

EUROGEOSS WORKSHOP 2018



#EGW2018

12-14 SEPTEMBER 2018, GENEVA



Thierry RANCHIN on behalf of Lionel MENARD
Mines ParisTech – PSL University / ARMINES

Linkages between SDG7 with others SDG's



#EGW2018

SDG goal 7

« Ensure access to affordable, reliable, sustainable and modern energy for all »

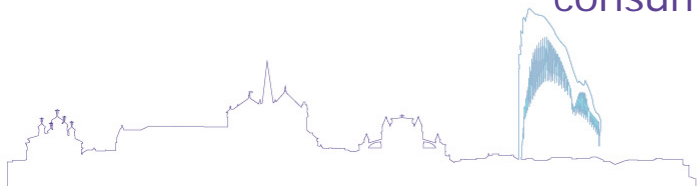


Target 7.2:

By 2030, **increase the share of renewable energy** in the global energy mix.

Indicator:

7.2.1 Renewable energy share in the total final energy consumption



SDG 7 linkages



Environmental sustainability

- By mitigating the local and global environmental impacts of energy consumption









Human development

- By facilitating access to basic services improving human health and supporting income generation activities

Sustainable economic growth

- By generating economic benefits such as new jobs and industries

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SDG	LINKAGES	
	Access to basic energy services is a prerequisite for eradicating poverty and stimulating economic activity. Decentralised renewables can enable significant savings on fuel spending, which disproportionately affects the poor in both developing and developed countries.	1
	Renewable-powered pumping technologies can improve agricultural yields and reduce vulnerability to changing rainfall patterns, thereby helping achieve food security and improved nutrition. Renewables also provide energy for refrigeration and food preservation, which can reduce food waste.	2
	Improved cookstoves and clean energy for cooking reduce risks of respiratory diseases due to indoor air pollution. Decentralised renewables support the functioning of health clinics and hospitals in remote and rural areas. Renewables for power and transport reduce risk of diseases associated with outdoor air pollution.	3
	Renewable-based power solutions allow study time after nightfall, access to information and communication technologies, and free up time previously required for fuel collection.	4
	Renewables relieve the burden on women and children of fuel collection and alleviate adverse health impacts of traditional biomass use. Renewable-based street lighting can improve safety and allows girls and women to attend educational, community or productive activities after dark.	5
	Solar PV and wind power, the most rapidly growing technologies, consume up to 200 times less water than conventional technologies including thermal power plants. Water desalination and pumping with renewables can increase the supply of clean drinking water.	6
	Renewables employed 9.4 million people globally in 2015 (including large-scale hydropower). Doubling the share of renewables in the global energy mix by 2030 could increase global GDP by up to USD 1.3 trillion and support over 24 million jobs in the sector. Providing off-grid communities energy for productive services enables economic development.	8
	Creation of local markets for renewables can create, directly and indirectly, new local businesses and industries. Development of infrastructure to support renewable-based charging for local transportation reduces local air pollution and greenhouse gas emissions.	9



Construction, commercialisation, installation and maintenance of renewable energy technologies create jobs and small businesses, leading to income generation and helping to overcome barriers to development. Relying on domestic energy sources frees local funds/foreign currency for non-energy purposes.

10



Cities can decarbonise their energy supply and use through renewables, notably in buildings (for heating, cooling, cooking and appliances) as well as for transport. Benefits can include reductions in pollution and in energy imports, as well as increased resilience.

11



Renewables offer the potential to make the world's energy supply cleaner and safer, given that they are produced and deployed in a manner that is environmentally and socially sustainable.

12



Scaling up renewable energy, coupled with energy efficiency, could put the world on track to keep the rise of temperatures within 2° Celsius, in line with the Paris Agreement. Solar pumping and desalination can provide water in arid regions.

13



Renewable technologies that replace or reduce fossil fuel use, such as electric vehicles, can reduce the risk of spills in water and acidification of oceans by decreasing CO₂ emissions.

14



Well-designed renewable energy projects with conventional energy sources. The use of land for renewable energy, such as solar panels, can be integrated with agricultural and forestry settings, thus decreasing forest degradation.

15



Renewables can provide access to clean energy and reduce inequalities within societies and between countries.

16



Linking renewable energy deployment with other sectors and frameworks at the local level and global partnerships.

