Smart city, indeed…?

La ville intelligente, un défi plus politique que technique

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Sommaire

1. Ce que ville intelligente veut dire
2. Le risque de dérive totalitaire
3. La propriété des données: un enjeu politique
4. Le rôle du politique comme architecte et intégrateur de l'écosystème urbain
5. Comment organiser le contrôle politique des citoyens?

Les villes anciennes étaient intelligentes

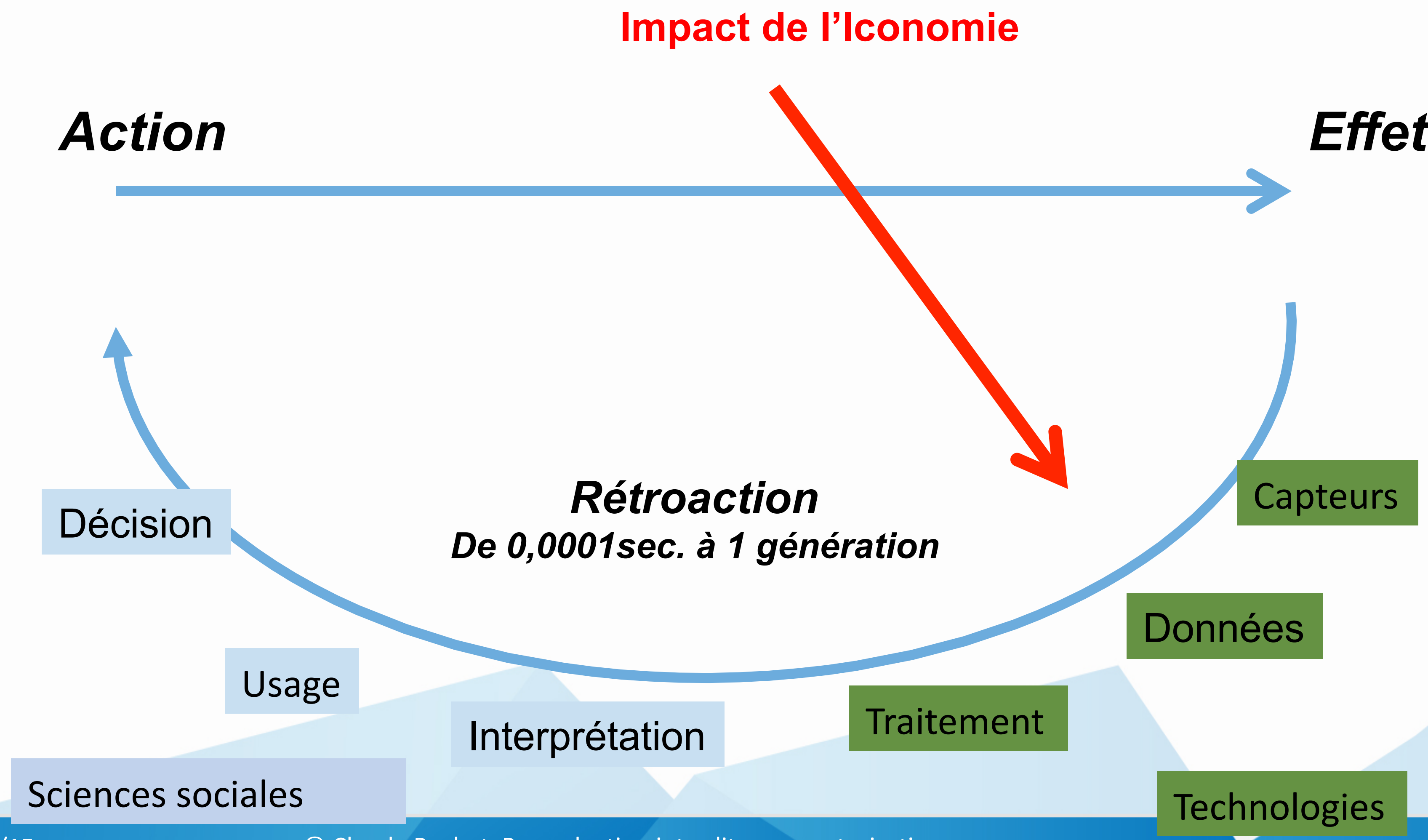
Bien commun

Vivere politico

Bien économique

Bien individuel

Ville intelligente: une boucle cybernétique d'apprentissage



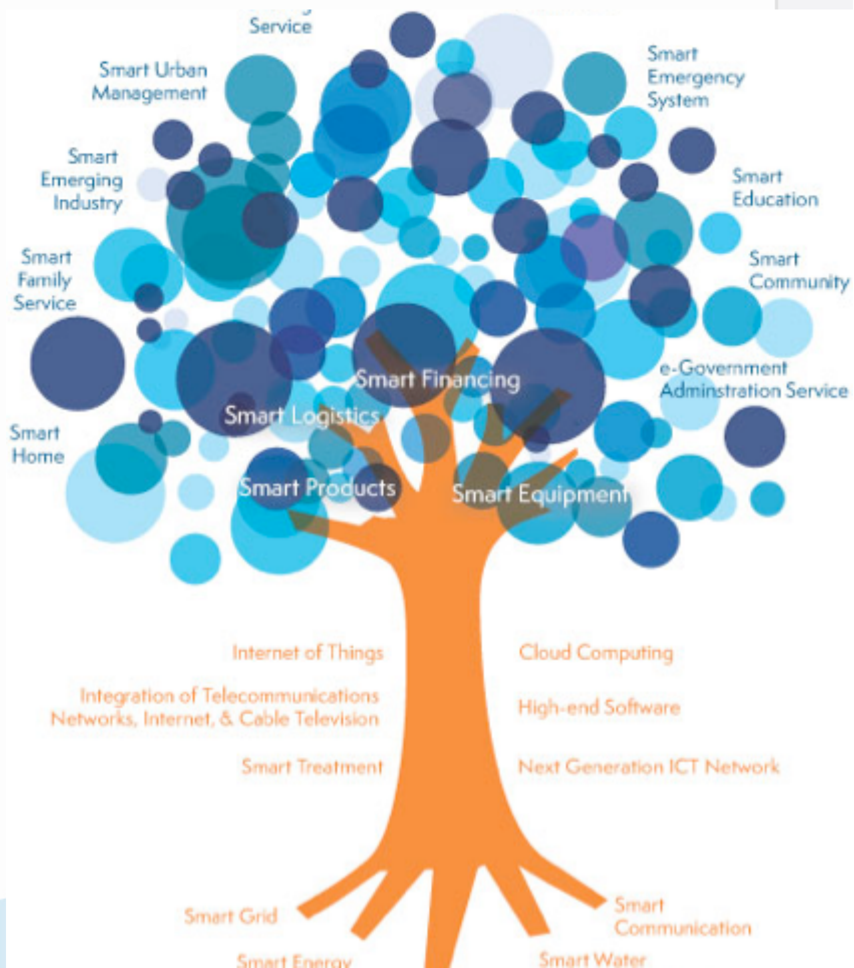
Les villes intelligentes actuelles réalisent ces connections par le numérique

Un système adaptatif et apprenant

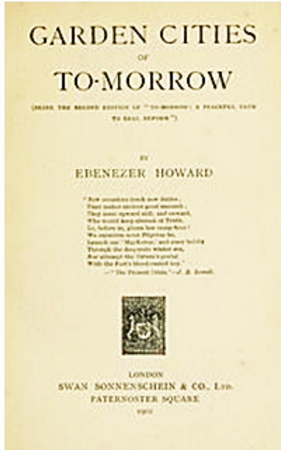
Systèmes humains vivants

SINO-SINGAPORE
GUANGZHOU KNOWLEDGE CITY
中新广州知识城

Systèmes physiques



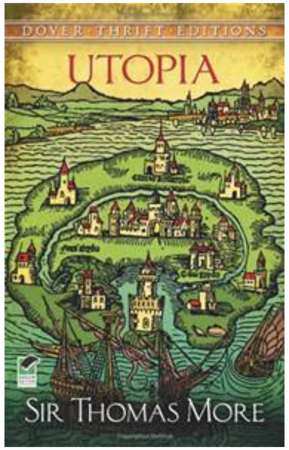
La ville a toujours été au centre des utopies totalitaires



