Trends of urban planning for

SMART CITY

From global experience to local applications

12/07/2018

worldometers

Population | FAQ | Get our Counters!

W / Population / World Population

Current World Population

7,631,287,208

view all people on 1 page >

TODAY	THIS YEAR
Births today **213,085**	Births this year **67,334,059**
Deaths today **88,258**	Deaths this year **27,889,249**
Population Growth today **124,827**	Population Growth this year **39,444,810**

Estimation 10 billion in 2055; 11 billion in 2088

02h00 July 13th 2018

www.a-vse.org

World Population (2018 and historical)

View the complete population historical table

Year (July 1)	Population	Yearly % Change	Yearly Change	Median Age	Fertility Rate	Density (P/Km²)	Urban Pop %	Urban Population
2018	7,632,819,325	1.09 %	82,557,224	29.9	2.51	51	54.9 %	4,186,975,665
2017	7,550,262,101	1.12 %	83,297,821	29.9	2.51	51	54.4 %	4,110,778,369
2016	7,466,964,280	1.14 %	83,955,460	29.9	2.51	50	54.0 %	4,034,193,153
2015	7,383,008,820	1.19 %	84,967,932	30	2.52	50	53.6 %	3,957,285,013
2010	6,958,169,159	1.24 %	83,201,955	29	2.57	47	51.3 %	3,571,272,167
2005	6,542,159,383	1.26 %	79,430,479	27	2.63	44	48.9 %	3,199,013,076
2000	6,145,006,989	1.33 %	78,706,515	26	2.75	41	46.5 %	2,856,131,072
1995	5,751,474,416	1.53 %	84,106,191	25	3.02	39	44.7 %	2,568,062,984
1990	5,330,943,460	1.81 %	91,432,333	24	3.44	36	42.9 %	2,285,030,904

#	Country (or dependency)	Population (2018)	Yearly Change	Net Change	Density (P/Km²)	Land Area (Km²)	Migrants (net)	Fert. Rate	Med. Age	Urban Pop %	World Share
1	China	1,415,045,928	0.39 %	5,528,531	151	9,388,211	-339,690	1.6	37	58 %	18.54 %
2	India	1,354,051,854	1.11 %	14,871,727	455	2,973,190	-515,643	2.4	27	32 %	17.74 %
3	U.S.	326,766,748	0.71 %	2,307,285	36	9,147,420	900,000	1.9	38	83 %	4.28 %
4	Indonesia	266,794,980	1.06 %	2,803,601	147	1,811,570	-167,000	2.5	28	54 %	3.50 %
5	Brazil	210,867,954	0.75 %	1,579,676	25	8,358,140	3,185	1.8	31	84 %	2.76 %
6	Pakistan	200,813,818	1.93 %	3,797,863	260	770,880	-236,384	3.7	22	38 %	2.63 %
7	Nigeria	195,875,237	2.61 %	4,988,926	215	910,770	-60,000	5.7	18	49 %	2.57 %
8	Bangladesh	166,368,149	1.03 %	1,698,398	1,278	130,170	-505,297	2.2	26	35 %	2.18 %
9	Russia	143,964,709	-0.02 %	-25,045	9	16,376,870	203,577	1.7	39	73 %	1.89 %
10	Mexico	130,759,074	1.24 %	1,595,798	67	1,943,950	-60,000	2.3	28	78 %	1.71 %
11	Japan	127,185,332	-0.23 %	-299,118	349	364,555	71,627	1.4	46	94 %	1.67 %
12	Ethiopia	107,534,882	2.46 %	2,577,444	108	1,000,000	-12,000	4.6	19	20 %	1.41 %
13	Philippines	106,512,074	1.52 %	1,593,984	357	298,170	-130,000	3.1	24	44 %	1.40 %
14	Egypt	99,375,741	1.87 %	1,822,590	100	995,450	-55,005	3.4	25	38 %	1.30 %
15	Viet Nam	96,491,146	0.99 %	950,346	311	310,070	-40,000	2.0	30	34 %	1.26 %
16	DR Congo	84,004,989	3.28 %	2,665,001	37	2,267,050	3,012	6.4	17	39 %	1.10 %

