ESTONIAN
DEVELOPMENT
COOPERATION

Eesti Teadusagentuur
Estonian Research Council

HORIZON 2020

Horizon 2020

Ülle Napa

(NCP for Climate action, resource
 efficiency and raw materials)

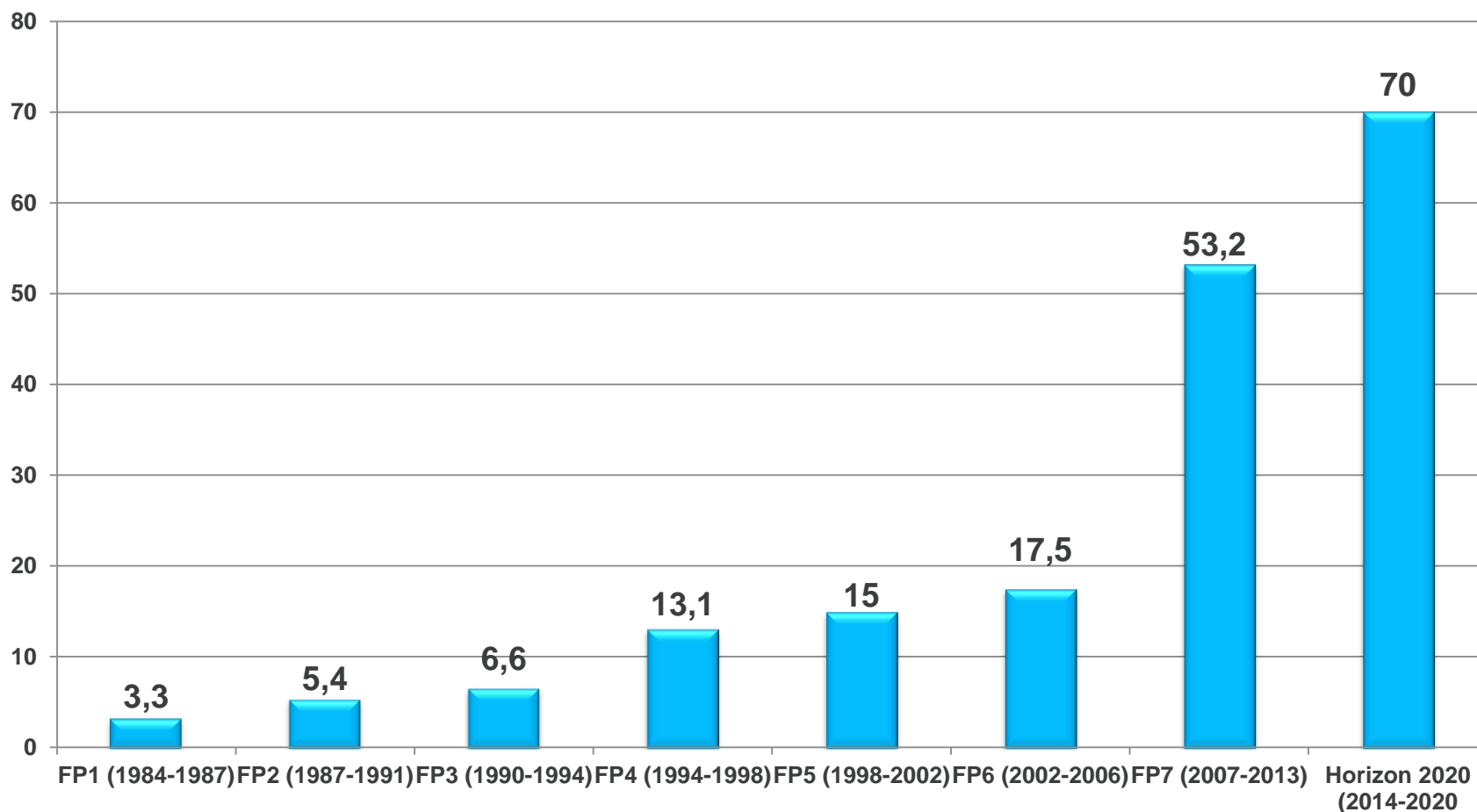**Moldova, October 2013**

Horizon 2020?

- The EU Framework Programme for Research and Innovation 2014-2020

- http://ec.europa.eu/research/horizon2020/index_en.cfm

Horizon 2020?

