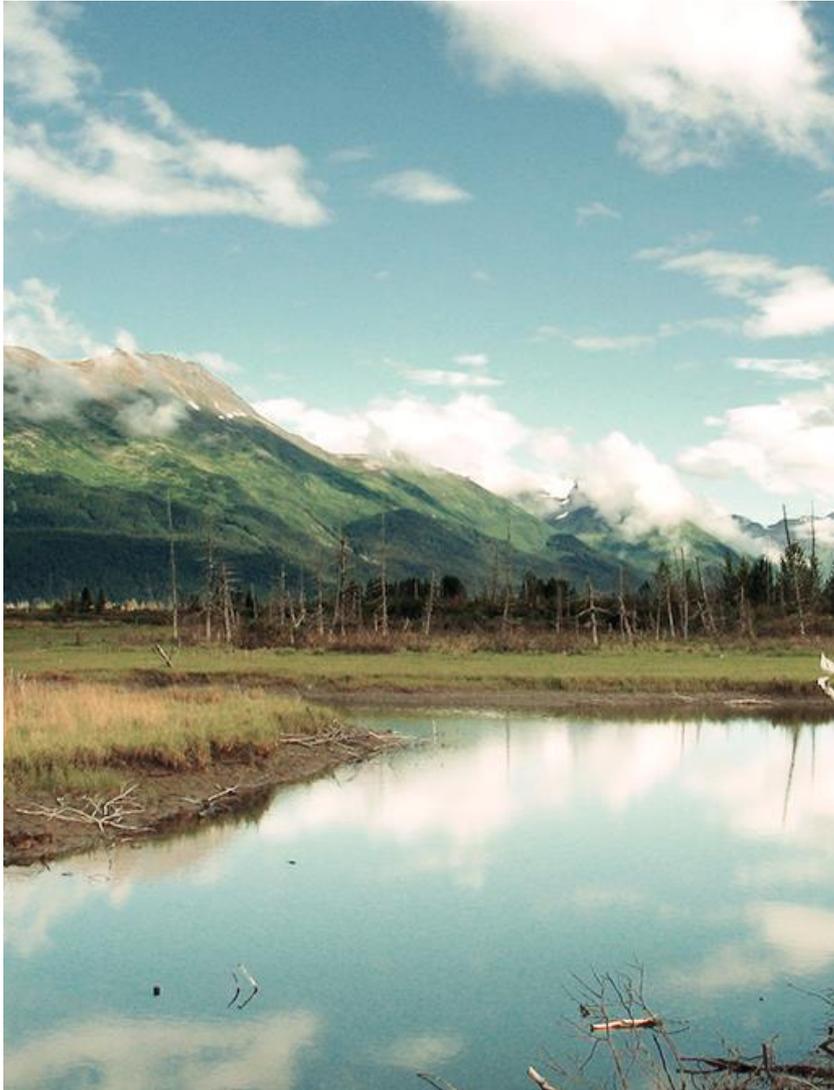
Collaboration

Planning

Economy

- Garantire un impegno significativo e la collaborazione tra committente e team di progetto
- Definire e implementare meccanismi e processi di gestione della sostenibilità
- Effettuare piani di monitoraggio a lungo termine ed estendere la vita utile dell'infrastruttura

RESOURCE ALLOCATION



Materials

Energy

Water

- Ridurre l'uso e l'intensità delle risorse e minimizzare i rifiuti
- Ridurre i consumi energetici e utilizzare fonti rinnovabili
- Ridurre i consumi idrici e preservare le fonti potabili
- Monitorare le prestazioni dei sistemi

NATURAL WORLD



Siting

Conservation

Ecology

- Proteggere i siti e gli habitat ad alto valore ecologico/ambientale/faunistico/agricolo
- Preservare la biodiversità e gli ecosistemi
- Preservare, mantenere e rigenerare i corpi idrici superficiali e sotterranei

CLIMATE & RESILIENCE



Emissions

Resilience

- Ridurre le emissioni dannose e minimizzare gli impatti futuri durante tutta la vita utile dell'infrastruttura
- Progettare infrastrutture resilienti e in grado di adattarsi ai cambiamenti a breve e a lungo termine
- Valutare i rischi e le vulnerabilità e definire delle strategie per la resilienza

La struttura del Protocollo Envision



QUALITY OF LIFE: WELLBEING

QL1.1 Improve Community Quality of Life

26
POINTS

INTENT

Improve the net quality of life of all communities affected by the project and mitigate negative impacts to communities.

METRIC

Measures taken to assess community needs and improve quality of life while minimizing negative impacts.

LEVELS OF ACHIEVEMENT

IMPROVED	ENHANCED	SUPERIOR	CONSERVING	RESTORATIVE
A + B	A + B + C + D	A + B + C + D + E	A + B + C + D + E + F	A + B + C + D + E + F + G
(2) Community Considerations	(5) Community Linkages	(10) Broad Community Alignment	(20) Holistic Assessment & Collaboration	(26) Protecting The Future
<p>(A) The project team identifies and takes into account community needs, goals, and issues. For example, the project team has located and reviewed the most recent community planning information and assessed relevant community needs, goals, and/or issues.</p> <p>(B) The project meets or supports community needs and/or goals.</p> <p>(C) The project assesses the social impacts it will have on the host and affected communities' quality of life.</p> <p>(D) The affected communities are meaningfully engaged in identifying how the project supports community needs and/or goals.</p> <p>(E) Based on the social assessment, potential negative impacts on the host or nearby affected communities are mitigated following a hierarchy that prioritizes avoidance, minimization, restoration, and offsetting.</p> <p>(F) Community satisfaction is demonstrated by feedback from the stakeholder engagement process verifying actions taken in criteria A, B, C, and D.</p> <p>(G) The project proactively addresses trends in changing social, economic, and/or environmental conditions within the community in order to ensure a high quality of life over the long term.</p>				

DESCRIPTION

This credit addresses the extent to which a project contributes to the quality of life of the host and affected communities. As this can be subjective, the credit criteria address how well the project team has identified, assessed, and incorporated community needs, goals, and issues into the project. Relevant community plans are assumed to be a viable expression of those needs, goals, objectives, and aspirations. In a real sense, they are the community's desired quality of life.

Unfortunately, infrastructure projects are often perceived as having negative impacts on communities. This "not in my back yard" (NIMBY) mentality can be addressed through active engagement and the proper alignment of projects with community needs, goals, and issues. Community support and engagement are critical to ensure the appropriate and effective investment of resources in infrastructure. Project teams and owners should consider how aligning the project

with community goals reduces the risk of community conflicts that disrupt project delivery and increase cost.

PERFORMANCE IMPROVEMENT

Improved: The project team can demonstrate an understanding of the community needs, goals, and issues, and communicate how the project meets or supports those goals.

Enhanced: Communication and interactions with community stakeholders are essential to reaffirm and improve the project objectives. The project team works closely with community stakeholders to identify and assess potential social impacts. Social impacts include the intended and unintended social consequences, both positive and negative, of infrastructure projects and any social changes initiated by those projects.

Superior: Infrastructure projects often include difficult trade-offs involving positive and negative impacts, and a project designed to benefit one community may have adverse effects on others. In addition, the needs of a community may conflict with their expressed goals. Because positive impacts in all dimensions of performance may not be possible, the credit seeks a net positive impact. Importantly, the project benefits and impacts should be equitably distributed throughout the host and affected communities.

Conserving: Community satisfaction is the metric for quality of life. It should be evident that the community truly understands the full impact (positive and negative) of the project and is satisfied that it addresses their needs and goals while appropriately mitigating negative impacts. Documentation of community endorsement should be as broad as possible and specific to the requested documentation.

Restorative: The project team proactively identifies instances where long-term trends in socioeconomic or environmental conditions may undermine existing community aspirations and addresses them in the project.

Applicability: It is likely that all projects have the ability to align project objectives with community needs and goals, identified through active engagement, in order to achieve broad community satisfaction. It would therefore be difficult to demonstrate that the credit is not relevant or applicable to a project seeking an Envision award.

EVALUATION CRITERIA AND DOCUMENTATION GUIDANCE

A. Has the project team identified and taken into account community needs, goals, and issues?

1. Documentation that the project team has located and reviewed the most recent community planning information and assessed relevant community needs, goals, and/or issues. For example, meeting minutes with key stakeholders, community leaders, and decision makers; letters; and memoranda.

B. Does the project meet or support the needs and goals of the host and/or affected communities?

1. Evidence showing a comparison of the project vision and goals to the needs, goals, and/or issues of the community.

C. Has the project team assessed the social impacts the project will have on the host and affected communities' quality of life?

1. Assessing, identifying and evaluating the positive and negative social impacts of the project on affected communities' quality of life (e.g., a social impact assessment). Expectations for the depth and breadth of documentation are commensurate with the scale of the project and its impact on the broader community. Informal assessments are acceptable for small projects, provided that project teams present evidence supporting their conclusions.