2

SUMMARY

I Trends in urban development

II Smart city - international experiences

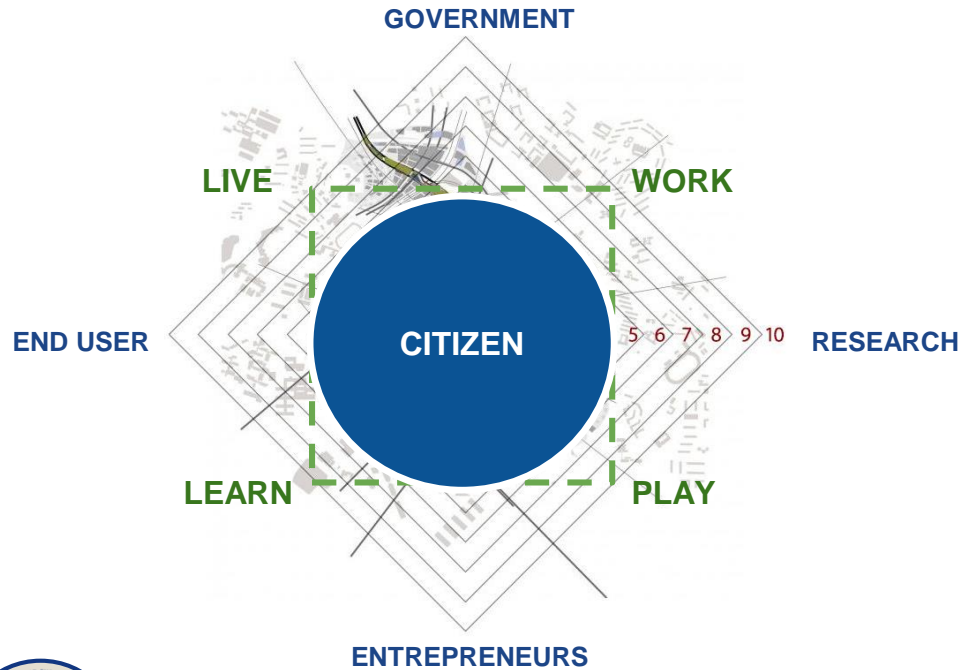**III** Suggestions/Recommendations for the Smart city

PART I.
Trends in urban development

The objectives of Urban planning- People+Nature+People

Living-lab's Model

Sustainable development

Biomimicry – Application of principle of natural ecology in development

1	Recycle of all materials
2	Diversification and complete symbiosis with habitat
3	Collection and efficient use of energy
4	Optimization of natural resources
5	Economical use of material and use of local material
6	Do not destroy nature
7	Do not use up natural resources
8	Biosphere balance
9	Interaction and information exchange

Source: UN FCCC 2015

6

Biomimicry thinking

WHY, WHERE, WHEN, HOW, WHAT, WHO

SCOPING, DISCOVERING, CREATING & EVALUATING

Source: UN FCCC 2015

PART II. Smart City & International experience

Smartcity in Vietnam(SWOT)

Hanoi
Project of construction of Smartcity

Hue
General planning of Smartcity

Da Nang
Smart water management
Smart system of electricity

Binh Duong
Smart system of electricity

Ho Chi Minh City
E-government
Smart healthcare
Application of telecommunication /
information technology for subway
Smart system of electricity
Smart home with remote controls
Ecological Smartcity

1 Advantages / Strengths

- Developed Technology System
- A large number of Internet users
- Young population => fast learning ability of information technology
- Advantages of the followers: gain a head start by taking a shortcut (leapfrog)

2 Disadvantages / Weaknesses

- High rate of urbanization
- Infrastructure not developed
- Inhomogeneous and insufficient database
- Consistency and Awareness of the people are still limited

3 Opportunities

- Harmonization between Centre and locals
- Role of the Capital in assembly of resources
- Many organizations want to implement new models of Smartcity in developing countries
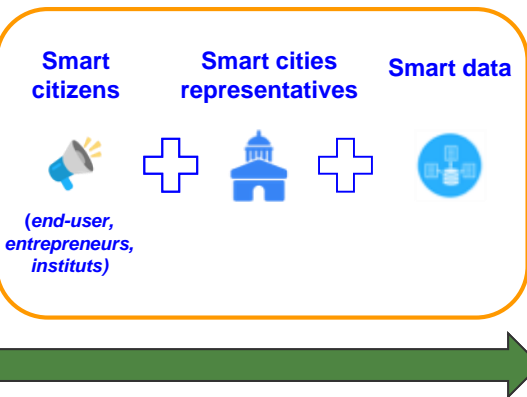
4 Challenges

- Capacities of perception, management and performance
- Resources having abilities to respond to demands
- Harmonized and consensus strategies from locals

360° CITY SCAN, Tractebel

Newcastle, 2/2017

Smart citizens + **Smart cities representatives** + **Smart data**

(*end-user, entrepreneurs, instituts*)

Holistic assessment of cities performance, fed by themselves, their citizens and data. Highlight improvement areas and strengths.

