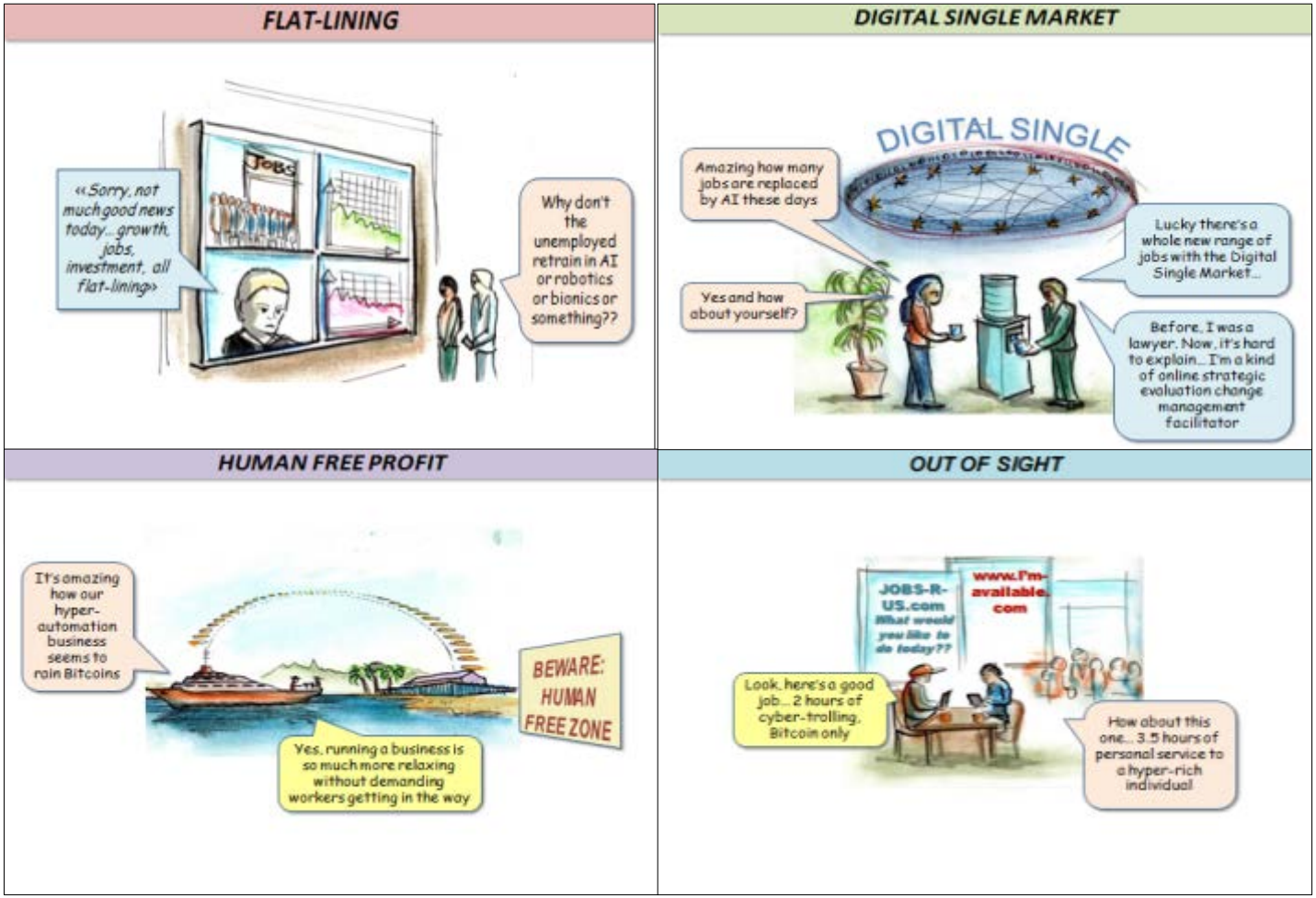
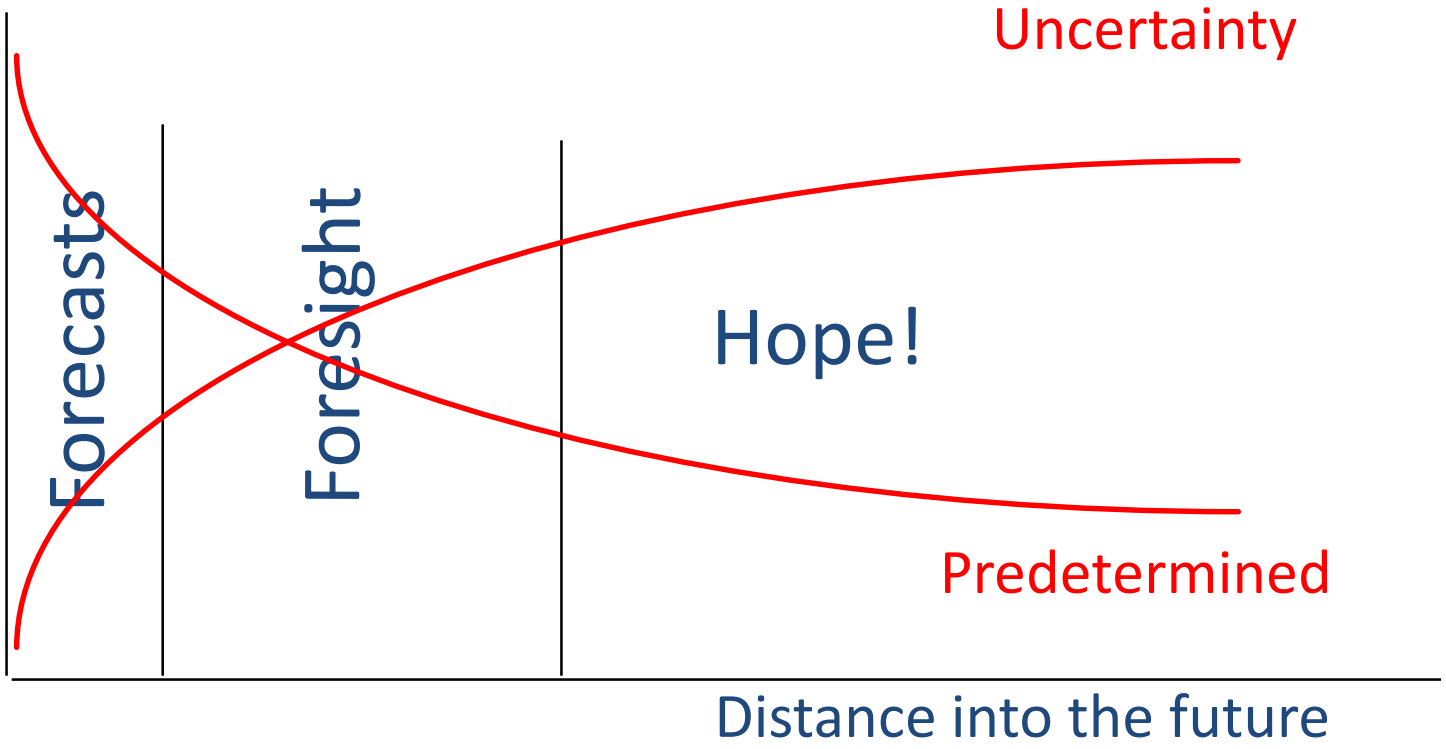
Introduction to scenarios



Need for scenarios

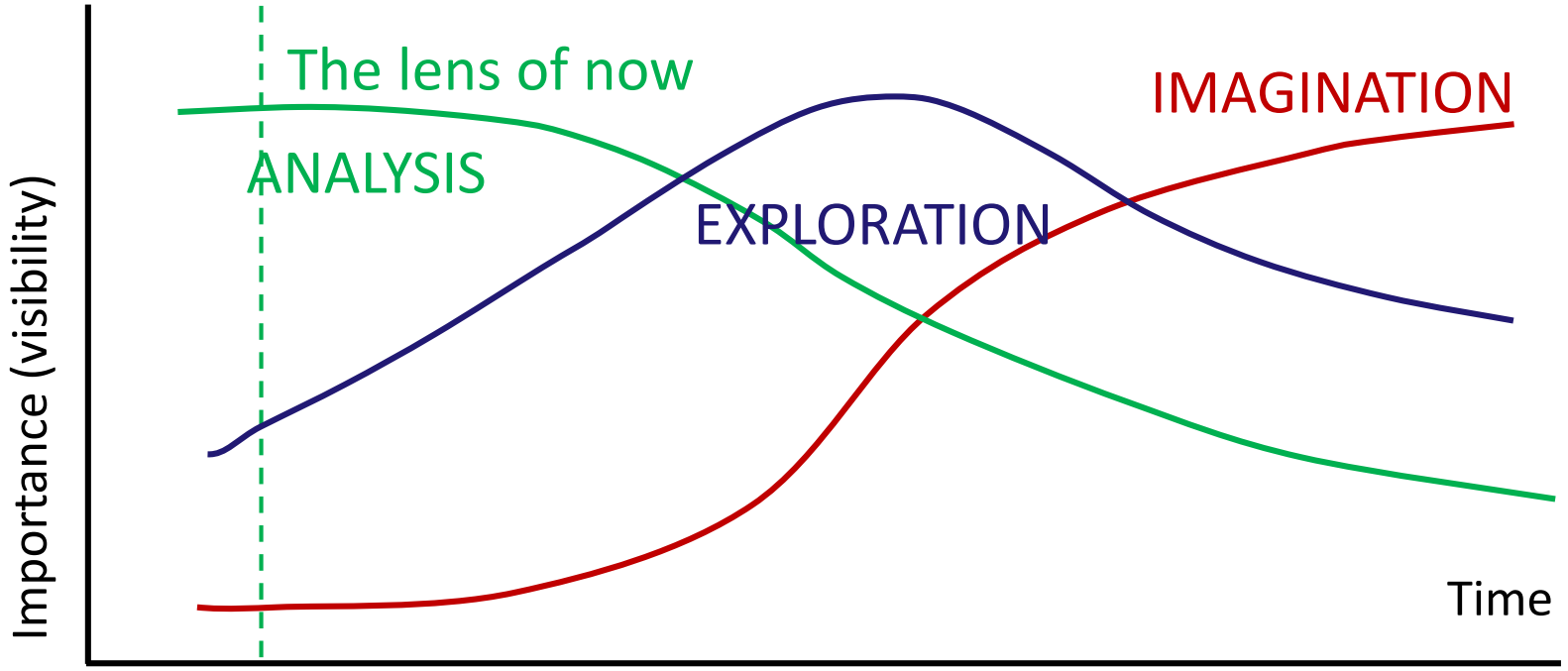
- We are entering a world of unprecedented uncertainty
- Policies are too often driven by an ‘official’ view of the future
- They enable a wider range of potential opportunities to be assessed
- They enable risks to be identified and managed
- In some cases we can influence the future