D. Have the affected communities been meaningfully engaged in identifying how the project meets community needs and/or goals?

1. Documentation of processes for collecting, evaluating, and incorporating community input into the planning and design process (e.g., meetings, design charrettes, and communications with representatives of affected communities).

E. Has the project team addressed negative social impacts?

1. Evidence showing the extent to which options for mitigating negative impacts were identified and prioritized, and reasonable changes to the project made. Strategies for mitigating negative impacts should follow a hierarchy prioritizing avoidance, minimization, restoration, and offsetting.

F. Are the affected communities satisfied that the project addresses their needs and goals as well as mitigates negative impacts?

1. Acknowledgments and endorsements by the community that the design participation process was helpful and that their input was appropriately assessed and incorporated into project design.

2. Documentation of input and agreement from key stakeholders, community leaders, and/or decision makers regarding the impact assessment and planned action(s) (e.g., community satisfaction surveys, interviews with representatives of affected communities, comments and reactions from social media platforms). Specific statements about critical issues or actions taken within the project are better indicators of a true understanding of the project's impacts than general endorsements of the project as a whole. Evidence of community satisfaction and endorsement of plans includes:

- Community endorsement of the project team's assessment of their needs or goals per criterion A.
- Community endorsement that the project as proposed will address their needs or goals per criterion B.
- Documentation that the community understands and accepts potential impacts of the project per criterion C.
- Community endorsement of project strategies to mitigate negative impacts per criterion D.

G. Does the project proactively address long-term social, economic, or environmental changes that impact quality of life?

1. Documentation of long-term social, economic, or environmental changes/trends that may impact community goals and needs over time (e.g., aging population, economic transitions, or the degradation of the environment and ecosystem services). Note that social, economic, and environmental shifts are often connected. The degradation of the environment in a coastal community dependent on tourism and fishing negatively impacts the economy, which can lead to social impacts such as shrinking population. Consequently, the quality of life of the community is put at risk.

2. Documentation demonstrating how the project will proactively address one or more of these changes/trends.

3. Documentation demonstrating how the project represents a smart long-term investment for the community's future.

RELATED ENVISION CREDITS

QL1.2 Enhance Public Health & Safety

QL2.3 Improve Access & Wayfinding

LD1.3 Provide for Stakeholder Involvement

LD2.2 Plan for Sustainable Communities

LD3.1 Stimulate Economic Prosperity & Development

CR2.5 Maximize Resilience

La struttura del Protocollo Envision

Numero e titolo del credito



QUALITY OF LIFE: WELLBEING

QL1.2 Enhance Public Health and Safety

20

POINTS

INTENT

Protect and enhance community health and safety during operation.

METRIC

Measures taken to increase safety and provide health benefits on the project site, surrounding sites, and the broader community in a just and equitable manner.

Punti totali possibili

Scopo del credito

Come il credito deve essere misurato

La struttura del Protocollo Envision

Titolo e punteggio relativo

LEVELS OF ACHIEVEMENT

IMPROVED	ENHANCED	SUPERIOR	CONSERVING	RESTORATIVE
A	A + B	A + B + C	A + B + C + D	A + B + C + D + E
(4) Sustainability Indicators	(6) Alternative Analysis	(9) Sustainability Assessment	(12) Sustainable Planning	(16) More Sustainable Communities

(A) Sustainability indicators or outcomes are considered in project selection/identification and planning.

(B) Sustainable performance is included in alternative analyses during project identification. Alternatives include the sustainability of a “no-build” option.

(C) During project identification, the project’s potential impact to broader external systems is assessed, such as growth patterns, congestion, energy and water demand/production, and how these impact the overall long-term sustainability of the community or region.

(D) The project is part of a comprehensive sustainable development plan at the level of the infrastructure system, municipality/community, or region. The project demonstrates a direct connection and contribution to achieving specific sustainable development goals identified in the plan.

(E) The project addresses an inherently unsustainable condition within the community.

Criteria di valutazione e Documentazione

Livelli di Achievement

IMPROVED



Performance un po' più che convenzionale. INCORAGGIANTE

ENHANCED



Performance di sostenibilità SULLA STRADA GIUSTA.

SUPERIOR



Performance di sostenibilità NOTEVOLE, ma non ancora *conservativa*.

CONSERVING



Performance di sostenibilità che ha raggiunto ZERO IMPATTI NEGATIVI.

RESTORATIVE



Performance di sostenibilità che RIPRISTINA i sistemi naturali, sociali ed economici.

Punteggi del Sistema di Rating

			Improved	Enhanced	Superior	Conserving	Restorative
 Quality of Life	Wellbeing	QL1.1 Improve Community Quality of Life	2	5	10	20	26
		QL1.2 Enhance Public Health & Safety	2	7	12	16	20
		QL1.3 Improve Construction Safety	2	5	10	14	—
		QL1.4 Minimize Noise & Vibration	1	3	6	10	12
		QL1.5 Minimize Light Pollution	1	3	6	10	12
		QL1.6 Minimize Construction Impacts	1	2	4	8	—
	Mobility	QL2.1 Improve Community Mobility	1	3	7	11	14
		QL2.2 Encourage Sustainable Transportation	—	5	8	12	16
		QL2.3 Improve Access & Wayfinding	1	5	9	14	—
	Community	QL3.1 Advance Equity & Social Justice	3	6	10	14	18
		QL3.2 Preserve Historic & Cultural Resources	—	2	7	12	18
		QL3.3 Enhance Views & Local Character	1	3	7	11	14
		QL3.4 Enhance Public Space & Amenities	1	3	7	11	14
							200

**PUNTEGGIO MAX PER
OGNI CATEGORIA**



**SOMMA DEI PUNTEGGI
MASSIMI PER OGNI
CREDITO**



			Improved	Enhanced	Superior	Conserving	Restorative	Maximum Points	
	Wellbeing	QL1.1 Improve Community Quality of Life	2	5	10	20	26	200	
		QL1.2 Enhance Public Health & Safety	2	7	12	16	20		
		QL1.3 Improve Construction Safety	2	5	10	14	—		
		QL1.4 Minimize Noise & Vibration	1	3	6	10	12		
		QL1.5 Minimize Light Pollution	1	3	6	10	12		
	Mobility	QL1.6 Minimize Construction Impacts	1	2	4	8	—		
		QL2.1 Improve Community Mobility	1	3	7	11	14		
		QL2.2 Encourage Sustainable Transportation	—	5	8	12	16		
		QL2.3 Improve Access & Wayfinding	1	5	9	14	—		
		QL3.1 Advance Equity & Social Justice	3	6	10	14	18		
	Community	QL3.2 Preserve Historic & Cultural Resources	—	2	7	12	18		
		QL3.3 Enhance Views & Local Character	1	3	7	11	14		
		QL3.4 Enhance Public Space & Amenities	1	3	7	11	14		
		Collaboration	LD1.1 Provide Effective Leadership & Commitment	2	5	12	18		—
			LD1.2 Foster Collaboration & Teamwork	2	5	12	18		—
LD1.3 Provide for Stakeholder Involvement	3		6	9	14	18			
LD1.4 Pursue Byproduct Synergies	3		6	12	14	18			
Planning	LD2.1 Establish a Sustainability Management Plan		4	7	12	18	—		
	LD2.2 Plan for Sustainable Communities	4	6	9	12	16			
	LD2.3 Plan for Long-Term Monitoring & Maintenance	2	5	8	12	—			
	LD2.4 Plan for End-of-Life	2	5	8	14	—			
Economy	LD3.1 Stimulate Economic Prosperity & Development	3	6	12	20	—			
	LD3.2 Develop Local Skills & Capabilities	2	4	8	12	16			
	LD3.3 Conduct a Life-Cycle Economic Evaluation	5	7	10	12	14			
	Materials	RA1.1 Support Sustainable Procurement Practices	3	6	9	12	—		
		RA1.2 Use Recycled Materials	4	6	9	16	—		
		RA1.3 Reduce Operational Waste	4	7	10	14	—		
		RA1.4 Reduce Construction Waste	4	7	10	16	—		
		RA1.5 Balance Earthwork On Site	2	4	6	8	—		
	Energy	RA2.1 Reduce Operational Energy Consumption	6	12	18	26	—		
		RA2.2 Reduce Construction Energy Consumption	1	4	8	12	—		
		RA2.3 Use Renewable Energy	5	10	15	20	24		
	Water	RA2.4 Commission & Monitor Energy Systems	3	6	12	14	—		
		RA3.1 Preserve Water Resources	3	5	7	9	12		
RA3.2 Reduce Operational Water Consumption		4	9	13	17	22			
RA3.3 Reduce Construction Water Consumption		1	3	5	8	—			
RA3.4 Monitor Water Systems	1	3	6	12	—				
	Siting	NW1.1 Preserve Sites of High Ecological Value	2	6	12	16	22		
		NW1.2 Provide Wetland & Surface Water Buffers	2	5	10	16	20		
		NW1.3 Preserve Prime Farmland	—	2	8	12	16		
		NW1.4 Preserve Undeveloped Land	3	8	12	18	24		
	Conservation	NW2.1 Reclaim Brownfields	11	13	16	19	22		
		NW2.2 Manage Stormwater	2	4	9	17	24		
		NW2.3 Reduce Pesticide & Fertilizer Impacts	1	2	5	9	12		
		NW2.4 Protect Surface & Groundwater Quality	2	5	9	14	20		
		NW3.1 Enhance Functional Habitats	2	5	9	15	18		
	Ecology	NW3.2 Enhance Wetland & Surface Water Functions	3	7	12	18	20		
		NW3.3 Maintain Floodplain Functions	1	3	7	11	14		
		NW3.4 Control Invasive Species	1	2	6	9	12		
		NW3.5 Protect Soil Health	—	3	4	6	8		
			Emissions	CR1.1 Reduce Net Embodied Carbon	5	10	15	20	—
	CR1.2 Reduce Greenhouse Gas Emissions			8	13	18	22	26	
CR1.3 Reduce Air Pollutant Emissions	2			4	9	14	18		
Resilience	CR2.1 Avoid Unsuitable Development		3	6	8	12	16		
	CR2.2 Assess Climate Change Vulnerability		8	14	18	20	—		
	CR2.3 Evaluate Risk and Resilience		11	18	24	26	—		
	CR2.4 Establish Resilience Goals and Strategies		—	8	14	20	—		
	CR2.5 Maximize Resilience		11	15	20	26	—		
	CR2.6 Improve Infrastructure Integration		2	5	9	13	18		
Maximum TOTAL Points								1,000	