1898

1896

1623



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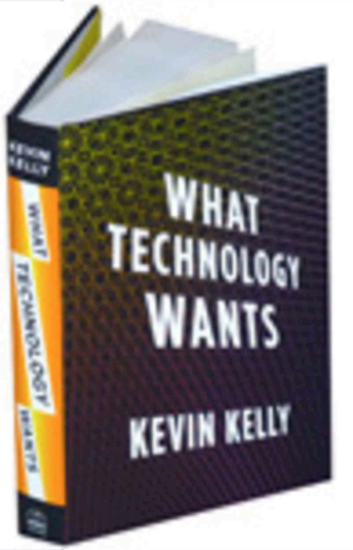
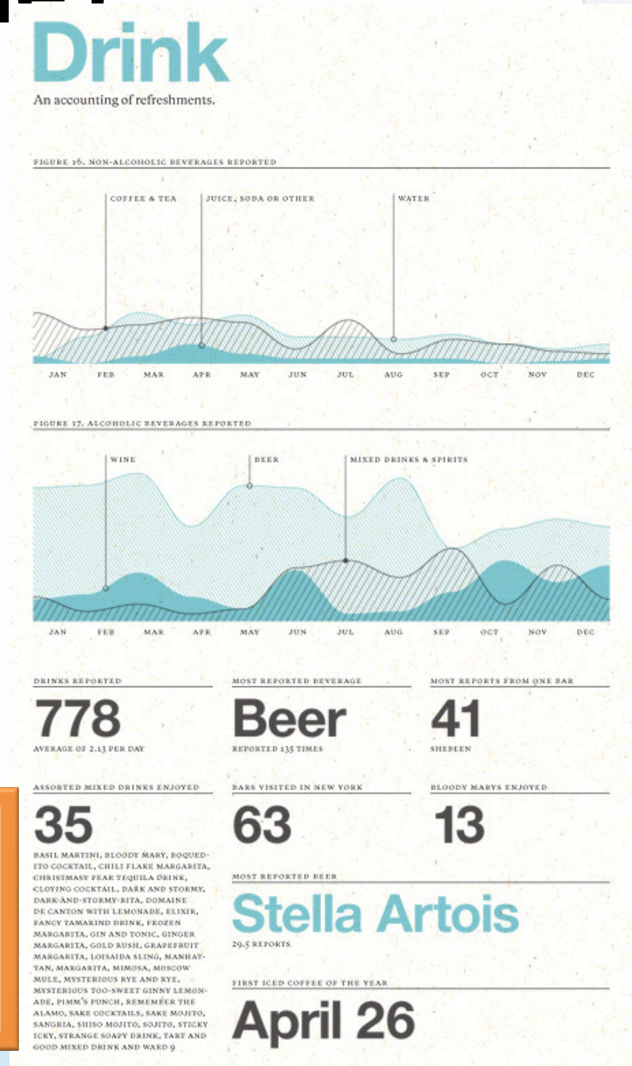
Les TIC sont elles une nouvelle utopie totalitaire?

- **Utopie= Une ville parfaite dans un monde parfait**

L'utopie technologique, un nouveau totalitarisme?

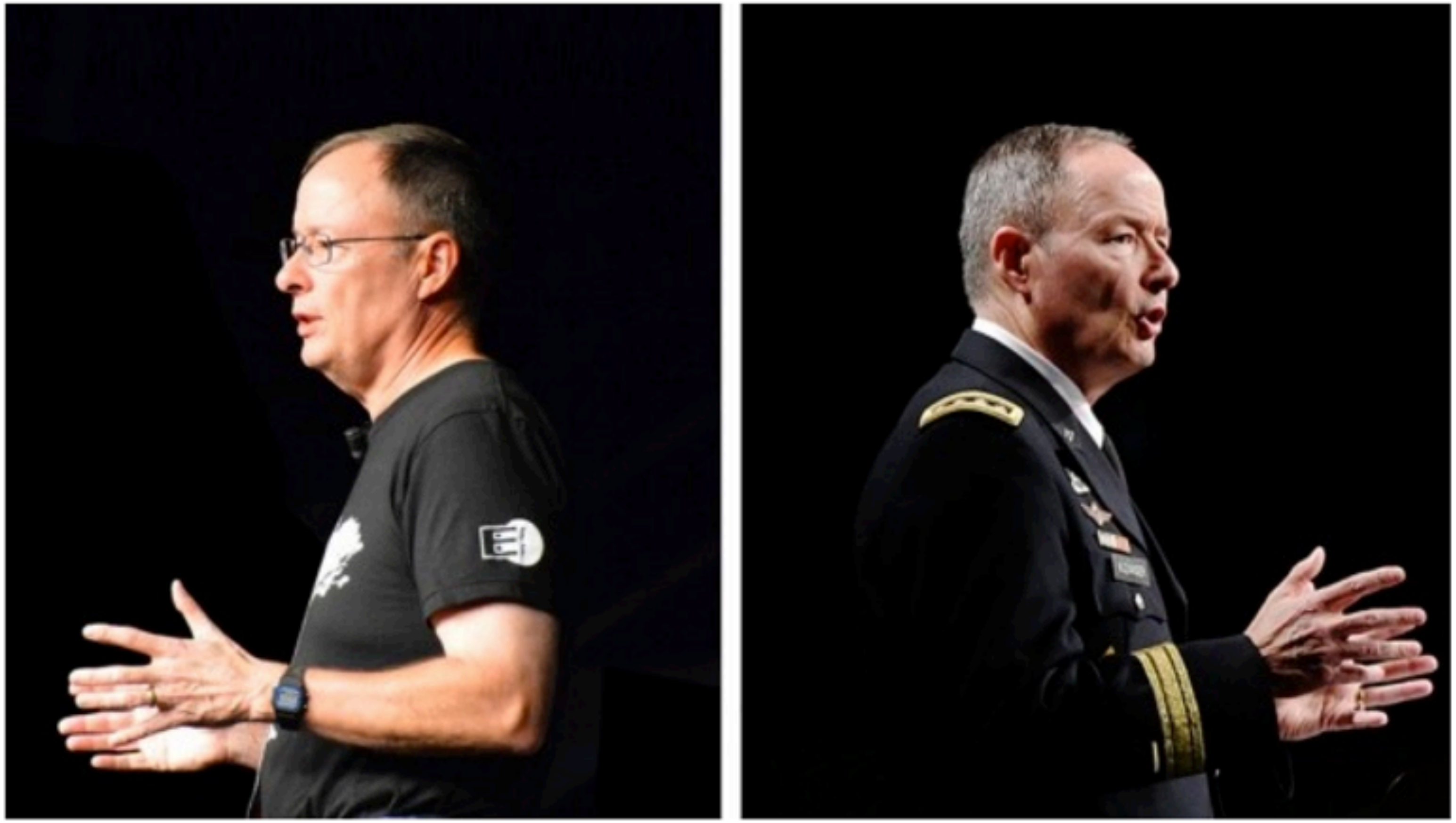


- L'ubiquité des data sexuels
- Le mythe du « *quantified self* »
- La confidentialité des données tend à être remplacée par un droit de propriété



> **"Technology is not really about hardware and software any more. It's really about the mining and use of this enormous data to make the world a better place." Google Chairman, Eric Schmidt, MIT News, 11-15-11,**

Règle #1: Assurer la propriété publique des données



© HACKERPHOTOS.COM / WIN MCNAMEE

Dr. Jekyll and Mister Hyde? The military and the IT sphere already affiliated, as you may see in the person of one of the most powerful men of the world: Keith Alexander, Director of the NSA, recruiting hackers at Defcon 2012, wearing a t-shirt of the civil rights organisation „Electronic Frontier Foundation"; in service uniform on the right

Règle #2: Transparence du code

5. **"Yet the most powerful information in the smart city is the code that controls it. Exposing the algorithms of smart-city software will be the most challenging task of all. They already govern many aspects of our lives, but we are hardly aware of their existence."**
The computer models that influence how cities develop and the processes that govern how cities run are locked up tight -- they're black boxed to most people, which means we have no idea what they look like. Government agencies and industry players alike avoid the accountability that comes with transparency by feigning concerns about security. Thus, the citizens who are impacted by these algorithms have little chance to discover -- let alone influence -- what biases are coded into them.

Who will regulate the regulator?

Transparent mais pas trop!

« En arrivant sur Lille, je me suis intéressé au fonctionnement des panneaux d'affichage de stationnement » relate à zdnet.fr le pirate. Ces panneaux indiquent en temps réel le nombre de places disponibles dans les parkings du centre ville. Et la transmission des données s'effectue par onde radio.

« Le protocole en clair et en français est encapsulé dans une trame radio. Il me suffit d'être proche du panneau pour être mieux entendu que l'antenne principale » dévoile IvoidWarranties.
Il y a donc glissé quelques incongruités en lieu et place des chiffres classiques, pour prouver le détournement. « Ce n'est pas une faille du constructeur, c'est juste que c'est une norme qui date d'il y a 20 ans, et que l'on peut trouver par Google. Et le protocole n'est pas crypté ».