– Commission proposal for **a 80 (▸ 70) billion Euro research and innovation funding programme** (2014-2020)

– A core part of **Europe 2020**, **Innovation Union** & **European Research Area**:

  • Responding to the economic crisis

  • Addressing people's concerns

  • Strengthening the EU's global position

Framework programme budgets (B €)

Europe 2020 strategy

- …is the European Union's ten-year growth strategy.

Goals: **smart, sustainable and inclusive growth**.

The 5 targets for the EU in 2020

- 1. **Employment**
  - 75% of the 20-64 year-olds to be employed
- 2. **R&D**
  - 3% of the EU's GDP to be invested in R&D
- 3. **Climate change and energy sustainability**
  - greenhouse gas emissions 20% (or even 30%, if the conditions are right)lower than 1990
  - 20% of energy from renewables
  - 20% increase in energy efficiency
- 4. **Education**
  - Reducing the rates of early school leaving below 10%
  - at least 40% of 30-34–year-olds completing third level education
- 5. **Fighting poverty and social exclusion**
  - at least 20 million fewer people in or at risk of poverty and social exclusion

Europe 2020 strategy has 7 flagship initiatives:
Innovation Union

- EU strategy to create an innovation friendly environment that makes it easier for great ideas to be turned into products and services that will bring our economy growth and jobs.

http://abovethecrowd.com/wp-content/uploads/2012/03/innovation.jpeg

- The European Union should commit to creating a true **"Innovation Union"** by 2020 by:

  - Taking collective responsibility for a strategic, inclusive and business-oriented research and innovation policy, to tackle major societal challenges, raise competitiveness and generate new jobs.

  - Prioritising and protecting investments in our knowledge base, reducing costly fragmentation and making Europe a more rewarding place for innovation and for bringing ideas to market.

  - Agreeing to launch European Innovation Partnerships, the first on Active and Healthy Ageing, to pool resources and expertise to find solutions to societal challenges and to build competitive advantage in key markets.

European Research Area (ERA)

- **European Research Area** (**ERA**) is a system of scientific research programmes integrating the scientific resources of the EU.

Multinational cooperation in the fields of:

✓ medical

✓ environmental

✓ industrial

✓ socioeconomic research

What is new?

- **A single programme** bringing together three separate programmes/initiatives (FP7, CIP, EIT)

- **Coupling research to innovation** – from research to retail, all forms of innovation

- Focus on **societal challenges** facing EU society, e.g. health, clean energy and transport

- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond.

What to expect from H2020?

- New financial rules
- Simplification
- Multi annual work programmes
- Challenge related programmes
- Shorter time-to-grant
- More focus on innovation
- More coherence within Horizon 2020 and other programmes
- A single document for grant agreements
- Electronic signatures

How will the rules for participation and dissemination change under Horizon 2020?

- The H2020 represents a radically new and comprehensive approach to the EU's research and innovation funding policies. The Rules for Participation and Dissemination are designed to implement this new approach in a way that means that researchers and businesses can benefit from it to the fullest extent.

  The new provisions **ensure that three key objectives** of the new Framework Programme – **integration of support to innovation, coherence of the rules and simplification for the benefit of participants** – will be realised.

And how will they be simplified?

- Single set of simpler and more coherent participation rules

- New balance between trust and control

- Moving from several funding rates for different beneficiaries and activities to just two

- Replacing the four methods to calculate overhead or «indirect costs» with a single flat rate

- Major simplification under the forthcoming financial regulation

- Successful applicants to get working more quickly: reduction of average time to grant by 100 days (current average of around 350 days under FP7)

Rules for participation

A single set of rules

- Adapted for the whole research and innovation cycle

- Covering all research programmes and funding bodies

- Aligned to the Financial Regulation, coherent with other new EU Programmes

One project – one funding rate

- The simplified funding model from the Council PGA was retained. Main features:
    - ❑ Single funding rate per project for all participants & activities
    - ❑ 100% funding rate for NGOs for 'innovation actions'
    - ❑ Flat rate of 25 % for indirect costs
- Additional remuneration ("bonus") is restricted to NGOs
- Guidelines on direct costing for large research infrastructures (Commission declaration)

Rules for participation

New forms of funding aimed at innovation

– pre-commercial procurement, inducement prizes, dedicated loan and equity instruments