Guide cities through their development with the right solutions based on their profiles and need.

Connect cities with citizens, peers, partners to maximize their development potential

Steps to follow

360 city scan + experts → Access performance → Improve → Communication → Collective intel. → P2P learning → Comparison → Action

360° CITY SCAN, Tractebel

TRACTEBEL
ENGie

360° city scan applied in more than 40 cities
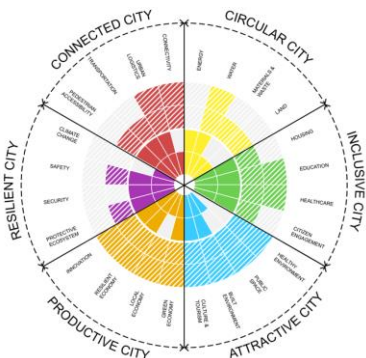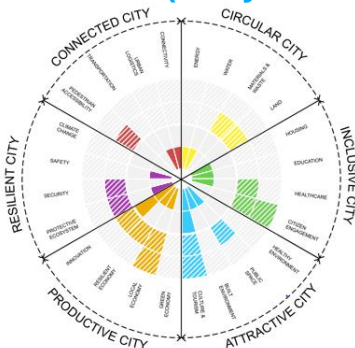
Vietnamese cities?

Monaco
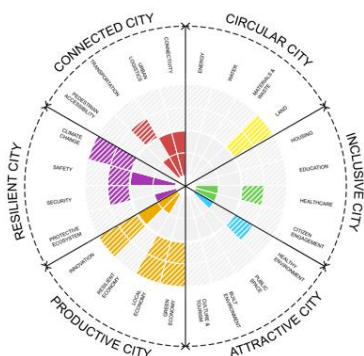
San Pedro (Ivory Coast)
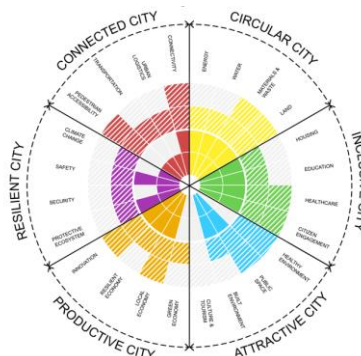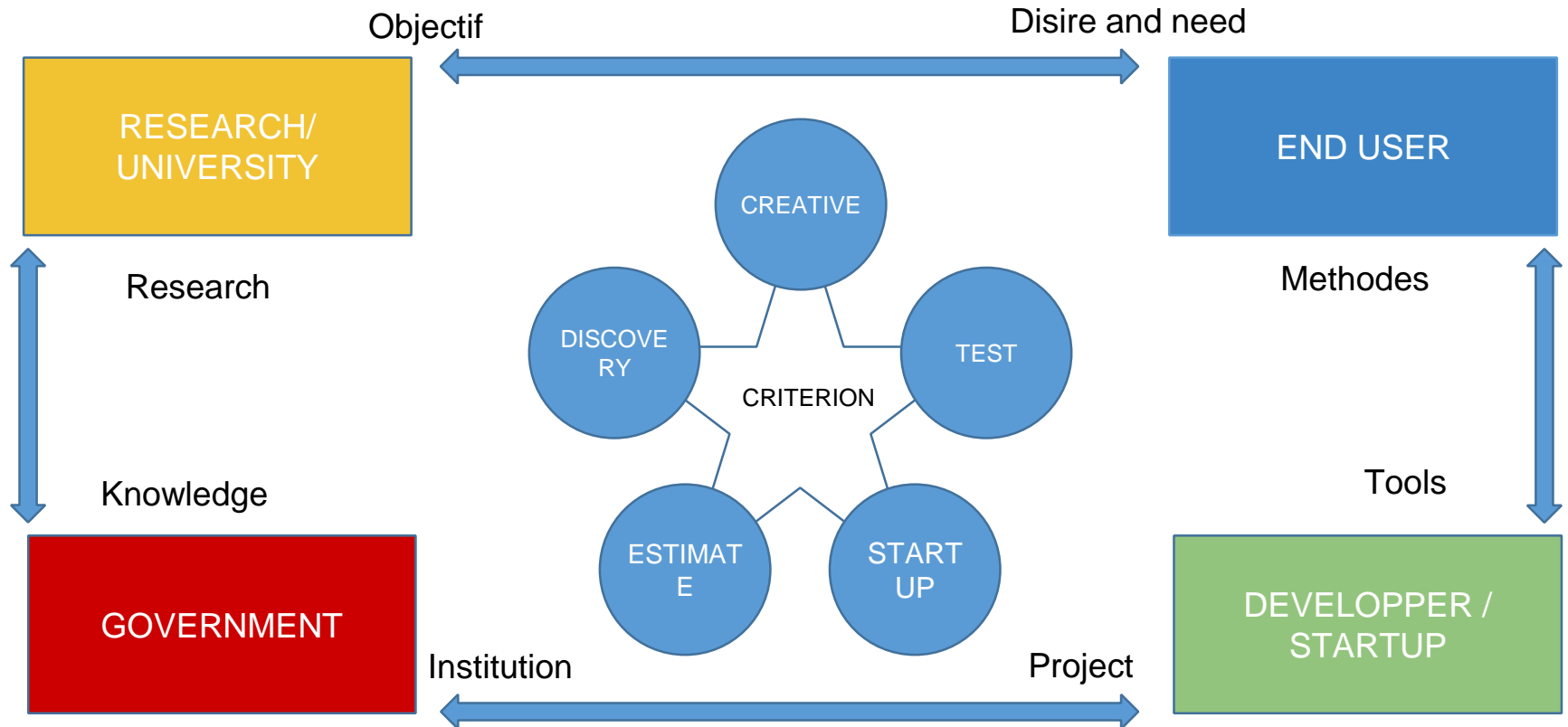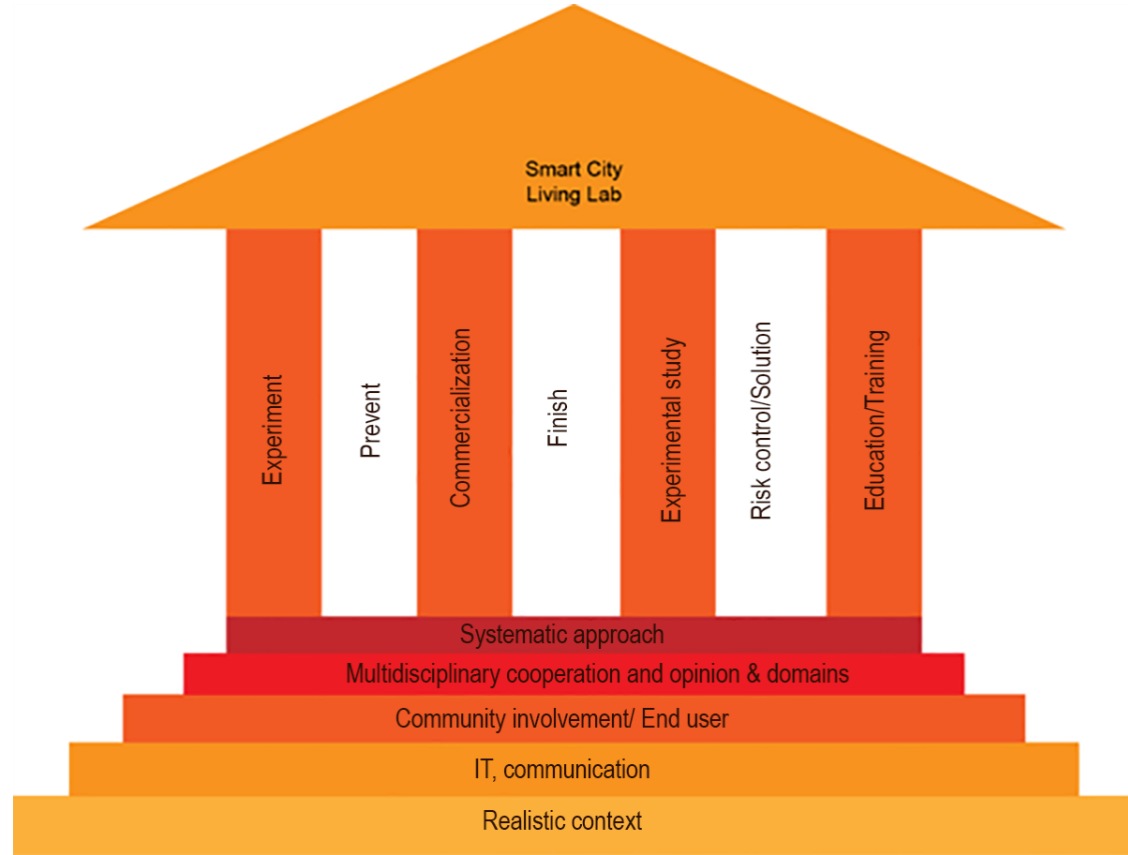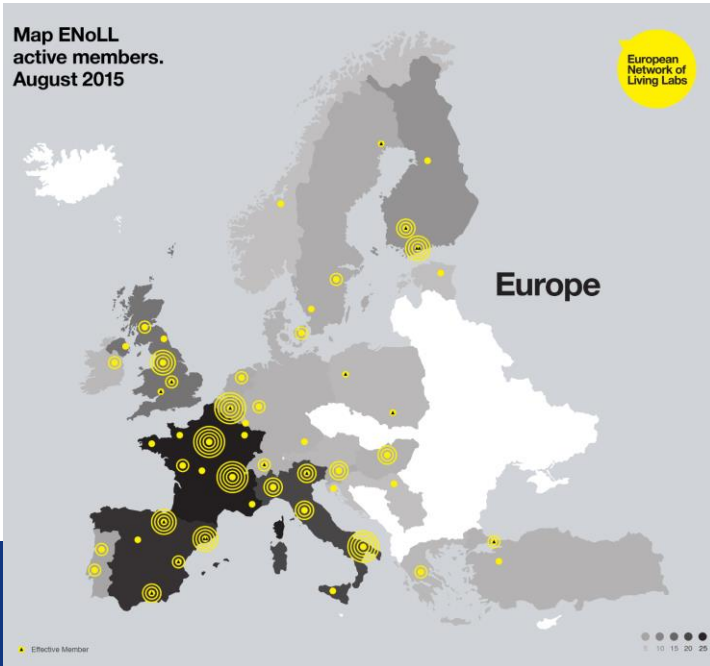