Uncertainty
Forecasts
Foresight
Hope!
Predetermined
Distance into the future

What are scenarios

- Describe how ‘the world’ might look in the future
- Possible ‘paths’ to the future, including radical change
- Based on an analysis of key uncertainties/drivers of change
  - Societal, Technological, Economic, Environmental and Political
- Should be remarkable, convincing and plausible
- Must have internal logic and consistency
- Allow critical uncertainties and predetermined elements to be separated
- Not predictions or forecasts

Built from drivers of change

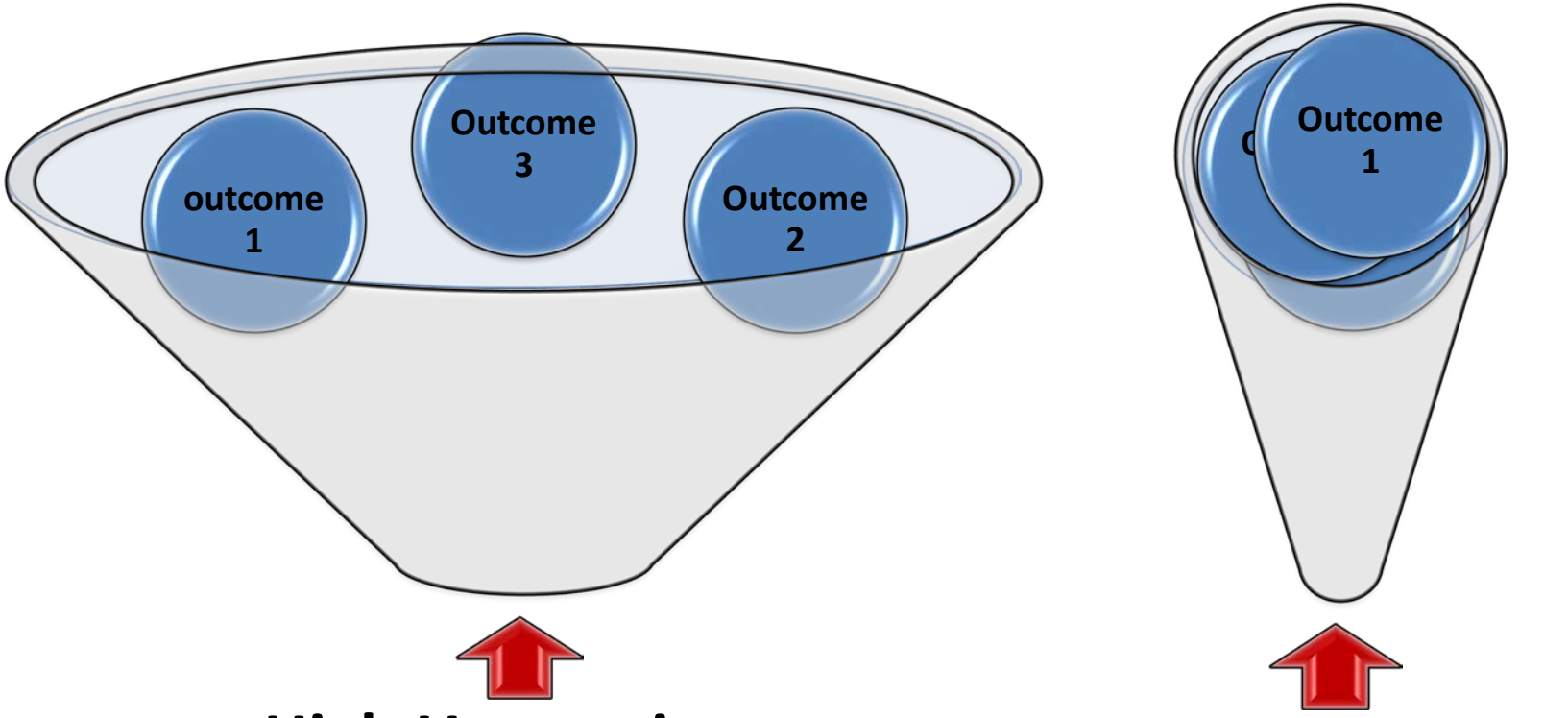


Horizon 1: e.g. Current drivers and trends

Horizon 2: e.g. Emerging drivers of change

Horizon 3: e.g. Weak signals of emerging drivers of change

Uncertainty of driver of change



Axis 1 – Governance and public attitudes

- The environment in which ICT-ET will be exploited
- The levels of acceptance from the public/workers
- The levels of leadership from governments, business and workers' representatives

HEALTH & SAFETY LABORATORY

European Agency for Safety and Health at Work

SAMI Consulting

LOW/RESISTIVE

-Break down in trust

-Limits to data sharing

-Non-compliance

-Protectionism, nationalism and tribalism

-More discrimination, bullying and exploitation

-Entrepreneurs find opportunities to exploit

GOVERNANCE AND PUBLIC ATTITUDES

-Level of public trust determines the political and regulatory appetite

-Does Government, business leadership and citizens' movements encourage a consensual approach?

HIGH/ SUPPORTIVE

-Mutually supportive society and Government

-Understanding and management of privacy and ethics

-Less discrimination and polarisation

-Inter-government support

-Risk of 'Red tape'

Governance and public/workers' attitudes

- Governance
  - The European Digital Single Market
  - Governance of ICT-ET
  - Regulation of new working patterns
  - Open intellectual property movement

- Public/workers attitudes
  - The future of collective action
  - Social media
  - Security and privacy
  - Attitudes to online privacy and ethics
  - Discrimination, violence and bullying
  - Technology demand and adoption rates

Axis 2 – Growth and technology application

- The level of economic growth and investments in technology and skills
- The application of the developments of ICT-Enabled Technologies (ICT-ET)
- The level of impact on the nature and locations of work; and the associated changes to business structures