14	20	—
20	26	—
9	13	18

Maximum TOTAL Points	1,000
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**MASSIMO
PUNTEGGIO TOTALE
RAGGIUNGIBILE**

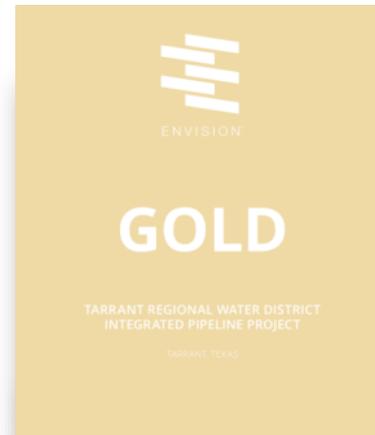
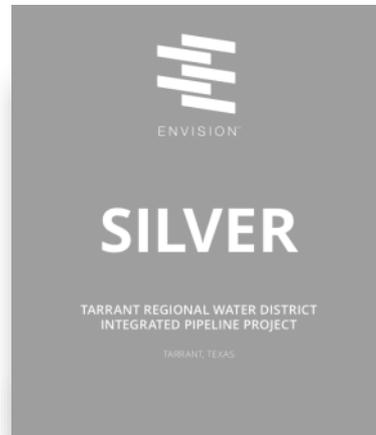
Livelli di Certificazione

20%

30%

40%

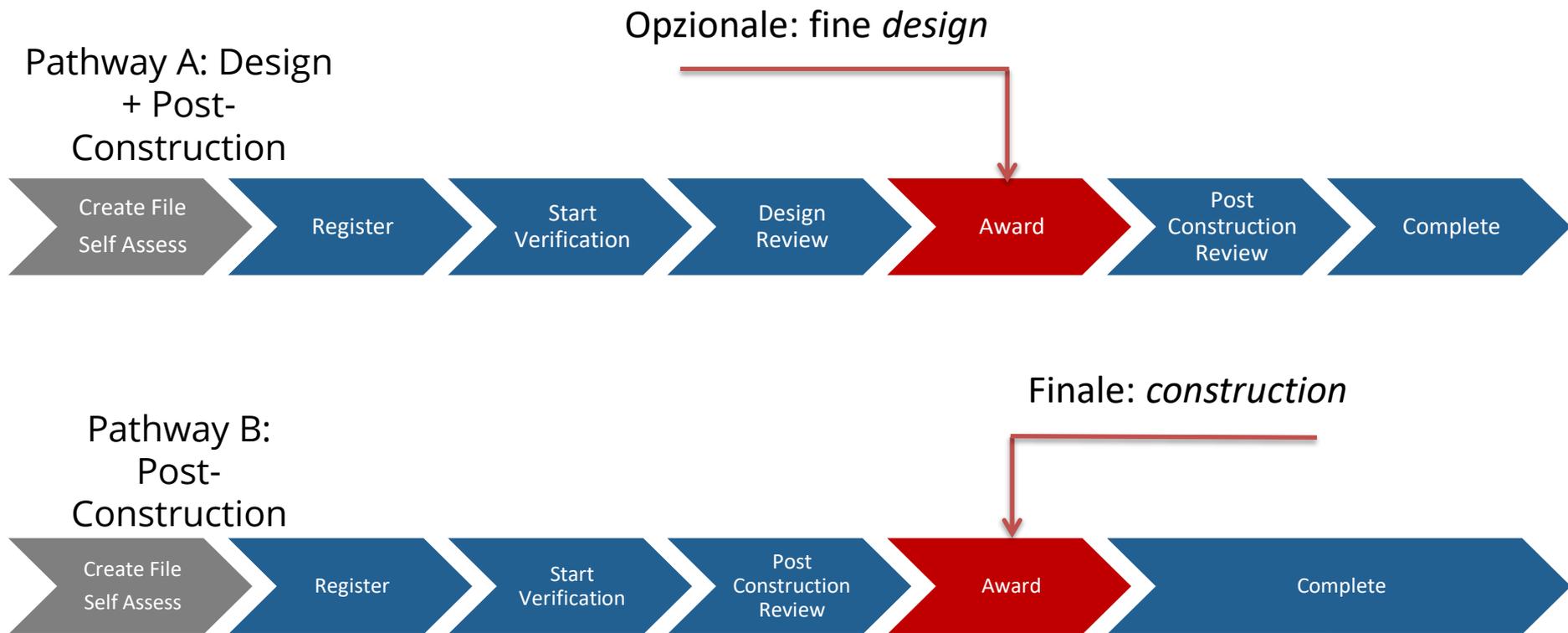
50%



**RAPPORTO PERCENTUALE TRA IL
PUNTEGGIO OTTENUTO E IL
PUNTEGGIO MASSIMO
RAGGIUNGIBILE**

***EVIDENZA DEL GRADO DI
SOSTENIBILITÀ RAGGIUNTO DAL
PROGETTO
DELL'INFRASTRUTTURA***

Il processo di Verifica e Certificazione



Le figure professionali: ENV SP

Envision Sustainability Professional (ENV SP)

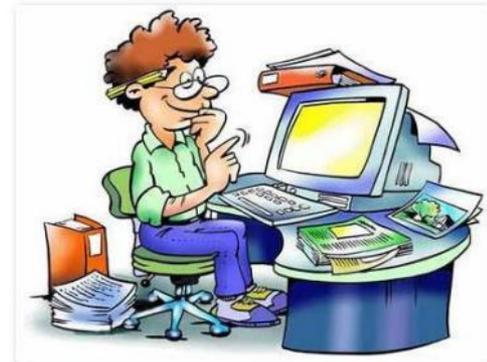
Esperto del Protocollo Envision

Ruolo di **interfaccia operativa** tra il team di progetto e i verificatori

Figura obbligatoria per il processo di certificazione

PERCORSO FORMATIVO

- Completamento corso di formazione ICMQ
- Superamento di un esame ICMQ
- Mantenimento annuale delle credenziali





Envision™ e ICMQ



Council of Engineering Companies



American Public Works Association



American Society of Civil Engineers



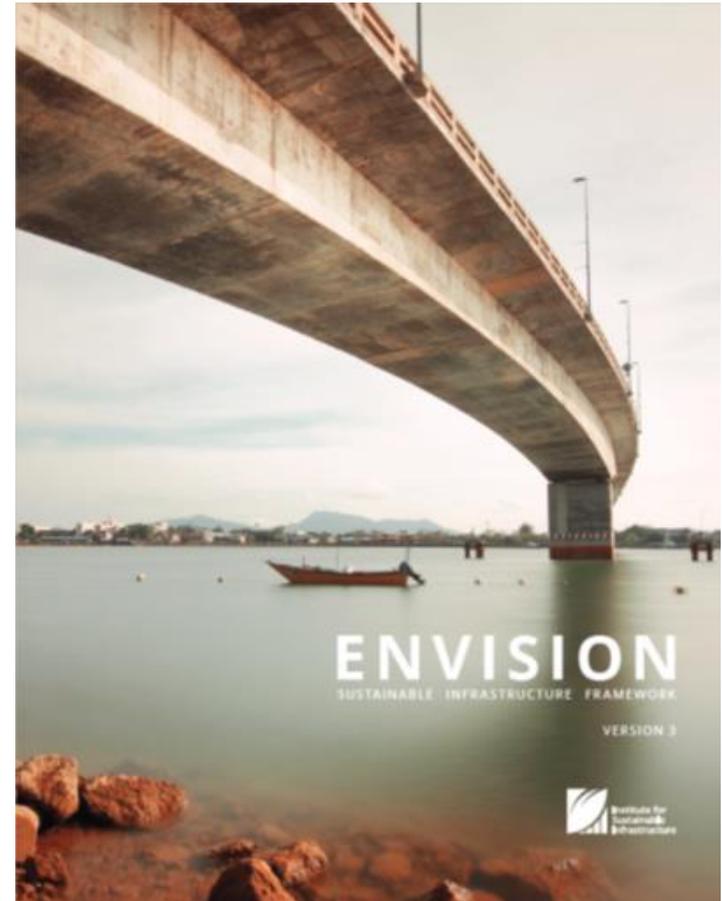
Institute for Sustainable Infrastructure



ZOFNASS PROGRAM FOR SUSTAINABLE INFRASTRUCTURE

Graduate School of Design
Harvard University

ICMQ rappresenta ISI/Envision in Italia e opera come supporto a ISI/Envision sul suolo nazionale (Formazione e verifica).
ICMQ non sarà coinvolta in attività consulenziali legate al protocollo.



