Enabling Ubiquitous Mobility

Integration with other operators

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Integration with other operators

- Campus WLAN coverage is limited

- Users are everywhere

- Emerging standards for interworking between 3G and WiFi networks (4G) promise ubiquitous network access.

  This task will investigate various current and future technologies and possible NREN involvement.

NREN roles and strategies

- **Investigate options for mobile arena, to allow users to be "online always and everywhere"**

- Some of us are already investigating possible strategies, like SURFnet, … you?
  Some already have experience with commercial operators, like SWITCH

- We can collaborate, share experiences, innovate together
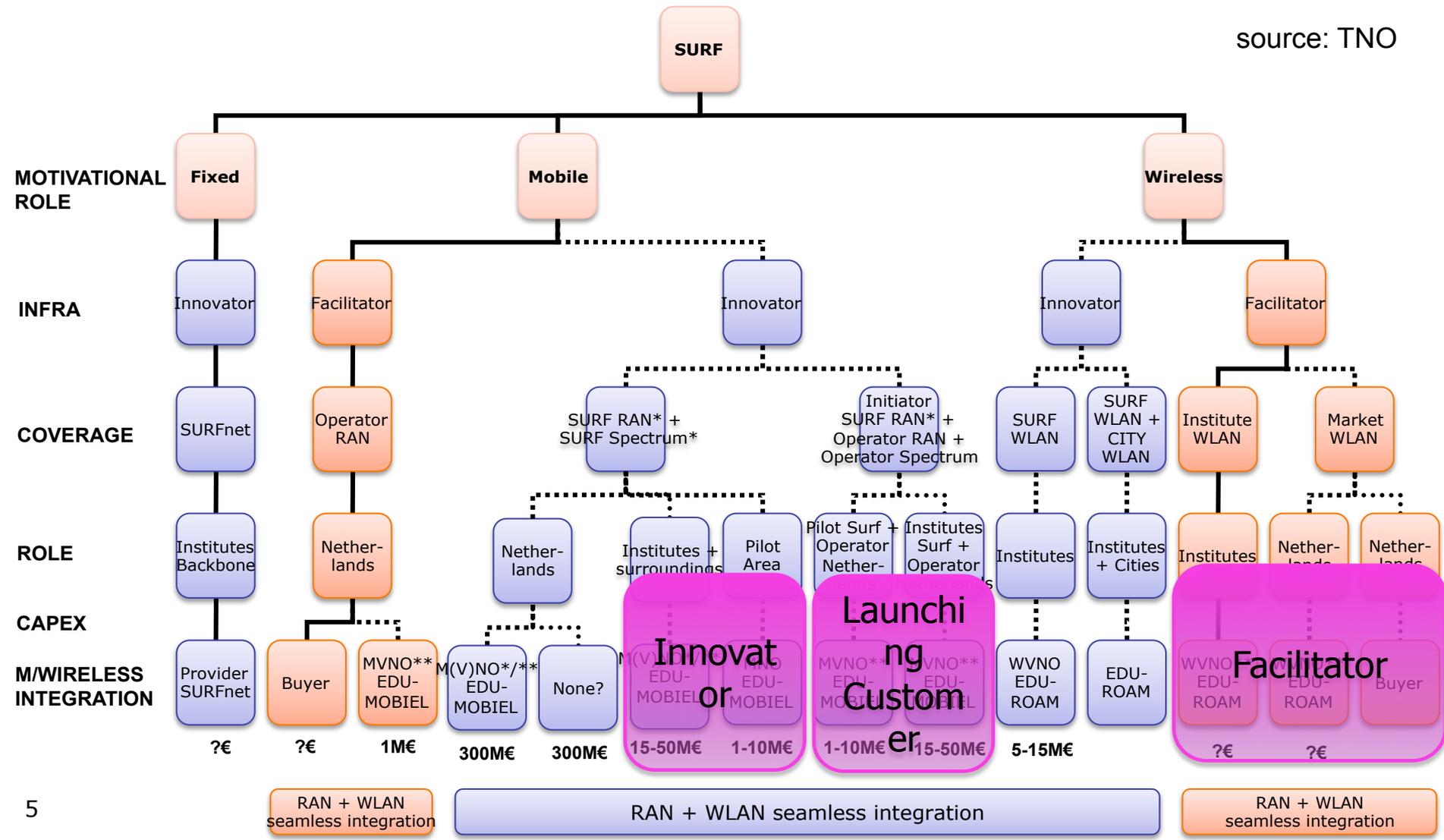
NREN roles and strategies

- SURFnet asked TNO research to investigate options, impact

- 3 possible strategies, examples
  - **Innovator**
    - Have own spectrum, production, experiment?
    - Can we be our own mobile operator?
      How to deal with users? Are we interesting?
      (Cheap? Latest iPhone?)
  - **Launching Customer**
    - Collaborate with existing mobile operators? MVNO?
      Cheap offerings, offload traffic?
  - **Facilitator**
    - eduroam coverage in cities,
      work with commercial hotspot providers?
  - **Trusted advisor?**

Implementation Options

source: TNO

Issues

- **Legal issues**
  - Can we use our IP-space via a commercial provider? (Closed user-group.)
  - What about using the spectrum of providers?

- **Being ambitious can be costy**
  - National (3G/4G/…) coverage?
  - Small coverage, own spectrum could be enough for experiments and innovation, but what does that give us? (Happy users?)

- Showing that emerging technologies (like LTE) work are more trivial than **making seamless roaming work.**

So... TF-MNM

- Investigate options for mobile arena, to allow users to be "online always and everywhere"

- Investigate various current and future technologies and possible NREN involvement.

- Share experiences, strategies, …

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