Problème: la domination absolue des GAFA

Big data: l'absurdité de la "fin de la théorie"

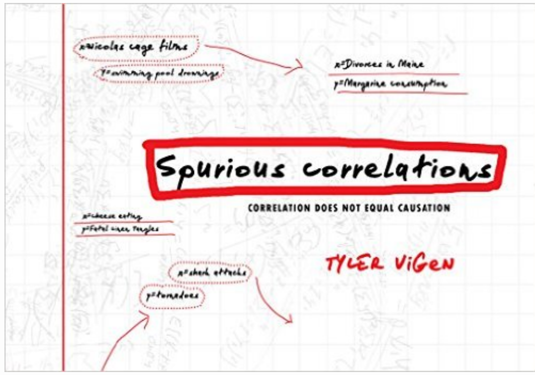
WIRED MAGAZINE: 16.07

SCIENCE : DISCOVERIES

The End of Theory: The Data Deluge Makes the Scientific Method Obsolete

By Chris Anderson 06.23.08

This is a world where massive amounts of data and applied mathematics replace every other tool that might be brought to bear. Out with every theory of human behavior, from linguistics to sociology. Forget taxonomy, ontology, and psychology. Who knows why people do what they do? The point is they do it, and we can track and measure it with unprecedented fidelity. With enough data, the numbers speak for themselves.



Correlations => Induction

Where is the brain?

Existing knowledge

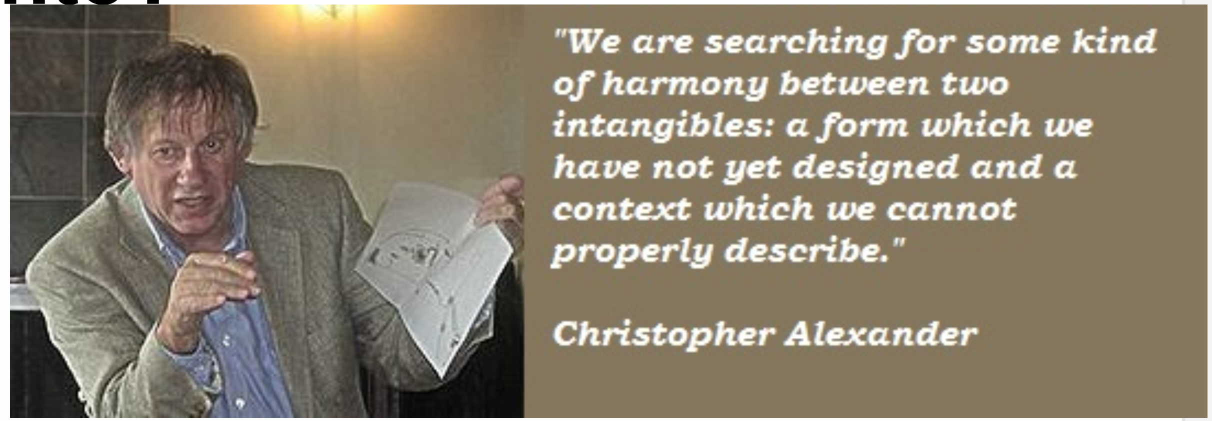
Deduction =>Hypotheses

Le danger des big data

Corrélation n'est pas causalité !

Peut-on modéliser une ville intelligente?

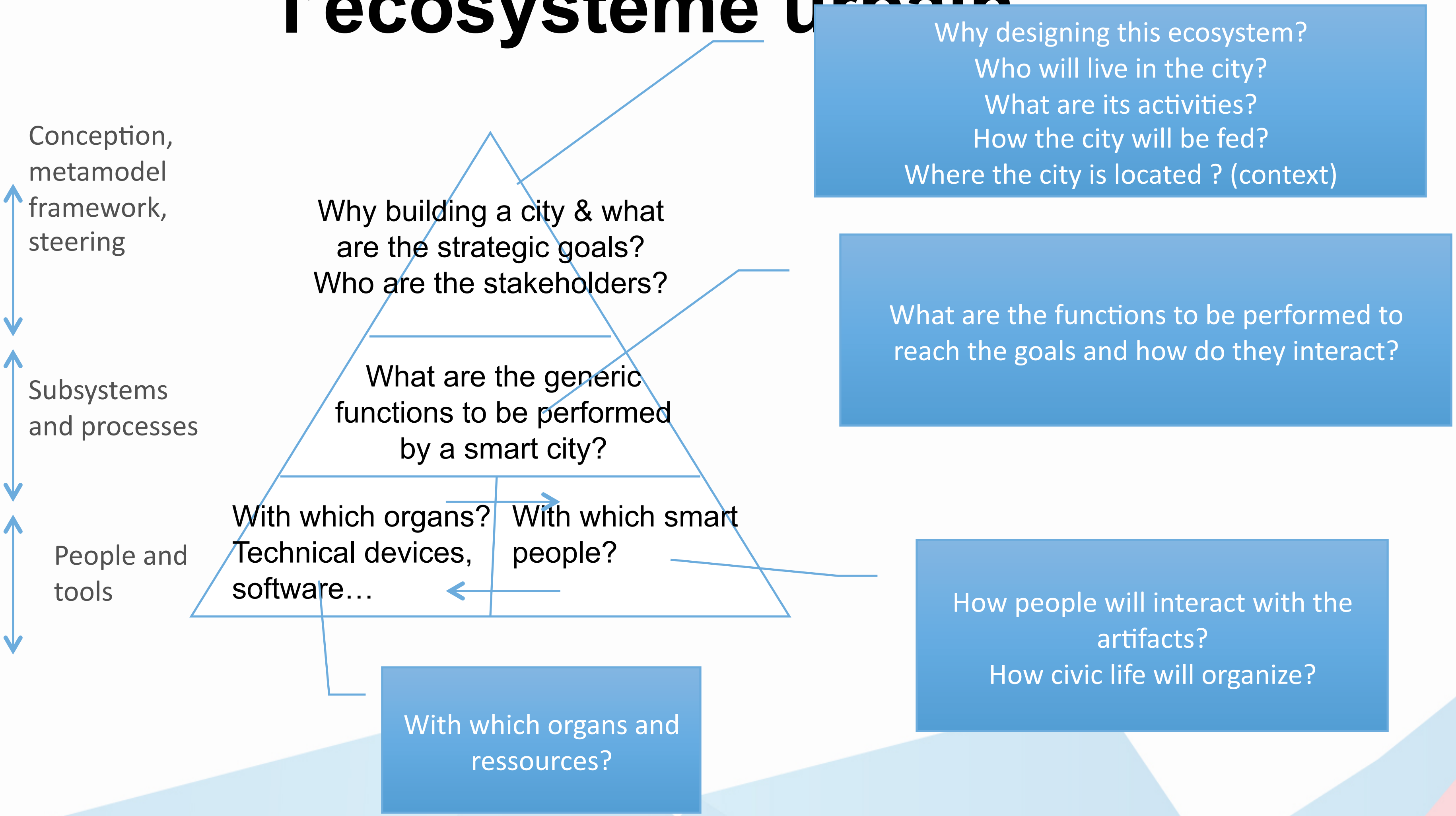
- Une impasse: la ville parfaite…
- La ville intelligente est un système vivant



"A building or a town will only be alive to the extent that it is governed in a timeless way. It is a process which brings order out of nothing but ourselves; it cannot be attained, but it will happen of its own accord, if we will only let it."

Christopher Alexander

Le rôle du politique comme architecte et intégrateur de l'écosystème urbain



中国智慧城市顶层设计架构

Top-Level Design of Smart Cities in China

To promote the ability of livelihood

提升生计发展能力

智慧政务
Smart Government

公共管理层
Level of public management

智慧产业
Smart Industry

社会生产层
Level of social production

智慧民生
Smart Livelihood

社会生活层
Level of social life

提升生存载体品质

城市设施层
Level of city infrastructure

智慧基础设施
Smart Infrastructure

资源环境层
Level of resources and environment

智慧环境
Smart Environment

To improve the quality of survival carrier

智慧办公 / 政务监督 / 公共管理 / 行政执法
Smart work/government and supervision/ public management/administration