ISI ed Envision™ in Italia



ICMQ



ENVISION™ ITALIA

ICMQ ha un accordo con l'ISI per dare vita alla sezione italiana, che avrà i diritti esclusivi per la formazione e la qualificazione dei professionisti e la certificazione dei progetti con il marchio Envision – www.envisionitalia.it

ICMQ garantisce l'indipendenza e l'imparzialità nel gestire i processi certificativi. Envision™ Italia svolgerà solo valutazione di terza parte indipendente, lasciando al mercato e agli Envision™ SP il supporto ai progettisti e ai committenti.

FASE ATTUALE:

Cinque certificazioni rilasciate per RFI, Italferr, e2i energie speciali e Trevi.
Registrazione per due progetti.

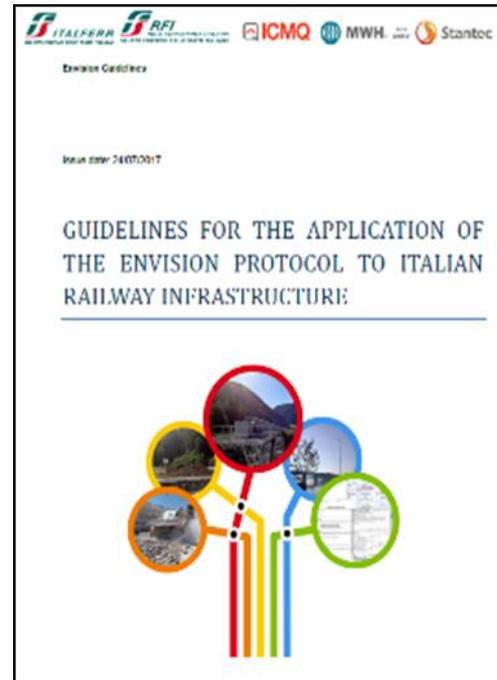
In fase di sviluppo altri progetti da parte di clienti pubblici e privati.

ICMQ in Italia

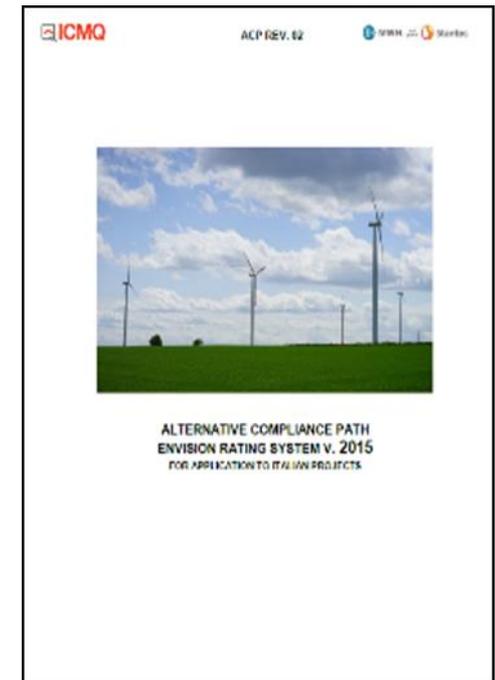


ICMQ è stata incaricata da ISI di divulgare il sistema di rating Envision in Italia attraverso:

- Formazione e qualifica di ENV SPs (più di 200 dal 2016)
- Certificazione dei progetti in Italia
- Stesura di documentazione tecnica



Linee guida per l'applicazione del protocollo Envision alle infrastrutture ferroviarie italiane



Alternative Compliance Path (ACP) : fornisce informazioni e soluzioni in relazione all'adattabilità e all'applicabilità dei crediti Envision alla realtà italiana.

ICMQ in Italia



Nuove Linee Guida da
Edison energie
rinnovabili
per i
Parchi Eolici

ICMQ in Italia



Nuove Linee Guida da
Terna
per le linee di
trasmissione elettrica

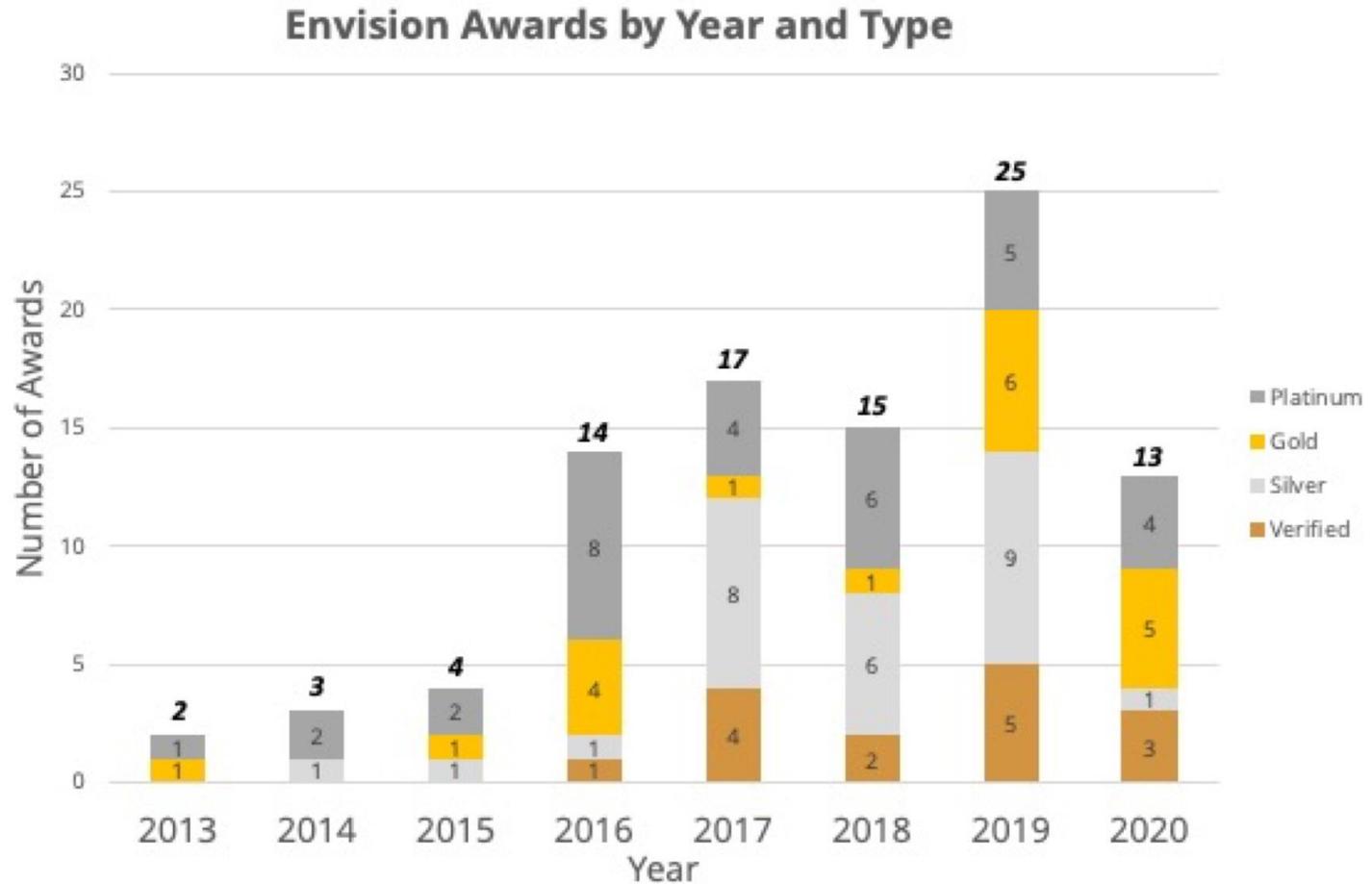
GUIDELINES
FOR THE APPLICATION
OF THE ENVISION PROTOCOL
TO THE ELECTRICAL TRANSMISSION
INFRASTRUCTURE