SAMI Consulting

LOW

-Low GDP growth

- Limited investment in infrastructure, research and capital expenditure

-Limited number of jobs lost to new tech

-Loss of (mainly unskilled) jobs

-Patchy adoption of new tech

-Shortage of work for low-skilled

ECONOMIC GROWTH & TECHNOLOGY APPLICATION

- Economic growth and investment

-Advances in

ICT-ET

-Changes in nature and location of work

-Changes to business structures

HIGH

-High GDP growth

- High investment in infrastructure, research and capital investment

- Many existing jobs lost, but new ones emerge

-Change affects all levels of workforce

-Opportunities for adaptable, skilled workers

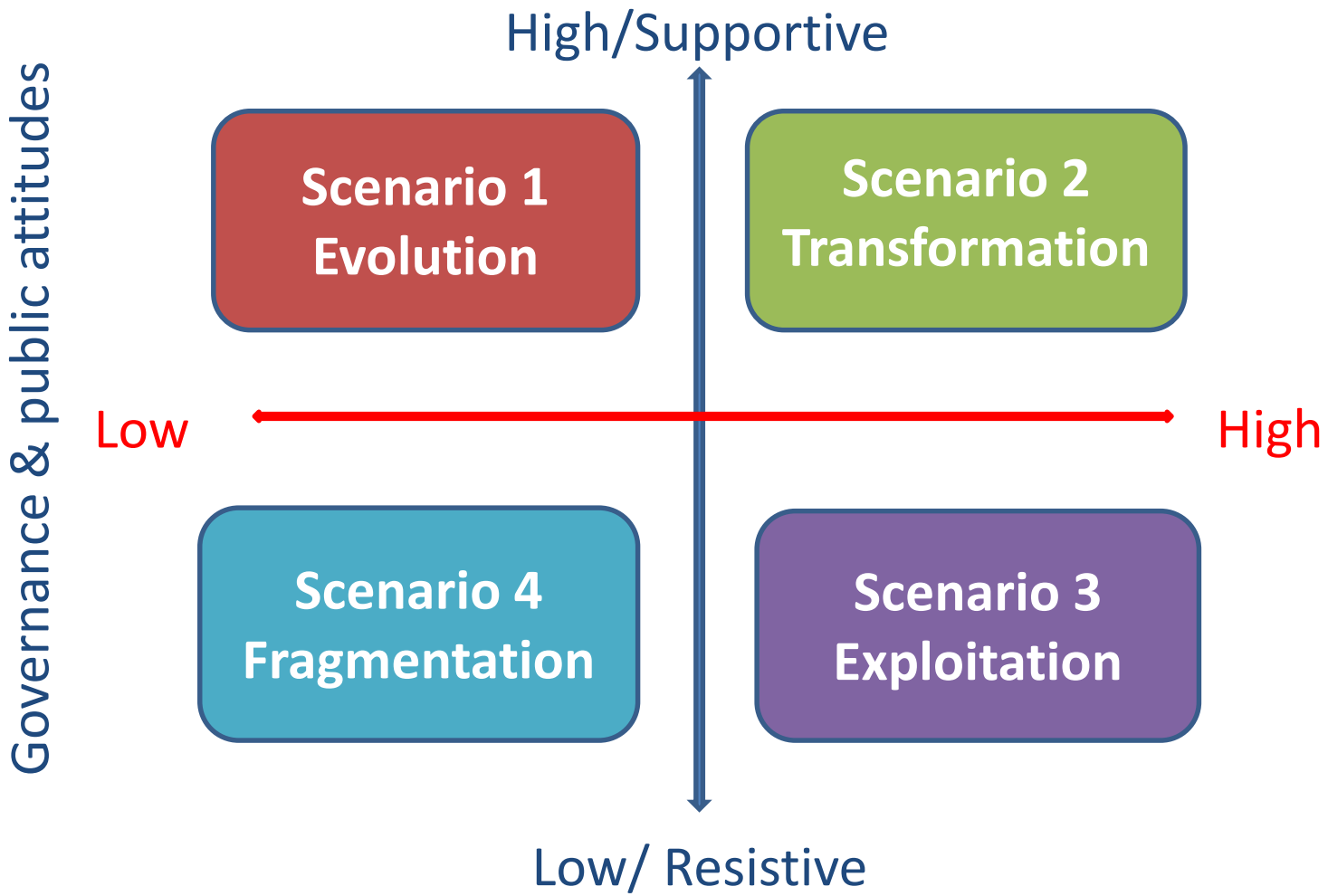
-Thriving small start-up sector

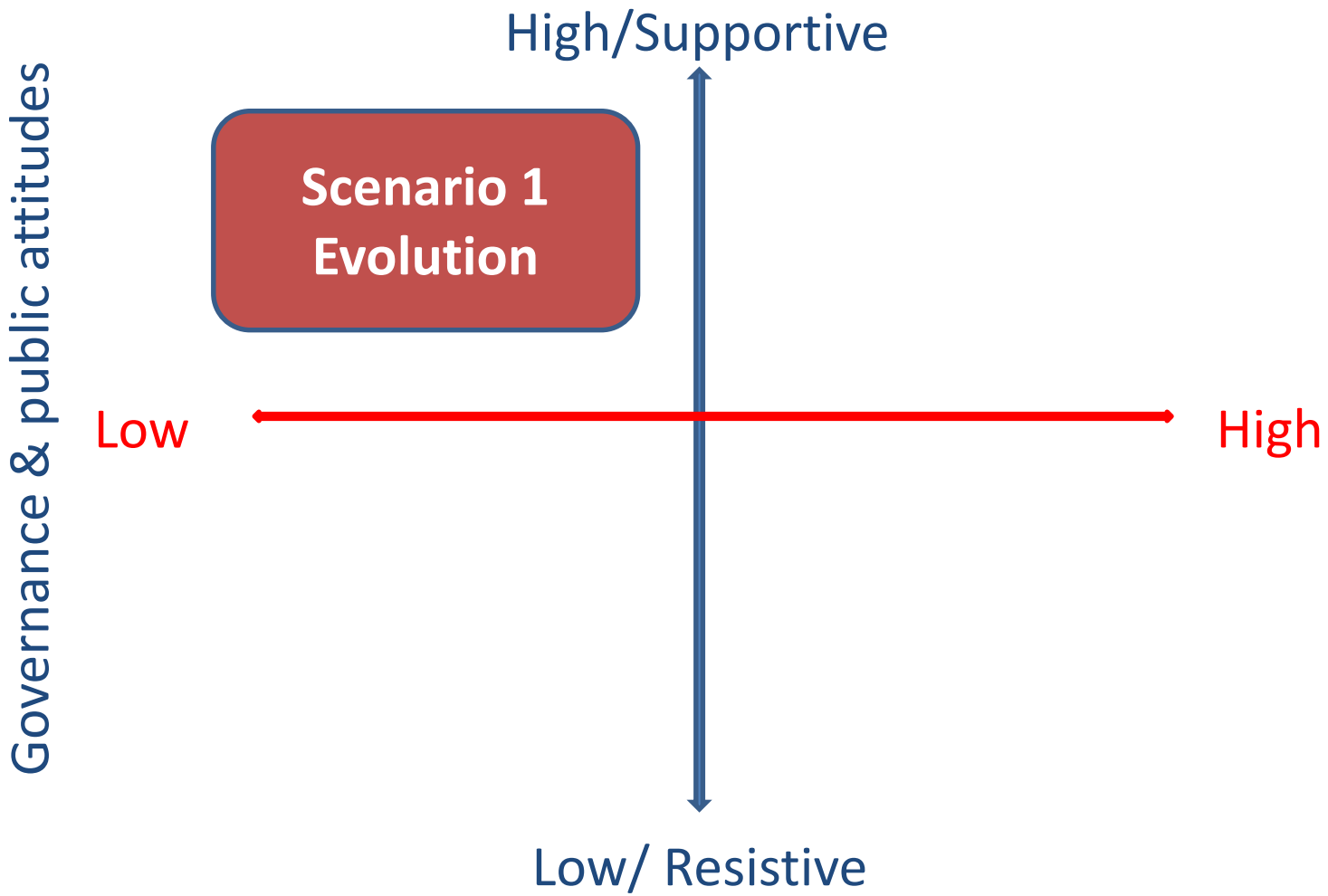
Economic growth and technology adoption

- Economic growth and investment
  - EU growth
  - Availability of investment funding
  - Investment in education and employment initiatives
  - Changes in levels of globalisation
  - Tax planning and avoidance
- The application of the developments of ICT-Enabled Technologies (ICT-ET)
  - How the demand for and adoption of technology will evolve
- Impact on the nature and locations of work
  - Virtual workplaces
  - Crowd-working
  - Gaps in ICT skills

Economic growth and technology innovation

- Impact on the nature and locations of work – cont.
  - Quickening pace of knowledge transfer
  - More frequent and bigger shifts in skill required for work
  - Offshoring and reshoring
- Changes to business structures
  - Micro, small and medium-sized enterprises
  - Rise of the entrepreneur
  - Sub-contracting
  - Increase in e-commerce
  - Alternative distribution chains and manufacturing
  - Sharing economy
  - Pseudo self-employment


High/Supportive
Governance & public attitudes
Scenario 1
Evolution
Scenario 2
Transformation
Low
High
Scenario 4
Fragmentation
Scenario 3
Exploitation
Low/ Resistive
Economic growth and technology application


High/Supportive
Scenario 1
Evolution
Low
High
Governance & public attitudes
Low/ Resistive
Economic growth and technology application

Scenario 1 – ‘Evolution’

- GDP growth about 1%
- Limited investment in research, infrastructure and capital assets
- Slow innovation and technological change
- Moderate investment in skills (variable quality MOOCs)
- Technology exploited by companies to build a more secure future
- 10% of jobs fundamentally changed or lost, 40% moderately changed

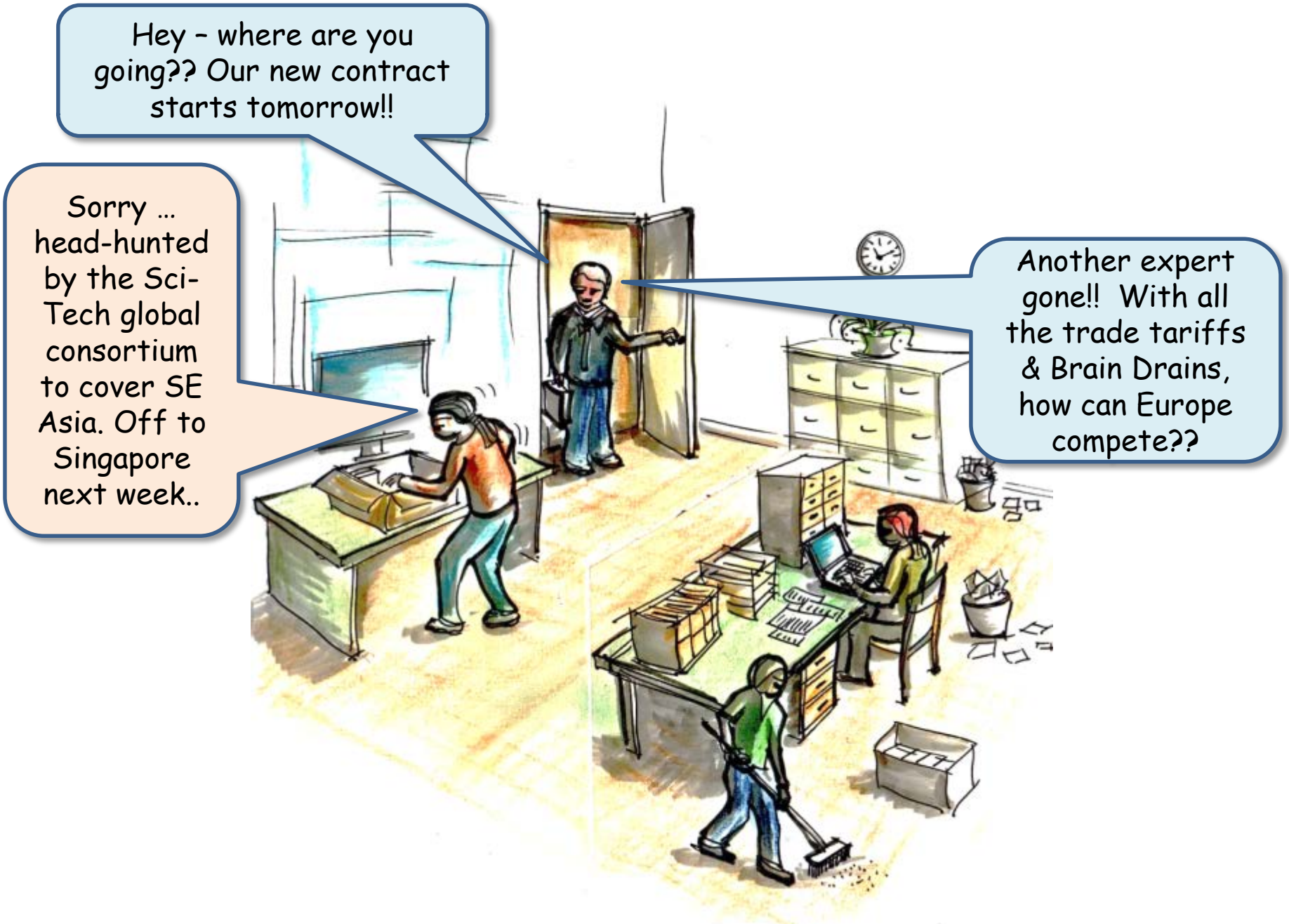
Scenario 1 – ‘Evolution’