International participation

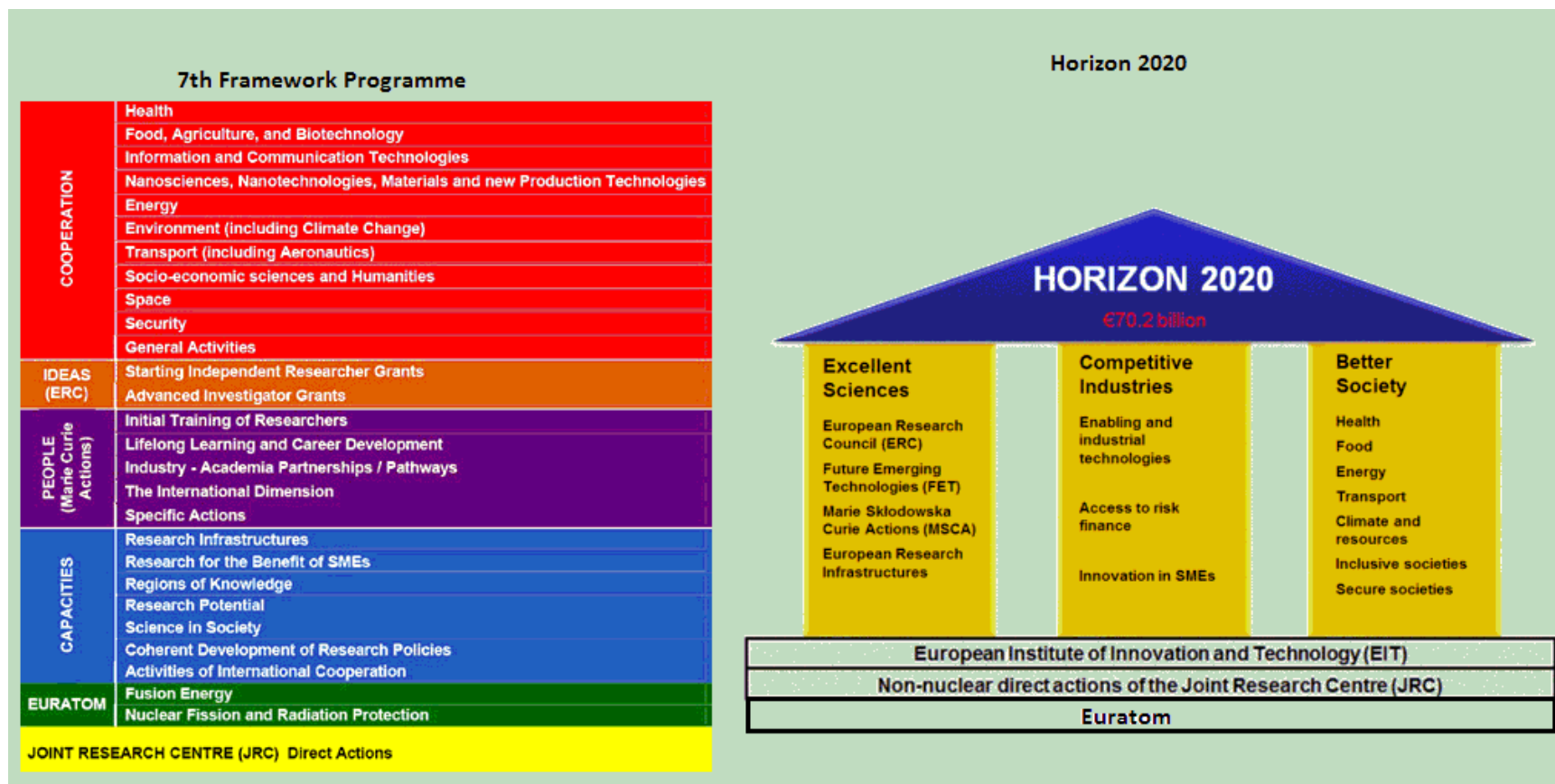– facilitated but better protecting EU interests