Northamptonshire, UK

London

New Delhi
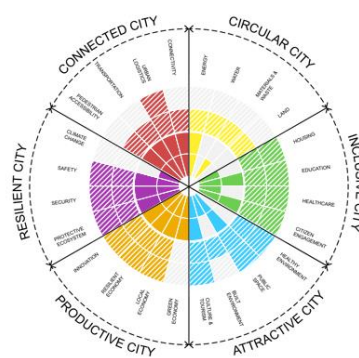
Chengdu

Smart City and Living Lab

Building Smart City using Living Lab model

More than 150 member countries (Enoll)

Confluence district, a site for innovation in Lyon center-France

" From fallow area to most liveable district of Lyon: built a smart and sustainable city*"*

Project Timelines : *Making plans a reality*

1995   2003 - 2008   2013

closing industrial area on the highly strategic site - old river port and wholesale market

the urban redevelopment project: pretested innovations to design the city of tomorrow

most liveable district in Lyon center: a simple, innovative and creative city,

Area **150 Ha**   Population (2014) **10 000**

Confluence in Lyon, France

"Sustainable and smart city"

Having fun

Learning

Consumption

Sharing

Walking

Setting in

Automatic electric bus

Culture & art

Bicycles

GOVERNMENT

LIVE   WORK

City citizens

SOCIETY   RESEARCH

LEARN   PLAY

ENTREPRISES

5 6 7 8 9 10

Smart City is the best way to build a sustainable city

ZERO ENERGY DEVELOPMENT- (BED-ZED), UK, 2001

1. **Zero energy**
2. **High quality**
3. **Energy efficient**
4. *Water efficient*
5. **Low-impact materials**
6. **Waste recycling**
7. **Eco-friendly transport**
8. **Higher quality of life**

Mục tiêu Smart City

"Humains and Humains
Humains and Nature "

Smart City

City Government

Ecosystem of knowledge economies

City Regional Center

Spatial Planning

Impact & Connecting Regions

Public Transport Infrastructure

Sustainable development

1 *Government and smart economy.*

Online services, infrastructure and open data, increase in production value and international communication

2 *Environment and smart mobility*

City space planning, management of the source of energy, infrastructure and smart building.