- High level of unemployment and migration across and out of Europe
- Inclusive society with workers’ interests taken into account, accompanied by increased regulation to protect traditional jobs
- Protectionist policies with increasing trade barriers
- Sharing economy with some online labour exchanges owned by workers with shared values
- Increasing pay inequality
- Cyber attacks have remained a serious threat

FLAT-LINING

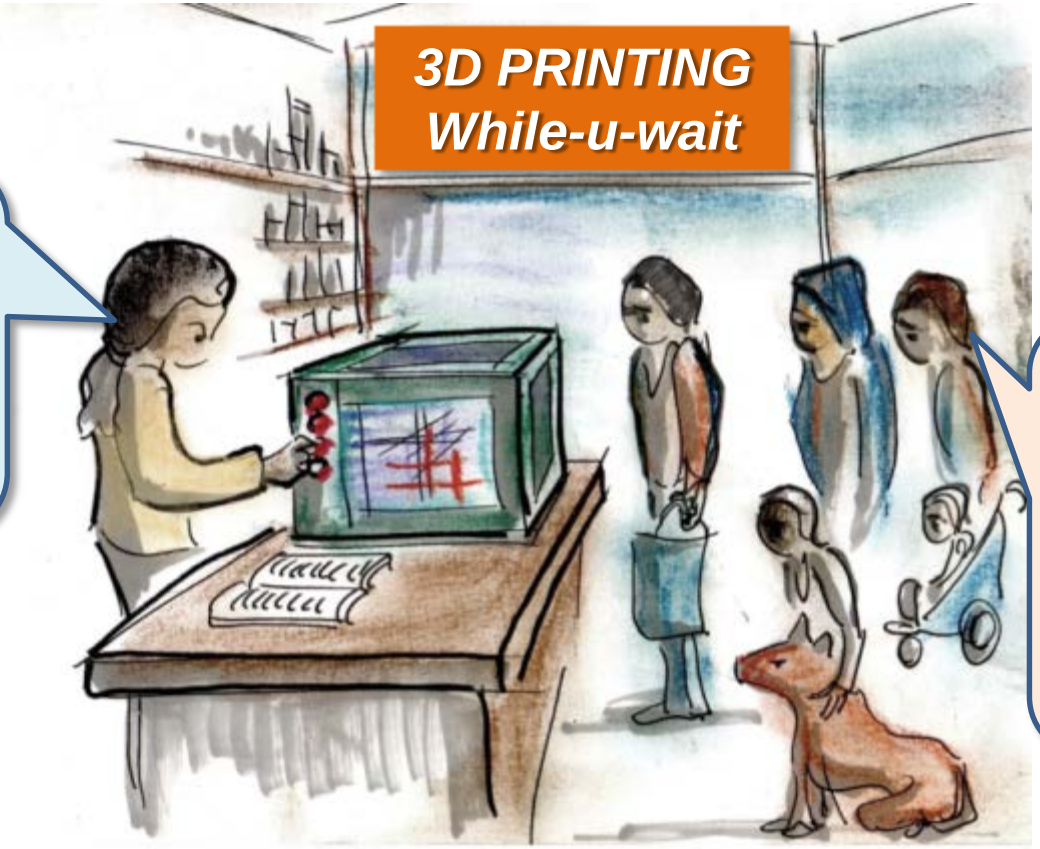

JOBS
<<Sorry, not much good news today… growth, jobs, investment, all flat-lining>>
Why don't the unemployed retrain in AI or robotics or bionics or something??

BRAIN DRAIN

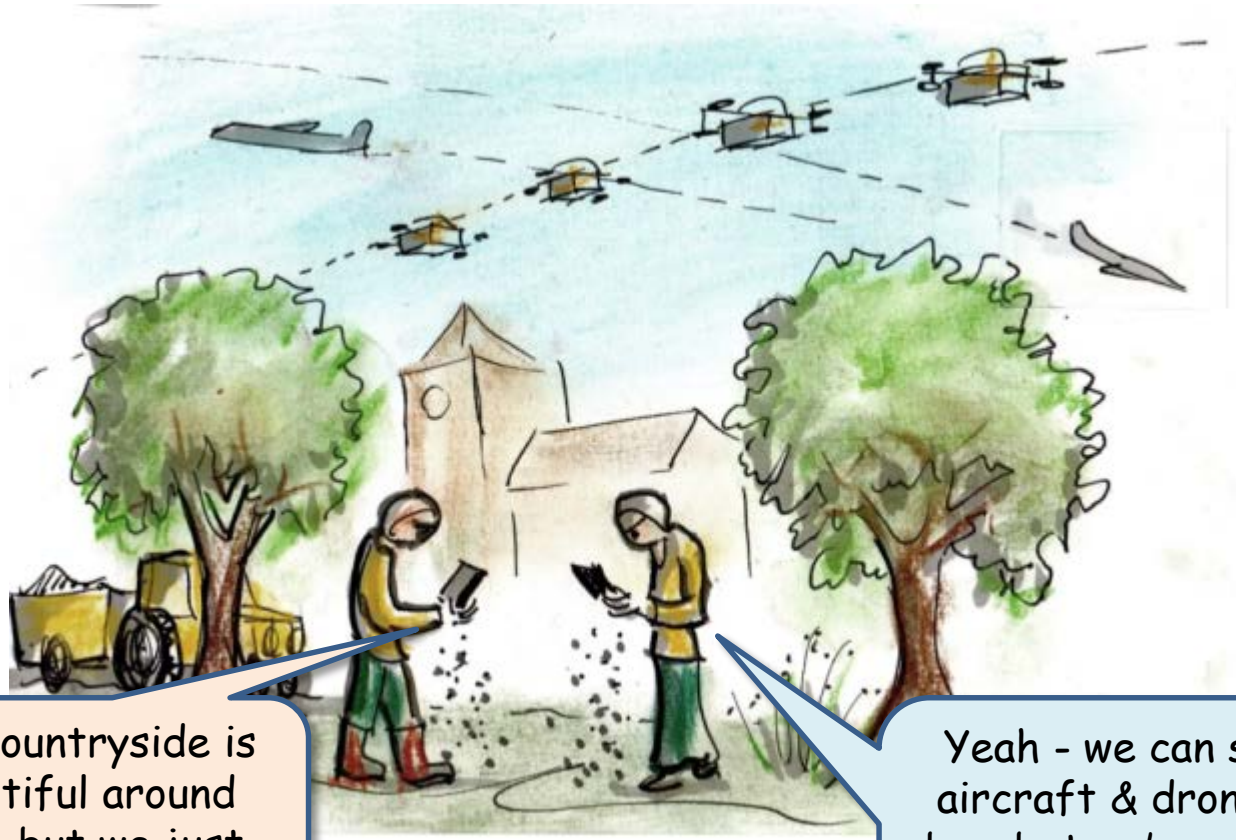

Hey – where are you going?? Our new contract starts tomorrow!!
Sorry … head-hunted by the Sci-Tech global consortium to cover SE Asia. Off to Singapore next week..
Another expert gone!! With all the trade tariffs & Brain Drains, how can Europe compete??

