TIMESMain objectives

the TIMES project aims giving the same equality of chance:

- to each territory at each level to design its **smartest open roadmap**
- to each scientific e-team to design its smartest open responsible innovation
- to each scientific e-team to design the **best predictions for the roadmaps**
- to each one for his/her smartest professional path in territorial intelligence

Each above task has its own ecosystem inside the TIMES project

Along the 2030 UN Agenda, "smart" means "smart EE MRIO" matrix

(Environmental Extended Multi-Regional Input/Output) defining a smart territory or innovation

Industries						Y.,,	$\mathbf{Y}_{\tau,c}$	٧.,,,	q
	Zaa	Z _{4,8}	Z _{A,C}	Z _{4,9}	Y _{A,A}	$Y_{A,B}$	$Y_{A,C}$	$Y_{A,D}$	Qu
Products	$Z_{0,A}$	Z _{0,0}	Z _{6,C}	740	$Y_{R,\Lambda}$	Yasa	$Y_{B,C}$	Y _{8,0}	Qu
	Z _{C,A}	Z _{C,8}	Z _{CE}	Z _C p	Y _{CA}	Y _{C,0}	$Y_{C,C}$	Y _{C,D}	Qc
	Z _{0,A}	Z _{0,8}	Z _{0,0}	Z _{0.3}	$Y_{\Omega,A}$	Y _{0,8}	Yac	Y _{0,0}	Q,
w	W _a	W _a	We	W _o					
ε	£.	Es	81	En					
6.61	Capital	C ₆	C _i	C _o					
	Labora	La	Lc	Lo					
Environ Ext	NAMEA _s	NAMEA _s	NAMEA _C	NAMEA _o	Ī				
	Agrica	Agrice	Agricc	Agric ₀	Ī				
	Energy	Energya	Energy _C	Energyo	Ī				
	Metal	Metal	Metalc	Metal _p	Ī				
	Mineral _k	Minerals	Mineralc	Mineralo	Ī				
	Land	Land,	Land _c	Lando	î .				



UniTwin UNESCO CS-DC

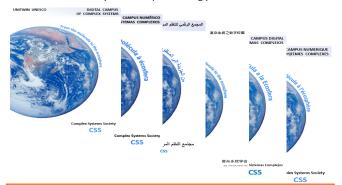
Complex Systems Digital Campus

cs-dc.org & cs-dc-15.org

Main objective: sharing all the resources for research and education on complex systems, including the roadmap and the big data for their theoretical and experimental studies.

The CS-DC is a UNESCO UniTwin ("Universities Twinning") of more than hundred universities in all continents. Its Cooperation Programme signed with UNESCO are the creation of:

- a Social Intelligent Roadmap ecosystem for sharing all resources
- a Computional ecosystem for the "best" multilevel modelling given big data
- an Educational ecosystem for open lifelong personalized education



TIMES Flagship of CS-DC cs-dc.org

TIMES Representative:

Celine Rozenblat, University of Lausanne, celine.rozenblat@unil.ch

TIMES Scientific Committee:

- Paul Bourgine, Polytechnic School Paris, paul.bourgine@polytechnique.fr
- Jeffrey Johnson, Open University, Jeff.Johnson@open.ac.uk
- Denise Pumain, University Paris 1, pumain@parisgeo.cnrs.fr
- Sander Van Der Leeuw, Arizona State University, vanderle@asu.edu

Next events

- CCS'16, Conference on Complex Systems, Amterdam Satellite meeting
- COP22- Summit, Marrakech November 2016
- the Open Governement Partership summit



TIMES

TERRITORIAL INTELLIGENCE FOR MULTILEVEL EQUITY AND SUSTAINABILITY

From smart households & farms to the smart world within Knowledge society

in relation with

- the COP22 Summit of Marrakech Nov 2016
- the **Open Government Partnership Summit** of Paris Dec 2016

HOW to do « Multilevel Open Governance »?