智慧工业 / 农业 / 服务业
Smart manufacture/farming/service

智慧医疗 / 教育 / 居家 / 就业
Smart healthcare/education/ community/employment

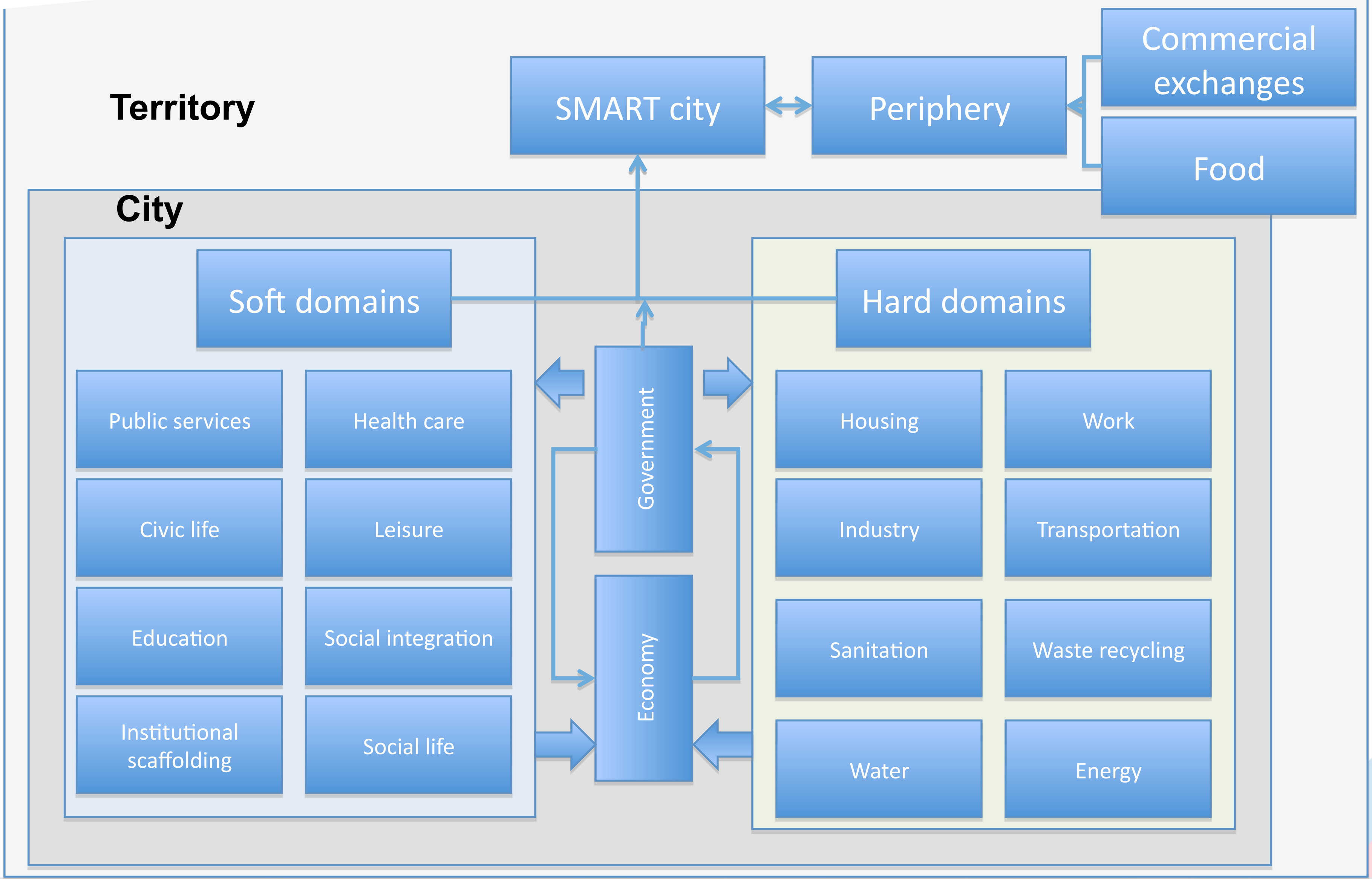
智慧市政 / 交通 / 能源 / 安全
Smart municipal/transportation/ energy/security

网络 / 数据中心 / 部件管理
Network/data center/ unit management

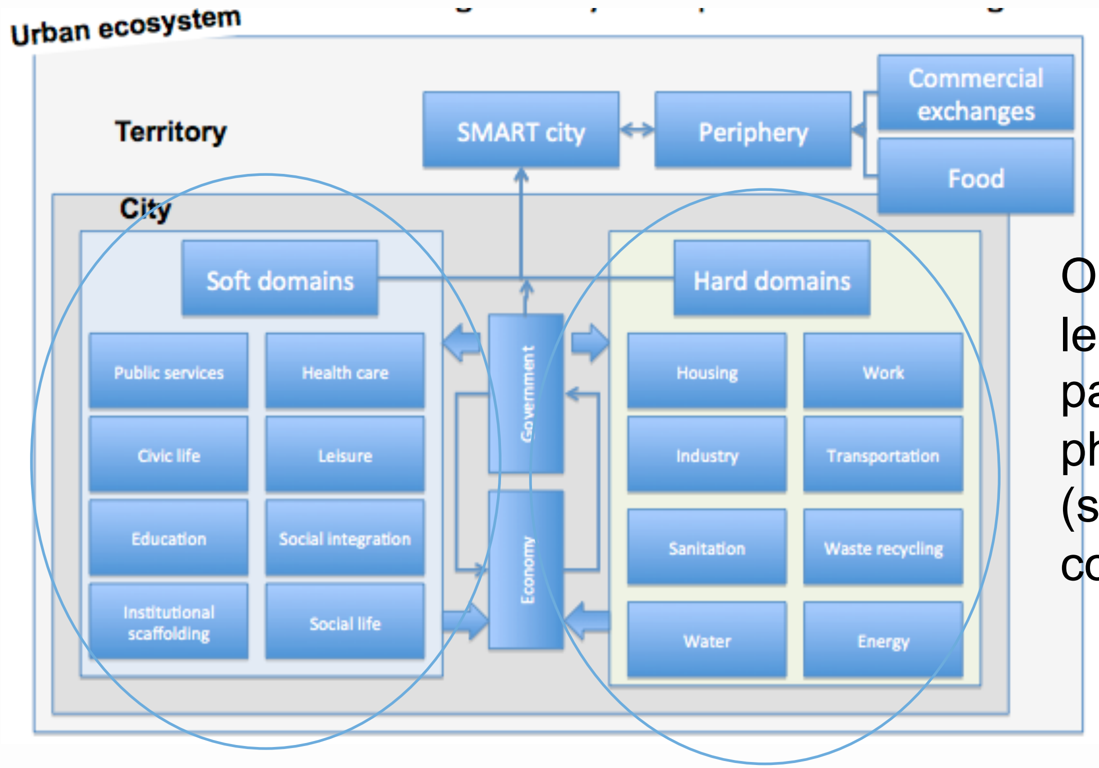
智慧气象 / 国土 / 水务
Smart weather/territory/water

来源：发改高技[2014]1770号《关于促进智慧城市健康发展的指导意见》
Source: National Development and Reform Commission(NDRC) file number.(2014)1770

L'intégration systémique de la ville intelligente



Problèmes de la modélisation systémique



On ne peut pas modéliser les systèmes humains par les lois de la physique (systèmes dissipatifs)

On peut modéliser les systèmes durs par les lois de la physique (systèmes conservatifs)