ENVISION Passato e Presente

- **2011**
 - First member company
- **2012**
 - First Envision Sustainability Professional (ENV SP)
- **2013**
 - First Envision verified project
- **2017**
 - 273 corporate members, 41 city/agency members
 - 6,400 ENV SPs
 - 29 verified projects representing \$10 billion
 - 8 projects actively in verification
 - 28 registered projects (\$5 billion)
- **2020**
 - 31 registered projects (15% increase from 2019)
 - Majority in the Transportation sector (~75%)
- **2021**
 - 90 certified projects

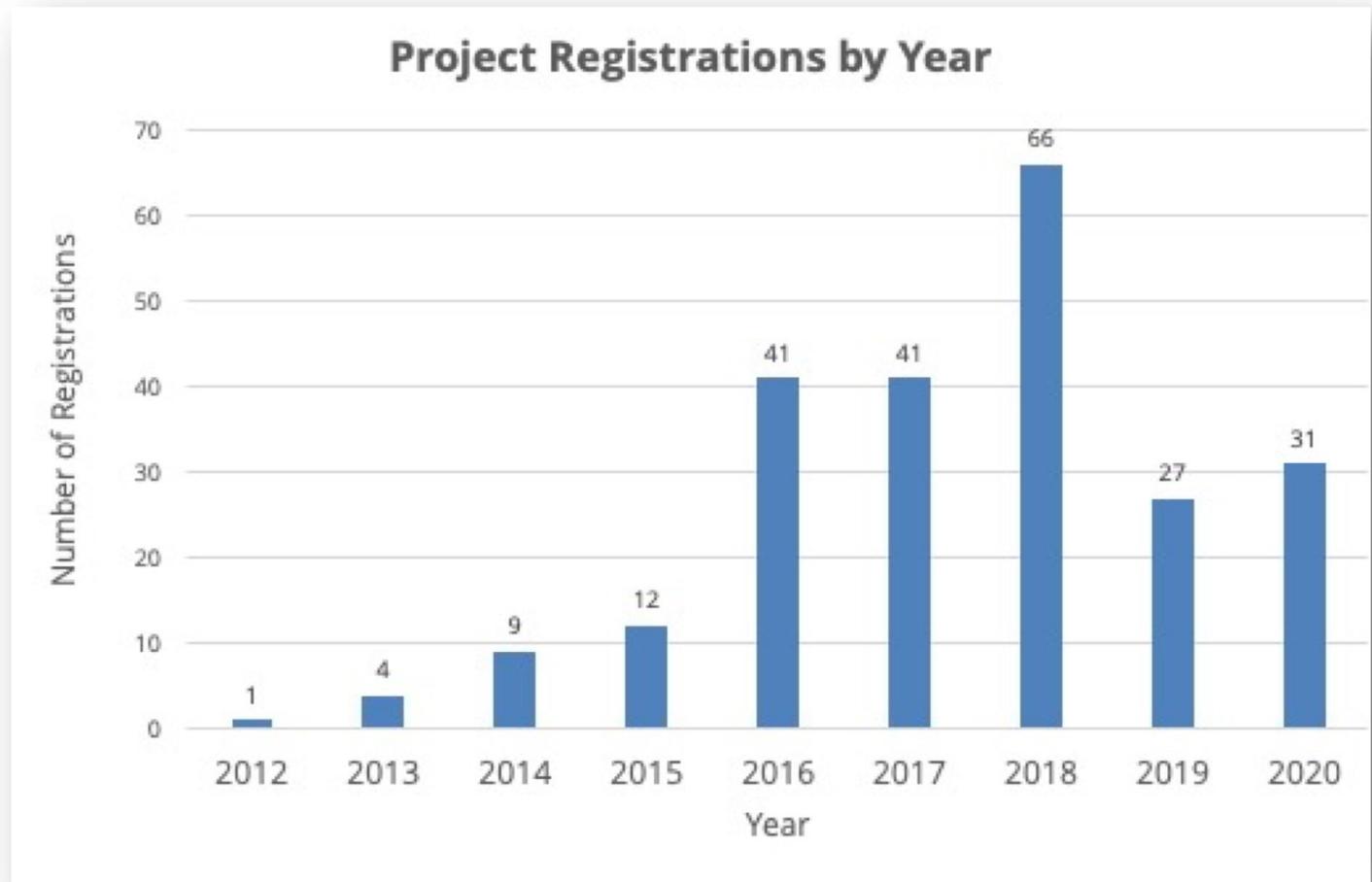
ENVISION Progetti verificati per anno e tipo



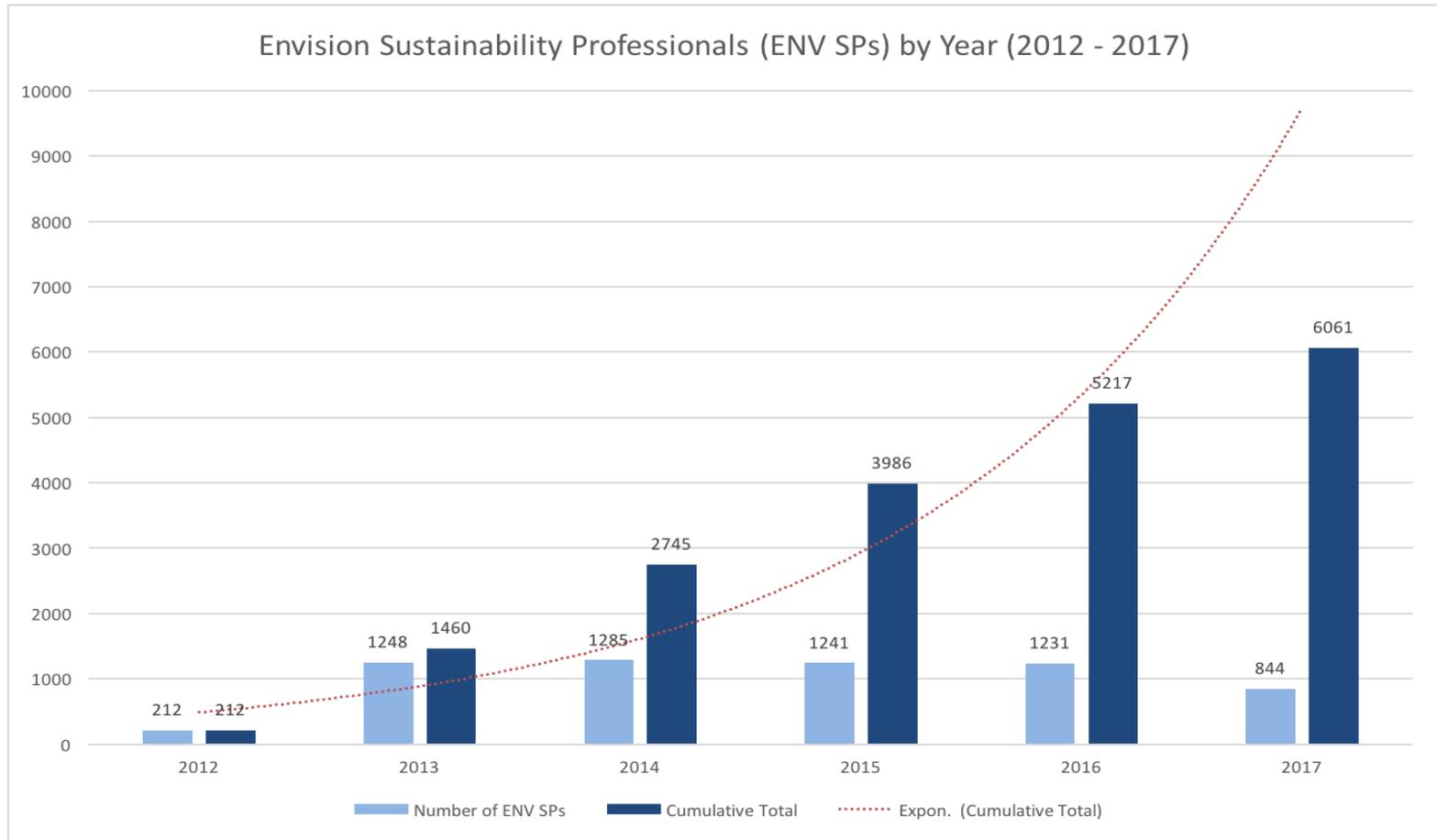
Numero di Progetti registrati

(2012 –
2020)

Il 2018 è stato un anno anomalo. C'è stata una corsa per registrare i progetti secondo la v2 del Protocollo Envision, vista la scadenza di dicembre 2018 e il successivo passaggio alla nuova versione del Protocollo.

