ECOLOGICAL AND DIGITAL TRANSITION (S)

FRIENDS OR ENNEMIES ?
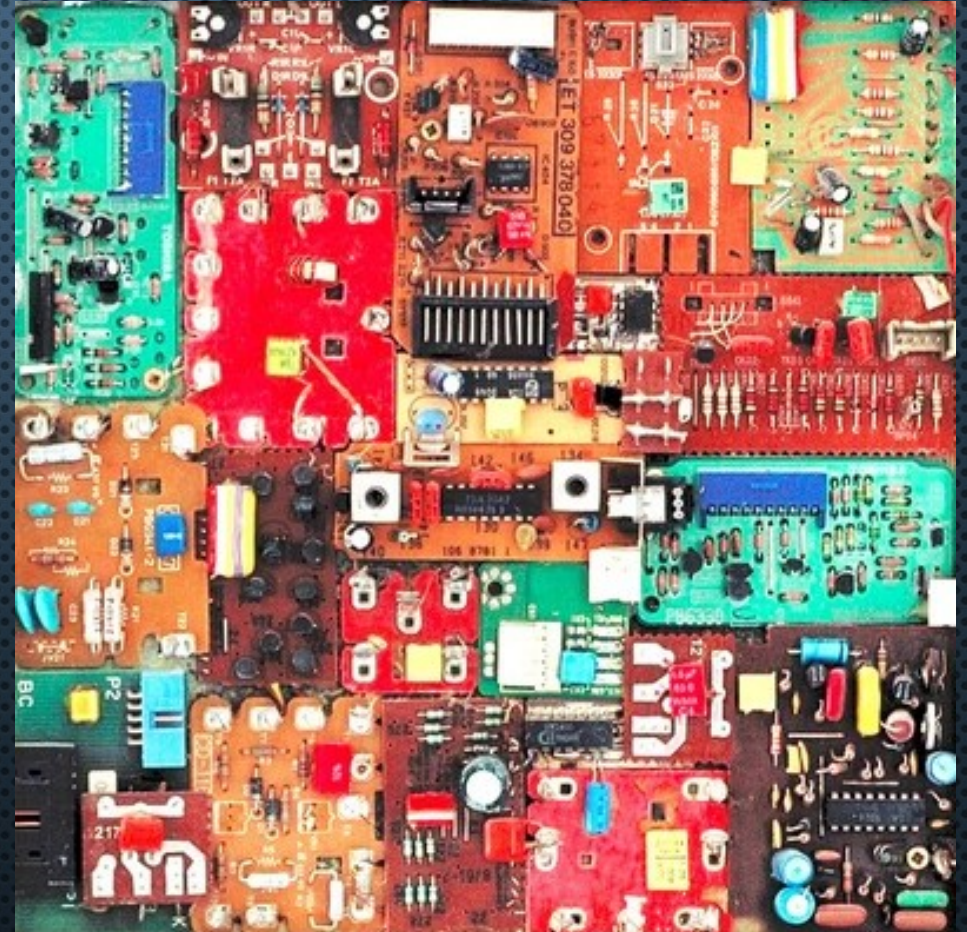
Eric Vidalenc

SICT – 8th sept 2020
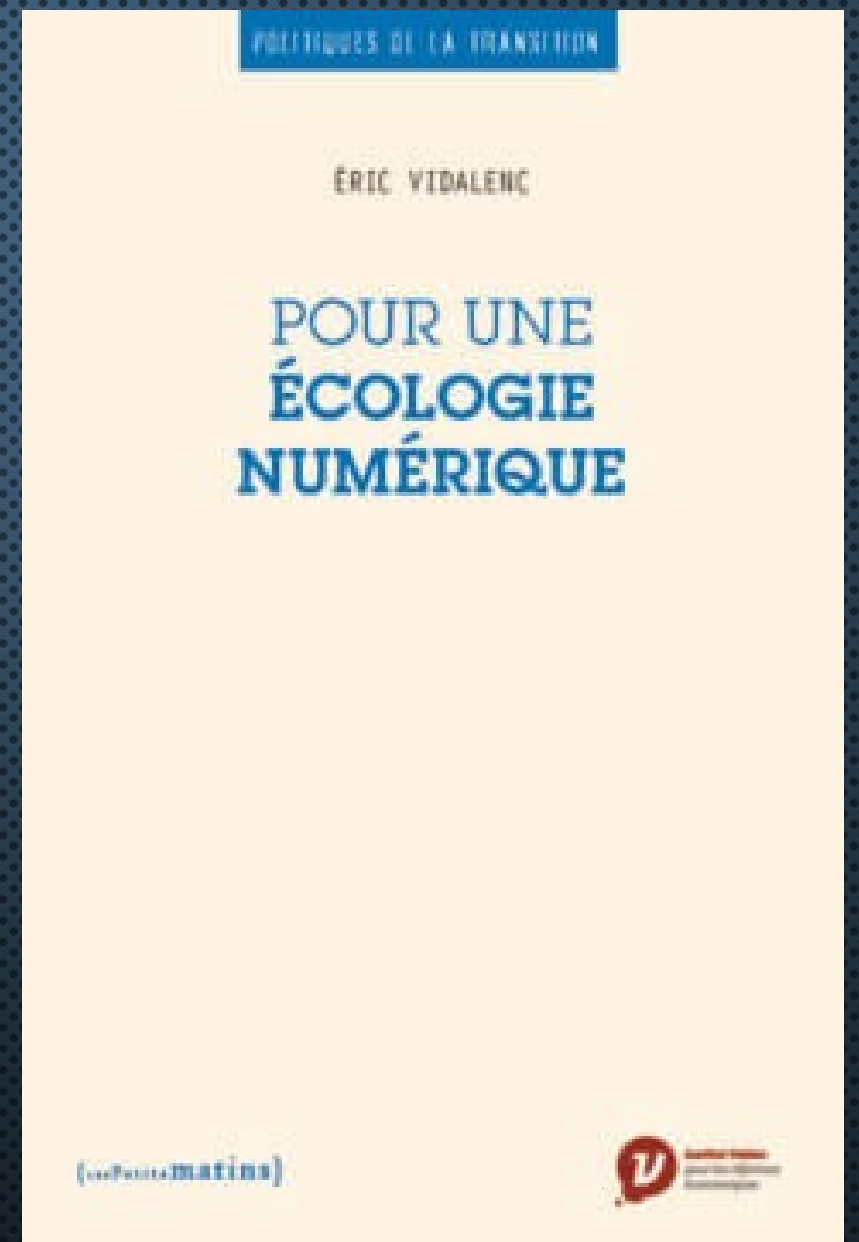
TWO OPPOSITES VISIONS,
OR « BETWEEN RIFKIN AND BIHOUIX »

- IOT WON'T SOLVE ANYTHING ALONE
- NO MORE TECHNICAL DETERMINISM HERE THAN ELSEWHERE

DIGITAL IS A « CROSSROADS TECHNOLOGY » (A GORZ)

- BUT SOCIETY IN 2020 CAN NOT WORK WITHOUT DIGITAL :

A RADICAL MONOPOLY (I ILLICH)