- Sciences sociales
- Big data

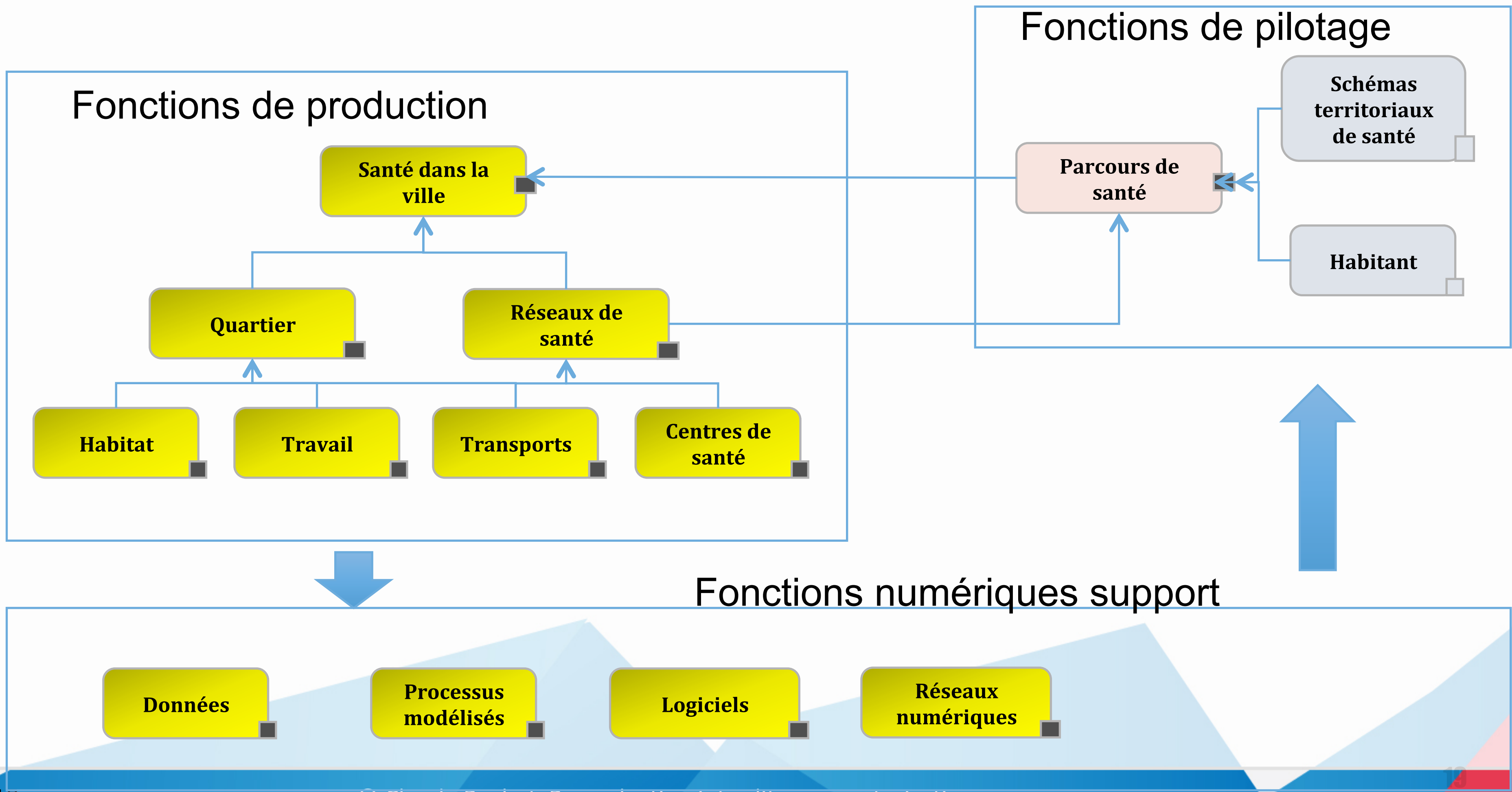
La clé du succès est là…

… alors que le business est ici

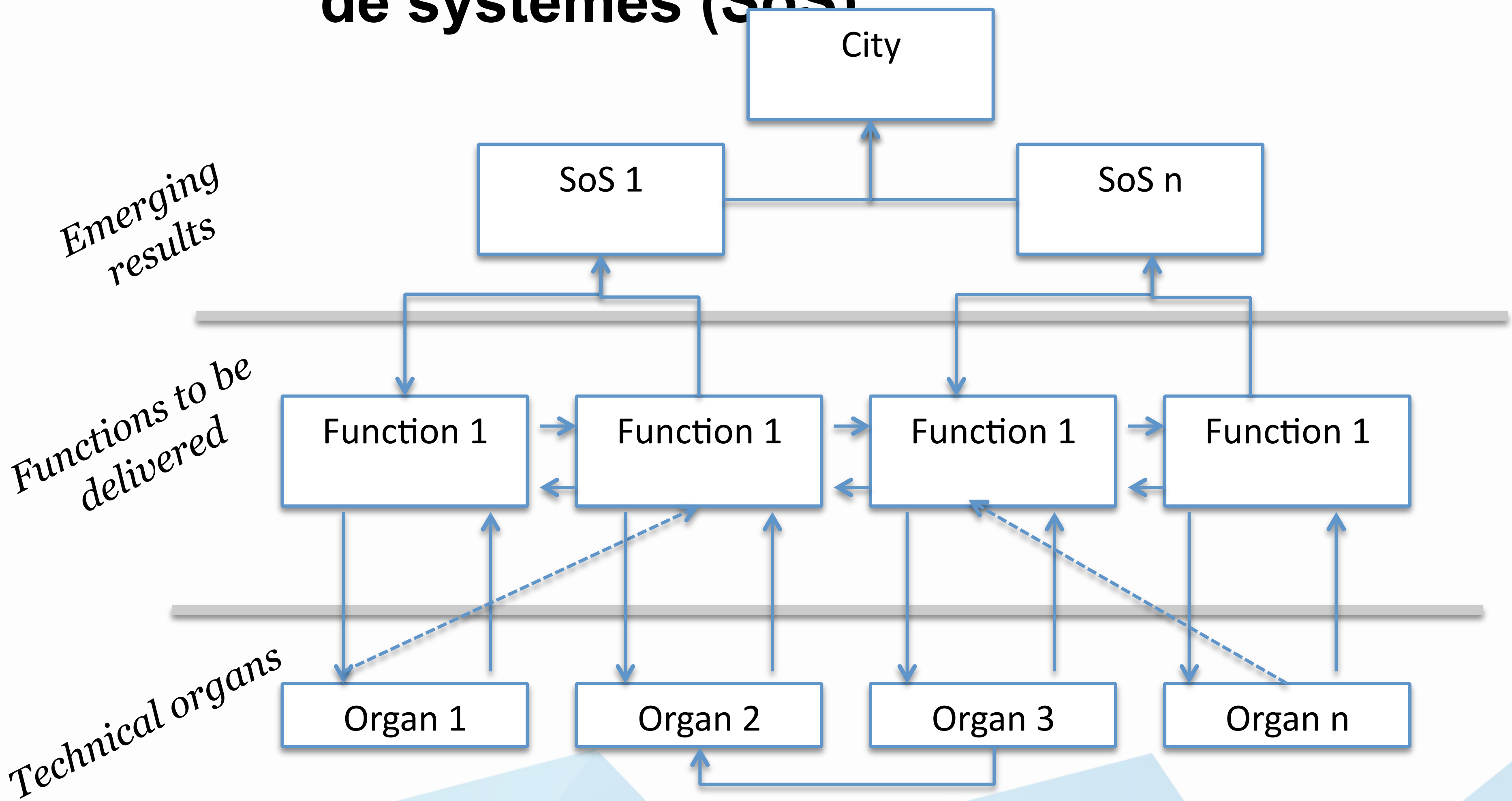
- Modélisation mutli-agents

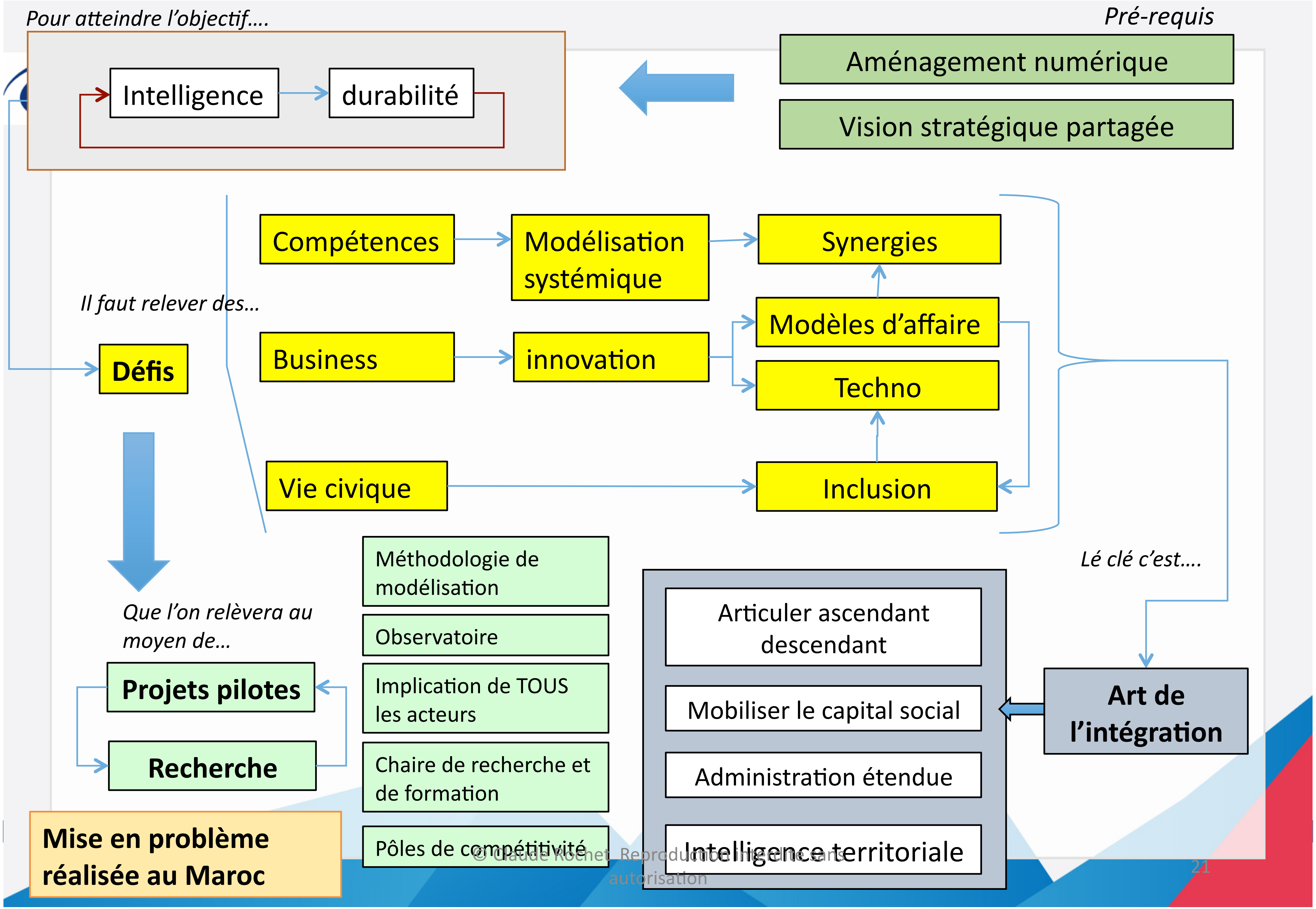
L'intégration système, une compétence à développer pour réussir!