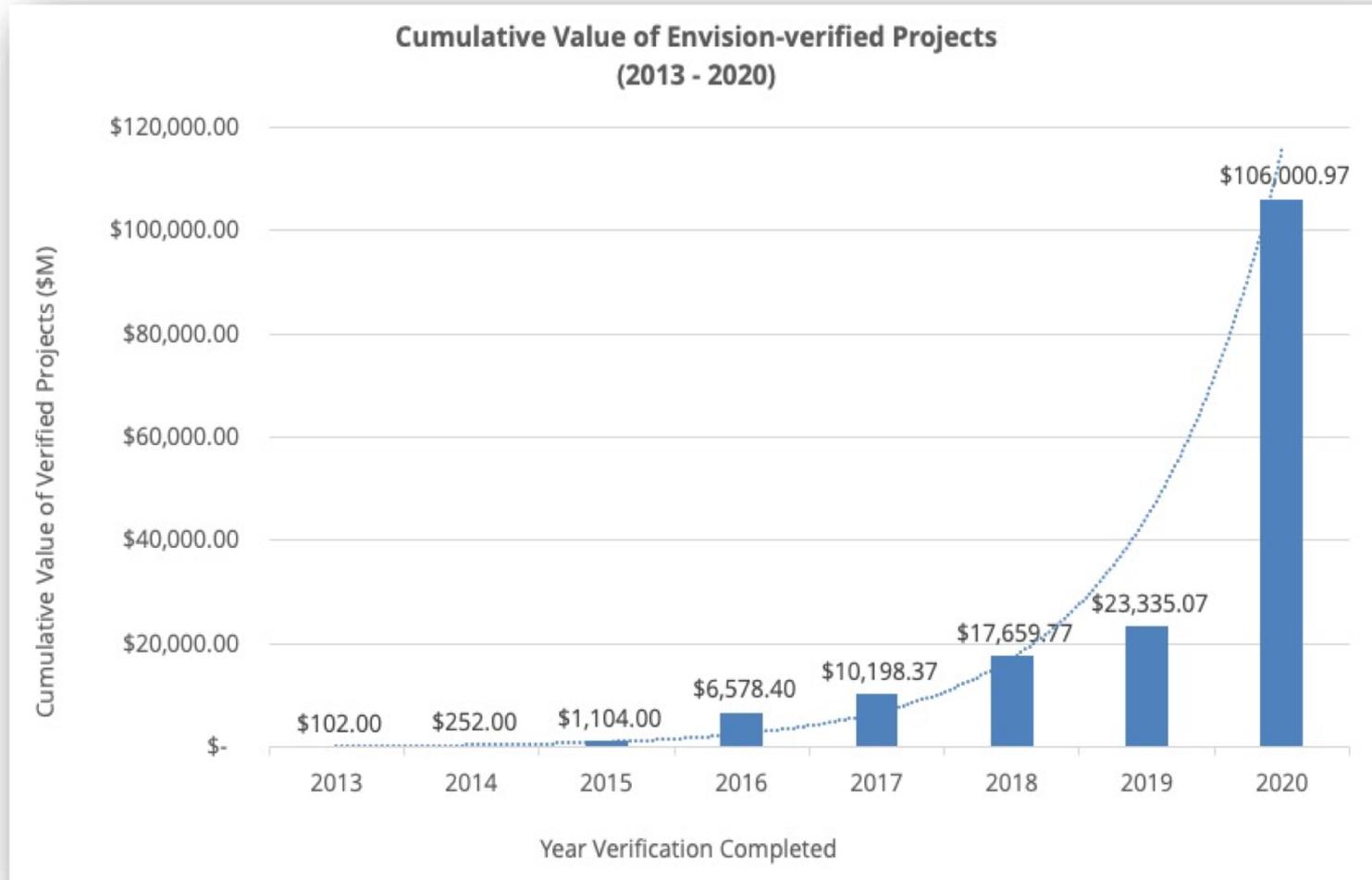


ENVISION Sustainability Professionals



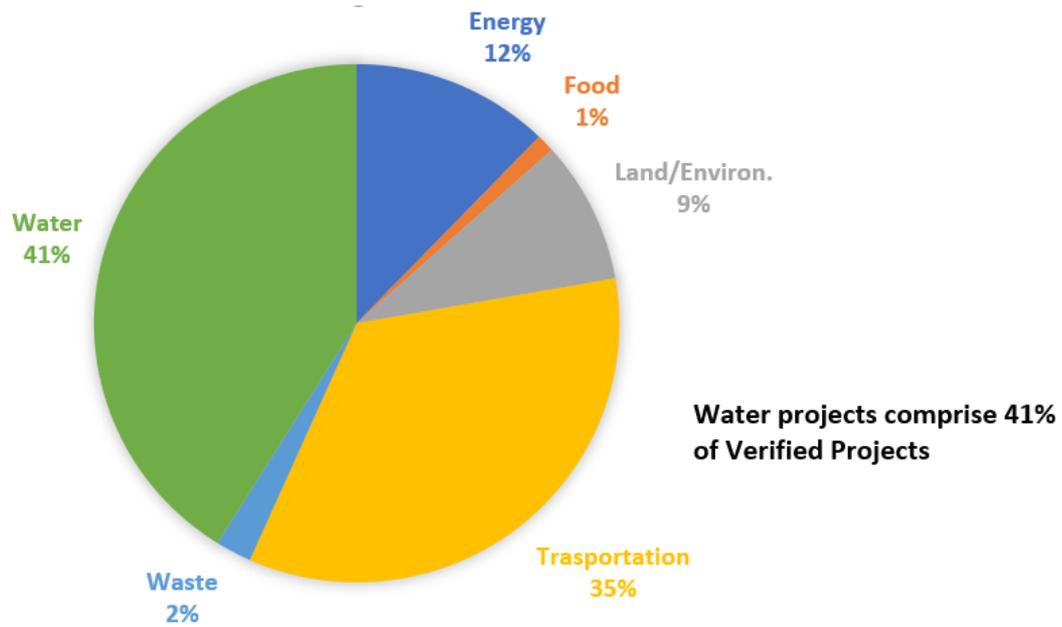
Verifica dei Progetti

(2013 – 2020)



Tipologie di progetti certificati

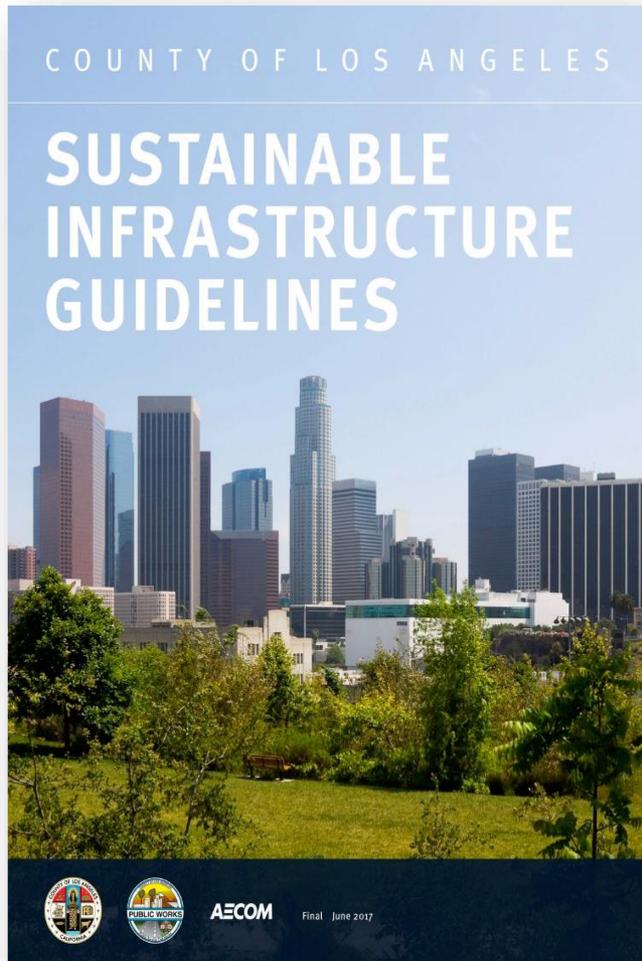
Verified (Complete) Projects by Sector



Top Governments Accounts by ENV SPs

- County of Los Angeles Department of Public Works (171)
- New York City Department of Design and Construction (115)
- Los Angeles County Metropolitan Transportation Authority (81)
- New York City Department of Environmental Protection (78)
- City of Los Angeles Bureau of Engineering (75)
- California Department of Water Resources (40)
- City of Kansas City, MO (38)
- Port Authority of New York & New Jersey (36)
- Miami-Dade County (30)
- MTA New York City Transit (24)
- King County Wastewater Treatment Division (24)
- City of Los Angeles (21)
- US Army Corps of Engineers (15)
- City of Houston (14)
- City of Santa Monica (18)
- Vancouver Fraser Port Authority (14)
- AlexRenew Enterprises (13)
- Pinellas County (12)
- City of Coral Gables (12)
- City of Los Angeles Bureau of Street Services (11)
- Madison Metropolitan Sewerage District (11)
- City of Santa Barbara (10)
- City of Roanoke, VA (9)
- City of Dallas (7)
- East Bay Municipal Utility District (7)
- Fairfax County Government (6)
- Holland Board of Public Works (5)