17

11 SUSTAINABLE CITIES AND COMMUNITIES



- **Cities can decarbonise their energy supply and use through renewables notably in buildings** (for heating, cooling, cooking and appliances)



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Renewable technologies that replace or reduce fossil fuel use, such as electric vehicles, can reduce traffic, reducing the risk of spills in water and the acidification of oceans by decreasing CO₂ emissions.



Well-designed renewable energy projects can be integrated with conventional energy sources. The use of renewable energy in buildings, for example, can reduce energy settings, thus decreasing forest degradation.



Renewables can provide access to clean energy and reduce inequalities within societies and between countries.



Linking renewable energy deployment with other sustainable development goals through frameworks at the local level and global partnerships.

17

13 CLIMATE ACTION



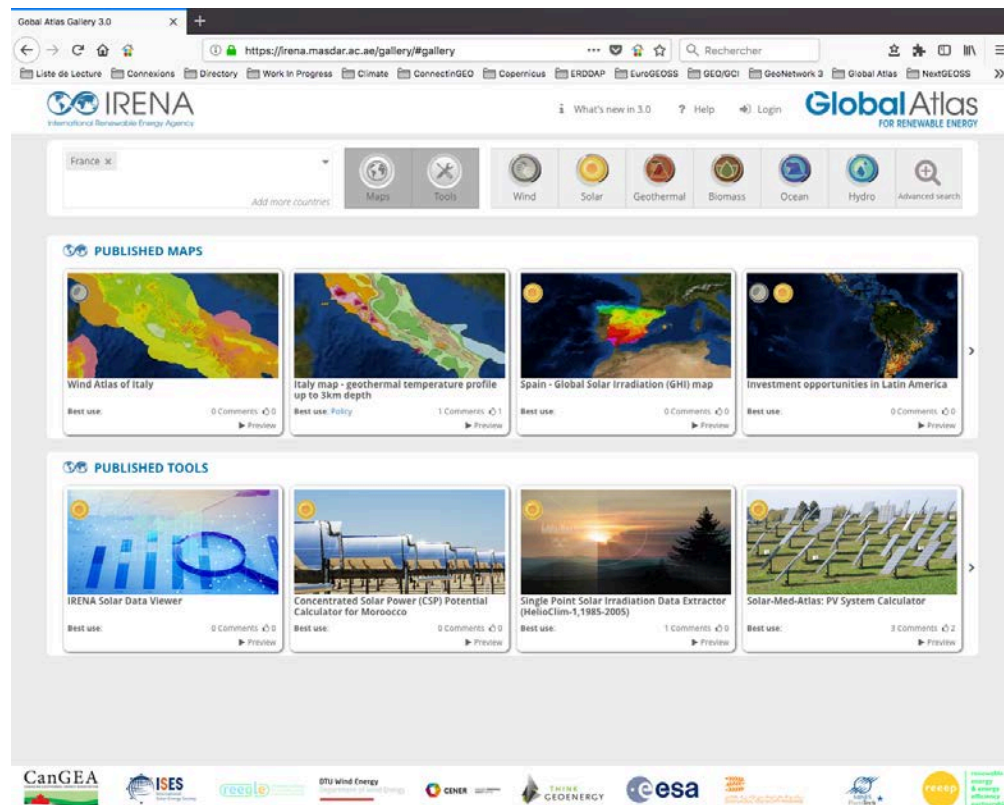
- **Scaling up renewable energy coupled with energy efficiency could put the world on track to keep the rise of temperatures within 2° Celsius in line with the Paris Agreement...**

EO Data and SDG 7 linkage



IRENA **Global Atlas for Renewable Energy** is a web platform containing over 2000 maps and tools for **renewable energy resources assessment** across the world.

Support to policy makers, planners, Gov. for **increased share of RE in the global energy mix.**



EO Data and SDG 11 linkage

11 SUSTAINABLE CITIES
AND COMMUNITIES



InSunWeTrust
French SME providing services
for solar **roof-top business**
potential assessment.

Support cities
decarbonization by the supply
and use of renewables notably
in buildings.