3 *Smart people and Smart Living*

Privilege Healthcare, security, culture

www.a-vse.org

PART III. Suggestions/recommandations

Suggestions for smart city in Vietnam and Hanoi

1 *Central level*

- *Establishing a legal framework, standards and criteria for infrastructure, data and equipment serving smart city in national level to link different regions*
- *Pilot model of smart city for research and replication*
- *Supervision principle to ensure building smart city through ranking of cities/provinces according to international criteria*
- *Promote entrepreneurship ecosystem, small and medium-sized companies access the market to provide information technology services to the government*

2 *Local level - Building Living-lab's model & Attracting high quality human resources*

- *Building data centers and developing an open data ecosystem*
- *Ensuring network infrastructure and broadband connection & integrating products/equipments and services of city*
- *Training human resources and experts in smart city domain, Calling overseas talents to come back and work in Vietnam & training local staffs to access new international technologies for smart city*

"Action without vision
is only passing time,
vision without action
is merely day dreaming,
but vision with action
can change the world."

– Nelson Mandela

AVSE Global : Mạng lưới toàn cầu

15+   Quốc gia trên thế giới

200+   Thành viên trên các dự án chiến lược

2 000+   Chuyên gia quan tâm đến hoạt động hội, tham gia khi cần
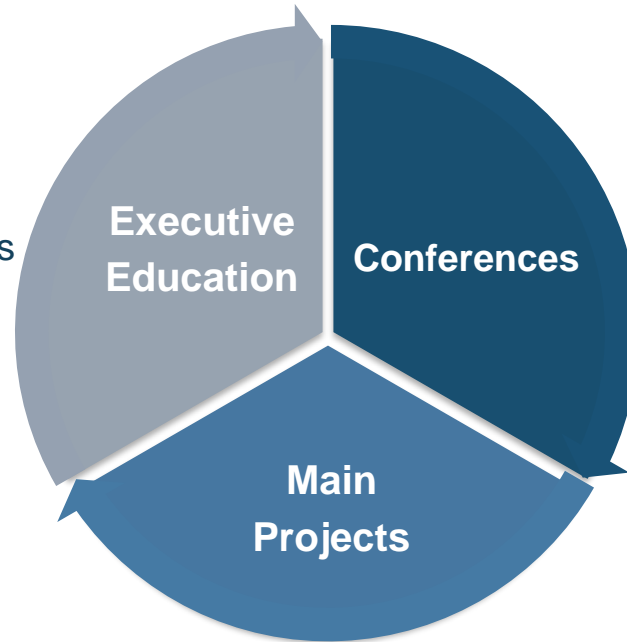
10 000+   Chuyên gia có thể kết nối

Our Activities

+**20** executive training programs
- **Diversified** subjects
- **Professional** experts/professors
- Prestigious partners

Executive Education

Conferences

Main Projects

7 conferences are upcoming in Vietnam

- Vietnam Digital Economy Forum
- Civil Engineering Conference
- Banking - Finance Symposium
- Sustainable Development Forum
- Offshore Engineering Conference
- Symposium in Leadership & Public Policy
- Vietnam Global Leader Forum

10 ongoing strategic projects…
- Education Network
- Civil servants
- Van Don SEZ
- Book Translation Project
- Economic Policy…

AVSE Global - Willing to accompany the urban planning of Hanoi

1	*Approaching the global urbanization in order to ensure regional connectivity*
2	*Participating in national projects in several domains*
3	*Linking Vietnamese and international experts*
4	*Ability to attract domestic and foreign investments*

International conference CIGOS 5th in Hanoi:

Innovations for a Sustainable Infrastructure
31 october & 01 november 2019

1. Hanoi - Case studies
2. Since 2010 first conference held in Ecole des Ponts et Chaussées with more than 5000 contacts
3. The meeting point for high-profile experts, researchers and high-quality papers published in Springer
4. Forum for discussion on policy between Entrepreneurs - Investors - Experts & Researcher - Organizations

International workshop

« International workshop: From Grand Paris Express to High speed train lines – new study cases for the Vietnam's future »
Hanoi - Trimestre 4/2018

To share the real experience and solutions to Vietnam in 3 main projects:

1. The project Grand Paris Express (200 km underground line)
2. Smart city and mobility
3. High speed train lines

Grand Paris Express　　　*Smart city*　　　*TGV*

AVSE Global's Urban team

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Beyond ourselves, shape the future

THANK YOU