- LOCK-IN SITUATION TODAY

- TECHNOLOGY IS NOT NEUTRAL

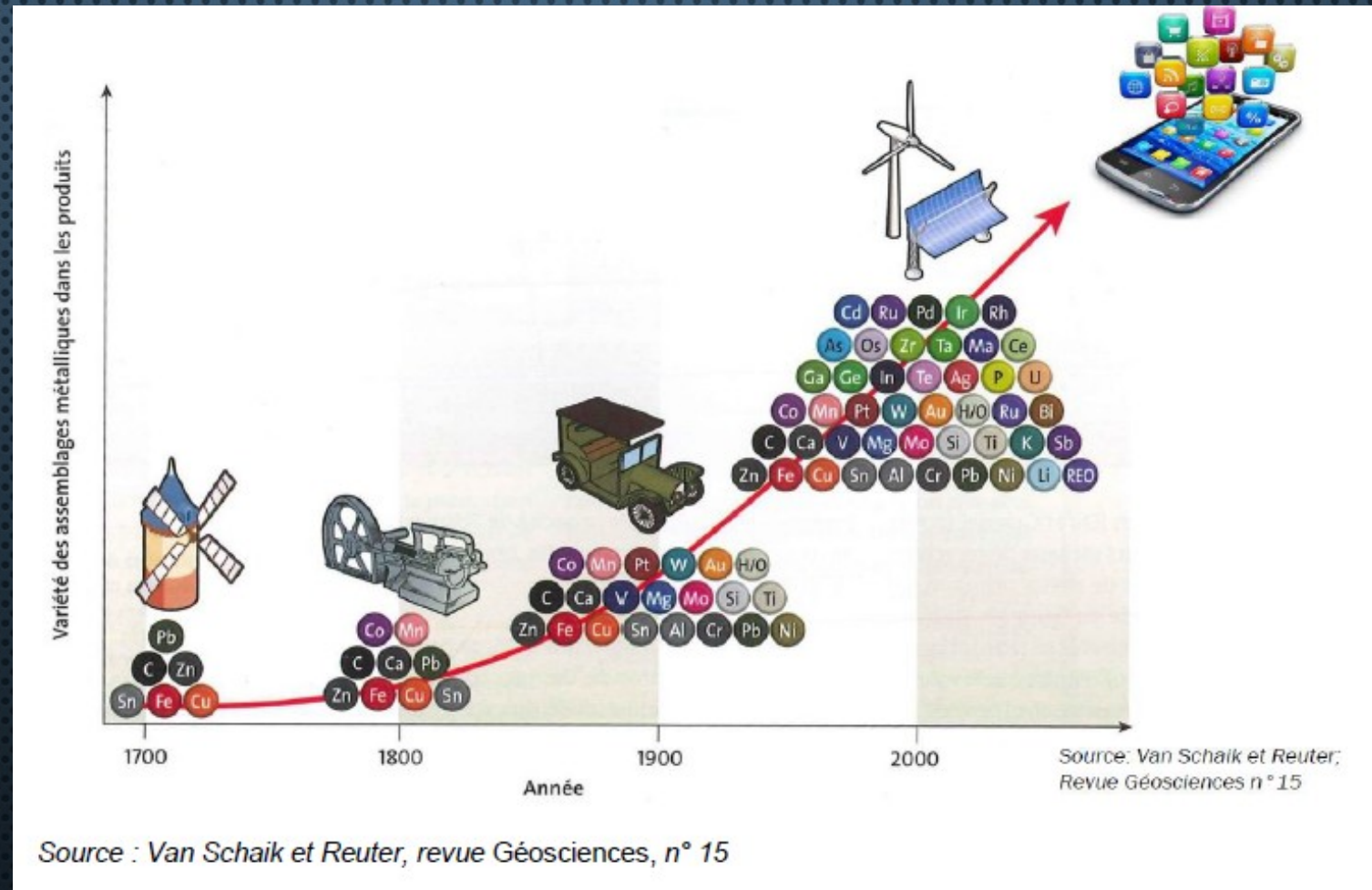BUT A POLITICAL ISSUE

Palo Alto (arial view), Dadave

WHAT IS DIGITAL MATERIALITY

Dadave, The forbidden fruit, 2019, Roubaix

COMPLEXITY SPECIFIC TO MODERNITY

- FROM 10 TO 60 METALS IN 2 CENTURIES (DIVERSITY ET QUALITY ISSUES)
- IE: 5 TIMES MORE COPPER IN 50 YEARS

Source : Van Schaik et Reuter, revue Géosciences, n° 15

ENVIRONMENTAL WEIGHT IS HARD TO EVALUATE

- MAJOR IMPACTS (ABOUT 80% ACCORDING TO USES AND EQUIPMENTS) ARE IN MANUFACTURING DIGITAL INFRASTRUCTURES (DATA CENTERS, NETWORKS, TERMINALS)