Simulation de panneaux solaires: X

https://nantes-metropole.insunwetrust.solar/simulateur

Liste de Lecture Connexions Directory Work In Progress Climate ConnectingGEO Copernicus ERDDAP EuroGEOS GEO/GCI GeoNetwork 3 Global Atlas NextGEOS

IN SUN WE TRUST Nantes Métropole

Notre charte qualité Méthode de calcul FAQ Contactez-nous au 09.87.67.23.84

Estimation détaillée

Choisissez votre surface de pose

0 m² 666m²

Minimal Optimal

La métropole de Nantes s'est donnée pour objectif de doubler d'ici 2020 la production d'énergie renouvelable sur son territoire, et de la tripler d'ici 2030. Vous pouvez, vous aussi, y contribuer en passant à l'énergie solaire !

VENTE TOTALE	AUTOCONSUMMATION	THERMIQUE EAU CHAUDE
Estimation économique sur 20 ans		
 REVENUS 199 500 €	 INSTALLATION À PARTIR DE 136 000 €	 GAINS 63 500 €

Votre habitation est située dans la limite de 500m autour d'une installation classée. Sachez que votre projet demandera un accompagnement particulier et sera soumis à un avis consultatif d'un architecte des Bâtiments de France. N'hésitez pas à **nous contacter**, nos experts vous accompagneront de près dans ces démarches.

La puissance de cette installation pourrait être supérieure à 100 kWc. Les projets de cette taille faisant l'objet d'une réglementation spécifique, nous vous invitons à **nous contacter** pour plus d'informations.