Sustainable Infrastructure Design Guidelines



- **Integrative Design**
- **Site**
- **Water**
- **Energy Materials**
- **Climate Mitigation & Resilience**
- **Construction**
- **Operations and Maintenance**

La prima certificazione in Europa



Linea ferroviaria Napoli – Bari



Rete Ferroviaria Italiana (Gruppo italiano FS) ha conseguito la certificazione Envision con il più alto livello raggiungibile (Platinum) per la sezione Frasso Telesino - San Lorenzo Maggiore che è parte integrante della nuova linea Napoli - Bari



La seconda certificazione in Europa

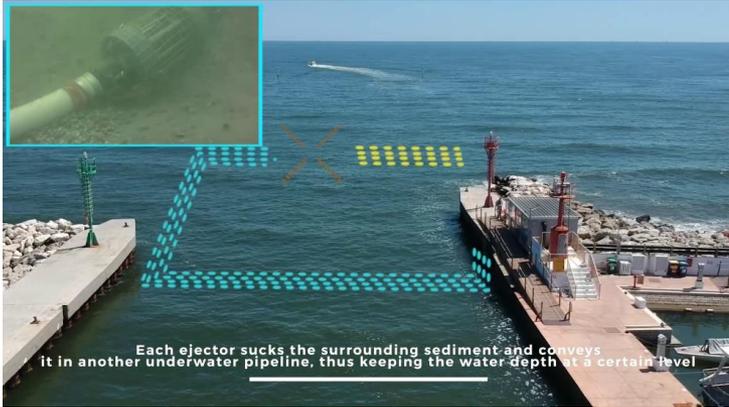


Impianto
eolico di
Vaglio

**Edison Rinnovabili
(già e2i energie speciali)
ha conseguito la
certificazione Envision
con il livello Gold per
l'impianto eolico di
Vaglio oggetto di
integrale ricostruzione**



La terza certificazione in Europa



Life Marinaplan Plus

Trevi SpA ha conseguito la certificazione Envision con il livello Silver per la tecnologia innovativa e affidabile per la gestione marina e costiera



Envision cresce



Linea ferroviaria Napoli – Bari: tratto Apice Hirpinia



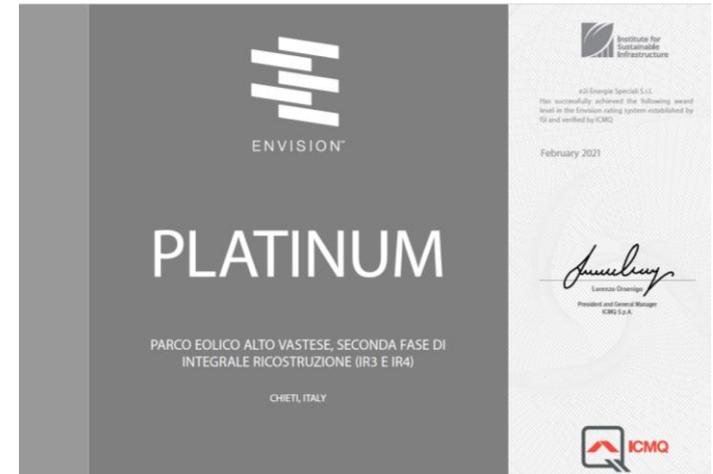
Envision cresce



**Impianti eolici IR3 e IR4 in
Abruzzo**



**Edison Rinnovabili ha
conseguito la certificazione
Envision con il livello
Platinum per gli impianti
eolici IR3 e IR4 in Abruzzo**



Punti di forza

- QL1.4 Minimize Noise & Vibration - Restorative
- QL3.2 Preserve Historic & Cultural Resources - Restorative
- QL3.3 Enhance Views & Local Character – Restorative
- LD1.3 Provide for Stakeholder Involvement - Restorative
- LD1.4 Pursue Byproduct Synergies – Restorative
- LD2.2 Plan for Sustainable Communities – Restorative
- LD3.2 Develop Local Skills & Capabilities - Restorative
- RA2.3 Use Renewable Energy – Restorative
- NW1.4 Preserve Undeveloped Land – Restorative
- CR1.2 Reduce Greenhouse Gas Emissions - Restorative

Punti di forza



CLIMATE AND RESILIENCE: EMISSIONS

CR1.2 Reduce Greenhouse Gas Emissions

26
POINTS

INTENT

Reduce greenhouse gas emissions during the operation of the project, reducing project contribution to climate change.

METRIC

Percentage of reduction in operational greenhouse gas emissions.

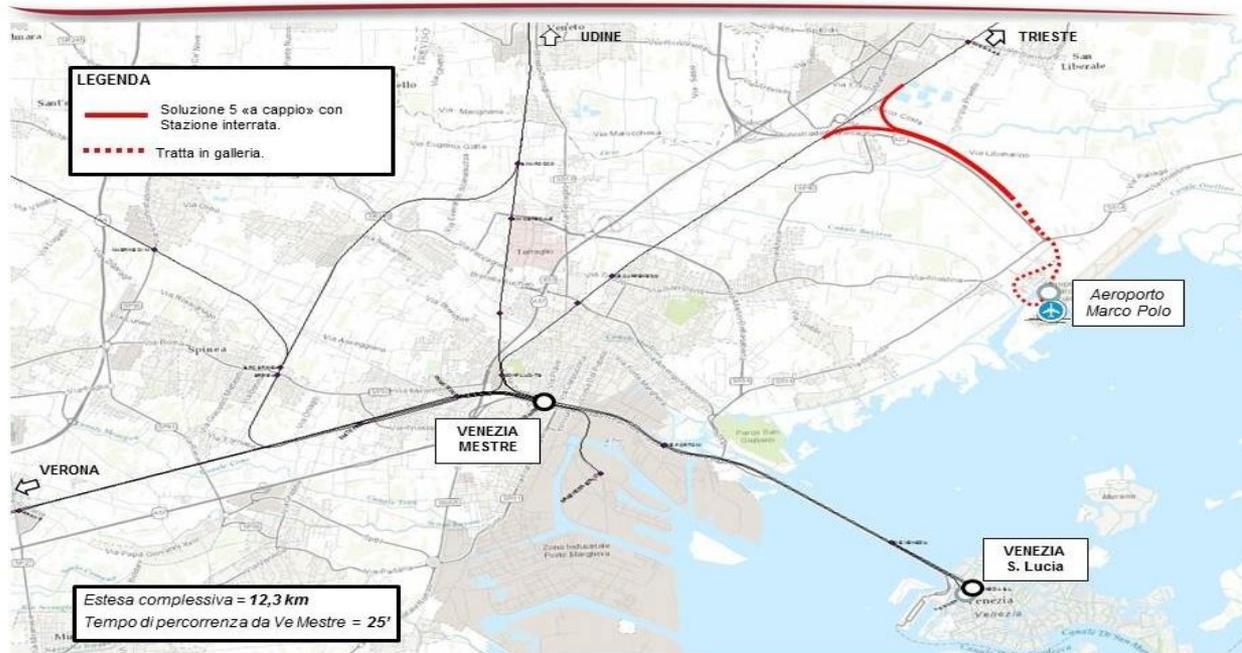
LEVELS OF ACHIEVEMENT

IMPROVED	ENHANCED	SUPERIOR	CONSERVING	RESTORATIVE
A + B	A + B	A + B	A + B	A + B
(8) At Least 10% Reduction	(13) At Least 25% Reduction	(18) At least 50% Reduction	(22) 100% Reduction	(26) Carbon Negative
(A) The project team demonstrates at least a 10% reduction in total CO ₂ e over the operational life of the project compared to the baseline. Calculations should be in tons CO ₂ e.	(A) The project team demonstrates at least a 25% reduction in total CO ₂ e over the operational life of the project compared to the baseline. Calculations should be in tons CO ₂ e.	(A) The project team demonstrates at least a 50% reduction in total CO ₂ e over the operational life of the project compared to the baseline. Calculations should be in tons CO ₂ e.	(A) The project team demonstrates a 100% reduction in total CO ₂ e over the operational life of the project compared to the baseline. Calculations should be in tons CO ₂ e.	(A) The completed project is carbon negative (i.e., sequesters/removes more CO ₂ e than it produces over the operational life).
(B) The project team maps and calculates the total annual greenhouse gas emissions of the final project design for reporting purposes. This includes direct and indirect greenhouse gas emissions and sequestration associated with project operations. Calculations must be in CO ₂ e.				