Sketchnote by Lou Herrmann, conference 11 march 2020
At Urban School of Lyon

Figure 5-1 : Contribution des appareils électriques à forte composante électronique domestiques au changement climatique en *cradle-to-grave*
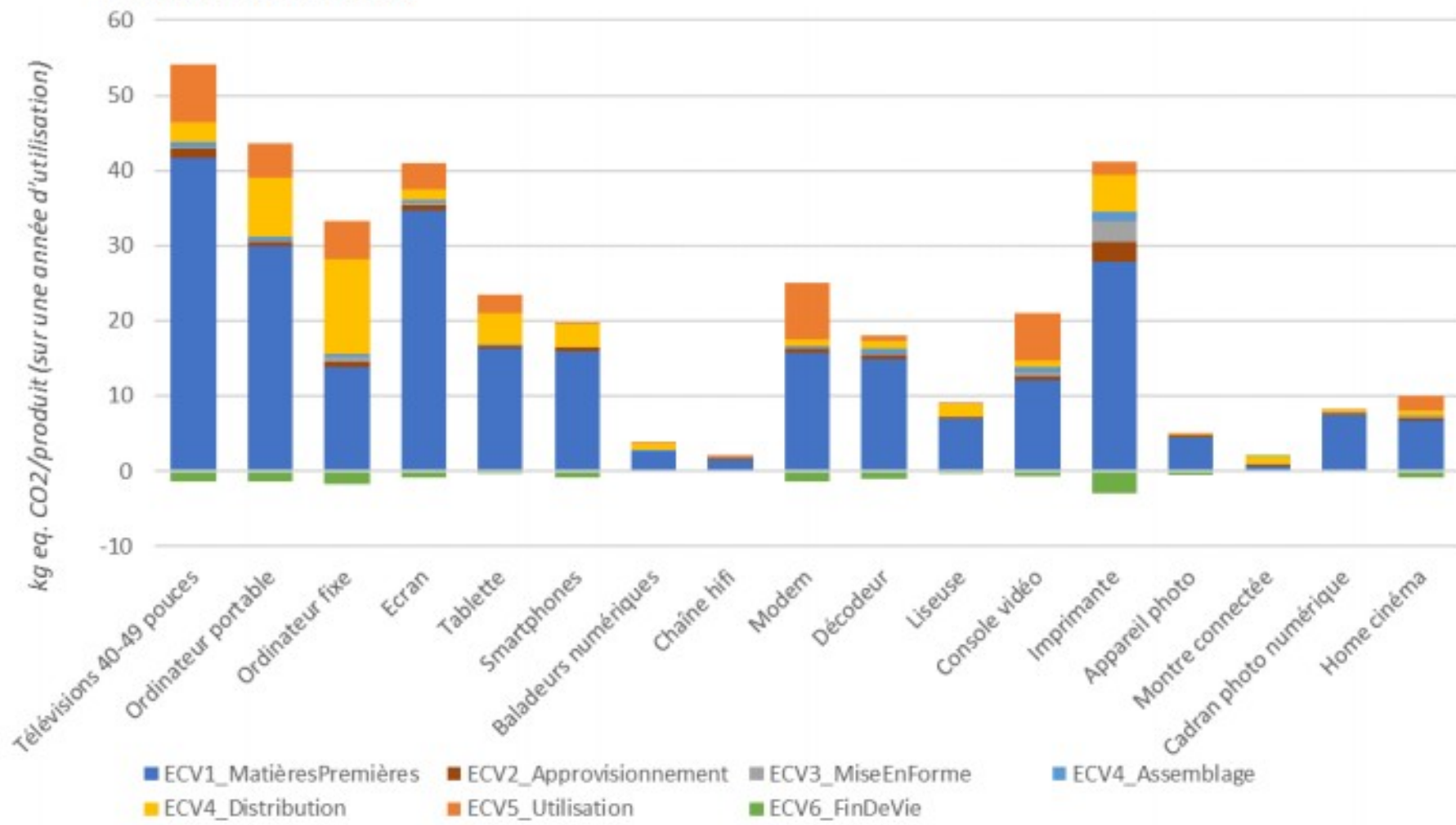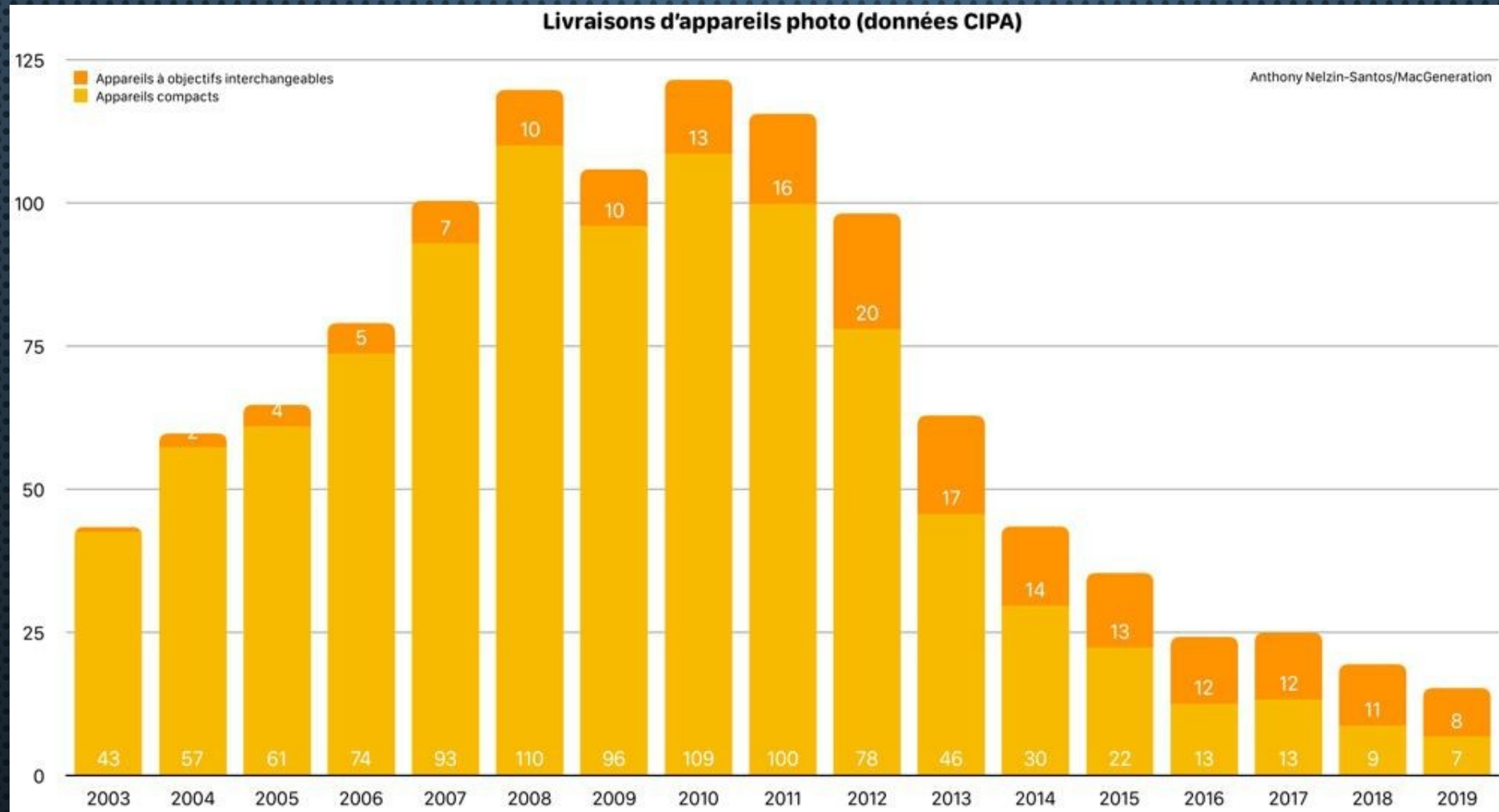
WHAT ICT IS,
BUT ABOVE ALL WHAT DIGITAL MAKES