Estimation énergétique sur 20 ans

Simulation financière

SANS EMPRUNT AVEC EMPRUNT

DEMANDER UN DEVIS GRATUIT

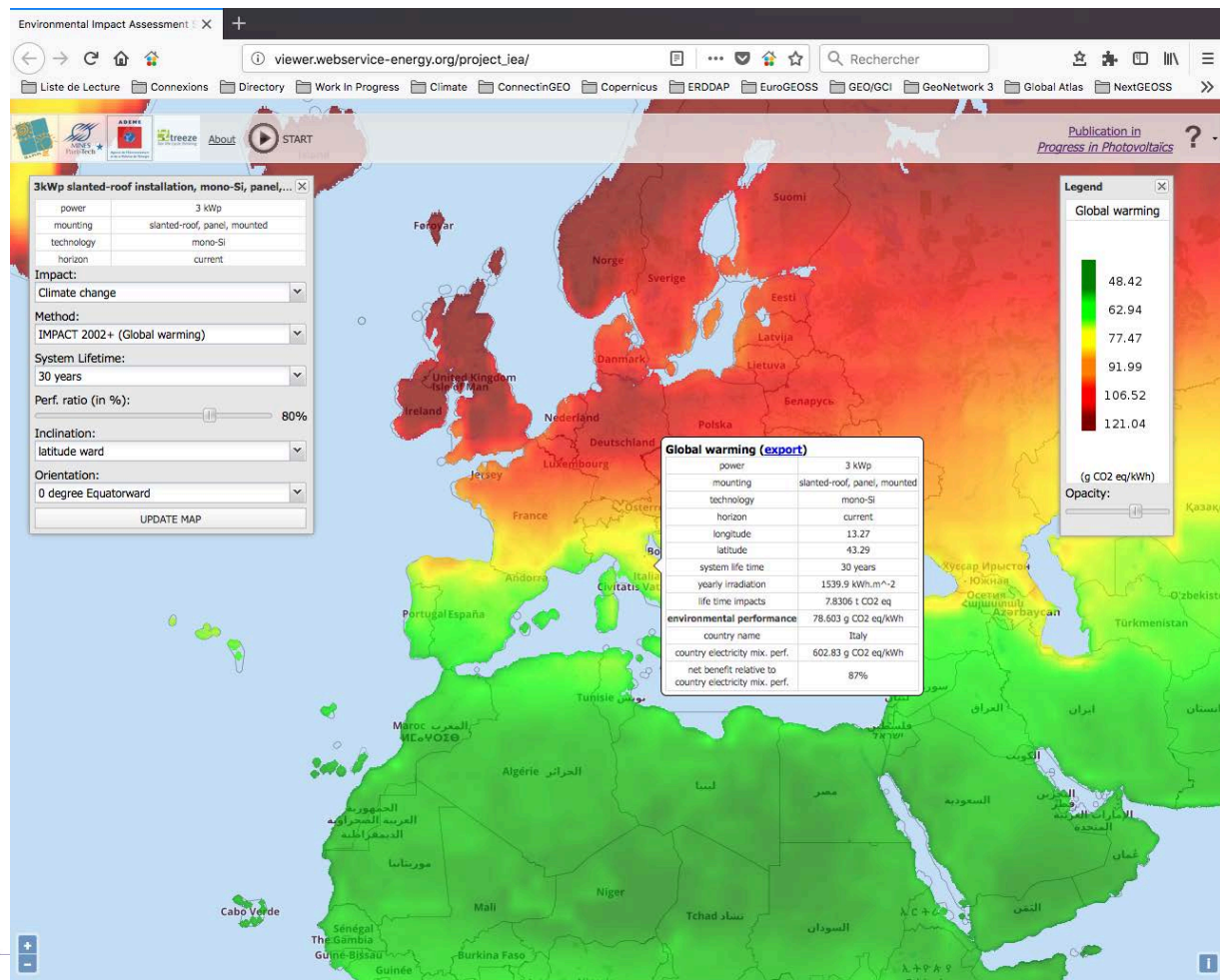
EO Data and SDG 13 linkage



IEA Task-12

Provide current and prospective
(2050) **environmental
performance of of
photovoltaic systems.**

**Global warming impact (CO_2
eq/kWh) of PV systems** during
their lifetime.

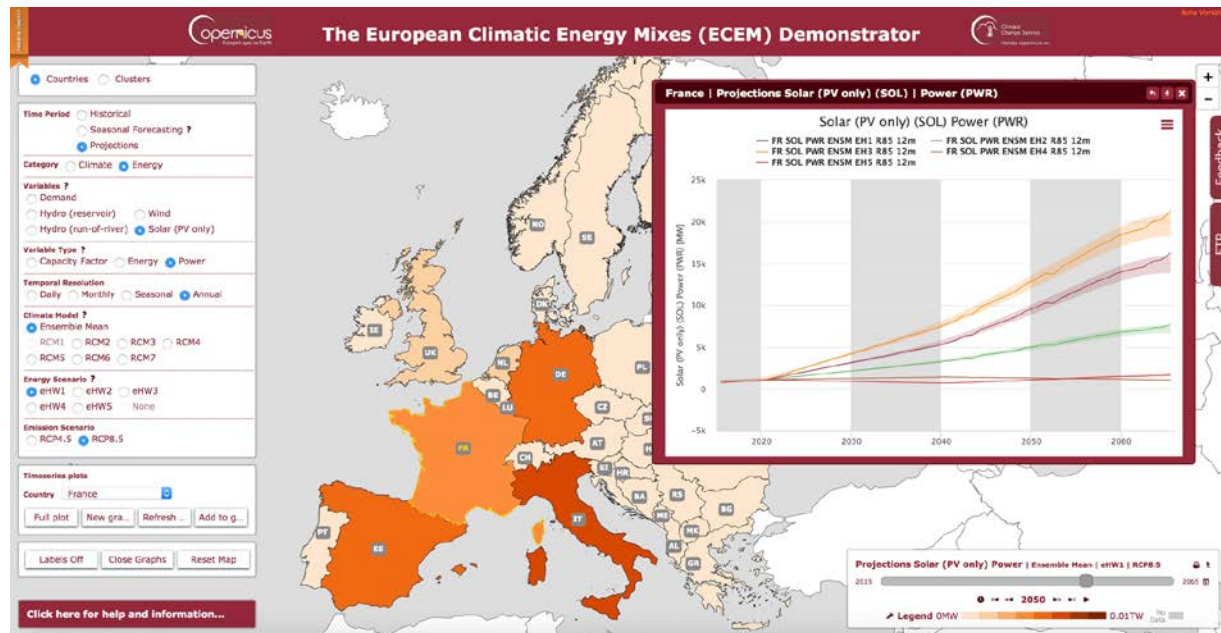


EO Data and SDG 9 and 13 linkage



Copernicus C3S
European Climatic Energy
Mixes (ECEM)

**Proof-of-concept climate
service to assess future
renewable energy mixes in
Europe**



Follow us...

- Contact: Lionel MENARD – lionel.menard@mines-paristech.fr
- GEO Vision for Energy (GEO-VENER) - <https://www.earthobservations.org/activity.php?id=121#>
- Webservice-energy – <http://www.webservice-energy.org>
- IRENA - REthinking Energy 2017: Accelerating the global energy transformation - <http://www.irena.org/publications/2017/Jan/REthinking-Energy-2017-Accelerating-the-global-energy-transformation>