

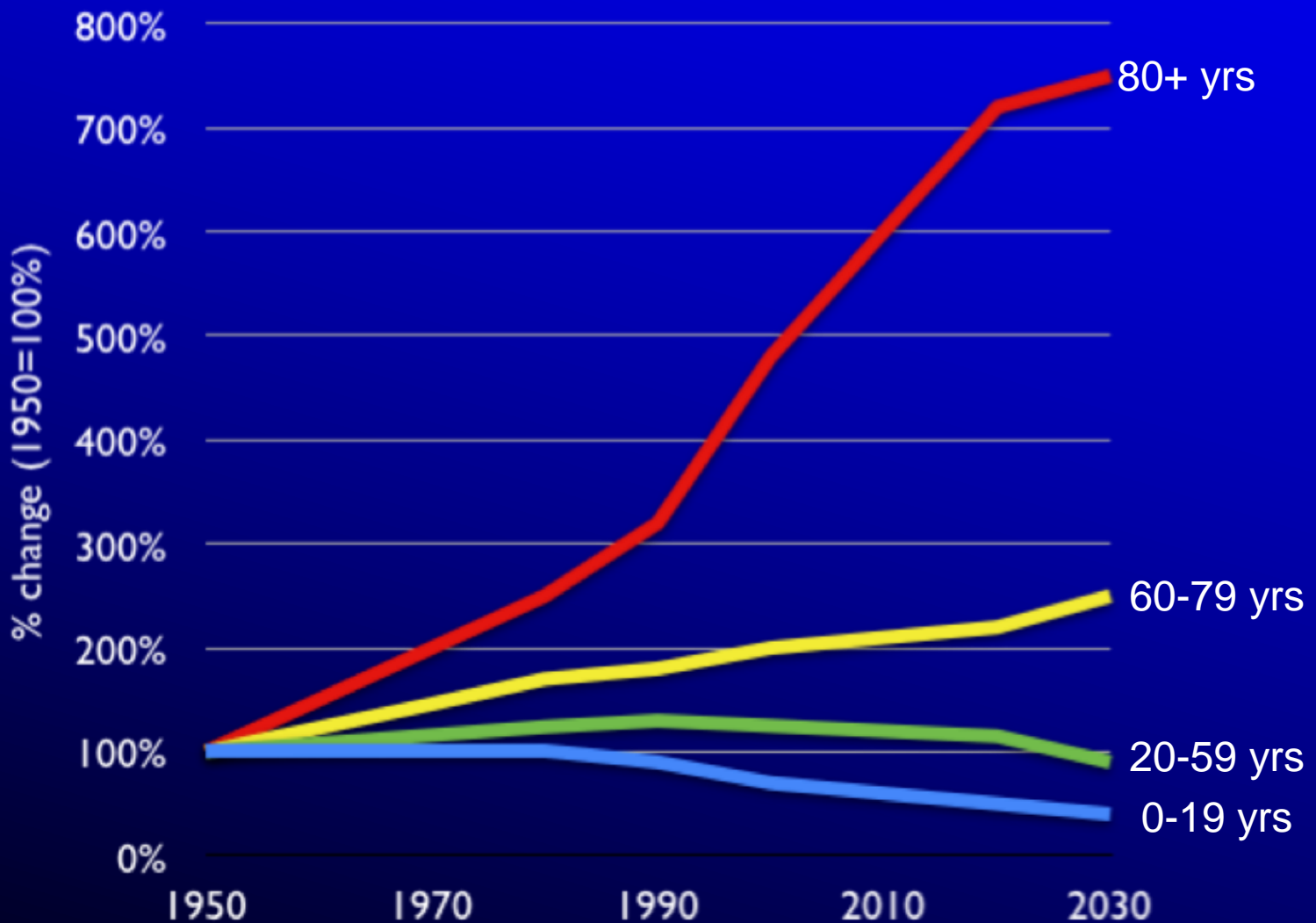
Thesis:
Situation Understanding
Is One of the Ways
Towards Affordable Living

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Problem #1 (Old People) Demographic Explosion

Size change of age-class groups vs. 1950 (data source: ISTAT and IRP-CNR)



Problem #2

- The world is filling-up of semi-useful gadgets with less and less understandable human interfaces
 - People do not want to deal with “obscure” details of appliances’ configurations, e.g. in the audio/video world: aspect ratio, resolution, sound encoding, etc.