Architecture des fonctions de base de la ville durable: ex. la santé



Règle #3 Intégrer la ville comme système de systèmes (SoS)




Pour atteindre l'objectif….
Intelligence
durabilité
Pré-requis
Aménagement numérique
Vision stratégique partagée
Il faut relever des…
Défis
Compétences
Modélisation systémique
Synergies
Business
innovation
Modèles d'affaire
Techno
Vie civique
Inclusion
Que l'on relèvera au moyen de…
Projets pilotes
Recherche
Méthodologie de modélisation
Observatoire
Implication de TOUS les acteurs
Chaire de recherche et de formation
Pôles de compétitivité
Lé clé c'est….
Articuler ascendant descendant
Mobiliser le capital social
Administration étendue
Intelligence territoriale
Art de l'intégration
Mise en problème réalisée au Maroc

Pas évident d'intégrer les smart gens!

Présentation faite par le directeur de projet « smart city » d'une métropole française »

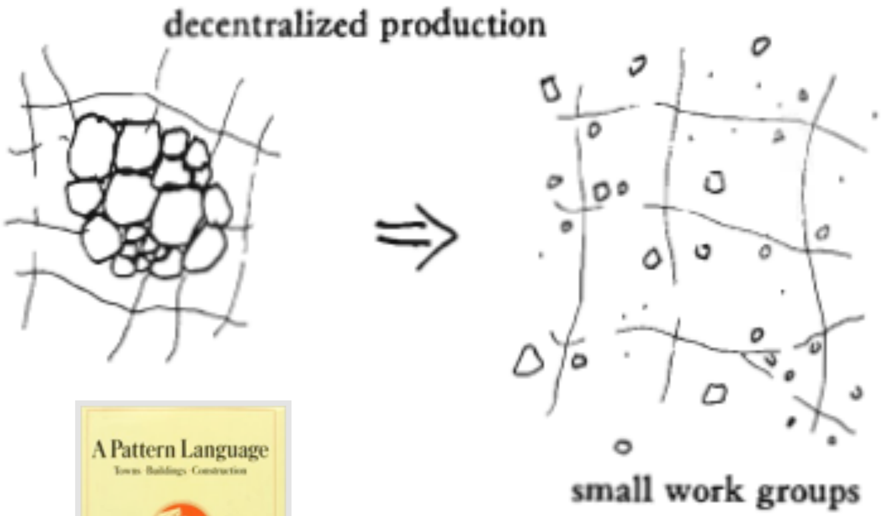
SMART CITY : Integrated complex systemS

- Data at the heart of system : collection, wholeness, property, privacy, responsibility, value…
- Multi actors governance : new public/private, private/private, and citizens relationships
- Systemic approach between differents fields with strong interaction
- Multi scale approach : Space (building, district, city) and Time (real time to long time series)
- Threshold : Standard and interoperability needed to reach the threshold
- Service efficiency and reliability
- What about human being behaviour ?

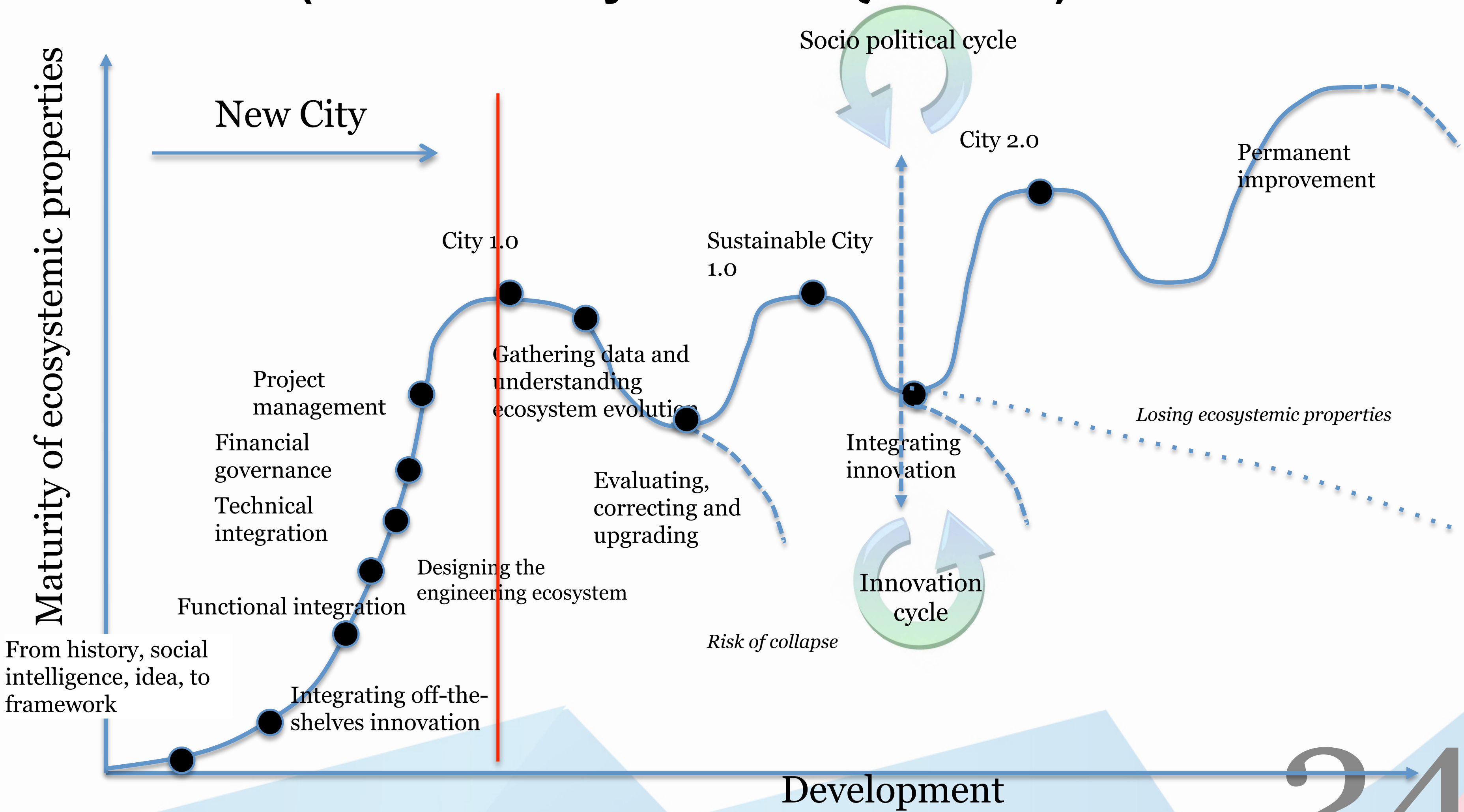
Un gouvernement intelligent?

- Dessiner le modèle d'activité de la ville avec des **patterns**
- Une vie politique active
- Innovation ouverte tout au long du cycle de vie

Use zoning laws, neighborhood planning, tax incentives, and any other means available to scatter workplaces throughout the city. Prohibit large concentrations of work, without family life around them. Prohibit large concentrations of family life, without workplaces around them.