Creating a Scalable Multilevel Open Governance ecosystem

> Open governance e-team Smarter open territorial roadmap



Open governance e-sub-team

the SMOG ecosystem gives the same equality of chance to each territory to design its smartest open roadmap by:

- a bottom-up open government partnership with all its societal actors. Its actors are designing together their best roadmap and are together selffulfilling it with the help of the open responsible innovations of the WORI ecosystem below.
- a top-down use of the trustable & coherent predictions of the WOPP ecosystem below. The remaining quantified uncertainty is at the hart of the compromise between exploration and exploitation, the main deal of any adaptive system.

The SMOG ecosystem will organize each year championship with prizes where each open government will attribute prizes to its smartest territory.

HOW to do « Open Responsible Innovations »?

Creating a Worldwide Open Responsible Innovation ecosystem

> Open governance e-team Smarter open territorial roadmap



Worldwide interdisciplinary e-team

The WORI ecosystem allows:

- any territory at any level to submit its proposed open innovations for the challenges of its roadmap with the best chance of success
- local or, if necessary, worldwide interdisciplinary scientific e-teams to validate or invent and certify a smarter open responsible innovations The WORI ecosystem will organize each year championship with prizes for the smartest open responsible innovation in each category at each territorial level.

From the 17 UN goals of 2030 United Nations' Agenda





















Smart

Building



Smart

Region

matrix

Industries					Y.,,	Y.,s	$Y_{\tau, g}$	٧.,٥	q
	Za,a	Z _{4,8}	$Z_{A,C}$	Z _{4,3}	$\gamma_{A,A}$	$Y_{A,B}$	$\gamma_{A,C}$	$Y_{A,D}$	d
ę	$Z_{0,A}$	Z _{6,8}	$Z_{0,C}$	Z _{4,0}	$Y_{0,\mathbf{A}}$	$Y_{0,0}$	$Y_{B,C}$	Y _{8,0}	Q ₀
Products	$\mathbb{Z}_{C,A}$	Z _{C,0}	Z _{C,C}	Z _{CD}	Y _{C,A}	$Y_{C,0}$	$Y_{C,C}$	Y _{C,D}	qc
	Z _{0,A}	Z _{0,0}	Z _{0,C}	Z _{0.9}	$Y_{m,n}$	Y _{0,8}	Yac	Y _{0,0}	0,
w	W _a	W _a	We	W _o	_				
ε	Es.	E.	81	En					
ä	Capital	C _e	C _i	C _o					
2	Labora	Le	L _C	Lo					
	NAMEA _s	NAMEA _e	NAMEA _C	NAMEA _o	Ī				
	Agrica	Agrica	Agricc	Agric ₀	Ī				
9	Energy	Energy	Energy _C	Energyo	Ī				
nviron Ext	Metal	Metal _e	Metalc	Metal _p	Ī				
4	Mineraly	Mineraly	Mineralc	Mineralo	Ī				
	Land _a	Land,	Landic	Lando	Ī				

Smart world within Knowledge society

Smart

Household **Village Farm Smart Smart** Country **Factory Smart Smart Smart**

City

HOW to do the best predictions?

Creating a Worldwide Open Probabilistic Prediction ecosystem

> Open governance e-team Smarter open territorial roadmap



Worldwide interdisciplinary e-team

The WOPP ecosystem:

- •is implementing the recent 2nd internet revolution and blockchain for providing honesty and trust, traceability and historicisation to the SMOG big data about EE MRIO matrices of smart territories. The smart economy will use more and more the 2nd internet revolution for sharing big data with smart territories.
- •is using this trustable big data through deep learning methods for producing trustable & coherent predictions for the smartest possible multilevel roadmaps. The remaining uncertainty of the probabilistic predictions can be quantified: such uncertainty is at the hart of the compromise between exploration and exploitation, the main deal of any adaptive system.

HOW to do Education for a Smart World?

Creating a Personalized Open Lifelong **Education** ecosystem

> Co-learning e-team Smartest professional path





Worldwide interdisciplinary e-team

The POLE ecosystem provides:

- same equality of chance to each one to invent his/her smartest educational and professional path inside the TIMES Knowledge Map with the multi-linguistic MOOCs (Massively Online Open Courses) created by interdisciplinary e-team
- •best recommendations to each new personalized path using deep learning on all the previous personalized paths as well as personal tutors. The POLE ecosystem will organize each year championship with prizes for the best MOOC at each territorial level and the smartest professional path.