Simpler rules for grants

– broader acceptance of participants accounting practices for direct costs, flat rate for indirect costs, no time-sheets for personnel working full time on a project, possibility of output-based grants
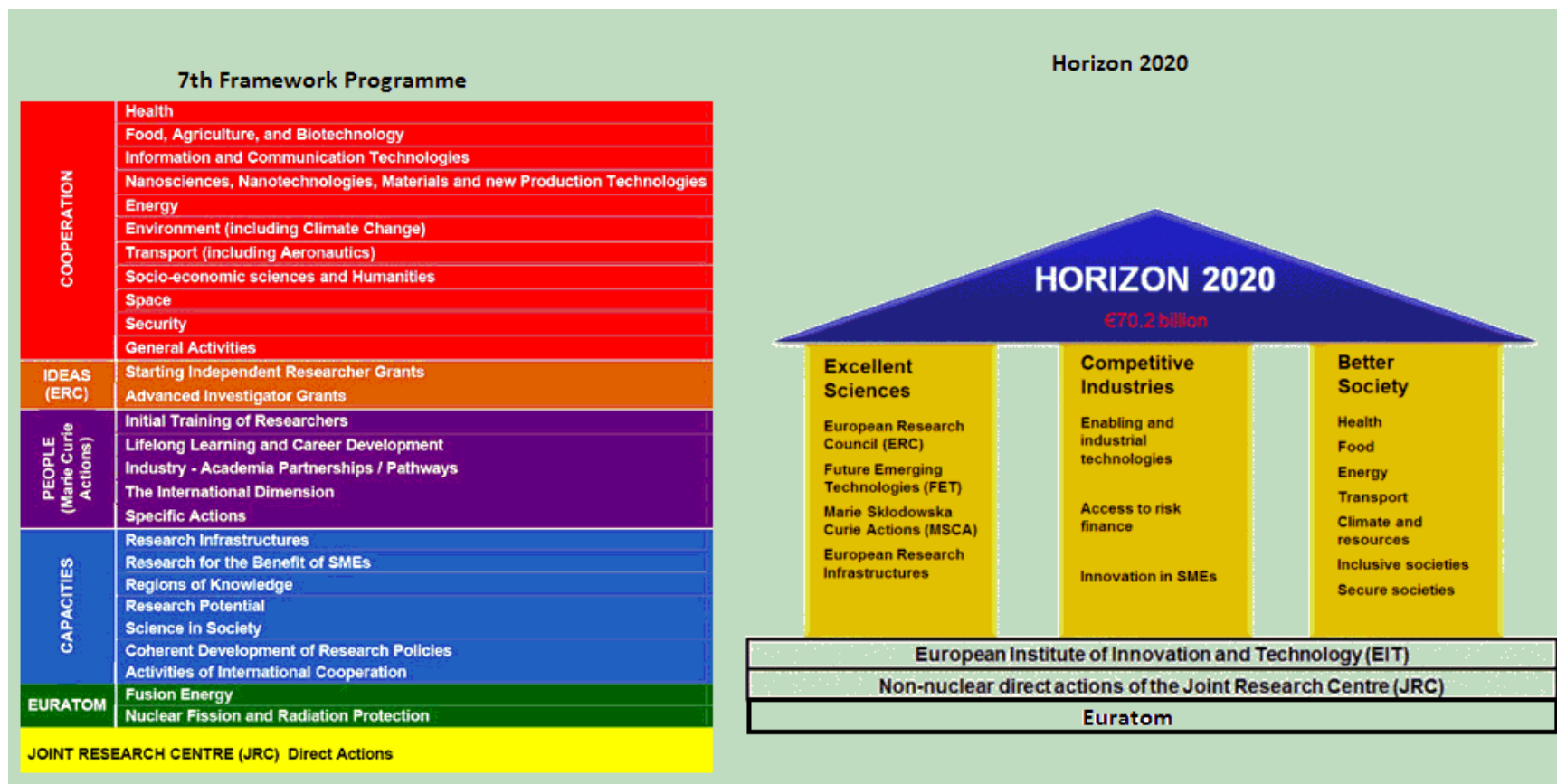
Fewer, better targeted controls and audits

– Lowest possible level of requirements for submission of audit certificates without undermining sound financial management

– Audit strategy focused on risk and fraud prevention

Comparison

- *European Institute of Innovation and Technology (EIT)* Combining research, innovation & training in Knowledge and Innovation Communities

- *Joint Research Centre (JRC)* Providing a robust, evidence base for EU policies

- *European Atomic Energy Community (Euratom)* coordinates the Member States' research programmes for the peaceful use of nuclear energy. Helps to pool knowledge, infrastructure, and funding of nuclear energy.