Progetti registrati



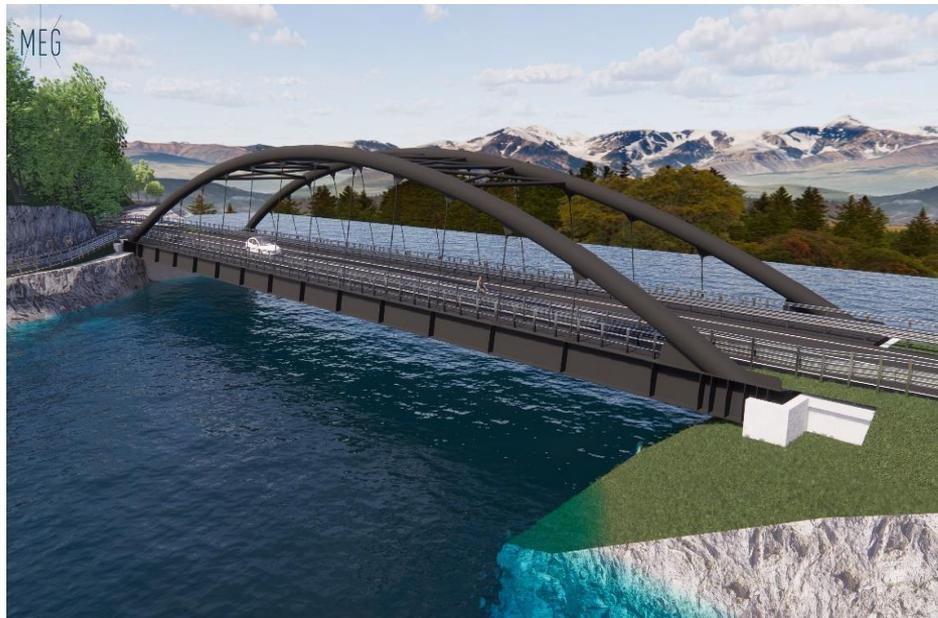
Collegamento ferroviario dell'Aeroporto Marco Polo di Venezia



Progetti registrati



Nuovo ponte sul Lago di Barcis



ENVISION Progetti in corso in Italia



Aeroporto di Venezia



Masterplan 2035



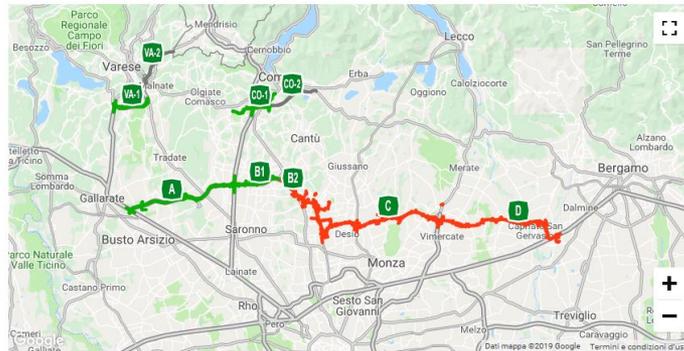
Attraverso Terna Rete Italia gestisce la rete nazionale con 72.900 km di linee ad alta tensione

Linee guida per l'applicazione del protocollo Envision alle linee elettriche di trasmissione

ENVISION Progetti in corso in Italia



Progetto definitivo



Stato di avanzamento:



**Pedemontana Dalmine –
Como – Varese – Valico
del Gaggiolo**



Prolungamento Linea 5

ENVISION Progetti in corso in Italia



**Stazione Porta Garibaldi
Piazza Freud - Milano**



ENVISION Progetti in corso in Italia



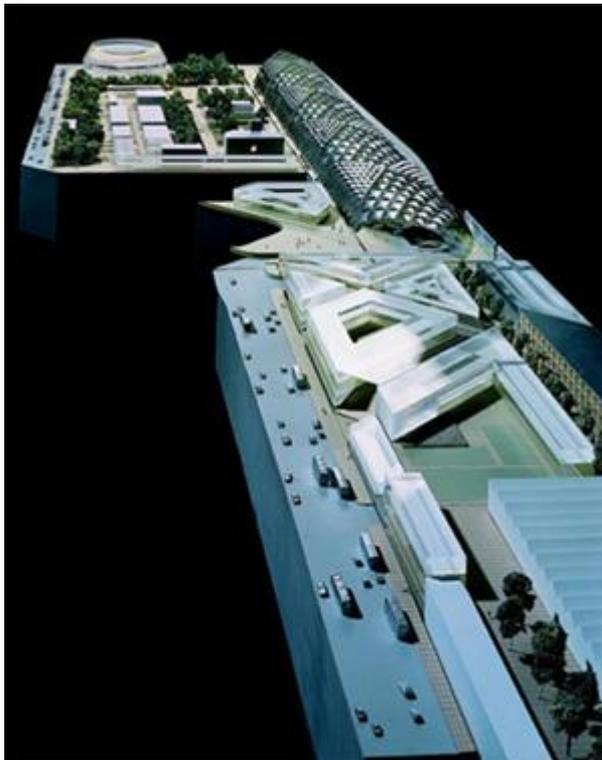
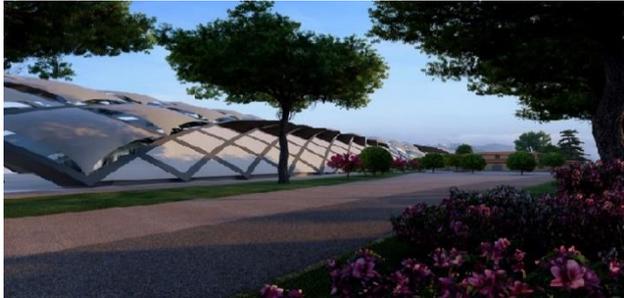
Stazione ferroviaria di Frosinone



Stazione di Porta Romana - Milano

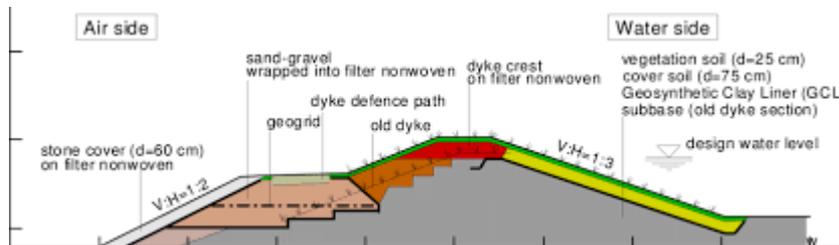


ENVISION Progetti in corso in Italia



Passante Ferroviario AV del nodo di Firenze e realizzazione della nuova stazione AV di Firenze Belfiore.

ENVISION Progetti in corso in Germania



Diga Fiume Elbe

Envision fee

FEE DI → 2.000\$

REGISTRAZIONE:

FEE DI → Dipendono dall'importo lavori e dal *Path*
CERTIFICAZIONE: scelto

		Design +Post- Costruction (Path A)		Post-Costruction (Path B)	
Project Size (in M€)	Registration Fee	Certification Fees			
		Envision Italia Supporter	Envision Italia Non-Supporter	Envision Italia Supporter	Envision Italia Non-Supporter
< 2	€ 2,000	€ 5.000	€ 7.000	€ 4.000	€ 6.000
2 – 5	€ 2,000	€ 12.000	€ 14.000	€ 9.000	€ 11.000
5 – 25	€ 2,000	€ 17.000	€ 20.000	€ 14.000	€ 17.000
25 – 100	€ 2,000	€ 26.000	€ 30.000	€ 21.000	€ 25.000
100 – 250	€ 2,000	€ 33.000	€ 39.000	€ 28.000	€ 34.000
250 – 500	€ 2,000	€ 41.000	€ 48.000	€ 35.000	€ 42.000
500-1000	€ 2,000	€ 48.000	€ 56.000	€ 42.000	€ 50.000
> 1000	€ 2,000	ad hoc evaluation			

ENVISION Italia Supporter

Envision Italia Supporter	
Supporter	Quota annuale dal 2019
Singolo professionista	20€
Ministeri/PA/Comune/Regione/Provincia	0€
Università	0€
Aziende/Società /Organizzazioni	
< 50 impiegati	200€
50 – 100 impiegati	500€
100 – 500 impiegati	1.000€
> 500 impiegati	2.000€

- Community per dare credibilità alla progettazione infrastrutturale sostenibile
- Scaricare gratuitamente il Protocollo Envision
- Sconti sulla formazione e sulla certificazione

ENVISION Italia Supporter



0°



...e circa 50 professionisti



Home

Cos'è Envision

Certifica il tuo progetto

Diventa Envision SP

Contatti

ENVISION ARRIVA IN ITALIA

Grazie a ICMQ e Stantec arriva in Italia il primo sistema di rating delle infrastrutture sostenibili. Un patrimonio di informazioni gratuite per l'autovalutazione e la progettazione sostenibile.

CERTIFICAZIONE GREEN ANCHE PER LE GRANDI OPERE



Contatti

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info@envisionitalia.it