Pierre Soulages, "Peinture 181x244", 25 février 2009, triptich, acryllic on convas.

SUBSTITUTION EXAMPLE
SMARTPHONE OR UNIMEDIA

Livraisons d'appareils photo (données CIPA)

TENSIONS FOR COORDINATING THESE TWO TRANSITIONS

ECOLOGICAL OR ENERGY TRANSITION
A GOAL, BUT NO TOOLS, NO MEANS

DIGITAL TRANSITION
MANY TOOLS, BUT NO GOAL

SIMILARITIES AND SOMETIMES CONVERGENCES

- GOVERNANCE IN TENSION
- MINIATURIZATION OF EQUIPMENTS
- INVISIBILIZATION OF TECHNICAL INFRASTRUCTURES
- DELOCALIZATION OF ENVIRONMENTAL IMPACTS
- STRUCTURAL INEFFICIENCY

AS MANY BRAKES TO A GOOD ARTICULATION

AND TENSIONS

- ECOLOGICAL LIMITES VS INFINITY AS A HORIZON OF DIGITAL TRENDS
- OFFSET TEMPORALITY
- STAGNATION VS ACCELERATION

AND PLEASE FORGET : DATAS IS THE NEW OIL
- DIGITAL DOES NOT REMPLACE ENERGIE, IT DEPENDS FROM IT
- USE VALUE OF DATA INCREASES WITH THE USES

DIGITAL CAN REALLY HELP TO OPTIMIZE

- SMART FARMING
- SMART HEATING
- SMART MOBILITY
- INDUSTRY 3.0
- SMART GRIDS

Skyline, Dadave

- SMART CITY
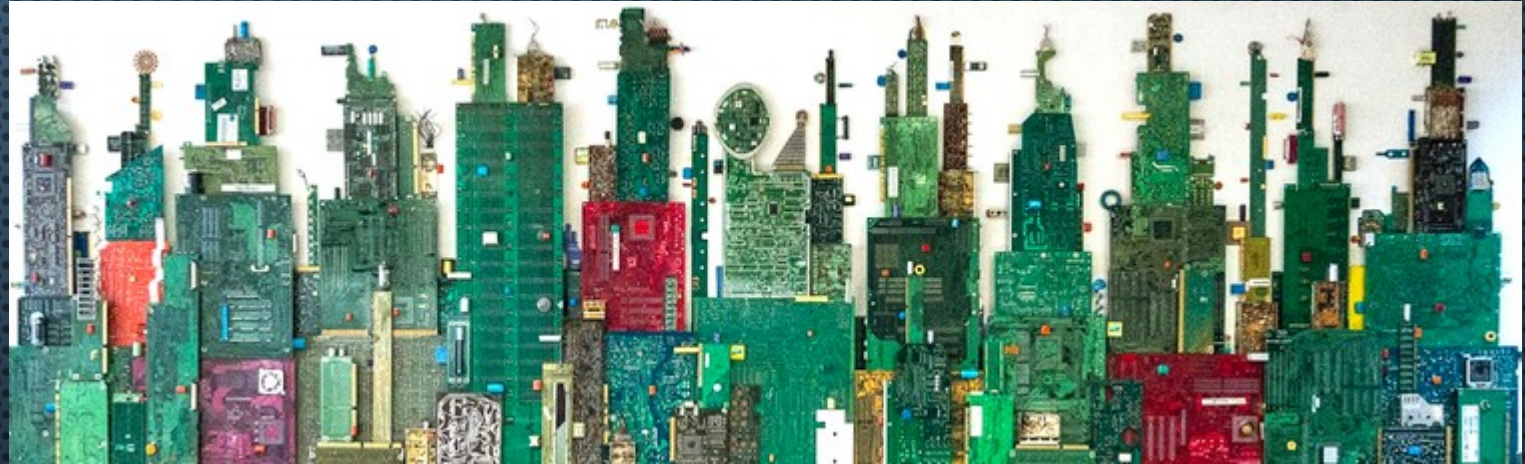
BUT WE NEED TO TRANSFORM IT