Comparison

Three pillars

1. Excellent science

2. Competitive industries

3. Better society

http://www.ama-rochester.org/WP/2013/01/20/three-pillars-for-building-successful-partnerships/

Priority 1
Excellent science

- ERC

- FET

- Marie Skłodowska-Curie

- Research infrastructures

Background

- <u>World class science</u> is the foundation of tomorrow's technologies, jobs and wellbeing

- Europe needs <u>to develop, attract and retain research talent</u>

- Researchers need <u>access to the best infrastructures</u>

Funding will be focused on

- ***European Research Council***

Frontier research by the best individual teams

- ***Future and Emerging Technologies***

Collaborative research to open new fields of Innovation

- ***Marie Skłodowska-Curie actions***

Opportunities for training and career development

- ***Research infrastructures*** *(including e-infrastructure)*

Ensuring access to world-class facilities

Priority 2
Competitive industries

- KETs

- Risk finance

- Innovation in SMEs

Industrial Leadership

Background

- Strategic investments in key technologies (e.g. advanced manufacturing, microelectronics) **underpin innovation across existing and emerging sectors**

- Europe needs to **attract more private investment** in research and innovation

- Europe needs **more innovative SMEs** to create growth and jobs

Funding will be focused on

- ***Leadership in enabling and industrial technologies***
  *(*ICT, nanotechnologies, materials, biotechnology, manufacturing, space)

- ***Access to risk finance***

- Leveraging private finance and venture capital for research and innovation

- ***Innovation in SMEs***

- Fostering all forms of innovation in all types of SMEs

KEY ENABLING TECHNOLOGIES (KETs)

1. Information and Communication Technologies

2. Nanotechnologies

3. Advanced materials

4. Biotechnology

5. Advanced manufacturing and processing

6. Space

+ cross-cutting actions (incl. with the societal challenges) to exploit synergies and complementarities

ACCESS TO RISK FINANCE

- To overcome market failure in access to risk finance for research and development

- **Lending:**
  loans, guarantees, counter-guarantees, …
  - demand-driven component: "first come first served"
  - Policy-driven component: Focus on EU policies

- **Share capital:**
  - start-ups
  - Growth and expansion
  - Mainly driven by demand; ability to reserve funds for specific policy objectives

INNOVATION IN SME

- SME support integrated by **special SME instrument**:

  - For all types of innovative SMEs and all forms of innovation

  - In all social challenges and KETs
    (Article 18 of H2020 requires 15%)

  - Projects with only one participant possible

  - 3 phases: concept and feasibility (lump sum funding); R&D, demonstration, market replication; marketing

- **For research-intensive SMEs**: building on Eurostars

Priority 3
Better society

- Health

- Bioeconomy

- Energy

- Transport

- Climate action

- Integrative, innovative societies

- Secure societies

Background

- **Concerns of citizens and society**/EU policy objectives (climate, environment, energy, transport etc) cannot be achieved without innovation

- Breakthrough solutions come from **multidisciplinary collaborations**, including social sciences & humanities