Un outil pour piloter l'écosystème: ULM (Urban Lifecycle Management©)



Piloter évolution et innovation

Innovation within building blocks has different speeds

With smart networks innovation cycles are connected: (before, no): a permanent challenge

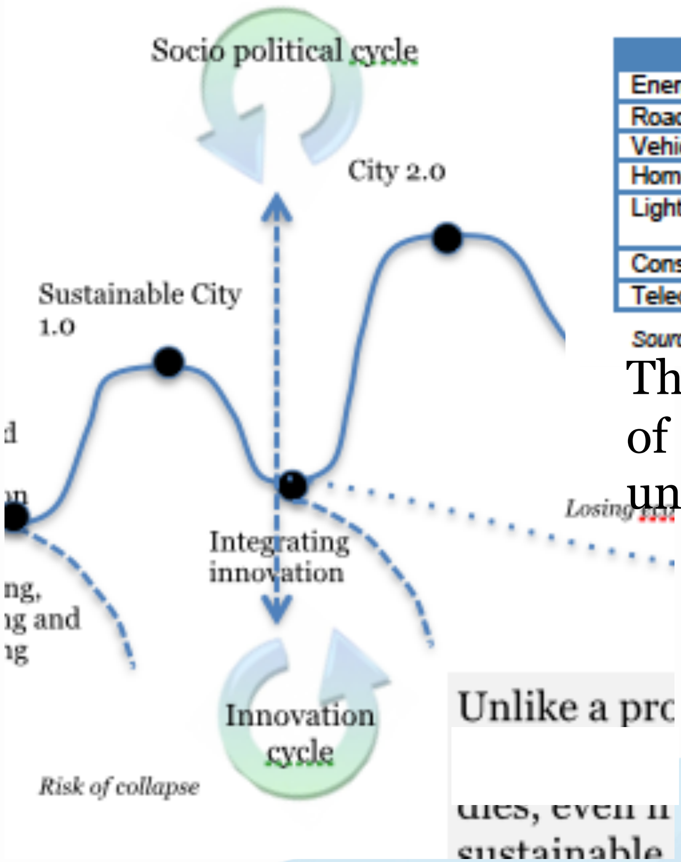
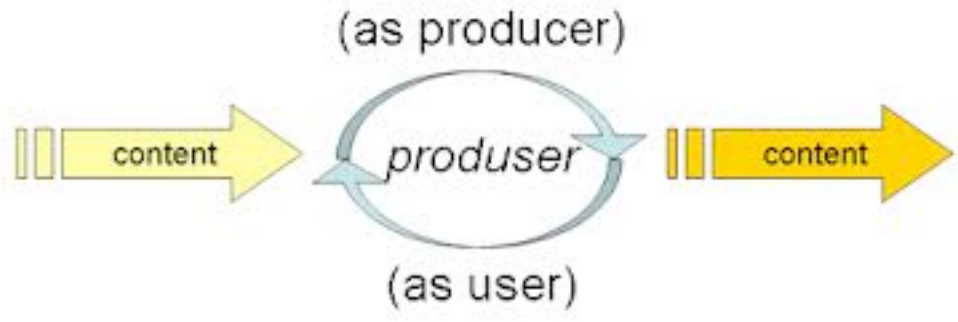


Table 3. Lifecycles of smart applications

Application	Lifecycle
Energy networks	15-50 years
Roads	30 years (10 years maintenance)
Vehicles	15 years
Home appliances	10 years
Lighting	2 500 hours for incandescent light bulbs and 25 000 for LED. (2 years to 20 years)
Consumer electronics	2-10 years
Telecom networks	10-50 years

Source: OECD

The city dweller is the decider in last resort of the impact of any innovation on the city life: Good/Bad, useful/unusual, improve/kill



Développer le capital social: approche descendante vs. ascendante => Christchurch (NZ)

The government's response was to establish a single body, the Canterbury Earthquake Recovery Authority (Cera). It was solely responsible for managing the rebuild. "If you look around the world at cities which have experienced disasters, it is single-purpose organisations that are the most efficient," said Cera's chief executive, Roger Sutton.

The city's newly installed mayor, Lianne Dalziel, hopes to usher in a new era of governance that focuses on empowering community organisations to do things for themselves. "Building a resilient city starts at the grassroots, so that bottom-up meets top-down halfway," she wrote recently.

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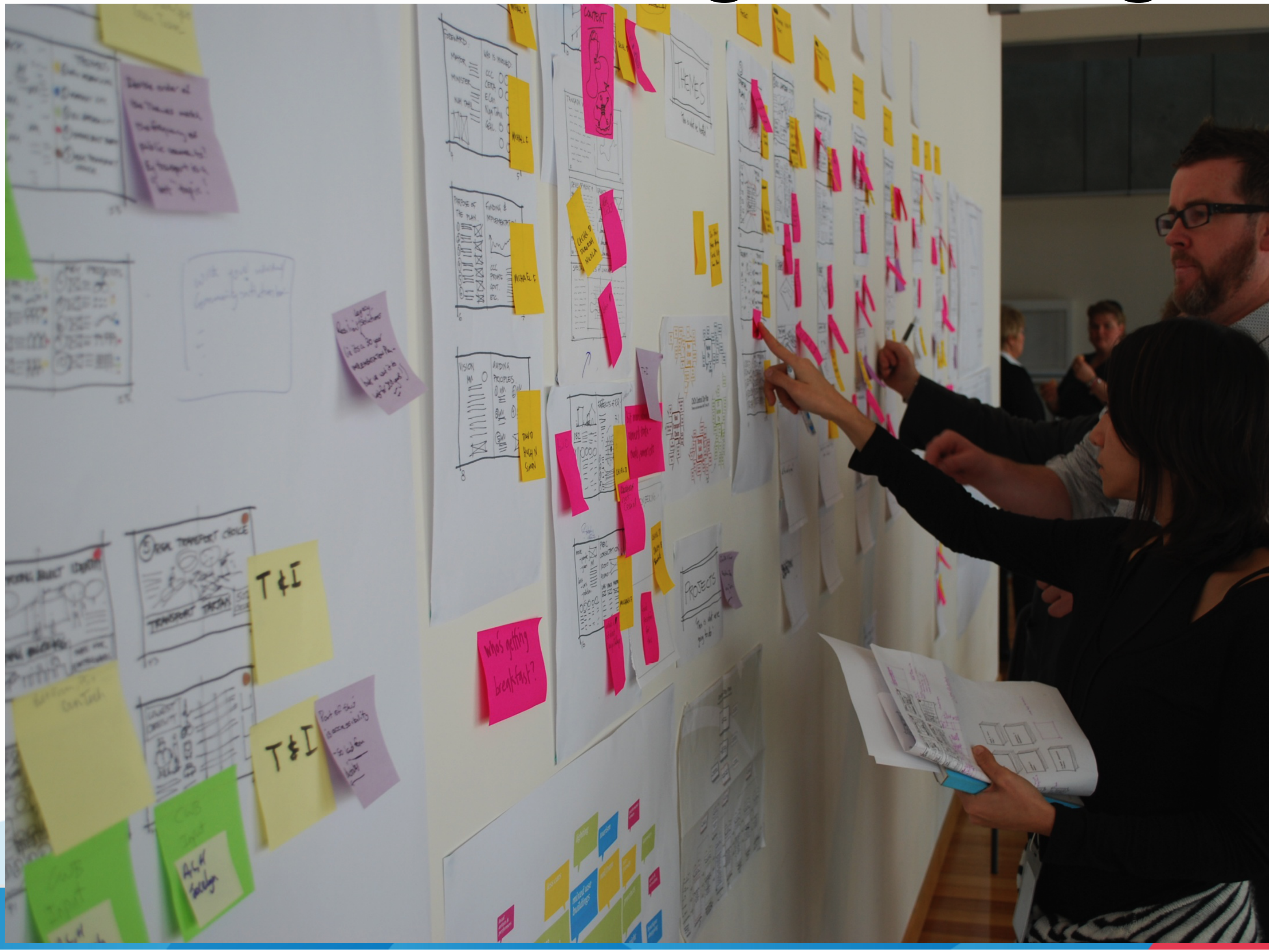
aristote