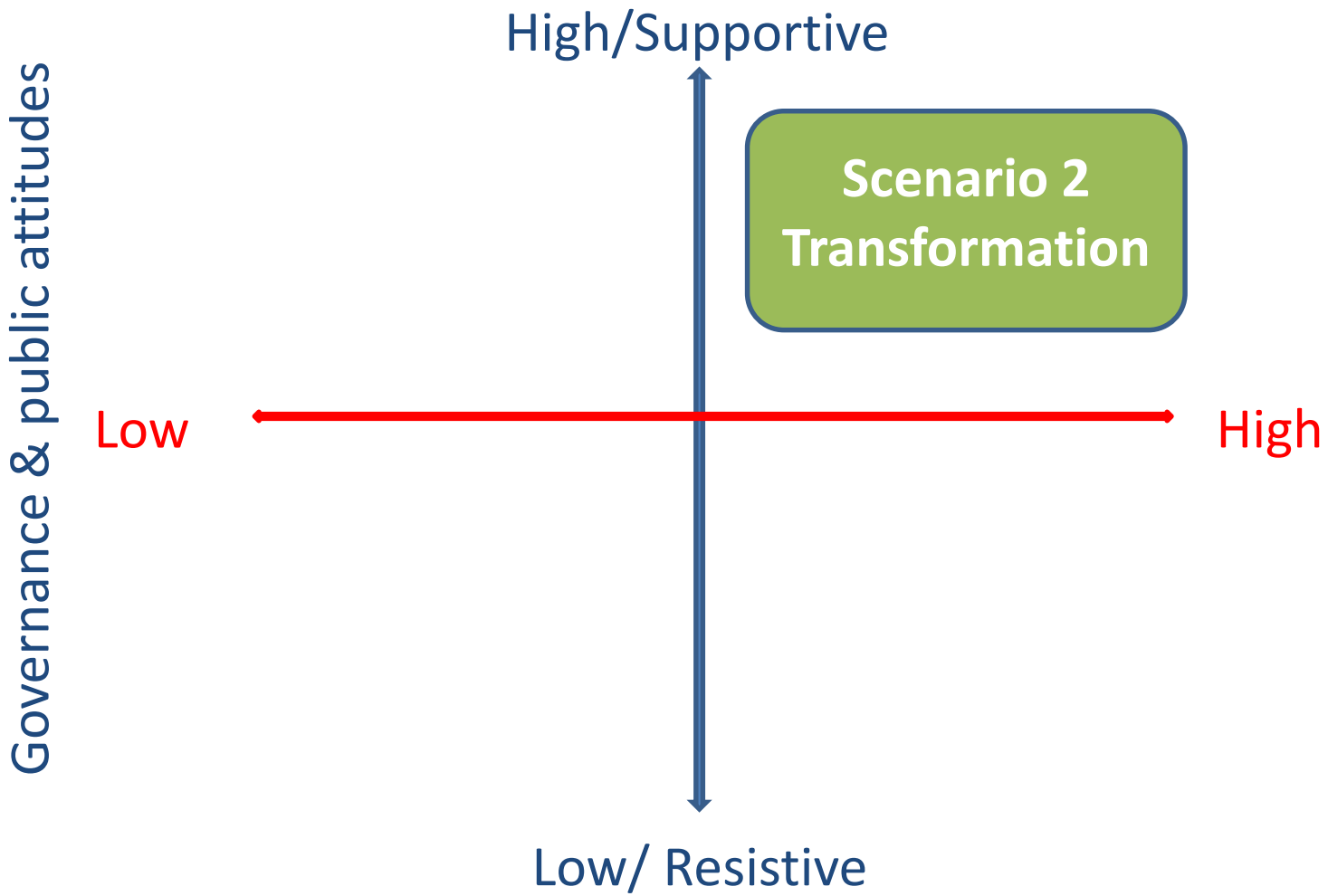
PRINTER JAM

YOUR LOCAL SHOP



RURAL BYPASS




High/Supportive
Scenario 2
Transformation
Low
High
Governance & public attitudes
Low/ Resistive
Economic growth and technology application

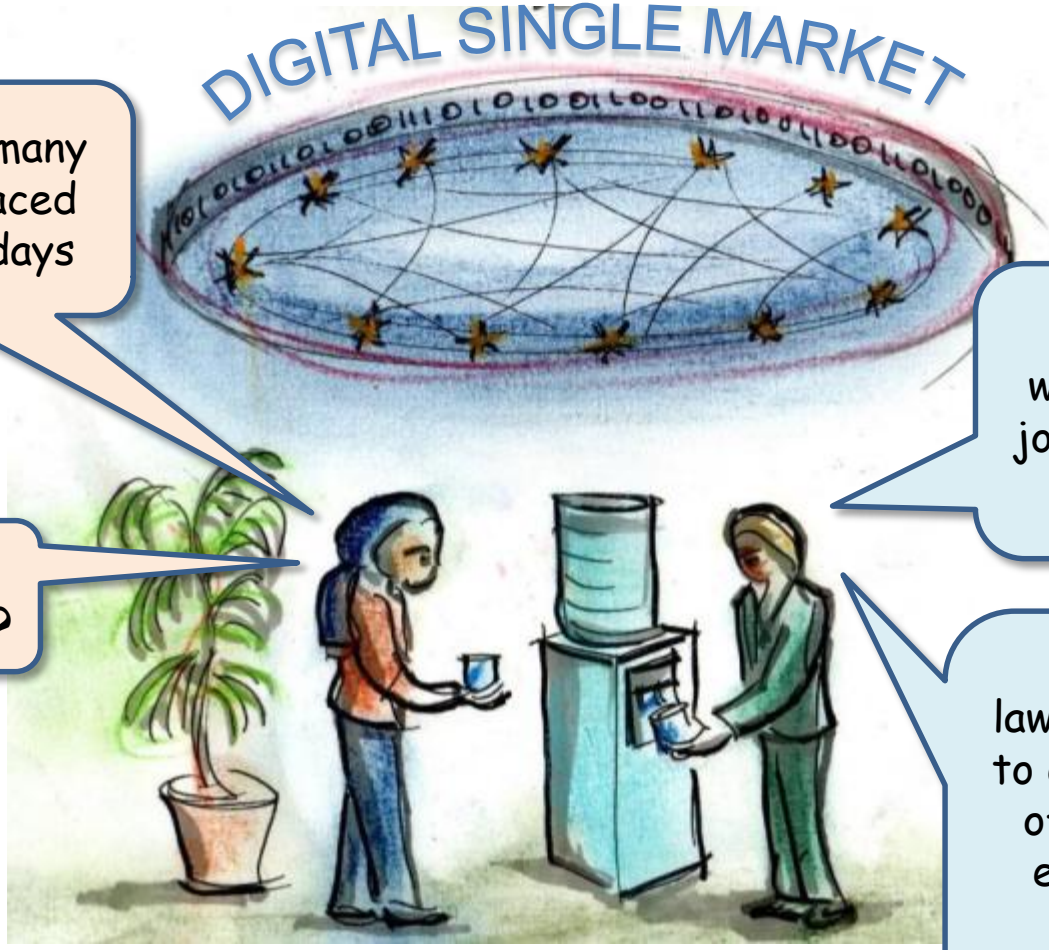
Scenario 2 – ‘Transformation’

- GDP growth of around 4%
- High investment in research, infrastructure capital assets and skills
- Evidence-based and responsive government policy
- High levels of innovation and pace of technological change
- Technology exploited across the economy

Scenario 2 – ‘Transformation’

- 50% of jobs fundamentally changed or lost, many new types of job created
- Low level of unemployment
- Workers’ interests increasingly taken into account, accompanied by increased innovative regulation
- Increasingly ethical business models
- Inclusive society with shared values typified by trust, collaboration and consensus

DIGITAL SINGLE MARKET



Amazing how many jobs are replaced by AI these days

Yes and how about yourself?

Lucky there's a whole new range of jobs with the Digital Single Market…

Before, I was a lawyer. Now, it's hard to explain… I'm a kind of online strategic evaluation change management facilitator

