ROADMAP FOR A RENEWABLE ENERGY FUTURE
The REmap approach

- IRENA’s REmap programme explores how to operationalize a doubling of the global renewable energy share by 2030 and put the world on a <2°C climate pathway by 2050 in line with Paris Agreement

- Bottom-up process -> Developed together with and validated by country experts

- RE technology options:
  - Includes power, district heat, end-uses (industry, transport, buildings)
  - Each technology option is characterized by its cost and potentials
  - Identified options can be combined into roadmaps or plans and translated into policy action
REmap EU – goals and timeline

**Goal:** advise regarding options in all sectors and their implications to meet the 27% 2030 RE target, what more can be done and the role renewable energy can play for decarbonisation.

**Consultative process:**
- First workshop with Member States and the EC, October, 2016
- 3 sectoral webinars, December 2016 – February 2017
- Second workshop with Member States and the EC, March 2017
- Draft results presented at EU Sustainable Energy Week, June 2017
- Final meeting Brussels, October 2017
REmap EU analysis – scope and data sources

- 10 in-depth REmap analyses (73% of EU energy use)
- 18 RE quick-scans for the remaining Member States
- Reference case in 2030:
  - Country-specific scenarios, where available
  - PRIMES model results

- Country specific data: energy prices, cost, resource availability, etc.
From 24% to 33% through REmap options in 2030
Impacts of REmap on GHG emissions in the EU-28

Economic impacts of REmap case for EU-28

- **USD 438 billion** in additional investments in RE over reference scenario.

- **USD 25 billion/year of savings** to the energy system by 2030.
  - Grid integration cost and lower fossil fuel prices can impact the savings

- REmap **savings total USD 52-133 billion per year by 2030**, when reduced externalities from CO₂ emissions and improved air quality are considered.
  - Public benefits make for a solid policy case
REmap EU – Conclusions

- REmap EU analysis identified cost-effective RE potential beyond the 27% target agreed in 2014:
  - Technology costs have decreased faster than expected.
  - RE potential expanded through technology improvements
  - Positive developments in end-use sectors, e.g. electric vehicles

- Full implementation of identified REmap options would result in a 33% share of RE in 2030 (34% if the realisation of the proposed 30% EE target is considered)