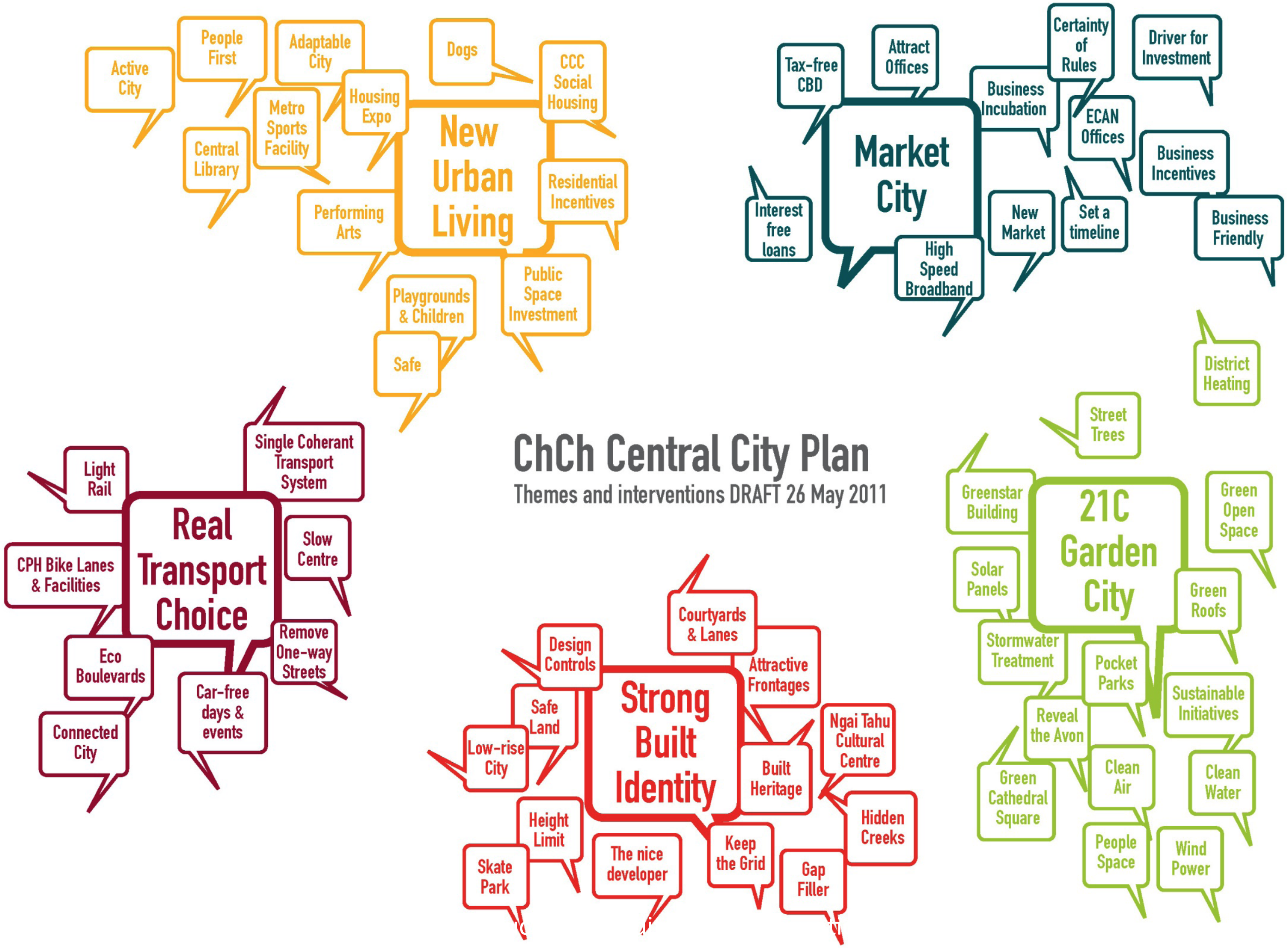
Ateliers de DesignThinking



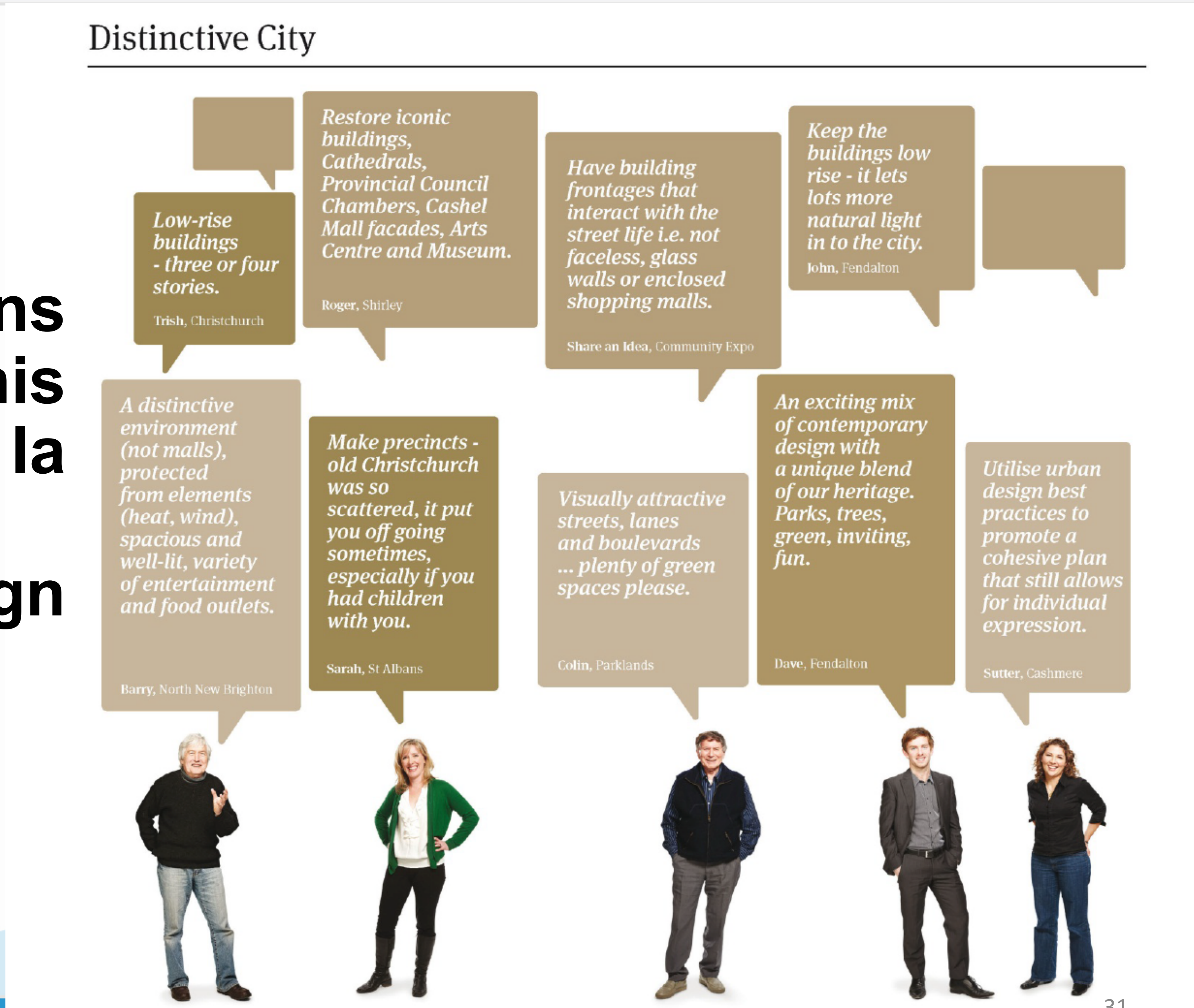

share an idea
What is share an idea?
What is the process?
What is the Central City Plan?
Sign up to receive updates
Long idea to share?
Hey Christchurch! We're gathering everybody's ideas so we can create an informed and inspiring vision for the Central City following the quakes. This is just the beginning of the conversation – over the next couple months we'll be asking plenty of questions about a range of topics. So make sure you keep coming back! Now, to get the ball rolling...
Come to the Share an Idea Community Expo - View timetable
CBS Canterbury Arena,
Saturday 14 & Sunday 15 May,
10am – 5pm
What's your vision for Christchurch's Central City?
140 characters remaining
Share your idea
coffee, cafes, music, lights, somewhere where the community can come and enjoy great dining and fun, all ages. Park like and cosy.
Melissa
Use red bricks, create a path around the pre 22 Feb Streets - parks& benches/seats to sit on, with plaques telling what happened there
Sue
Lets add lots and lots of gardens, green areas and play areas for the christchurch community, keep up that Garden City as we are known.
Melissa Parklands
good public transport with buses & light rail. Bike only roads
Mary Linwood
be generous with cycle lanes and places to park cycles. Victoria
Victoria St. Albans
I believe a Sports Centre like Dunedin's Edgar Centre would rejuvenate the city and service the community. Placed between Tuam/Cashel /Barb.
Jason
Lots of greenery & space without concrete. Bring the heart back to the square and build around cycle and pedestrian routes. One chance only.
Adrian
Sport, art, music, entertainment, swimming, library, art gallery, produce market, farmers market, food, business, technology, professionals.
John
Places for people. A large, all weather, swimming complex, facilities for all and training and coaches. A music school. A produce market.
John
underground parking under all new buildings in central city
james yorkshire,uk
More affordable residentials in inner city to close the previous gap btw high end and shitty cold flat. Foot traffic
Can we get a "like" function on this site?
Alexander
make it easy to see all
Use the square and its neighbourhood to create


What kind
of city
do you want?
David Sim, Gehl Architects

Producing and structuring ideas



Les patterns sont définis par la démarche de design thinking



Articuler technologie et politique

- La ville intelligente doit être un projet **politique** pour ne pas être un enfer
  - Intégrer sciences sociales et technologie
  - Des défis techno-politiques: sécurité des systèmes et des données
  - Des défis politiques : la démocratie directe et le contrôle sur les systèmes technologiques

Panoptique

La cité pour le Bien commun

Merci!

Thank you!

شكران

谢 谢

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