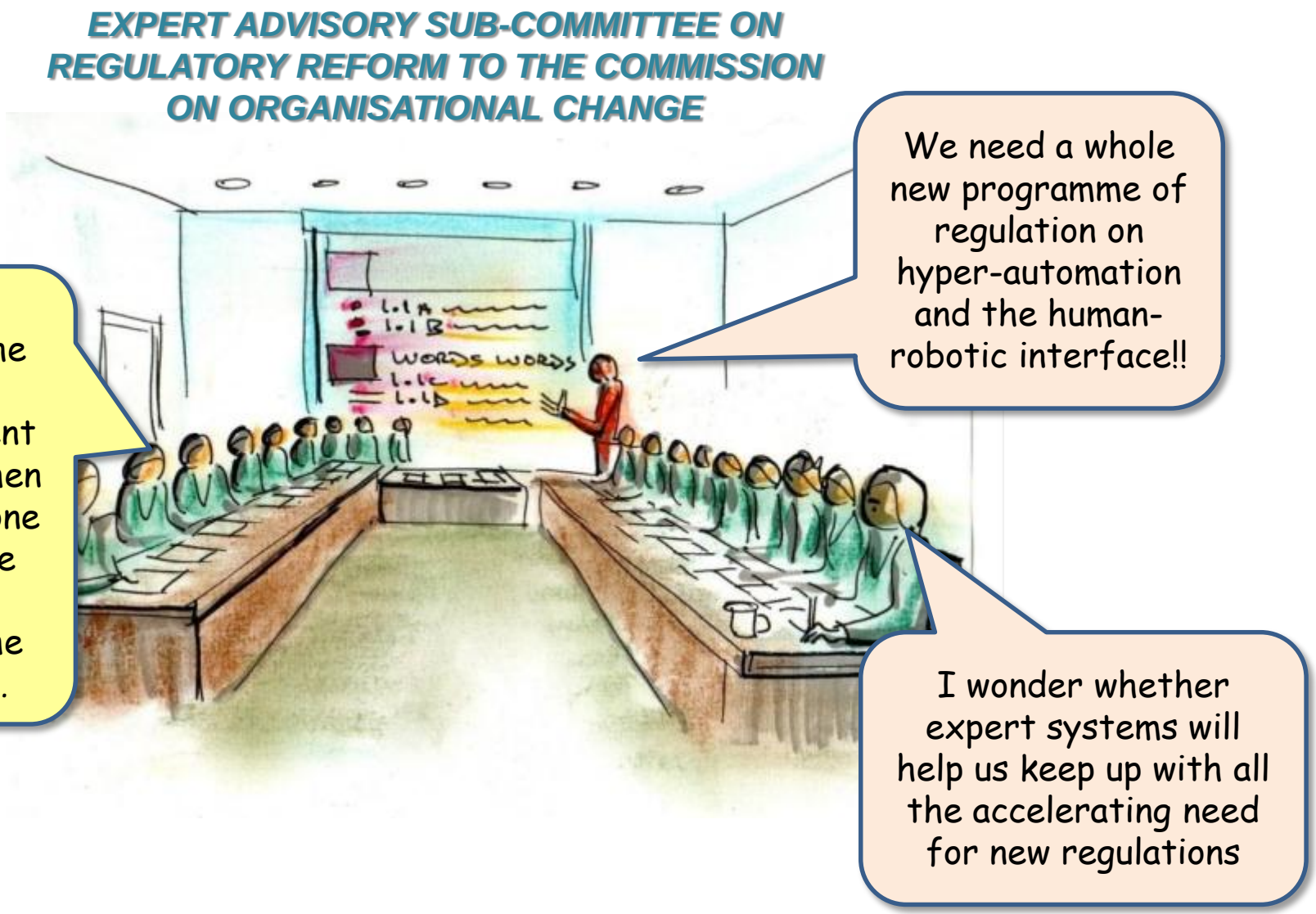
TARGET PRACTICE

TARGETS:
Output index
Self-evaluation
CO2 saving
Productivity
Communications
Benchmark skills
BREAK DUE IN 10 MINUTES !!

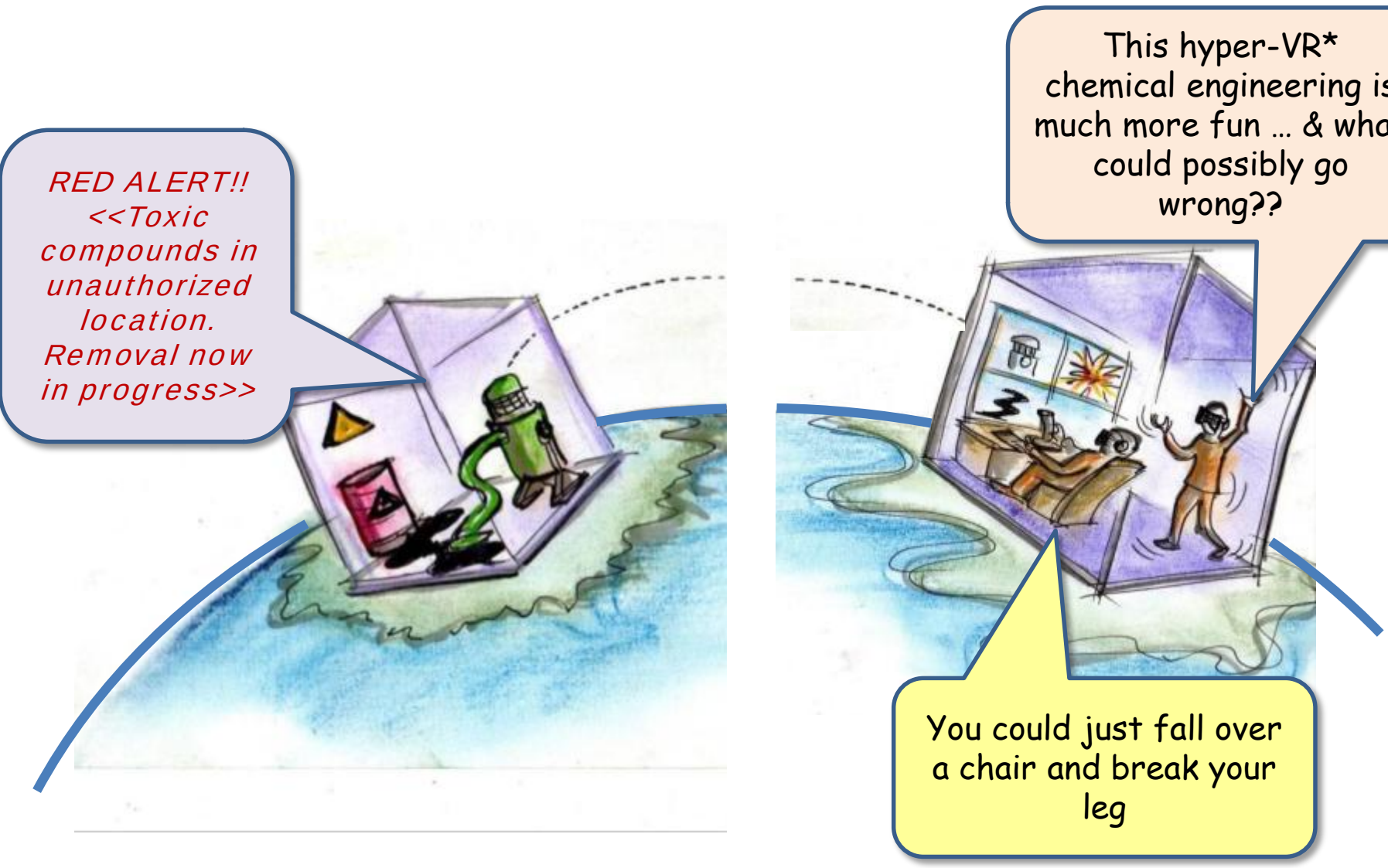
This online education is very stressful… I can't keep up with all the targets…

If you want to get ahead you have to conform…. That's how we got to where we are today….

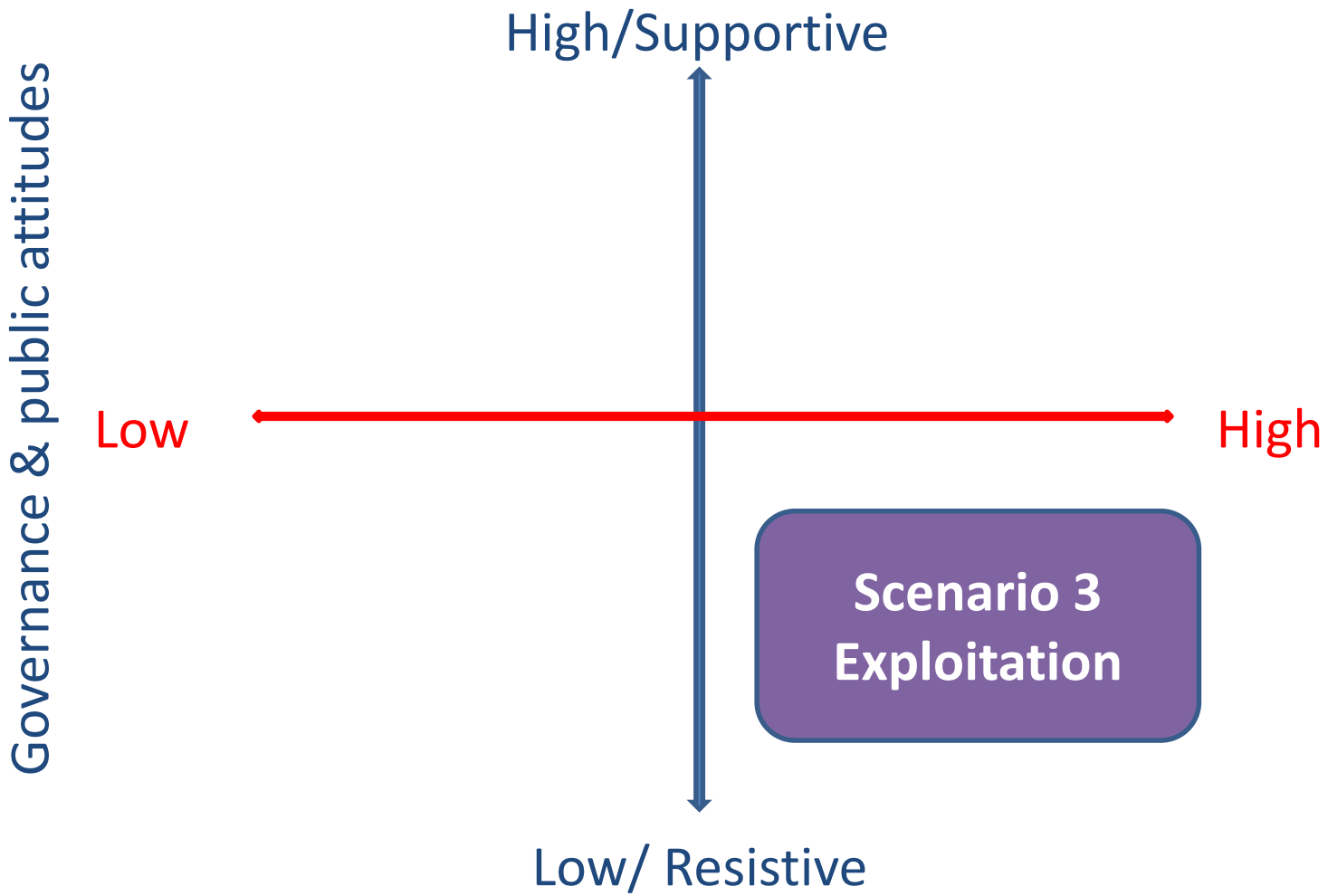
REFORM FOR REFORMERS



CHEMISTRY FOR BEGINNERS



* 'VR' = virtual reality


High/Supportive
Governance & public attitudes
Low
High
Scenario 3
Exploitation
Low/ Resistive
Economic growth and technology application