Problem #3

- The world is full of sensors and their number is increasing (home automation is taking off):
 - light, humidity, position, heat, movement, video,...
- A rough estimate of the near future:
 - 500-million of personal computers;
 - 4-billion mobile devices (about one per person);
 - 40-billion sensors

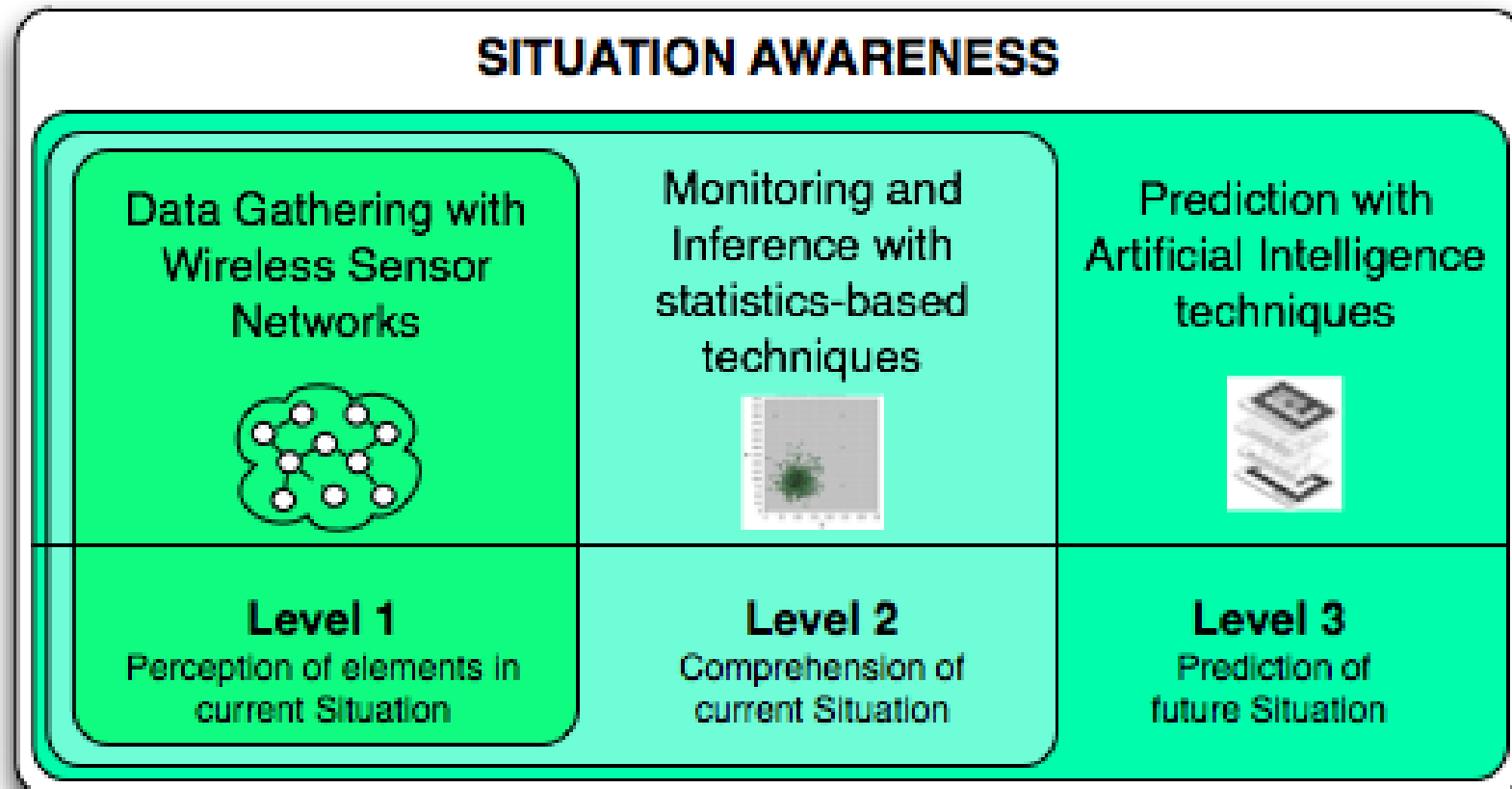
Opportunity

- Most sensors are not interconnected beyond a local control system.
- What would happen if we could increase the scope of interconnectivity and correlate their diverse information?

Home Automation Revamped

- Originally focused on actuation of a wide range of devices
- Now more and more focused on what can be achieved by “system computed” actuation
 - Moving beyond “scenarios”
 - Taking into account energy consumption and life-quality

A Plausible Scenario



Opportunities Offered by Situation Understanding

- Independent Living AT HOME
- Energy savings by means of “guided” use of energy-consuming appliances (lights, heating,...)
- Better scheduling of global resources, e.g. public transportation, parking,...
- Better routing of any kind of traffic
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INFORMATION ANYWHERE

The logo features the word "NOMADIS" in a bold, dark blue, sans-serif font, repeated twice. A thick yellow horizontal bar is positioned between the two instances of the word. To the right of the text, there is a red word cloud containing the word "NOMADIS" in various orientations and sizes. Below the word cloud, the tagline "INFORMATION ANYWHERE" is written in a smaller, red, sans-serif font.