BUT TODAY, IT IS MORE A BRAKE THAN A LEVER IN THE ENERGY TRANSITION

- ALWAYS MORE DATA
- DISRUPTION AND BLITZSCALING
- OFF TOPIC INNOVATIONS
- DARK SIDE OF INFRASTRUCTURES AND ELECTRONIC WASTE
- GOVERNANCE BY GAFAM
- ORGANIZED CHEATING
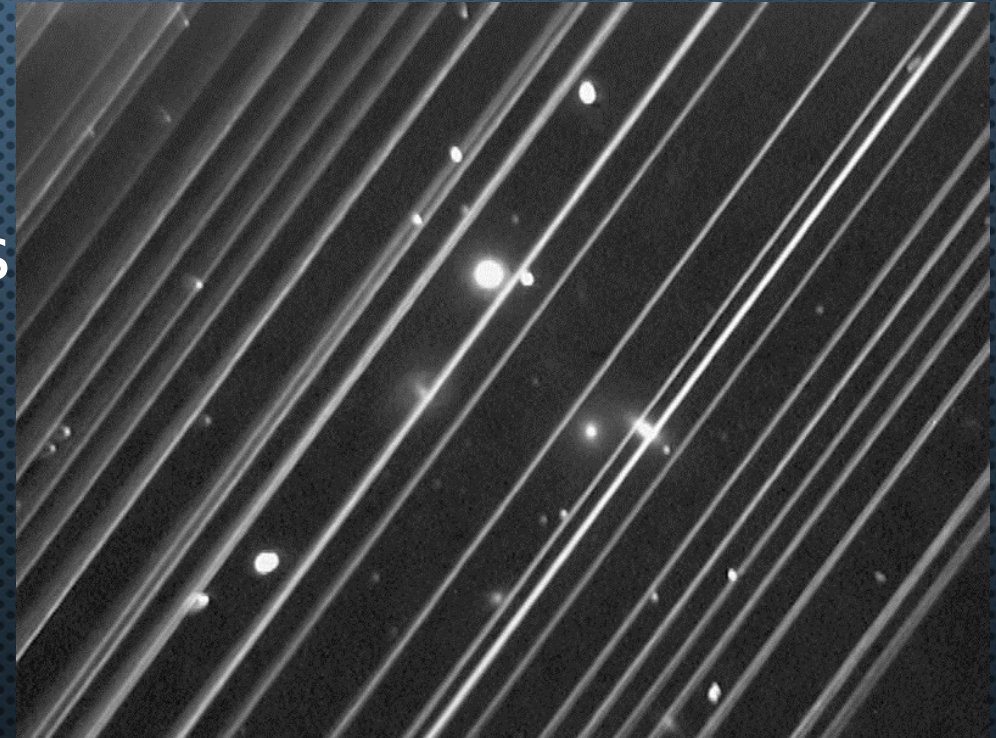- DISILLUSION AND DISASTER OBSERVATION

Amsterdam (aerial view), Dadave

PROPOSALS TO DISCUSS

0. MAKE THE INVISIBLE VISIBLE

- Information about impacts
  - Green Barometer
  - Energie, raw materials labels

  - And in the same time, digital serving the visibility of our consumption patterns

The diagonal lines in this image taken at the Lowell Observatory in Flagstaff, Arizona, show light reflected from Starlink satellites launched by SpaceX. Credit: Victoria Girgis/Lowell Observatory
Source : Nature

1. DIGITAL SOBRIETY

TAKE DIGITAL TECHNOLOGY OUT OF WHEREVER IT DOESN'T ADD VALUE

OR WHERE IT INCREASE THE PROBLEMS (WASTE, VULNERABILITY, OBSOLESCENCE OF OTHERS EQUIPMENTS, DEPENDANCY)

2. TRANSFORM DIGITAL

- HARDWARE AND INFRASTRUCTURES:
  - EXPAND LIFETIME : REUSE, REPARE, RECYCLE
  - DIGITAL FIBRE INSTEAD OF 5G EVERYWHERE

- SOFTWARE :
  - EFFICIENT AND LEAN PROGRAMMING
- USES :
  - DOWNLOAD INSTEAD OF STREAMING
  - ALTERNATIVES USES (RADIO…)

3. FUNDAMENTALY CHANGE OUR CONSUMPTION AND PRODUCTION PATTERNS

- REDUCE
- SUBSTITUTE
- MUTUALISE
  - EX : CAR SHARING, CARPOOLING, COLLABORATIVE AND FUNCTIONAL ECONOMY