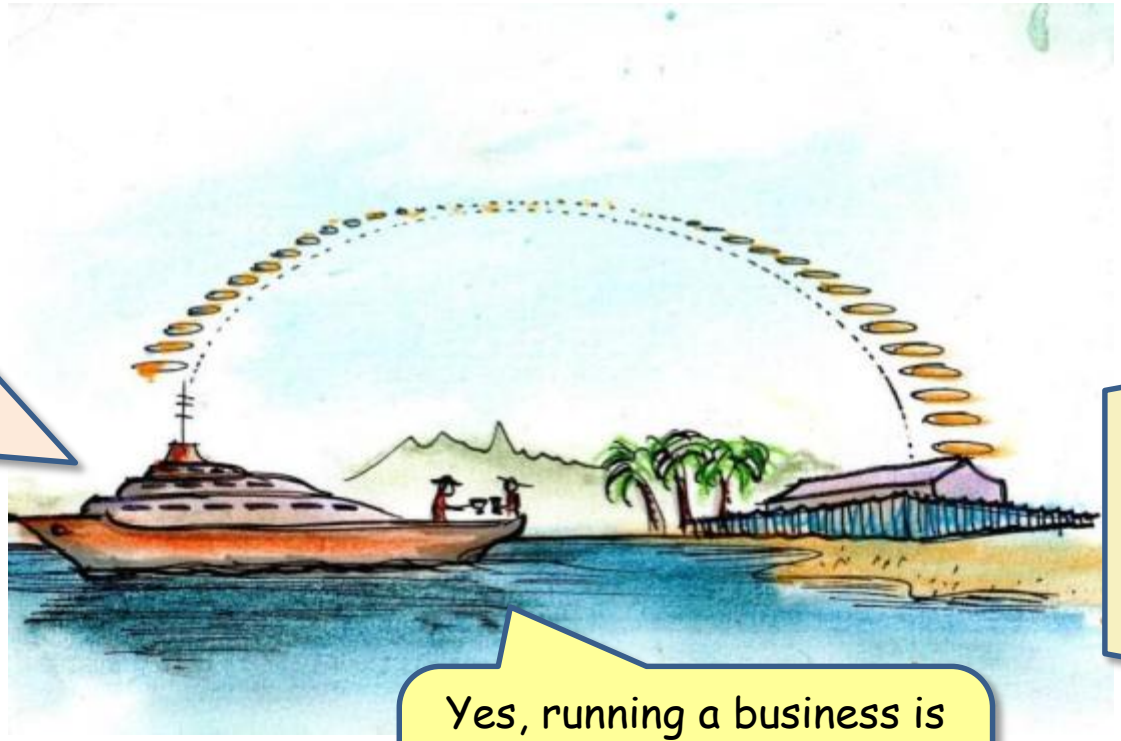
Scenario 3 – ‘Exploitation’

- GDP growth 3%
- High but patchy investment in research, infrastructure and capital assets
- Low investment in skills
- High levels of innovation and pace of technological change
- Exploitation of technology uneven and driven by profit

Scenario 3 – ‘Exploitation’

- 60% of jobs fundamentally changed or lost, some new types of job created (for people)
- Very high levels of unemployment
- Workers’ interests lower priority and weak regulation
- Increased inequality between high and low paid