- Promising **solutions** need to be **tested, demonstrated and scaled up**

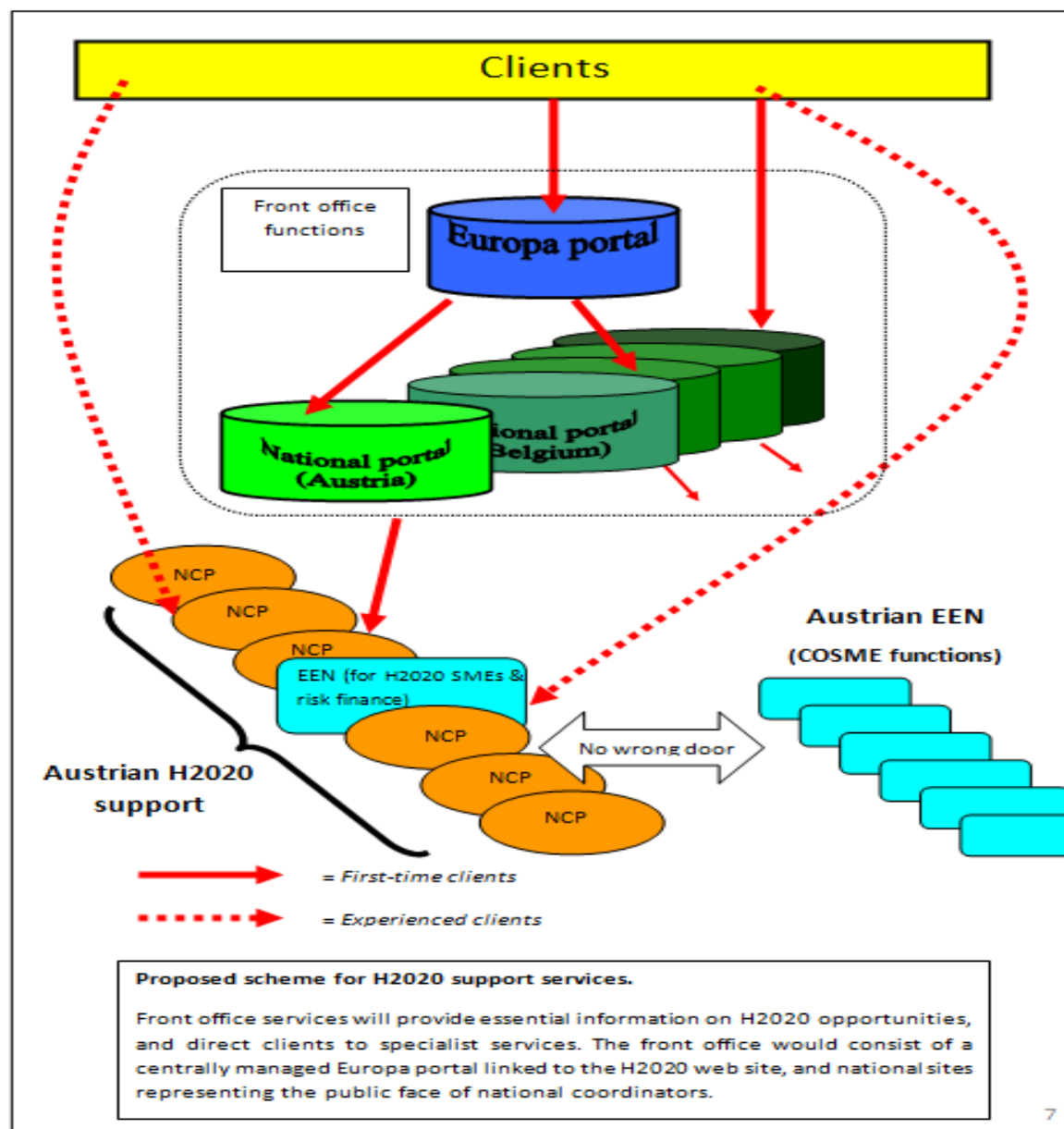- **Societal challenges follow the Europe 2020 strategy**

Funding will be focused on

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, resource efficiency and raw materials
- Inclusive, innovative societies
- Secure societies

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National Contact Points (NCPs)

- National Contact Points (NCPs) is the main structure to provide:
- ✓ guidance
- ✓ practical information
- ✓ assistance

… on all aspects of participation.

Clients

Front office functions

Europa portal

National portal (Austria)

National portal (Belgium)

NCP
NCP
NCP

EEN (for H2020 SMEs & risk finance)

NCP
NCP
NCP

Austrian H2020 support

No wrong door

Austrian EEN

(COSME functions)

→ = First-time clients

┈┈▶ = Experienced clients

Proposed scheme for H2020 support services.

Front office services will provide essential information on H2020 opportunities, and direct clients to specialist services. The front office would consist of a centrally managed Europa portal linked to the H2020 web site, and national sites representing the public face of national coordinators.

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Funding NCPs

- National level will remain primarily a **national responsibility**.

