

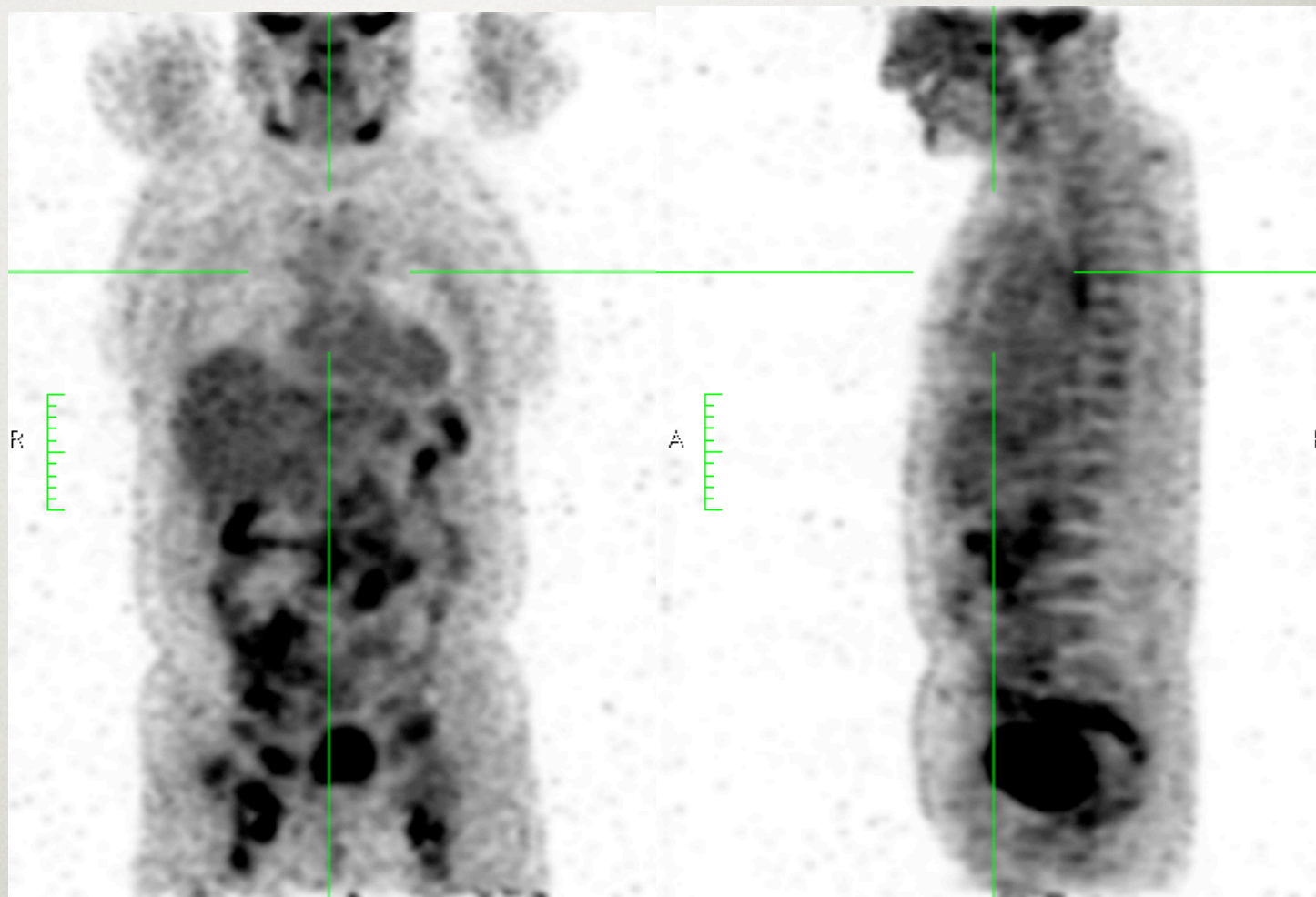
DATA & COMPUTING MODELS IN FISICA MEDICA

PROSPETTIVE PROBLEMI

PIERGIORGIO CERELLO
CERELLO@TO.INFN.IT

WHAT? HOW?

- Context
 - Research
 - Market
- What role?



DATA & COMPUTING

- High Energy Physics vs. Medical Physics
- What is the equivalent of 'Experiment'?
 - imaging Y/N

APPLICATIONS/1

- Simulation
 - treatment planning in RT/HT
- Reconstruction
 - medical imaging
- Analysis
 - image post-processing

APPLICATIONS/2

- Workflow
- Quality Assurance
 - multi-centre Clinical Trials
- (meta)Data Collection and Analysis

DATA

- Source(s)
- Security
- Format

COMPUTING

- Standalone Workstation
- Cloud-based Services

TOPOLOGY

- Federation
- Star

SHOULD WE PLAY THE GAME?

+

- know-how
- creativity

-

- we are not market-oriented
- we are not in control

MY ANSWER...

YES

MY ANSWER...

but...

MY ANSWER...

what is the goal?

...

just publish
prototype
working service
technology transfer

IT IS A WORLDWIDE MARKET

WHO can be
'service provider'?
clear roadmap(s)
critical mass

WHO CAN BE THE PROVIDER?

spin-off

partnership

direct involvement

EXAMPLES

... there are so many ...

EXAMPLES

research

GPCALMA

M5

MIND

TPS

...

EXAMPLES

spin-off

diXit

I-SEE

...

...

...

WHAT NOT TO DO?

magic-wand syndrome

dead-end road

random walk

adapt to calls

WHAT TO DO?

have good ideas

listen to users

build coordinated user-driven applications

have a vision ...

... endorsed by the MB (?)

WHAT DO WE DEFINE A SUCCESS?

- metrics
 - number of users
 - revenue

WHAT'S YOUR OPINION?