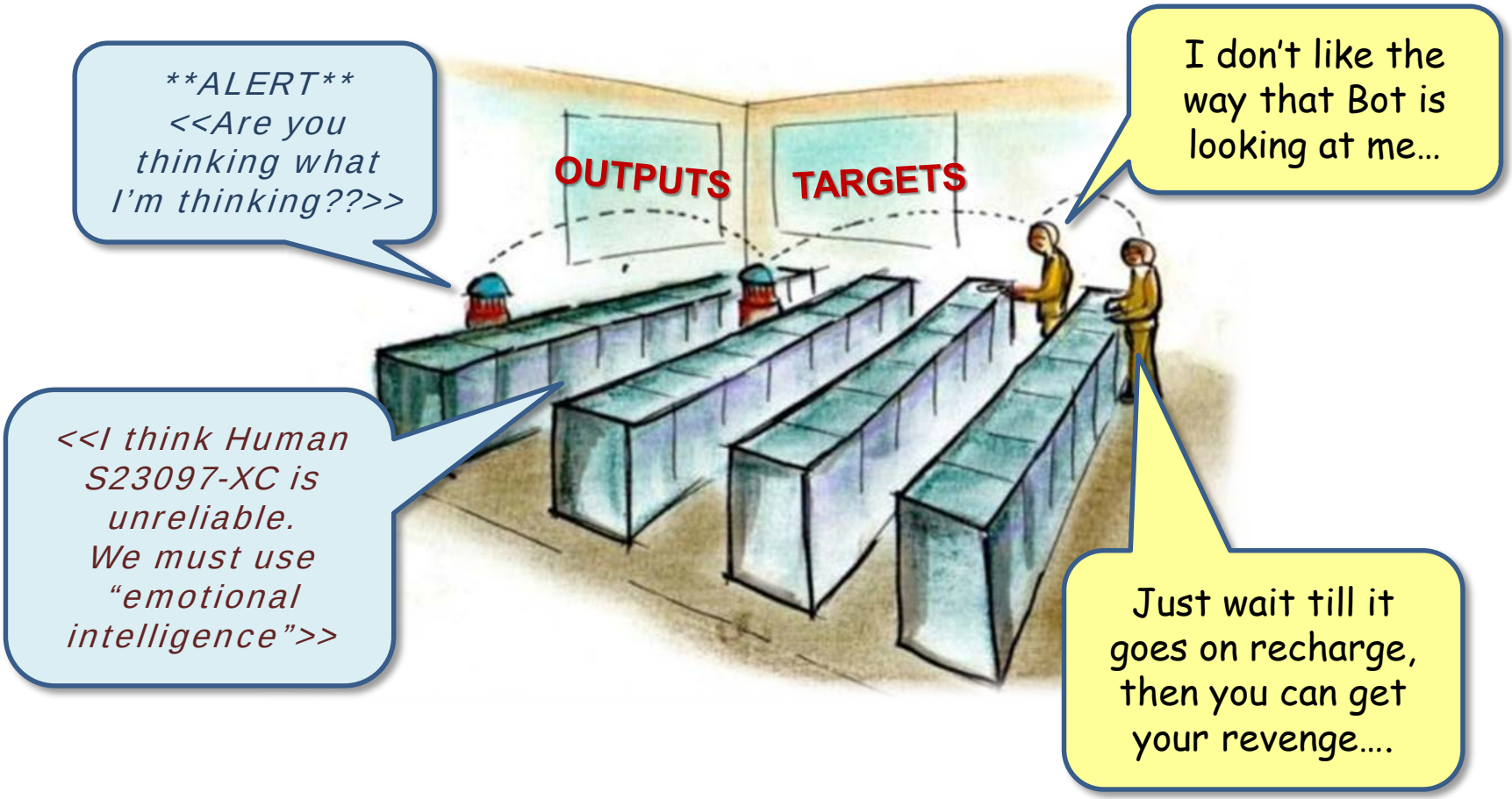
HUMAN FREE PROFIT

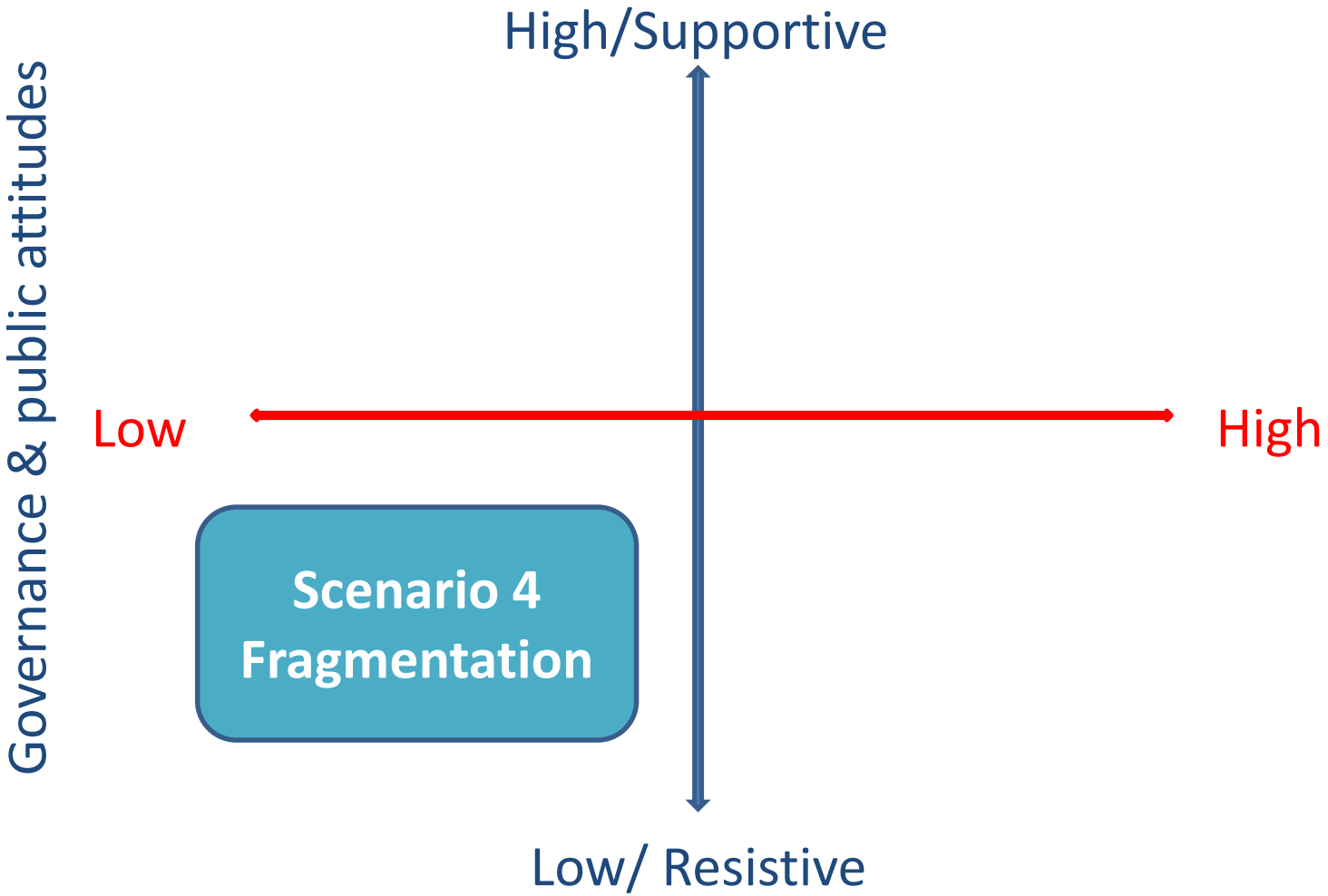


WORKERS ARE EVERYWHERE

PRODUCTIVITY PROBLEMS

POWER GAMES


ALERT
<<Are you thinking what I'm thinking??>>
OUTPUTS
TARGETS
I don't like the way that Bot is looking at me…
<<I think Human S23097-XC is unreliable. We must use "emotional intelligence">>
Just wait till it goes on recharge, then you can get your revenge….


High/Supportive
Governance & public attitudes
Low
High
Scenario 4
Fragmentation
Low/ Resistive
Economic growth and technology application

Scenario 4 – ‘Fragmentation’

- GDP growth about 1%
- Low investment in research, infrastructure, capital assets and skills
- Slow innovation and technological change
- Exploitation of technology uneven and driven by profit

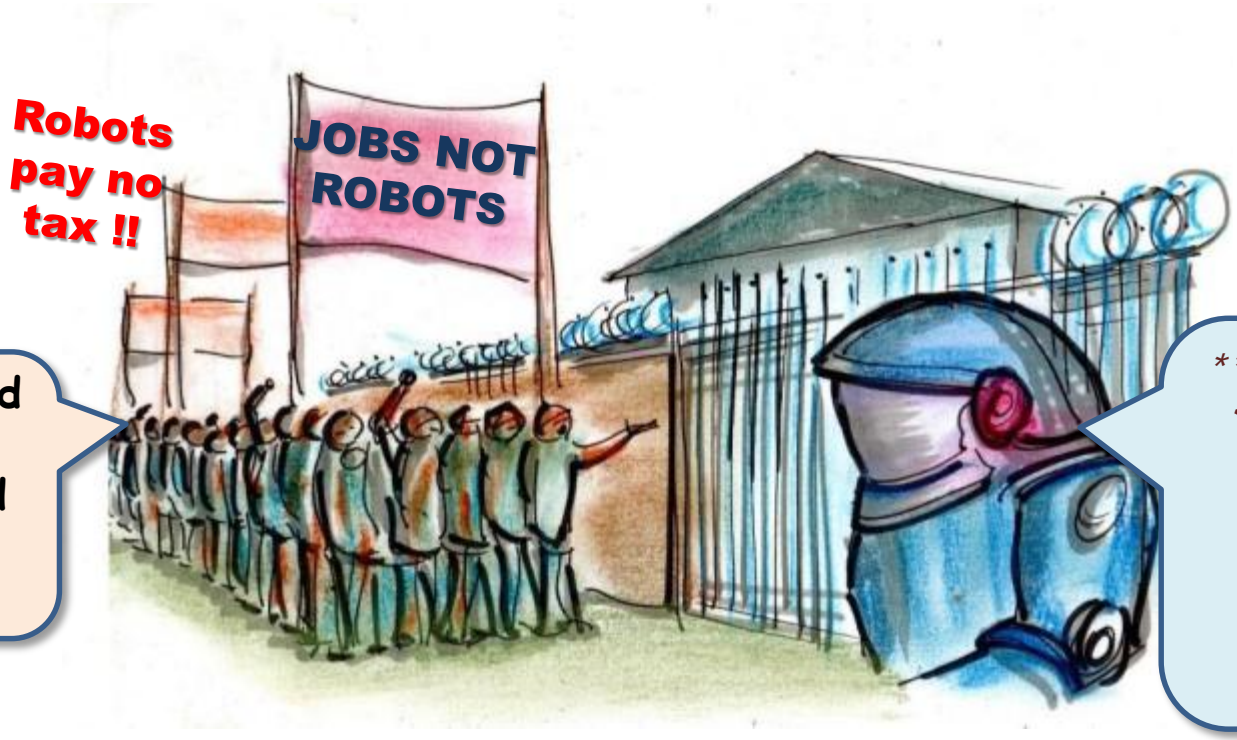
Scenario 4 – ‘Fragmentation’

- 30% of jobs fundamentally changed or lost, few new types of job created (for people)
- Increasing levels of unemployment
- Workers’ interests low priority and weak regulation
- Increased inequality between high and low paid
- Cyber attacks have remained a serious threat

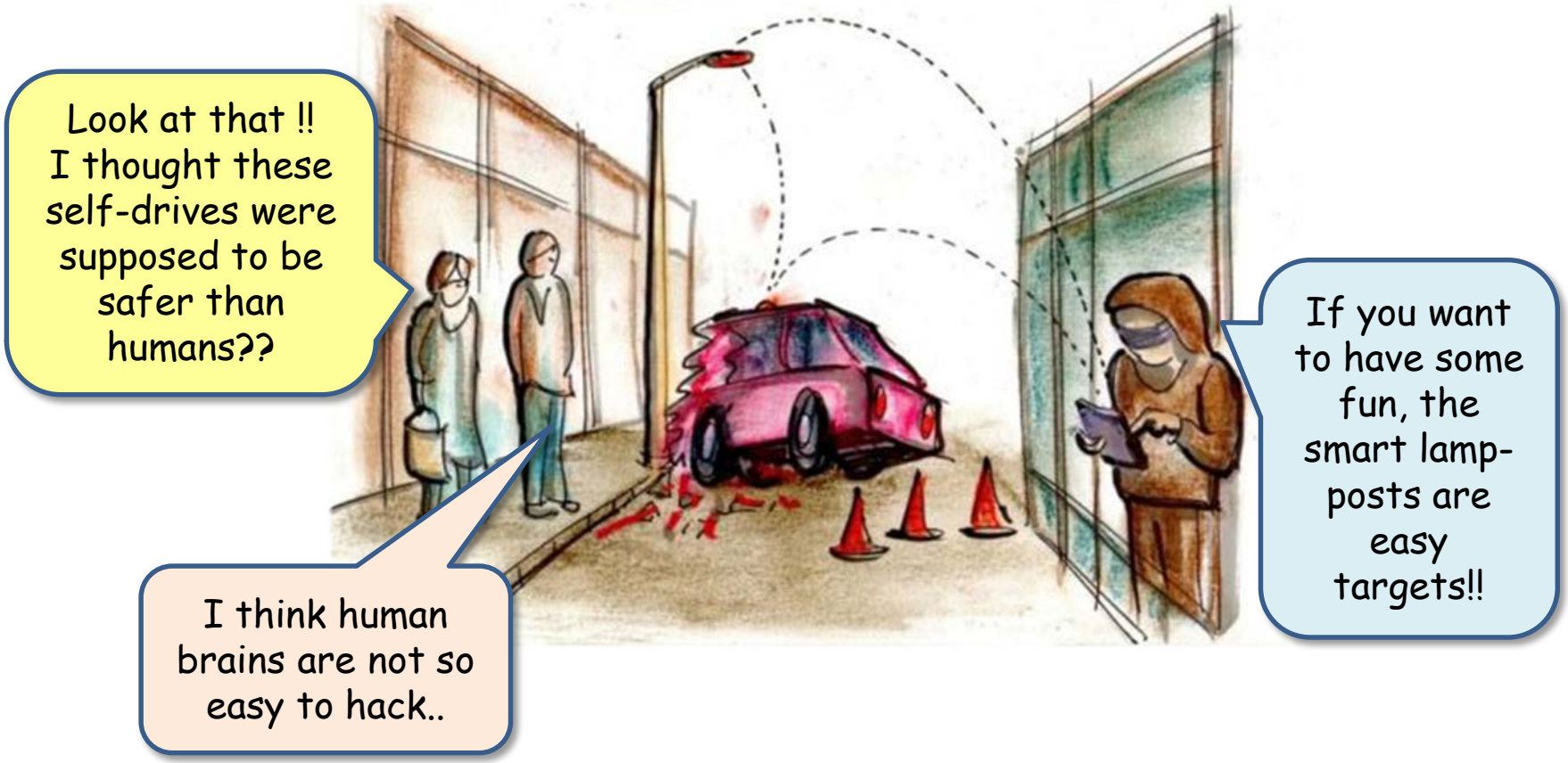
OUT OF SIGHT


JOBS-R-US.com
What would you like to do today??
www.I'm-available.com
Look, here's a good job… 2 hours of cyber-trolling, Bitcoin only
How about this one… 3.5 hours of personal service to a hyper-rich individual

LOCKED OUT


Robots pay no tax !!
JOBS NOT ROBOTS
We demand human rights and social justice!!
RED ALERT <<Subversive humans approaching the gates. Prepare for level 3 response>>

SMART CITY FUN



INSTRUCTIONS NOT INCLUDED