  – Nonetheless, funding could be provided to support the front office functions

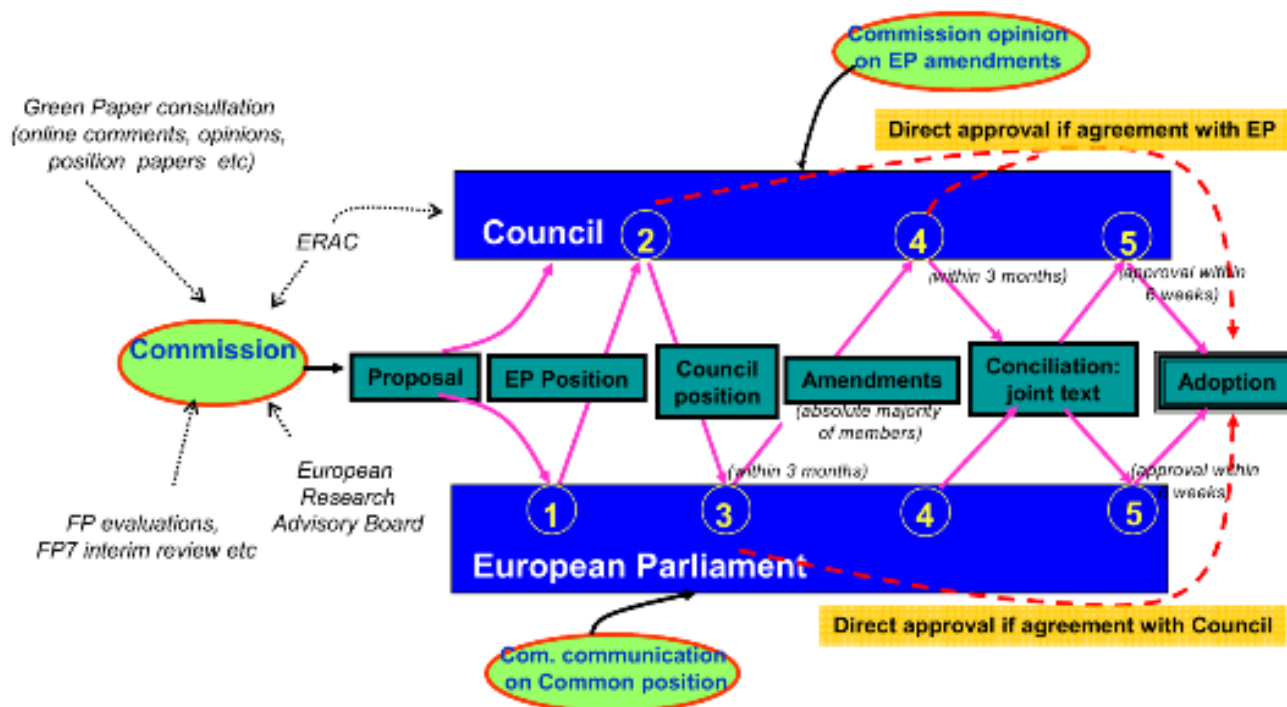- H2020 support for **cross-border networks**

NCP Networks

- Building on experience of FP7
  - No wheel re-invention
- Focus on cross-cutting issues
  - e.g. Legal and financial questions, benchmarking, training/mentoring
- Limited sector-specific support
- Emphasis on mutual learning
  - contribution to 'widening participation'.

A time line for H2020

- Preparatory work in ITRE*: September/October 2013
- Vote on the Multiannual Financial Framework (MFF) in the EP Plenary: September/ October 2013
- Vote on Horizon 2020 in EP Plenary: October/November 2013
- Adoption by the Council: November/December 2013
- Adoption of work programme and publication of first calls for proposals: 11 December 2013
- Horizon 2020 national launch events: October 2013 to January 2014 (http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-events)

The "Ordinary legislative procedure"
(ex "co-decision")

To sum up: H2020 official presentation

- http://prezi.com/1fogw2zvbiek/horizon-2020-officialversion/?auth_key=affe016b17ca2bf0d96d1d4a44f6a6ad3bb6bd63#!

Questions?

Questions!

What is Europe 2020 strategy?

Europe 2020 strategy is…

….the European Union's ten-year growth strategy.

- 5 targets, 7 flagships

Questions!

- Goals of the Europe 2020 strategy?

Goals: **smart, sustainable and inclusive growth**.

Questions!

What is ERA? Aim of ERA?

European Research Area (**ERA**) is a system of scientific research programmes integrating the scientific resources of the EU.

Multinational cooperation in the fields of:
- ✓ medical
- ✓ environmental
- ✓ industrial
- ✓ socioeconomic research

Questions!

What are the three pillars of Horizon 2020?

1. Excellent science

2. Competitive industries

3. Better society

Questions!

What are the main roles of NCP?

To provide:

✓ guidance
✓ practical information
✓ assistance
… on all aspects of participation.